



# Integrated Water Management

## Revision of lists of Surface Water and Groundwater Substances

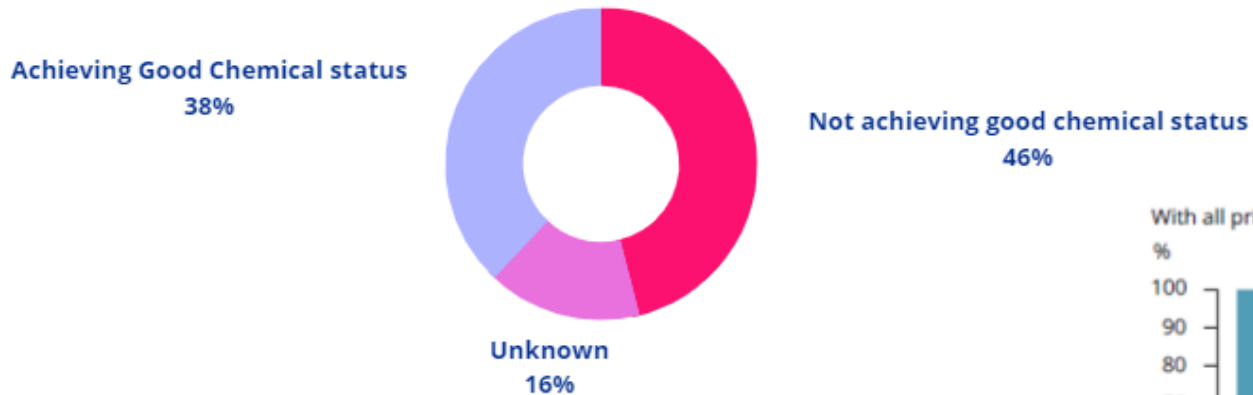
Coördinatiecomité Internationaal Milieubeleid (CCIM) /  
Comité de Coordination de la Politique Internationale de l'Environnement (CCPIE)

**30 January 2023**

# What is the environmental problem?

## Surface Waters in the EU\*

\* 2<sup>nd</sup> River Basin Management reporting



The situation varies enormously between MS

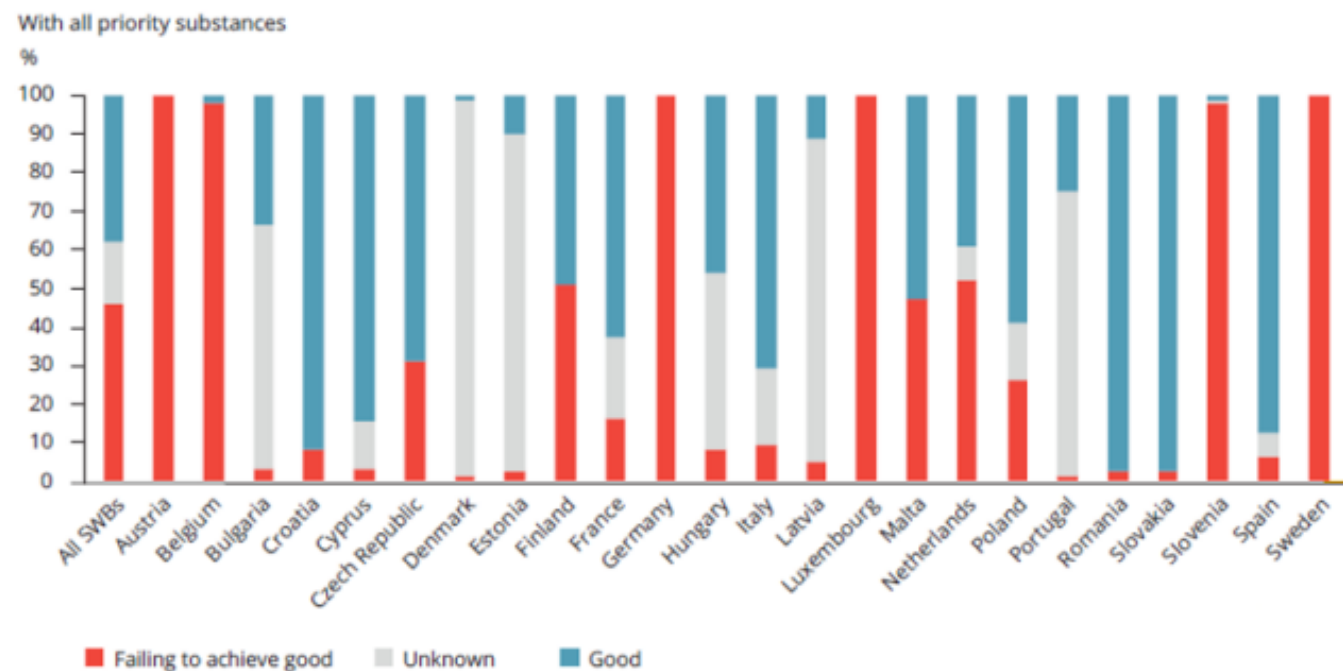
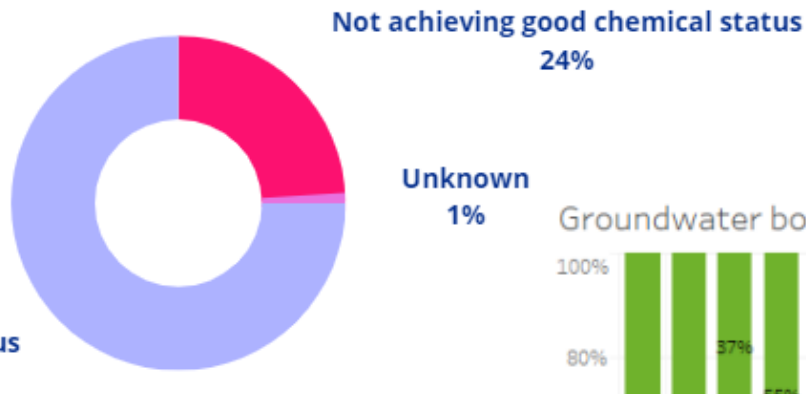


Figure B1.1: Chemical status of all surface water bodies for all priority substances per Member State (12)

# What is the environmental problem?

## Groundwater in the EU\*

\* 2<sup>nd</sup> River Basin Management reporting



Groundwater bodies: Chemical status, by country



The situation varies enormously between MS

Figure B1.2: Chemical status of all Groundwater bodies per Member State (12)

# What are the policy problems?

The 2019 Fitness Check revealed 2 main problems

## Improve protection of ecosystems and human health from risks posed chemical pollution

The present list of polluting substances of EU wide concern is out of date and there is a legal obligation to update this list every 6 years

- The current focus on individual substances disregards cumulative or combined effects of mixtures
- The current framework does not account for seasonal variations in pollutant loads

## Implementation deficits

Too large variation in pollutants and quality standards at MS level (resulting in incomparable data)

Ordinary legislative procedure to update lists of pollutants delays adaptation to scientific progress

Room for improvement of data management and reporting, eg through improved electronic reporting and streamlining



## Solutions – main objectives

Better protect health and the environment

Update the list of pollutants in surface water and groundwater with new substances of concern.

When a substance is listed MS must monitor concentrations, meet quality standards and take measures to reduce or phase out emissions

Improve knowledge on water quality -

Provide more accurate, complete and up-to-date information on water quality

Introduce effect-based monitoring

Consider seasonal effects when monitoring substances on the watch list

Allow novel monitoring techniques (e.g. remote sensing)

Ensure continuous scientific support from ECHA

Simplify and create a more dynamic framework

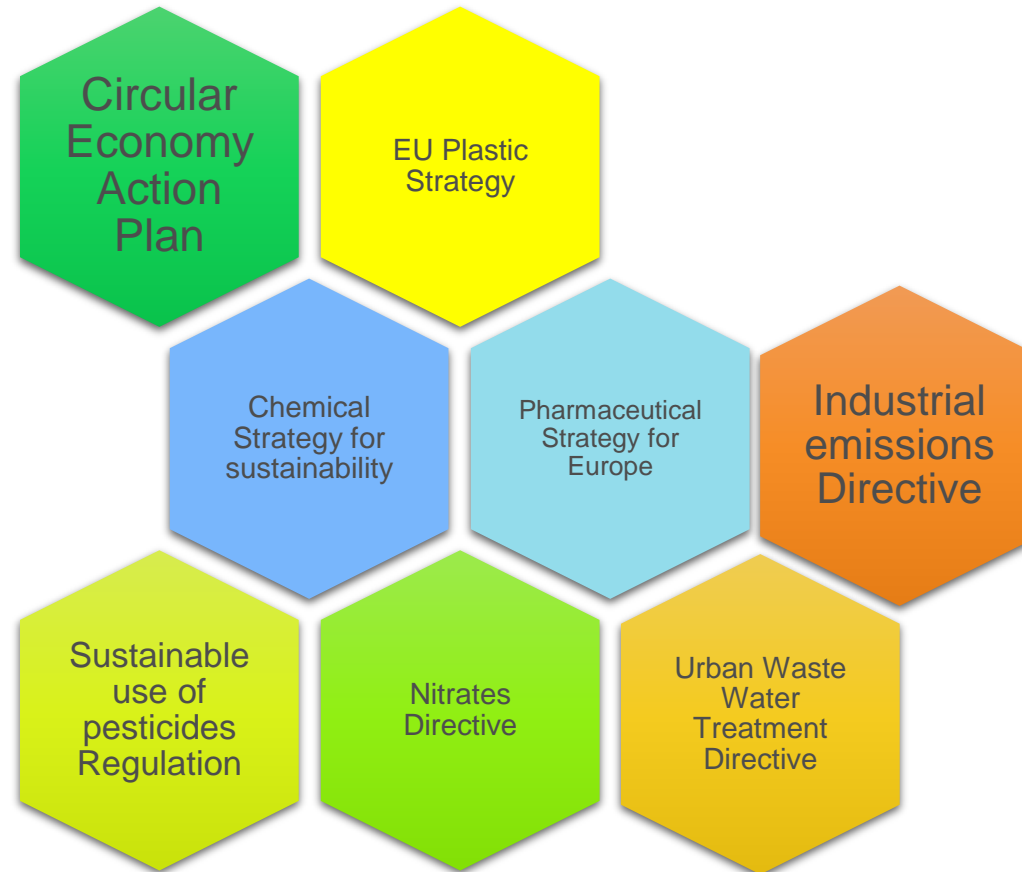
Create a more flexible framework for addressing pollutants of emerging concern such as microplastics and antimicrobial resistance genes

Delegated acts procedure instead of ordinary legislative procedure

Simplified reporting on emissions and programmes of measures

# Other initiatives/laws that address pollutants

This proposal must be considered in conjunction with other initiatives that reduce the emissions of pollutants at source



# This proposal amends three Directives

Water  
Framework  
Directive  
(WFD)



Groundwater  
Directive  
(GD)



Integrated water  
management –  
revision of  
surface water  
and groundwater  
pollutants



Environmental  
Quality  
Standards  
Directive  
(EQSD)



## Skeleton of the Proposal – few main elements

### Article 1

- Changes to the Water Framework Directive **2000/60/EC**

### Article 2

- Changes to the Groundwater Directive **2006/118/EC**

### Article 3

- Changes to the Environmental Quality Standards Directive (EQSD) **2008/105/EC**

### Article 4

- Transposition deadline (18 months)

### 6 ANNEXES

- A I and II = changes Annex V and VIII to WFD
- A III and IV = changes Annex I and II to GWD
- A V and VI = changes Annex I and new Annex II to EQSD

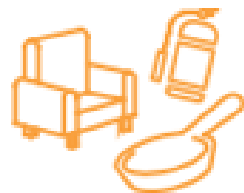


# Core elements of Legal Proposal

- ★ Changes Annex I GWD (Annex III proposal)
- ★ Changes Annex I EQSD (Annex V proposal)



# Surface water substances - 25 new emerging ones



**PFAS:** Additional 24 substances



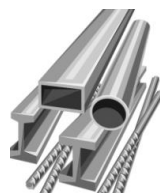
**Pesticides:** *Triclosan, Nicosulfuron, Glyphosate, Neonicotinoids, Pyrethroids, & total of active substances in pesticides (incl. their relevant metabolites, degradation and reaction products)*



**Pharmaceuticals:** *Macrolide antibiotics, Estrogenic hormones, Carbamazepine, Diclofenac, Ibuprofen*



Bisphenol-A



Metal: Silver

Also removed 4 pollutants and changed standards for 16 pollutants

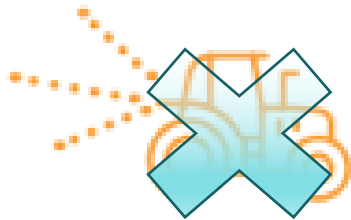


# Annex I EQSD – Surface water **priority** substances- **deselections**

Substances that no longer pose an EU-wide risk



*Carbon tetrachloride*



Pesticides: *Alachlor, Chlorfenvinphos, Simazine*



# Annex I EQSD – Surface water **priority** substances–EQS changes



For 16 existing substances - In some cases more stringent in others less stringent

(Chlorpyrifos, Dioxins, Diuron, Cypermethrin, Fluoranthene, Heptachlor, Hexachlorobenzene, Mercury Hexachlorobutadiene, Nickel, Nonylphenol, PAHs, PolyBDEs, Tributyltin, Dicofol, Hexabromocyclododecane).

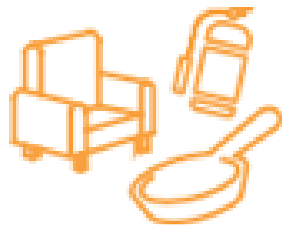
No.	Substance	Category of substances	CAS number	AA-EQS fw [µg/L]	AA-EQS mw [µg/L]	MAC-EQS fw [µg/L]	MAC-EQS mw [µg/L]	EQS biota [µg/kg <sub>ww</sub> ]
9	Chlorpyrifos	Organophosphate pesticide	2921-88-2	4,6 x 10 <sup>-4</sup>	4,6 x 10 <sup>-5</sup>	0,0026	5,2 x 10 <sup>-4</sup>	
41	Cypermethrin	Pyrethroid pesticides	52315-07-8	3 x 10 <sup>-5</sup>	3 x 10 <sup>-6</sup>	6 x 10 <sup>-4</sup>	6 x 10 <sup>-5</sup>	
34	Dicofol	Organochlorine pesticides	115-32-2	[4,45 x 10 <sup>-3</sup> ]	[0,185 x 10 <sup>-3</sup> ]	not applicable	not applicable	[5,45]
37	Dioxins and dioxin-like compounds	Industrial substances	This refers to the f-	-	-	not applicable	not applicable	Sum of PCDD+ PCDF+ PCB-DL; [3,5 x 10 <sup>-5</sup> ]
13	Diuron	Herbicides	330-54-1	0,049	0,0049	0,27	0,054	
15	Fluoranthene	Industrial substances (PAH)	206-44-0	7,62 x 10 <sup>-4</sup>	7,62 x 10 <sup>-4</sup>	0,12	0,12	6.1
44	Heptachlor and heptachlor epoxide	Organochlorine pesticides	76-44-8 / 1024-57-	[1,7 x 10 <sup>-7</sup> ]	[1,7 x 10 <sup>-7</sup> ]	3 x 10 <sup>-4</sup>	3 x 10 <sup>-5</sup>	[0,013]
43	Hexabromocyclododecane (HBCDD)	Industrial substances	This refers to 1,3,5	[4,6 x 10 <sup>-4</sup> ]	[2 x 10 <sup>-5</sup> ]	0,5	0,05	[3,5]
16	Hexachlorobenzene	Organochlorine pesticides	118-74-1			0,5	0,05	20
17	Hexachlorobutadiene	Industrial substances (solvent)	87-68-3	9 x 10 <sup>-4</sup>		0,6	0,6	21
21	Mercury and its compounds	Metals	7439-97-6			0,07	0,07	10
23	Nickel	Metals	7440-02-0	2	3.1	8,2	8,2	
24	Nonylphenol	Industrial substances	84852-15-3	0,037	0,0018	2,1	0,17	
28	Polyaromatic hydrocarbons (PAHs)	Industrial substances (PAHs)	not applicable	not applicable	not applicable	not applicable	not applicable	[0,6] (sum of BaP equivalent, waiting for the SCHEER opinion)
5	Poly Brominated Diphenylethers (PBDEs)	Industrial substances	32534-81-9			0,14	0,014	0,00028
30	Tributyltin (TBT) compounds	Biocides	36643-28-4	0,0002	0,0002	0,0015	0,0015	1,3 µg/kg <sub>dw</sub> (sediment)

### List of Existing PS EQS dossiers- Review

Table with the list of reviewed EQS values of existing PS. Comparison with the existing EQS values in the WFD: orange rows when proposed EQS value is stricter and green rows when the proposed EQS value is less strict than the existing one in the WFD.



# Groundwater substances



**PFAS:** Additional 24 substances



**Pesticides:** additional breakdown products, non-relevant Metabolites (nrMs) to Annex I (EU-wide standards) as individual substances and as a group.



**Pharmaceuticals:**

- 2 additions to Annex I (EU-wide standards):  
**Carbamazepine & Sulfamethoxazole** and
- **Group total standard for active pharmaceutical subst.**  
Add 1 (**Primidone**) to Annex II (MS to consider setting a national standard).

**And: a mandatory groundwater watchlist mechanism**

# Additional elements of Legal Proposal

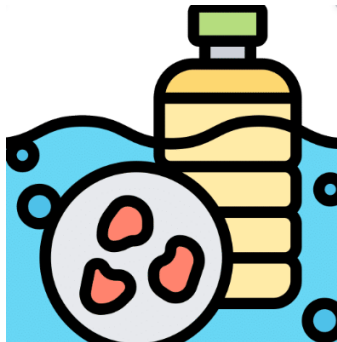
1. River Basin Specific Pollutants = 'chemical status'
2. Harmonised standards for pollutants of national concern
3. **Streamlined procedures** – harmonised (mandatory) **Watch List GW & EQSD**
  - Update lists every three years / 2-year monitoring – consideration of seasonal fluctuations
  - Next WL: incl. microplastics & antimicrobial resistance genes
4. Simplified procedures - Delegated acts to review Annexes
5. Yearly info on water quality & Automated data delivery mechanisms
6. **Simplified reporting** (synergies with Industrial Emissions Portal)
7. **Effect Based Monitoring** - new monitoring techniques (remote sensing)
8. Scientific support from ECHA to list substances and assess results
9. Oder Warning Clause for transboundary pollution incidents

# Streamlined procedures - Improved Watch list mechanism

- **Mandatory** also for **GW** - new Art 6a GWD and changes to Art 8b EQSD
- Updated list every three years - 2 year monitoring – consideration of **seasonal** fluctuations
- Scientific support from ECHA to list substances and assess results - link to review Annexes



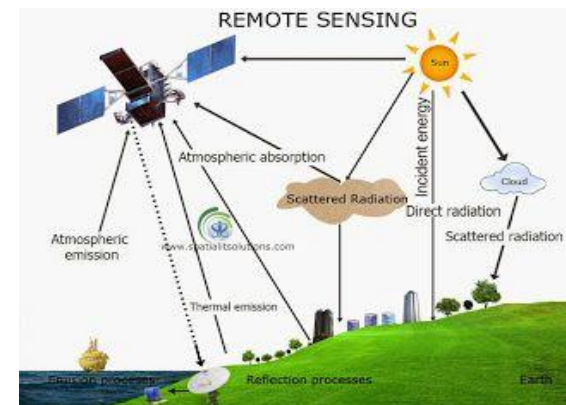
**Antimicrobial Resistance Genes:** Include in the next Watch List, subject to identification of suitable analytical method



**Microplastics:** Include in next Watch List subject to the development of a harmonised monitoring /analytical method

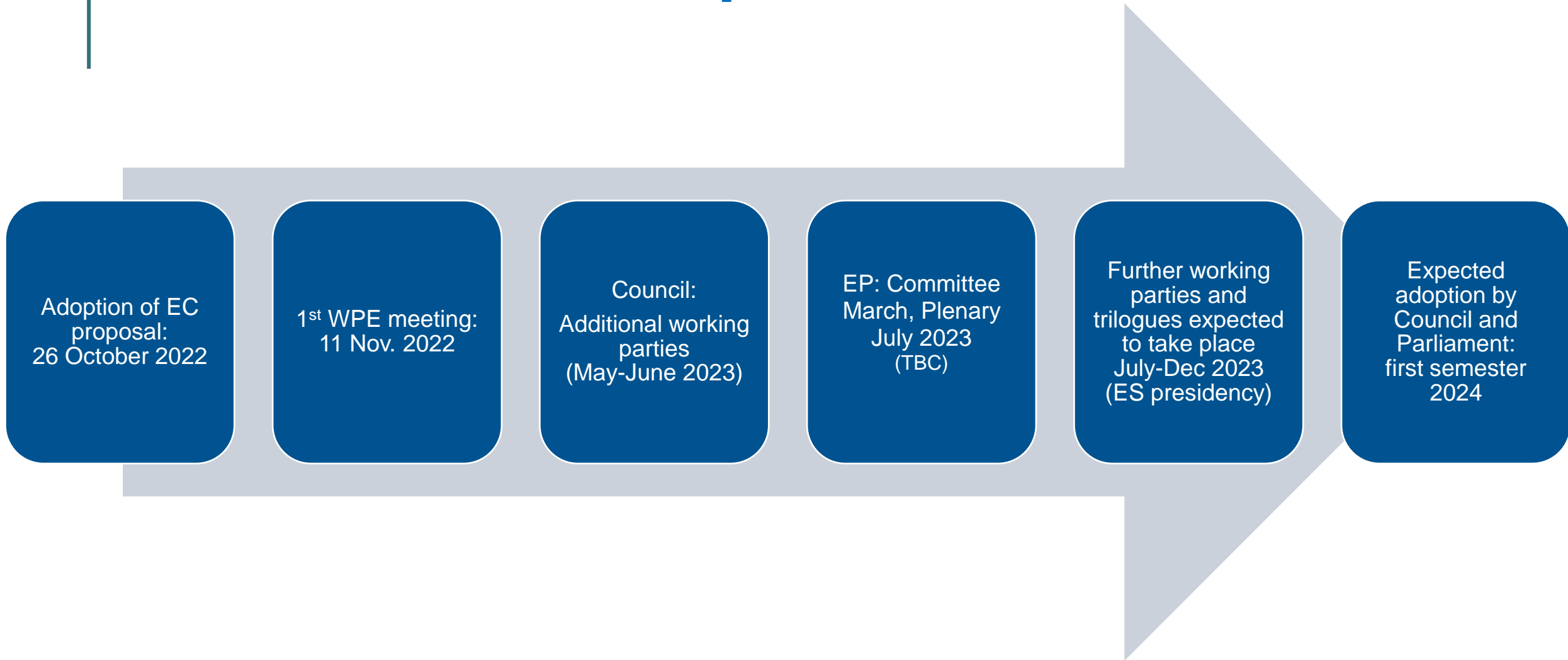
# New monitoring techniques

- Article 8a EQSD – new obligation to carry Effect Based Monitoring of estrogenic hormones (2 years)
- Monitoring results will be compared with results of ‘classical’ monitoring of the three estrogenic hormones listed in Annex I EQSD
- Purpose = assess impact of wider range of substances with same effect – potential future use as screening method OR to set ‘effect-related thresholds’ (trigger values)
- The definition of EQS in Art 2 WFD has been modified to allow for future setting of effect-based trigger values
- Allow use of modern monitoring methods eg remote sensing (changes to Annex V WFD)





# Timeline – Next steps



# Thank you



Please visit:

- [Zero Pollution webpage](#)
- [Water - Environment - European Commission \(europa.eu\)](#)

Contact: [ENV-ZERO-POLLUTION@ec.europa.eu](mailto:ENV-ZERO-POLLUTION@ec.europa.eu) ; [ENV-WATER@ec.europa.eu](mailto:ENV-WATER@ec.europa.eu)