

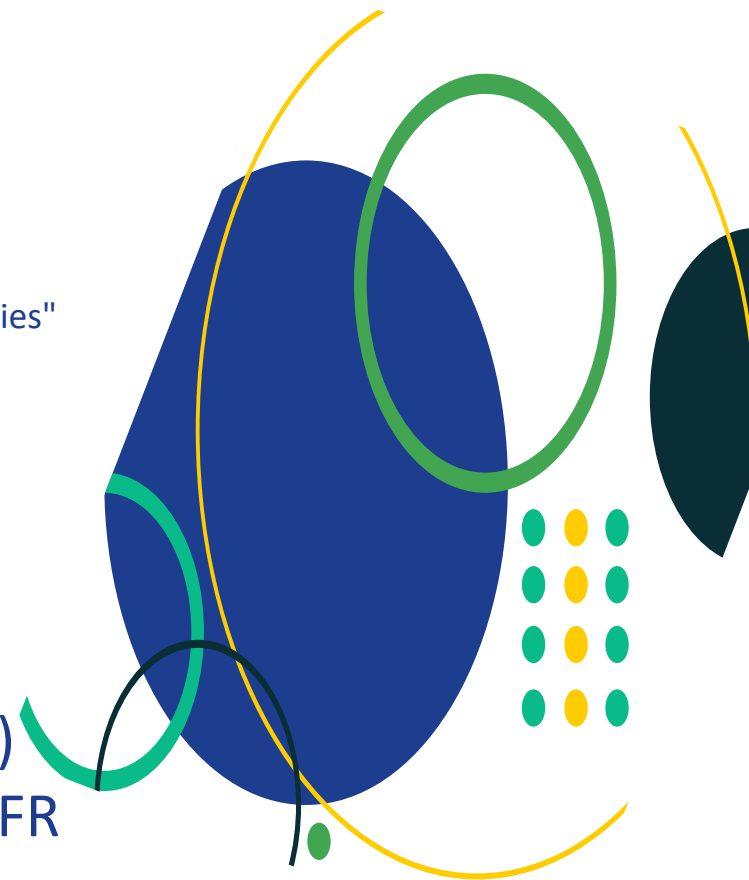


EU 4 GREEN RECOVERY EAST

Official title: "Recovery through a Circular Economy and Pollution Reduction in the Eastern Partnership countries"

Webinar: Implementation of the old and new UWWTD. 11 December 2025

- Objectives and current status of implementation of **Directive 91/271/EEC** (Urban Wastewater Treatment Directive) in Europe/AT/FR



Implementing partners:



DIRECTIVE 91/271/EC – EU

Goal

- Protecting the environment from the harmful effects of urban wastewater
- Collection, treatment and discharge of urban wastewater, treatment and discharge of biodegradable industrial waste water from food industries

Content

- Designation of urban wastewater **agglomerations**
- Designation of **sensitive areas** (criteria: eutrophic, use for drinking water abstraction, other directives)
- Wastewater **collection** – Art. 3: agglomerations $\geq 2,000$ PE (population equivalents)
- Secondary treatment – Art. 4: **Carbon removal** in agglomerations $\geq 2,000$ PE
- Tertiary treatment - Art. 5: **Nutrient removal** in agglomerations $> 10,000$ PE discharging into sensitive areas



DIRECTIVE 91/271/EC - EU

Implementation deadlines

EU-15 (EU Member States since 1990ies)

- Agglomerations > 10,000 PE in sensitive areas → 1998
- Agglomerations > 15,000 PE in „normal“ areas → 2000
- All agglomerations \geq 2,000 PE → 2005

EU-12 (EU Member States since 2000ies)

- Individual implementation deadlines for agglomerations of different sizes set in accession negotiations
- Last deadline: Romania (2018)

Croatia (EU Member States since 2013)

- Implementation deadline 2023

DIRECTIVE 91/271/EC - EU

Current status of implementation - Agglomerations

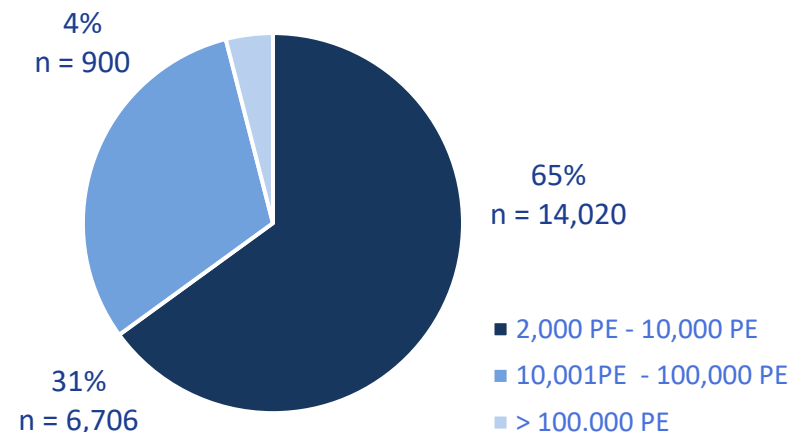
Requirement:

- Agglomeration: an area where the population and/or economic activities are sufficiently concentrated for urban wastewater to be collected and conducted to an urban wastewater treatment plant (UWWTP) or to a final discharge point

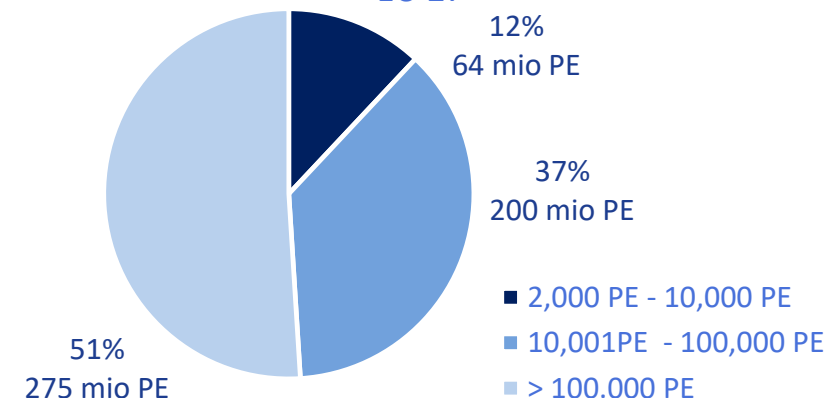
Status quo (2020):

- 21,600** agglomerations $\geq 2,000$ PE: generated load: **538 mio PE**
- Population: 447 Mio inhabitants

Number of agglomerations EU 27



Generated load [PE] of agglomerations
EU 27



Source: [EC \(2024\). 12th technical assessment of UWWTD implementation, Country profiles on urban waste water treatment | WISE Freshwater](#)

Implementing partners:



Restricted Use - À usage restreint

DIRECTIVE 91/271/EC - EU

Current status of implementation - Collection (Art. 3)

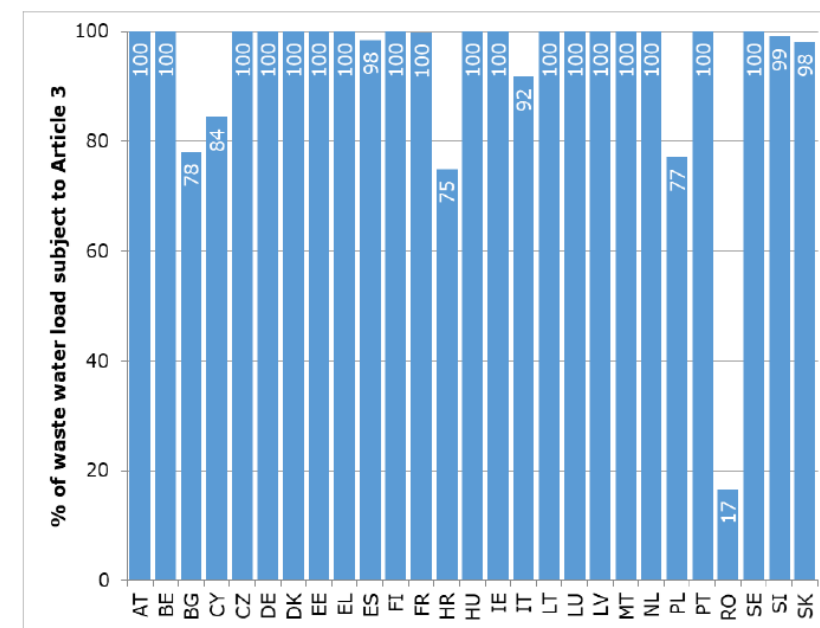
Requirement:

- Collect wastewater from agglomerations in **sewers**
- Exemption:** if sewers do not benefit the environment/involve excessive costs → **individual systems** (IS) with the same level of environmental protection
- Agglomerations **compliant**, if at least **98%** of the generated wastewater is collected in sewers and IS

Status quo (2020):

- High compliance rate**, but:
- 1,203 agglomerations without wastewater collection (7 Mio PE)
- 1,059 agglomerations with wastewater collection in sewers, but without wastewater treatment plants (5 Mio PE)

Compliance Art. 3 per Member State (% of wastewater load)



Source: [EC \(2024\). 12th technical assessment of UWWTD implementation](#)

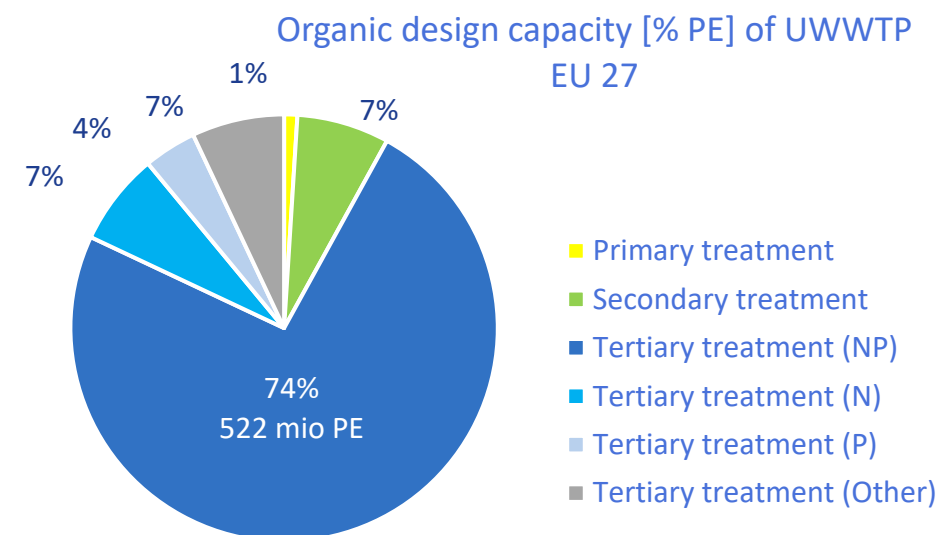
Implementing partners:

DIRECTIVE 91/271/EC - EU

Current status of implementation - Treatment (Art. 4 and Art. 5)

Status quo (2020):

- 21,400 UWWTP (Organic design capacity: 702 mio PE)
- Wastewater load from agglomerations (538 mio PE) = 77% of the organic design capacity
- 74% of UWWTP with nitrogen(N)- and phosphorus (P)-removal



Source: [EC \(2024\). 12th technical assessment of UWWTD implementation, Country profiles on urban waste water treatment |](#)

Implementing partners:

DIRECTIVE 91/271/EC - EU

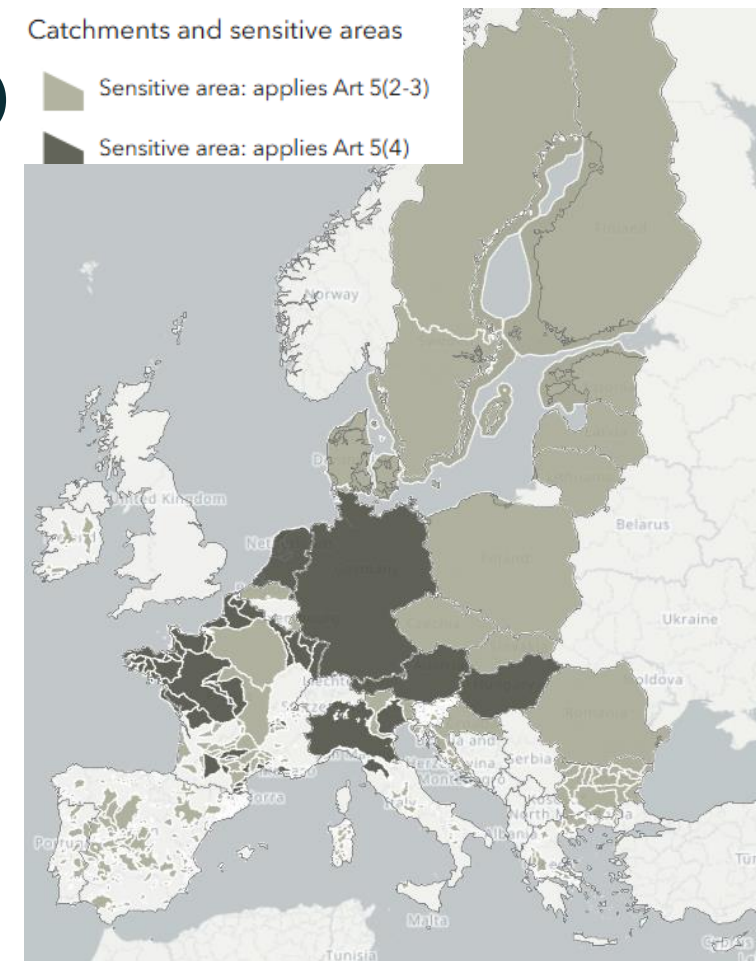
Current status of implementation – Sensitive areas (SA)

Requirement:

- Art. 5(1): Designation sensitive areas
- Art. 5(2,3): Tertiary treatment for agglomerations > 10,000 PE
- Art. 5(4): min. 75% removal of N_{tot} and P_{tot} in an area → Tertiary treatment not required for each agglomeration > 10,000 PE
- Art. 5(8): If a Member State applies tertiary treatment for all agglomerations > 10,000 PE → sensitive areas not required

Status quo (2020):

- 74% of EU27-area require tertiary treatment
- Baltic Sea, parts of Black Sea, Danube delta, north Adria are SA → tertiary treatment required in catchment of SA



Quelle: [EEA. Urban wastewater treatment map](#)

Implementing partners:

umweltbundesamt^U
ENVIRONMENT AGENCY AUSTRIA

EXPERTISE
FRANCE
GROUPE AFD

OiEau
International Office
for Water

OECD
BETTER POLICIES FOR BETTER LIVES

UNEP
UNITED NATIONS
ENVIRONMENTAL PROGRAM

UNIDO
UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Restricted Use - À usage restreint

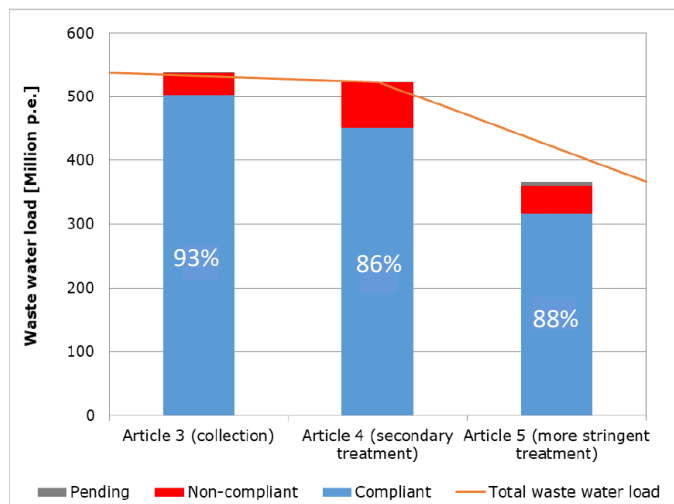


DIRECTIVE 91/271/EC - EU

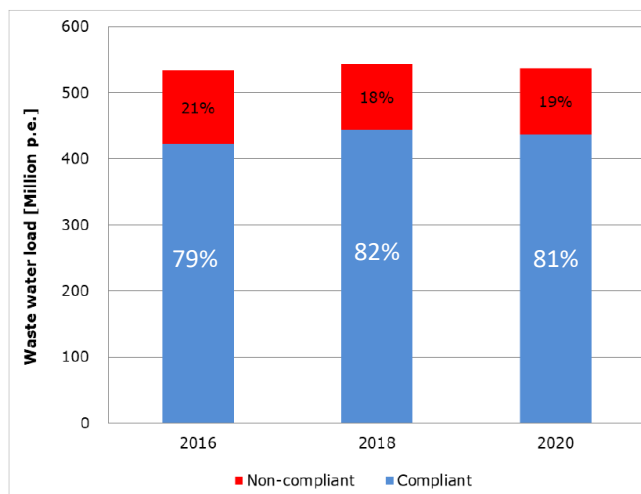
Current status of implementation

Status quo (2020):

Collection (Art. 3), Secondary treatment (Art. 4),
Tertiary treatment (Art. 5)



Compliance 2016 - 2020



- Some capitals with > 1 mio inhabitants are not yet compliant (e.g. Budapest, Warsaw, Dublin, Bucharest, Prague, Sofia)

Member State	Legal compliance rate 2020			
	Collection (Article 3)	Secondary treatment (Article 4)	More stringent treatment (Article 5)	Collection and treatment
AT	100%	100%	100%	100%
BE	100%	100%	95%	95%
BG	78%	38%	70%	31%
CY	84%	85%	100%	84%
CZ	100%	96%	73%	78%
DE	100%	100%	100%	100%
DK	100%	100%	100%	100%
EE	100%	100%	99%	99%
EL	100%	98%	100%	98%
ES	98%	88%	82%	86%
FI	100%	100%	96%	97%
FR	100%	92%	92%	91%
HR	75%	11%	9%	7%
HU	100%	57%	55%	59%
IE	100%	51%	27%	47%
IT	92%	79%	93%	56%
LT	100%	100%	99%	98%
LU	100%	100%	100%	99%
LV	100%	100%	98%	100%
MT	100%	6%	0%	6%
NL	100%	100%	100%	100%
PL	77%	76%	70%	71%
PT	100%	90%	76%	82%
RO	17%	15%	22%	15%
SE	100%	100%	97%	97%
SI	99%	63%	53%	58%
SK	98%	97%	96%	94%
EU-27	93%	86%	88%	81%
EU-14	98%	92%	91%	87%
EU-13	73%	61%	60%	56%

Compliance	
	97% - 100%
	95% - 97%
	85% - 95%
	70% - 85%
	< 70%

Implementing partners:





DIRECTIVE 91/271/EC - EU

Costs

- Costs for implementation evaluated during UWWTD- evaluation in 2018: appr. **18 billion EUR/a**

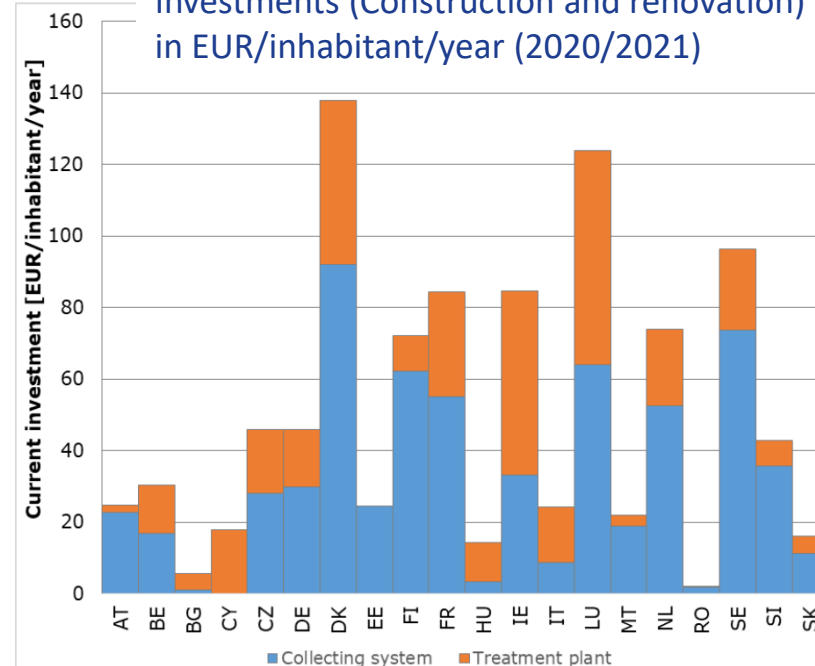
[Billion EUR/a]	Sewer system	UWWTP
CAPEX	7,5	4,8
OPEX	3,6	2
Total	11,1	6,8

- Total costs (**1991 – 2014**): appr. **412 billion EUR**
- Support from EU cohesion fund in the period 2000 – 2020: appr. 39 billion EUR
- OECD estimates: around **255 billion EUR** in additional investment between 2020 and 2030 to **reach** and **maintain full compliance**

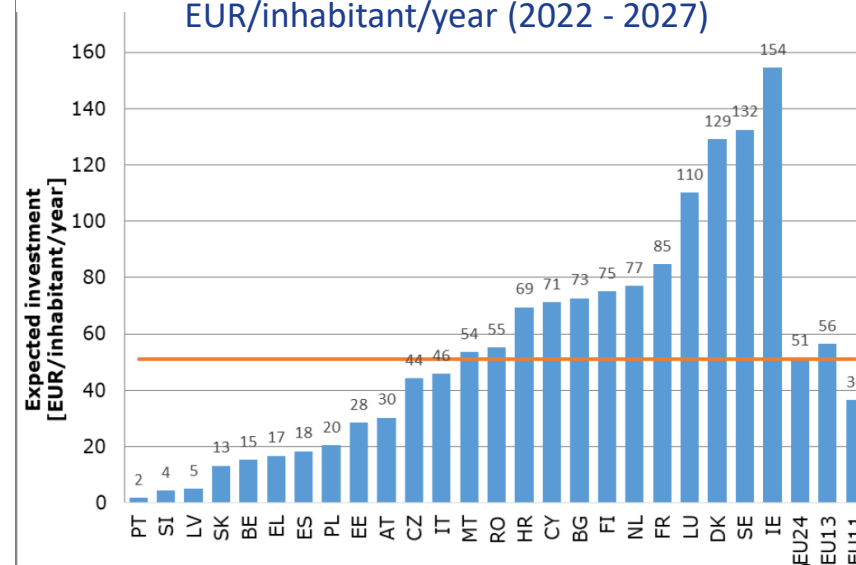
Source: [EC \(2019\). Evaluation of the Council Directive 91/271/EEC of 21 May 1991, concerning urban waste-water treatment. SWD/2019/0700](#), [EC \(2024\). 12th technical assessment of UWWTD implementation](#)

Implementing partners:

Investments (Construction and renovation)
in EUR/inhabitant/year (2020/2021)

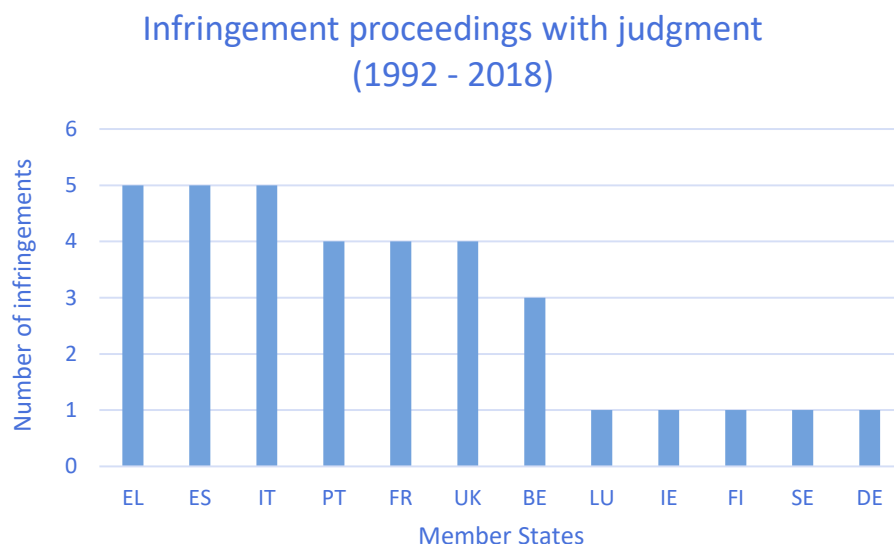


Future investments (Construction and renovation) in
EUR/inhabitant/year (2022 - 2027)



DIRECTIVE 91/271/EC - EU

Obstacles for implementation



- Overambitious targets
- Lack of institutional, administrative, and technical capacity
- Inability to effectively use funds at the local or regional level and implement large-scale projects
- Problems with public procurement
- Inaccurate population forecasts (e.g., urbanization, demographic changes)
- Lack of political will to prioritize the implementation of the UWWTD and to channel the necessary resources for implementation
- Institutional reforms
- Public resistance

Source : EC (2019). [Evaluation of the Council Directive 91/271/EEC of 21 May 1991, concerning urban waste-water treatment. SWD/2019/0700](#)

Implementing partners:

DIRECTIVE 91/271/EC - EU

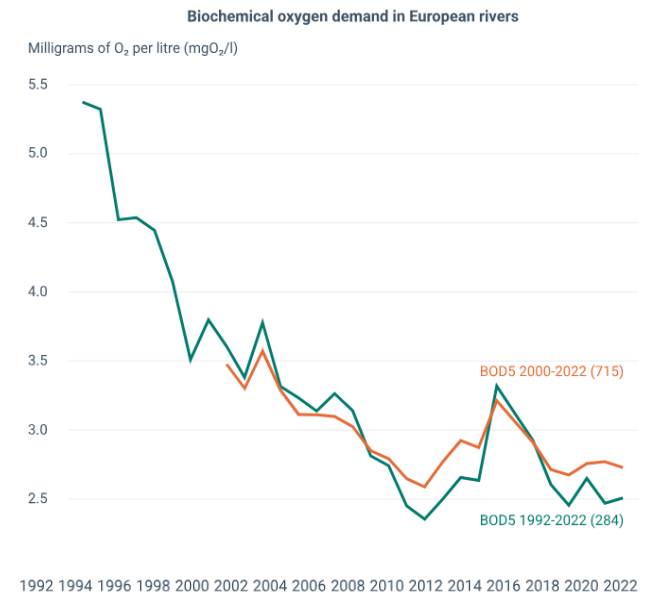
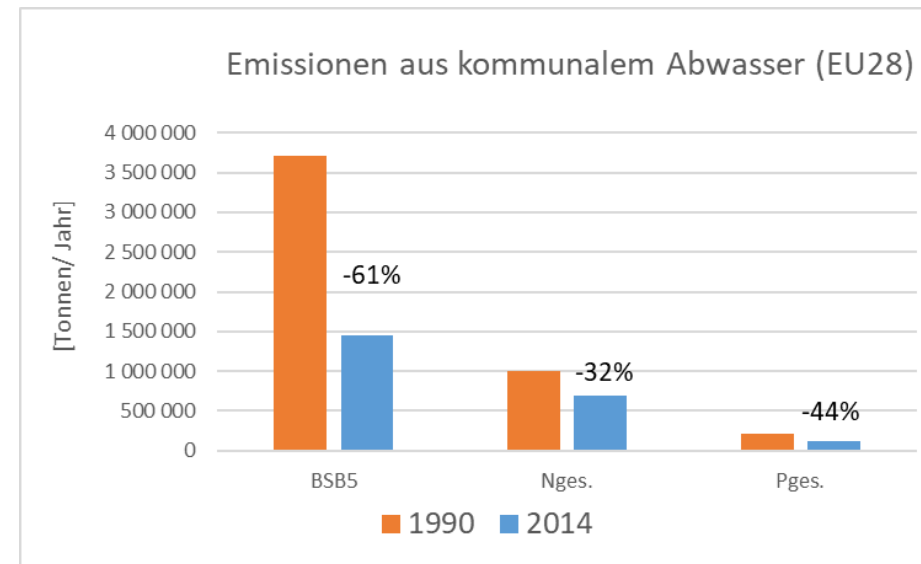
Benefits

Evaluation of Directive in the EU Water Fitness Check

- Effectiveness
- Efficiency
- Coherence
- Relevance
- EU-added value

Effectiveness

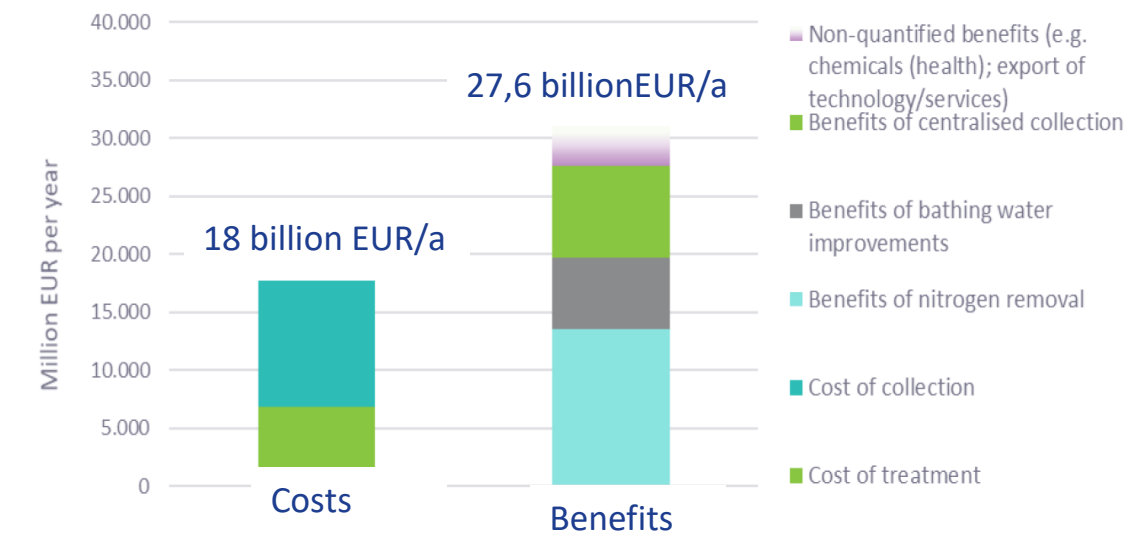
- Highly **effective** due to clear and **simple guidelines**
- **Reduction** of **emissions** from urban wastewater
- Improvement of water quality



DIRECTIVE 91/271/EC - EU

Efficiency

- **Highly efficient**, even with conservative estimates the benefits exceed the costs



Source: EC (2019). Evaluation of the Council Directive 91/271/EEC of 21 May 1991, concerning urban waste-water treatment. SWD/2019/0700

Coherence

- Coherent with other EU water directives
- **Contributes** to achieving the objectives of the **Water Framework** Directive, the **Bathing Water** Directive, and the **Drinking Water** Directive
- **Improved coherence** with **energy and climate policy** possible

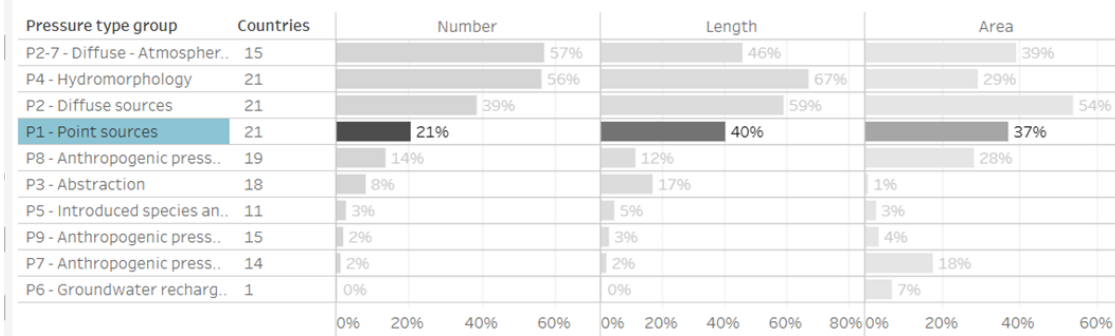
DIRECTIVE 91/271/EC - EU

Relevance

- Directive **still relevant**, but
- Continuous **action** is **required**:
 - Wastewater that is not treated (properly) is still a reason for water bodies failing to achieve good status under the WFD.
 - Failure to implement Directive 91/271/EEC, small urban areas, combined sewer overflows, IAS.
 - Micropollutants, antimicrobiological resistance, microplastics.

Surface water bodies: Significant pressures

3rd River Basin Management Plans - Alle



EU-added value

- Directive complies with the principle of subsidiarity
- 60% of rivers in the EU cross national borders
- **Uniform standards** in the EU are only possible with **uniform legal requirements**
- Directive enabled the promotion of wastewater infrastructure development through EU funds
- Strong water legislation enabled the establishment of a **strong water sector**. Eight of the world's 15 largest water companies are based in the EU.



DIRECTIVE 91/271/EC – FRANCE

- France is a large and centralised country combining **rural area, medium size and large cities**
- governmental responsibilities are only exerted by the state and its delegations:
 - the state
 - the state department delegations (96+5);
- National state: defines national legislation, reporting to EU
- State department delegations: water authority including permit/water police for all UWWTPs >20 PE
- Municipalities (36,000 municipalities) have no legislative powers,
 - BUT are responsible of water and wastewater services
 - have organised public wastewater services 11,595 (collective) + 2,362 (individual)





Funded by
the European Union

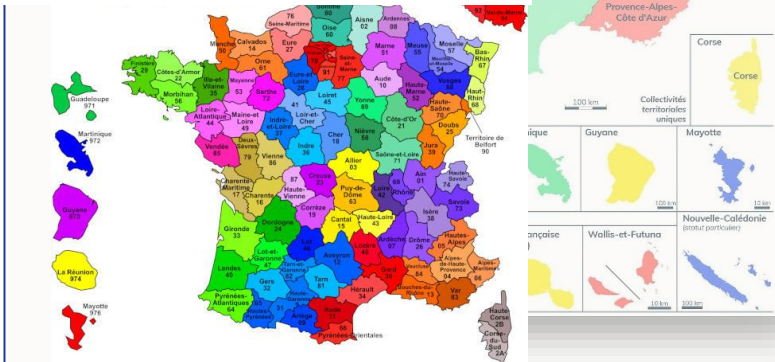
DIRECTIVE 91/271/EC – FRANCE

Administrative organisation

13 Region (NUTS 2)



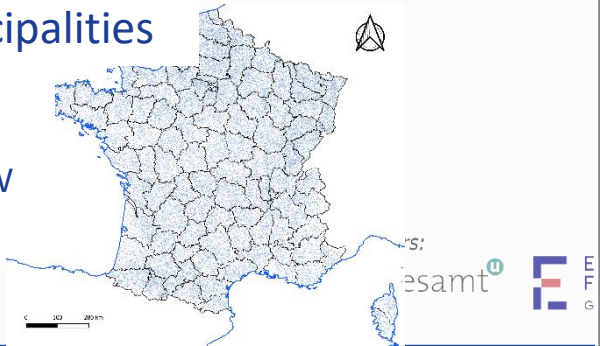
96+5 Département (NUTS 3)



36,000 Municipalities

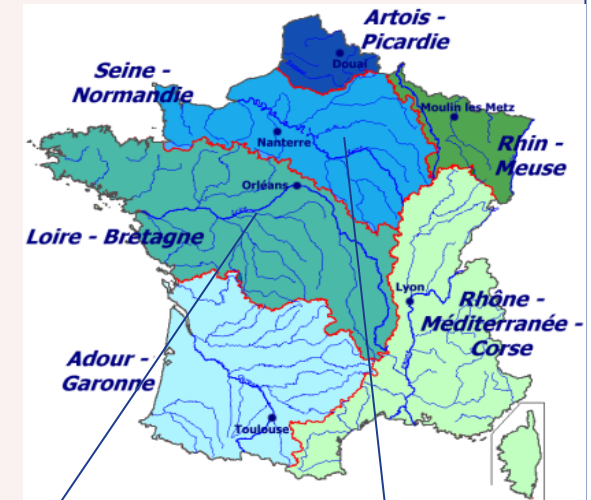
intercommunal
organisations

- 11,595 UWW
- 2,362 IAS

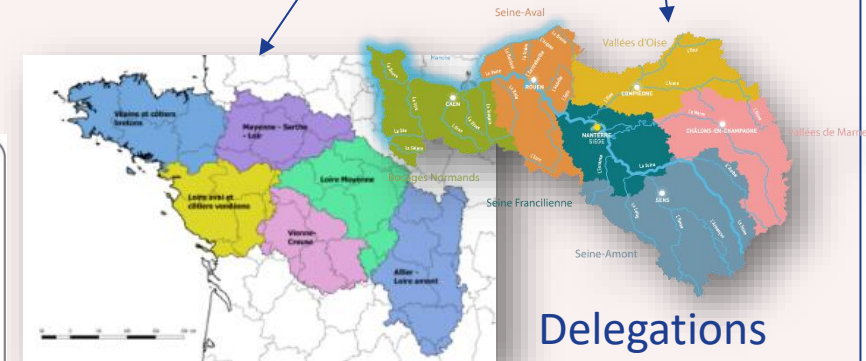


Water organisation

12 basins
6 Water agencies
+ 5 water offices



Overlaps!!



Delegations



DIRECTIVE 91/271/EC – FRANCE – HISTORICAL VIEW

1950-1970: progress on treatment, focus on organic pollution and industry

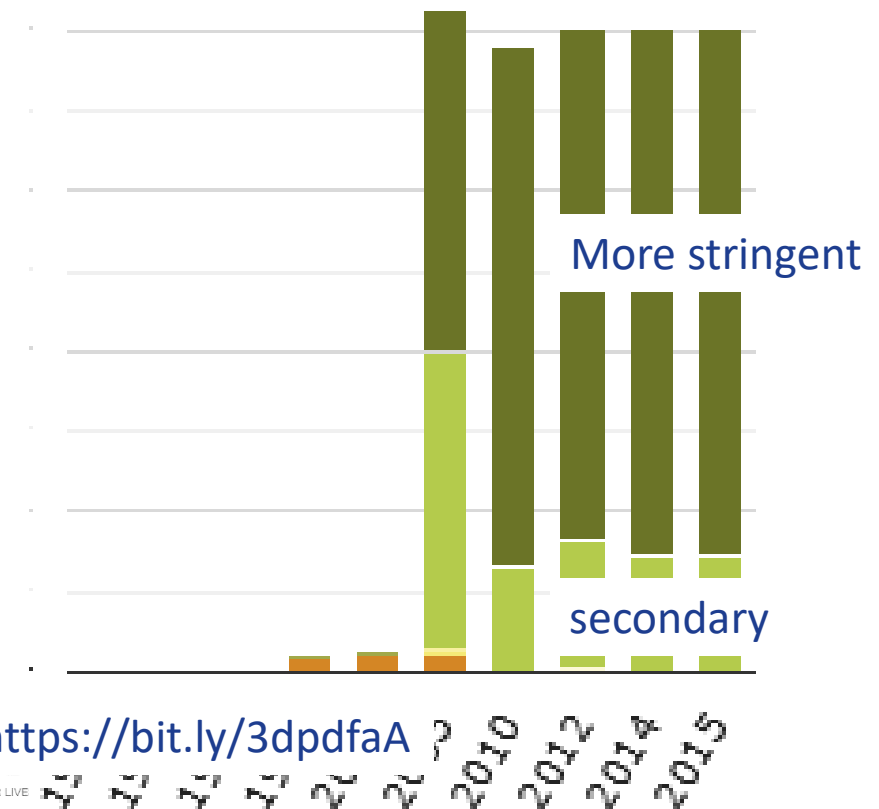
1970-1990: rapid increase of nb of UWWTP, cities

1990-2005: focus on UWWTD plants and development of smaller collective plants

2005-2020: rural areas and more stringent



Year	Nb of UWWTP
1950	50
1960	350
1970	1500
1980	6700
1990	9500
2000	12500





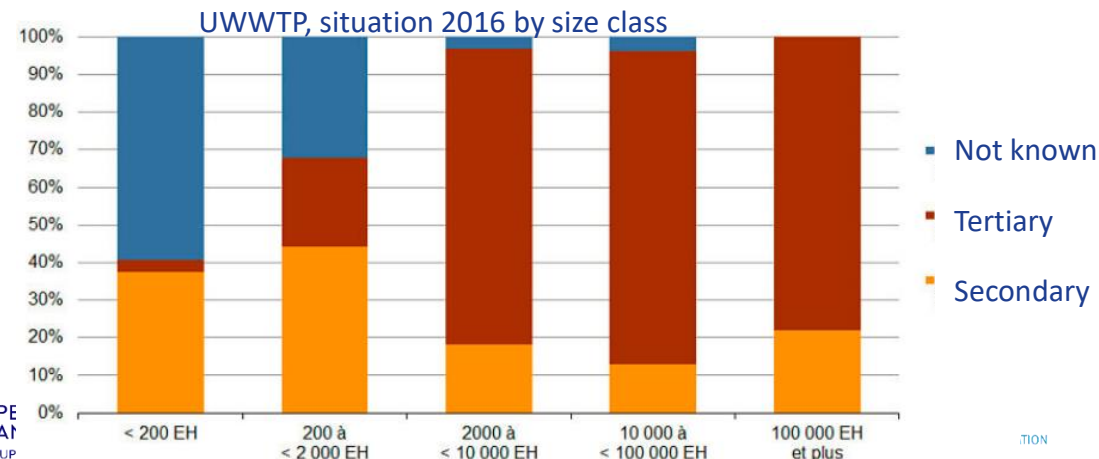
DIRECTIVE 91/271/EC – FRANCE CURRENT KEY FIGURES

Summary situation in 2021:

- 22,613 Treatment plants: capacity 105,500,000 PE (est. value 26-29 billion EUR)
- 78,5 Mio PE and 2,3 bn m3 wastewater treated
- 425,000 km of sewer network (est. value 95-131 billion EUR)
- 22,5 million connection to households (est. value 19-26 billion EUR)

Three main sub parts:

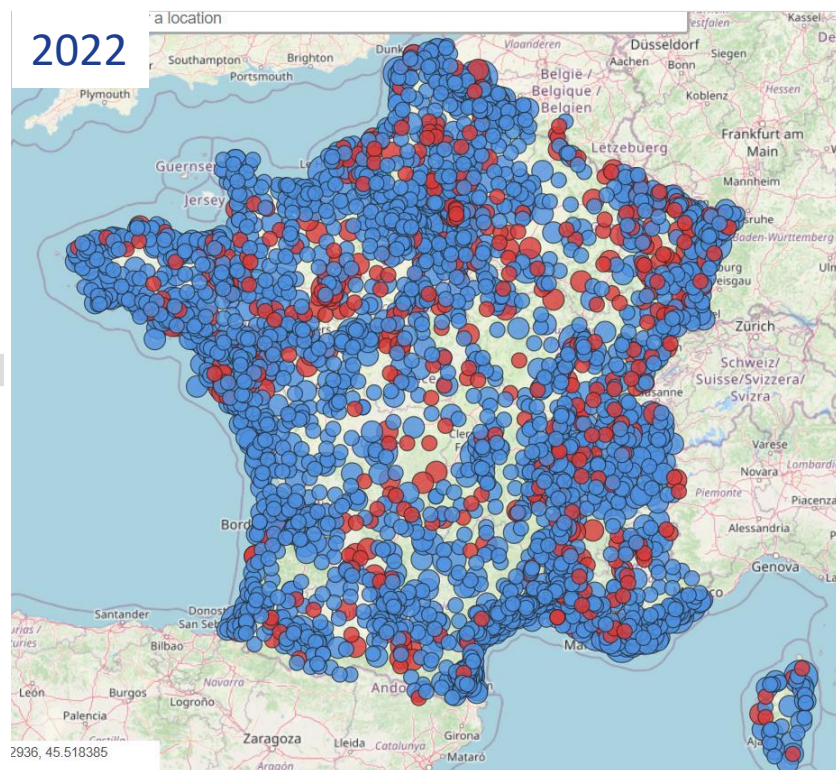
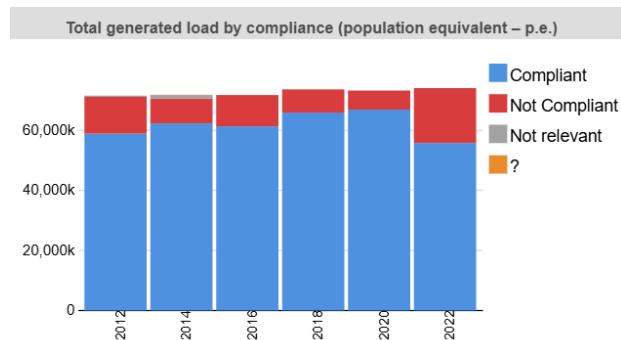
- 3,334 treatment plants covered by UWWTD treating **74,0 Mio PE** (47 Mio inh. + economic activities)
- 18,800 treatment plants covered by national authorities treating **9 Mio PE** (7 Mio inh. + eco act)
- 5,8 Mio IAS covered by municipal or inter commune services treating **13 Mio inhabitants**



DIRECTIVE 91/271/EC – FRANCE CURRENT COMPLIANCE SITUATION (2022)

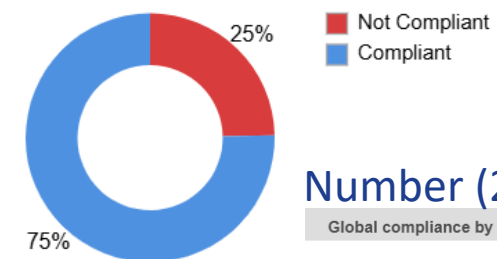
- 67% of the territory is sensitive area (tertiary treatment)
- State services control but management by local authorities
- Difficulties to reach full compliance

Temporal trend



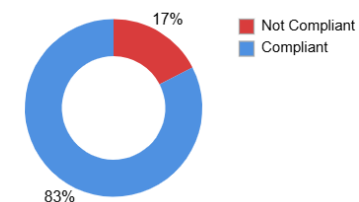
Load (2022)

Global compliance by Generated load (p.e.)



Number (2022)

Global compliance by number of agglomeration (>2000 pe)



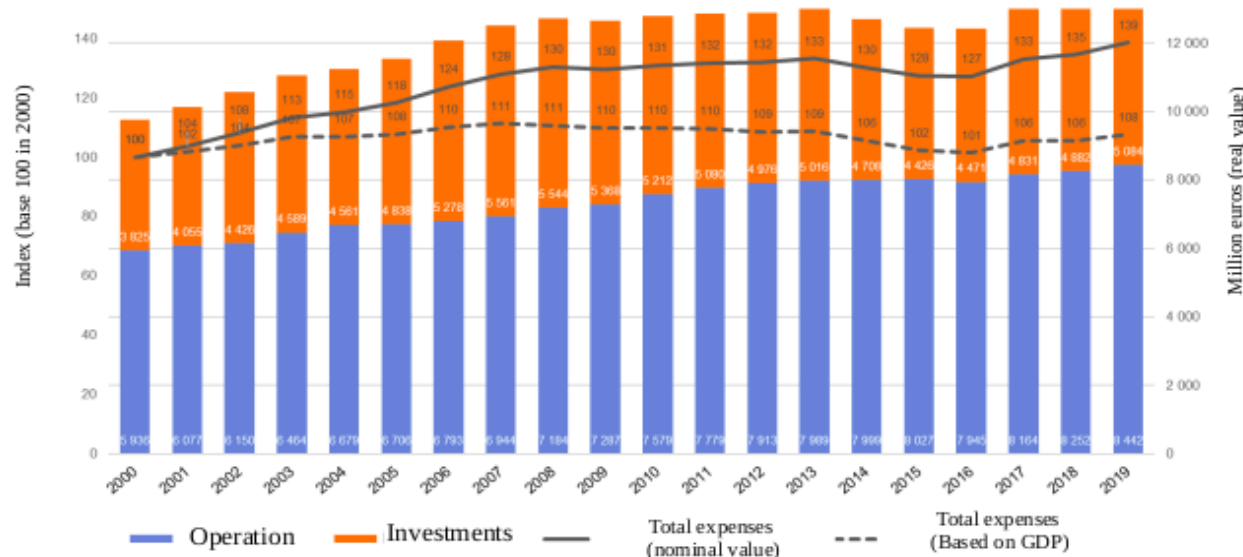
Implementing partners:

DIRECTIVE 91/271/EC – FRANCE: COMBINE INVESTMENT & OPERATION COSTS

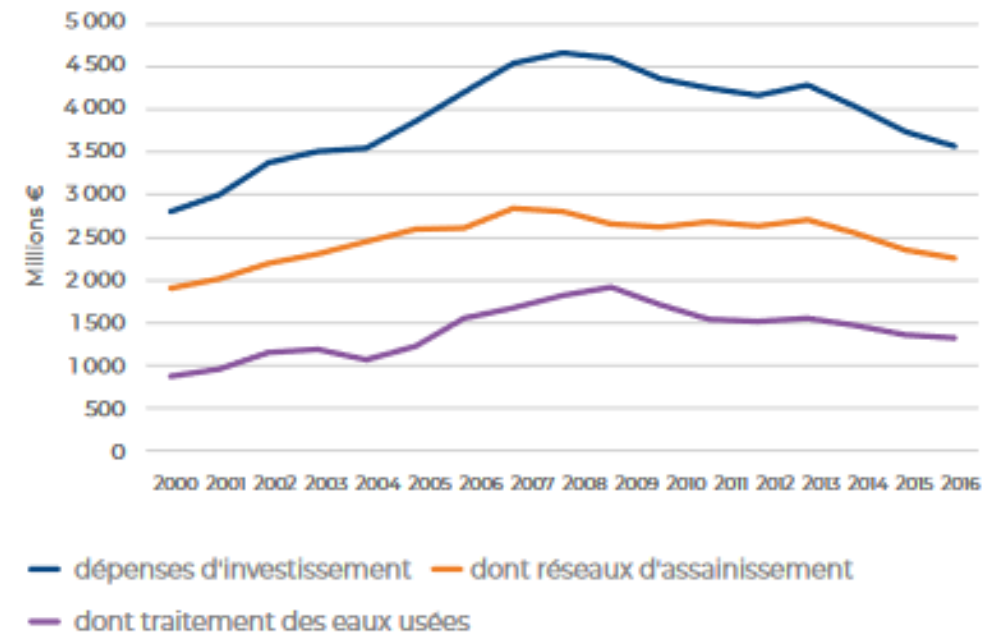
- Current value **236bn.€**, annual expenditures 2000-2019 from **10 to 13bn.€**
- Continuous **increase** of operation expenditures (of which energy),
- Recent **slowdown in investments** for both sewer and plants

Wastewater expenditures

Evolution of wastewater management expenditure between 2000 and 2019
In index base 100 (2000) and in millions euros (M€)



Wastewater investments





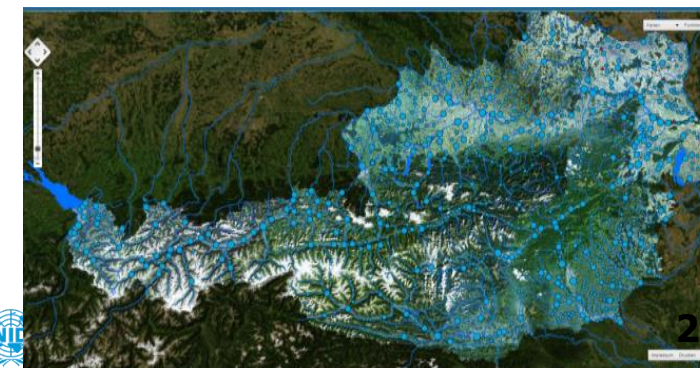
DIRECTIVE 91/271/EC – FRANCE LESSONS LEARNT

- France applies **subsidiarity principle** to address the entire urban wastewater problem (urban/rural) beyond Directive 91/271/EEC: from single household to small settlements to large cities
- With climate change, **combined sewers** generate problems: separation of rain necessary (urban planning)
- The national law requires mandatory connection once sewer is in the street: **an asset!**
- To ease management, France chose to have **one agglomeration = 1-n treatment plants**
- France uses a **national common water language** and a **single national database** for wastewater data
- Wastewater is for citizen hidden: **education** is needed
- At agglomeration level it is difficult to **maintain** compliance over time (aging, staff education...)
- Wastewater requires **regular investment**: big challenge to maintain this with a changing biophysical and political environment



DIRECTIVE 91/271/EC - AUSTRIA

- Austria is a **federal state**, governmental responsibilities are allocated to four levels of territorial authority:
 - the federal state;
 - the nine provinces;
 - around 100 district authorities
 - the local authorities (around 2,100 municipalities).
- For water protection legislation the **federal state** acts as **legislator**, while the **provinces** are responsible for **administering** environmental **law** (indirect federal administration)
- Municipalities have no legislative power, but **wastewater services** are a clear **municipal task**
- Austrian Water and Waste Management Association (ÖWAV)

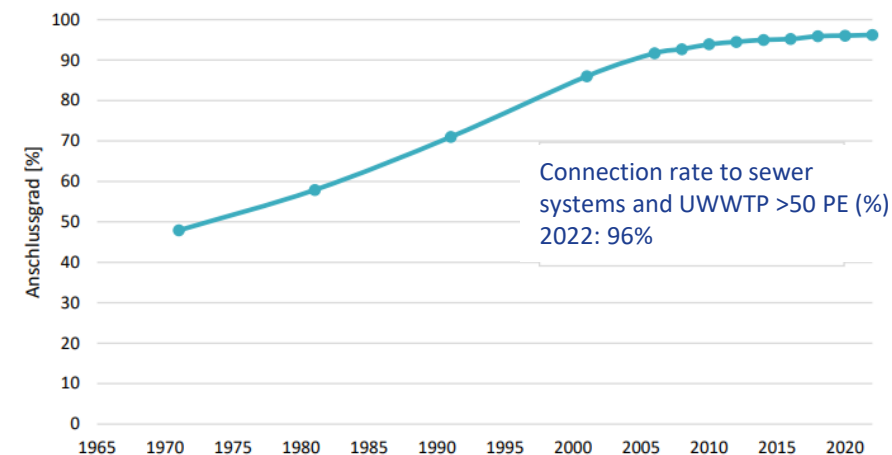




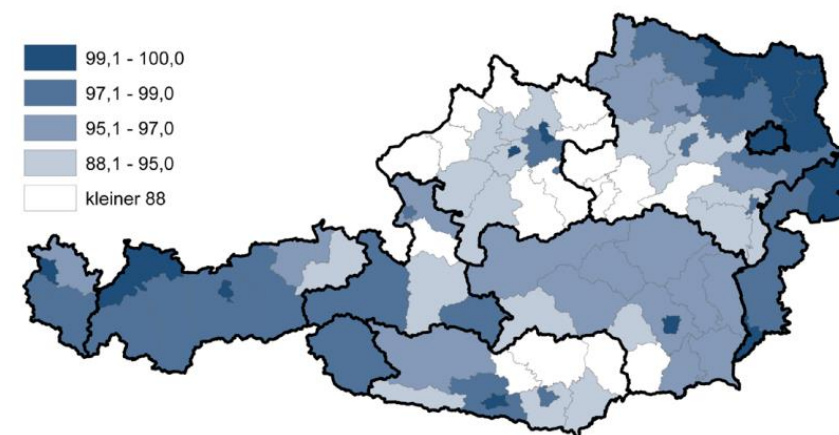
DIRECTIVE 91/271/EC - AUSTRIA

- UWWTD is implemented in
 - General wastewater emission ordinance
 - 1st wastewater emission ordinance for UWWTP >50 PE
 - Nine province Building Laws and/or Sewer Connection Acts → Connection to sewer systems and UWWTPs > 50 PE is mandatory
- Topological reasons for choice of system:
 - Lowlands: central collection without pumping → UWWTPs
 - Hilly regions: collection requires pumping → small WWTP
 - Alpine valleys: central collection at the bottom → UWWTPs

Size class (PE)	Number of WWTP	% number	Organic design capacity (PE)	% organic design capacity
≤ 50	27 452	93,6%	260 500	1,2%
51 – 1,999	1 236	4,2%	455 862	2,0%
≥ 2,000	633	2,2%	21 579 063	97%
Total	29 321	100%	22 295 425	100%



Connection rate to sewer systems and UWWTP >50 PE (%) on district level (2023)



Implementing partners:



Restricted Use - À usage restreint

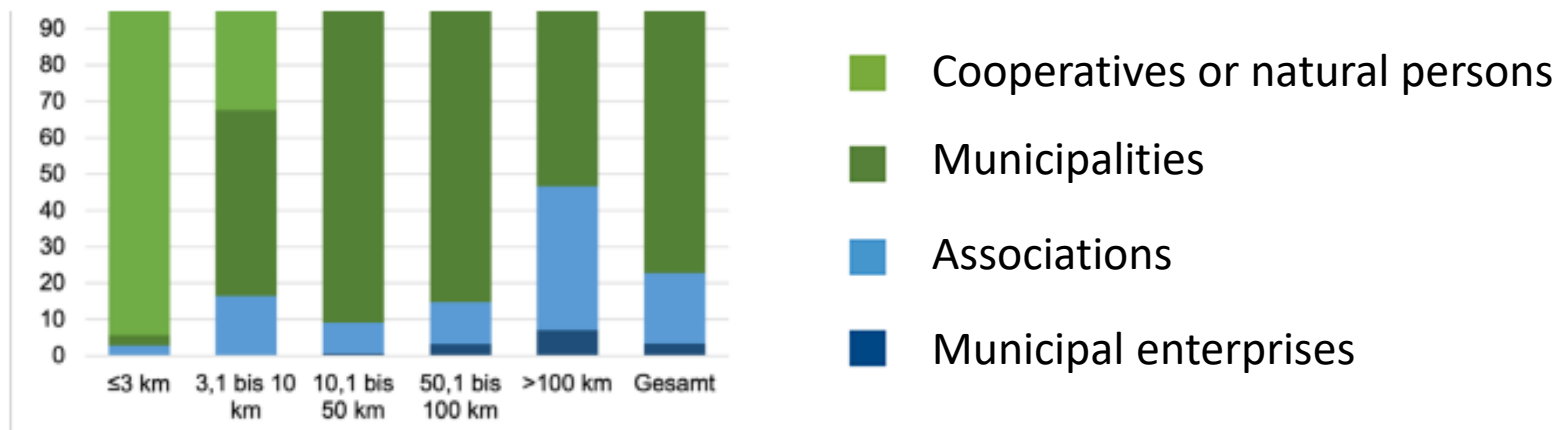
Quelle: BML – Investitionskostenerhebung 2012 und KPC – Auswertung Kosten- und Leistungsrechnung 2014 bis 2023

Source: Branchenbild der österreichischen Abwasserwirtschaft 2024

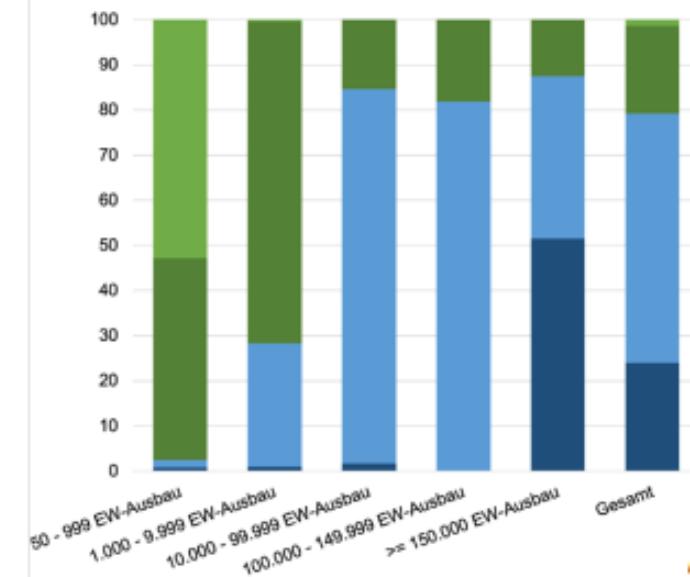
DIRECTIVE 91/271/EC - AUSTRIA

- Wastewater treatment in AT is a clear municipal task, private companies are an exemption

Sewer systems according to their length (%)



UWWTPs according to their size (%)



- (Waste) water cooperatives (§73ff of the AT Water Act): local interested parties, natural persons
- (Waste) water associations (§87ff of the AT Water Act): several municipalities, public law entities
- Municipal enterprises: legally independent companies that can be established by municipalities

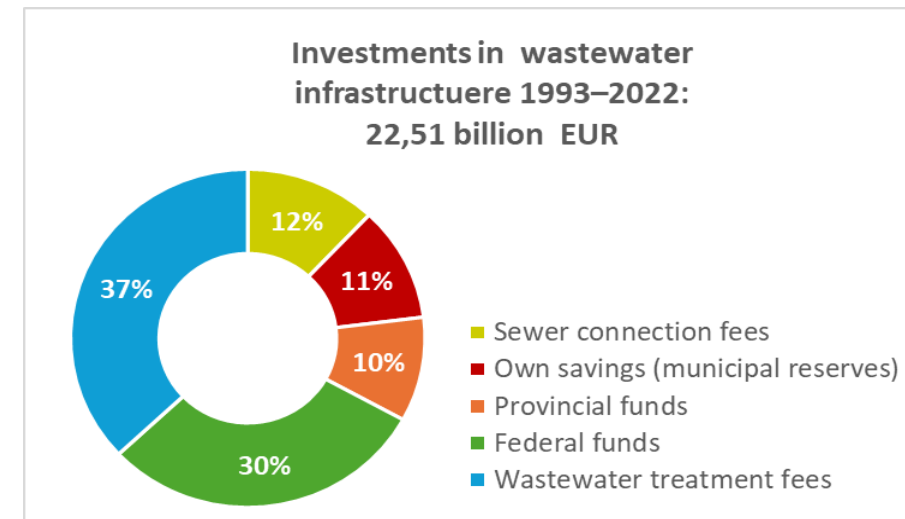
Implementing partners:



DIRECTIVE 91/271/EC - AUSTRIA

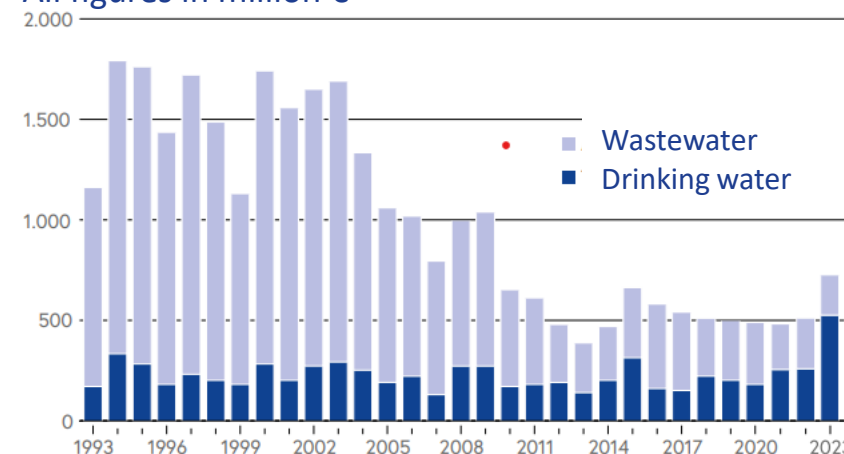
- From **1959** to **2022** around **52 billion Euro** were invested in the AT wastewater infrastructure (since 1993 30% coming from federal funds).
- Funds** are only granted in case of **minimum wastewater fees**
- 2023** to **2029**: Investments of around **2,8 billion EUR** required (80 % sewer systems, 20 % UWWTPs, without new investments according to Directive 2024/3019)
- Sewer systems**: Focus on **renovation** and preservation
- Goal: **Increase the renovation rate** from the current 0.3% per year to 1% to 2% per year

Source: [BML \(2024\). Lagebericht Kommunales Abwasser](#), [ÖWAV \(2024\). Branchenbild der österreichischen Abwasserwirtschaft 2024](#), [Umwelteinvestitionen des Bundes, 2024](#)



Subsidized Investments 1993–2024 (Source: BML/KPC, 2025)

All figures in million €

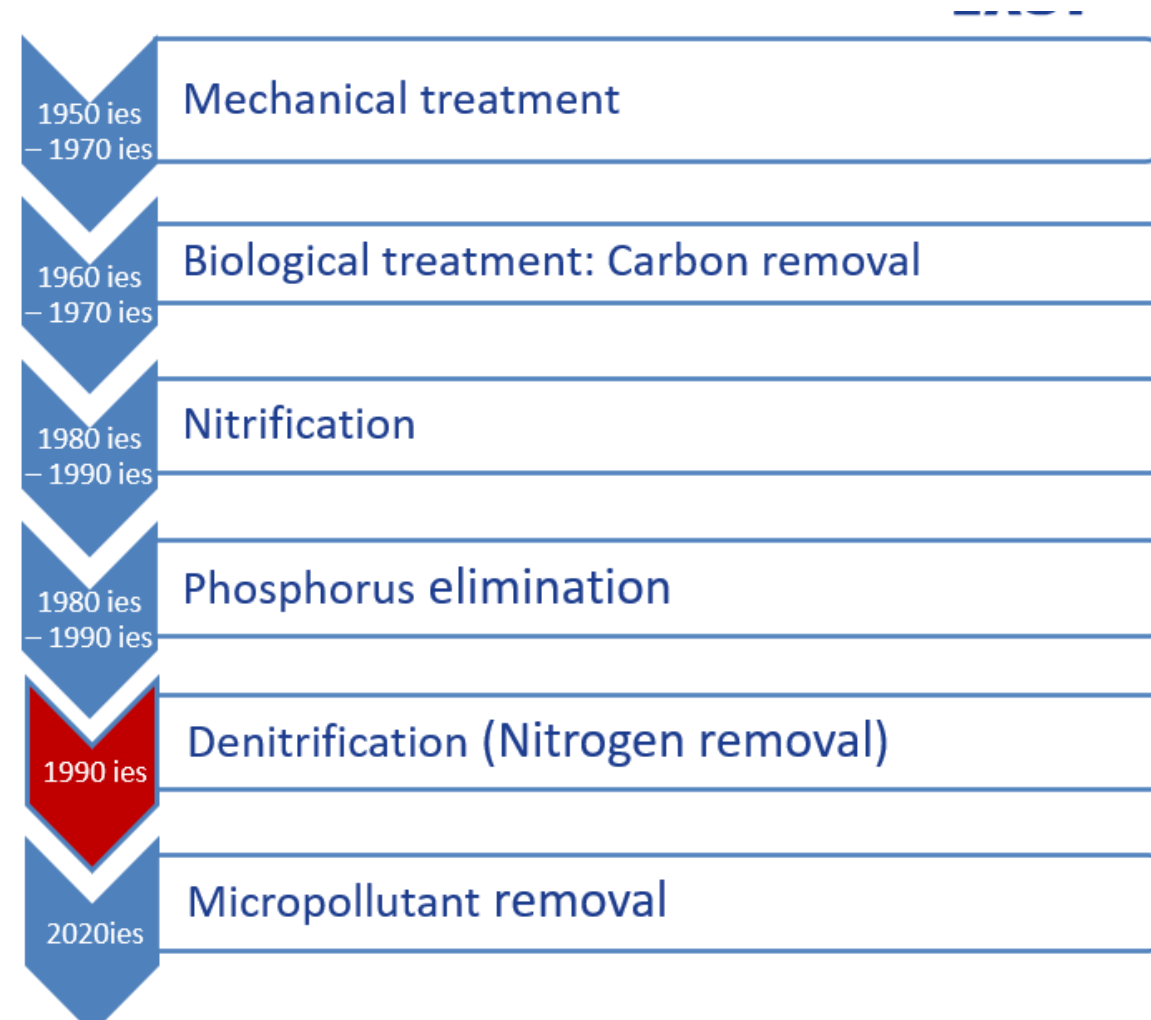


Implementing partners:



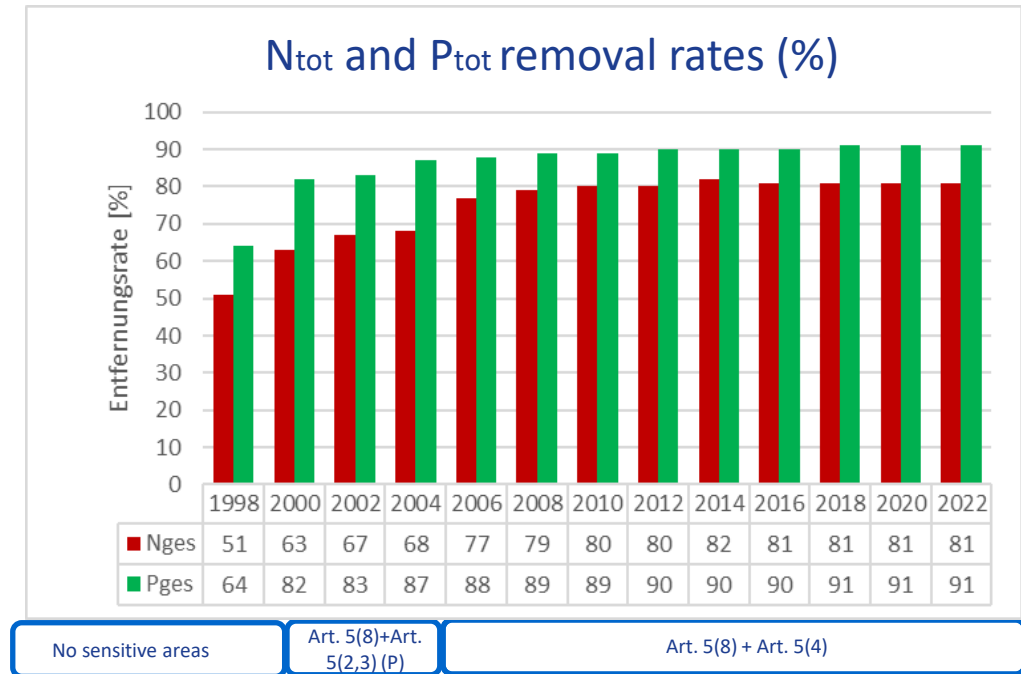
DIRECTIVE 91/271/EC - AUSTRIA

- 1950ies: Eutrophication of surface waters → visible pollution → start of building UWWTP
- Strict requirements for wastewater treatment (nutrient removal) even before EU accession (1995)
- UWWTD is implemented in AT by two federal laws (general wastewater emission ordinance and waste water emission ordinance for UWWTP > 50 PE) and nine provincial sewer connection laws
- Ordinance for data collection for reporting under UWWTD (emission register surface water bodies)



DIRECTIVE 91/271/EC - AUSTRIA

- Since 2002: Application of UWWTD Art. 5(8) + 5(2,3) for P_{tot}
- In 2007, RO declared the Black Sea coastal area a sensitive area (N_{tot} + P_{tot}). AT 96% in the Danube river basin
- Since 2006: Application of Art. 5(8) + 5(4) to gain time for implementation
- Area-wide approach offers more flexibility than Art. 5(2, 3)
- AT complies with the UWWTD since 2002



DIRECTIVE 91/271/EC – AUSTRIA LESSONS LEARNT

- **Agglomerations** are the **central element of UWWTD**. Definition of agglomerations requires a methodological guidance (e.g. for RO: [World Bank \(2020\)](#))

In AT **wastewater treatment** already very advanced when AT entered EU, therefore AT chose approach: 1 agglomeration \geq 2,000 PE = sewer catchment of UWWTP \geq 2,000 PE

- Implementing wastewater treatment needs **time** and **money** (see AT: **30 - 40 years**)
- Challenge after full construction is **service** and **maintenance**
- **Sound data collection** and **databases** on UWWTP are an essential for decision making: Data flows and responsibilities need to be **defined in ordinances**. In addition, benchmarks are helpful.
- Water **permits** and allocation of **funds could be connected to conditions**, e.g.
 - Water permits foresee an obligation to report operational data
 - Funds only granted in case of minimum wastewater tariffs and obligation to report data regularly
- **Wastewater associations** are essential for education of UWWTP staff and knowledge/ information exchange. They help to raise **awareness for importance of wastewater treatment**

Implementing partners:



Funded by
the European Union

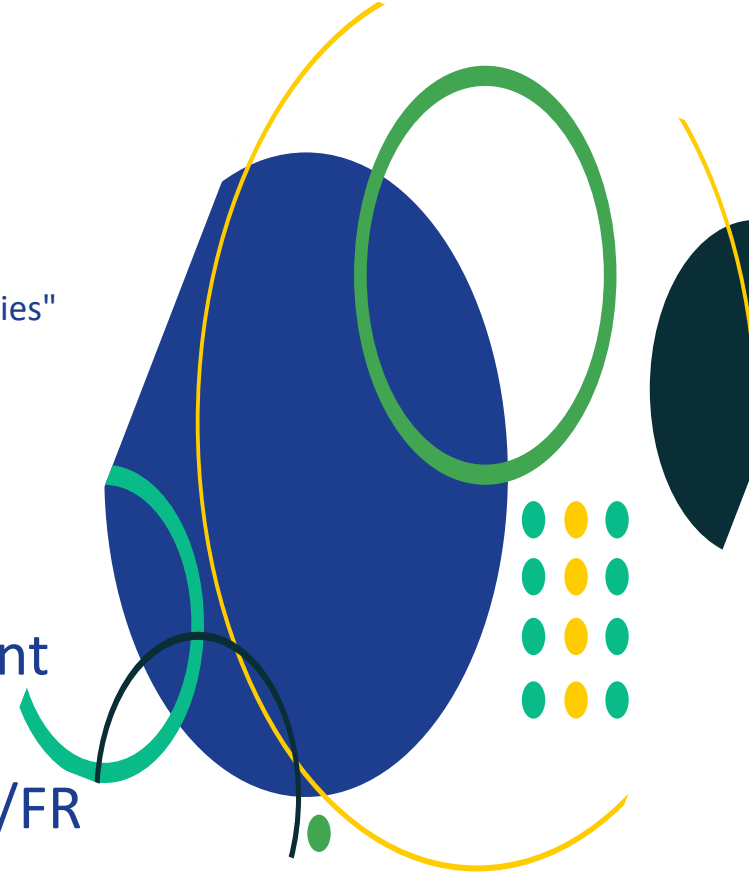
EU4GREEN
RECOVERY
EAST

EU 4 GREEN RECOVERY EAST

Official title: "Recovery through a Circular Economy and Pollution Reduction in the Eastern Partnership countries"

Webinar: implementation of the old and new UWWTD

- **Directive 2024/3019/EC** the *new* Urban Wastewater Treatment and **challenges** for implementation in Europe/AT/FR



Implementing partners:

umweltbundesamt^U
ENVIRONMENT AGENCY AUSTRIA

EXPERTISE
FRANCE
GROUPE AFD

OiEau
International Office
for Water

OECD
BETTER POLICIES FOR BETTER LIVES

UNECE

UNIDO
UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Restricted Use - À usage restreint

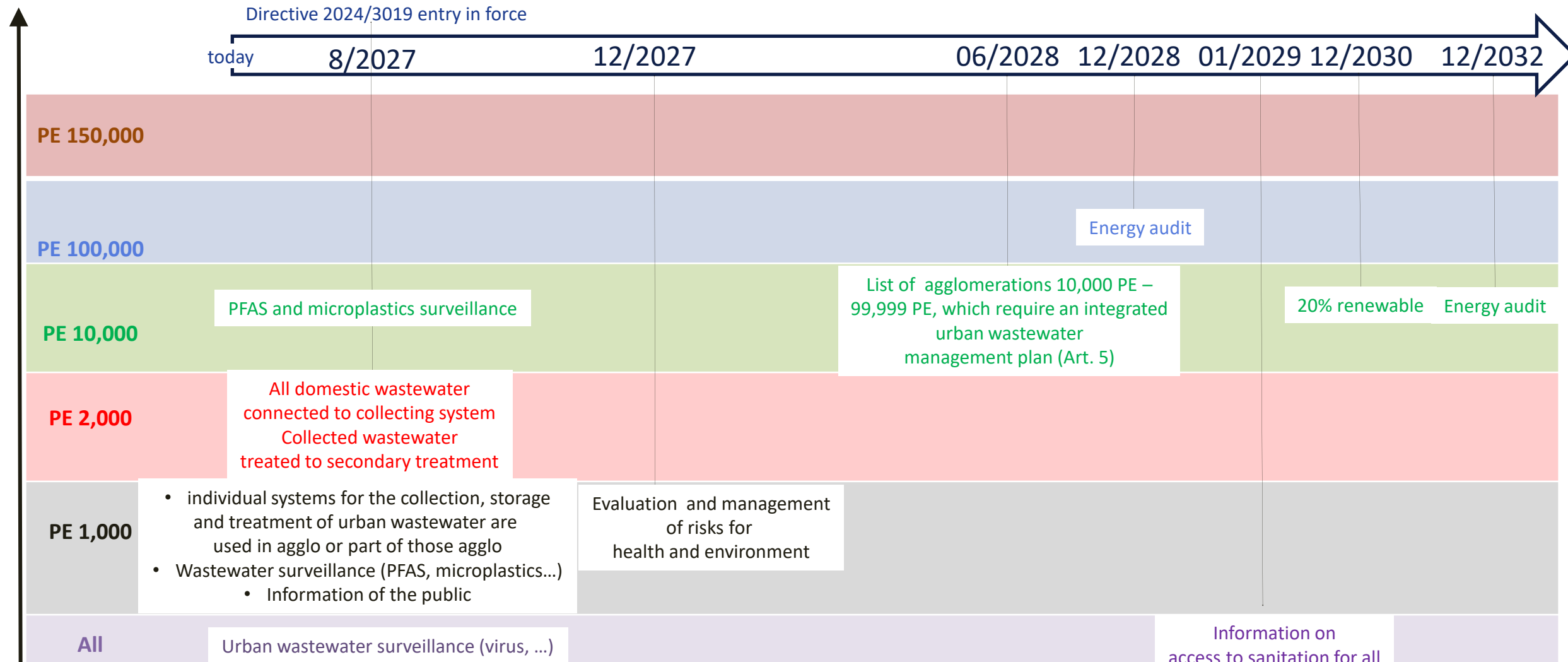


DIRECTIVE 2024/3019 - EU

- Replaces the UWWTD (91/271) from **1/08/2027**
- **35 articles**, 59p (vs 91/271 - 20 articles, 13p)
- **Enhanced ambition**, e.g.
 - A **key tool** in the EU action plan to “**zero pollution**”
 - Agglomerations **≥ 1,000 PE**
 - Integrated urban wastewater **management plans** (Art. 5)
 - **Nutrient removal**: stricter performance, all large plants (50% of load at EU level) (Art. 7)
 - **Quaternary** treatment, microplastics & micropollutants (Art. 8)
 - Extended Producer Responsibility – **EPR** (Art. 9 and Art. 10)
 - **Energy neutrality** (Art. 11), Green House Gases emission and reduction (Art. 21)
 - **Health** and early warning systems and Antimicrobial resistance (Art. 17)
 - **Human right**: Access to sanitation (Art. 19)
- A need to **shift** from reporting to **public access to information**
- *3 EU working groups* to work on 18 implementing acts and 5 delegated acts



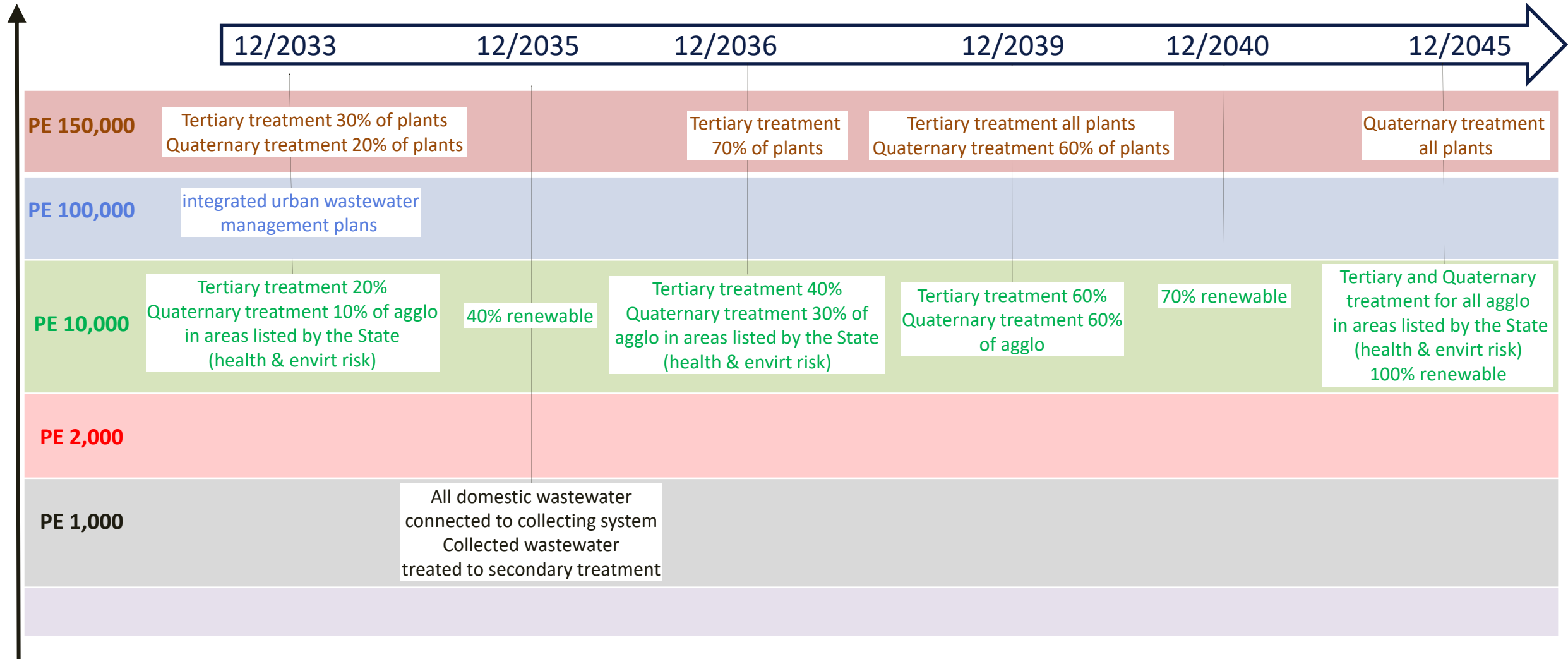
DIRECTIVE 2024/3019 - NEW OBLIGATIONS AND THEIR TIME PLAN (1/2)



Implementing partners:



DIRECTIVE 2024/3019 - NEW OBLIGATIONS AND THEIR TIME PLAN (2/2)





DIRECTIVE 2024/3019 - NEW OBLIGATIONS IN DETAILS

- Collecting systems (Art. 3)
 - **equipment and collection** of **domestic** wastewater for all agglomerations >1,000 PE
 - Application: > 2,000 PE - applicable now, > 1,000 PE - **31/12/2035**
- Individual systems (Art 4) derogation to Art.3
 - **Individual systems** for collection, storage and/or treatment
 - *Justification* for use if for > 2,000 PE individual systems load >**2%** of national load
 - Application: > 1,000 PE - **1/8/2027**
- Integrated urban wastewater management plans (Art. 5)
 - All 100,000 PE and more – Application 31/12/2033
 - Part of 10,000 to 100,000 PE – 4 conditions based on pollution by storm water overflow - Application 22/06/2028

DIRECTIVE 2024/3019 - NEW OBLIGATIONS IN DETAILS

- Secondary treatment (Art. 6)
 - Collected wastewater undergo **secondary treatment**
 - Application: > 2,000 PE - applicable now, > 1,000 PE - **31/12/2035**
- Tertiary treatment (Art. 7)
 - Collected wastewater undergo **tertiary treatment**
 - **Eutrophication sensitive areas (SA) for N and/or P** designated – 31/12/2027 – enhanced performance
 - Application: **all > 150,000 PE** – 30% of plants 31/12/2033, 70% 31/12/2036, all 31/12/2039
 - **10,000 – 150,000 PE discharging in SA** - 20% of plants 31/12/2033, 40% 31/12/2036, 60% 31/12/2039, all 31/12/2045
- Quaternary treatment (Art 8)
 - Collected wastewater undergo **quaternary treatment**
 - **Micropollutant environment & health risk areas** designated – 31/12/2030, update every 6 years
 - Application: all > 150,000 PE – 20% of plants 31/12/2033, 60% 31/12/2039, all 31/12/2045
 - 10,000 – 150,000 PE discharging in risk areas 10% of plants 31/12/2033, 30% 31/12/2036, 60% 31/12/2039, all 31/12/2045



DIRECTIVE 2024/3019 - NEW OBLIGATIONS IN DETAILS

- Energy neutrality of urban wastewater treatment plants (Art 11)
 - **Energy audit every 4 years**
 - Application: **all 100,000 PE and more** – 31/12/2028, **10,000 – 100,000 PE** 31/12/2032
 - **Renewable energy**
 - Application: all 10,000 PE and more 20% of **energy used** 31/12/2030, 40% 31/12/2035, 70% 31/12/2040, all 31/12/2045
- Local climatic conditions (Art 13)
 - Design, construction and operation allow sufficient performance under normal climate
 - Application: **1/8/2027**
- Water reuse and urban wastewater discharge (Art 15)
 - Encourage treated wastewater reuse with attention to ecological flow and effects on environment & health
- Monitoring of urban wastewater (Art 17)
 - Inlet monitoring of viruses (SARS, Polio, Influenza, other emerging) + 100,000 PE and above: antimicrobial resistance (AR)
 - Application: **1/8/2027** & AR **2 years** after implementing act



DIRECTIVE 2024/3019 - NEW OBLIGATIONS IN DETAILS

- Risk assessment and management (Art 18)
 - Identify and assess **risks from wastewater discharge** for freshwater abstraction, bathing, ecological status & aquaculture
 - Application: **31/12/2027**
- Access to sanitation (Art 19)
 - Access for all including vulnerable and marginalized
 - Application: **1/8/2027**
- Surveillance (Art 21)
 - Monitoring of discharges (Annex IB), of sludge, reuse in agriculture, GHG released, energy produced & used for plants >10,000 PE
 - Monitoring of pollutant concentration & loads including microplastics and PFAS and microplastics in sludge for plants >10,000 PE
 - Application: **1/8/2027**
- Public information (Art 24)
 - **up-to-date information** on collection & treatment of urban wastewater **made available** to the public **online**
 - All households **receive** information on compliance, overall volume treated & estimated average volume per household
 - Application: > 1,000 PE - **1/8/2027**



IMPLEMENTATION ACTS & DELEGATED ACTS ON INTEGRATED MANAGEMENT PLANS, EPR, PHOSPHORUS RECOVERY

Individual Systems

Art 4§4

- › Requirements for design, operation, maintenance, and regular inspections

IA, 2 January 2028

Integrated management plans

Art 5§6 (a) and (b)

- › Methods to define measures to be included in integrated wastewater management plans
- › Alternative indicators to verify the indicative objective of 2%

IAs, 2 January 2028

Extended Producer Responsibility

Art 9§5

- › Criteria on exoneration for products not creating micropollutants

IA, 31 December 2027

Phosphorus recovery

Art 20§2

- › Reuse and recycling rate for phosphorus from sludge and treated water

DA, 2 January 2028



IMPLEMENTATION ACTS & DELEGATED ACTS ON MONITORING, REPORTING, ENERGY & GHG EMISSIONS

Monitoring

- › Antimicrobial resistance (Art 17§3) – IA, 18 months
- › ‘PFAS Total’ & ‘Sum of PFAS’ (Art 21§3) – IA, 24 months
- › Microplastics in wastewater/sludge (Art 21§3 a) – IA, 30 months
- › Micropollutants (Art 8§6) – IA, no deadline

Reporting

- › Reporting new parameters (Art 22§4) – IA, 31/12/2028
- › Format for reporting on integrated wastewater plans (Art. 5§6 c) – IA, 36 months
- › Format for risk assessments for designation of risk areas (micropollutants) (Art 8§3) – IA, no deadlines

Energy & GHG

- › GHG monitoring (Art 21§3 a) – IA, 30 months
- › Calculation on energy neutrality (Art 11§3) – IA, no deadline

DIRECTIVE 2024/3019 - EU

Challenges

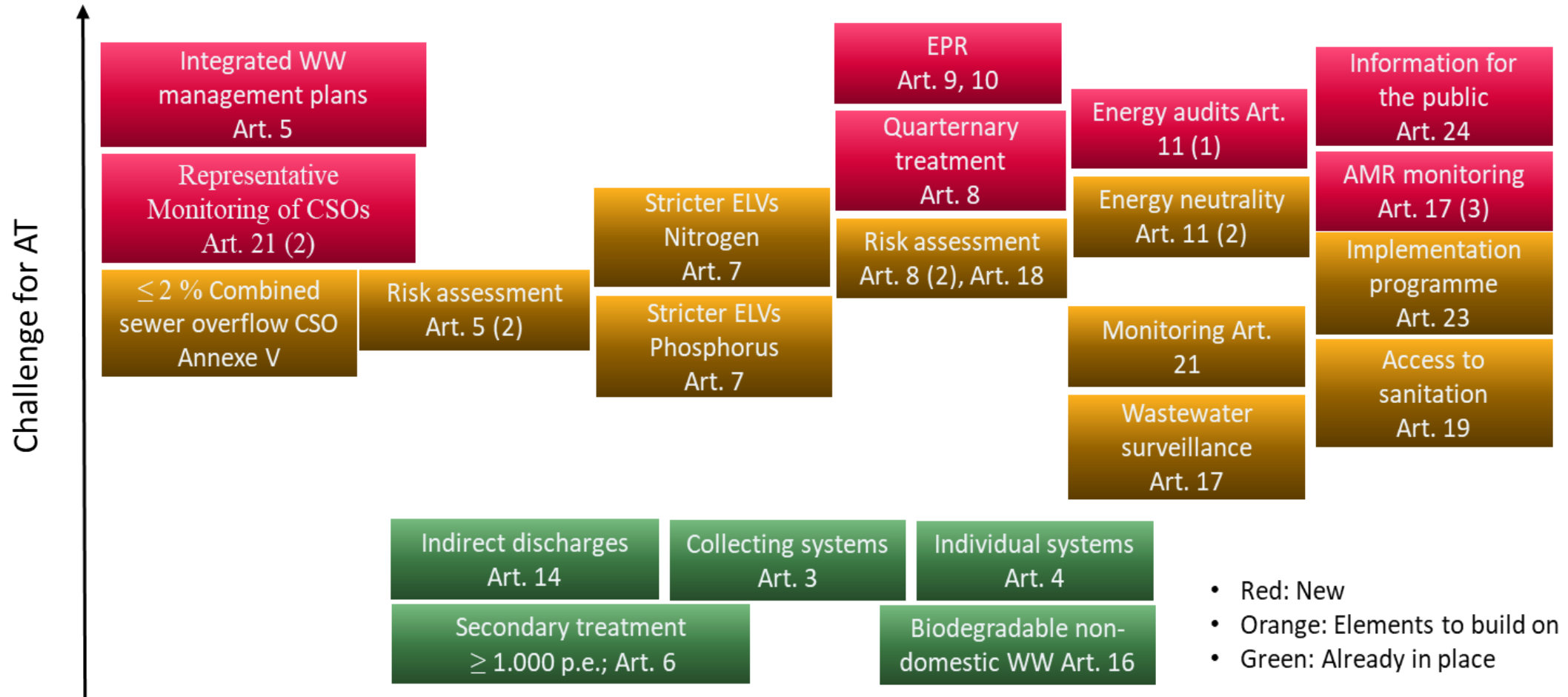
- **18 implementing acts** and **5 delegated acts**, partly due after 08/2027 (transposition deadline), They will define specific requirements of the Directive, *14 to be published before Dec 28*
- **3 ENV/MS sub-groups:**
 - SG1: IAS + rain weather,
 - SG2: energy neutrality , GHG and sludge,
 - SG3: surveillance methods
- **Interpretation** of definitions of UWWTD (e.g. “*agglomeration*”, “*generated load*”, EPR....)
- Inclusion of **several risk assessments** (e.g. Art. 5, Art. 7, Art. 8 and Art. 18) instead of only one risk assessment in Directive 91/271/EC (sensitive areas – nutrient removal)
- **Costs** (e.g. for upgrade of nutrient removal to stricter standards, quaternary treatment)
- Extended Producer Responsibility (**EPR**) for **financing quaternary treatment**
- Complaints by industry and Poland – if successful - could call into question the funding of quaternary treatment

Implementing partners:





DIRECTIVE 2024/3019 - AUSTRIA



Implementing partners:



DIRECTIVE 2024/3019 - AUSTRIA

Integrated urban wastewater management plans (Art. 5)

Challenges:

- In AT only a **few agglomerations** have integrated **ww management plans** so far.
- **Representative monitoring** of CSOs represents a challenge
- AT has a **national standard** for CSO. This standard is a Code of practice, but not legally binding → **not generally implemented**
- **Risk assessment** to determine, which middle-size agglomerations require a plan, **needs a lot of data**. Not all data is yet available. Challenge, as risk assessment has to be completed in June 2028



■ **REGELBLÄTTER**
des Österreichischen Wasser- und Abfallwirtschaftsverbandes (ÖWAV)

ÖWAV-Regelblatt 19
**Richtlinien für die Bemessung
von Mischwasserentlastungen**

2., vollständig überarbeitete Auflage

Wien 2007

In Kommission bei:
ÖN Österreichisches Normungsinstitut
A-1020 Wien, Heinestraße 38

Implementing partners:



DIRECTIVE 2024/3019 - AUSTRIA

Nutrient removal (Art. 7)

Challenges:

- AT has **tertiary treatment** (mostly N+P) for **all UWWTP $\geq 2,000$ PE**
- Compliant with new requirements in 2022: **P_{tot}: 261** out of 283, **N_{tot}: 226** out of 283

Parameter	Size class	Requirement concentration		Requirement minimum removal rate	UWWTP/ Agglomerations, which do not yet fulfill new requirements (EMREG-OW, reference year 2022)
P _{tot}	10,000 – 149,999 PE	0,7 mg/l	OR	87,5 %	15 out of 261 = 6 %
	150,000 PE or more	0,5 mg/l	OR	90 %	7 out of 22 = 32 %
N _{tot}	10,000 – 149,999 PE	10 mg/l	OR	80 %	50 out of 261 = 19 %
	150,000 PE or more	8 mg/l	OR	80 %	7 out of 22 = 32 %

- Need for up-grade of UWWTP → costs

Implementing partners:



Restricted Use - À usage restreint

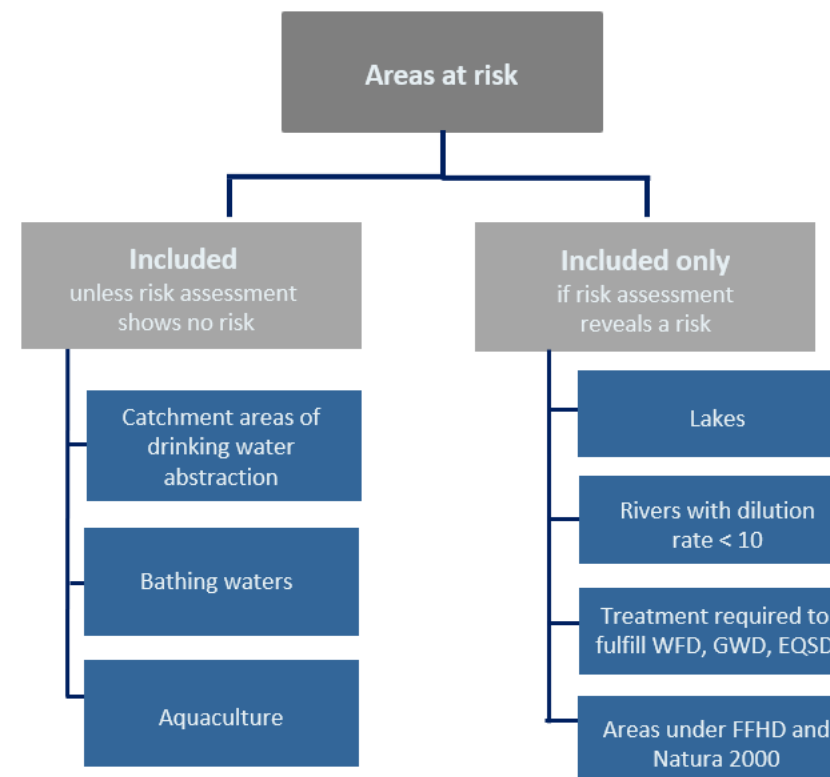


DIRECTIVE 2024/3019 - AUSTRIA

Quaternary treatment (Art. 8)

Challenges:

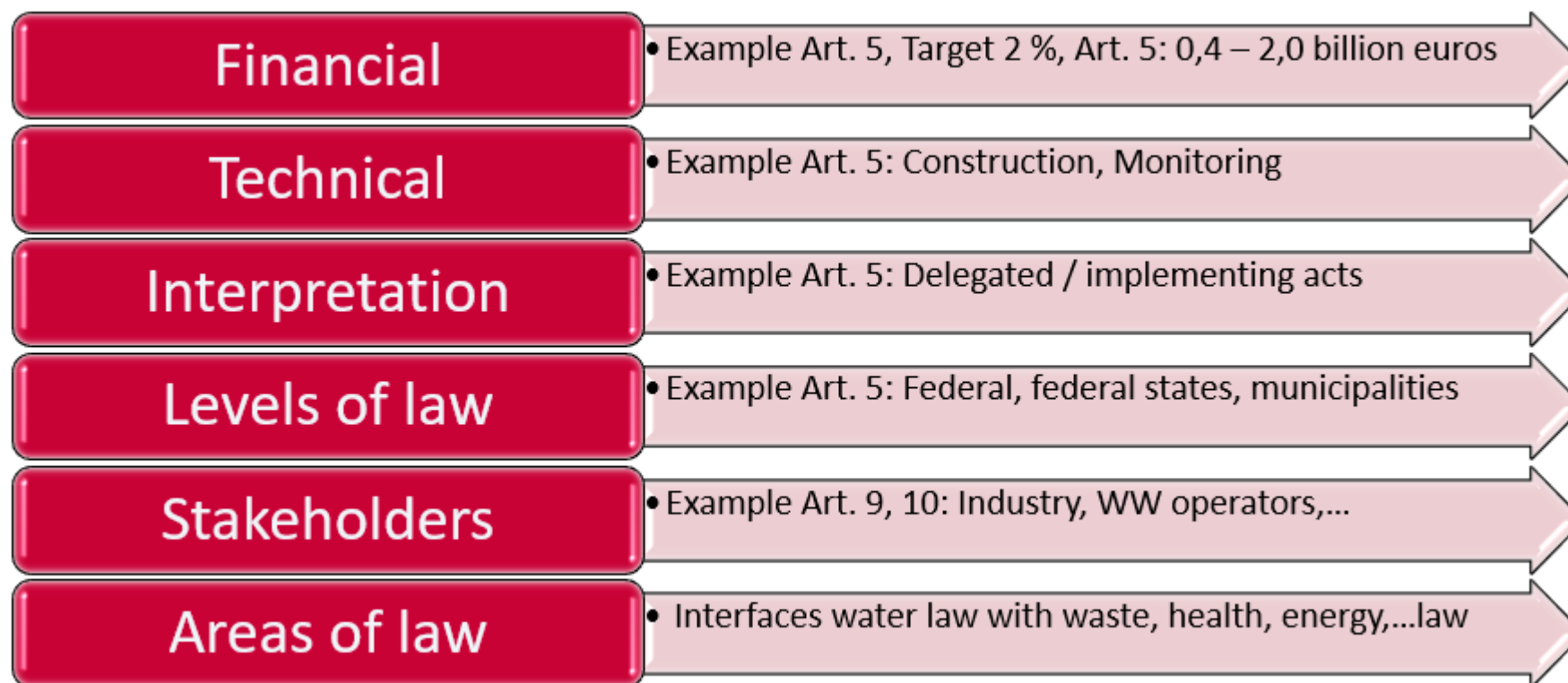
- AT has **not yet** any UWWTP with **quaternary treatment**
- **22 UWWTP \geq 150,000 PE** need to be **upgraded**
- 261 middle-size UWWTP: decision, which need to be upgraded depends on risk assessment → implementing act pending
- As long as methodology for risk assessment is not clear → number of **UWWTP 10,000 PE – 149,999 PE** to be upgraded very **variable**
- **Financing depends** on number of UWWTP to be upgraded
- **EPR:** many open questions, e.g.
 - Hazardousness of substances
 - „Readily biodegradable“,
 -





DIRECTIVE 2024/3019 - AUSTRIA

Challenges:





DIRECTIVE 2024/3019 - AUSTRIA

Implementation into national law in AT – Work packages

WP 1 Integrated urban WW management plans	WP 2 Requirements for WW treatment	WP 3 Extended producer responsibility	WP 4 UWWTP: Climate, Energy, Health, Circular Economy	WP 5 Implementation and Reporting
Collecting systems Art. 3	Individual Systems – level of protection; Art. 4 (2)	Extended producer responsibility, Art. 9	Energy neutrality Art. 11	Information on monitoring of implementation; Art. 22
Individual systems (register and inspections) Art. 4	Secondary treatment Art. 6	Producer responsibility organisations, Art. 10	Local climatic conditions Art. 13	National implementation programme; Art. 23
Integrated urban WW management plans; Art. 5	Tertiary treatment Art. 7	WP 6 Organizational, Enforcement; Compensation	Water reuse Art. 15 (1)	
Information for the public Art. 24	Quarternary treatment Art. 8		Urban ww surveillance Art. 17	
	Indirect discharges Art. 14		Access to sanitation Art. 19	
	General requirements Art. 15 (2, 3, 4)	Transboundary cooperation; Art. 12	Sludge and resource recovery; Art. 20	
	Direct discharge of biodegradable non-domestic WW; Art. 16	Access to justice; Art. 25		
	Risk Assessment Art. 18	Compensation; Art. 26		
		Penalties; Art. 29		

12

Implementing partners:

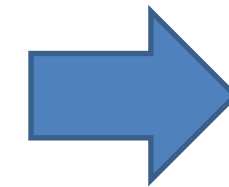


DIRECTIVE 2024/3019 – FRANCE: A LEGAL CHALLENGE

- The 18 implementing acts and 5 delegated acts will **fix technical aspects** of implementation
→ France will participate **to all 3 EU** technical sub-groups
- **French Water legal framework** is embedded in an **Environment code** linked to **several other codes** (urbanism code, health code, commercial code, customs code, rural and marine fishing code, mines code, civil code...)
- France Wastewater management uses **subsidiarity** with legal texts to address also domestic wastewater outside UWWTD agglomerations: agglomerations <1,000 PE, individual households
→ Transposition is a **complex exercise** to be finished **within 2 years**
- The envisaged legislative vector: a **transposition order** via an enabling act.

DIRECTIVE 2024/3019 – FRANCE: A DEDICATED ORGANISATION

- Inter-ministerial steering committee
- Inter-ministerial technical committee
- National working groups



Prepare the texts
for consultation

National working groups

9 Thematic working groups

2 Transversal
working
groups

Working group with
authorities and stakeholders

Treatment (secondary, tertiary,
quaternary, sludge reuse)

Rain water

Prospective surveillance and
delineation of sensitive areas

EPR

Energy neutrality

Management of non domestic
wastewaters

Independent and appropriate
systems

Access to sanitation

Epidemiologic surveillance

Financing

Information systems and IT
tools

DGOM	DGCL
DGPE	DGS
DGE	
DREAL	DDT/DEAL
AE	OE
INRAE	OFB

AMORCE	ANSATESE	ASCOMADE
AMF	ASTEE	ATANC
CLCV	Eurofins	EPNAC
FEBEA	FNCCR	France Urbaine
FP2E	GEMME	LEEM
NèreS	Oleau	SYPREA
SIAAP	SYNTEC	Synteau
UIE		



DIRECTIVE 2024/3019 – FRANCE – TERTIARY TREATMENT – GENERAL CASE

- Situation
 - Case 1: plants with a load $\geq 150,000$ PE: 63 plants in total. Implementing steps 30/70/100%, ie 19/44/63 plants
 - Case 2: plants with a load $> 10,000$ PE discharging in SA. Implementing steps 20/40/60/100%, ie 150/300/450/750 plants
- WG Key questions
 - “a pollution load $\geq 150,000$ PE”: how to define? Current approach: maximum entering load in 2023 (criterion “CBPO” defined in R2224-6 of territorial collectivities code)
 - Which criteria for prioritisation of
- Financial impact
 - Ex ante evaluation: 62 plants $>150,000$ PE and 720 $>10,000$ for a cost of 241M€/y and 5,4bn in total



DIRECTIVE 2024/3019 – FRANCE – TERTIARY TREATMENT – SPECIFIC CASE

- Article 7 paragraph 6: *For urban wastewater treatment plants that are under construction, under major refurbishment as regards their tertiary treatment or were commissioned after **31 December 2020 and before 1 January 2025**, the requirements relating to the **nitrogen parameter** as referred to in this Article shall apply **at the latest five years** from the deadlines established in paragraphs 1 and 3.*
- WG Key questions
 - “under construction”: which **official document** to use as **reference** in case of public service, of delegated service of PPP?
 - “major refurbishment”: is a major refurbishment for phosphorus treatment **eligible**? Which **official document** to use as **reference for derogation** in case of public service, of delegated service of PPP?
 - “commissioned”: translation in French is “ordered” → **how to understand**: launch of studies, of works, starting date of plant operation?



DIRECTIVE 2024/3019 – FRANCE: QUATERNARY TREATMENT – GENERAL CASE

- Situation
 - Case 1: plants with a load $\geq 150,000$ PE: 63 plants in total. Implementing steps 20/60/100%, ie 13/38/63 plants
 - Case 2: plants with a load $\geq 10,000$ PE discharging in SA. Implementing steps 20/40/60/100%, **unknown number of plants**
- WG Key questions
 - “a pollution load $> 150,000$ PE”: how to **define**? Current approach: maximum entering load in 2023 (criterion “CBPO” defined in **R2224-6 of territorial collectivities code**)
 - Which **criteria for prioritisation** of agglomerations: environmental or health risks, plant age, work underway, land constraints?
 - How to apply for **small treatment plants** connected to agglomerations $\geq 10,000$ PE
- Financial impact
 - Ex ante evaluation: 3 hypothesis for a cost of between 130 and 318M€/y and 2,7 to 6,7bn.€ in total



DIRECTIVE 2024/3019 – FRANCE: QUATERNARY TREATMENT – TREATMENT EFFECTIVENESS

- Minimum removal rate: 80% on up to 12 listed substances (*annex I Table 3*)
- WG Key questions
 - Which flow to consider?
 - *Pollution load* = $[conc.] \times Flow$, Note 2 state “dry weather” but FR legislation fix PC95 (95e percentile of all flow)
 - Proposal: dry weather = flow not influenced by rainwater, BUT current **sampling frequency 2/month**, how to handle **raining month**
 - Which substances to select?
 - By default minimum 4+2 from the 2 lists
 - Keep only the 12 proposed (found everywhere) or extend and how: prospective surveillance
 - How to calculate % abatement?
 - Note 2 in annex I fix the general rule: mean % removal for 6 substances >80% → plant comply (table 4 tolerance)
 - How to calculate performance if entering or discharge concentration is <LQ?

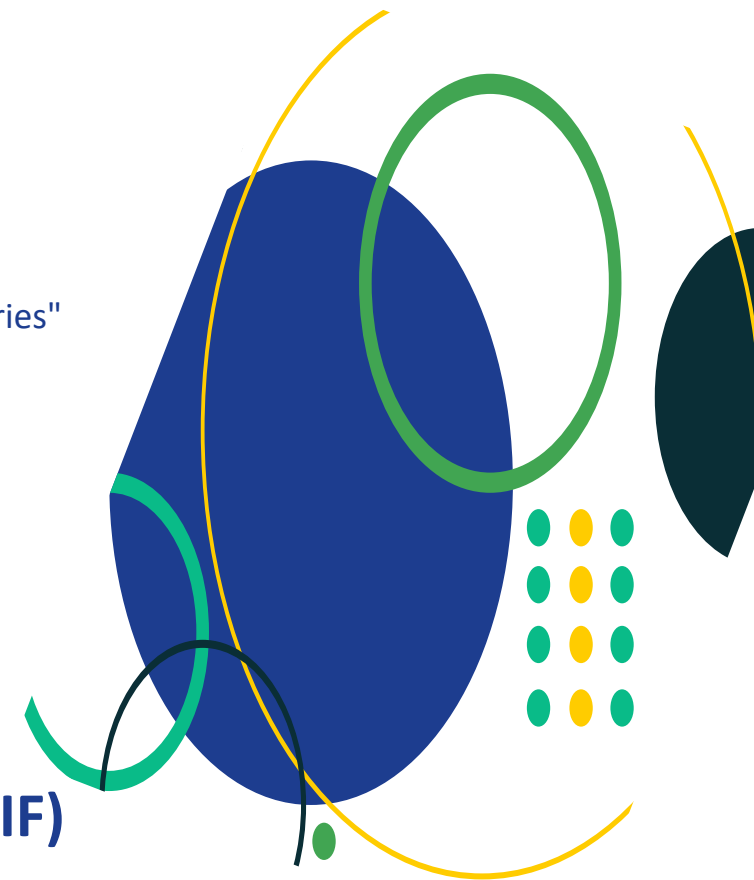


EU 4 GREEN RECOVERY EAST

Official title: "Recovery through a Circular Economy and Pollution Reduction in the Eastern Partnership countries"

Webinar: implementation of the old and new UWWTD

- The European information system
and the
Structured Implementation and Information Framework (SIIF)



Implementing partners:



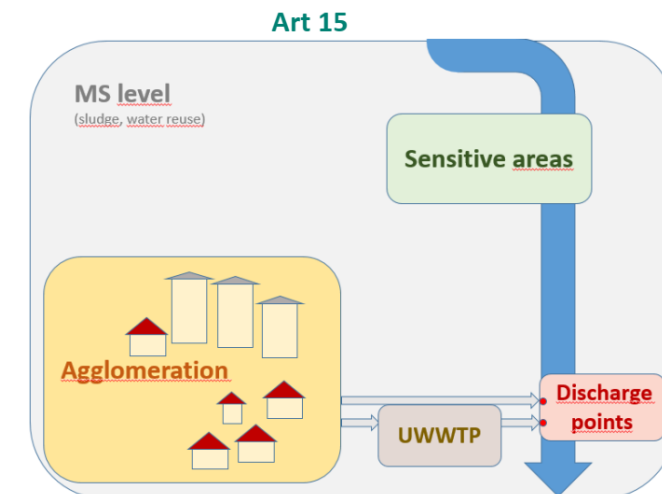
DIRECTIVE 91/271/EC – REPORTING: OVERALL FRAMEWORK

Authorities must **report every 2nd year** on urban wastewater collection and treatment

- **Article 15:** detailed situation (collection, treatment, discharge and receiving area)
 - **Article 16:** summary national situation report
 - **Article 17:** investment programme
- Advantage: detailed situation per agglomeration and treatment plant available
 - Caution: the data dictionary for Art17 allows
 - Caution: Concepts and terminology partly differ from water statistics framework

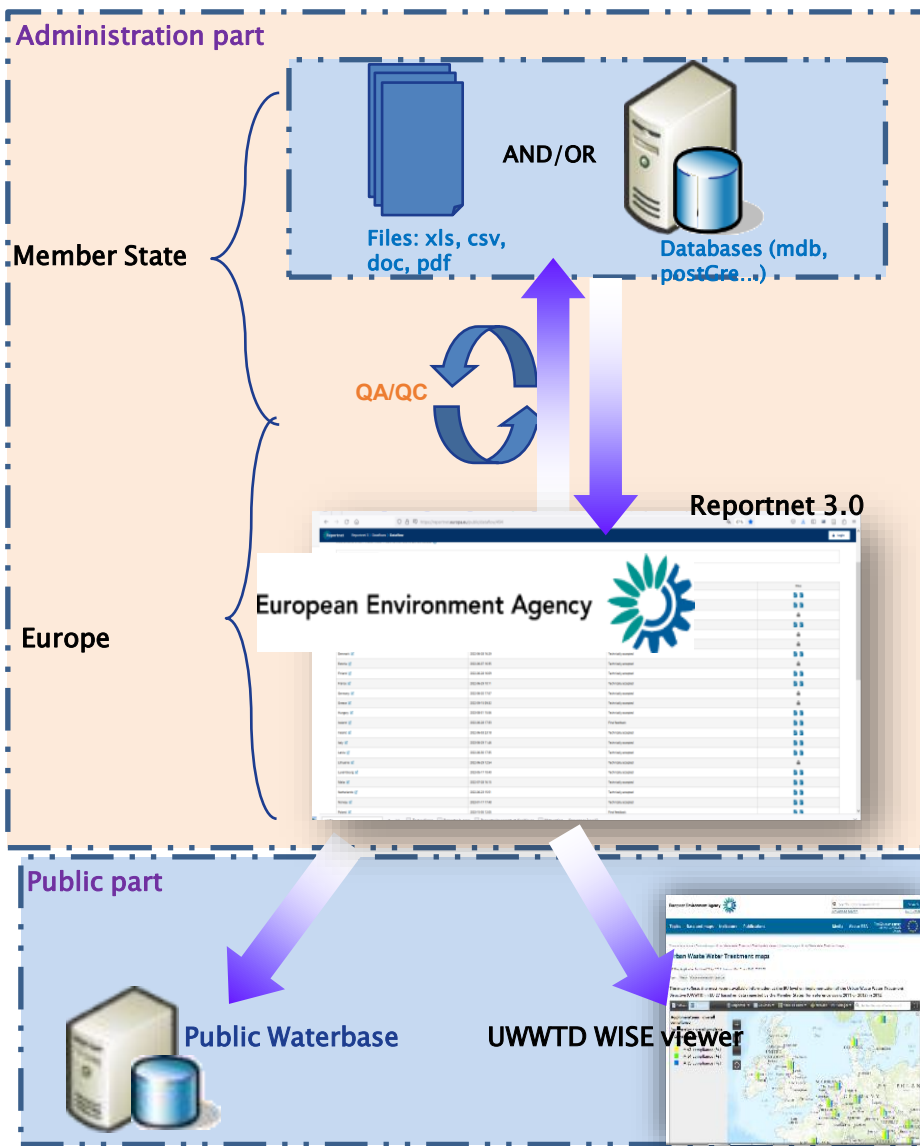
DIRECTIVE 91/271/EC – ELECTRONIC REPORTING

- UWWTD 1991 – reported to EEA since 2008
- Helpdesk and technical support provided by ETC ICM, now ETC BE
- Compliance assessment performed by European Commission's consultants
- Continuous adaptation of quality control (QC) criteria
- Reporting platform updated to Reportnet 3 for reporting in 2022

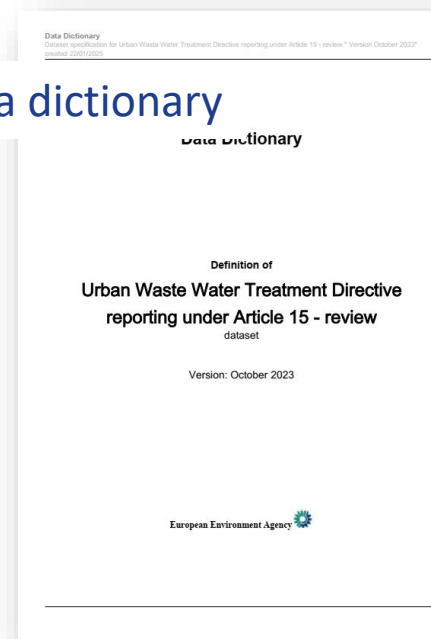




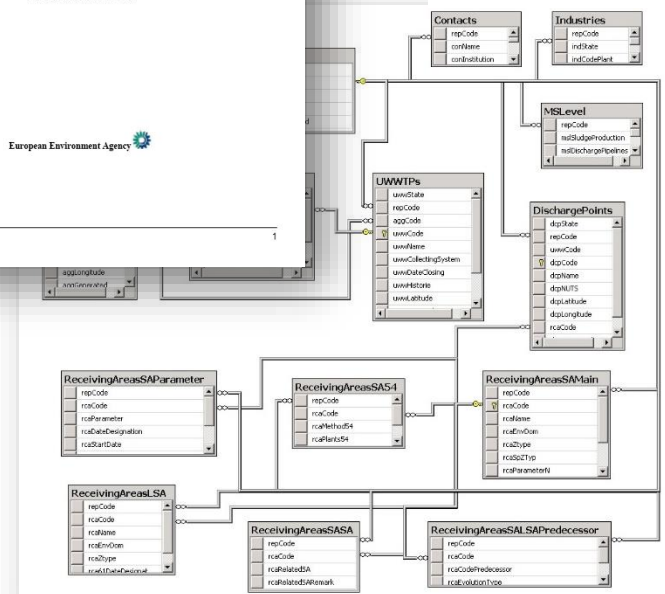
DIRECTIVE 91/271/EC – THE DATA COLLECTION CHAIN (FROM MS TO EEA)



Data dictionary



Data model



DIRECTIVE 91/271/EC – DATA VIEWER

The viewer for urban wastewater treatment plants

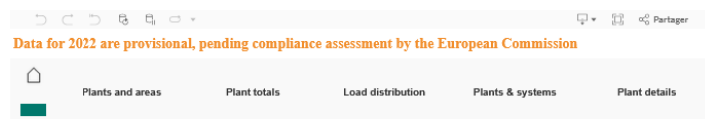
Urban waste water directive treatment plants data viewer

Dashboard | Published 20 Dec 2017 | Modified 02 Mar 2023

Overview

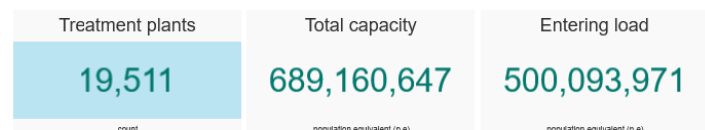
> Analysis and data > Maps and charts > Urban waste water directive treatment ...

The UWWTD data viewer enables an easy access analysis of the plants data reported under the article 15 of the UWWTD.

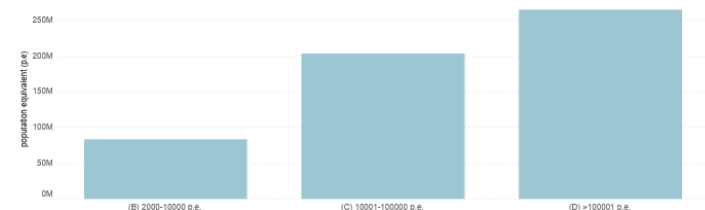


Urban waste water directive treatment plants data viewer

The UWWTD data viewer enables an easy access analysis of the plants data reported under the article 15 of the UWWTD.



Load entering treatment plants (p.e.) by size of urban area



Related data viewers:
Urban areas: https://tableau-public.digcomap.eea.europa.eu/view/AglomerationMenu?showAsBanner=false&display_count=1&showVizHome=n
Map: <https://www.eea.europa.eu/themes/water/urban-waters/water-use-and-environmental-pressures/uwtds/interactive-maps/urban-waste-water-treatment-map-3>

Implementing partners:
umweltbundesamt
ENVIRONMENT AGENCY AUSTRIA

Detailed situation

Urban waste water treatment plant details

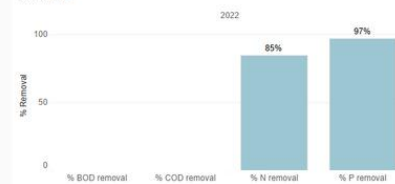
Member state Year Treatment plant Plant status Collecting system

Germany 2022 Ruhleben (DETP_BE01) Active Connected to a plant

Ruhleben (DETP_BE01), Germany

Capacity (p.e.): 1 600 000
Entering load (p.e.): 2 110 082
Waste water treated (m3/year): 90,778,350

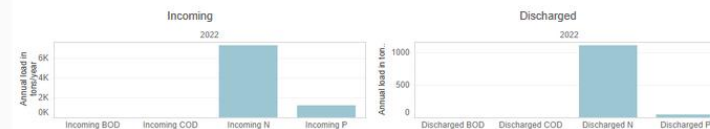
Collecting system is Connected to a plant
Treatment: NP Removal, Other Treatment, Secondary Treatment, Primary Treatment



Compliance monitoring results

Year	Monitoring results BOD5	Monitoring results COD	Monitoring results PTot	Monitoring results N/Tot	Monitoring results TSS
2022	pass	pass	pass	pass	pass

Annual load in tons per year



Discharge points connected to Ruhleben (DETP_BE01):

Discharge Point Code	Receiving area name	Type Of Receiving Area	River basin district	Dcp Waterbody ID	Receiving Area Parameter
2022 DETP_BE01	Deutschland	Art. 5(8) area (entire Member State) + Art. 5(4)	DE5000	DERW_DEBE_58296	aN - Nitrogen eutrophication
DETP_BE4	Deutschland	Art. 5(8) area (entire Member State) + Art. 5(4)	DE5000	DERW_DEBE_5838_2	aN - Nitrogen eutrophication

Agglomerations served by the plant

	2022
Generated load (p.e.)	2,110,082
Generated and entering plant (p.e.)	2,105,862
Rate of load collected (%)	99.80
Rate of load collected and entering this treatment plant (%)	99.80
Rate of load addressed to IAS (%)	0.13
Rate not addressed to IAS and not collected (%)	0.00
Rain sewerage discharged (collecting system) (m3/d)	

The viewer for agglomerations

Urban waste water agglomerations and receiving areas data viewer

Dashboard | Published 20 Dec 2017 | Modified 30 Nov 2023

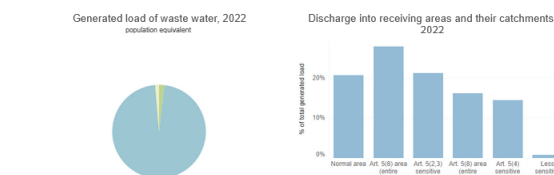
> Analysis and data > Maps and charts > Urban waste water agglomerations an...

Explore pre-defined queries and filter the data according to several criteria, e.g. size of agglomeration, type of receiving area, member state(s), etc.

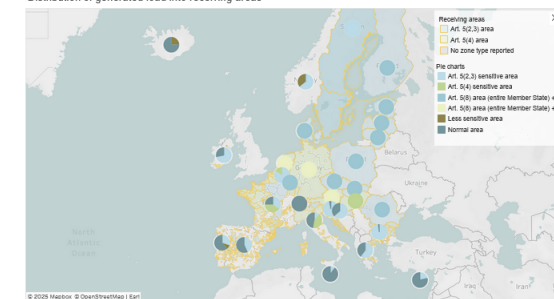


Urban waste water agglomerations and receiving areas data viewer

The urban waste water treatment directive (UWWTD) data viewer enables an easy access analysis of the agglomeration data reported under the article 15 of the UWWTD. Explore pre-defined queries and filter the data according to several criteria, e.g. size of agglomeration, type of receiving area, member state(s), etc.



Distribution of generated load into receiving areas



Urban waste water treatment in 2020 from EU27, Norway and Iceland

Related data viewers:
Treatment plants: https://tableau-public.digcomap.eea.europa.eu/view/AglomerationMenu?showAsBanner=false&display_count=1&showVizHome=n
Map: <https://www.eea.europa.eu/themes/water/urban-waters/water-use-and-environmental-pressures/uwtds/interactive-maps/urban-waste-water-treatment-map-3>



DIRECTIVE 91/271/EC – REGISTER

- The register, a crucial tool to see compliance situation and evolution

Detailed situation

Glossary of terms

Key Concepts

Country specific notes

Agglomerations

WW Treatment Plants

Distance to target

Country overview

Waste water treatment plants

Year

2014

2016

2018

2020

2022

Filter by spatial unit:

Country

Austria

Region

(Tout)

NUTS2

(Tout)

Filter by:

Overall Agg compliance

C

NR

Plant name

Agglomeration name

Load Enter [p.e.]

Capacity [p.e.]

Volume Treated [m3/y]

removal rate BOD5 [%]

removal rate COD [%]

removal rate N [%]

removal rate P [%]

ABKM ABKM-Abwasserbeseitigung Kö...

4,093

7,000

168,515

99

97

94

95

ABUG-Abwasserbeseitigung Unteres G...

3,370

6,425

170,843

99

97

94

94

Abwasserverband "O" Oberes Lavanttal...

7,960

8,000

858,843

98

94

73

85

Abwasserverband Karnische Region

25,950

44,000

1,404,072

99

97

96

94

Abwasserverband Worthersee West

25,034

44,000

1,435,183

99

97

97

93

Äger-West

58,811

76,000

4,489,277

98

95

72

90

AGRANA

5,000

5,000

365,000

99

99

80

85

Aich-Assach

3,668

3,500

159,354

98

92

89

Aigen im Ennstal

4,148

6,000

421,953

98

97

90

97

Aigen-Schlögl

7,396

9,000

718,786

99

95

90

92

Alberschwende

3,538

9,200

227,000

99

96

51

91

Allhaming

1,354

2,500

126,310

99

97

95

Altenfelden

1,082

2,300

208,089

97

95

95

74

Altenmarkt bei St. Gallen

3,264

7,500

185,714

99

98

91

99

Altheim und Umgebung

17,681

19,000

874,558

99

98

95

92

Ampfwang

3,939

6,600

602,069

98

92

88

89

Andau

4,963

13,500

302,591

99

98

92

92

Andorf

7,228

6,850

710,359

99

97

95

95

Anras

14,387

14,000

1,233,726

98

96

92

93

ARA Abtenau

9,560

12,088

914,476

98

96

90

83

ARA Abwasserreinigung im Waldvierte...

6,929

16,000

803,878

97

94

78

84

ARA Alland

4,417

10,000

403,845

95

94

98

ARA Allentsteig

2,443

6,600

322,397

98

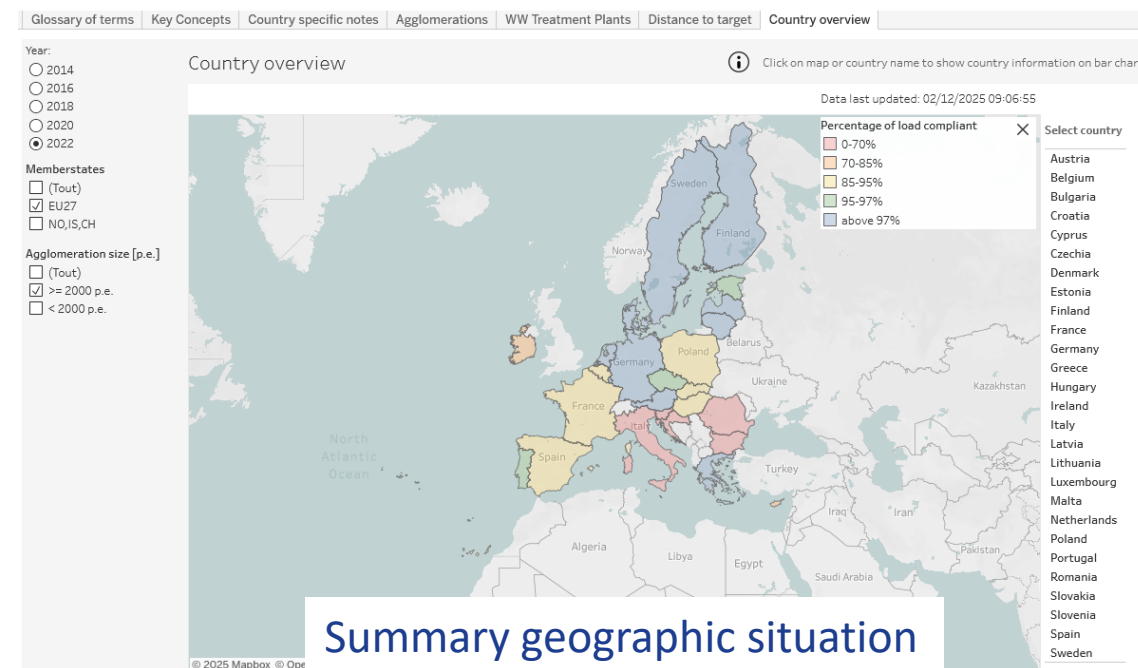
95

96

83

Click on Treatment Plant to see further information

Data last updated: 02/12/2025 09:34:30





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ARTICLE 17 SUMMARY TABLE (DGENV CONTRACTOR)

- Non compliant situations:
investment and number of sewer/plants
results after investment in term of p.e.
- Overall evolution of investment at country level & ratio per inhabitant
- Background information from art15 reporting

Implementing partners:

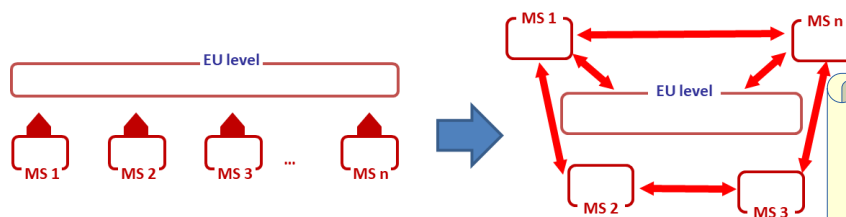


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		2016	2018	2020
Summary of information reported by national authorities as total for all individual non-compliant agglomerations				
Forecast for investment needs for non-compliant collecting systems and non-compliant treatment plants				
Collecting systems	Forecast for investment needed (as in national plan) [EUR million]	no data	no data	no data
	Amount of (planned) EU funding needed [EUR million]	no data	no data	no data
	Forecasting period [years]	no data	no data	no data
Treatment plants	Forecast for investment needed (as in national plan) [EUR million]	no data	no data	no data
	Amount of (planned) EU funding needed [EUR million]	no data	no data	no data
	Forecasting period [years]	no data	no data	no data
TOTAL FOR TREATMENT AND COLLECTION		0	0	0
Forecasting period [years]		no data	no data	no data
Number of investments planned				
Collecting systems	Planned works (expired deadlines) [No of works or agglomerations]	no data	0	0
	Planned works (pending deadlines) [No of works or agglomerations]	no data	0	0
Treatment plants	Planned works (expired deadlines) [No of treatment plants]	no data	0	0
	Planned works (pending deadlines) [No of treatment plants]	no data	0	0
Results after investment				
Collecting systems	Projected waste water load collected through collecting systems in/through planned works [p.e.]	0	0	0
	Projected waste water load addressed through IAS in/through planned works [p.e.]	0	0	0
Treatment plants	Projected waste water load entering in/through planned works [p.e.]	no data	no data	no data
	Design capacity in/through planned works [p.e.]	no data	no data	no data
		2016	2018	2020
Average investment costs reported by national authorities for the whole country				
Collecting systems	PAST annual investment costs (new and renewal) [EUR million]	no data	no data	no data
	Annual average for [years]	no data	no data	no data
	CURRENT annual investment costs (new and renewal) [EUR million]	221	229	201
	Annual average for [years]	2017 - 2017	2019 - 2019	2021-2021
	EXPECTED annual investment costs (new and renewal) [EUR million]	262	219	223
	Annual average for [years]	2018 - 2021	2020 - 2025	2022-2027
Treatment plants	PAST annual investment costs (new and renewal) [EUR million]	no data	no data	no data
	Annual average for [years]	no data	no data	no data
	CURRENT annual investment costs (new and renewal) [EUR million]	105	87	19
	Annual average for [years]	2017 - 2017	2019 - 2019	2021-2021
	EXPECTED annual investment costs (new and renewal) [EUR million]	51	42	46
	Annual average for [years]	2018 - 2021	2020 - 2025	2022-2027
Evolution of the investments (PAST to CURRENT)				
Evolution of the investments (CURRENT to EXPECTED)		↓ -14	↓ -56	↑ 49
Population according to Eurostat [million]		9	9	9
Ratio: PAST investment/population [EUR/inhabitant/year]				
Ratio: CURRENT investment/population [EUR/inhabitant/year]		37	36	25
Ratio: EXPECTED investment/population [EUR/inhabitant/year]		36	29	30
		2016	2018	2020
Background information				
	Total design capacity (as reported in Art 15) [p.e.]	21,567,393	21,579,063	21,796,853
	Expected total design capacity (as reported in Art 17) [p.e.]	22,536,446	22,246,325	22,137,770
	Waste water load generated (as reported in Art 15) [p.e.]	20,667,206	20,678,876	20,895,666
	Waste water load collected in IAS (as reported in Art 15) [p.e.]	132,787	121,797	122,919
	Waste water load discharged without treatment (as reported in Art 15) [p.e.]	no data	0	0
	Waste water load entering the treatment plants (as reported in Art 15) [p.e.]	14,516,875	14,734,732	14,520,065

DIRECTIVE 91/271/EC – THE UWWTD SIIF: ORIGIN

- Communication COM/2012/095 on *“Improving the delivery of benefits from EU environment measures: building confidence through better knowledge and responsiveness”*
- The communication introduced concept of **“Structured Implementation and Information Frameworks”** (SIIFs)
 - to clarify main provisions of a Directive,
 - to identify main types of information and demonstrate how EU law is being implemented,
 - the first test should be conducted on UWWTD.
- To implement the concept:
 - a document describing key component of the system was developed (2013)
 - a website demonstrating the concept on UWWTD reporting was developed for few MS (2014)
 - The website was deployed for all MS (2015-2020)
 - Recognising UWWTD reported data are of interest for many different users (thematic domain experts, general public, EU services...), the system was the first step for a shift from bottom up reporting to information exchange



...now target of new UWWTD

Implementing partners:



DIRECTIVE 91/271/EC – THE UWWTD SIIF: WHAT IT IS

The **UWWTD-SIIF platform** is a tool to use national validated dataset and **improve public access to information**

- It is not (currently) a collection tool
- It is not a reporting tool
- It is provided for free, as support for MS, not mandatory
- It can evolve in the future with contributions from users

The **UWWTD-SIIF platform** can be used for many different purposes:

- **Visualise** data collected and reported,
- **Assess** the MS/local situation as regards UWWTD implementation,
- **Check**, identify errors, and correct data,
- **Download** sub sets of data,
- **Link** to own maps,
- ...

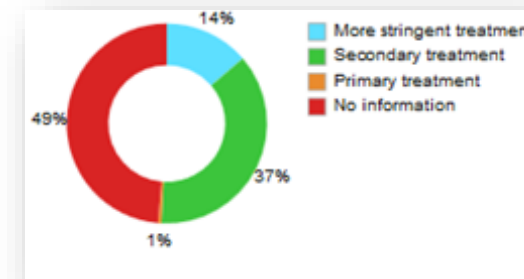
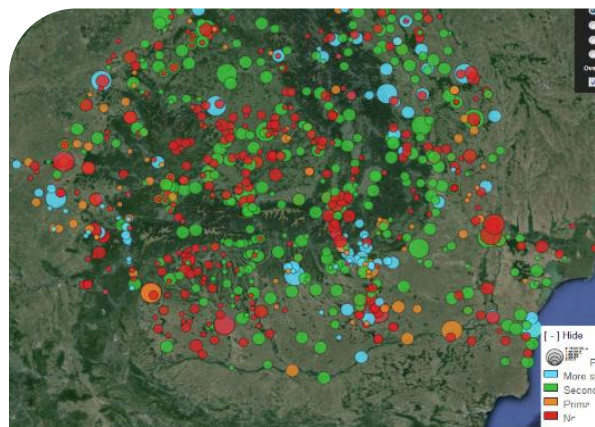
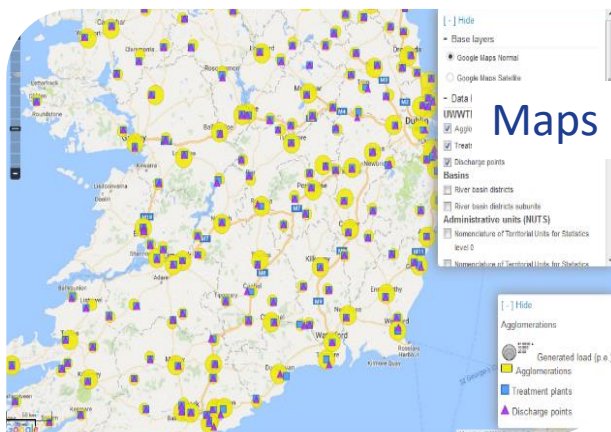
The **UWWTD-SIIF platform** was developed & publicly available for EU28 MS in the period **2013-2020**



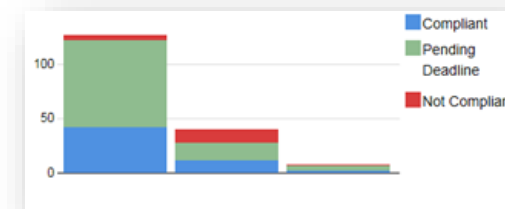
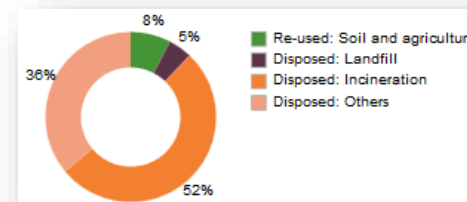
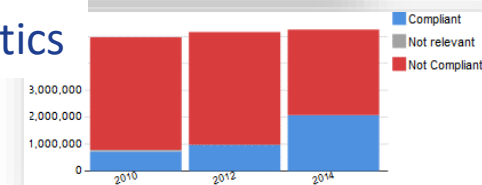
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DIRECTIVE 91/271/EC – THE UWWTD SIIF: PUBLIC PART (1/3)



Summary statistics



implementing partners:

umweltbundesamt
ENVIRONMENT AGENCY AUSTRIA

EXPERTISE
FRANCE
GROUPE AFD

OiEau
International Office
for Water

OECD
BETTER POLICIES FOR BETTER LIVES

UNEP
UNITED NATIONS
ENVIRONMENTAL PROGRAM

UNIDO
UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

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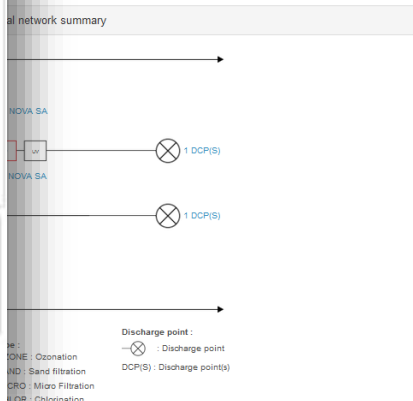
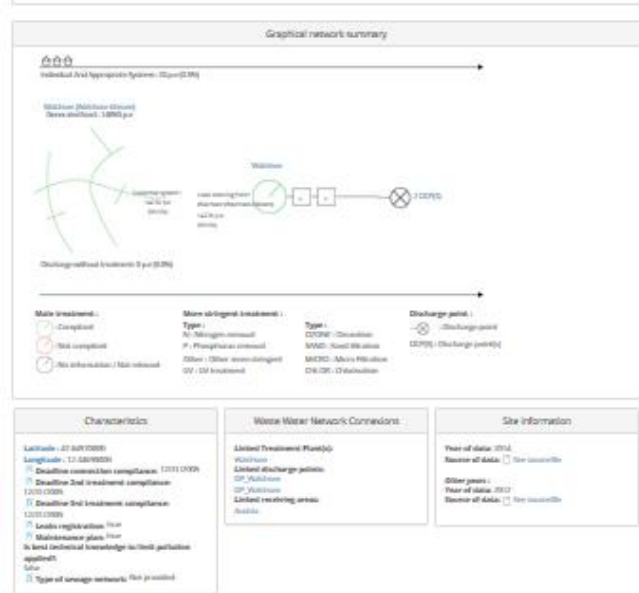
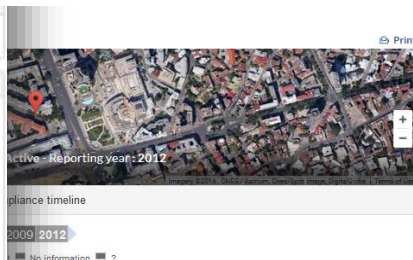
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DIRECTIVE 91/271/EC – THE UWWTD SIIF: PUBLIC PART (2/3)

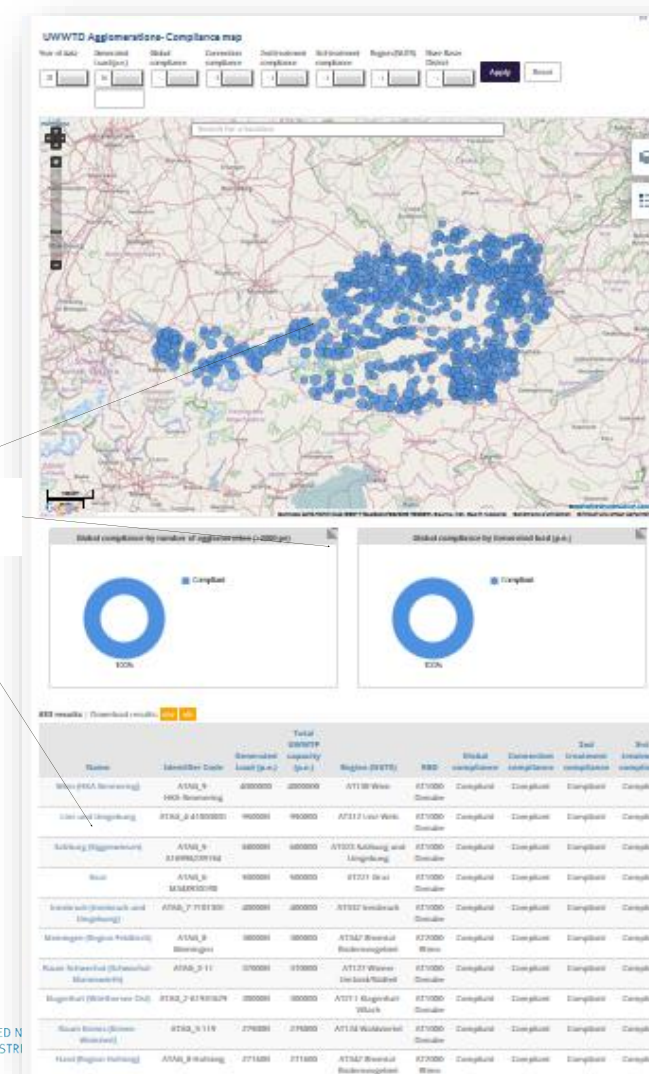
Lists



Individual object Fiches



clickable





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DIRECTIVE 91/271/EC – THE UWWTD SIIF: PUBLIC PART (3/3)

Download

Data

In this section you can access to the data used on the platform and download them.

Select the year:

Title	Coverage	Files available
Full UWWTD reported data	Country	xml
Agglomerations	Country	xml, csv, shp, kmf
Urban Waste Water Treatment plants	Country	xml, csv, shp, kmf
Discharge points	Country	xml, csv, shp, kmf
Sensitive areas	Country	xml, csv, shp, kmf

Metadata

In this section you can access the metadata fiches for each of the four geographical layers covered by UWWTD (91/271/EEC).

Title	Coverage	Download	View
Agglomerations	Country	xml, pdf	html, xml, pdf
Urban Waste Water Treatment plants	Country	xml, pdf	html, xml, pdf
Discharge points	Country	xml, pdf	html, xml, pdf
Sensitive areas	Country	xml, pdf	html, xml, pdf

Services

In this section you can access the webservices for each of the four geographical layers covered by UWWTD (91/271/EEC).

Webservice	DescribeFeatureType: description of the information layers, name and type of fields.	GetFeature: access to data in GML format
Agglomeration	Agglomeration	Agglomeration
Treatment plant	Download UrbanWasteWaterTreatmentPlant	UrbanWasteWaterTreatmentPlant
Discharge point	DischargePoint	DischargePoint
Receiving area	ReceivingArea	ReceivingArea

How to make references to this website?

All the items description page (agglomeration, treatment plant, discharge point and sensitive areas) can be accessed directly, and then referenced on other websites.

This can be done by using the following URL pattern:
`http://uwwtd.oia.eu.fr/country/{name of the element}/{ID of the element}`

For instance:

- `/Austria/agglomeration/ATAG_6-M361727580`
- `/Austria/treatment-plant/ATTP_6-M328041380`
- `/Austria/discharge-point/ATDP_6-M341158580`

If you want to reference to a specific year, you simply need to add the year in the URL as follows:
`http://uwwtd.oia.eu.fr/country/{name of the element}/{ID of the element}/{year}`

For instance:

- `/Austria/agglomeration/ATAG_6-M361727580/2014`
- `/Austria/treatment-plant/ATTP_6-M328041380/2014`

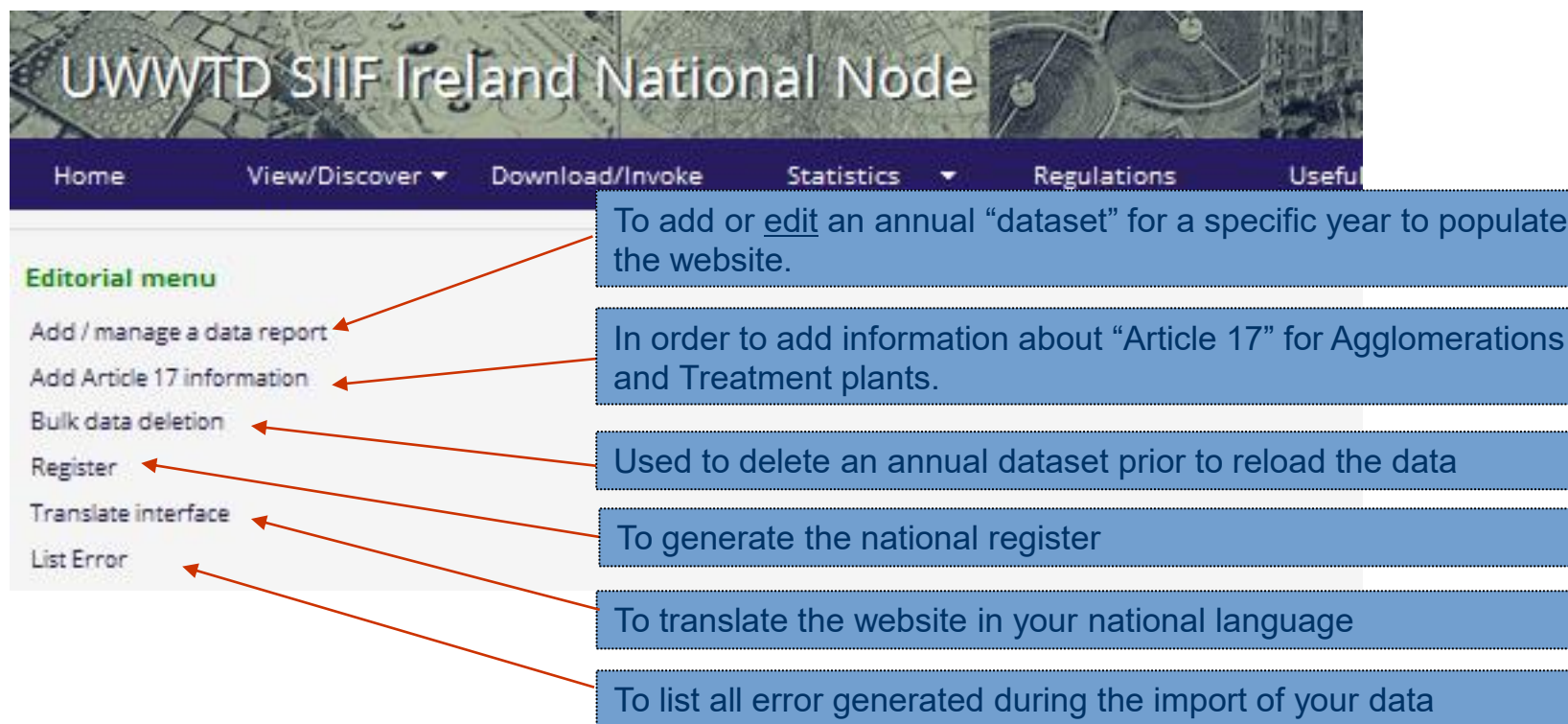
Implementing partners:



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DIRECTIVE 91/271/EC – THE UWWTD SIIF: PRIVATE PART (1/2)

The editorial menu allows the website administrator / editor to manage the UWWTD SIIF website :



The screenshot displays the 'UWWTD SIIF Ireland National Node' website. The top navigation bar includes links for Home, View/Discover, Download/Invoke, Statistics, Regulations, and Useful. The 'Editorial menu' is highlighted on the left, with red arrows pointing to specific options and their descriptions in blue boxes on the right:

- Add / manage a data report**: To add or edit an annual “dataset” for a specific year to populate the website.
- Add Article 17 information**: In order to add information about “Article 17” for Agglomerations and Treatment plants.
- Bulk data deletion**: Used to delete an annual dataset prior to reload the data
- Register**: To generate the national register
- Translate interface**: To translate the website in your national language
- List Error**: To list all error generated during the import of your data

Implementing partners:

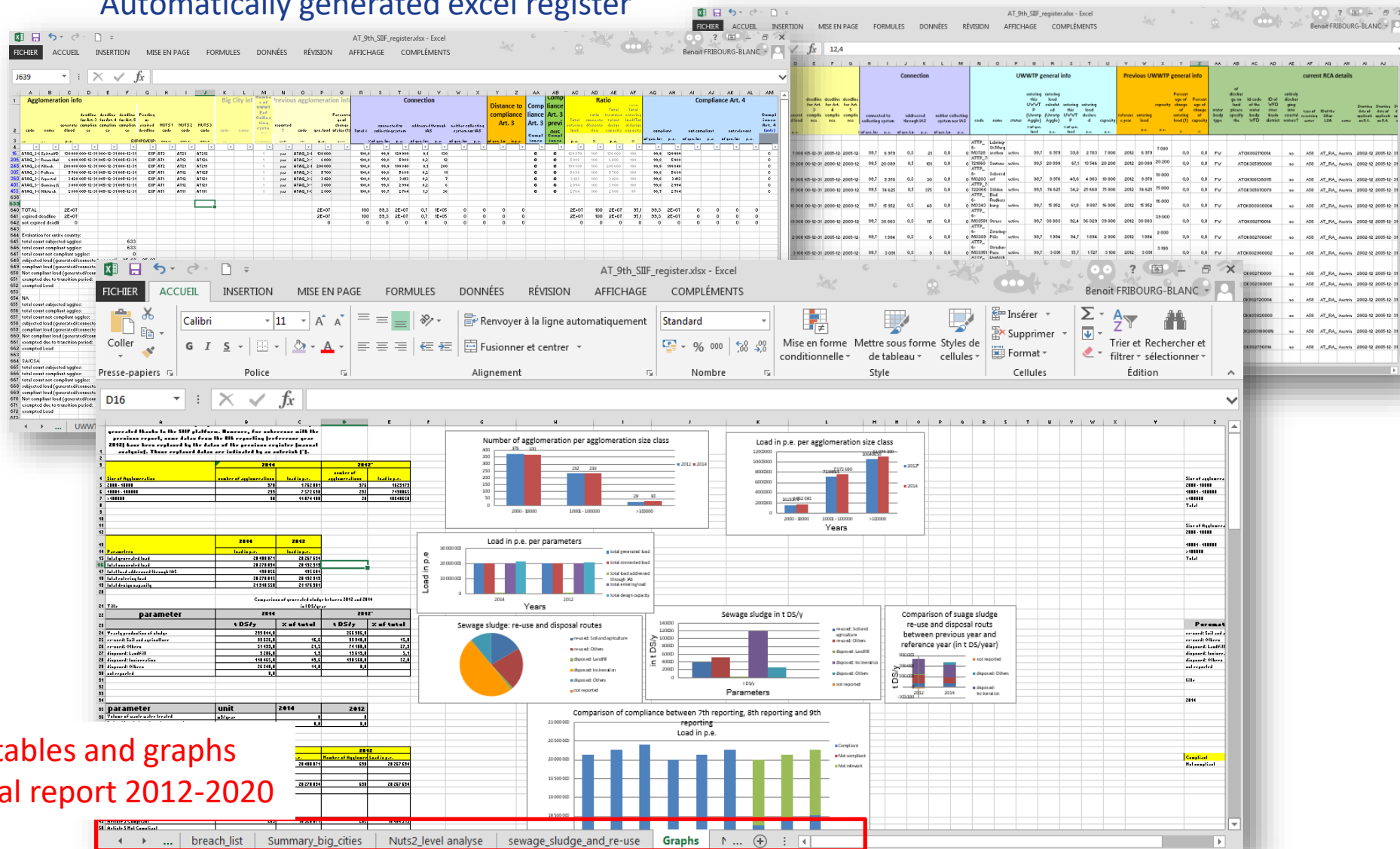


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DIRECTIVE 91/271/EC - THE UWWTD SIIF: PRIVATE PART (2/2)

Automatically generated excel register



- 20 sheets with tables and graphs
- Basis for national report 2012-2020



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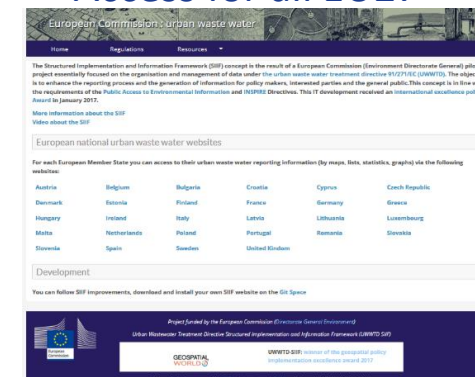
DIRECTIVE 91/271/EC – THE UWWTD SIIF, A TOOL FOR NATIONAL PORTAL

- **Recognised** by EU Commission to replace 91/271 Art 16 report
- **generic open source wastewater website**
 - showing and using the data,
 - disseminating the data,
 - *tool free to be reused*,
 - including many functionalities,
 - with maps, graphs, tables,
 - with individual fiches...
 - with updates which can be transferred to all platforms
 - *A geospatial approach reusable everywhere*

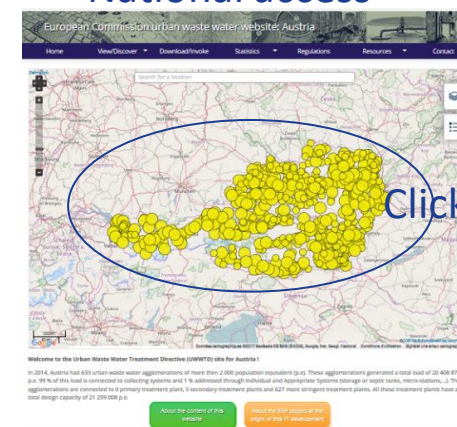


Received an award from OGC: *geospatial policy implementation award*

Access for all EU27



National access



Clickable dots

Implementing partners:

umweltbundesamt
ENVIRONMENT AGENCY AUSTRIA

EXPERTISE
FRANCE
GROUPE AFD

OiEau
International Office
for Water

OECD
BETTER POLICIES FOR BETTER LIVES

UNEP
UNITED NATIONS
ENVIRONMENTAL PROGRAM

UNIDO
UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

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THANK YOU



- Benoît Fribourg-Blanc
- European project manager
- OiEau



- Katharina Lenz
- UWWTD Expert
- UmweltBundesAmt Austria

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Katharina Lenz (bogdanka.radetic@umweltbundesamt.at)

Discover
more

[EU4Environment](#)

[EU4ClimateResilience](#)

[EU NeighboursEast](#)

Implementing partners:

umweltbundesamt^U
ENVIRONMENT AGENCY AUSTRIA

**EXPERTISE
FRANCE**
GROUPE AFD

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International Office
for Water

OECD
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UNECE

UNIDO
UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

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