

NEW REGULATORY FRAMEWORK FOR SANITATION: THE URGENCY OF THE CHOICES FACING FRANCE



**Comité Stratégique
de la Filière Eau**

**SEPTEMBER
2026**

France's water sector stakeholders are calling for the transposition of the revised European Directive on the treatment of "Urban Wastewater" (DERU 2) to match the scale of environmental and climate challenges, so that sanitation becomes a lever for regional resilience





Sanitation and DERU 2: the time for choices

Climate change, diffuse pollution, dwindling water resources, more frequent flooding... The summer of 2026 showed us that extreme events are becoming the new normal. These challenges call for a massive, coordinated response in water cycle management, and in wastewater sanitation in particular.

That is the goal of the new directive on urban wastewater ("DERU 2"), which, 35 years after the first one ("DERU 1"), is about to come into force in France, with transposition set for 31 July 2027. In other words, tomorrow.

This text is as much an opportunity as it is a challenge for all of us.

An opportunity, because it calls for better protection of our environment and our health, in particular through better stormwater capture and the treatment of micropollutants, nitrogen and phosphorus.

A challenge, because implementing it will require a collective effort, both technical and financial. Local authorities need a clear framework and visibility in order to plan the investments required to meet DERU 2's requirements, knowing that most of these will concern the management of wastewater during rain events.

To rise to this challenge, stakeholders across the French water sector have mobilized to inform the debate: the Water Sector Strategic Committee (CSF Eau) has just published a study, based in part on data provided by the State, to best anticipate this major deadline as it prepares to be transposed into French law.

DERU 2 calls for a collective awakening: sanitation is a strategic lever for climate change adaptation and for the "One Health" approach, which links human health, ecosystem health and the quality of our environment.

By its very nature, DERU 2 is a long-term endeavor. The investments it calls for, the infrastructure it will transform and the benefits it will produce will span several generations. But it is also an urgent matter. If we don't invest today, needs will be even more pressing tomorrow, pressure on skills and resources will be greater, and environmental, health and economic benefits will be delayed.

We all benefit from a legacy of infrastructure built by the generations before us. It is now our turn to make the decisions that will allow us to pass on to future generations assets equal to the climate, environmental and health challenges that await them.

The time for choices has come. Let's rise to the occasion.



Xavier Girre, Chairman of the Water Sector Strategic Committee

(CSF Eau)

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01. DERU 2, A PARADIGM SHIFT FOR SANITATION MANAGEMENT IN FRANCE

From an ambition of wastewater sanitation for all under DERU 1...

Sanitation: what does it involve?

It covers all the means used to collect wastewater, remove pollutants from it before it returns to the natural environment, and then manage the resulting residues. This system plays an essential role in protecting public health, rivers and the natural environment.

In France, **82%** of the population is connected to a public sanitation system, thanks to **400,000 km** of pipelines across the country.

23,000 wastewater treatment plants treat **7 billion m³/year of wastewater**.

Adopted in 1991, DERU 1 sets the minimum requirements for the collection, treatment and monitoring of urban wastewater (including, in particular, wastewater produced by households, from showers, washing machines, toilets, etc.)

The implementation of DERU 1 helped significantly improve the quality of aquatic environments. However, it does not sufficiently account for issues that have emerged since the 1990s and continue to intensify, such as:

_ disruption of the water cycle caused by climate change; _ the environmental consequences, during heavy rainfall, of direct discharges of wastewater into the natural environment; _ the increase in micropollutants released into the environment.

As a result, the European Commission launched a revision process in 2022, which led on 12 December 2024 to the publication of the revised Directive in the Official Journal of the European Union: **DERU 2**.

The provisions of this directive must now be transposed into national law by 31 July 2027 at the latest to become fully effective.

... to a lever for regional resilience under DERU 2

For local authorities, moving from DERU 1 to DERU 2 means shifting from a logic of technical compliance to one of risk prevention, integrated management and regional resilience.

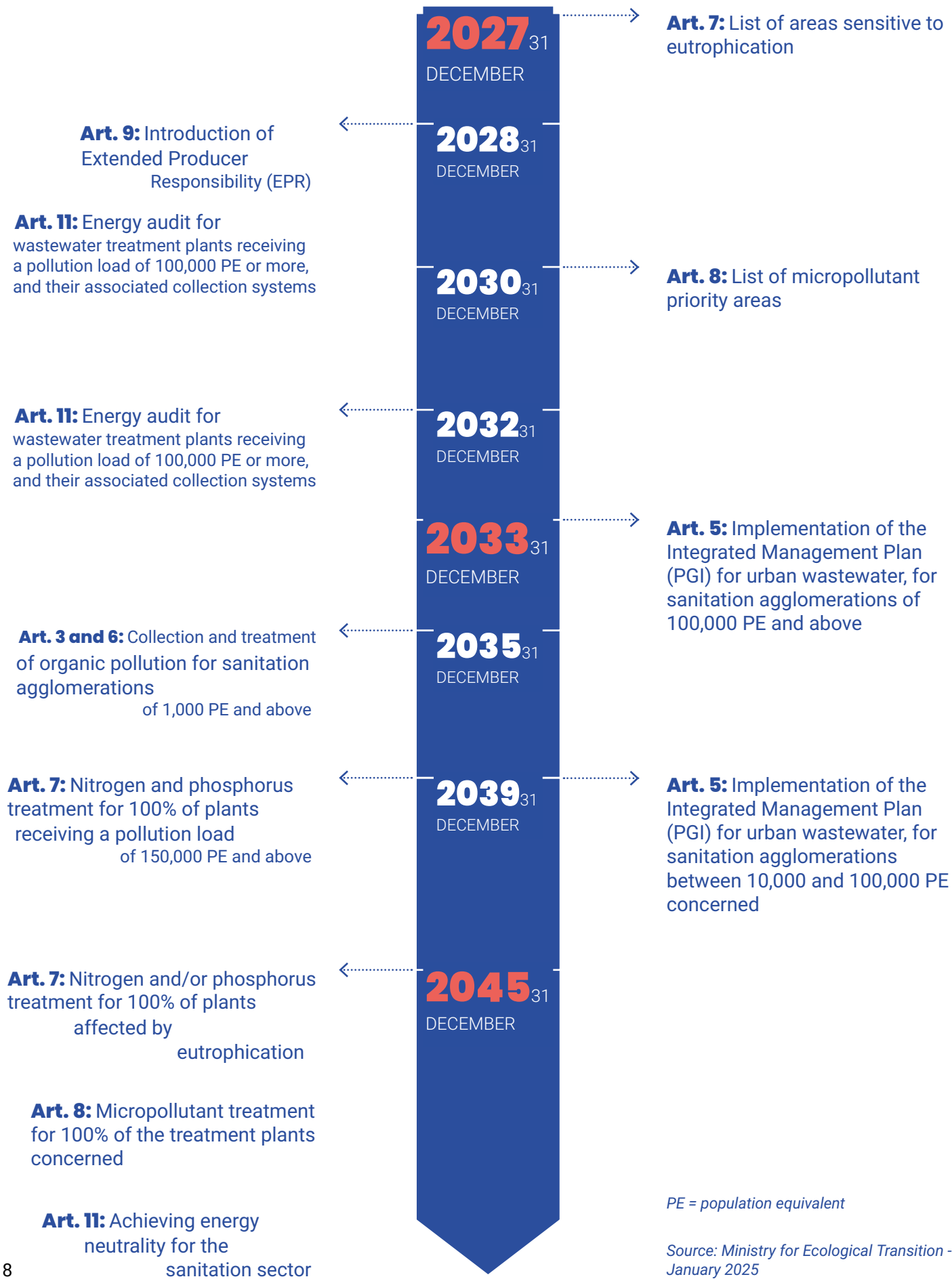
This is as much a strategic turning point as it is an opportunity to adapt sanitation to the consequences of climate change, against a backdrop of rising environmental pollution and growing societal concern. Ultimately, it is about making sanitation a lever for regional resilience, in step with the challenges of the ecological and energy transition.

DERU 2 fully embraces the “One Health” approach, which highlights the interdependence between the health of ecosystems, animals and humans.

Managing wastewater better means multiplying the co-benefits: fewer impacts from extreme climate events, better-protected ecosystems and populations, and more resilient services and assets.



DERU 2 timeline: deadlines are fast approaching for transposition – the urgency of acting to comply



What's changing

DERU 1 DERU 2	
An infrastructure-based logic	A territory-based logic
Treating wastewater	Managing the entire sanitation cycle in cities: wastewater collection, management of stormwater, transport and treatment
A high-performing treatment plant at the heart of expectations	Performance across the entire sanitation system: networks, retention basins, treatment plant
An approach centered on infrastructure assets	An approach centered on the overall management of sanitation and risk prevention (flooding, environmental pollution)
Improving the quality of the environment	A response to new environmental challenges (micropollutants, energy neutrality, etc.)



" Extreme events are becoming the new normal. This text is as much an opportunity as it is a challenge for France, which must rise to the occasion. "

Xavier Girre, Chairman of the Water Sector Strategic Committee (CSF Eau)

02. THE FRENCH WATER SECTOR MOBILIZED: A GROUNDBREAKING IMPACT STUDY ON DERU 2 STRESSES THE URGENCY OF THE CHOICES AHEAD

Given the decisive challenges posed by DERU 2 and its transposition in France, set for as early as 2027, sector stakeholders carried out a study to assess the technical and financial impacts and to demonstrate the benefits generated at the French scale. On this basis, they put forward concrete recommendations to support public authorities and ensure the successful implementation of this text.

Purpose of the study

Conducted between 2025 and 2026, this study aims to concretely anticipate the consequences of DERU 2 in France and to provide an objective basis for the choices to be made ahead of its transposition. The goal is to enable French local authorities to meet 100% of the obligations set out in DERU 2 by 2045.

It specifically aims to:

_ quantify the technical and financial impacts of the new obligations on French collection and treatment systems; _ assess the expected benefits (environmental, health, economic) and weigh them against the costs; _ formulate recommendations to inform the choices made for transposition and implementation.

It also sheds light on the collection component, which had not previously been the subject of a study for France.

3 decisive challenges of DERU 2



Challenge 1: Increasing wastewater collection to reduce wet-weather discharges

With climate change, the water cycle is being disrupted: rainfall events are more intense, increasing their impact on wastewater discharges. Precipitation can cause rivers and wastewater networks to overflow. Discharges of untreated wastewater during rain events are one of the causes of water body pollution and their poor ecological status. **Collecting wastewater during storm events is becoming an increasingly complex challenge to manage** for sanitation infrastructure.

In France, only **44%** of surface waters are in good ecological condition.

Wet-weather wastewater discharges are a factor that worsens river pollution.

Improving the performance of wastewater collection is one of the key pillars of DERU 2. Adopting ambitious collection targets could represent **a historic opportunity to effectively protect the environment**, just as DERU 1 did after 1991 for wastewater treatment. It lies at the heart of the integrated vision of sanitation put forward by this new regulatory framework.

In concrete terms, DERU 2 provides for:

_ on mandatory collection: lowering the threshold to 1,000 population equivalents (vs. 2,000 PE today), which could affect 300 municipalities in France. _ on discharges of untreated wastewater into the natural environment: DERU 2

sets a non-binding indicative target of reducing wastewater discharges caused by storm rainfall to 2% of the annual load collected (calculated relative to dry-weather flow). The exact translation of this criterion (2%) into French law has yet to be defined: calculation method, reference period, flow- or volume-based criterion, monitoring frequency. It is up to France to rise to this challenge.

This target is a challenge for sanitation systems, which will need to be able to capture, store and treat a much larger share of the water flowing in during rain events, whereas most current infrastructure is not sized for this.

Today in France, only 42% of collection networks comply with current regulations on wet-weather discharges.

Integrated Management Plans (PGI): sanitation master plans for every territory

True master plans for sanitation management, PGIs are being progressively made mandatory under DERU 2 for agglomerations according to their population.

They are meant to help a territory move from a logic of regulatory compliance, characteristic of the infrastructure-focused DERU 1, to a logic of strategic sanitation management – in other words, a much more comprehensive approach to the issues at stake.

In this sense, they embody the paradigm shift brought about by DERU 2, incorporating several dimensions such as the scheduling of investments to reduce urban wet-weather discharges and the definition of a territory-wide sanitation strategy (beyond simply optimizing infrastructure).

Water and sanitation issues are local in nature. They therefore require local analysis involving stakeholders from each territory. These PGIs give every local authority the opportunity to identify its own specific characteristics and then prioritize the solutions offering the best “quality/cost” ratio.

For example, to limit wet-weather wastewater discharges, a local authority can choose between several solutions such as de-sealing soils, adding vegetation, or maximizing the use of existing infrastructure through dynamic network management. In other cases, it will be necessary to compensate with storage/release infrastructure, which is more costly to implement and falls within a longer timeframe requiring advance planning.

The quality of the PGIs determines the success of the directive as a whole.

Timeline for Integrated Management Plans (PGI)

Before 2033: PGIs mandatory for agglomerations > 100,000 PE

Before 2039: PGIs mandatory for agglomerations > 10,000 PE with combined or mixed sewer systems, or located in areas of health/environmental risk

They must be reviewed every 6 years.

To aspire to meet the ambition of DERU 2 regarding wastewater collection, and ultimately the discharge of untreated wastewater, **the sector recommends a pragmatic, two-stage progressive approach.** This approach relies on Integrated Management Plans (PGI) to spread out the financial effort and thereby achieve, at the best cost, the greatest possible benefits from environmental protection.

Recommendations from the sector

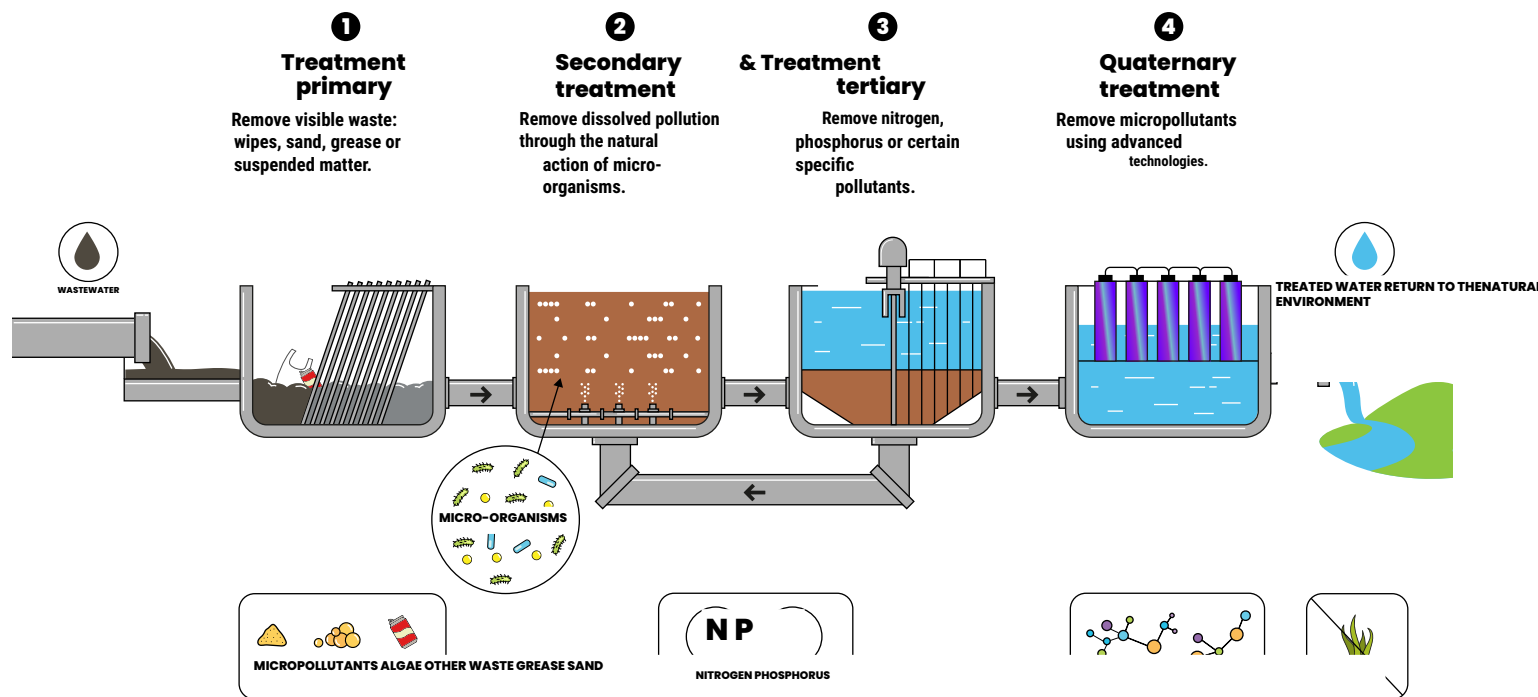
_ First, aim for a maximum discharge of 5% across all agglomerations, relative to dry weather

_ Then, target a maximum discharge of 2% in priority areas (sensitive areas, shellfish-farming regions, bathing waters, degraded water bodies, or areas affecting downstream uses)



Challenge 2: Strengthening wastewater treatment against nitrogen, phosphorus and micropollutants

Different types of wastewater treatment



In addition to the goal of reducing wet-weather discharges, DERU 2 introduces new requirements for wastewater treatment, in particular through what are known as “tertiary” and “quaternary” treatment.

_ **Tertiary treatment** aims to step up the fight against eutrophication, i.e. the excessive enrichment of aquatic environments with nutrients, mainly nitrogen (e.g. urine) and phosphorus (e.g. laundry detergents). While this treatment had already been introduced under DERU 1, DERU 2 sets more demanding discharge thresholds, delivering significant environmental benefits. This is a major issue for large agglomerations located in sensitive areas: once an agglomeration exceeds 10,000 inhabitants, all of its treatment plants are affected, regardless of their size. _ **Quaternary treatment**, a new provision compared with DERU 1, concerns micropollutants – invisible to the naked eye – which can originate from everyday products.

DERU 2 introduces a mandatory requirement to treat micropollutants:

_ as a priority for large treatment plants of 150,000 PE or more; _ but also for medium-sized plants (10,000 PE or more) located in a “priority” area (previously identified as such), i.e. located near a drinking water intake, a bathing area or a sensitive environment.

Micropollutant treatment represents a project worth close to **€5 billion in investment**, and **around a hundred million euros a year in operating costs**, once the facilities are commissioned. DERU 2 provides that this treatment will be financed mainly through the introduction of Extended Producer Responsibility (EPR).

Recommendations from the sector

- _ Define the national zoning of priority areas. This determines the scope of application of Integrated Management Plans (PGI), quaternary treatment and investment prioritization. This is the first regulatory step to be taken.
- _ **Set up the tools for micropollutant EPR (Extended Producer Responsibility).** The competent EPR organization needs to be defined quickly, to finance at least 80% of the investment (CAPEX) and operating costs (OPEX) of quaternary treatment, given that redistribution must be managed by the Water Agencies, which already manage it in the water sector.



Challenge 3: Achieving energy neutrality for treatment plants

By 2045, plants serving more than 10,000 inhabitants will need to produce the energy they require themselves, from renewable sources.

Three levers can be used:

_ biogas from sludge methanization; _ photovoltaic panels installed on the roofs or available land of treatment plants; _ and finally, heat recovery from wastewater, wherever a heating network exists near a plant.

However, should the renewable energy produced by a plant not be enough to cover all of its needs, the text allows for the possibility of sourcing non-fossil energy, for up to 35% of its energy consumption.

Recommendations from the sector

- _ **Clarify how energy consumption and production are calculated for sanitation systems (treatment plants and/or pipelines), to gain a comprehensive view and enable investment planning;**
- _ **Adapt the energy neutrality target at local level by allowing local authorities to pool resources, to facilitate collaboration between territories;**
- _ **Remove regulatory obstacles in order to optimize the energy efficiency of facilities.**

Key findings of the study and recommendations from the sector

A directive whose benefits far outweigh its costs...

The study estimates the costs and benefits of this new regulation in France, based on a transposition scenario that is both ambitious in its objectives and reasonable in its implementation arrangements. It shows that the benefits assessed for society outweigh the investment and operating costs of sanitation services in France over the 2028-2045 period. These benefits correspond to the value created for territories, linked both to losses avoided and to the preservation of natural, health and economic assets essential to their attractiveness.

The investments and operating costs needed to achieve, by 2045, all of the objectives set by the directive concern in particular: _ improving wastewater collection during rain events and reducing discharges

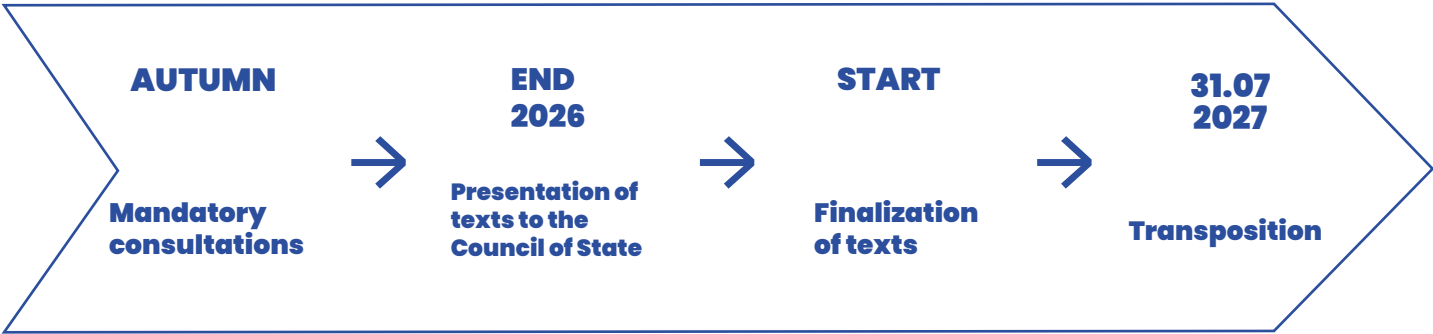
into the natural environment – which account for two-thirds of investment; _ strengthening nitrogen and phosphorus treatment; _ enhanced micropollutant treatment; _ achieving energy neutrality for facilities.

In return for this effort, the assessed benefits mainly concern: _ drinking water production; _ preservation of the services provided by ecosystems; _ protection of the coastline and the continuity of economic activities (shellfish farming, tourism, etc.)

and improved bathing water quality.

... but are conditioned by the choices made in implementing DERU 2

The benefits of DERU 2 are conditioned by multiple factors, starting with how far in advance its deadlines are anticipated. First and foremost is its transposition into French law, the deadline for which is set at 31 July 2027. **The sector is calling for all of the directive's provisions to be transposed at once, by this deadline.** This would give local authorities full visibility over the actions and investments required, allowing them to reap the real benefits of compliance rather than experiencing the Directive merely as an added cost.



Recommendations from the sector

_ Publish all priority areas and their applicable rules simultaneously, at the latest by 31/07/2027 (the transposition date). Otherwise, local authorities will not be able to commit on the basis of incomplete obligations alone.

_ Spread out the works to avoid an investment cliff in the mid-2030s.

All with the aim of meeting 100% of the obligations set out in DERU 2 by 2045.

The DERU 2 timeline sets initial deadlines as early as 2033. Yet infrastructure takes a long time to build. For a local authority, carrying out studies, tendering and then building a new treatment plant takes a minimum of 4 to 5 years, or even longer depending on the size of the plant, and these timeframes are extended when modernizing an existing plant to maintain continuity of service during the works.

Furthermore, while France has largely implemented the requirements of the 1991 DERU 1 directive, it still does not comply for 3% of its agglomerations: 78 agglomerations are subject to European litigation and 610 are in breach. France must first and foremost catch up on this backlog.



03. A SECTOR OF EXCELLENCE IN FRANCE SERVING THE ENVIRONMENT



Created in 2018 within the National Industry Council, the Water Sector Strategic Committee (CSF Eau) is a tripartite body bringing together the State, businesses and employee representatives.

Its mission is to establish a strategic dialogue to guide the sector's industrial recovery, formalized in a 2024-2027 sector agreement.

Chaired by Xavier Girre (SUEZ), the committee brings together public and private stakeholders in drinking water, sanitation and wastewater reuse. It relies on the association “La filière française de l'eau” (the French Water Sector) for the operational implementation of its initiatives.

In France, the sector brings together more than 5,000 companies and 125,000 direct and indirect jobs, and generates revenue of €22 billion, 36% of which comes from exports.

This recognized expertise now serves 128 million people with drinking water and 112 million with sanitation worldwide.

KEY FIGURES (MAY 2026)

5 000

COMPANIES

JOBS (DIRECT AND
INDIRECT)

€22 BN

IN REVENUE

OF REVENUE GENERATED
INTERNATIONALLY

128 M

PEOPLE SERVED WITH
DRINKING WATER WORLDWIDE

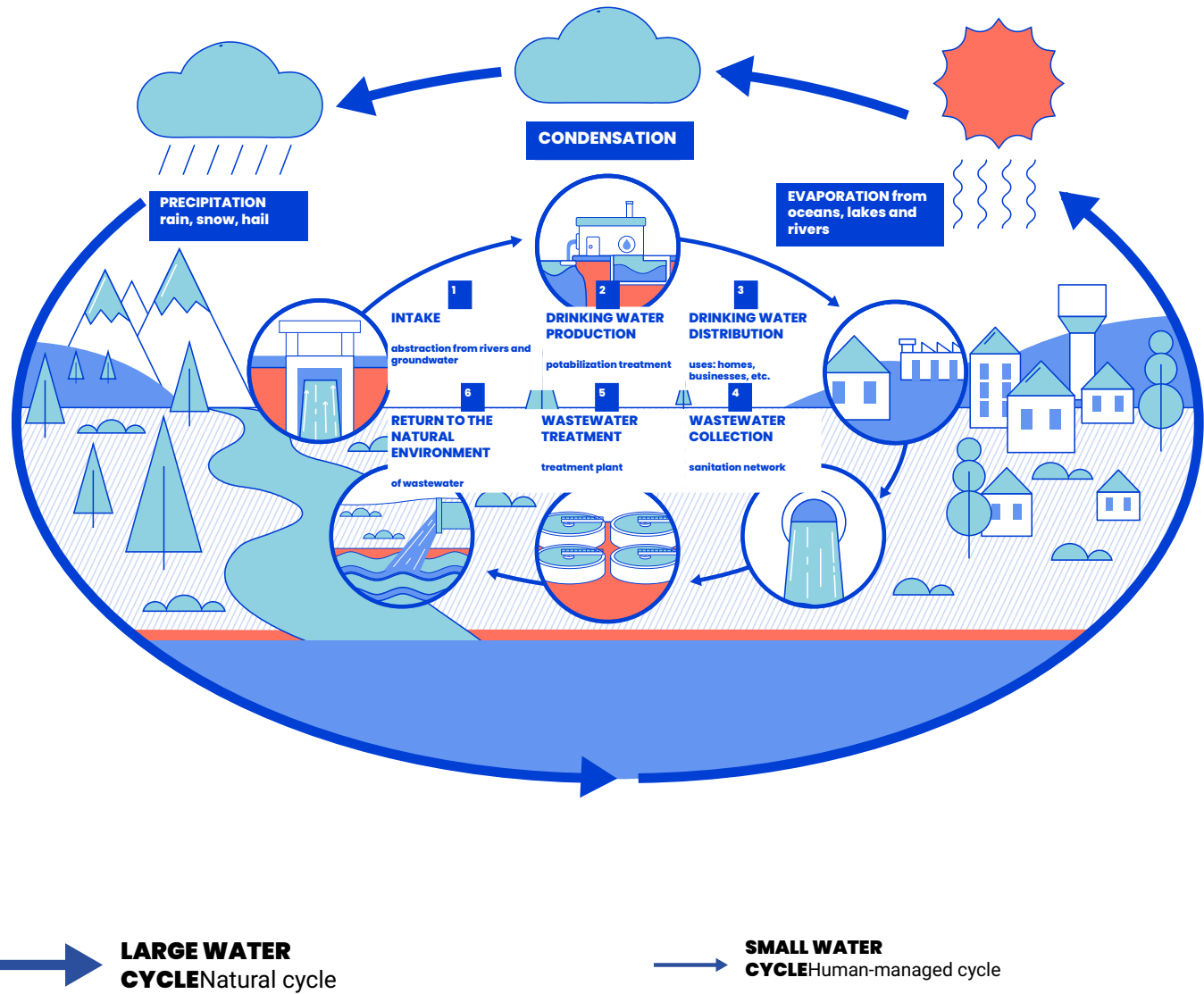
112 M

PEOPLE SERVED WITH
SANITATION WORLDWIDE

UNDERSTANDING THE WATER CYCLE

The small water cycle draws water from the large cycle and returns it after treatment.

The two cycles are interdependent and essential to preserving the resource.



STUDY METHODOLOGY

The study was carried out in 3 phases:

_ a scoping, data-collection and preliminary analysis phase (completed in October 2025); _ a technical and financial analysis and cost-benefit analysis phase (completed in February 2026); _ a synthesis and deliverable drafting phase (May 2026).

The data used mainly comes from:

_ the SANDRE/Roseau databases (4,566 plants) _ INSEE data _ the report of the ex ante evaluation mission on the directive concerning the treatment of urban wastewater

(DERU 2) – General Inspectorate for the Environment and Sustainable Development (IGEDD), March 2025 _ the INERIS study (2020) on micropollutants _ the European Commission's Impact Assessment (2022), supplemented by a dedicated data collection effort

among Syntec-Ingénierie members, as well as data from FP2E and FNCCR members (a sample of 165 systems), on which the study focuses in particular.

Funded by 8 stakeholders from the French water sector (Banque des Territoires, Les Canalisateurs, FNCCR, FP2E, SIAAP, SIET, Synteau, Syntec Ingénierie) and **carried out by 5 engineering firms** (Altereo, BRLi, Egis Eau and SCE, coordinated by Setec Hydratec), the study is part of the sector agreement signed between CSF Eau and the State in 2024.

It was carried out in liaison with State departments, which were consulted and kept informed.

Steering committee members



Study co-leads for CSF Eau

Patrick Faisques – Permanent Delegate of CSF Eau Jean-Pierre Hangouet – Co-lead and Technical Director of SUEZ Water Activities in France Laurent Viviani – Member of the CSF Eau Board and Director of Public Affairs, CARSO Group

