



SUMMARY REPORT

The contribution of Water to Circular Economy

Practices of water reuse across Europe

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Policy-makers, project managers and other stakeholders were brought together by MEP Michel Dantin to discuss the contribution of water to circular economy and highlight national best practices from across Europe.

Michel Dantin, MEP and Chair of the working group 'Agriculture and Water Management' of the EP Intergroup on "Climate Change, Biodiversity and Sustainable Development" welcomed the participants by stressing the importance and complexity of water reuse, a good example reflecting the circular economy philosophy. It was underlined that many consumers are concerned by the quality of reused water, and call on the EU to help and support countries embrace the matter.

Thomas Petitguyot, Policy Officer, Implementation Water Framework Directive & Water Policy, DG Environment, European Commission outlined that there is a clear but untapped potential for water reuse underlining that the development of a supportive framework for water reuse would help reach its great potential. It was said that there are a number of barriers halting greater development as reuse is more complicated and/or more costly than conventional resources. It entails insufficient controls and pricing on abstractions, unclear and complex legal framework, and stringent standards considering the intended use. It was stated that reuse is often perceived as more risky than beneficial, and reuse is not sufficiently integrated in water management. In 2012 the Commission produced the Water Blueprint making the case that EU action is needed to promote water reuse. It was stressed that the EU action plan for a circular economy recognises the importance of water reuse. It states that proposed legislation setting requirements for reused water for irrigation and groundwater recharge should be tabled by 2017. Accompanying actions to support this include the development of a guidance document for reuse in integrated water planning and management to be issued by mid 2016. This entails having a common understanding of EU water legislation, which will be based on experience from Member States. Another measure included is proposing EU legislation by mid 2017 (provided the impact assessment is positive) on minimum quality requirements for water reuse in irrigation and aquifer recharge. The opportunity of water reuse in industrial activities was also mentioned as there is an ongoing discussion on whether a cross-cutting approach on resource efficiency or further integration in sectorial BREFs should be taken. It was underlined that actions will also continue to support research and innovation as well as making funding opportunities more visible.



Theo Cuijpers, Senior Policy Advisor, Dutch Regional Water Authority presented the Aqua ReUse Project, which reuses water for irrigation in greenhouses and aims towards a zero-emission in substrate crops. It was explained that the project is an installation where rain and drain water is collected from households and transformed to irrigation water for greenhouses. The process involves a number of stages where wastewater is treated underlining that osmosis is the most important part separating wastewater and storing it as high quality water. It was emphasised that the project showcases that it is possible to reuse each other's water with several companies collaborating. Growers receive high quality irrigation water and less wastewater is pumped to wastewater treatment plants. It was underlined that the project has been successful due to the involvement of various partners and stakeholders ensuring a network of collaboration. It was stressed that a number of barriers have made it difficult to succeed as the project involves many financiers with various demands as well as stakeholders with various interests. It was also underscored that complicated state aid and competition procedures from the Commission has made the process difficult. Further, no comparable innovative projects could be found. It was concluded by highlighting that obstructing regulation should be avoided mentioning that food safety regulation can disturb the reuse of wastewater in the food industry.

Roberto Mazzini, Chair of the EurEau Joint Working Group on Water Reuse highlighted the case of Milano-Nosedo, which uses treated wastewater to irrigate one of the most important agricultural areas in Italy. The plant treats about 150,000,000 m³ wastewater per year delivering high quality recycled water. Once the water has been treated it is discharged to the Roggia Vettabbia canal, where farmers annually pay a small concession fee in order to access the water. It was also explained that the nourishing value of the nutrient enriched effluent improves crop yields and has reduced the need for artificial fertilisers. One main reason for its success is due to the historical network of irrigation canals and the ancient agricultural activity in the area, which dates back to the Middle Ages when the Cistercian monks realised the first land reclamation. It was further explained that the temperature of the wastewater provides the opportunity to develop a system of heating and cooling for buildings. A demonstration plant has been built to provide thermal heating to households with the potential of expanding to a hospital nearby. It was stressed that communication is an important part of water reuse and the treatment plant of Milano-Nosedo aims to ensure that it is a plant open to citizens underlining education programmes and collaboration as essential parts of the scheme.

Marcus Agbekodo, Deputy General Director of Artois-Picardie Water Agency presented cases of reuse in French water agencies. It was stressed that France has great potential for wastewater reuse but implementation is rare and is not yet a country-wide practice. Water reuse is used for irrigation in agriculture with regards to local and critical situations. It was stressed that social acceptability poses the risk of slowing down the development of reuse in agriculture. Wastewater reuse is however commonly used on golf courses. It was stated that water for industrial production has become less available, and that various sectors are looking for ways to recycle and reuse treated water as it is an attractive economic alternative. It was however explained that French regulation does not improve the reuse of



wastewater due to stringent quality requirements to avoid health risks. The French guidelines are too restrictive and prevent country-wide emergence of reuse. It was recommended taking health and environmental issues into account that EU best practices be set up along with guidelines related to the reuse of treated wastewater.

Balázs Horváth, Senior Policy Officer “Water & Soil”, European Environmental Bureau stressed that water reuse is an important tool to achieve the objectives of the Water Framework Directive as long as it does not compromise the good status of waters. It was underlined that water reuse should not put additional pressures on an already scarce resource, but rather ensure efficiency. Further, it was outlined that in water scarce areas the demand side measures should be prioritised highlighting the importance of integrated planning and examining where reductions in water use can be made. The importance of quality was raised stressing the need to establish ambitious EU quality standards. The status of many waters is still unknown and reliable monitoring is needed in order to reflect the situation and to ensure that ecosystems do not suffer. Another issue raised was water pricing and how to ensure that water reuse is financially viable. It was underlined that when Member States do not implement the water pricing principle of the Water Framework Directive, the cost of burdens put on the environment are not recovered. It was stressed that in Member States where the price of water is close to zero it would be difficult to introduce financially viable water reuse systems. It was stated that certain subsidies already in place add more pressure on water resources resulting in unsustainable practices and introduction of other harmful subsidies should be avoided.

The debate with the audience further stressed the cost effectiveness of water reuse while at the same time reflecting on the issue of social acceptability and the fact that citizens are not fully aware of the benefits. It was said that society has concerns with regards to quality underlining that the benefits and opportunities must be better communicated. It was outlined by the Commission that experts consider the risks to be much lower than what is perceived by the public. The need for developing EU wide quality standards was also stressed calling for high protection of health and environment while still providing a flexible and supportive framework in order to promote good practices. It was also said that discussions on options for the IED are still ongoing with certain Member States and stakeholders expressing concern of taking a cross-cutting approach. Regional cooperation was also mentioned underlining opportunities to support infrastructure and innovation rather than relying on water transfers that do not support the circular economy concept, and should be seen as a last option after all others are exhausted.

Michel Dantin MEP concluded by emphasising the need to focus on best practices in order to reduce the use of raw materials. It was said that more practices should be implemented in cities as they are highly populated using a lot of water as well as producing the largest amount of waste. Further, due to the consequences of climate change it was said that wastewater treatment plants rather than rivers are often the ones ensuring good quality drinking water, which must be considered for the future.



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