

Revision of Urban Wastewater Treatment directive

Key messages:

- Extended producer responsibility schemes are a vital legal tool. They should remain robust without legal loopholes and be established rapidly so they effectively contribute to the cost of advanced water treatment.
- The obligation to achieve energy neutrality in wastewater plants should be intrinsically linked to the results of energy audits and remain flexible to include off-site renewable energy when feasible.
- More holistic, cost-effective measures are needed to address stormwater overflows and urban runoff as well as alignment with objectives and requirements of the Water Framework Directive.
- A strict risk-based approach should be considered for the national implementation of updating plants, particularly considering local spatial constraints, energy neutrality trade-offs and cost-benefit allocation assessments, to optimise the funding where the impact is most needed and achievable.
- It is crucial that EU Cohesion Funds are made available swiftly to avoid delays in implementation. Required permits and planning authorisations should be fast tracked to avoid implementation delays.

The Commission's recent proposal to revise the Urban Wastewater Treatment Directive (UWWTD) is an important step to further improve the treatment of urban wastewater, improving public health and environmental protection, within the current context of climate crisis. Eurocities welcomes the alignment of the directive with the objectives of the European Green Deal and the introduction of extended producer responsibility (EPR) to effectively raise the funds necessary to tackle emerging pollutants and micro-pollutants.

Cities are key actors in implementing the directive, as 60% of wastewater operators are public companies owned by competent public authorities. Also, public authorities, mainly municipalities, are the owners of most of the water and wastewater infrastructure, including wastewater treatment plants (WWTP), in Europe¹. Depending on the legal frameworks, private companies can operate for a competent public authority including through joint ventures. Bearing this in mind, Eurocities would like the following points to be taken into consideration during the negotiation of the directive.

¹ Except for England, Wales and the Czech Republic). Source: The governance of water services in Europe by EurEau

Sharing the cost burden

Extended producer responsibility (EPR) is an important legal tool used in EU environmental legislation as an effective way to implement the 'polluter pays' principle, encouraging the polluter to not only strive towards creating products and processes that are more environmentally friendly, but also to ensure that the producer, and not citizens, bears the cost of the pollution.

As cities, we strongly welcome the introduction of EPR for producers and importers to contribute fully to the cost of the quaternary water treatment requirements and propose it should include the energy neutrality requirements associated with this treatment.

To create a level playing field across Europe for producers, exonerations should be avoided as they have the potential to create legal loopholes. It is concerning that producers that place product quantity below two tonnes per year in the market could be exempt, as it leads to uneven implementation of future EPR schemes. It is unclear if this is a national or EU threshold, but in principle all producers should be included and if there are any exemptions, then these should be at the EU level to ensure the integrity of the single market.

Nor can we support the exemption of producers from EPR whose products do not generate micro-pollutants at the urban wastewater treatment plant at the end of their life. This fails to encourage producers to reduce micro-pollutants in the production of their products and does not recognise the impact that pollution has during the entire lifecycle of the product.

Given the strict deadlines associated with the new targets for pollution reduction, it is vital to implement an early deadline by which the EPR should be effectively established, so that it contributes to the cost of building quaternary treatments. It is important to capitalise on the maturity of implementation of EPR schemes in the Waste Framework Directive, and we encourage the Commission to develop guidelines and forums of best practice and exchange to assist with the swift harmonised implementation among member states of the future EPR schemes, including producers and relevant public authorities during these consultations and dialogues.

Flexibility to achieve energy neutrality

Every sector has a role to play in contributing to the EU's effort to achieve carbon neutrality by 2050, including wastewater treatment plants. The requirement for energy audits every four years in these treatment plants and the collecting systems connected to them will be an important step to evaluate the technical feasibility and opportunities to achieve energy neutrality. There is also an obligation to achieve energy neutrality at the national level in all treatment facilities serving 10,000 or more people, or processing equivalent quantities by the end of 2040. This should, however, be intrinsically connected to the results of the energy audits, which should evaluate the feasibility, cost-effectiveness, and trade-offs of the measures.

In large cities, it could be challenging to achieve the proposed target in-site due to spatial constraints and new increasing energy demands resulting from the requirement for tertiary and quaternary treatments. It is important to adopt a flexible approach by which neutrality objectives can be achieved through the production of off-site renewable energy, when this is a more cost-effective measure that also suits best the broader environmental land-use objectives. When it is feasible to expand the production of renewable energy on-site, it is crucial that that planning and building permits are streamlined and fast tracked, conflicting environmental legislation objectives are addressed, and allocated funding is used to avoid a disproportionate cost transfer to citizens.

The proposal should also clarify if the waste heat can be included in the calculations. In the same vein, it should be noted that wastewater treatment plants have the potential to transform biogas into green energy that could be used by other city players (i.e. for vehicle fuel), instead of injecting such energy back into the plant in order to cover energy needs onsite. Overall efforts to reduce energy consumption and chemical products associated with treatment while increasing the potentialities of the circular economy, including the production of feedstocks from wastewater, should be considered while updating plants.

Storm water overflows and urban runoff

Under the obligation to design integrated urban wastewater management plans, there is a new indicative target to ensure that by 2035 the volume and load of annual storm water overflows do not exceed 1% of the annual urban wastewater load, as calculated during dry weather. The target is in practice difficult to monitor because overflows happen during intensive rainfall. It is also especially challenging for cities that have unitary systems for wastewater and stormwater and that are vulnerable to flash flooding, meaning that rain is less frequent but creates greater dilution of wastewater when it comes. Additionally, it is not entirely clear whether the term 'wastewater load' is being used in reference to the quantity of water (the 'hydraulic load'), or the quantity of pollutants (the 'pollutant load'), nor which reference conditions apply.

It is important to evaluate the local contexts and hotspots with the intention of developing more holistic, environmentally sound, and cost-effective measures to address the problem. Large cities would welcome a greater integration of objectives and requirements of the Water Framework Directive, thus ensuring investments made are proportionate with the ambition to reach environmental objectives. Through its potential implementing acts outlined in Article 5, it is important that there is a strong collaboration with local authorities to design the required monitoring methodologies.

Tertiary and quaternary treatment requirements

In 2016, over 86% of EU urban wastewater treatment plants in big cities (serving over 150,000 people, or treating equivalent quantities of water) received more stringent treatment, 10% of the total load received secondary treatment, while 1% of the total load of all big cities receives only primary treatment.² The new obligations for tertiary treatment and quaternary treatment seek to improve the above statistics in line with the objectives of the EU's zero pollution plan. Efficient and effective urban wastewater treatment should remain an objective, but it is equally important to adopt a preventative approach favouring actions to reduce pollution at source, otherwise the additional costs of treatment are unintentionally inflicted on the consumer and the impact that the pollution has before it reaches the plants is neglected.

A degree of flexibility using a strict risk-based approach should be considered for the national updating of plants, particularly considering local spatial constraints, energy neutrality trade-offs and cost-benefit allocation assessments, so as to optimise the funding where the impact is most needed and achievable. Requirements for types of treatment processes and degrees of treatment should additionally be more closely linked to output quality in accordance with the Water Framework Directive. This will ensure that the UWWTD imposes fewer

² EEA - [Waterbase - UWWTD: Urban Waste Water Treatment Directive – reported data](#) Fig 3.

cost-intensive requirements that have little impact, while stricter requirements are imposed where necessary to improve water quality.

The proposed requirements for quaternary treatment mean that investments will be needed by virtually every single large plant in Europe. Therefore, successfully operational EPR schemes should be in place before the investments are made to finance the development of the quaternary treatment plants, and deadlines should be adjusted to reflect this condition.

Funding and timelines

To deliver the infrastructure necessary to implement and comply with the objectives of the proposed legislation and of the drinking water directive by 2030, the OECD has calculated that around €289 billion³ investment in the 28 member states will be required. It is crucial that the required EU Cohesion Funds are made available swiftly to avoid delays in implementation, as the multiannual framework programmes for the period of 2021-2027 do not consider such financial needs.

Delays may compromise the effective implementation of the future UWWTD, as utilities and local governments do not have the capital needed to make the expected investments. It could additionally be challenging to meet the proposed deadlines, considering the time required for transposition and for the effective implementation of well-functioning EPR schemes capable of fully financing quaternary treatments. Also, should the required permits and planning authorisations not be fast tracked, it may cause further implementation delays. The new reporting requirements and Commission's right of initiative through the implementing and delegated acts, highlighted under Article 24, should also strike the proportionate balance between impact of output and associated costs.

³ OECD - Financing Water Supply, Sanitation and Flood Protection: Challenges in EU Member States and Policy Options (2020)