



Urban Wastewater Treatment Directive (recast)



Evaluation

The 1991 Directive

Collection

Treatment

Monitoring & Reporting

Lessons learnt

Effective tool –
Tangible impacts

Simple and
targeted instrument

Carrot and stick

Benefits >>> costs

Room for improvement

Remaining pollution

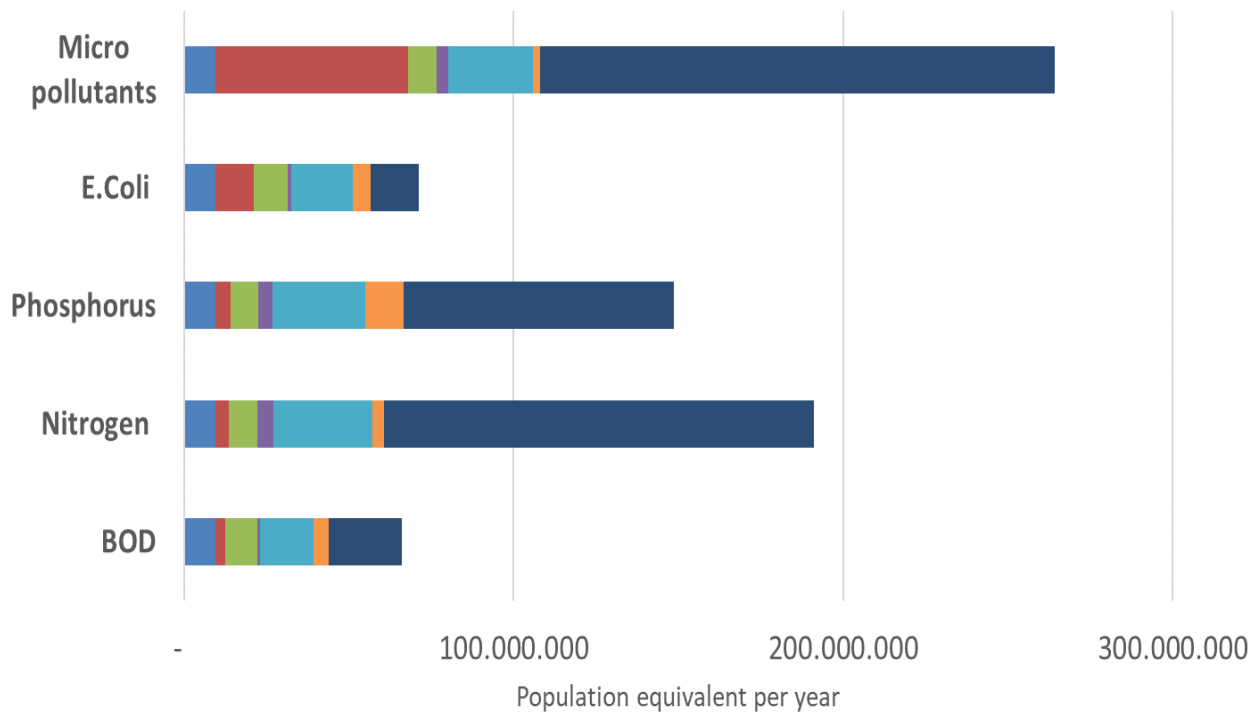
Eutrophication

Energy use, sludge
management

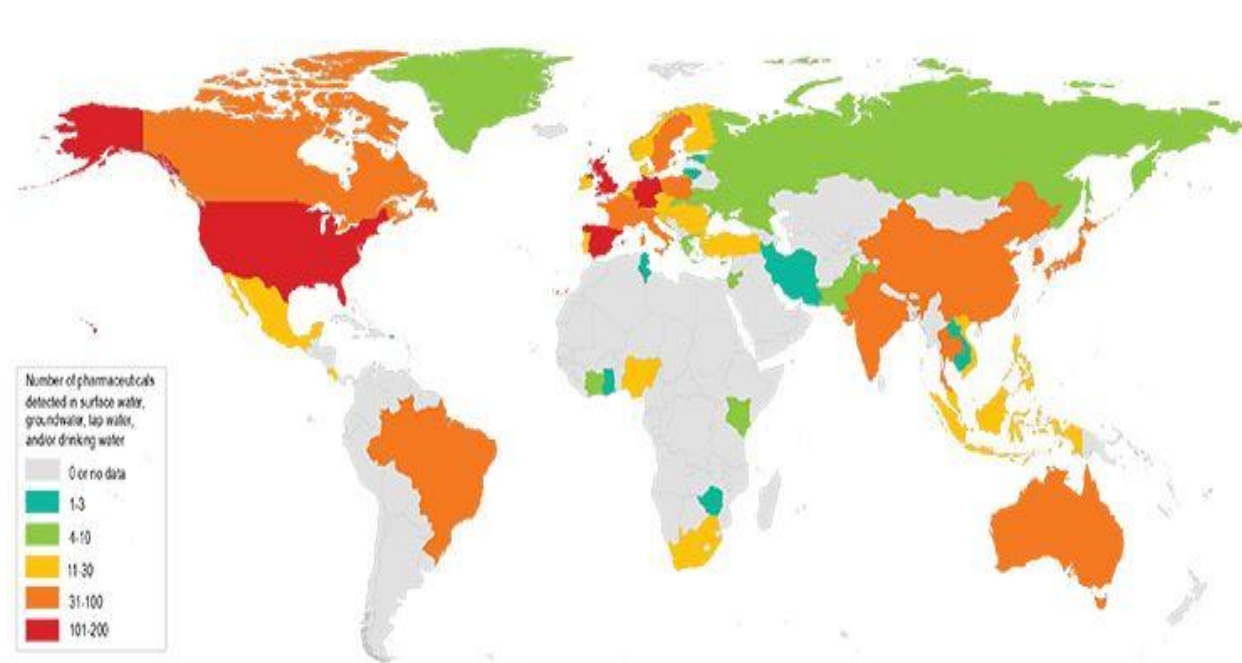
Governance –
transparency/reporting

Coherence with other
legislation

Remaining pollution

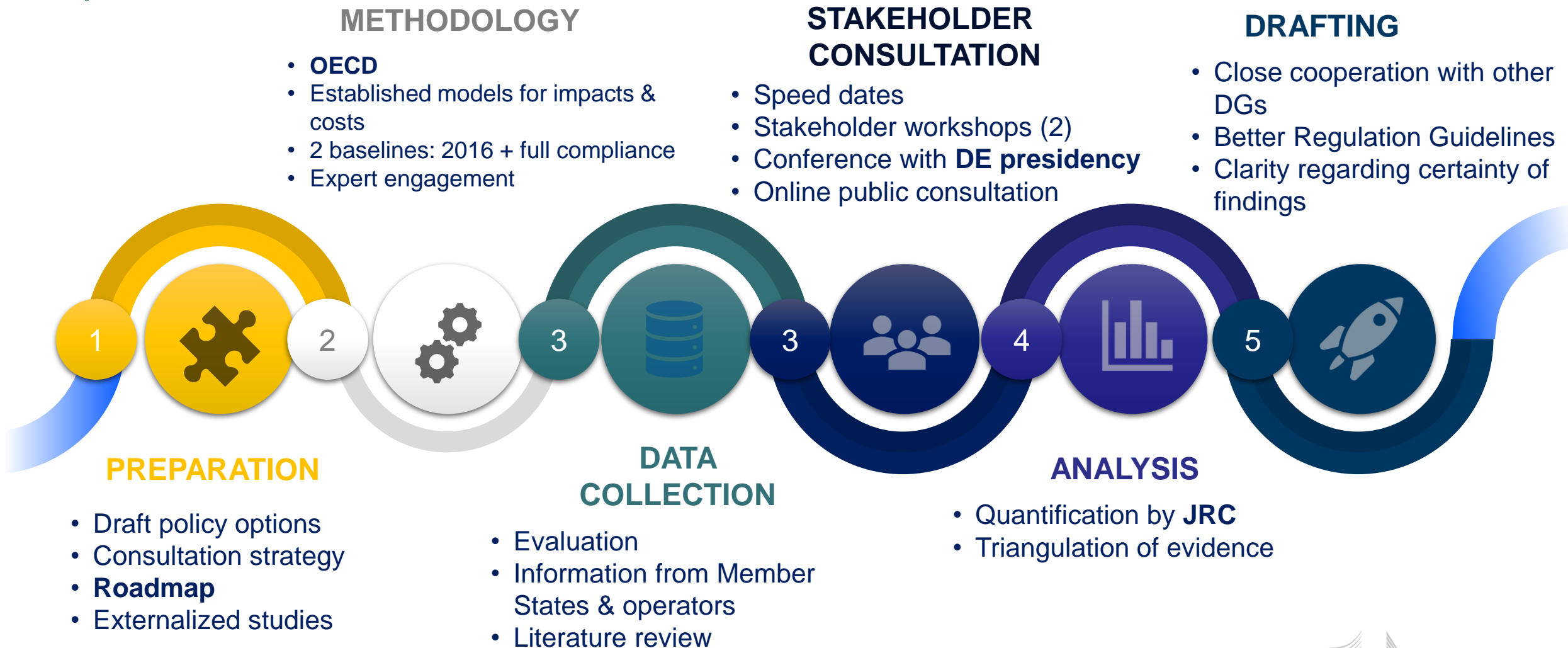


■ SWO
 ■ Non Compliant IAS
 ■ Small Agglo
 ■ Urban run off
 ■ Compliant IAS
 ■ Non compliant load

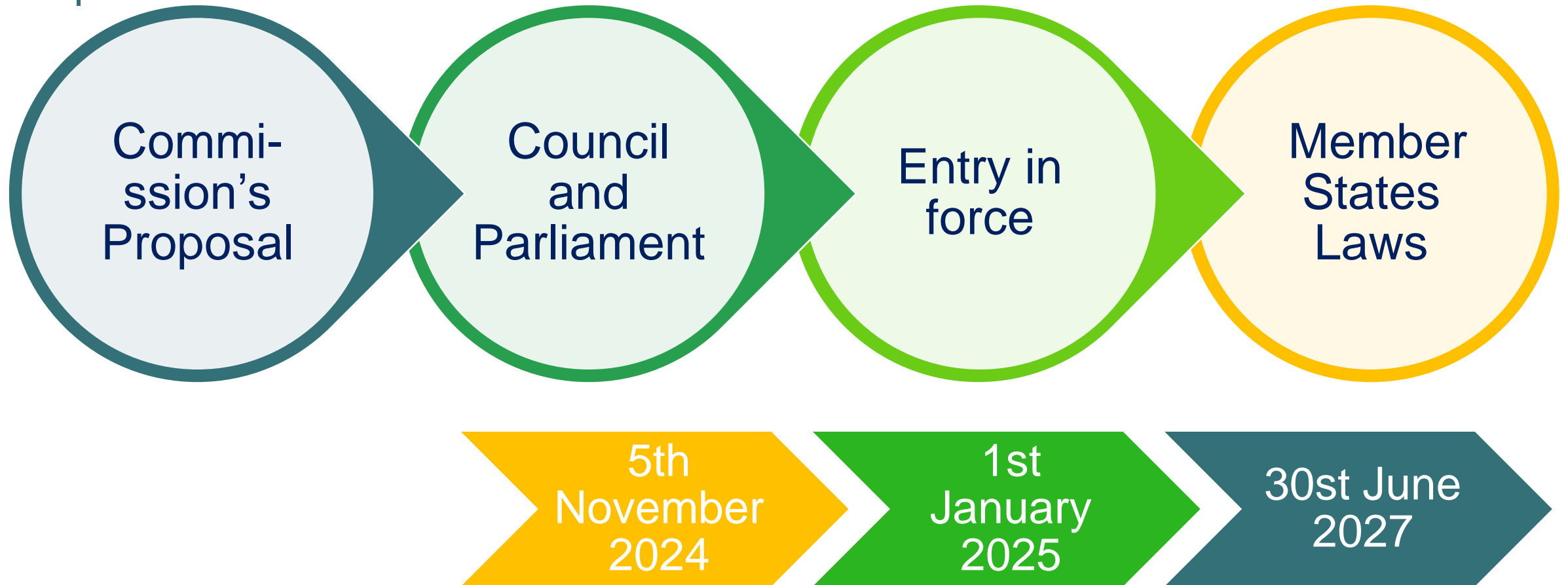


Number of pharmaceuticals detected in surface, ground or drinking water. Source: Aus der Beek et al., 2015

Approach to the impact assessment



Implementation



Remaining pollution

NEW

Integrated water plans (Article 5, annex 5)

- Quantities and quality
- Indicative target of 2%
- Hierarchy of action – prevention first
- By 2030 (>100.000 p.e.) and 2039 (>10,000 p.e.)

Small Agglomerations (Articles 3 and 6)

- From 2.000 to 1.000 pe
- Conditional time derogations

Individual systems (Article 4)

- Minimum requirements for design, maintenance and inspection
- Implementing act - 36 months

Level of treatment

Secondary Treatment

(Article 6)

- ✓ Secondary treatment in all facilities
- ✓ Conditional time derogations
12 years for coastal/less sensitive areas, 20 years for specific cases (Madeira, Mountains and Cold cases)

Nutrients (N/P) Micropollutants

(Articles 7 and 8)

NEW

- ✓ Stricter standards for N/P, new standards for micro pollutants
- ✓ Removal in all facilities >150.000 p.e. by 2036 (N/P) and 2045 (micro poll.)
- ✓ Risk-based >10.000 p.e. by 2045
- ✓ Interim targets from 2033 to 2045

Extended Producer Responsibility (EPR)

Harmonised Rules (Art 9 & 10)

Pharma and cosmetics with exonerations

Recognition procedure of PROs

Clear definition of costs to be covered

Contributions linked to quantities/hazardousness

PROs controlled by MS & independent auditors

NEW

**Producers –
incl. Importers**

- › Declaration of products placed on the market
- › Pay contributions

Producer Organisations (PROs)

- › Implement EPR for their members
- › Fix level of contributions
- › Contracts with operators

Wastewater Operators

- › 4th treatment
- › Monitoring and reporting



European
Commission

Energy and GHG emissions (Article 11 and 21)



Energy
audits

Energy
neutrality by
2045

GHG
monitoring
and reporting
by 2030

Governance

Transparency

(Art. 24)

- ✓ Improved access to information
- ✓ Performance indicators

Health

(Art. 17)

- ✓ Mandatory coordination between health and wastewater authorities
- ✓ Compulsory monitoring during pandemics
- ✓ AMR monitoring (Delegated act on method)

Access to sanitation

(Art. 19)

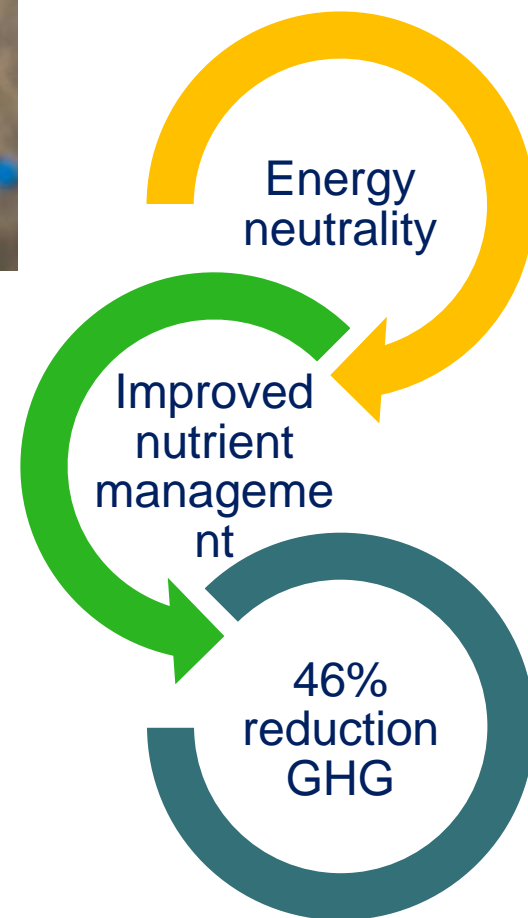
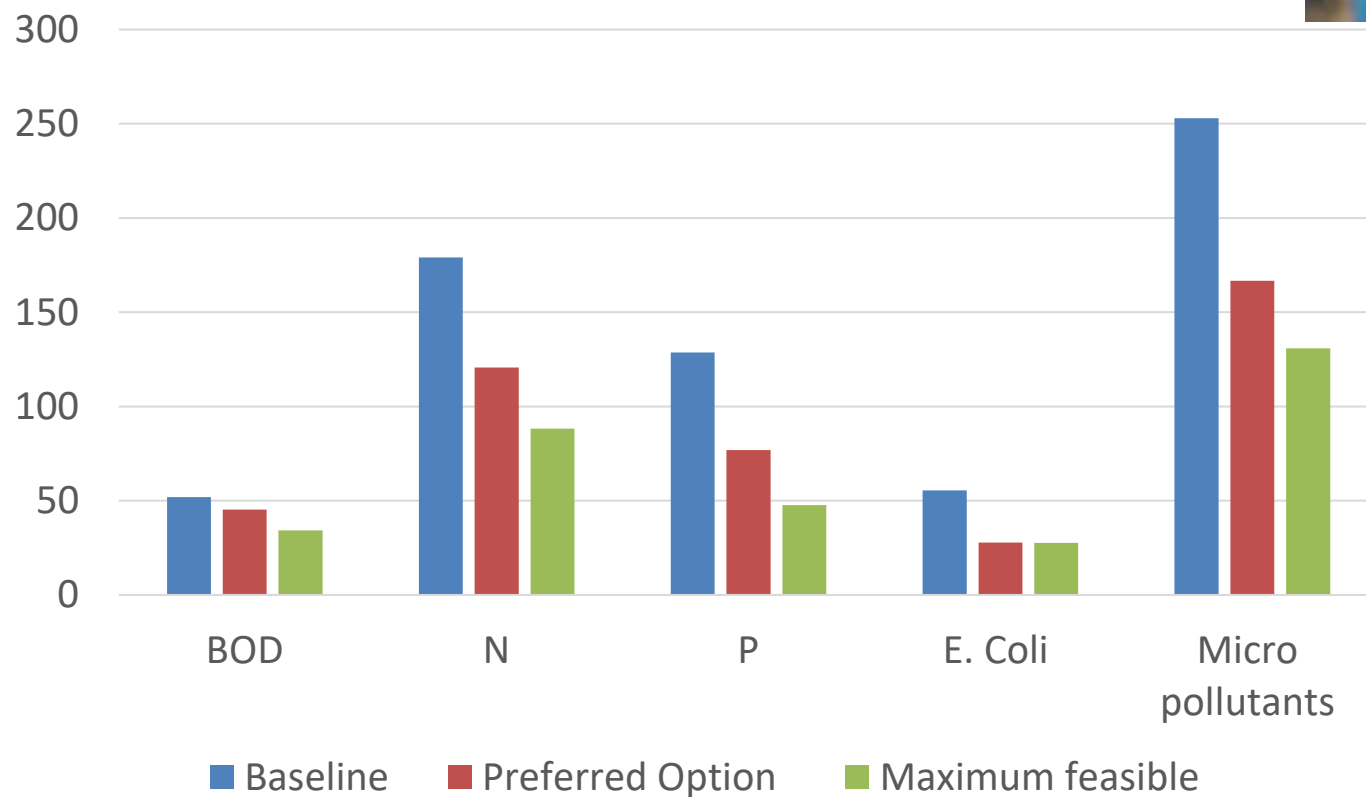
- ✓ Ensure access to sanitation (vulnerable)
- ✓ Encourage access to sanitation in public buildings or for free/low fee in restaurants etc.

Impacts



**- 9 %
micro
plastics**

Pollution reduction (million pe)



Cost coverage, affordability

Now: 70% water tariffs and 30% public budget

Proposal: 3 sources of financing

Water tariffs

- 1,8 bn €/year by 2045
- Average increase 2,3% in 2045
- **Affordability not endangered**

Public Budget

- 0,8 bn €/year by 2045
- EU funds for water: EUR 2 bn/year
- Average public budget for water: EUR 30 bn/year

Producer responsibility

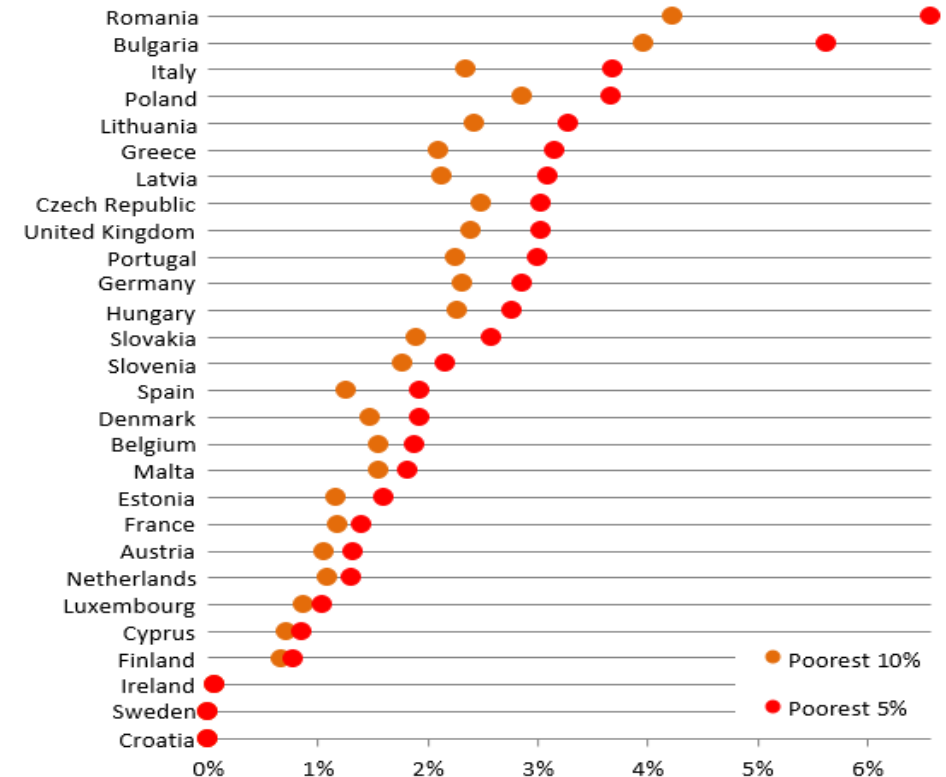
- 1,2 bn €/year by 2045
- 0,5 to 0,9% max reduction of profit margins
- OR 0,6% max of annual expenses (EUR 2,7 year/person max)

Costs

3,8 € bn/year in 2045

Benefits

6,6 € bn/year in 2045



Share of water expenditures in households' disposable income (2011-2015 average) Source: OECD based on Eurostat

	2030	2033	2035	2036	2037	2039	2040	2045
Collection & secondary treatment (Art 3 & 6)			31/12 all aggro. > 1.000 p.e. (derogations)		31/12 secondary in coastal/non sensitive areas			
Tertiary Treatment (Art 7)		31/12 30% > 150.000 p.e. and 20% > 10.000 pe at risk (*)		31/12 70% > 150.000 p.e. and 40% > 10.000 p.e. at risk (*)		31/12 all > 150.000 p.e. and 60% > 10.000 pe 'at risk (*)		In all aggro. 'at risk'
Quaternary Treatment (Art 8)		31/12 20% > 150.000 p.e. & 10% agglo > 10.000 p.e. 'at risk'		31/12 30% aggro > 10.000 p.e. 'at risk'		31/12 60% > 150.000 p.e. & aggro > 10.000 p.e. 'at risk'		31/12 all > 150.000 p.e & all aggro > 10,000 pe 'at risk'
Energy neutrality (Art 11)	31/12 20% renewable		31/12 40% renewable				31/12 70% renewable (derogation)	31/12 100% renewable (derogation)

(*) % of facilities NOT having tertiary treatment in place on 01/01/2025

Implementing & Delegated acts

Technical

- Design, operation, maintenance and regular inspections of individual systems - 36 months
- Methods to define measures to be included in integrated water management plans – 36 months
- Alternative indicators to verify the indicative objective of 2% - 36 months
- Criteria on exoneration from producer responsibility for products not creating micropollutants – 24 months
- Minimum reuse and recycling rate for phosphorus from sludge and treated water - 36 months
- Calculation on energy neutrality, no deadline

Monitoring

- Antimicrobial resistance - 18 months
- PFAS – 24 months
- Microplastics (sludge/water) - 30 months
- Micro pollutants – no deadlines
- GHG monitoring - 30 months

Reporting

- New parameters – 31 dec 2028
- Format integrated plans – 30 months
- Risk assessment micro pollutants – no deadline



Thank you for your attention !

