Extended Producer Responsibility Schemes (EPR) in Europe:

Lessons and recommendations for their application in the wastewater sector

Policy Brief

WAREG
European Water Regulators

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PURPOSE AND CONTEXT

- **The study assesses how Extended Producer Responsibility (EPR) schemes** currently applied **in the European waste sector can inform the design of the new EPR mechanism introduced by the revised Urban Wastewater Treatment Directive (UWWTD)** for micropollutant removal from urban wastewater.
- **The UWWTD introduces, for the first time,** a dedicated **EPR scheme** in the **wastewater sector**. Producers of **pharmaceuticals and cosmetics will be required to cover at least 80% of the full costs** of quaternary treatment, including investment, operational, monitoring, data-gathering and verification costs.
- The study confirms that **EPR is a relevant instrument to apply the Polluter Pays Principle**, while stressing that **wastewater differs structurally from waste management: it is a highly regulated natural monopoly,** geographically bound and infrastructure-intensive.
- **Waste-sector EPR models cannot therefore be mechanically transferred to wastewater**. Competitive multi-PRO models appear poorly suited to the water sector, as Producer Responsibility Organisations would not perform operational treatment functions.
- **The most coherent implementation model identified by the study is a single national, not-for-profit Producer Responsibility Organisation,** potentially divided into pharmaceutical and cosmetics sections, **supported by a central public fund.**
- **Economic regulators**, where present, **are expected to play a key role** in integrating EPR financial flows into tariff systems, defining and validating eligible costs, strengthening accounting unbundling for quaternary treatment, verifying the proper allocation of resources, supporting investment planning, and safeguarding affordability for end users, among other functions.

MAIN TAKEAWAYS FROM THE STUDY

- **EPR must be adapted to the wastewater sector**. **Waste-sector experience provides useful lessons** on governance, transparency, cost recovery, producer compliance and eco-modulation **but it cannot be replicated directly**. In the wastewater sector, responsibility for meeting environmental targets remains with Member States and wastewater treatment utilities, while producers contribute financially through the EPR system.
- **A centralised model is preferable**. The study discourages multi-PRO competition in the wastewater sector, as there is no operational activity over which PROs could compete, and such competition would unnecessarily increase system complexity and costs without generating operational efficiencies. **A single national PRO supported by a central public fund** would reduce administrative complexity and improve predictability.
- **Financial flows must be stable and guaranteed**. Wastewater operators must be able to plan, finance and implement quaternary treatment with certainty that EPR contributions will be transferred on time and in line with eligible costs. The system should include financial guarantees, penalties for non-compliance and clear rules for managing default or non-payment.
- **Cost allocation must protect affordability for consumers.** Producers must cover at least 80% of the costs of quaternary treatment, while the residual share will likely fall entirely on tariffs together with other additional costs required to comply with the other requirements of the UWWTD. Given the essential nature of water services, affordability tools such as social tariffs and targeted subsidies should be strengthened.
- **Eco-modulation should foster pollution prevention**. Producer fees should reflect the quantity and hazardousness of substances placed on the market. Harmonised modulation criteria, ideally defined through EU-level guidance or, even better, through delegated acts, would not only help preserve fair competition and reduce administrative burdens, but also amplify the transformative potential of EPR.
- **Early preparatory action is critical for timely implementation**.

  Member States will need to complete several preparatory tasks within a tight timeframe, including transposing the Directive, preparing National Implementation Programmes, and setting up the EPR framework, while quaternary treatment obligations are phased in up to 2045. Particular attention should be paid to investment planning for quaternary treatment, including indicative cost estimates for all relevant plants. A key challenge will be identifying treatment plants serving agglomerations above 10,000 p.e. that should fall within the scope on the basis of national risk assessments of the impact of micropollutants on the environment or human health.

REGULATORY PRIORITIES AND THE ROLE OF WAREG

- **Strengthen investment planning.** Economic regulators should contribute to defining clear rules for identifying and planning the investments required for wastewater treatment utilities to comply with UWWTD targets, including the integration of quaternary treatment into investment plans.
- **Define eligible costs and cost allocation rules.** Economic regulators should help establish transparent procedures for recognising capital, operating, monitoring and administrative costs attributable to quaternary treatment and for allocating them to the EPR system.
- **Consumer protection.** Economic regulators should ensure that residual costs not covered by EPR do not place undue pressure on end users, strengthening tariff affordability instruments.
- **Ensure stable financial flows.** Economic regulators should contribute to the design of mechanisms ensuring that EPR contributions are predictable, timely and guaranteed. Economic regulators could also help coordinate timelines for the design and construction of quaternary treatment facilities, which may precede the full operationalisation of EPR mechanisms, creating mismatches in the financial flows.
- **Safeguard efficient EPR costs and financial continuity.** Regulation should protect producers by ensuring that EPR-funded technology choices are efficient, justified and proportionate. At the same time, economic regulators could contribute to the design of clear arrangements to manage non-payment by producers, such as reserve funds financed through an additional charge levied by PROs on producers.
- **Support national regulators and dialogue with EU institutions.** As a European association of water regulators, WAREG is well placed to foster dialogue at EU level. It can assist its members in discussions with Member States, contribute to Commission consultations and stakeholder dialogues, and support the preparation of EPR governance arrangements**.**
- **Support the transposition phase.** WAREG should promote the role of economic regulators during the transposition phase, encouraging Member States to assign them an active role where such regulators already exist. As WAREG brings together European economic regulators in the water sector, it is uniquely placed to translate lessons from different Member States into common guidance.
- **Leverage cross-sector regulatory expertise.** WAREG brings together economic regulators specialised in many regulated network sectors. This makes it well placed to support the revised UWWTD, which cuts across pollution reduction, wastewater management, energy consumption, and EPR schemes mainly developed in the waste sector.