Danish Environment Technology Association

18. October 2018

Danish Environment Technology Associations position on the evaluation and fitness check of "Urban Waste Water Treatment Directive".

DETA welcomes the European Commission's initiative to undertake a Fitness Check of the Urban Waste Water Treatment Directive (UWWTD). DETA agrees that it is urgent to assess the relevance, effectiveness, coherence, and to address new potentials for urban waste water treatment.

The Urban Waste Water Treatment Directive has significantly improved the waste water treatment in Europe ***(relevance)***. The legislation is however more than 26 years old and technology innovation and development has evolved considerably beyond the scope of this directive ***(effectiveness.)*** Water, energy and climate agendas are more affiliated than ever and waste water treatment can deliver renewal energy to the overall energy mix in the EU ***(coherence)***.

While not compromising the overall purpose of the UWWTD the evaluation should seek to unlock the great potentials in relation to: cost-effective energy production using waste water sludge, better use of energy efficient technologies and process management, recovery and reuse of valuable resources and new treatment steps for environmental harmful subsidies.

A widened scope including the suggested areas would be a direct vehicle to support the implementation of the EU circular economy package with concrete business cases based on reuse, recovery and upcycling of valuable and scarce resources.

A revised directive could furthermore give various positive spin offs to the overall EU-obligations in the EU energy Union, the Paris Agreement and the implementation of the Sustainable Development Goals.

In particular there is 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].

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 5 years.

Energy used in the water and wastewater segment will be doubled in 2040 [IEA], so the potential is increasing over time.

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.

This could stimulate export-based growth, and create new jobs in all parts of Europe.

The 8th implementation report from the EU-Commission highlights that waste-water management in the EU represents more than 600,000 jobs, an annual production value of more than 100 billion € and an annual added value of about 42 billion €.

These figures could be increased significantly if the scope of the directive is widened as suggested.

DETA's suggest:

- **Energy Production and reduced CO2-footprint:** A new urban waste water treatment directive should further encourage energy production and energy efficiency. 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.

- **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.

- **New treatment steps**: The refit-evaluation should evaluate whether new treatment steps should be addressed by the UWWTD. New quality standards for environmental harmful subsidies such as pharmaceuticals from hospitals, antibiotic resistant bacteria, endocrine disrupters in general and microplastics should be considered in a revised directive.

- **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.

- **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.

- **Adaptation to Climate change**: Its should be evaluated how a new directive could tackle the big climate change challenges with heavy rain and sewer overflows as one severe consequence. A new directive should set-up requirements for stormwater overflow and measures for quantifying overflows to the natural environment.

- **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 in the existing UWWTD and asses the new potentials in designing a new directive based on the latest developments within cost-effective technology solutions for waste water treatment.

- **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.

For more info contact:

Jonas Fredsted Villadsen
COO

Danish Environment Technology Association

Cell: +45 27 14 15 99
Email: jfv@danskmiljoteknologi.dk

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.