Danish Environment Technology Association

8. November 2017

Danish Environment Technology Associations position on the roadmap of 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, coherence, and effectiveness 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. The legislation is however more than 26 years old and technology innovation and development has evolved considerably beyond the scope of this directive.

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 based on 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 Paris Agreement and the implementation and 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 reducing the operating cost (OPEX) significantly.

Energy used in the water and wastewater segment will according to the UN be doubled in 2040, so the potential is only 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:** A new urban waste water treatment directive should further encourage energy production and energy efficiency in the waste water sector setting common targets aiming for an energy neutral water cycle in the EU. Transparent benchmarking should be the first step.

- **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, endocrine disrupters in general and microplastics should at least be considered in a revised directive.

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

- **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 treated technical water: car washing, cooling towers i.a.

- **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.

- **Better overview of available technology solutions**: The refit-evaluation should asses how new cost-effective technology solutions could be unlocked to meet the implementations 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.