

# Revising the Urban Wastewater Treatment Directive

Impact assessment (SWD(2022) 541, SWD(2022) 544 (summary)) accompanying a Commission proposal for a directive of the European Parliament and of the Council concerning urban wastewater treatment (recast)

This briefing provides an initial analysis of the strengths and weaknesses of the European Commission's [impact assessment](#) (IA) accompanying the above-mentioned [proposal](#), submitted on 26 October 2022 and referred to the European Parliament's Committee on the Environment, Public Health and Food Safety (ENVI). The proposal<sup>1</sup> aims to revise the urban wastewater treatment [Directive 91/271/EEC](#) (UWWTD), which has not been revised since its adoption in 1991. The need to update the UWWTD emerged from its 2019 regulatory fitness and performance (REFIT) [evaluation](#).<sup>2</sup> In a 2020 [resolution](#), the European Parliament supported the Commission's view that, when revising the UWWTD, more needs to be done to address remaining pollution, contaminants of emerging concern, energy use and sludge management, and governance issues. The Member States supported the evaluation's main findings during an Environment Council [meeting](#). The Commission included the present proposal among the actions in the 2021 zero pollution [action plan](#), Annex II to its 2022 [work programme](#) (REFIT initiatives) and the 2022 joint declaration on legislative priorities. The proposal was published together with the [revised standards](#) for surface water and groundwater pollutants.

## Problem definition

Drawing on the results of the 2019 evaluation, the IA identifies three main problems and their drivers (the latter in italics below) (pp. 15-29):

### 1 Remaining pollution from urban sources

The IA explains that, at the time of the adoption in 1991, the UWWTD's focus was on organic pollution from domestic sources, emitted in usual weather conditions and collected and treated in centralised facilities, for which the requirements were clear and precise. Less attention was given to other sources of pollution (discussed below), for which the requirements were kept more generic. The 2019 evaluation confirmed that UWWTD implementation had caused a significant reduction of pollutant releases. However, based on the European Commission Joint Research Centre (JRC) modelling done for the IA, 191.8 million population equivalent<sup>3</sup> (p.e.) of the total initial load of 708.8 million p.e. is not collected and thus not treated in centralised facilities. This remaining load comes mainly from three sources: *small agglomerations*<sup>4</sup> (49.3 million p.e.), *individual appropriate systems*<sup>5</sup> (16.5 million p.e.), and *storm water overflow and urban run-off*<sup>6</sup> (126 million p.e., IA, p. 15). The IA explains that small agglomerations are covered by the UWWTD only in a very general manner: Member States have to ensure 'appropriate treatment' from agglomerations of less than 2000 p.e. As a result, the situation varies across Member States. Nevertheless, small agglomerations exert significant pressure on 11 % of the EU's surface water bodies, based on the European Environment Agency (EEA) data quoted in the IA. Furthermore, in case of heavy rain, Member States have the possibility of discharging directly into the receiving waters part of storm water overflow and urban run-off without any need for previous treatment (IA, p. 17). These remaining loads released into the environment are expected to increase owing to the combined effects of urbanisation and climate change. The 2019 evaluation showed that the lack of specific provisions in the UWWTD concerning storm water overflow and urban run-off had led to uneven management of this issue across the Member States, with only very few of them having put in place systematic integrated water management approaches in their cities. In addition, the UWWTD permits the use of 'individual appropriate systems' (IAS) where building a



centralised urban wastewater collecting system comes at disproportionate costs, and as long as these systems achieve the 'same level of environmental protection' as in a centralised plant (IA, p. 18). According to the IA, in the absence of more precise requirements, it is difficult to verify whether IAS are conform or not, and some Member States report high and non-justified use of IAS.

The IA touches on several other drivers of pollution from urban sources. Thus, *discharges from non-compliant agglomerations* above 2 000 p.e. represent a small share of the remaining load. The 2019 evaluation pointed out that the deadlines set in the UWWTD might have been overly ambitious for some Member States, and the directive's implementation remains challenging in a limited number of them (IA, pp. 16-17 and overview of Member States in Annex 7, p. 140). Furthermore, wastewater treatment plants remain an important source of *nutrients such as nitrogen (N) and phosphorus (P)*, which contribute directly to eutrophication, i.e. accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned. Eutrophication remains an important problem in several rivers, lakes and seas across the EU (IA, p. 19). Moreover, the presence of *micro-pollutants and micro-plastics* in all EU waters has become an increasingly important issue (IA, p. 21). Finally, treatment plants covered by the UWWTD, al designed to treat domestic wastewaters, also receive *non-domestic releases* including industrial wastewaters, mainly from small and medium-sized enterprises (SMEs) (IA, p. 22). Since the UWWTD entails no requirement for the monitoring and reporting of such non-domestic pollution entering wastewater treatment plants, the IA could not provide a quantification of this issue. In this regard, the IA mentions the need to align the UWWTD more effectively with the Industrial Emissions Directive, which covers releases to water from the larger installations.

## 2 Insufficient alignment of the UWWTD to new societal ambitions and the Green Deal objectives

Drawing on a recent academic source, the IA explains that in 2018, wastewater treatment was responsible for 34.45 million tonnes of CO<sub>2</sub> equivalent per year, *around 0.86 % of the EU's total greenhouse gas (GHG) emissions* (IA, p. 23). Of this, 13.03 million tonnes are avoidable GHG emissions relating to operational activities. As for *energy use*, the wastewater sector is using about 0.8 % of total EU energy consumption. In this regard, the 2019 evaluation pointed to the sector's lack of understanding of the potential energy savings in the treatment facilities and – to a certain extent – the collecting systems (IA, p. 24). Furthermore, while the UWWTD encourages Member States to re-use sludge,<sup>7</sup> its provisions on *sludge re-use* or recovery are limited (IA, p. 24). The 2019 evaluation concluded that sludge management is not optimal and not aligned with the circular economy's principles: today, about half of the sludge is re-used in agriculture, while another large part is being incinerated or landfilled, which represents a clear loss of valuable resources including phosphorus (IA, p. 24). With regard to *water re-use*, the IA reports that only 2.4 % of the treated wastewater was re-used in 2015. The IA argues that more frequent instances across the EU of droughts and water scarcity, and the entry into application of the Water Re-use [Regulation \(EU\) 2020/741](#), generate further incentives to re-use water (IA, p. 25). Finally, the IA touches on absence of systematic dialogue and coordination between public health and wastewater authorities, which leads to a lack of understanding of the added value of accurate *monitoring of public health-relevant parameters in urban wastewaters*, such as SARS-CoV-2 virus, and the monitoring and removal of antimicrobial-resistant (AMR) genes and organisms. Treatment plants may contribute to the removal of AMR from the effluents and monitoring the public health state of the population.

## 3 Insufficient and uneven level of governance of the sector

The IA explains that wastewater operators are part of a 'captive' market: neither citizens nor businesses connected to the public network can choose their operators. The 2019 evaluation and the stakeholder consultation confirmed that the wastewater sector is mainly reactive to legal requirements, and most competent authorities are *implementing only the minimum requirements of the directive* (IA, p. 25). *The level of transparency* also differs from one operator to another: some operators are providing detailed information, either on the bills, on their web sites or via apps, not only on their level of performance but also on the main elements included in the water bills. According to the IA, this uneven level of access to information prevents equal empowerment among EU citizens (IA, p. 26). Furthermore, the IA highlights *the uneven application of the 'polluter pays' principle in the water sector*, as raised in a recent [report](#) from the

Court of Auditors. To cover the costs relating to the directive's implementation, Member States are using a mix of public budget and water tariffs – with large differences between Member States. In Member States (such as Denmark and Finland) where nearly full costs are recovered through water tariffs, the 'polluter pays' principle can be deemed respected for households connected to the public network. In other Member States (such as Ireland, Luxembourg and Cyprus), this is not so, as less than 22 % of the overall cost is covered by water tariffs. Contrary to what happens with households, the 'polluter pays' principle is not applied for non-domestic/industrial pollution gathered in public networks. Moreover, the IA points out that *the reporting requirements set by the UWWTD*, although effective in driving compliance, could be improved and modernised (IA, p. 28). For instance, requirements to produce national implementation programmes every two years might be excessive for Member States that have reached compliance with the UWWTD (overview provided in Annex 7, p. 140). Finally, the UWWTD does not require Member States to guarantee *access to sanitation*, thereby preventing the EU from implementing fully the Sustainable Development Goal (SDG) 6 objective of ensuring 'access to adequate and equitable sanitation and hygiene for all'. Quoting Eurostat, the IA states that approximately 2 % of the population has no access to an indoor flushing toilet in the EU, and according to the 2020 UWWTD implementation [report](#), around 10 million people living in the EU have no access to improved sanitation facilities (IA, p. 28).

The IA identifies the drivers of the problems and their scale, and the stakeholders affected by the initiative (national, regional and local authorities, water/wastewater operators, citizens, water industry sector, pharmaceuticals and personal care products industries, and environment, Annex 3, pp. 101-104). The problem definition in the IA is underpinned by recent sources, such as the EEA, JRC, the 2019 evaluation, academic sources, and stakeholder consultation. Overall, the problem definition is well substantiated with data and, although discussed in a rather technical manner, accessible to a non-specialist reader thanks to the glossary provided (IA, pp. 4-9).

## Subsidiarity / proportionality

In addition to explaining the legal basis (Article 192(1) of the Treaty on the Functioning of the European Union ([TFEU](#))), the IA briefly discusses the need for EU action and the EU added value of establishing urban wastewater collection and treatment infrastructures, stimulating innovation in the water sector, and avoiding market distortion. While the IA discusses the preferred option's proportionality (pp. 68-69), it does not compare all options in terms of proportionality. National parliaments did not issue [reasoned opinions](#) by the subsidiarity deadline of 16 March 2023. Contrary to the Better Regulation Guidelines, the proposal does not provide a dedicated subsidiarity grid.

## Objectives of the initiative

The **general objective**, as outlined in the IA, is two-fold (IA, p. 31):

- 1 To protect EU citizens and ecosystems from the remaining sources of insufficiently treated wastewater;
- 2 To provide a predictable framework for the sector, improve its transparency and governance, and align it to 'a Europe fit for the digital age';

In addition to the above general objectives, the IA sets two '**complementary**' objectives:

- 3 To align the sector to the objectives of the European Green Deal and the recently adopted REPowerEU communication, regarding in particular the 2050 goal of climate neutrality in synergy with the Effort-sharing Regulation, transition to circular economy, zero pollution, and restoration of biodiversity;
- 4 To use wastewater health-related parameters as a support for public health and improve 'adequate and equitable sanitation and hygiene for all' in line with SDG 6.

To achieve the general objectives, the following **specific objectives** have been set (IA, p. 32):

In relation to objective 1:

- Contribute to identifying and then preventing pollution reaching wastewater treatment plants, with particular attention to pollutants difficult to treat in these plants;

- Further reduce pollution from the 'remaining sources' (storm water overflows, urban run-off, smaller agglomerations and IAS);
- Further reduce nutrient (N and P), micro-pollutant and micro-plastic pollution from urban sources;
- Reinforce the coherence with key EU water legislations (such as the Bathing Water, Water and Marine Framework Directives and the Drinking Water Directive);
- Encourage investment and innovation in wastewater management.

In relation to objective 2:

- Ensure high level of transparency and access to information;
- Ensure that investments are taking place 'where it makes sense' for environmental or health reasons (based on clear criteria);
- Promote a solid financing strategy while ensuring affordability of water tariffs and better applying the 'polluter pays' principle besides household users;
- Modernise, simplify and adapt monitoring and reporting obligations.

In relation to objective 3:

- Move towards energy neutrality of the wastewater sector;
- Create the conditions for increasing water re-use and better managing sludge and waste, in close synergy with the new Water Re-use Regulation, the Sewage Sludge Directive and the EU body of legislation on waste.

In relation to objective 4:

- Improve access to sanitation particularly for vulnerable and marginalised people;
- Ensure that health-relevant information from wastewaters is fully used;
- Improve the dialogue between health and wastewater competent authorities;
- Better monitor the spreading of AMR in wastewaters and prevent its dissemination.

Not all IA objectives seem to correspond to the problems identified. Thus, alignment with 'Europe fit for the digital age', REPowerEU, the 2050 goal of climate neutrality, and the financing, investment and innovation in the wastewater sector are covered only marginally in the problem description, without being identified explicitly as a problem. Furthermore, by the IA's own admission, no major problems of coherence with other legislation were found in the 2019 evaluation (IA, p. 15); it is thus unclear why reinforcing coherence with other EU legislation is set as a specific objective. Moreover, the presence of 'complementary' objectives reduces the objectives' overall clarity and raises questions regarding their 'hierarchy'. The IA does not set operational objectives, defined in terms of policy deliverables and linked to the preferred option, and confuses them with specific objectives in a figure that depicts the links between problem drivers, problems, objectives and the 'main options' (IA, p. 49). The IA sets the deadline for evaluation to 2030, making the objectives time-bound, and provides several indicators for measuring the initiative's success (IA, p. 78). However, because of the absence of operational objectives and a mismatch between the problems and objectives, the objectives are only partially in line with the Better Regulation Guidelines' SMART definition (specific, measurable, achievable, relevant and time-bound).

## Range of options considered

The IA discarded several policy options at an early stage, explaining why they were discarded (IA, pp. 47-48):

In addition to the baseline scenario ('do nothing' option), the IA assesses several options (where alternatives were available) and measures (where no real alternatives were available) (IA, pp. 35-42). According to the IA, this was done based on 'the analysis and experience confirmed by a consensus across stakeholder groups' (IA, p. 37). The **options** are summarised below, with the preferred policy options highlighted in grey.

The **baseline** assumes progressive achievement of full compliance for wastewater treatment in centralised facilities for 23 Member States by 2025 and for all Member States by 2031. Moreover, the baseline assumes that all IAS would have an equivalent level of treatments as required by the UWWTD. The IA assumes that

the identified problems would remain, although their scale would be impacted by external trends such as urbanisation, demographic changes, climate change impacts and new technologies. Furthermore, the IA takes into account the effects of EU actions such as the 2020 chemicals and pharmaceutical strategies and the 2021 zero pollution action plan, although it admits that effects are difficult to quantify. Similarly, the potential effects of the 'fit for 55' legislative package are built qualitatively into the baseline.

**1. 'Integrated urban water management plans'** established at local level as an instrument to identify and implement the most cost-effective local combination of measures addressing **storm water overflows and urban run-off**. The measures considered in these plans could range from preventing unpolluted rainwater from entering in the wastewater collection network (such as green roofs, green urban surfaces and removing soil sealing), to optimising the use of existing storage volumes and mitigating the impacts from untreated water discharges (such as further treatment through nature-based systems including constructed wetlands). With regard to the plans, the IA envisages three options:

- **Option 1 – low ambition:** measures only in agglomerations over 100 000 p.e., with a focus on agglomerations 'at risk';
- **Option 2 – in-between option:** measures applied to all 'at risk' agglomerations above 10 000 p.e.;
- **Options 3 – high ambition:** measures applied to all agglomerations above 10 000 p.e.

**2. Expanding the UWWTD's scope** to tackle the pollution from **smaller agglomerations** below 2 000 p.e. more effectively:

- **Option 1** – threshold of 1 000 p.e.
- **Option 2** – threshold of 500 p.e.

**3. Reducing nitrogen (N) and phosphorus (P) emissions and eutrophication:**

- **Option 1 – low ambition:** N and P removal imposed systematically only in larger facilities above 100 000 p.e.;
- **Option 2 – medium ambition:** same as option 1, N removal efficiency to 85 % and P removal efficiency to 90 %;
- **Option 3 – medium ambition:** N and P removal imposed for all facilities above 10 000 p.e.;
- **Option 4 – medium ambition:** N and P removal imposed for all facilities above 100 000 p.e., facilities between 10 000 and 100 000 p.e. in sensitive areas, increased N and P removal efficiency;
- **Option 5 – high ambition:** N and P removal imposed systematically in all facilities above 100 000 p.e., N removal efficiency to 85 % and P removal efficiency to 90 %.

**4. Addressing micro-pollutants** from wastewaters:

- **Option 1 – low ambition:** requiring treatment only for large plants above 100 000 p.e.;
- **Option 2 – 'in between' option,** all plants above 100 000 p.e. and plants between 10 000 and 100 000 p.e. in areas 'at risk';
- **Option 3 – high ambition:** requiring treatment for all plants above 10 000 p.e. when the dilution rate of the receiving water body is 100 or less.

The IA envisages a system of extended producer responsibility (EPR) to make producers financially responsible for the costs linked to the additional treatment required to treat micro-pollutants (IA, p. 41): the scope of the EPR schemes would cover pharmaceuticals and personal care products, which represent the bulk of micro-pollutants in wastewater treatment plants. The fees for producers/importers placing the pharmaceuticals and personal care products on the market would be linked to their quantities and toxicity. Additionally, transparency requirements would be requested from producers/importers and their producer responsibility organisations (similar to the Waste Framework Directive).

Besides the options mentioned above, the IA analyses **measures** (without real alternatives) for addressing the following problems and their drivers (IA, pp. 42-47).



Problem (driver)	Measures
Individual appropriate systems	Clear criteria in relation to emissions from IAS compatible with the UWWTD and the standards under the Construction Product Regulation; Improve IAS control at local level (systematic inventory, regular inspections of the larger IAS, and obligation of maintenance).
Non-domestic emissions	Expand the scope of pollutant to be monitored regularly the wastewater treatment facilities' inlet and outlet; Incentivise competent authorities to track pollution at source more effectively; Ensure the involvement and access to information for wastewater operators in relation to the discharge permits given to businesses connected via the public collection network to their treatment plants.
Energy neutrality in wastewater sector	New monitoring obligations and the requirements of regular energy audits to do more to understand potential savings; EU energy neutrality objective for the wastewater sector (at national level) with interim targets starting in 2030 and up to 2040.
Sludge management and water re-use	The IA does not appear to envisage any specific measures for sludge management and water re-use, stating that other options and measures under the IA (e.g. aimed at micro-pollutants and AMR surveillance) will have an effect on sludge management.
Wastewater and health	Ad-hoc surveillance of COVID-19 and its variants in larger wastewater treatment plants, regular monitoring of other pathogens and AMR.
Transparency and governance	Require operators to monitor some key performance indicators in relation to their economic, social, environmental and energy- and climate-related performances; Make this information accessible to the public digitally or on the invoices.
Monitoring and reporting	Additional monitoring activities for micro-pollutants, non-domestic pollution, GHG emissions and storm water overflows/urban run-offs; Align existing obligations with the current practices notably in terms of monitoring frequency.
Access to sanitation	Identify vulnerable and marginalised people and require Member States to take action to improve their access to sanitation, in large cities based on local conditions and constraints.

The baseline appears to be dynamic (i.e. it takes account of the policies in place, their possible developments and external trends). The range of options appears satisfactory; however, since the IA contains options alongside measures, the real policy alternatives are not apparent from the IA. Furthermore, it is not clear whether all measures fall under the preferred package of options, as the different presentations of the preferred option package are inconsistent. The content of the options and measures could be explained in more detail. Moreover, the IA could explain more clearly why alternatives were considered to address some problems and not others.

## Assessment of impacts

The IA assesses the options and measures in terms of their economic and environmental impacts. Social impacts are discussed to a much lesser extent, and mainly under the preferred option package. Under the economic impacts, the IA discusses the costs and benefits for wastewater operators and public authorities. The total costs at EU level under the preferred option, estimated at €3 848 billion per year by 2040, are below the expected benefits of €6 643 billion per year by 2040 (IA, p. 68). The benefits are mainly due to improvements to water quality (€6 156 billion per year by 2040), reduction of toxic load in receiving waters (44 %) and reduction of GHG emissions (€486 370 million per year by 2040 under the preferred option). Under the social impacts, the IA discusses the share of expenditure on water supply and sanitation for households with the poorest revenues (affordability), concluding that it would remain below 5 %, which is

an acceptable ceiling according to the Organisation for Economic Co-operation and Development (IA, p. 72). Health impacts are not covered in the IA. The costs and benefits of the preferred policy options and measures by 2040 are partially quantified in Annex 3 to the IA (pp. 105-107). The 2040 time horizon represents the time needed for both a realistic implementation of the measures considered in the IA and the sound planning of the underlying investments (IA, p. 50). Additionally, the IA quantifies annual costs and benefits per Member State (total and per inhabitant) by 2040 (IA, pp. 70-71). Although the IA analyses all options and measures, it only compares the four options (where alternatives were available) based on the mandatory criteria of efficiency, effectiveness and coherence – but not on proportionality (IA, p. 65). Under the discussion of proportionality, the IA focuses on the costs and benefits, concluding that the 'preferred option includes a proportionate package of measures representing the best value for money of all possible options' (IA, p. 69). However, since proportionality is not part of the assessment and comparison of options, this argument is not well substantiated. Furthermore, various assessments of the preferred option appear inconsistent: energy neutrality is excluded from the preferred option (IA, p. 65); energy neutrality is included in the preferred option (IA, p. 67); and all other measures appear to be included in the preferred option under the category 'other' (IA, p. 68). As a result, the choice of the preferred option is not entirely evident from the assessment.

### SMEs/ Competitiveness

The IA does not provide details on SMEs contributing to industrial wastewater releases into urban wastewater treatment plants, as no obligation exists under UWWTD to monitor such releases (IA, p. 22). The share of SMEs possibly falling under the envisaged EPR scheme is not discussed in the IA. Wastewater operators cannot be considered businesses, as they are either public companies or private/mixed companies acting directly for public entities (IA, p. 76). According to the IA, water industry providing wastewater equipment will mainly benefit from new business opportunities: the new UWWTD requirements will be a driver for innovation and research, and help maintain and improve the EU water industry's competitive position (IA, p. 76). This assertion is not substantiated with evidence, and the IA does not assess impacts on competitiveness.

### Simplification and other regulatory implications

The IA explains that, in line with the 2019 evaluation, elements such as thresholds and deadlines under the UWWTD will be clarified and simplified (IA, p. 76). The IA discusses the application of the 'one in, one out' approach (offsetting any burden for citizens and businesses resulting from the Commission's proposal by removing an equivalent existing burden in the same policy area) for the preferred option (IA, pp. 76-77). The revised UWWTD will introduce new obligations mainly for wastewater operators, amounting to €39 29 million per year, which will be compensated by the net savings expected from applying the energy neutrality target, estimated at €0.439 billion per year (IA, pp. 60 and 64). The IA discusses the preferred option's coherence with relevant EU legislation in the main report (IA, pp. 73-74) and in Annex 8 (IA, pp. 149-150). However, this discussion is rather brief and mainly states complementary interactions.

### Monitoring and evaluation

According to the IA, the existing reporting system under the UWWTD will be maintained, modernised and simplified. The Member States would be required to host national standardised databases, update them at least once a year, and provide the EEA and the Commission with access to them. The Commission would make regular compliance checks (IA, p. 77). The IA envisages an evaluation in 2030, and provides five indicators to measure the initiative's success (IA, p. 78). However, these indicators do not cover all specific objectives. The evaluation and reporting provisions are reproduced in the proposal (articles 30 and 31 respectively), although with different indicators.

### Stakeholder consultation

Stakeholders were offered an opportunity to provide [feedback](#) on the inception IA between 21 July and 8 September 2020. An open public [consultation](#) (OPC) took place between 28 April and 21 July 2021, fulfilling the 12-week requirement. A total of 285 replies were received to the OPC, and 57 replies to the inception IA. The results of OPC are reported in Annex 2 to the IA. The stakeholders' views are grouped into categories (academia, businesses, citizens, non-governmental organisations (NGOs) and public

authorities), although inconsistently (IA, pp. 85-100). Views on the EPR scheme seemed to diverge, with experts indicating this as a particularly important topic, while businesses being the most critical about its feasibility (IA, p. 90). The insights from OPC are reported predominantly in the IA's problem definition and description of options part, and to a lesser extent in the rest of the report. A factual summary report of the OPC is available [online](#). Furthermore, the Commission sought feedback through interviews, workshops, conferences and expert meetings with Member State authorities, industry, NGOs and academia. The main discussion points and results from these activities are presented in Annex 2 to the IA in a rather concise manner, without breaking down the stakeholder views (pp. 85-87). Overall, stakeholder consultation appears to have been broad, and the IA appears to have made use of the findings, for instance in the measures and options proposed.

## Supporting data and analytical methods used

The IA is informed, among other sources, by the JRC modelling of EU water quality and quantity, the results of the stakeholder consultation, the results of the 2019 evaluation, a feasibility [study](#) on an EPR system for micro-pollutants, and a support [study](#) carried out by an external consortium of consultants. The models that contributed to the IA (GREEN and Simple Treat) are publicly [available](#) in the European Commission Modelling Inventory and Knowledge Management System (MIDAS). Overall, although the evidence used in the IA appears to be recent, relevant and publicly available, it is not referenced transparently. Annex 4 provides an explanation of the analytical methods used in the IA, including the JRC model uncertainties (IA, pp. 110-133). The IA's assumptions are stated throughout the main report. For instance, the IA assumes a shadow price of €100 per tonne of CO<sub>2</sub> for the quantification of benefits (IA, p. 51); a 2035 deadline for all facilities above 100 000 p.e., with 5 additional years for the installation of advanced equipment to reduce micro-pollutants based on the experience from Switzerland (IA, p. 57); and an estimate of costs needed to move towards energy neutrality based on the experience from Denmark (IA, pp. 60-61). The analysis is partially quantitative, complemented by a qualitative discussion.

## Follow-up to the opinion of the Commission Regulatory Scrutiny Board

The Regulatory Scrutiny Board (RSB) adopted a negative [opinion](#) on a draft version of the IA report on 16 March 2022, noting that the report contains significant shortcomings. Firstly, the RSB mentions that the report was not specific enough about the remaining GHG emission reduction and energy saving gap that the initiative aimed to tackle. It was not clear how coherence and consistency of the proposed revision with related initiatives such as the Effort-sharing Regulation, the Energy Efficiency Directive and the Nature Restoration Law would be ensured, and to what extent these initiatives were reflected in the dynamic baseline. Secondly, the RSB observes that the IA report did not provide a clear evidence base for possible energy neutrality targets and measures related to GHG emissions. The available policy choices and details of the envisaged EPR scheme for micro-pollutants were not set out clearly enough. Finally, the report did not sufficiently demonstrate the proposed measures' – and more broadly the preferred option's – proportionality in terms of costs and benefits, particularly on storm water overflows and urban run-off. On 3 June 2022, the RSB adopted its second, positive [opinion](#) with reservations on the improved draft IA report, highlighting that the report still contained significant shortcomings. The RSB found that the report did not present a fully developed and dynamic baseline scenario. It was not sufficiently clear how the measures expected from the Member States to meet their national 'fit for 55 targets' and the recent actions under the REPowerEU package had been incorporated, and which overall energy saving gap would remain in absence of further sector-specific action and targets. Moreover, the RSB observed that the report did not sufficiently demonstrate the need for and value-added of new sector-specific energy neutrality targets over and above the obligations for Member States already envisaged. Finally, the RSB noted that the report justified neither the proportionality of individual measures nor of the preferred option sufficiently in terms of the estimated investment needs. The IA explains how it addressed both RSB opinions' recommendations (Annex 1, pp. 79-83). Overall, more substantial effort could have been made to incorporate both RSB opinions' recommendations, in particular with regard to policy choices, proportionality of individual measures such as EPR, substantiation of the energy neutrality target, and coherence with existing initiatives.



## Coherence between the Commission's legislative proposal and IA

The legislative proposal appears to follow the IA's recommendations, in that it is based on the preferred options and measures.

The impact assessment's strong points include a well-substantiated problem definition, an evidence base that appears to be recent and relevant, and a broad stakeholder consultation, the results of which were put to good use. However, the report's weak points limit its potential to inform decision-making clearly. Firstly, there appears to be a mismatch between the problem description, the objectives and the options of the IA. Secondly, the IA does not explain in sufficient detail why no alternatives were available to address certain problem drivers, and the resulting analysis of the options alongside the measures does not clarify what the real policy alternatives are. Thirdly, the content and choice of the preferred package of options are not entirely evident from the IA, as only the options, but not the measures, were compared based on the mandatory criteria of efficiency, effectiveness and coherence. Finally, the IA focuses on economic and environmental impacts, leaving impacts on health and competitiveness unaddressed.

## ENDNOTES

- <sup>1</sup> For further information on the proposal, see V. Halleux, [Urban wastewater treatment: Updating EU rules](#), EPRS, European Parliament, February 2023.
- <sup>2</sup> For further information on the evaluation, see I. Bacian, [Revision of the urban waste water treatment directive](#), EPRS, European Parliament, October 2022.
- <sup>3</sup> In the IA, one p.e. includes on average 11.18 grams/day for total nitrogen, and 1.68 grams/day for phosphorus. It also includes a range of micro-pollutants (around 1 300 chemicals were considered in the IA) each having a specific load. In summary, 1 p.e. describes the average pollution load released by one person in one day (IA, p. 7).
- <sup>4</sup> Agglomerations of less than 2000 p.e.
- <sup>5</sup> Individual systems or other appropriate systems cover simple facilities such as septic tanks up to more sophisticated small facilities.
- <sup>6</sup> Storm water from city streets and private or commercial properties that contains litter, as well as organic and bacterial waste.
- <sup>7</sup> Sludge re-use in agriculture is governed by the Sewage Sludge [Directive 86/278/EEC](#).

This briefing, prepared for the ENVI committee, analyses whether the principal criteria laid down in the Commission's own Better Regulation Guidelines, as well as additional factors identified by the Parliament in its Impact Assessment Handbook, appear to be met by the impact assessment. It does not attempt to deal with the substance of the proposal.

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