

Xylem Response to Ofwat Public Consultation

Based on the draft in our discussion document, what do you think should be included in a shared vision for the sector? What are the collective aspirations it needs to achieve?

As a leading technology and solutions provider across the water value chain, Xylem believes that this emerging strategy provides a timely opportunity to understand how the water sector can be updated in light of changes on the demands on water resources.

In particular, we think it provides the potential to evaluate how this approach towards sustainability, including circular economy, energy and climate considerations, can be further integrated into the water sector in order to drive more sustainable decision-making by EU Member States and all actors impacting on Europe's freshwater resources.

In so doing, it would further enhance the coherence of the water sector with energy, climate and environment policies.

One of the main significant pressures on water bodies are water abstractions which contribute to the deterioration of freshwater resources.

With increasing pressures on freshwater resources from a quantitative perspective – due to increasing water stress and scarcity in regions across all the EU, it is estimated that by 2030, global water requirements would grow from 4500 billion m³ today to 6,900 billion m³, which is 40% above current accessible, reliable supply.¹

At an EU level, it is estimated that water stress and scarcity will likely affect half of EU river basins.²

At the same time, however, vital water resources are being lost as a result of leakages in distribution networks, which are a significant cost from both a financial and resource perspective.

At present in the UK and in the European Union, ca. 23%³ of all treated water in public water supplies is lost within the distribution network as a result of leakage. In some European municipalities, this figure can increase to 60%. In addition of being a tragic loss of a precious clean resources, the water leakage is an important waste of energy with a significant environmental footprint.

In line with the above, Xylem recommends considering the reduction of water leakage in the distribution systems to reduce water abstractions.

Additionally, the role of energy in the water sector is an issue which can be widely improved in water water policies. The energy consumption for extraction, distribution and treatment of water is

¹https://www.mckinsey.com/~/media/mckinsey/dotcom/client_service/sustainability/pdfs/charting%20our%20water%20future/charting_our_water_future_full_report_ashx

² <http://ec.europa.eu/environment/water/quantity/pdf/COM-2012-672final-EN.pdf>

³ Europe's water in figures, An overview of the European drinking water and waste water sectors, 2017 edition. Eureau.

equivalent to 3,5 % of the EU electricity consumption⁴. Leading UK regional monopolies currently consume between 0.5 to 0.9 kWh per meter cube of drinking water produced, which is higher than most EU utilities.⁵

Increasing pressures from pollution will also require more intensive treatment methods which carry a higher level of energy intensity, and therefore it is of utmost importance to consider the role of energy in the water sector.

Should water companies be encouraged or incentivised to consider wider public value in what they do? What does this phrase mean to you, and should Ofwat take a role in making that change happen?

Water companies should be encouraged and incentivized to consider wider public value in the provision of their services.

Ofwat should take a role in setting a framework which requires companies to integrate their environmental, social and economic impacts into their management planning.

Do you think long term aspirations and targets will be effective in driving the sector forwards? What should they cover and how should they work in practice?

Targets will be important in giving long-term direction to water companies. Targets should involve both water quality and water quantity targets, such as water leakage reduction targets.

Do you think we're focusing on the right areas in which to drive transformational change, as we've set out on pages 26-29? E.g. innovation, the natural environment, customer relationships.

With the objectives of improving water quality for both human consumption and for the environment, as well as reducing the use of energy in the distribution, collection and treatment of water and wastewater, an infrastructure which involves real-time sensing, analytics and control of the entire water-cycle is critical.

By applying technologies for real-time monitoring, service providers can monitor hydraulics, leaks, infiltration and most importantly water quality and contaminants which is essential to ensure a safe and good ecological status of surface and underground waters.

Furthermore, real-time control includes managing the use of disinfection processes, pressure zone management for the distributions systems, pumping and dewatering of storage facilities.

Collecting data through smart technologies in the water sector can be used to build resilience and reduce the need of additional investment in infrastructure and excessive costs.

⁴ International Energy Agency: World Energy Outlook 2016, chapter 9 : Water – Energy – Nexus, available [here](#).

⁵ Europe Smart Water: Market Forecasts & Utility Strategies, 2017-2025, Bluefield Research.

Xylem recommends the promotion of more transparency on water quality, losses and energy uses, and the reuse of data in the water sector, as mandatory for both public and privately-operated installations.

How do you think we could evolve our approach to price controls, building on the conversation on page 36?

Xylem believes that the cost recovery principle for water services constitutes an important tool to fulfil overall environmental objectives.

However, we regret that, in Europe, the mechanism's goal to provide incentives to use water efficiently has not been achieved. We believe that this is as a result of two factors:

- 1. the lack of consistency in cost recovery practices across different water users across Europe,*
- 2. the lack of clear provisions regarding the environmental and resource costs to be included in water pricing.*

While Member States variably implement a cost recovery rate for households between 70% and 100%, the agriculture and industrial sectors only had a cost recovery rate of 40% and 1% respectively⁶ with many Member States failing to report any data. These rates do not ensure that there is an adequate contribution from each category of water user to the recovery of costs.

Water operators require income which is long-term focussed, consistent and reliable in order to allow them to raise funds for future investment into infrastructure development.

As such, water pricing regimes should account for the infrastructure investment needs.

For example, some regions require significant investment in order to address problems related to leakage in distribution networks, improve water and wastewater treatment processes or implement more comprehensive monitoring regimes.

Without the full implementation of the cost recovery principle across different water users, the opportunity to address these challenges is limited.

As a result, Xylem believes that the cost recovery principle needs to be strengthened in order to ensure its full implementation across different water service providers via a water price which accurately reflects costs.

We additionally believe that that environmental and resource costs need to be more effectively integrated into cost recovery rates.

⁶ European Environmental Agency, Technical report No 16/2013.

We would like to highlight that there are increasing pressures on freshwater resources from a quantitative perspective – with increasing water stress and scarcity.

Xylem believes that it is essential that the costs associated to lost water through leakage must be integrated in the implementation of the cost recovery principle.

If these challenges are addressed, water operators would be able to break a vicious cycle where they are driven to make low-cost investments into inefficient technologies, which leads to increased operational costs.

By accurately recovering costs from the full spectrum of water users, municipal administration and operators would be able to make investments into technologies with environmental benefits.

Water administrations are subsequently able to strive towards public procurement practices based on the full cost of ownership.