



# EU WATER POLICY DEVELOPMENTS

European Commission, Directorate General for Environment  
Units C.1 and C.2  
Brussels, 22 October 2019



- The next European Commission
- State of Europe's water
- EU Water Policy overview
- Water Reuse
- Pharmaceuticals in the environment
- Drinking water
- Waste water
- Research needs

# **Upcoming Von der Leyen Commission: A significant increase of « green » ambition!**

A European Green Deal

Announced deliverables:

- Climate Neutrality for Europe by 2050
- European Climate Law
- Biodiversity Strategy for 2030
- Towards Zero Pollution Ambition
- Circular Economy Action Plan
- Farm to Fork initiative
- Sustainable Investment Plan

## Towards Zero Pollution means:

« For the health of our citizens, our children and grandchildren, Europe needs to move towards a zero-pollution ambition »

This entails a cross-cutting strategy for the protection of citizens' health from environmental degradation and pollution addressing:

- ✓ Air and water quality
- ✓ Hazardous chemicals
- ✓ Industrial emissions
- ✓ Pesticides and endocrine disruptors



## Commission Report on the 2nd River Basement Management Plans

26 February 2019 - COM(2019) 95 final

[https://ec.europa.eu/environment/water/water-framework/impl\\_reports.htm](https://ec.europa.eu/environment/water/water-framework/impl_reports.htm)

### **Surface water: 40% in good ecological status**

Main pressures: hydromorphological alterations, diffuse and point source pollution, over-abstraction

### **Surface water: 38% in good chemical status**

Mostly due to mercury and other ubiquitous substances

### **Groundwater: 74% in good chemical status**

### **Groundwater: 89% in good quantitative status**

*WFD simple map viewer:* <https://www.eea.europa.eu/data-and-maps/explore-interactive-maps/water-framework-directive-2nd-rbmp>



## Diffuse pollution

- Nitrates and pesticides from agriculture



## Point-source pollution

- Untreated urban and industrial discharges



## Hydromorphological alterations

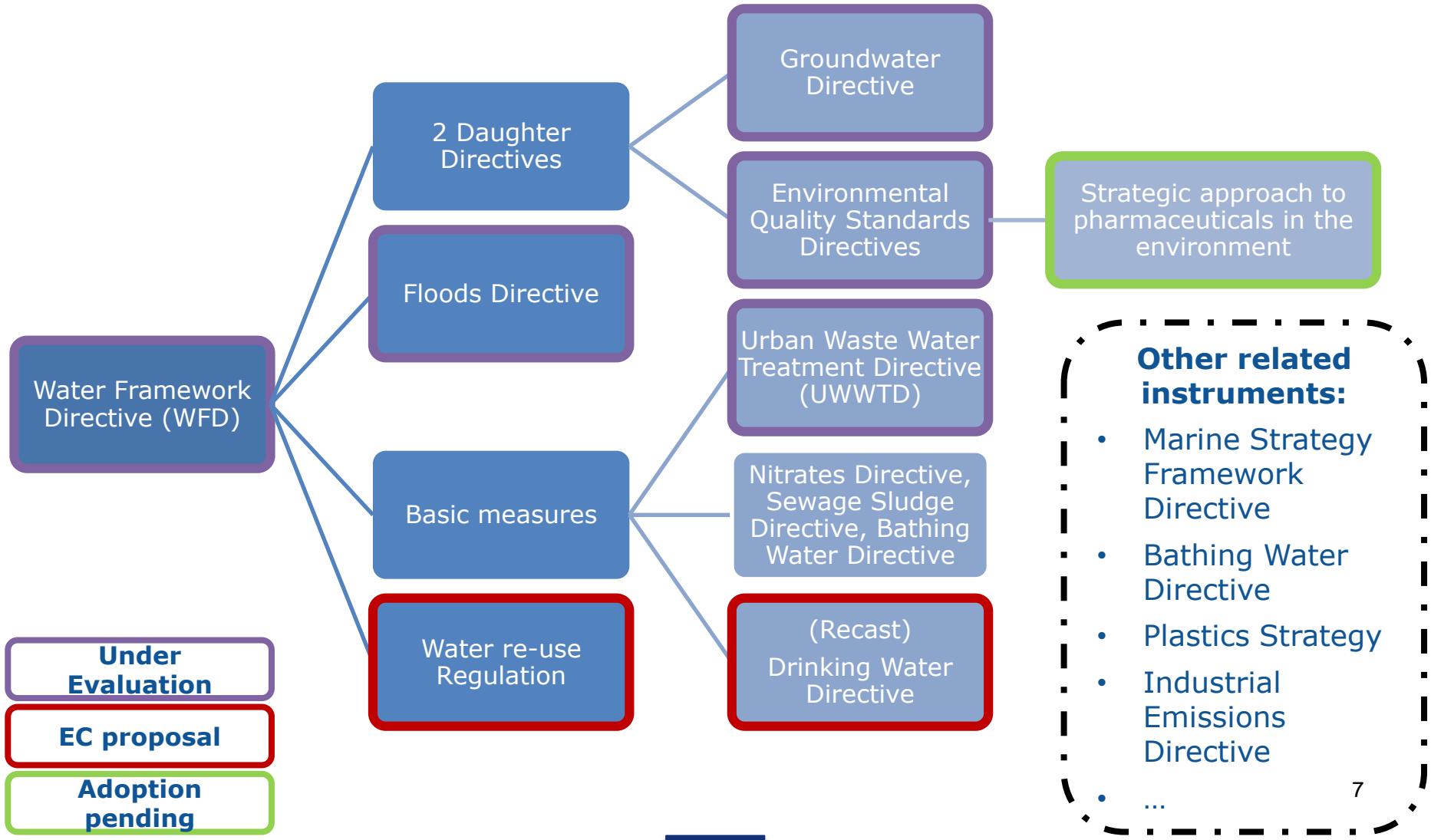
- Physical alterations and structural changes
- Energy production (hydropower), flood protection, inland navigation



## Water over-abstraction

- Over-abstraction and over-use
- Illegal abstraction

# EU water acquis





**Fitness Check** - a comprehensive evaluation of a policy area that usually addresses how several related legislative acts have contributed (or otherwise) to the attainment of policy objectives

- Water Framework Directive
  - Environmental Quality Standards Directive
  - Groundwater Directive
  - Floods Directive
  
- Urban Waste Water Treatment Directive



# Timetable



October 2017	<ul style="list-style-type: none"><li>• Publication of <a href="#">roadmaps</a> (WFD, FD)</li><li>• Finalisation of terms of reference (contract-support study)</li></ul>
April 2018	<ul style="list-style-type: none"><li>• Launch support study – Fitness Check</li></ul>
September 2018	<ul style="list-style-type: none"><li>• Launch of public consultation – until 11 March 2019 (~386,000 replies)</li><li>• Launch of targeted consultation and experts workshops</li></ul>
October 2018 – June 2019	<ul style="list-style-type: none"><li>• <b>Targeted consultation with relevant stakeholders – until 29 March + interviews</b></li><li>• First 2 workshop – October 2018</li><li>• Workshops on validation of findings (10 April , 3 June)</li><li>• Focus Groups: One specific on Groundwater (29 April)</li></ul>
End of 2019	<ul style="list-style-type: none"><li>• Finalisation of support study</li><li>• Commission report on Fitness Check</li></ul>

Cooperation **Fitness Check** -  
UWWTD evaluation

## What our Fitness Check tells us:

- Water deterioration halted
- Only 40% of surface water bodies and 74% of groundwater bodies in good status
- Significant progress in reducing pressures
- Better monitoring, more transparent information
- More integrated water management in place
- Significant investments made



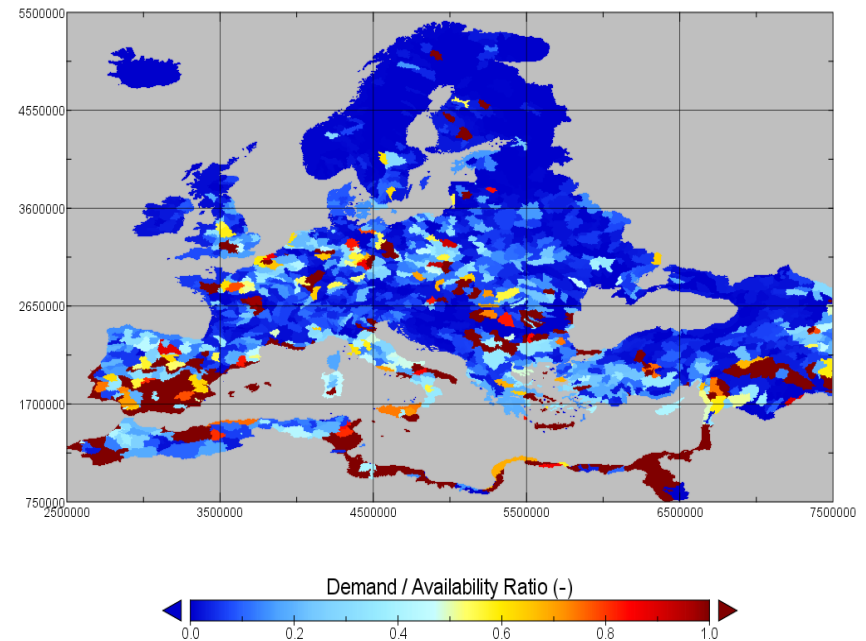
- Slower progress than expected (2027 just over 7 years away)
- Long-standing problems: agriculture, hydromorphology, persistent chemicals
- Uneven implementation, uneven monitoring
- New problems: pharmaceuticals, microplastics, climate change
- The price for water is still not 'right'
- Legislation could be more efficient

# Proposal

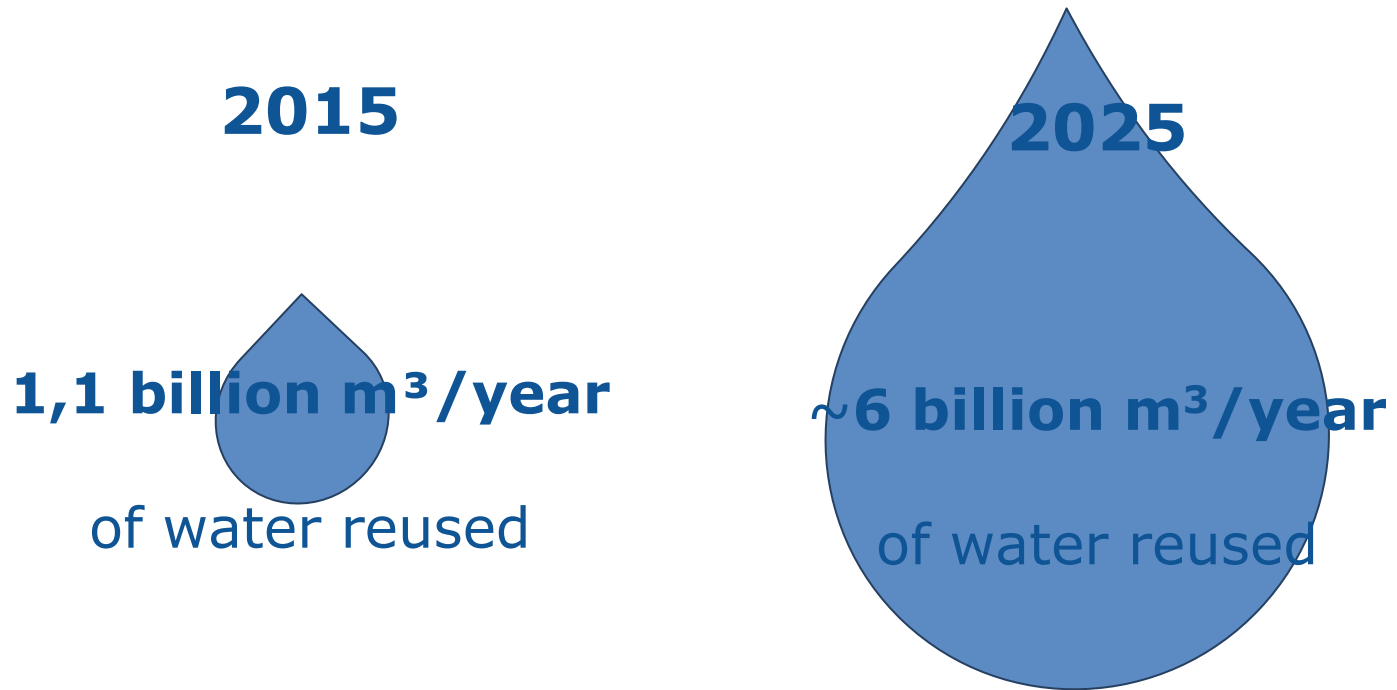
# Water Reuse Regulation

# Water scarcity and droughts

- Water stress **today: 1/3 of the EU territory** all year round (not just southern Europe)
- **Climate change =**
  - Frequency and intensity of droughts on the rise
  - Extreme weather events
- Cost of water shortages 1976-2006 **€100 billion** (EC, 2012)

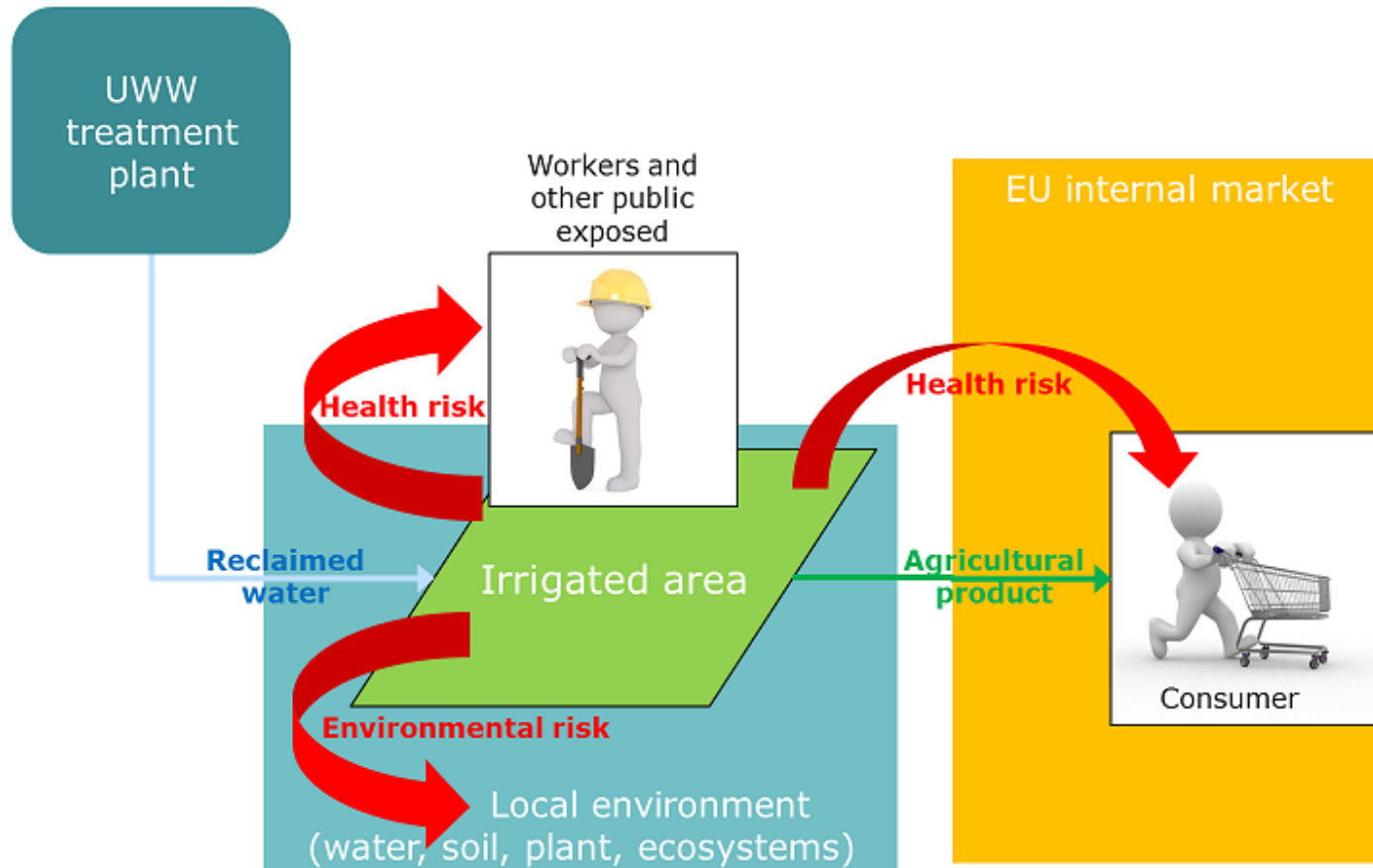


## A largely untapped resource in the EU



# Our aim - Safety!

## Environmental and Health risks



## Main elements of the proposal

**Minimum requirements for reuse** in agricultural irrigation – based on Permit setting out

- **Parametric values** for quality of reclaimed water and **monitoring requirements (Annex I)** – addressing **HEALTH risks**
- **Key risk management tasks (Annex II)** – addressing **ENVIRONMENTAL risks** and potential additional health risks

# Strategic Approach to Pharmaceuticals in the Environment





- **Origin:** Environmental Quality Standards Directive 2008/105/EC as amended by Directive 2013/39/EU – Article 8c
- **Main driver:** Protection of water environment and human health via water environment, but wider environment is being considered (NB pharmacovigilance legislation requires this)
- **Major contribution:** To the environment pillar of the One-Health Action Plan on Antimicrobial Resistance.
- **Adoption:** Communication was adopted on 11 March 2019 as COM(2019) 128 final

[https://ec.europa.eu/environment/water/water-dangersub/pdf/strategic\\_approach\\_pharmaceuticals\\_env.PDF](https://ec.europa.eu/environment/water/water-dangersub/pdf/strategic_approach_pharmaceuticals_env.PDF)

# Objectives



- Identify actions to be taken or further investigated to address potential risks from pharmaceutical residues in the environment, not least to combat Antimicrobial Resistance;
- Encourage innovation where it can help to address the risks, and promote the circular economy (recyclability of sewage, manure etc);
- Identify remaining knowledge gaps and solutions for filling them;
- Ensure that actions to address the risk do not jeopardise access to safe and effective pharmaceutical treatments for humans/animals.

# Important points



- Approach considers whole life cycle of pharma
- Several policy areas relevant, incl. environment, health, agriculture, trade
- Actions are identified in six areas
  1. Increase awareness and promote prudent use
  2. Support development of greener pharma and manufacturing
  3. Improve environmental risk assessment
  4. Reduce wastage and improve waste management
  5. Expand environmental monitoring
  6. Fill other knowledge gaps

# Proposal Drinking Water Directive





## COUNCIL DIRECTIVE 98/83/EC

of 3 November 1998

on the quality of water intended for human consumption

- The Directive applies to all water intended for human consumption apart from natural mineral waters and waters which are medicinal products,
- All drinking water supply systems serving >50 people,
- Drinking Water is water for drinking, cooking or other domestic purpose.

## Protect human health from the adverse effects of contamination in drinking water

### Provide consumers with water at the tap

- free from micro-organisms e.g. antimicrobial-resistant bacteria
- free from parasites
- free from any substances which, in numbers or concentrations constitute a potential danger to human health

### Reporting

- triennial reporting obligation



## Latest policy developments

Drinking Water Proposal of the Commission adopted in 2018

Co-decision ongoing

### New elements:

- Updated/new parameters → based on WHO Report
- Better protection through risk-based approach
- Improved access to water
- Improved access to information



**Updated/new  
Parameters**  
→ **Based on  
WHO Report**

**Risk-based  
approach**  
→ Monitoring only  
where substances  
are detected

**Improved  
health**  
protection  
**Limited costs**  
for water  
suppliers

Better alignment with Water  
Framework Directive



# Increasing transparency & access to information



Essential information for consumers on bill



Additional information online

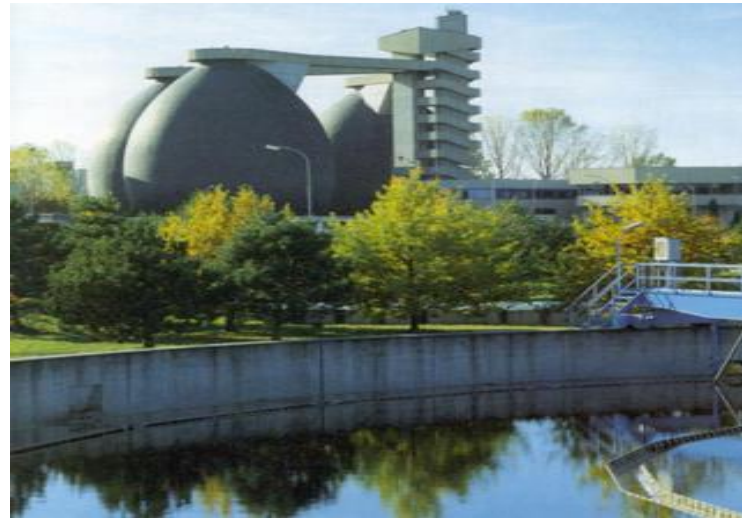


Lighter and more accurate national reporting

A screenshot of the European Environment Agency (EEA) website. The page features a map of Europe, a table of data, and various text elements. The EEA logo is visible in the top right corner. The text "EUROPEAN ENVIRONMENT AGENCY" is at the top. Below the map, there is a table with columns for "Country", "2012", "2013", and "2014". The table lists countries such as Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden. The table also includes a "Total" row. The text "Waterbase - C" is visible on the left side of the page. A yellow banner with the text "25 Datasets" is overlaid on the bottom right of the image.

# Urban Waste Water Treatment Directive

*Directive 91/271/CEE of 21 May **1991***



**Protect the environment from the adverse effects of the discharges of untreated waste water**

## Collection

All agglomerations above 2,000 p.e.

Alternative: Individual appropriate systems (IAS)

## Treatment

Secondary treatment for all agglomerations above 2,000 p.e.

Sensitive areas: more stringent treatment (discharge > 10,000 p.e.)

## Monitoring & reporting

Performance of treatment plants

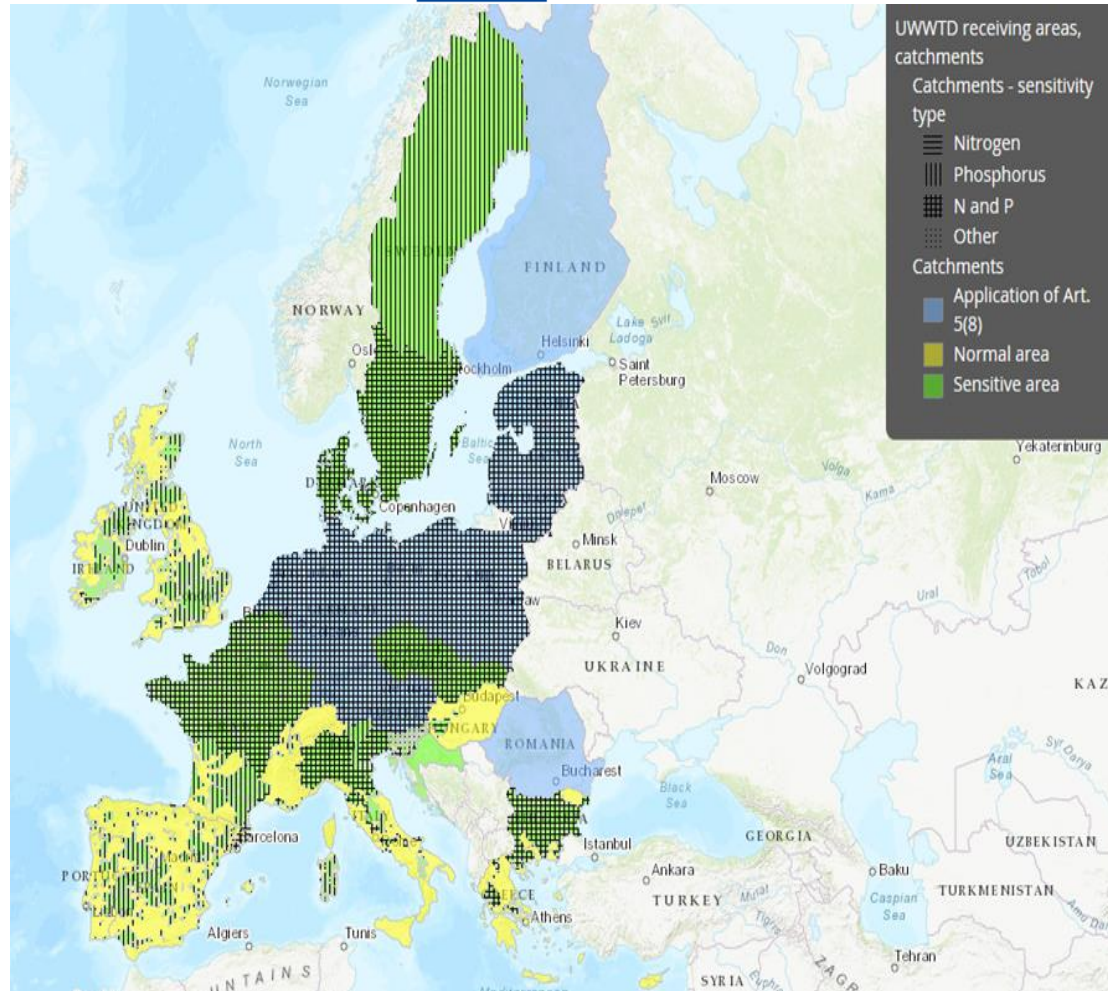
Regular reporting

**Full compliance has not been reached in all MS**

# Sensitive areas



European  
Commission

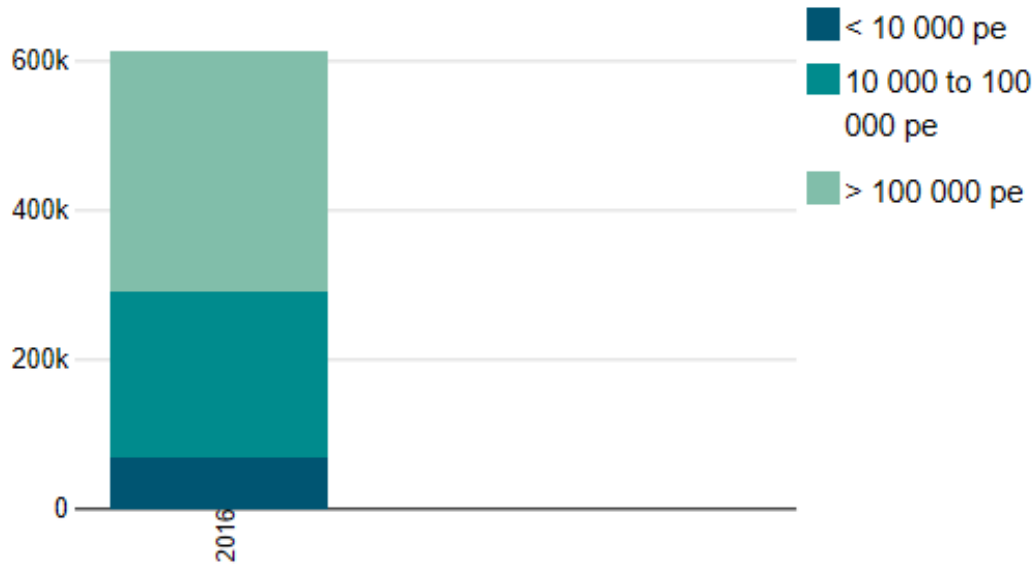


Requirements for treatment differ depending on size of agglomeration and sensitivity of the water body where the effluent is discharged.

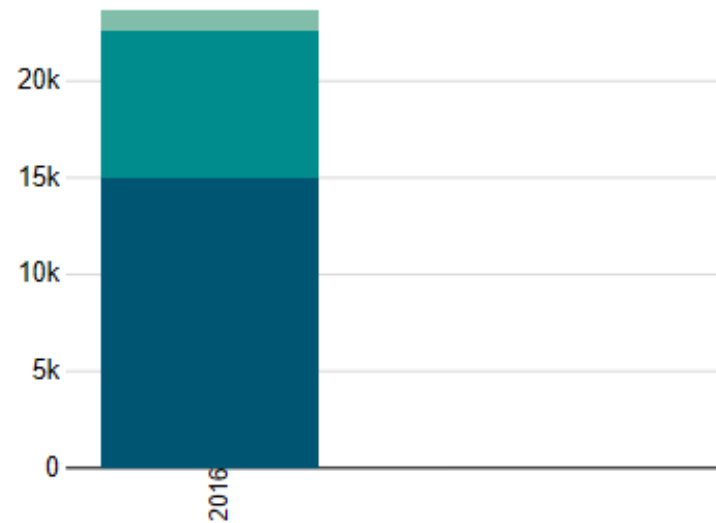
# Agglomerations and generated waste water



Total generated load by agglomeration size  
(kilo population equivalent – k.p.e.)

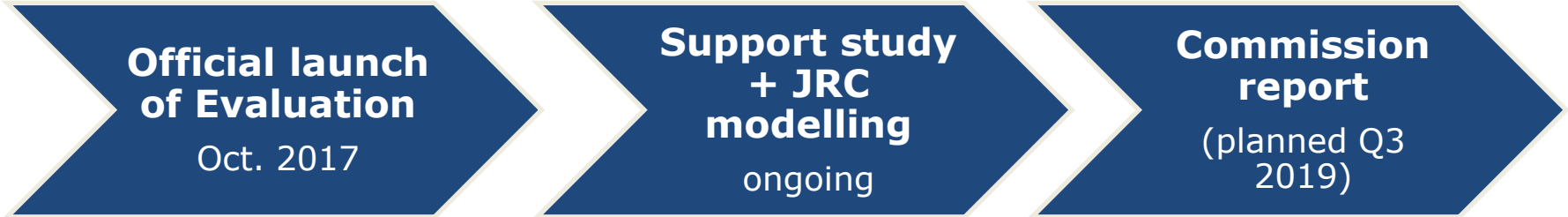


Number of agglomeration by size  
(number of agglomerations)



Most of the waste water is generated by large cities (>100,000 p.e.)  
Most agglomerations in Europe are however small (<10,000 p.e.)  
The Directive covers all agglomerations > 2,000 p.e.

p.e. – population equivalent



- Publication of roadmap
- Coordinated with WFD FC

- Information gathering + analysis
- Consultation activities (incl. public consultation online)

- Serves as basis for decision on way forward with UWWTD

## REFIT Urban Waste Water Treatment Directive (1991)

### Key issues

Storm water overflows + urban runoff

Information to the public

Cost and benefits (affordability)

Coherence

Reporting

Emerging substances

Sensitive areas

Resource efficiency

# UWWTD on balance

## Success:

- **Simple, clear** and focused legislation
- **EU carrot and stick** approach  
- EU funds and infringements



## Barriers to success:

- Some MS provided **overly optimistic deadlines** due to lack of planning / assessment of impacts
- **Governance** – disconnect between national and local authorities
- Lack of **political will**

## Conclusions

- Deterioration of water quality halted across Europe's 130.000 fresh water bodies
- Quality slowly improving, with 60% of surface water not yet at overall good status
- Persisting pollution from nitrates, pesticides, chemical substances, including microplastics and pharmaceuticals, calls for better prevention of pollution at source
- A well implemented UWWTD supports the delivery of good status
- Adoption of recast Drinking Water Directive and new Water Reuse Regulation are priorities
- EC ready to further support implementation and boost innovation





## Chemical pollution in water

- better understand, monitor and evaluate risk posed by simultaneous **exposure to multiple chemicals** present in the aquatic environment
- research on **pharmaceuticals and antimicrobial resistance** in the environment
- investigation of the risk posed by **nanomaterials** in the aquatic environment (including risk to the aquatic environment/via the aquatic environment)
- better understand **microplastics** and their interaction with other pollutants



## Water reuse:

- assess the role and **significance of treated waste water in antimicrobial resistance propagation** and develop methodologies to measure the problem
- framing and sizing of the **micro-plastic dimension in wastewater and treated wastewater** with the aim to estimate possible release of microplastics from the reuse of treated wastewater
- assessment of **other pollutants of emerging concern** including the role and significance of treated waste water in antimicrobial resistances propagation and the spreading of pharmaceuticals in the environment



## Sludge reuse:

- technologies to ensure that the **sludge** is clean enough to use in agriculture

## Groundwater and drinking water

- **Climate change impacts** on groundwater resources (improving resilience, exploring new technologies for groundwater levels control, groundwater and use of geenergy)
- Groundwater **renewal** and processes in the unsaturated zone
- Groundwater and **dependent associated ecosystems** (indicators for protected areas)



## Groundwater and drinking water

- Sharing approaches and tools to **protect drinking water sources**
- **“Cocktail” effects of substances in low concentrations** in water and drinking water on human health and the aquatic environment (non-single substance effect based assessment, including endocrine disrupting effects)
- **Scientific analyses and understanding on “safe” materials** and surfaces in contact with drinking water and food, including microbiological safety (migration potentials, biofilms ...)
- Standards and cost-effective treatment methods for **PFAS and other emerging contaminants** in drinking water

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**Thank you for your  
attention!**