Danish Environment Technology Association
Association for Danish Environmental Technology Companies

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Danish Environment Technology Associations position on the evaluation and fitness check of "Water framework directive".

DETA welcomes the European Commission's initiative to undertake a Fitness Check of the Water Framework Directive (WFD). DETA agrees that it is urgent to assess the relevance, efficiency effectiveness and coherence of the directive, and to address new potentials for the coming EU water policy framework under the new mandate.

Achievements

The water framework directive is the cornerstone in the EU water policy directing the overall developments and improvements in the all parts of the water sector. The WFD is guiding the daughter directives the floods directive, directive on environment quality standards, the floods directive and the other related directives i.a. the urban waste water treatment directive and drinking water directive. Setting overall targets for the quality of waters in rivers, lakes, groundwater and coastal zones the implementation has led to general improvements in the EU water management and strong awareness building among EU governments, citizens and stakeholders.
Apart for the obvious ecosystem improvements the societies, citizens and businesses in EU are heavily relying on abundant water in good quality and the water framework directive is acting as the overall safeguard to obtain this objective. The 4. Implementation report from 2015 highlights the WFD as a significant contribution to the green growth in EU and socioeconomic improvement.

Challenges

Less than 40 % of the EU water is in good status and still there is a great untapped potential in order to further unlocking the circular economy agenda and eco-innovation.

The water-use in the EU is still not on the right track when it comes to resource efficiency. This has mainly to do with lack of the price setting, effective tariff systems and in general a huge investment gap in the EU water infrastructure (OECD). 15 % of the citizens don't have access to clean drinking water. In some member states they lose up to 60 % of the drinking water mainly because of leaking pipes and outdated water infrastructure. Meanwhile Southern parts of Europe are suffering from droughts because of climate change. And still we haven't accommodated the great potential for water-reuse in all sectors. The latest Commission proposal only addresses water re-use in the agricultural sector.

If the WFD should be fit for purpose, we need a much stronger policy coherence between especially the EU climate, energy and water agendas. This could potentially unlock a huge untapped potential for circular

economy solutions and further resource efficiency, water and energy savings and smart, cost-effective production of renewable energy. This is widely acknowledged in the EU-Commission reflection paper "Towards a sustainable Europe by 2030" where there is a call for a stronger nexus approach between climate, energy and water policy to bring EU on the right pathway to meet the Sustainable Development Goals.

This integration of policy frameworks should be guided by clear 2030 targets for; water and energy efficiency in the water sector, water re-use in all sectors, more up to date quality standards for environmental harmful substances new standards for recovery of valuable and scarce resources such as phosphorus.

A new policy regime should also address the divided implementation status between the old EU (EU 15) and the new EU (EU 13). New targeted tools to support implementation in EU 13 is needed.

Finally, there is a need to reform the use of derogation clauses. Today there is an intensive use of the derogation clauses by all member states leading to ineffective implementation and less willingness to implement and test new technologies and methods.

Opportunities

A new EU water policy framework could be the direct vehicle to unfold and further develop the EU circular economy agenda. With concrete Eco-innovation business cases such as re-use, recovery and upcycling of valuable and scarce resources and new methods for treatment of waste water we can further advance environmental and economic performance in EU. A new EU water framework should drive innovation and use of smart technology to a larger extend. This is the only way to meet environment targets without losing production capacity in the industrial and agricultural sectors.

There is in particular a huge untapped potential in energy efficient water solutions. The EU water and waste water facilities are high energy consumers and water and wastewater treatment accounts for 30-50 % of the electricity bill in the municipalities [IEA 2016]. According to the newly released World Energy Outlook 2018 of the IEA, the achievement of the sustainable development Goals 6.2 could even triple the energy consumed for wastewater treatment by 2030.

With existing cost-effective technology solutions, it is possible to transform the whole water cycle (drinking water and wastewater) into energy neutrality and significantly reduce the electricity bill and the CO2 footprint of municipalities.

Already existing waste water treatment plants can produce up 150 - 160 percent more energy than used for the wastewater treatment by converting waste water sludge in to bioenergy. Achieving energy neutrality in the water cycle has a high return on investments with a pay-back-time of typically 2-5 years. Energy used in the water and wastewater segment will be doubled in 2040 [IEA], so the potential is increasing over time. Such solution will also further encourage introduction of new treatments steps (i.a. pharmaceuticals) on waste water plants because the overall business case will be more attractive.

If the EU moves in the direction of transforming the waste water treatment sector into a net energy factory, meanwhile handling various environmental harmful subsidies, European municipalities could serve as export platforms for the expanding global market for smart city solutions.

Recommendations

1. **Energy Production and reduced CO2-footprint:** An EU water policy framework should further encourage energy production and energy efficiency in the water sector. New common targets for an energy neutral water cycle and CO2-reductions in the EU water sector should be promoted. Full transparency on energy performance could be the first step.

2. **Circular economy through recovery and upcycling of valuable resources:** A new directive should support the implementation of the circular economy agenda by promoting upcycling of valuable resources from the waste water sludge such as recovery of phosphorous for fertilizer, upgrading of the quality of biogas and production of bioplastics.

3. **Targets for resource efficiency and getting the price right:** All end users should by 2030 measure water consumption and set up tariff systems that reflects the actual prize of production of water. All member states shall by 2030 reduce water leakage levels to the sustainable leakage level.

4. **Environmental harmful substances:** New quality standards for environmental harmful substances such as pharmaceuticals from hospitals, antibiotic resistant bacteria, endocrine disrupters in general and microplastics should be considered in a revised directive.

5. **Better monitoring:** The refit-evaluation should envisage new possibilities for better monitoring of the discharged treated waste water quality taking in to account smart metering and continuous monitoring technology i.a. in order to ensure better compliance with demands.

6. **Water reuse:** The obligation in the existing directive to encourage water re-use should be evaluated in order to accommodate new obligations setting up common standards for efficient use of reclaimed water for any purpose from street washing, irrigation up to portable re-use.

7. **Adaptation to Climate change**: Its should be evaluated how a new policy framework could tackle the big climate change challenges with heavy rain and sewer overflows as one severe consequence. It should be an obligation for member states to set up requirements for stormwater overflow and measures for quantifying overflows to the natural environment.

8. **Better overview of available technology solutions**: The refit-evaluation should asses how new cost-effective technology solutions could be unlocked to meet the implementation gaps and asses the new potentials in designing a new framework based on the latest developments within cost-effective technology.

9. **More intelligent regime for derogation**. There is a to widespread use of the derogations clauses in the WFD. A new model for innovation should be tested so all cost-effective technological solutions should be considered before approval of any derogation from environmental performance should be approved.

10. **Assessment of socioeconomic benefits and investments in waste water infrastructure:** The evaluation should asses' the socioeconomic effects of the implementation of the existing directive and the direct investments in the EU waste water sector related to the implementation of the directive. This information will be valuable input to the impact assessment for a new Commission proposal. Historic information on EU-funding related to the implementation of the directive would furthermore be of high value.

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Danish Environment Technology Association
The objective of the Danish Environmental Technology Association is to put advanced solutions to global environmental challenges on the top of the political agenda nationally, in the EU and internationally. The association is expanding, and we are now representing more than 80 large, medium, and small companies mainly within water, climate adaption, clean air and clean soil solutions. Companies such as Grundfos, Danfoss and Krüger/Veolia, Xylem and Unisense are all members.