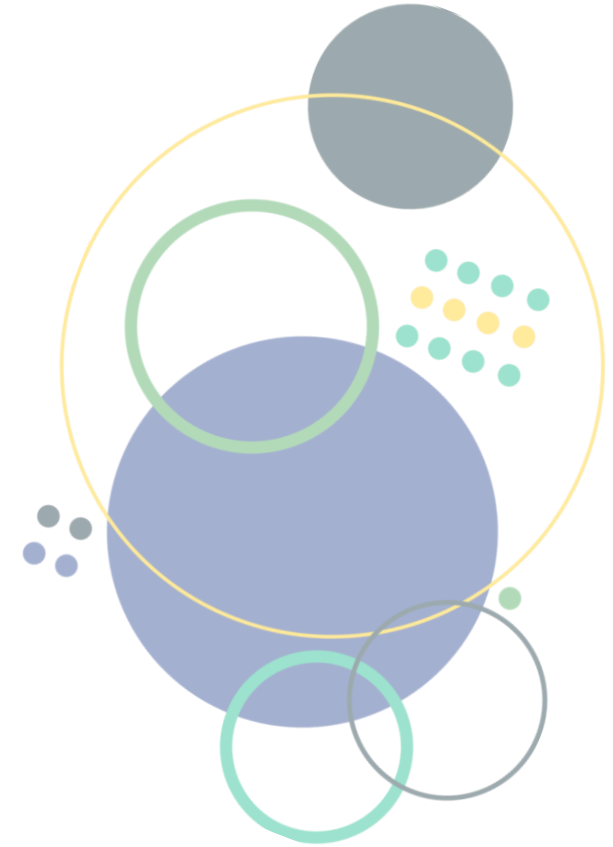


Workshop: Addressing Emerging pollutants in eastern partnership countries

1 July 2026

International Energy Agency, Paris



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

Content

- Emerging pollutants in the context of EU Zero Pollution Action Plan – *page 4*
- Presentation on the EU policy Framework on Emerging Pollutants in Water – *page 12*
- Role of European Chemicals Agency (ECHA) in Chemical Management – *page 25*
- PFAS: what is PFAS and how to deal with it in drinking water – *page 34*
- Microplastics: River Plastic Pollution Monitoring – Insights, Challenges and Opportunities – *page 55*
- EU4Green Recovery East activities to support countries in addressing emerging pollutants in water in line with EU regulatory approaches and policy objectives – *page 76*



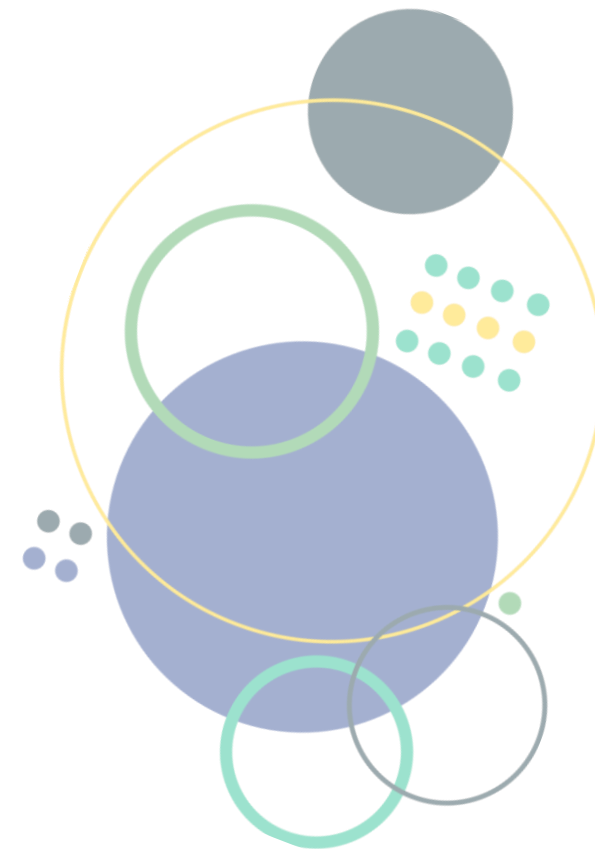
Thank you for your participation!



Background
Paper



Please provide
your feedback





Presentation on the EU policy Framework on Emerging Pollutants – Zero Pollution

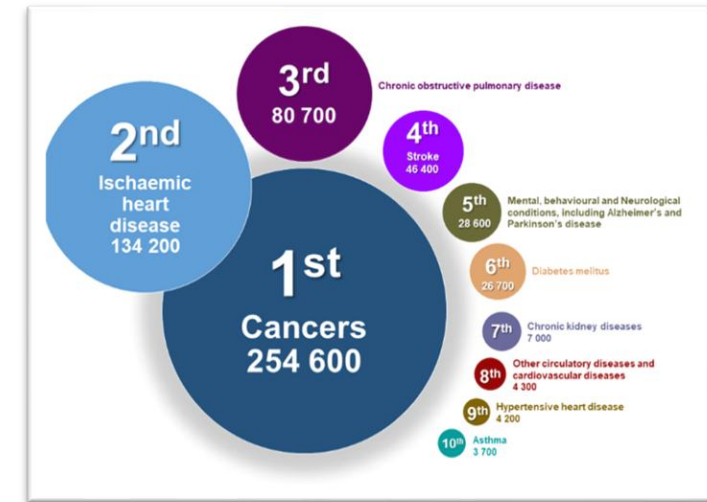
Facts & figures

Zero Pollution

- **1 in 10 premature deaths** in the EU is linked to environmental pollution
- **90% of these deaths** are due to chronic diseases, out of which cancers are the most frequent ones
- Pollution disproportionately affects the most vulnerable groups
- We are making **good progress to achieve the 2030 zero pollution target on health impacts of air pollution** but less so on others
- **Climate change is exacerbating the health impacts of pollution** with heatwaves intensifying the effects of air pollution on vulnerable populations
- Pollution is **one of the five main drivers of biodiversity loss**

Water Resilience

- Nearly **30%** of EU territory faced water scarcity (2019 data)
- By 2030, global freshwater demand is predicted to exceed supply by a staggering **40%**
- Since 1970, we have lost **a third of our freshwater ecosystems**, and freshwater populations have plummeted by **83%**
- **More than 60% of EU water bodies** are not in good ecological status (2024 report)
- **46% of coastal waters in poor eutrophication status**
- **1 in 3 people** globally do not have access to safe drinking water

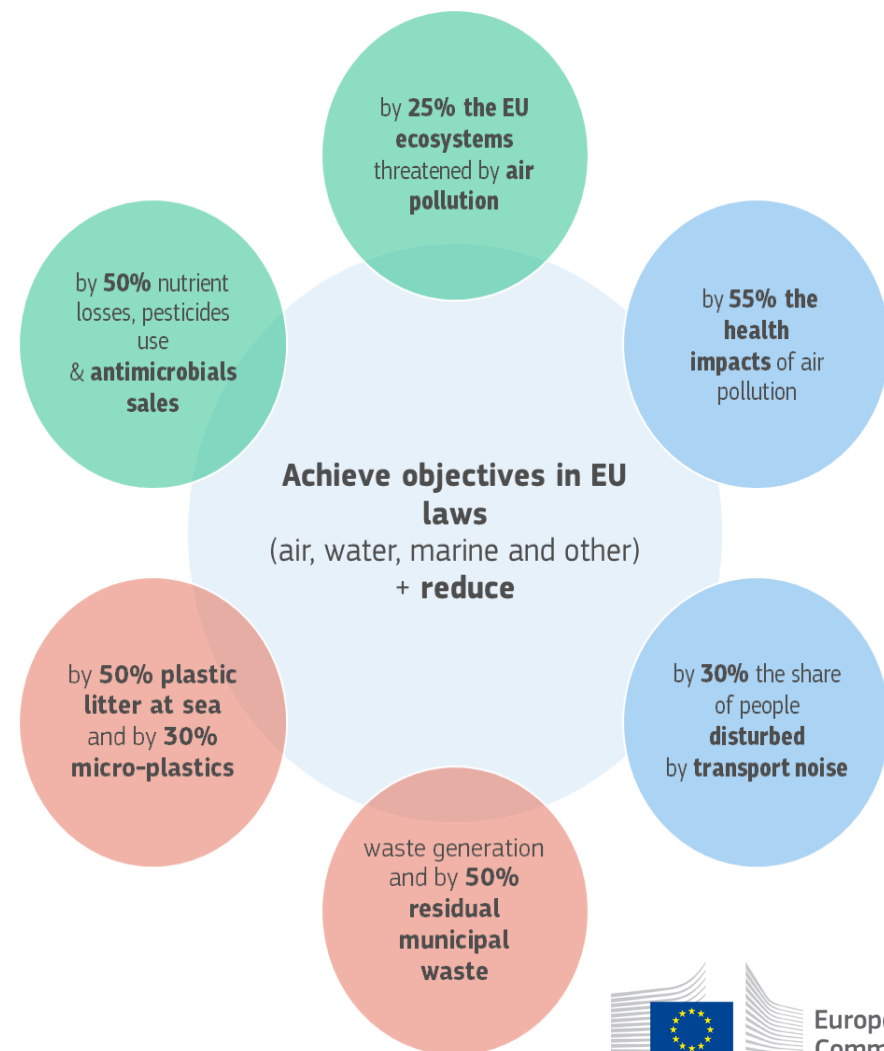


Zero Pollution Action Plan 2050 vision & 2030 targets



The **zero pollution vision** for 2050

“Air, water and soil pollution is reduced to **levels no longer considered harmful to health and natural ecosystems** and that **respect the boundaries our planet can cope with**, thus creating a toxic-free environment.”



Zero Pollution – implementation of key legislative actions



Air & Noise

- Revised **Ambient Air Quality Directive**
- Revised **Industrial Emissions Directive** and **Industrial Emissions Register Regulation**
- New emission limit values for motor vehicles (**EURO7**)
- Implementation Report of **Environmental Noise Directive**
- Evaluation of the **National Emissions-reduction Commitment**



Water & Marine

- Revised **Urban Wastewater Treatment Directive**
- Revised **Drinking Water Directive**
- Revision of **water pollutants list**
- Evaluation of the **Marine Strategy Framework Directive**
- Evaluation of the **Bathing Water Directive**
- Implementation Reports on **Water Framework, Floods and Marine Directives**



Soil

- New **Soil Monitoring Law**
- New **Nature Restoration Law**
- Existing **Sustainable Use of Pesticides Directive**
- Evaluation of the **Nitrates Directive**



Products & waste

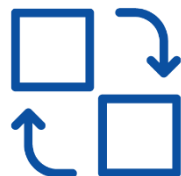
- New **Ecodesign for Sustainable Products Regulation**
- Revised **Packaging and Packaging Waste Directive**
- Revision of the **Mercury Regulation**
- Revised **Waste Shipment Regulation**
- New Directive on pellets reducing **microplastics** pollution
- ‘**one substance, one assessment**’ package

Implementation and integration

- Delivering **clean air, ocean, water and soil** on the ground



Legislation is largely in place. Moving from **policy making** to **implementation**



Integration of zero pollution policy into public policies is crucial.



A **holistic approach** is more inclusive and effective



(Implementation)
Dialogues with Member States and **support** to promote enforcement and cooperation on the ground

Action is underway! (93% regions have improved air quality since 2016)

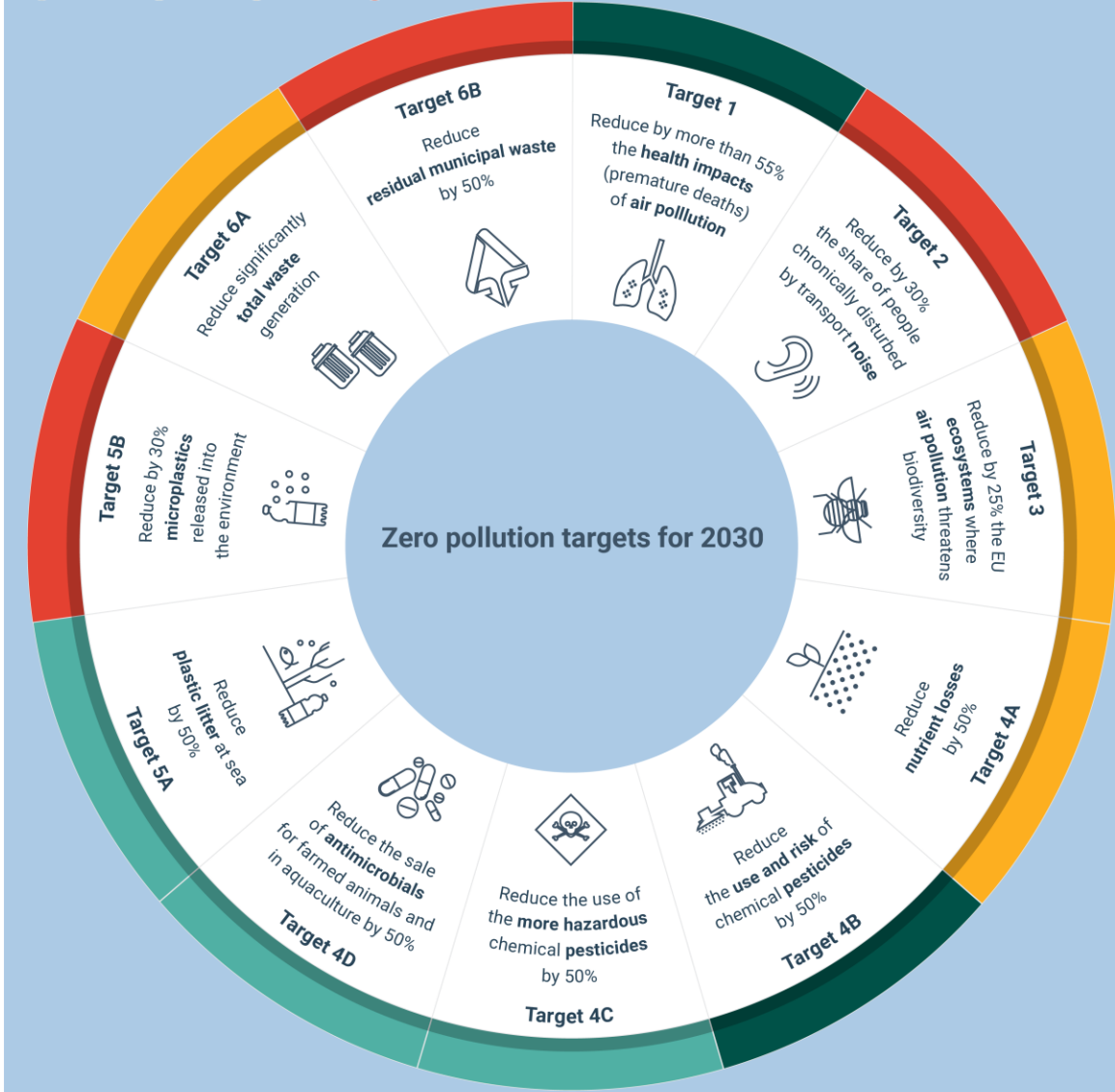
All stakeholders, EU, Member States, local authorities, private sector, civil society, households, have a role.

2nd Zero Pollution Monitoring & Outlook



Outlook: is the target going to be met by 2030?

On track Likely Unlikely Off track



What progress has been made towards the targets?

Target 1	Target 2	Target 3	Target 4A	Target 4B	Target 4C	Target 4D	Target 5A	Target 5B	Target 6A	Target 6B
↓		↓		↓	↓	↓	↓			
-45%	-2%	-13%	Stable	-46%	-25%	-28%	-29%	+7-9%	-0.5%	-1.5%
Baseline year: 2005	Baseline year: 2017	Baseline year: 2005	Baseline year: 2012-2015	Baseline year: 2015-2017	Baseline year: 2015-2017	Baseline year: 2018	Baseline year: 2015	Baseline year: 2015	Baseline year: not defined*	Baseline year: not defined*

Forthcoming events

- 22 Sept 2026: Meeting of the renewed of the **Zero Pollution Stakeholder Platform**
- Nov/Dec 2026: 3rd **Zero Pollution Monitoring and Outlook**
- 7 Dec 2026: **First Zero Pollution Forum**

Thank you



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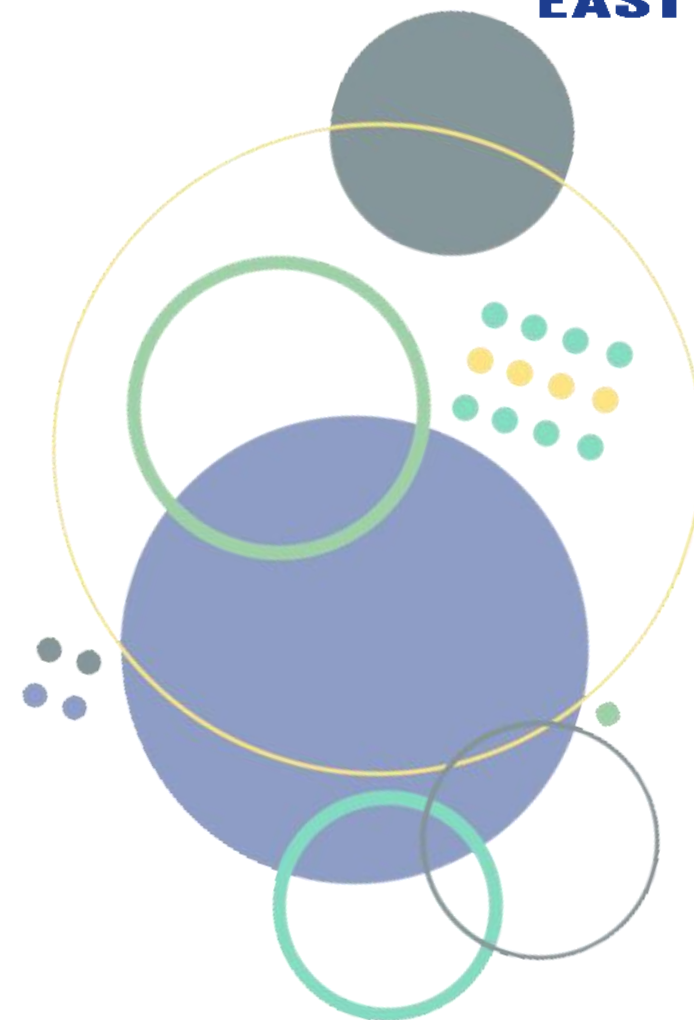
Emerging Pollutants in Water – new developments in the EU Regulatory Framework

EU4Green Recovery East regional assembly
1st of July 2026

Dr. Steffen Kittlaus

Dr. Heike Brielmann

Environment Agency Austria



Implementing partners:

Table of contents

- What are emerging contaminants?
- EU regulatory framework for CEC in water – new developments

Implementing partners:



What are Emerging Pollutants?

... also known as „Contaminants of Emerging Concern“ (CEC)

Common traits:

- not historically regulated or systematically monitored
- may pose risks to ecosystems and/or human health (potentially persistent, mobile, bioaccumulative, toxic, mixture effects)
- increasingly detected in water bodies
 - evolving analytical capacities
 - increasing emission

Some overlap with terms „trace contaminants“ or „micro pollutants“



© S. Kittlaus

Implementing partners:

Examples of Emerging Pollutants

Substances:

- pharmaceuticals and their degradation products
- pesticides and their degradation products
- Per- and polyfluoroalkyl substances (PFAS)
- Endocrine disruptors (Bisphenols, Phthalates ...)

Particles

- Microplastics

Biological:

- Antimicrobial resistances (AMR)



© Umweltbundesamt, B. Gröger

Implementing partners:



Funded by
the European Union

EU4GREEN
RECOVERY
EAST

EU regulatory framework for CEC in water

Implementing partners:

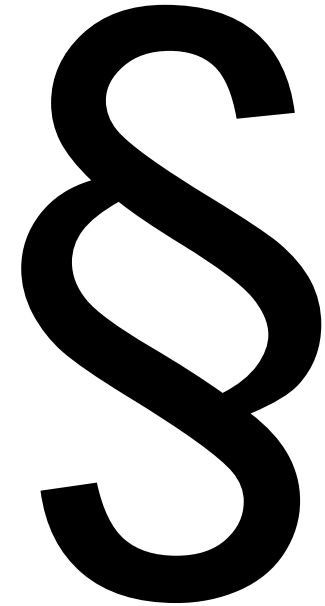


EU Legislative Framework

Zero Pollution Action Plan (European Green Deal)

Water protection

- Water Framework Directive (WFD)
- Groundwater Directive (GWD)
- Environmental Quality Standards Directive (EQSD)
- Drinking Water Directive (DWD)
- Urban Wastewater Treatment Directive (UWWTD)



Implementing partners:



Water framework directive: WFD (EU) 2026/805

Setting the scene for water management

- Surface and Groundwater
- Quantity and Quality

Aims regarding chemical pollutants

- Priority substances
 - Reduction of emissions and losses
- Priority hazardous substances
 - Phase out of emissions close to zero



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Implementing partners:

Surface Waters: WFD / EQSD Revision (EU) 2026/805

New approaches in monitoring:

- Sum parameters
- Toxicity-weighted sum parameters
- Effect-based methods (EBM)

Inventorying of emissions as basis for setting up programmes of measures

Relevant Substances

- Pharmaceuticals / Hormones
- Pesticides/Biocides
- Heavy metals (new: Ag)
- Industrial chemicals (Bisphenol A, Nonylphenol, PBDE ...)
- PAH
- PFAS (Sum of 25!)
- Microplastics
- Antimicrobial resistance

Implementing partners:

Groundwater: GWD Revision (EU) 2026/805

GWD Revision Developments:

- Regulatory focus is expanding beyond nitrate and pesticides to persistent mobile contaminants.
- Focus on PMT/vPvM substances

Relevant Substances (Annex I)

- Sum of PFAS as in DWD (EU 2020/2184)
- Sum of 4 PFAS
- Pharmaceuticals (Carbamazepine, Sulfamethoxazole, Primidone)
- Non-relevant metabolites of pesticides
- Trichloroethylene and Tetrachloroethylene (sum)
- Under review:
 - Sum(s) of selected pharmaceuticals by mode of action
 - Sum of bisphenols

Implementing partners:

Watch lists for emerging contaminants

- provide the evidence base for future regulation, acting as the EU's early-warning system for substances of emerging concern
- Periodic updates based on monitoring data and scientific evidence -> reports for EC by ECHA
- Limited number of substances
- Groundwater (max. 5 substances including microplastics, AMR)
- Surface water (max. 10, including CEC)

Implementing partners:

Drinking Water Directive (EU 2020/2184)

DWD Recast Innovations:

- Risk-based approach from catchment to consumer
- Stronger focus on emerging contaminants
- Watch list mechanism

Relevant Substances

- Sum of PFAS (20)
- PFAS Total
- Bisphenol A (BPA)
- Watch List substances (endocrine disruptors: 17 β -Estradiol (E2), Nonylphenol)

Implementing partners:

Urban Wastewater Treatment Directive (EU 2024/3019)

UWWTD Recast Developments:

- Quaternary treatment for removal of trace contaminants
 - For large WWTP (> 150 000 PE)
 - For WWTP > 10 000 PE in areas at risk
- Risk based approach
- Expanded monitoring requirements for large WWTP
- Extended Producer Responsibility (EPR)
 - “polluter pays principle”

Relevant Substances

- Pharmaceuticals
- Cosmetics
- Industrial chemicals
- PFAS
- microplastics
- antimicrobial resistances

Implementing partners:

Thank you for your attention.

steffen.kittlaus@umweltbundesamt.at

<https://www.umweltbundesamt.at/en>

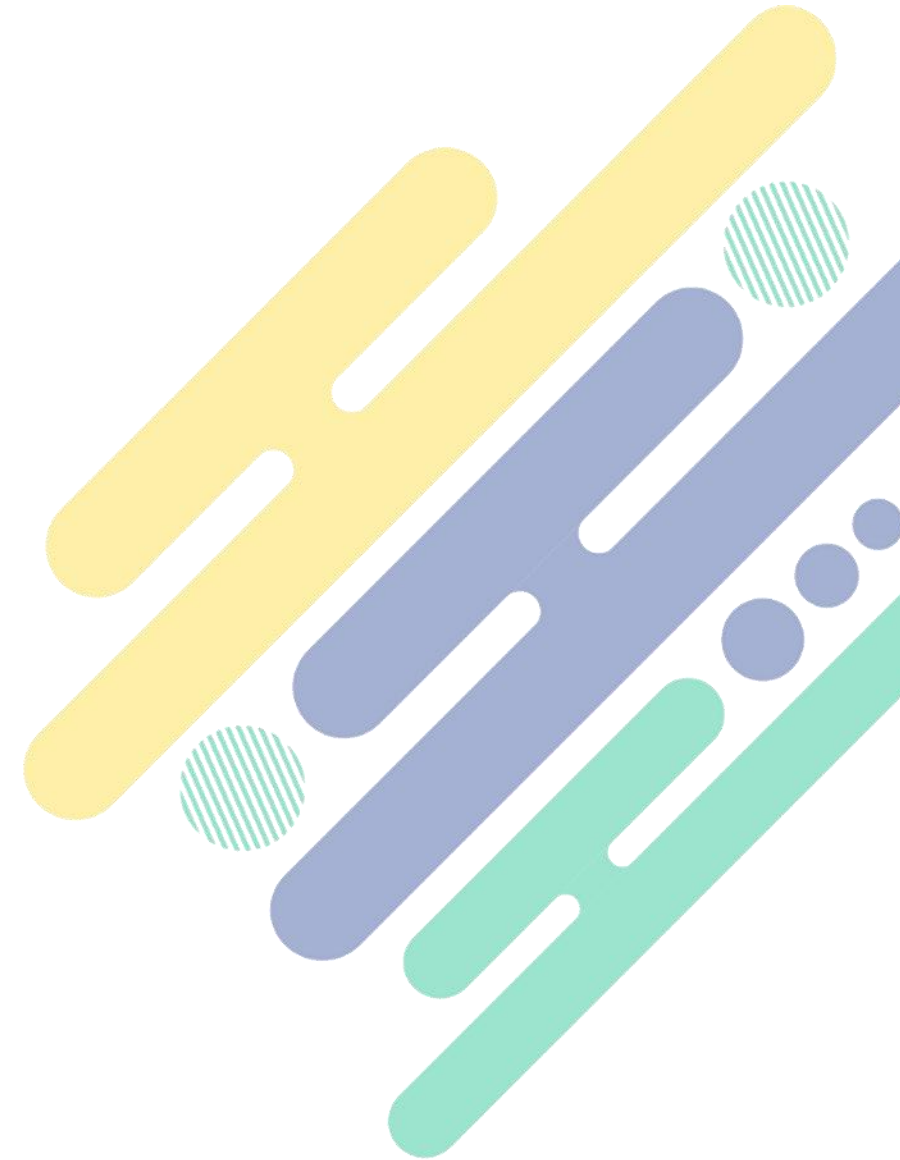
<https://orcid.org/0000-0002-1662-0605>

→ www.eu4greenrecoveryeast.eu



→ More EU Support:

- EU4Environment
- EU4ClimateResilience



Implementing partners:





ECHA and its activities

EU4Green Recovery East Regional Assembly

1 July 2026

Erwin Annys

Head of Unit Industry support and SMEs





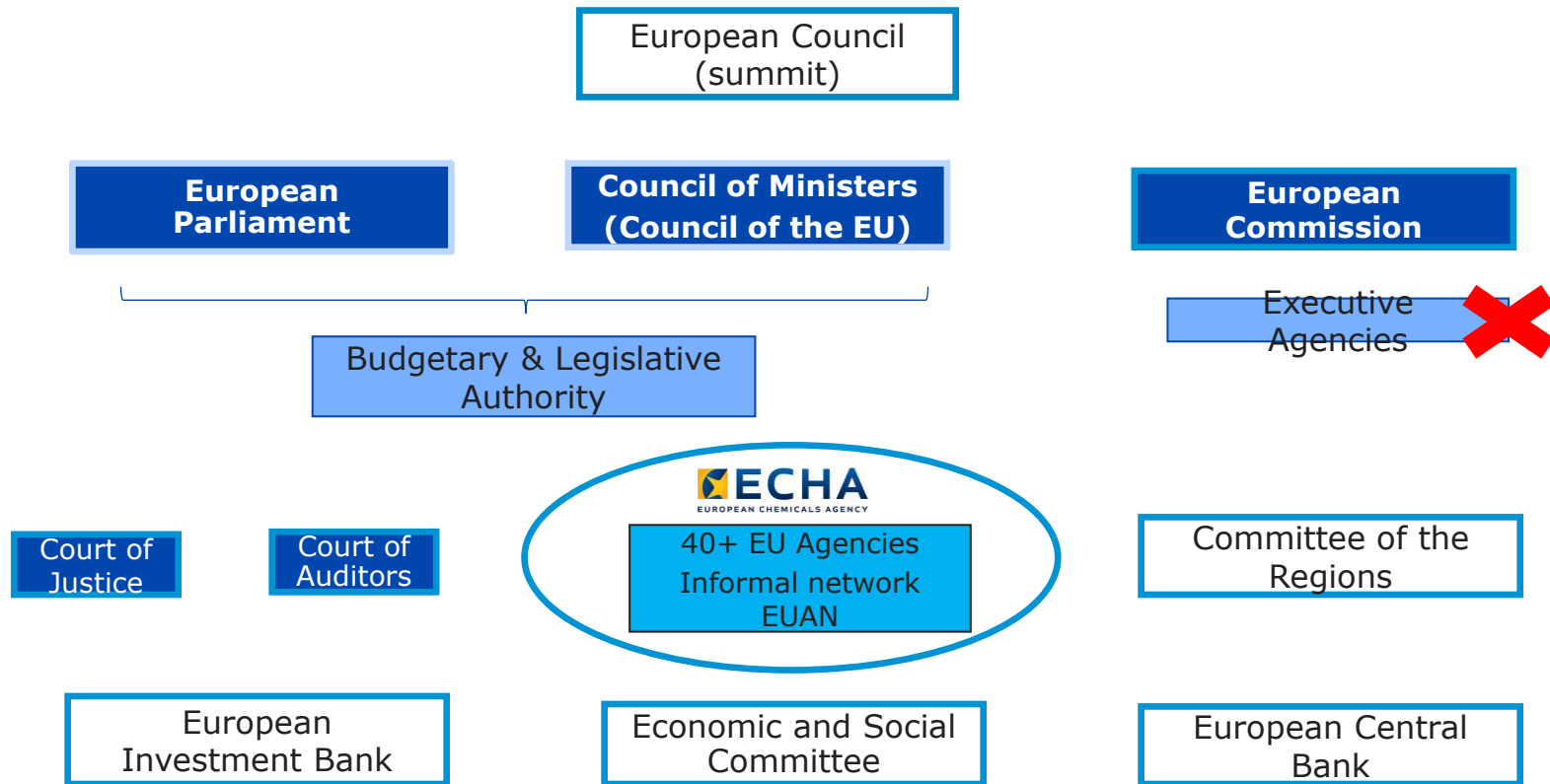
OUR PURPOSE

We protect health and the environment through our work for chemical safety

OUR VISION

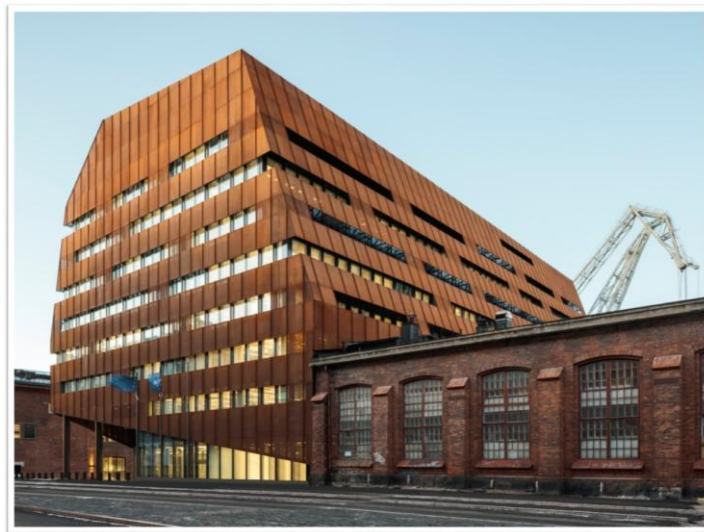
Chemical safety through science, collaboration and knowledge

Agencies in the EU institutional setting

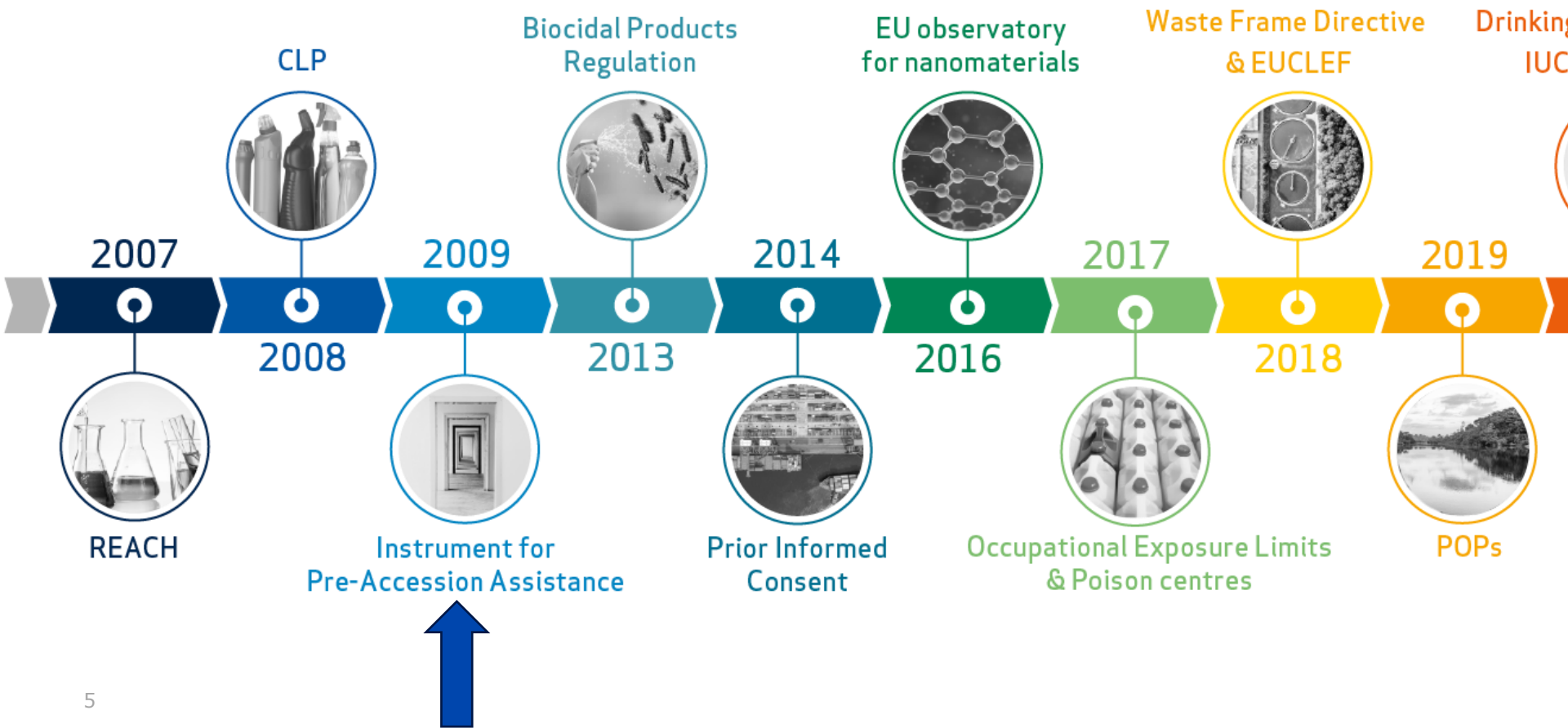


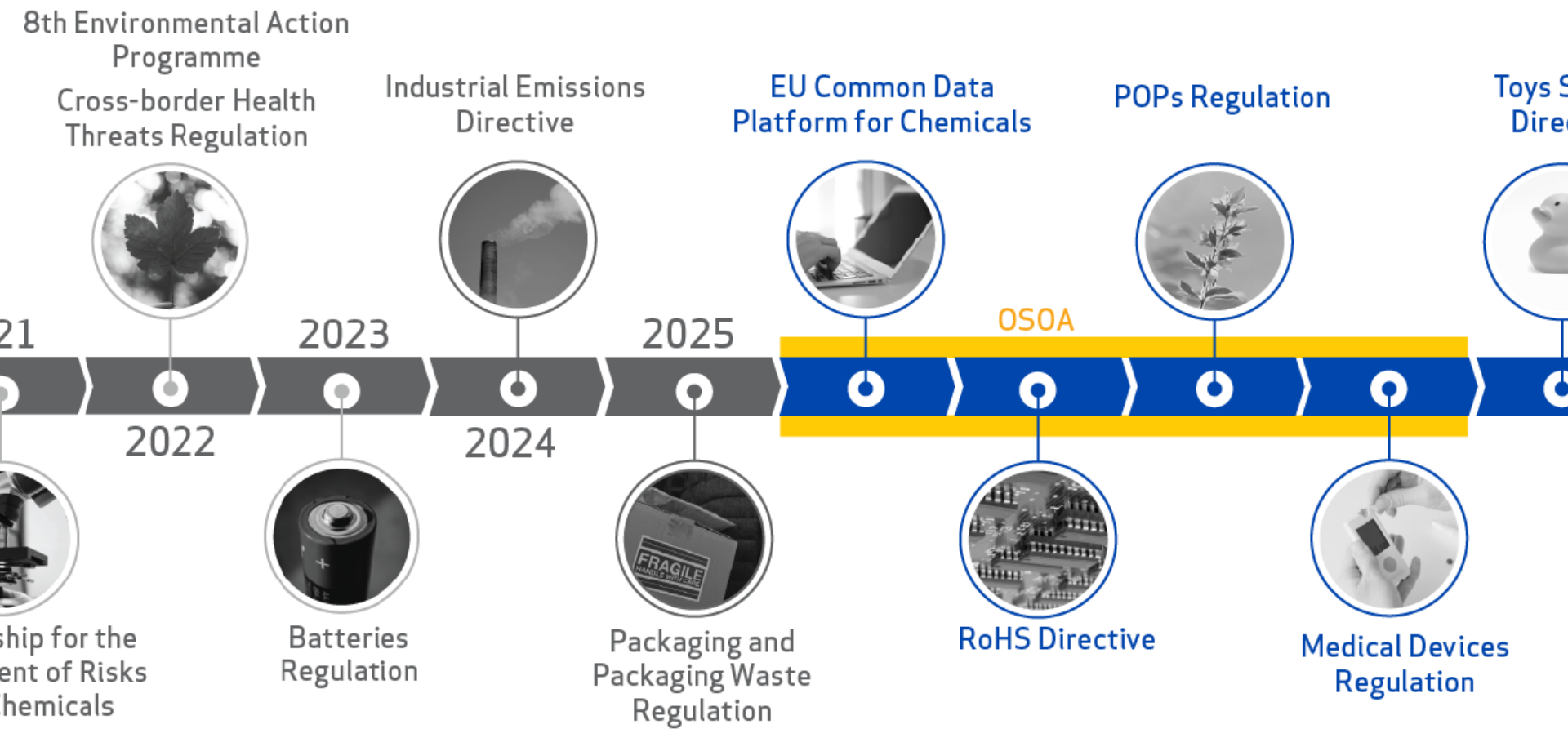
ECHA as an organisation

- EU decentralised Agency
- Established in 2007
- Budget of ca. €130 million
 - ca. €32 million fees from industry
- Ca. 610 statutory staff
- DG GROW European Commission partner / others DGs ENV, SANTE, ENEST, EMPL
- Memoranda of understanding with
 - EU-ENVI agencies EFSA, EMA, ECDC, (EEA)
 - Third country agencies US, Canada, Japan, Australia etc.



ISO 9001/14001 and EMAS certified





Activities in 2026



Risk assessment online training

March 2026

Online training on risk assessment under REACH end assessment of efficacy under BPR



Participation in high-level events

HelpNet Video Conferences, Forum open sessions for stakeholders



Bilateral meetings and continuous support

All year round

Bilateral meetings in Q1 and Q2.

Continuous support provided on an ad-hoc basis via our email address:
ipa@echa.europa.eu



Webinars

All year round

Information on upcoming webinars shared on an ad-hoc basis.

Key processes of REACH



Registration

Industry gathers information on chemicals, uses and existing risk management measures, and documents this in a registration dossier submitted to ECHA.



Evaluation

ECHA and Member States review this information and request further data where deemed necessary.
Member States enforce the regulation.



EU-wide risk management

Commission, with support of ECHA and Member States, applies community wide risk management measures, e.g., **authorisation** and **restriction** of certain substances.

Thank you

erwin.annys@echa.europa.eu

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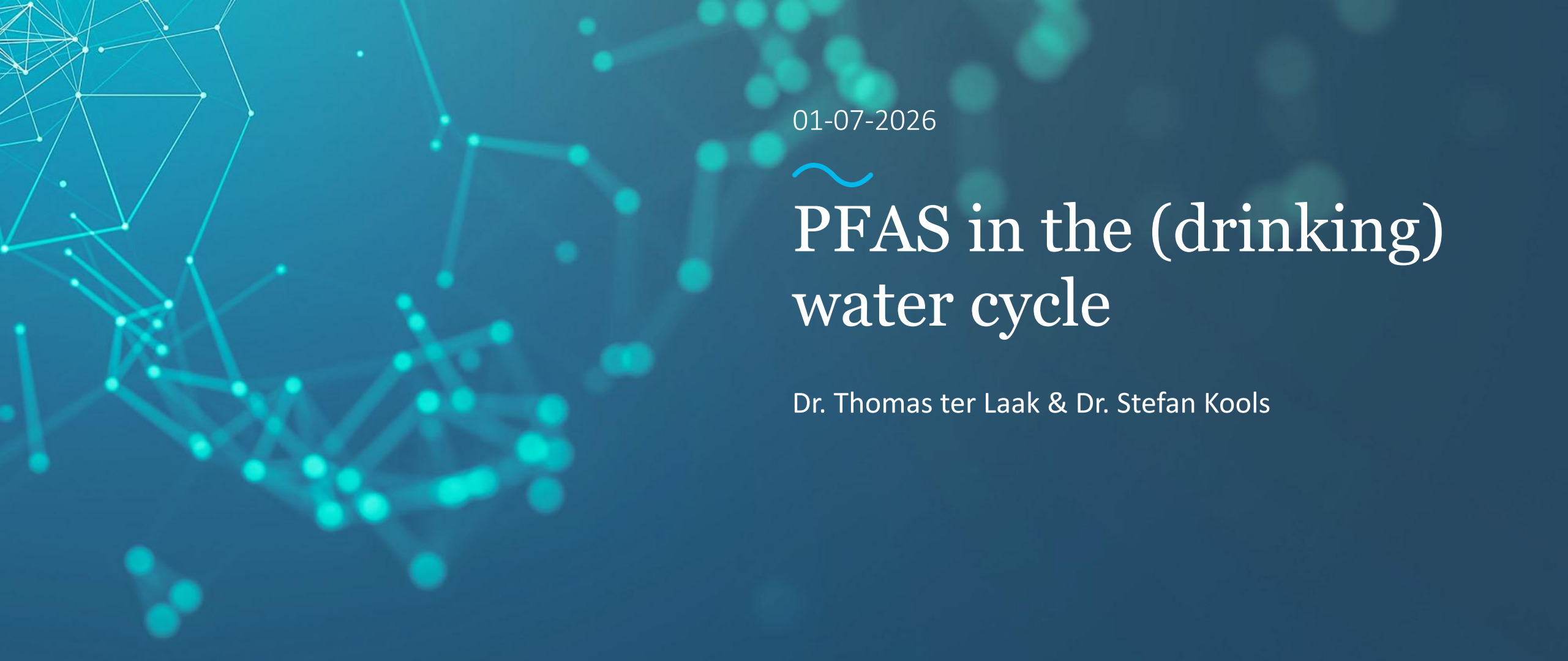
[EUchemicals](https://www.youtube.com/EUchemicals)



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01-07-2026



PFAS in the (drinking) water cycle

Dr. Thomas ter Laak & Dr. Stefan Kools

KWR Water Research Institute

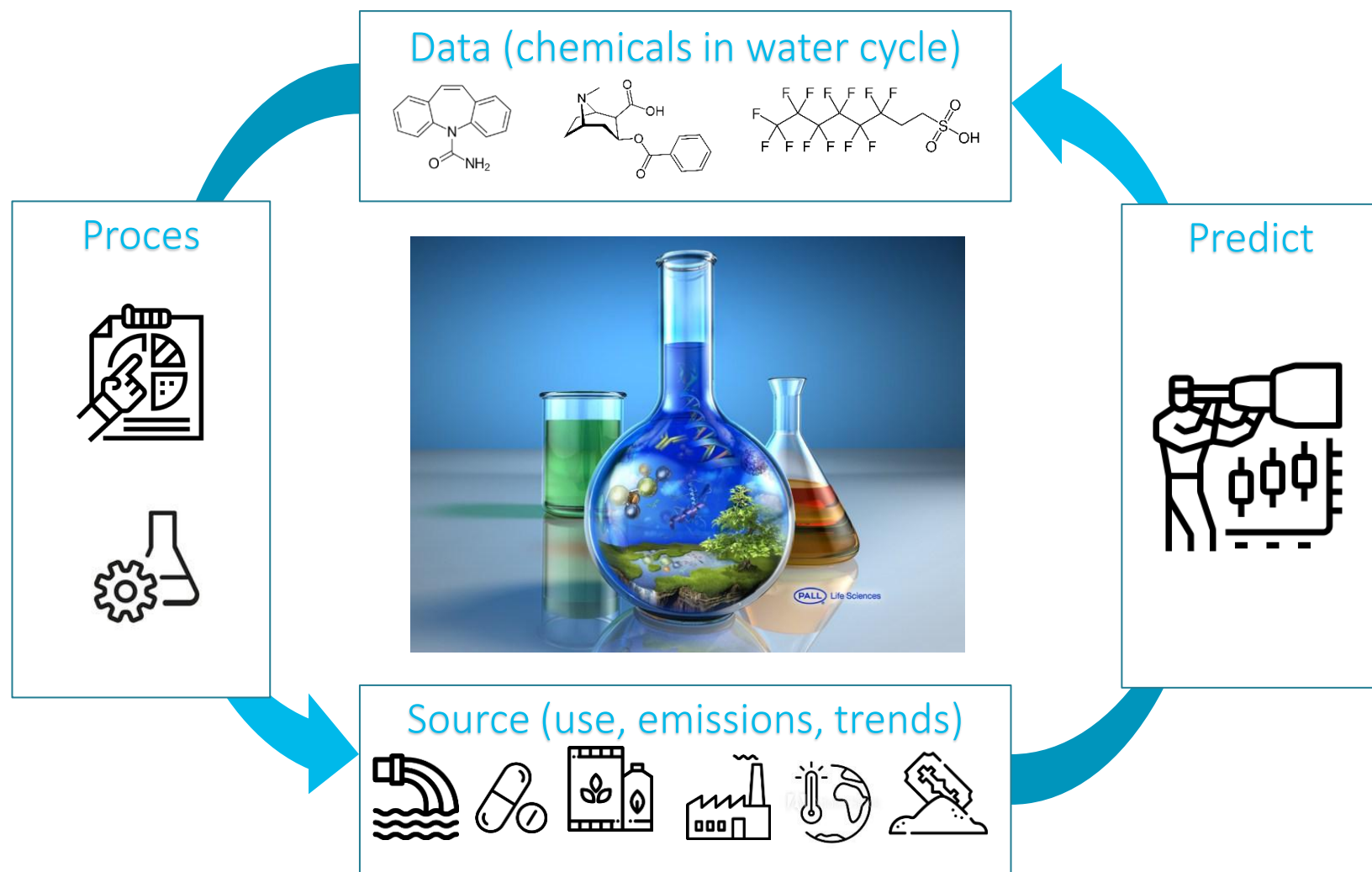


- Research institute of 10 Dutch + 1 Flemish Drinking water utility
- Multidisciplinary research in water cycle
- Not for profit

Bridging Science to Practice | KWR (kwrwater.nl)

(and to policy...)

Antropogenic contaminants in the urban water cycle



A small, light blue wavy line above the word 'Today'.

Today

- PFAS
- Sources
- Persistence
- PFAS in surface water & groundwater
- Challenges in policy



PFAS

¹per- and polyfluoroalkyl substances



The Organisation for Economic Co-operation and Development

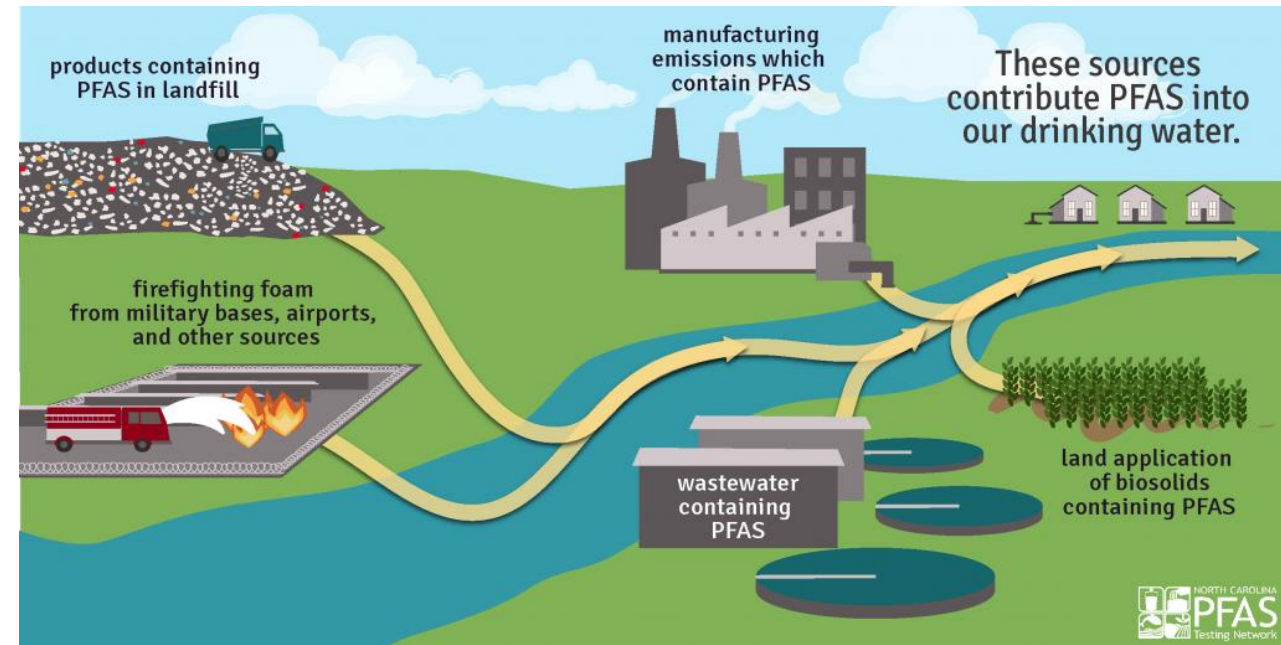
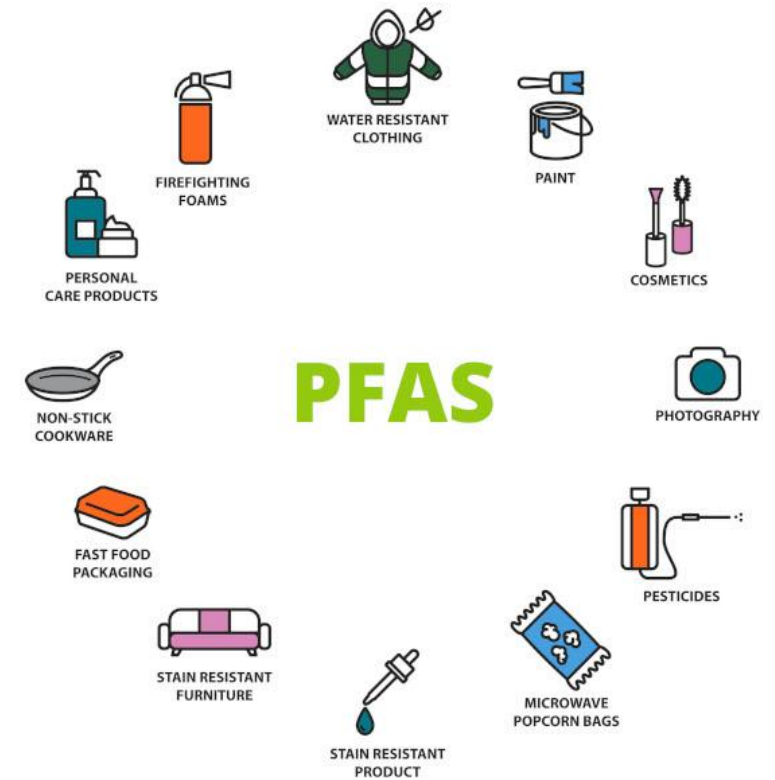
2020

PFASs are defined as fluorinated substances that contain **at least one fully fluorinated methyl or methylene carbon atom (without any H/Cl/Br/I atom attached to it)**, i.e., with a few noted exceptions, any chemical with at least a perfluorinated methyl group ($-\text{CF}_3$) or a perfluorinated methylene group ($-\text{CF}_2-$) is a PFAS

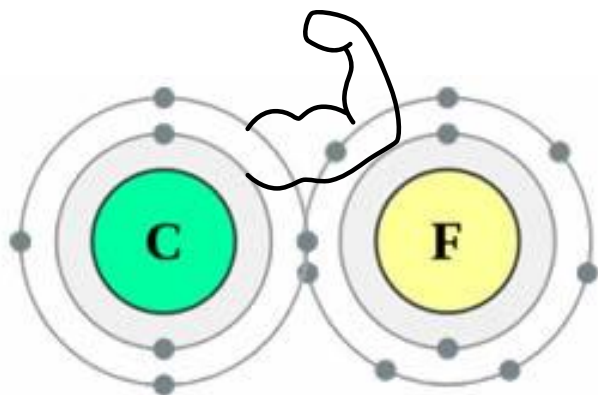
<https://www.oecd.org/chemicalsafety/portal-perfluorinated-chemicals/>

PFAS sources?

- Multiple sources,
- Multiple emissions routes,
- Current and historic sources,
- Persistent!?



PFAS Persistence?



KWR

Electron affinity and ionization energy

Periodic table of the elements

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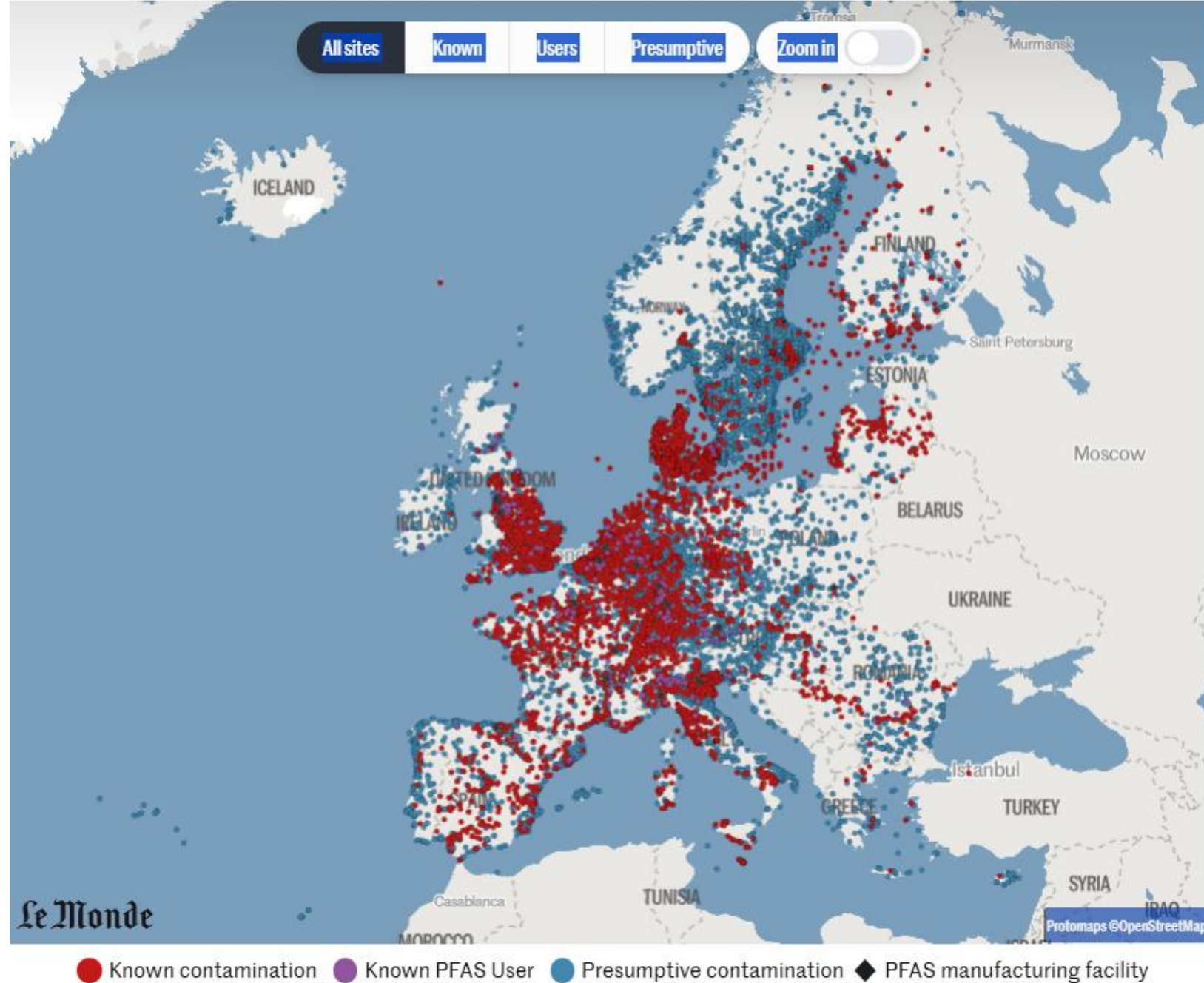
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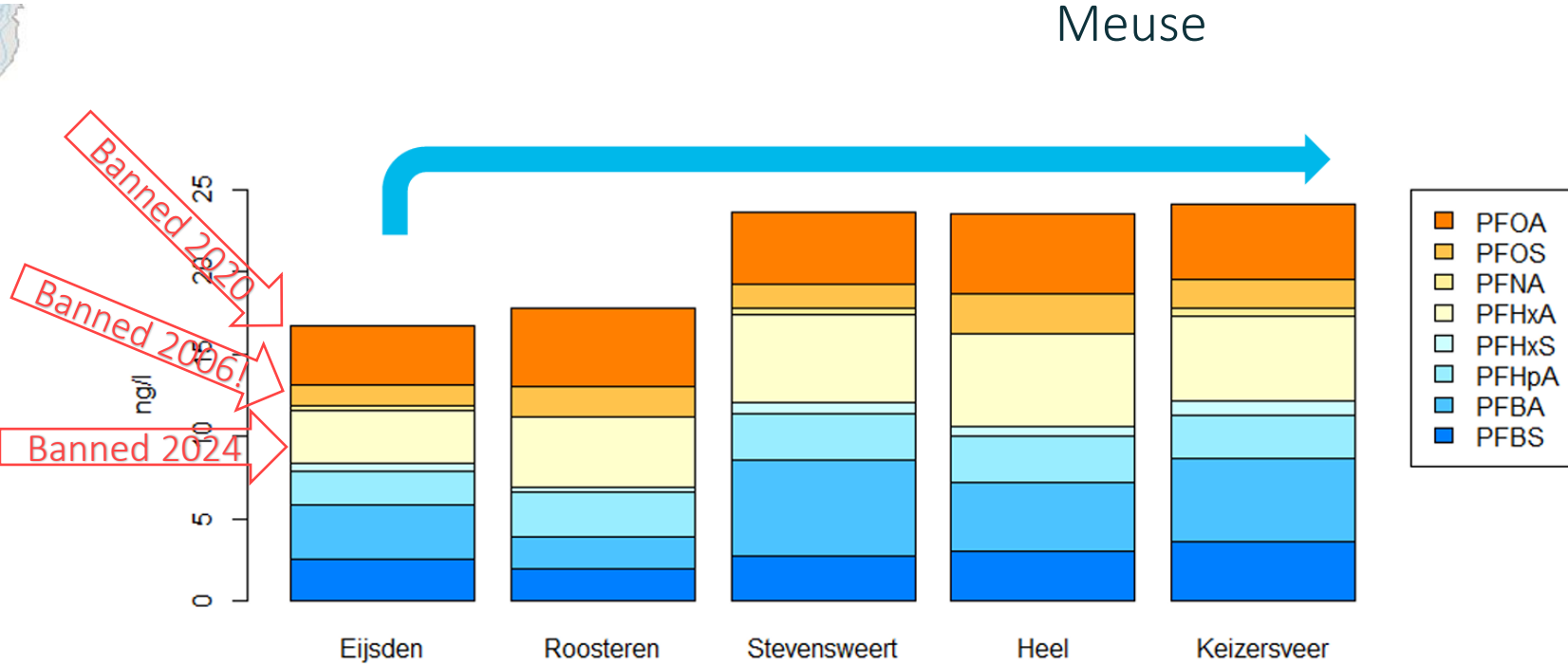
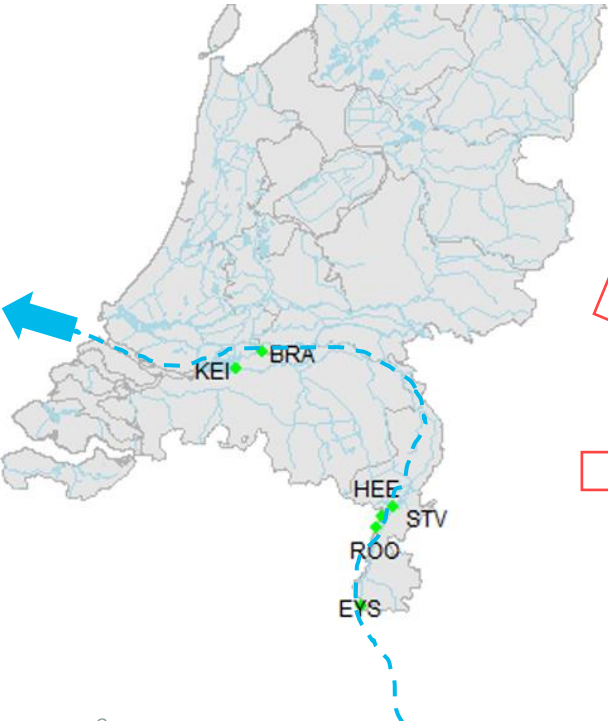
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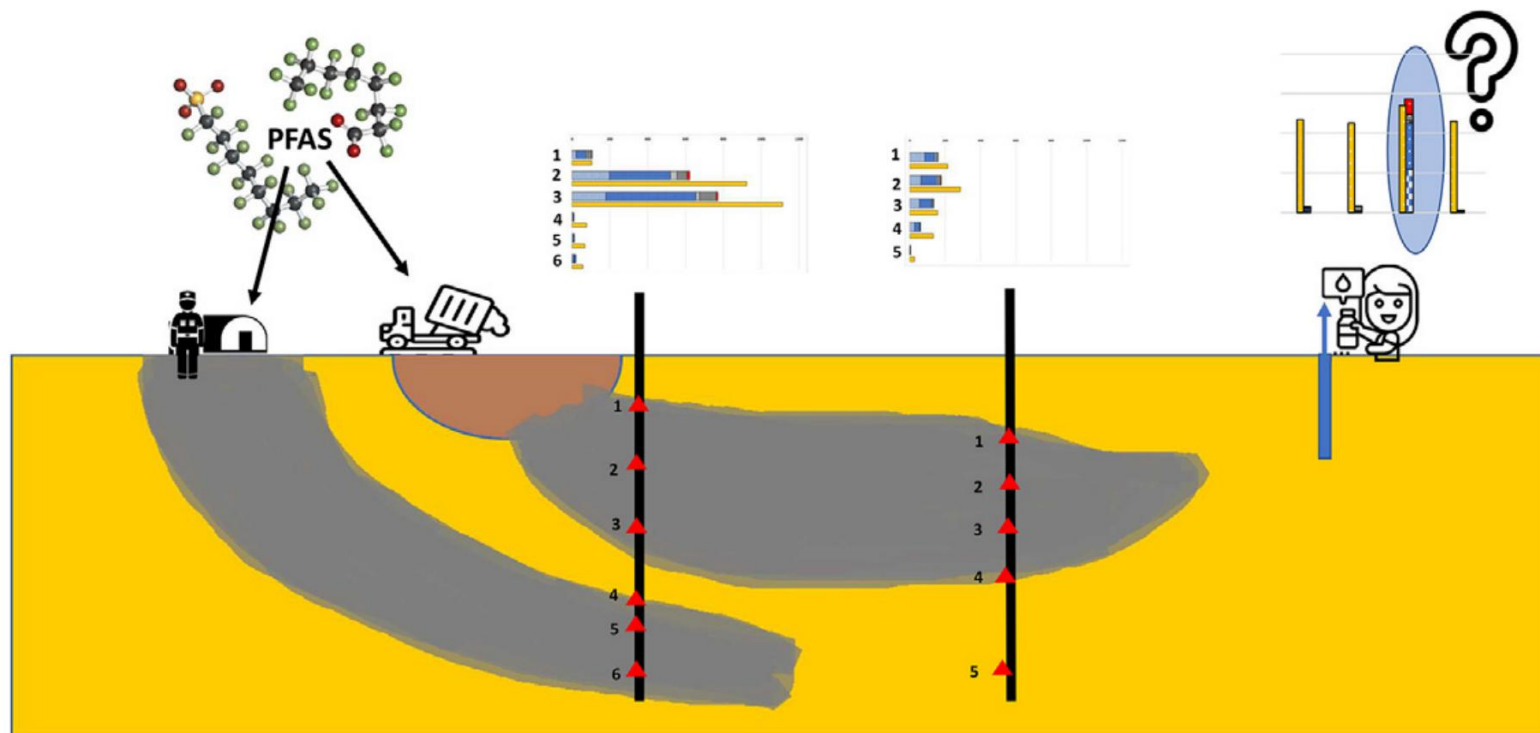
PFAS in rivers



Source: Pronk et al H2O 2024

PFAS in groundwater

Groundwater contamination:
the echo of the past...

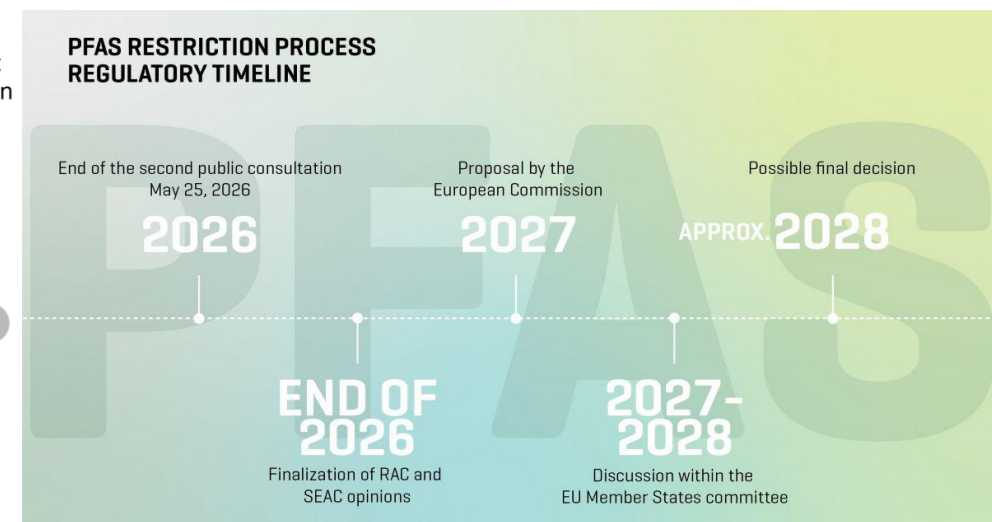
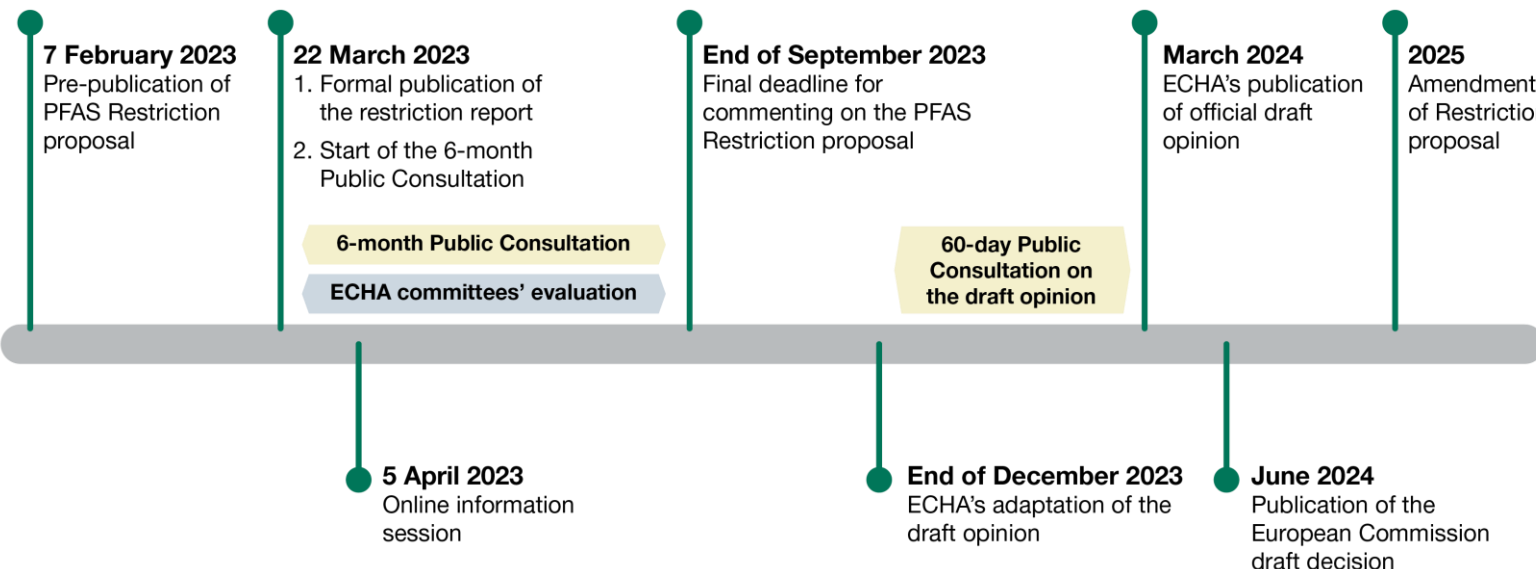


EU regulatory context

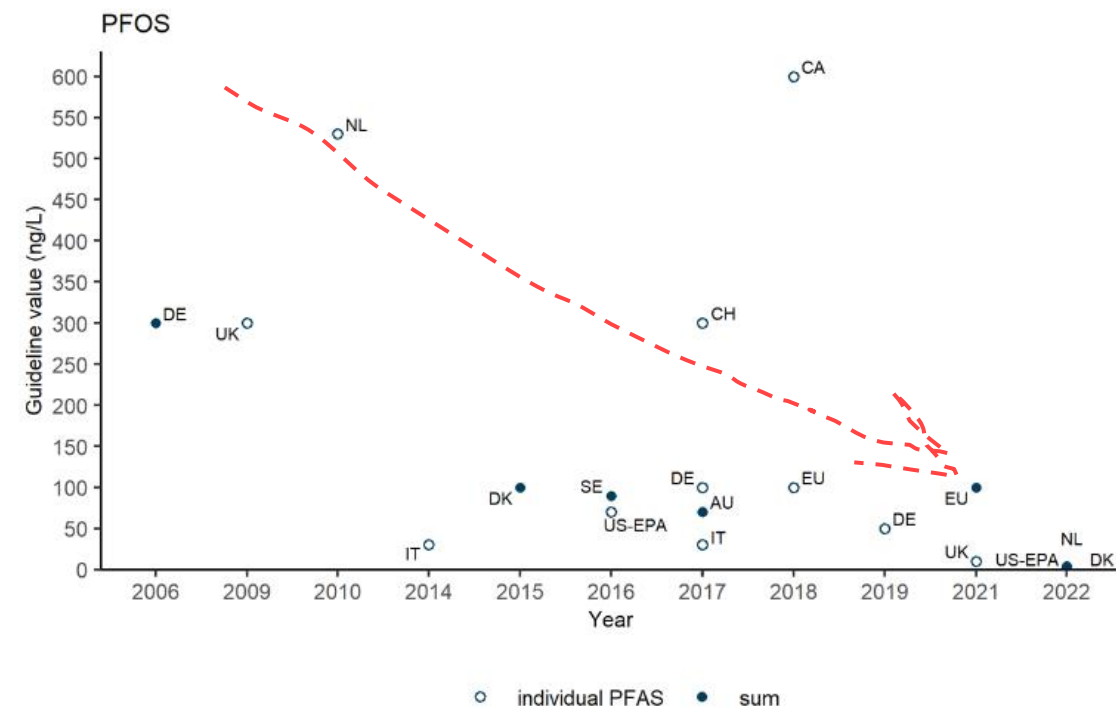
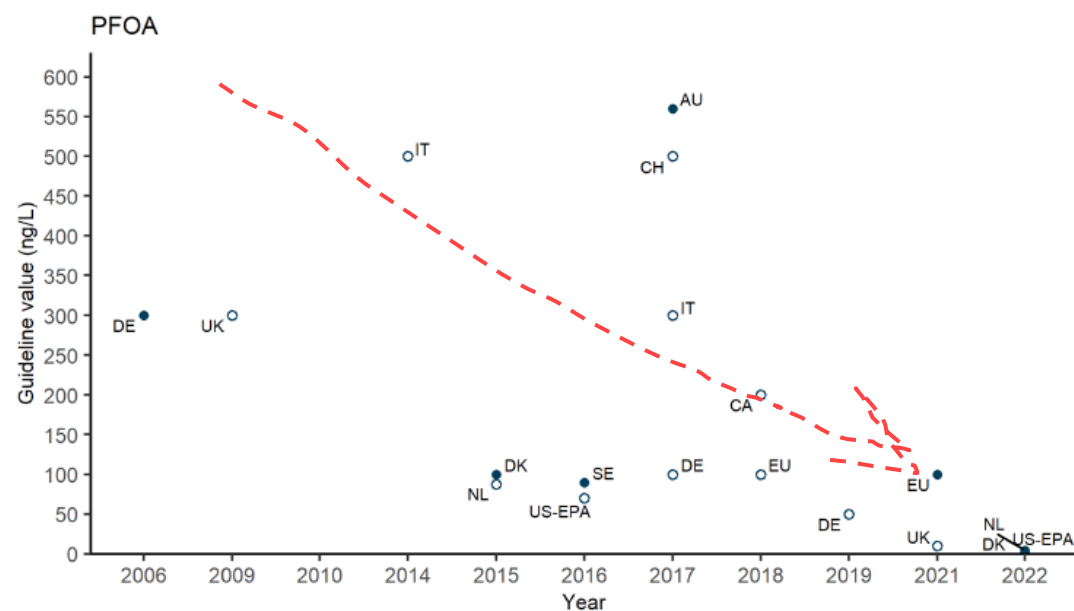
PFOS banned since 2006

PFOA banned since 2020

PFAS restriction proposal in the EU pipeline



Evolution of (water) guideline values



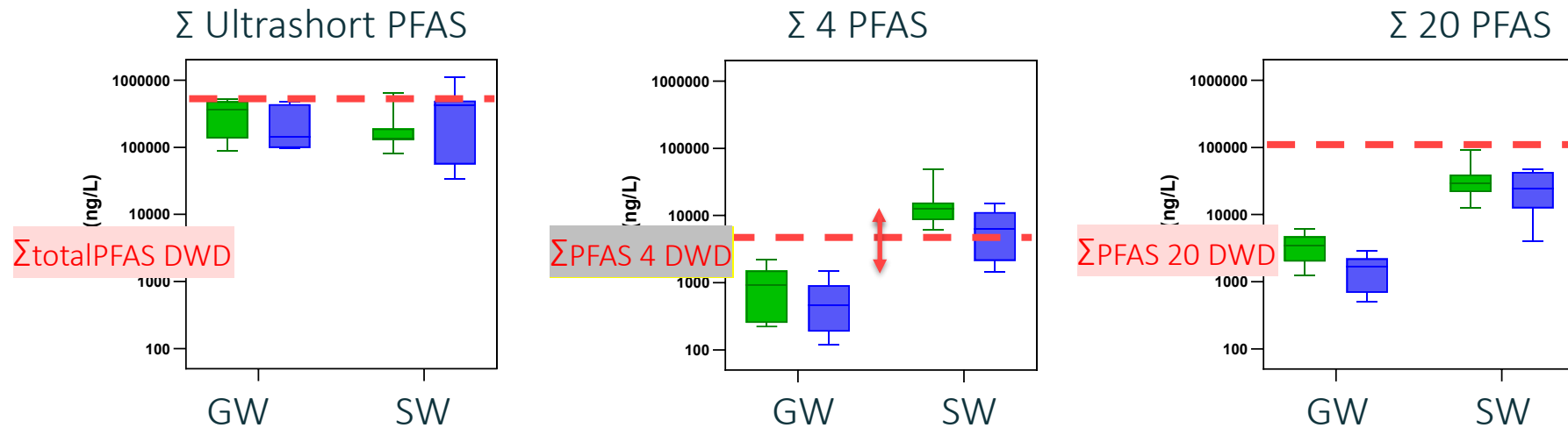
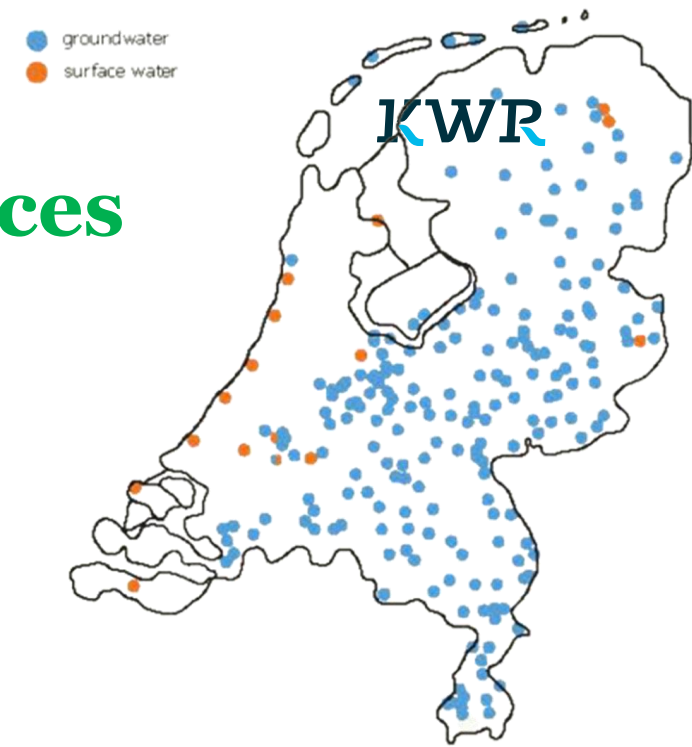
Source: Kools et al., 2023 PFAS in de EU (KWR report)

Monitoring and water quality criteria for PFAS

- Member states must monitor PFAS since Jan 2026
- Reporting industrial emissions of PFOA and PFHxS from 2028
- etc..
- Sum PFAS20 <100 ng/L (DWD)
- Sum 'total' PFAS <500 ng/L (DWD)
- EFSA PFAS4 (PFOA equivalents) <4.4 ng/kg BW per week → derived DW value of <4.4 ng/L
- Sum PFAS24 (PFOA equivalents) <4.4 ng/L (DK)



PFAS in Dutch **Drinking water** and its **sources** *in relation to water quality criteria*



56 different PFAS, including ultrashort (C2-C3), PFCA(C4-C14) PFSA(C4-C10) and a wide variety of precursors (C4-C24).

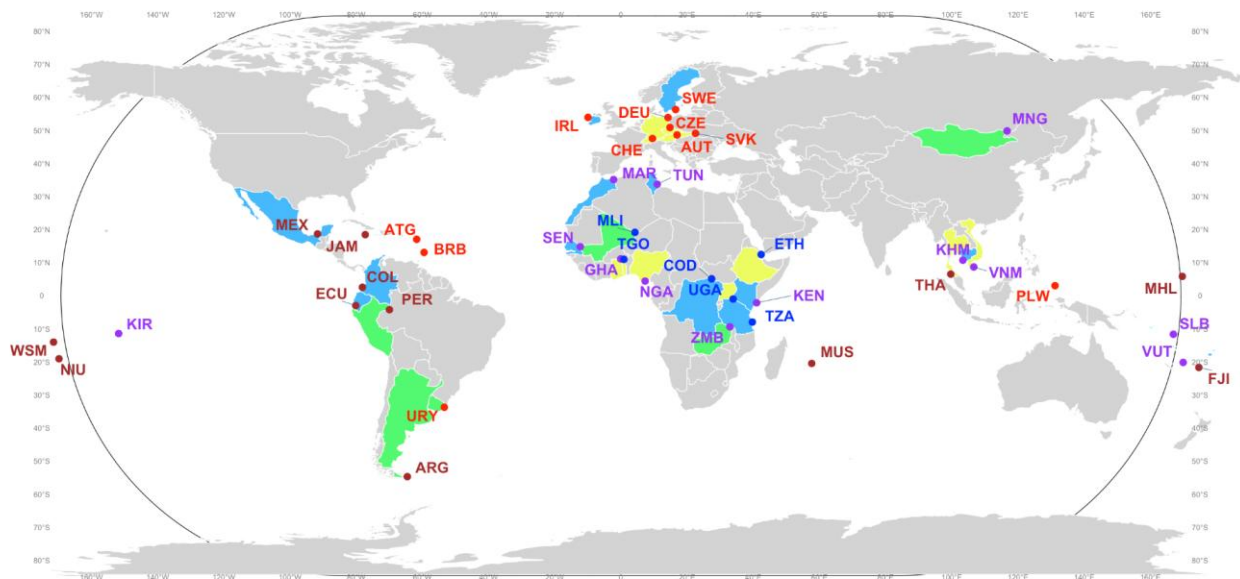
Source: Sadia et al 2023 / Water Matters 2024

h2o-watermatters.com/includes/partials/printArticle.php?ed=202406&art=02_Artikel

Global PFAS exposure

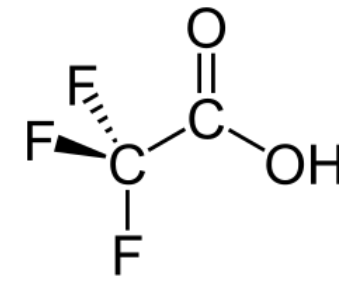
- Global PFAS levels in groundwater, surface water and drinking water are similar (SETAC conference 2026)
- Food is generally major PFAS source

100% of Human milk in 44 countries contains PFOS and PFOA



Source: Fiedler & Sadiq, 2021, Chemosphere

PFAS: a historical perspective on the future

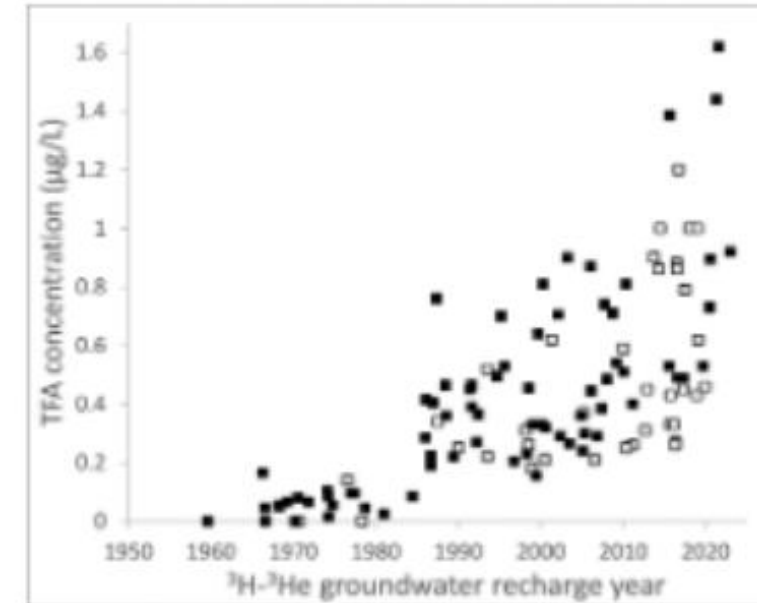
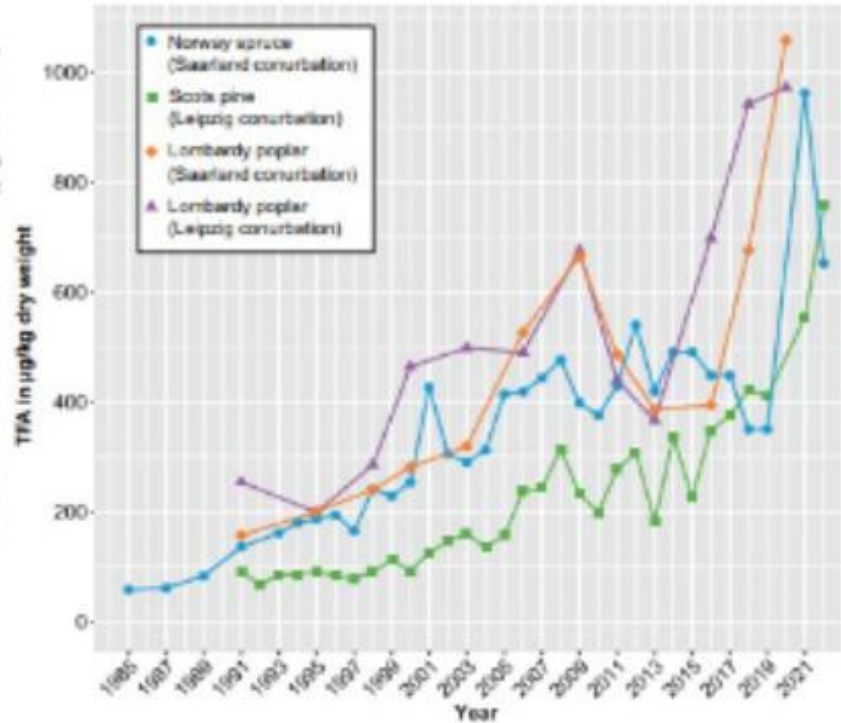
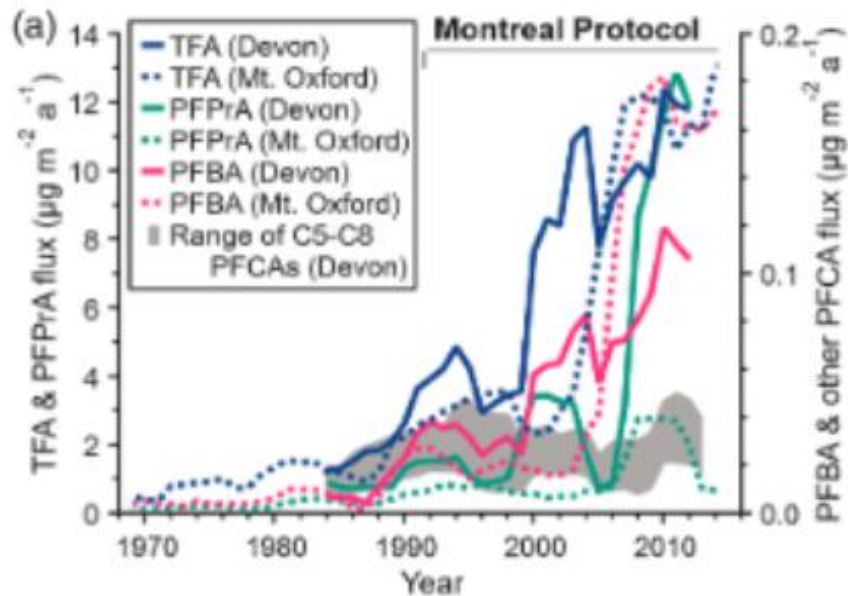


KWR

TFA accumulating in arctic ice cores

and in tree leaves

and in groundwater



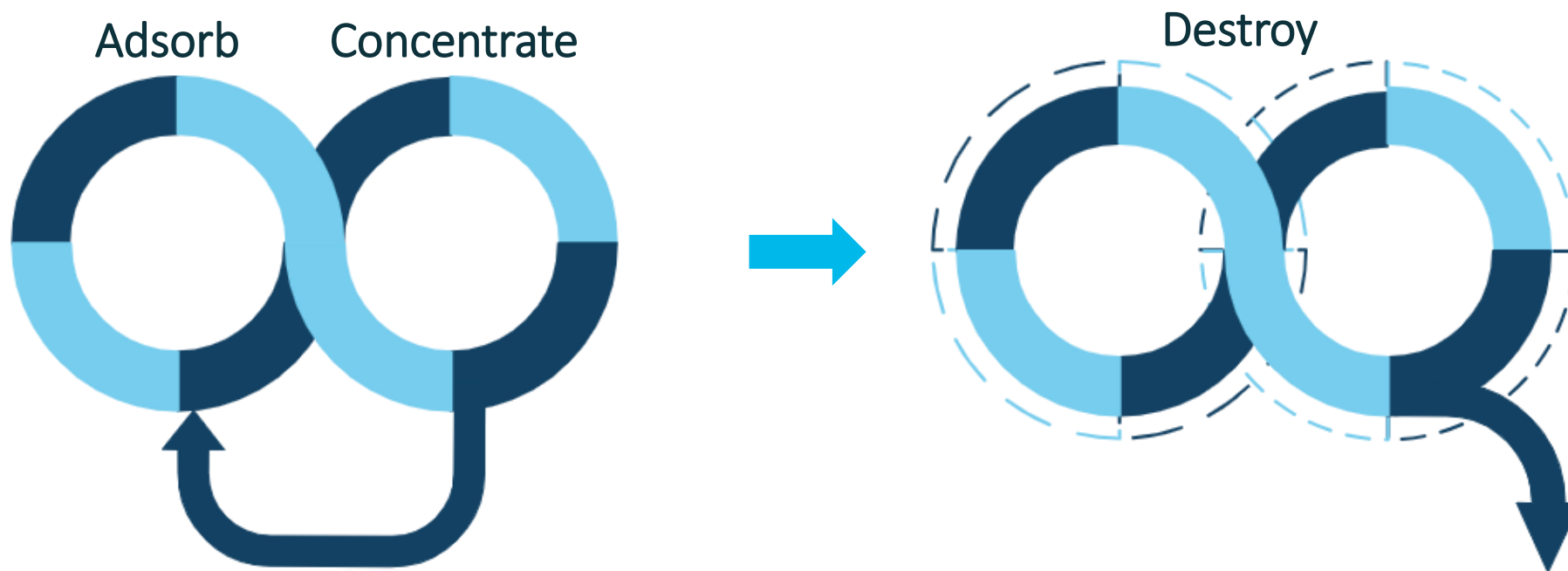
Pickard et al. Geophysical Research Letters (2020), 47, e2020GL087535

Freeling and Björnsdotter, Current Opinion in Green and Sustainable Chemistry 2023, 41:100807

Albers and Sültenfuss, Environmental Science & Technology Letters 2024 11 (10), 1090-1095

(Drinking) water treatment technologies

- Active carbon, other sorbents
 - Membrane filtration (Reversed Osmosis)
 - Chemical destruction
- ➔ Early replacement of GAC required
 - ➔ What to do with the concentrate
 - ➔ High energy consumption



Challenges in managing PFAS in (drinking) water

- Persistence = Problem
 - Historic emissions will affect future groundwater
 - Monitoring all PFAS is not feasible
 - Global PFAS production shifts from Europe and US to Asia¹
- ➔ Limited options for cost effective destruction
 - ➔ Limited option to evade historic contamination
 - ➔ PFAS profiling enables to represent classes or sources
 - ➔ Global action required (*production = problem*)

1: Source: Miller et al, ES&T 2026



Future

- Strategic monitoring
 - Strategic evaluations and selection of DW sources
 - Multiple PFAS sources
 - Select (cost) effective DW treatment technologies
 - Restrict PFAS use to stop new emissions
- ➔ Selection of locations based on water sources, environmental conditions, ..
 - ➔ Evaluate current and potential future water quality
 - ➔ Define dominant sources for local DW sources
 - ➔ Study removal rates for an array of PFAS(..) with different properties
 - ➔ Define PFAS that persist or will transform in persistent products



Groningenhaven 7
3433 PE Nieuwegein
The Netherlands

T +31 (0)30 60 69 511

E info@kwrwater.nl

I www.kwrwater.nl



@KWR_Water



KWR



KWR_Water



Thomas ter Laak

thomas.ter.laak@kwrwater.nl

Stefan Kools

Stefan.Kools@kwrwater.nl



Colophon

KWR | July 2026

Client

UNIDO

Quality Assurance

Stefan Kools

Author(s)

Thomas ter Laak, Stefan Kools

Presented at

- UNIDO
- EU 4 Green Recovery East
- Paris (online)
- Invited

Keywords

PFAS, water quality, science, practice and policy

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River Plastic Pollution Monitoring

New insights, challenges and
opportunities for monitoring

1 July 2026

Dr.ir. Tim H.M. van Emmerik

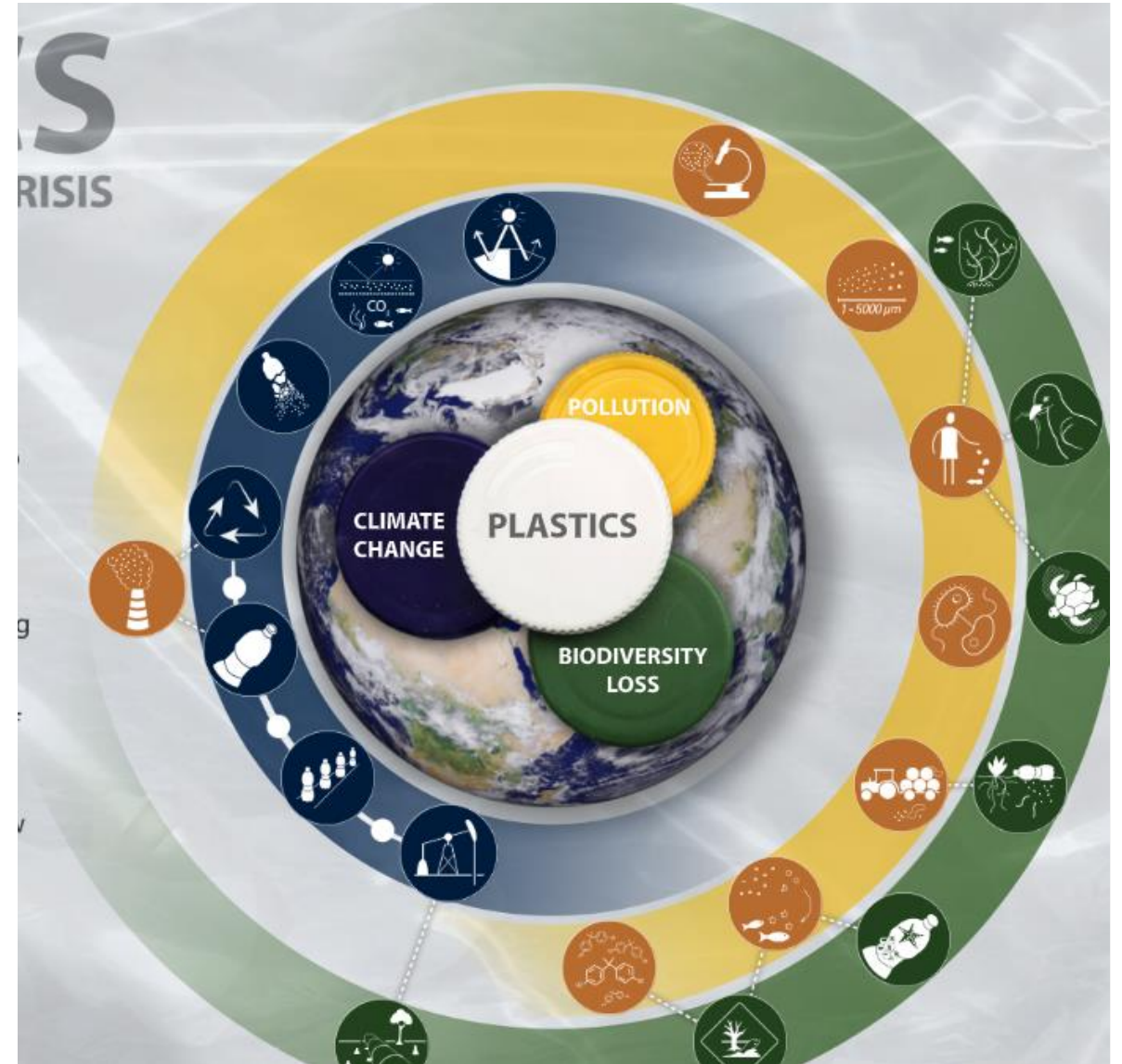
tim.vanemmerik@wur.nl



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Why plastic pollution matters

- Triple planetary crisis
- Climate change, biodiversity loss, pollution
- Plastics links them



Wageningen University River Plastic Team

Understanding origin, transport and fate of plastic from rivers to sea



Develop measurement,
monitoring, and modeling
methods



Understand transport and
retention dynamics



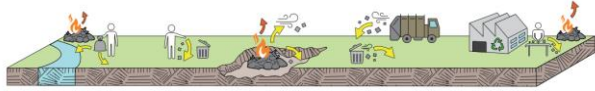
Capacity building and technical
training

What you should remember

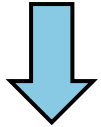
- River plastic monitoring crucial for reduction measures
- Floods and estuaries are main drivers of plastic transport
- Multimetric tool to assess the state of river plastic pollution



Rivers: Source or sink?



Production
~400 Mt/y



To environment
~50 Mt/y

River to ocean
~1 Mt/y?

Total in ocean
~3.0 Mt

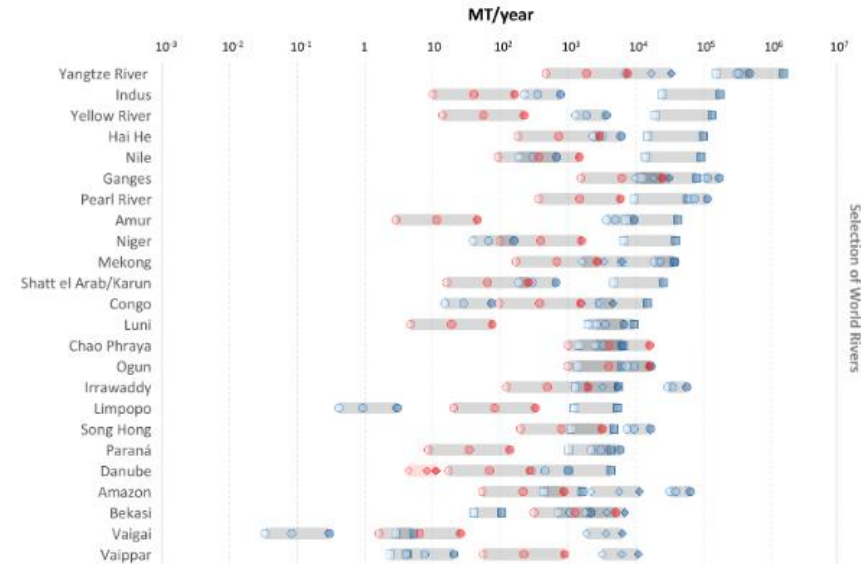
Cottom et al. (2024), Meijer et al. (2021),
Kaandorp et al. (2023)

Comment | Published: 12 June 2023

Diverging estimates of river plastic input to the ocean

[Daniel González-Fernández](#) , [Caspar T. J. Roebroek](#), [Charlotte Laufkötter](#), [Andrés Cózar](#) & [Tim H. M. van Emmerik](#)

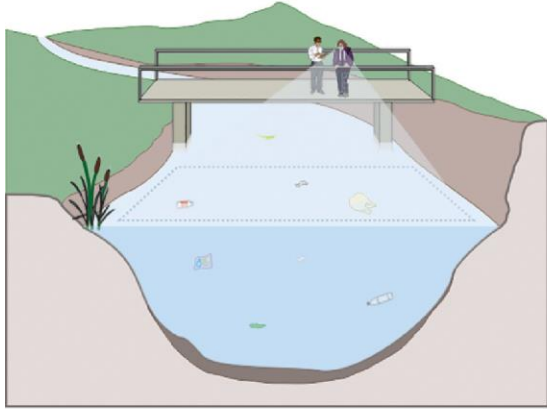
[Nature Reviews Earth & Environment](#) **4**, 424–426 (2023) | [Cite this article](#)



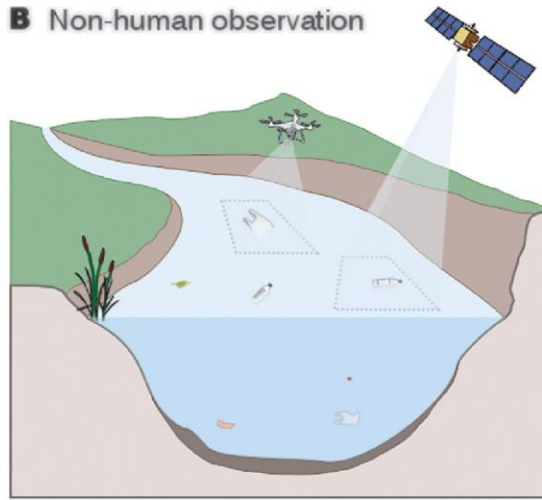
- >4 orders of magnitude uncertainty for river
- 0.1-0.4% of plastic exported to sea
- Where does the plastic go?

Monitoring river plastic

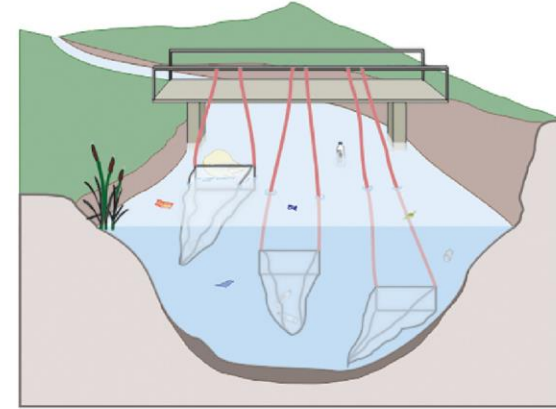
A Visual observation



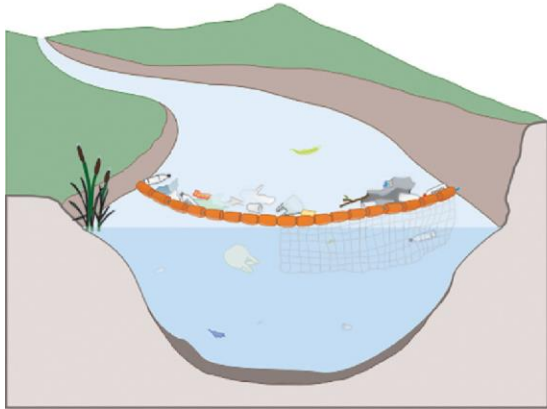
B Non-human observation



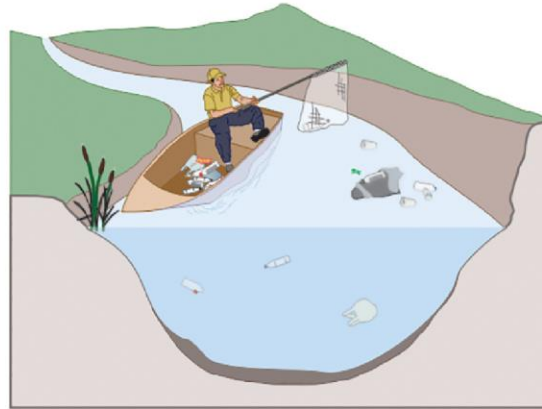
C Nets



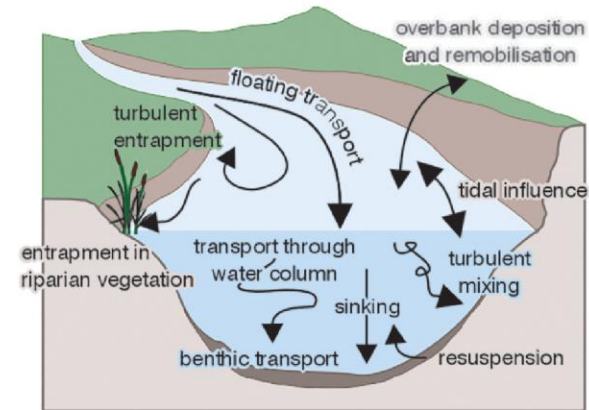
D Booms



E Waste collection activity



F Fluvial processes affecting macroplastic



Monitoring river plastic



Sampling



Visual counting

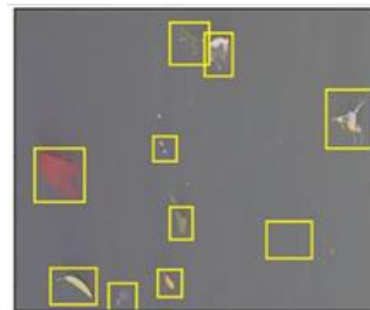
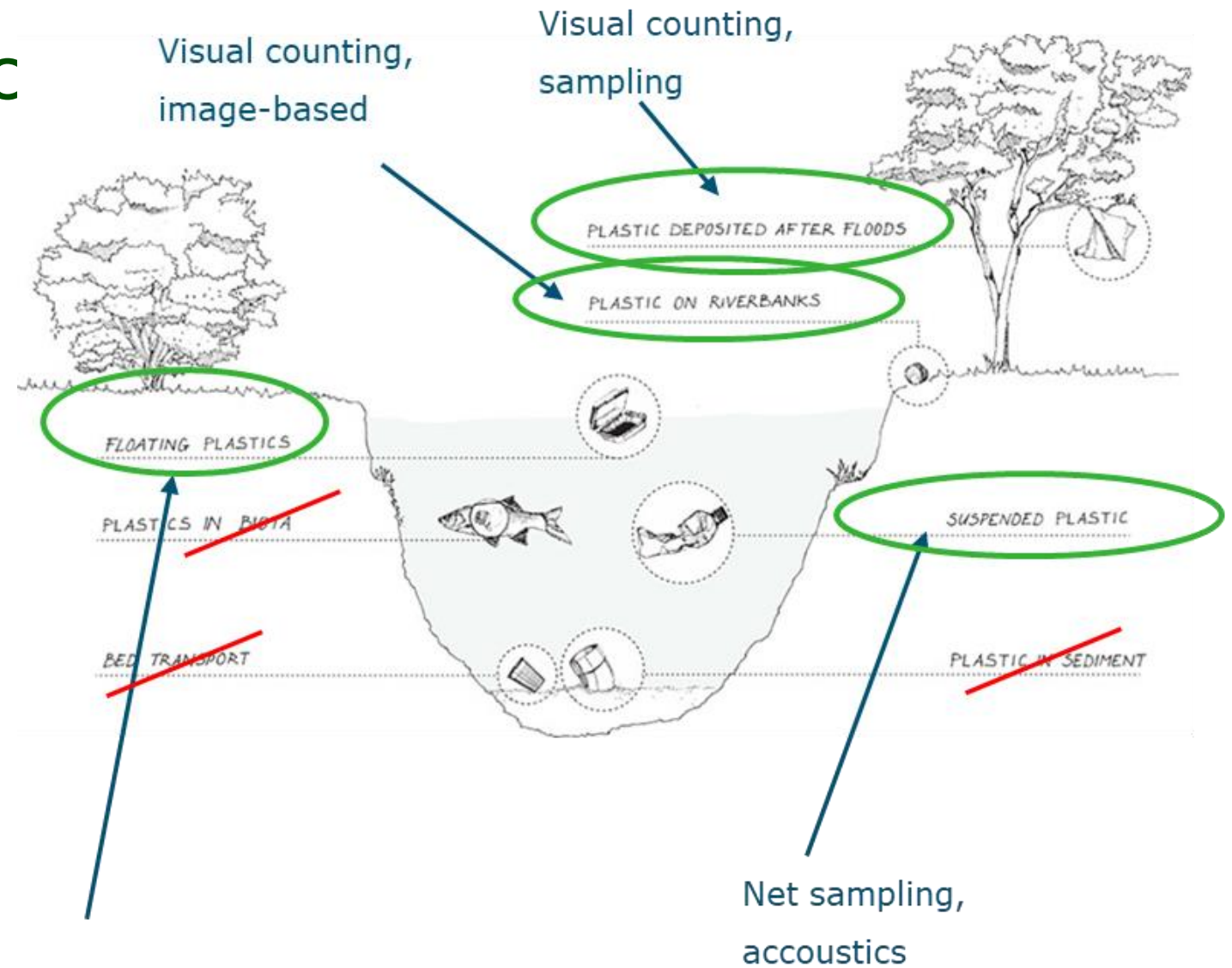


Image-based



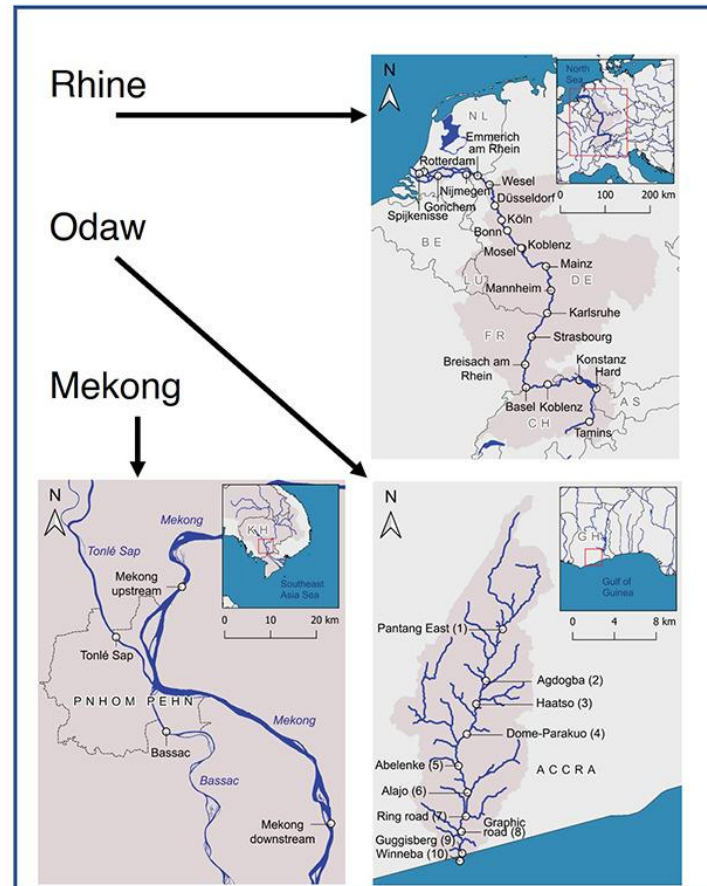
(van Emmerik & Schwarz, 2020)

Method harmonization – Strategy design

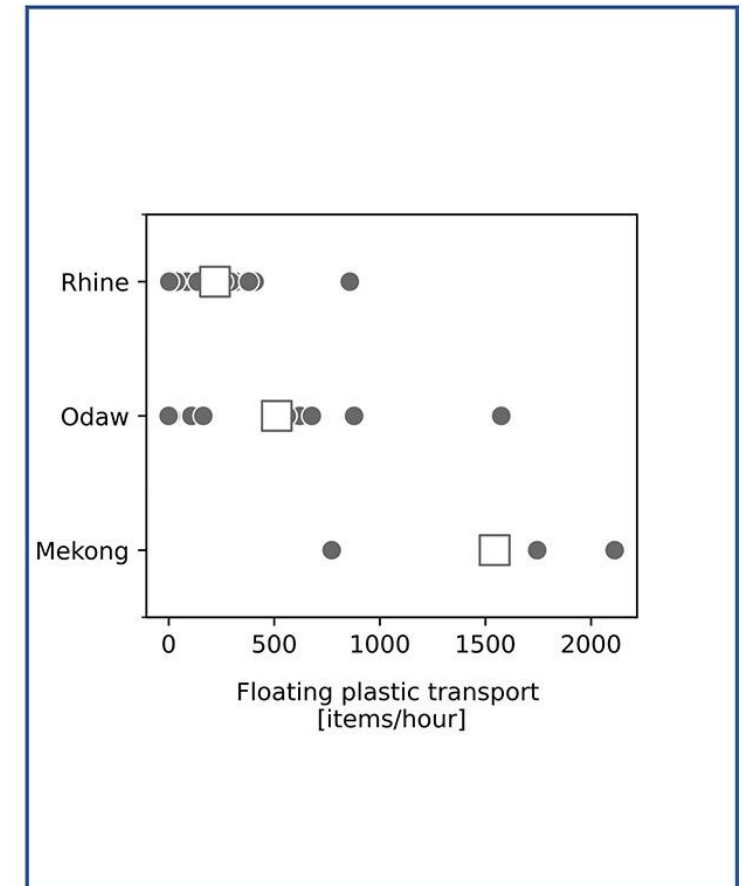
Workflow for harmonized monitoring



Application to rivers globally



Comparable results



Floods drive plastic transport



Floods amplify plastic mobilization

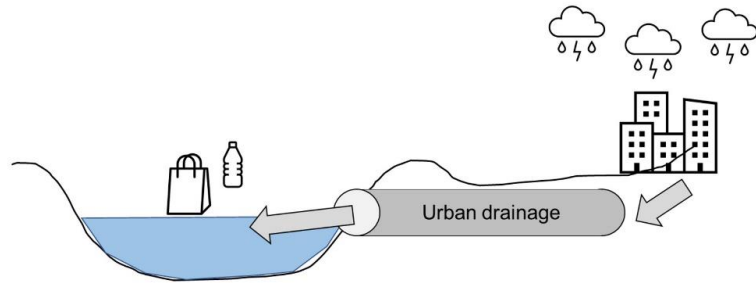
- Floods amplify plastic with factor >100
- Challenging to monitor
- Impact on export into the sea?

van Emmerik et al. (2023)

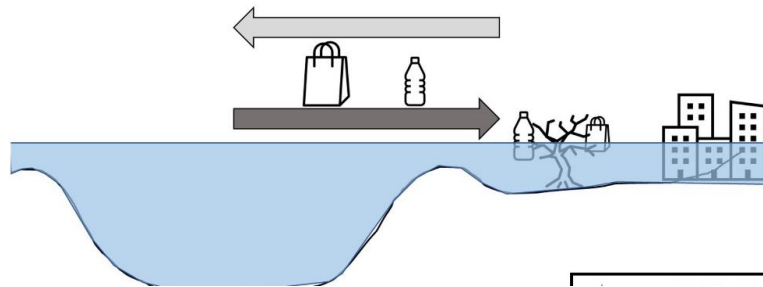


Impact of flood types

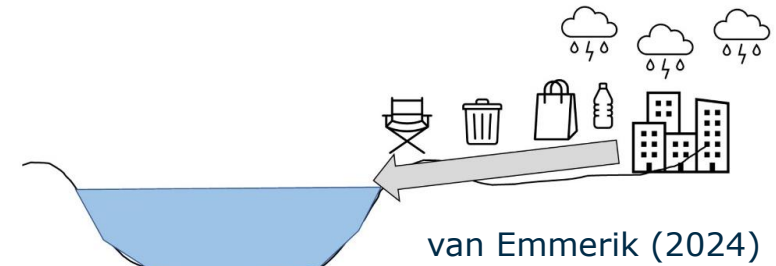
A. Pluvial floods



B. Fluvial floods



C. Flash floods

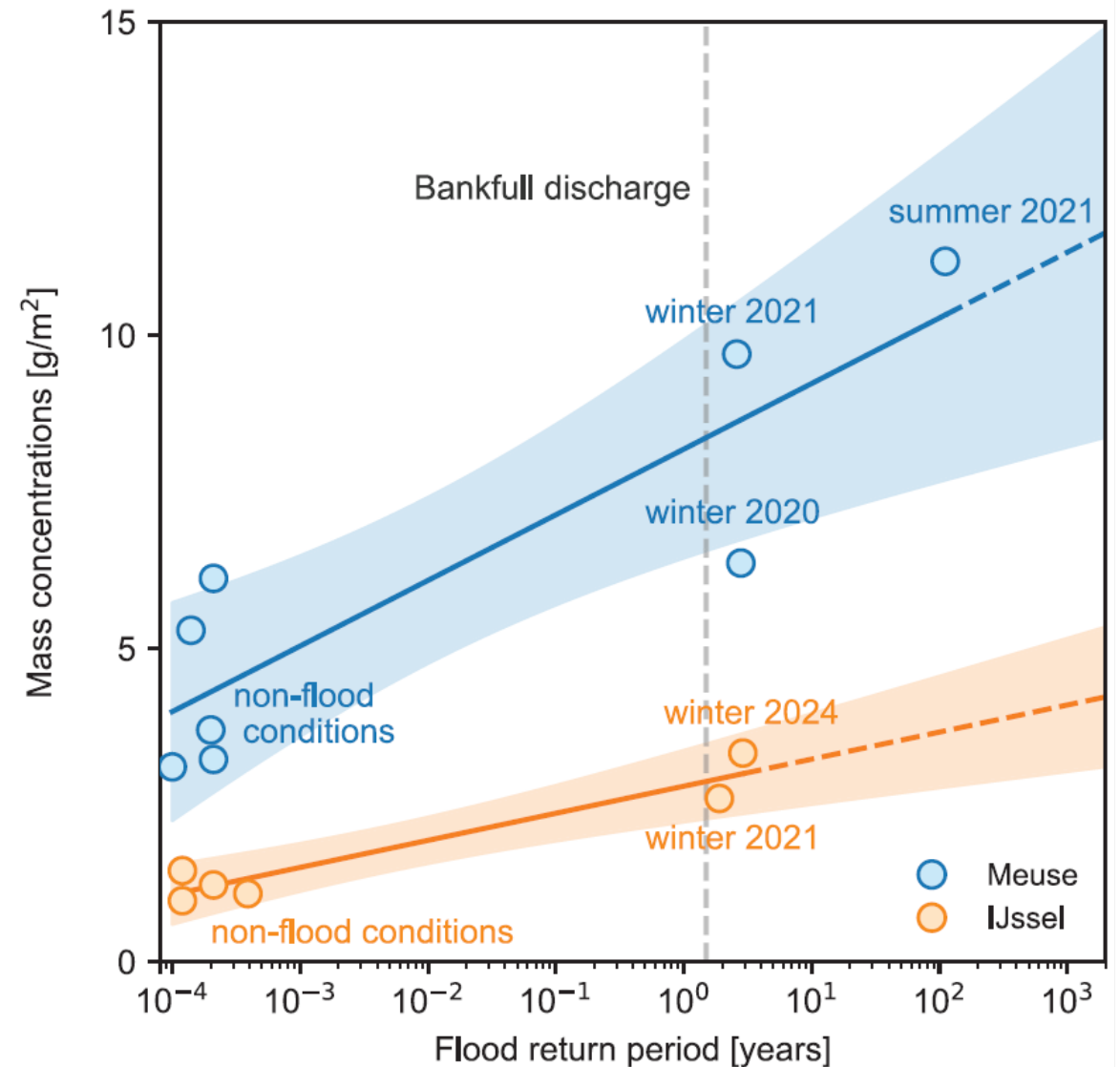


van Emmerik (2024)



More flood = more plastic

- Flood impact driven by flood type
- Larger floods lead to more plastic
- Deposition patterns vary



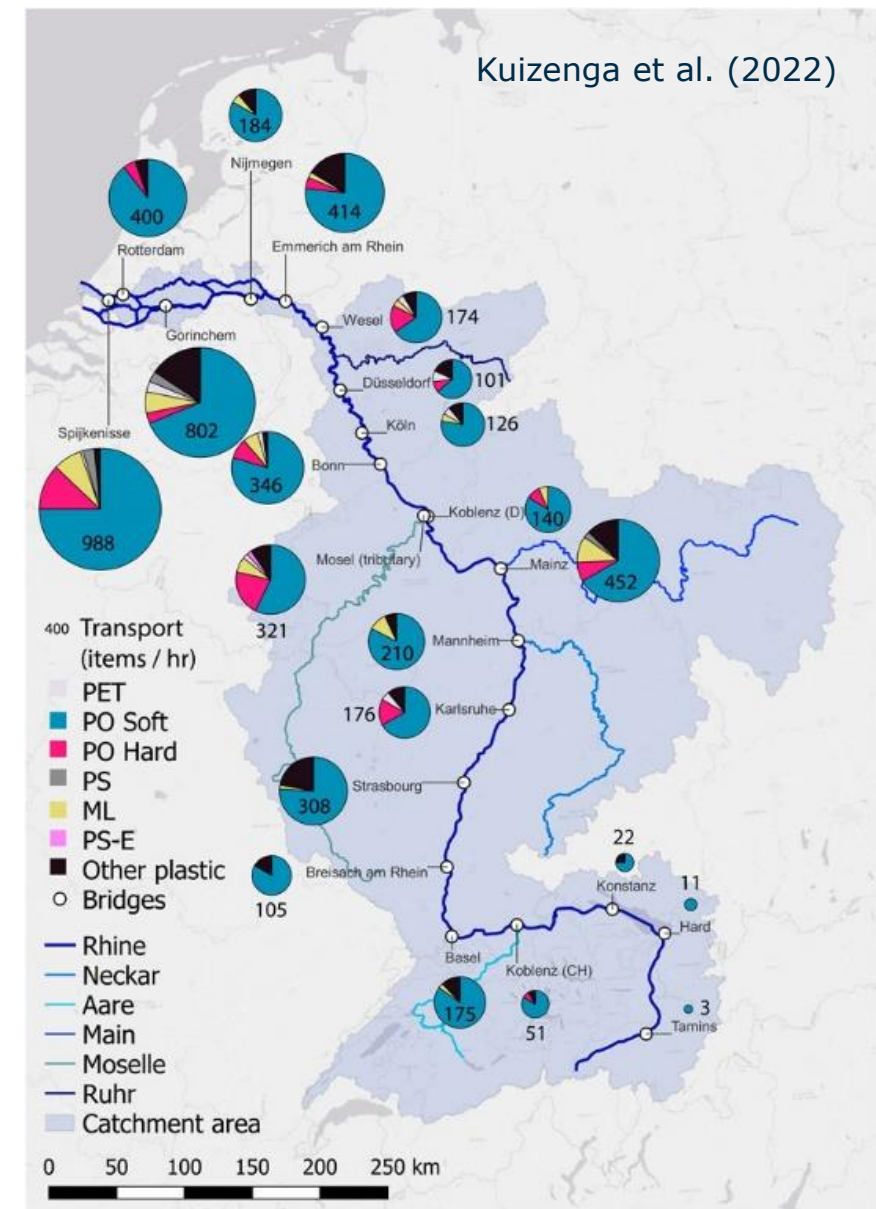
Schreyers et al. (2025)

Estuaries: The final frontier?



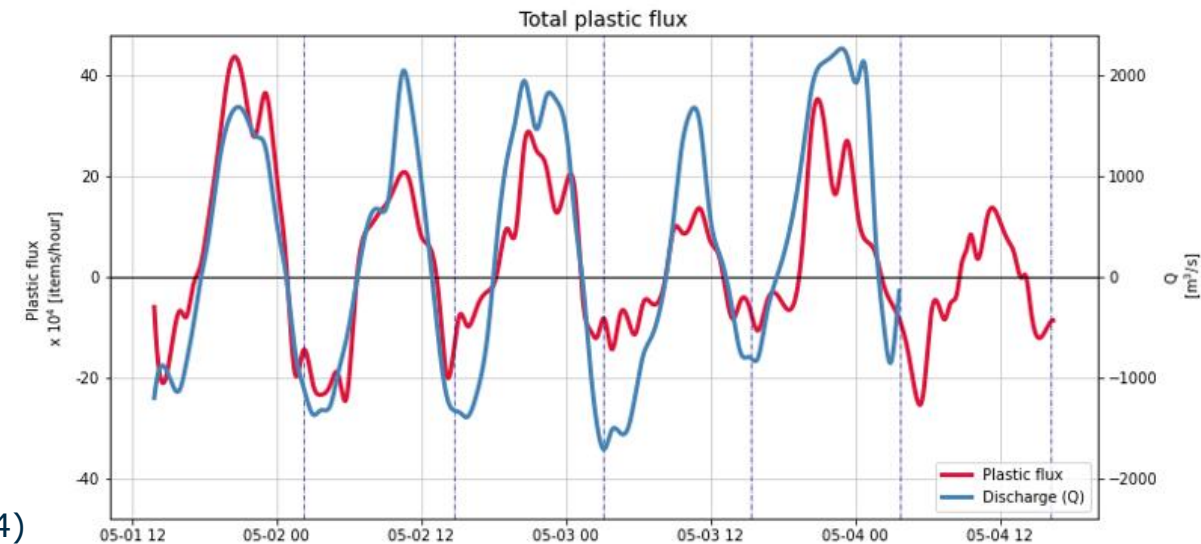
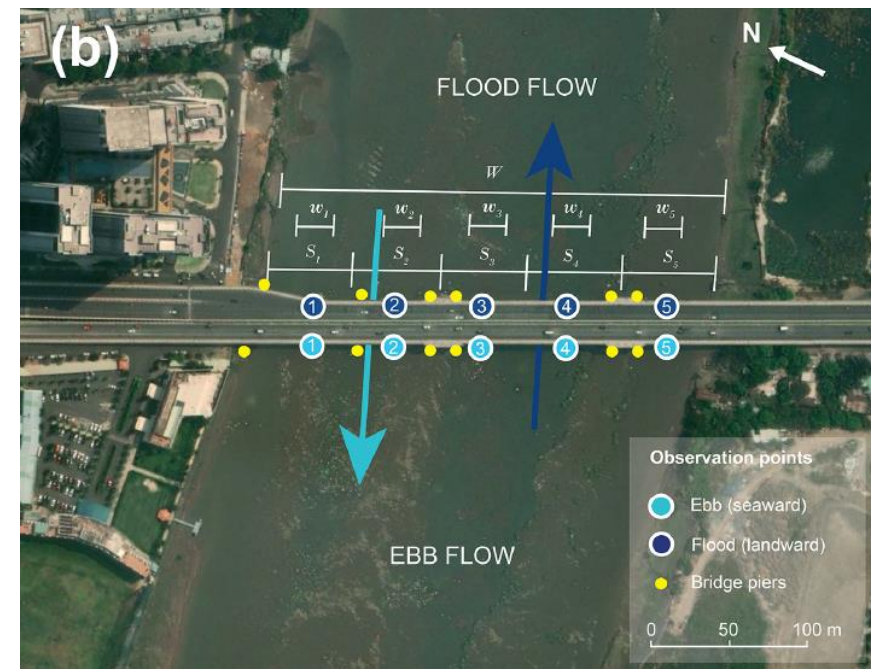
Estuaries as plastic hotspots

- Plastic increases towards river mouth
- Most is not exported to sea
- Estuaries as accumulation zones?



Estuaries as plastic hotspots

- First-time measurements of full tidal cycle
- Less than 30% exported towards the sea
- Call for improved monitoring



Schreyers et al. (2024)

Assessing the state of river

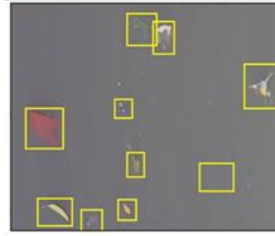
van Emmerik et al. (2022)



How to compare?

River Litter Monitoring

Methods



Indicators

Floating
Macro

Riverbank
Macro

Suspended
Macro

Sediment
Macro

Floating
Micro

Riverbank
Micro

Suspended
Micro

Sediment
Micro

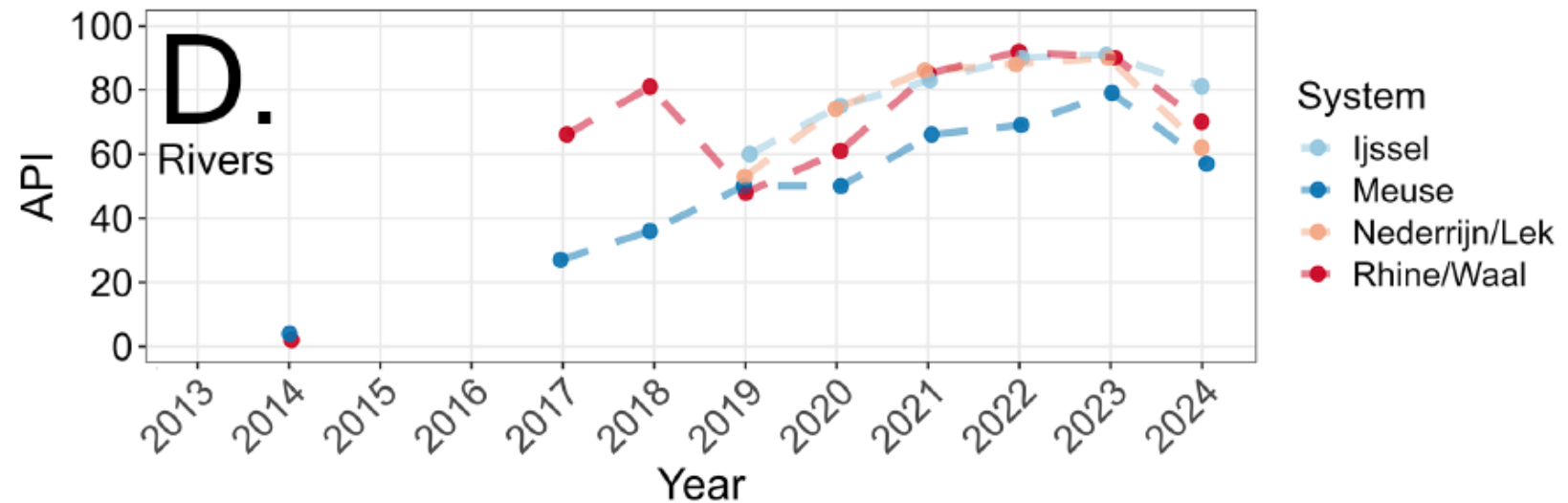
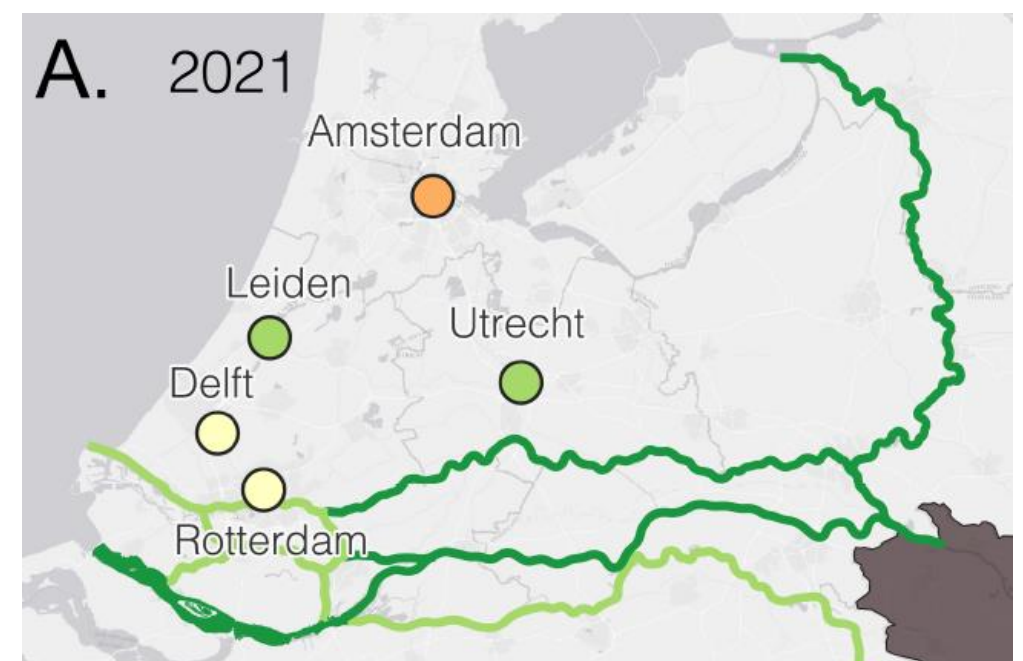
- Multimetric tool to assess state of plastic pollution
- Eight indicators across sizes and compartments
- Includes threshold exceedance and average values

Aquatic Plastic Index

van Emmerik et al.
(in prep.)

River plastic pollution in the Netherlands

- Direct comparison between rivers, estuaries and urban water systems
- Baseline assessment
- Monitor change over time



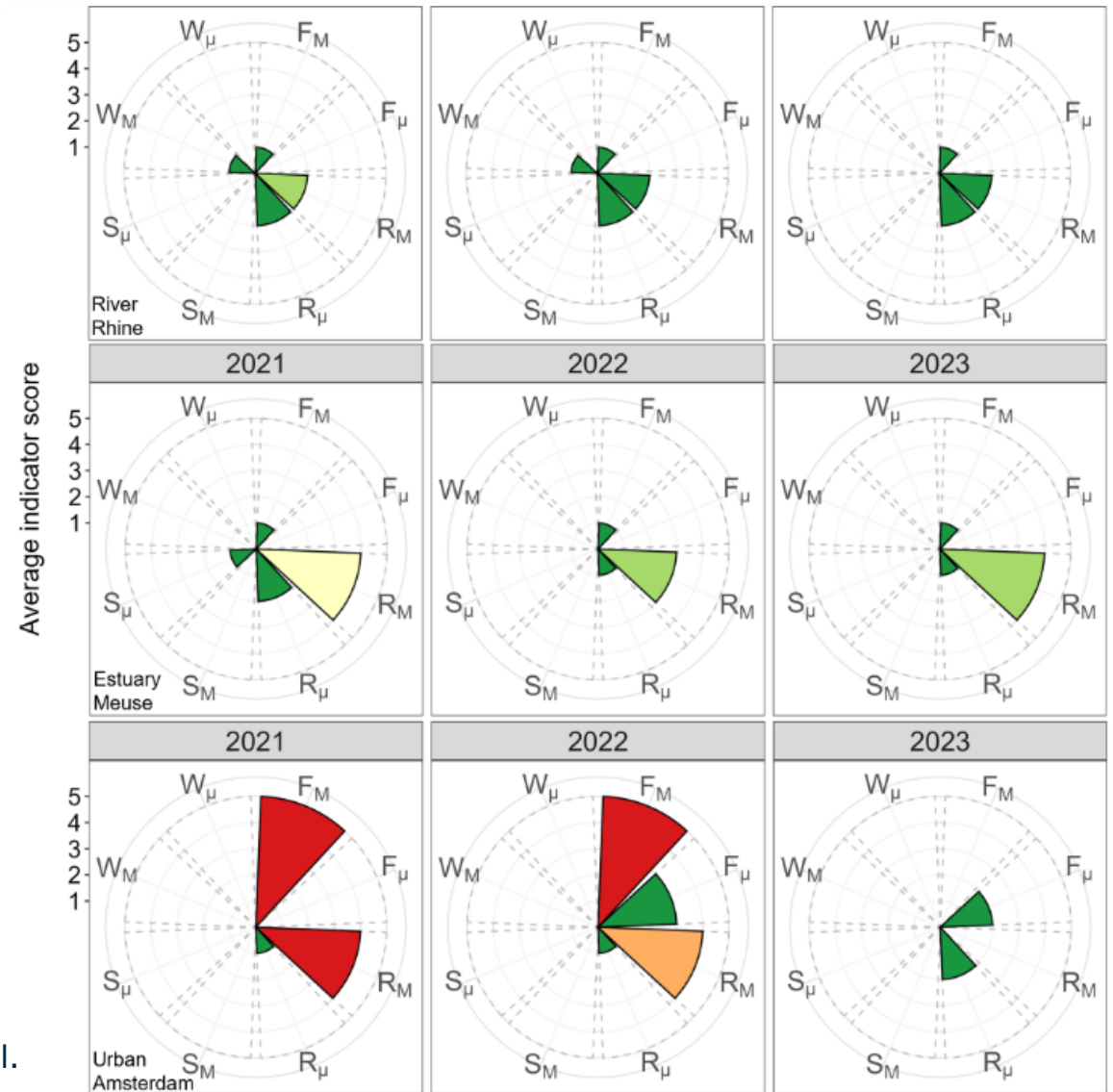
van Emmerik et al. (in prep.)



River plastic pollution in the Netherlands

- At most four indicators available
- Final score driven by different indicators
- Emphasizes need for monitoring

van Emmerik et al.
(in prep.)



What you should remember

- River plastic monitoring crucial for reduction measures
- Floods and estuaries are main drivers of plastic transport
- Multimetric tool to assess the state of river plastic pollution





River Plastic Pollution Monitoring

New insights, challenges and
opportunities for monitoring

1 July 2026

Dr.ir. Tim H.M. van Emmerik

tim.vanemmerik@wur.nl



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Activities to support countries in addressing emerging pollutants in water

Under the EU4Green Recovery East - Recovery through a Circular Economy and Pollution Reduction in the Eastern Partnership countries

Dr. Tamara Avellán
UNIDO International Consultant
tamara.avellan@posteo.de

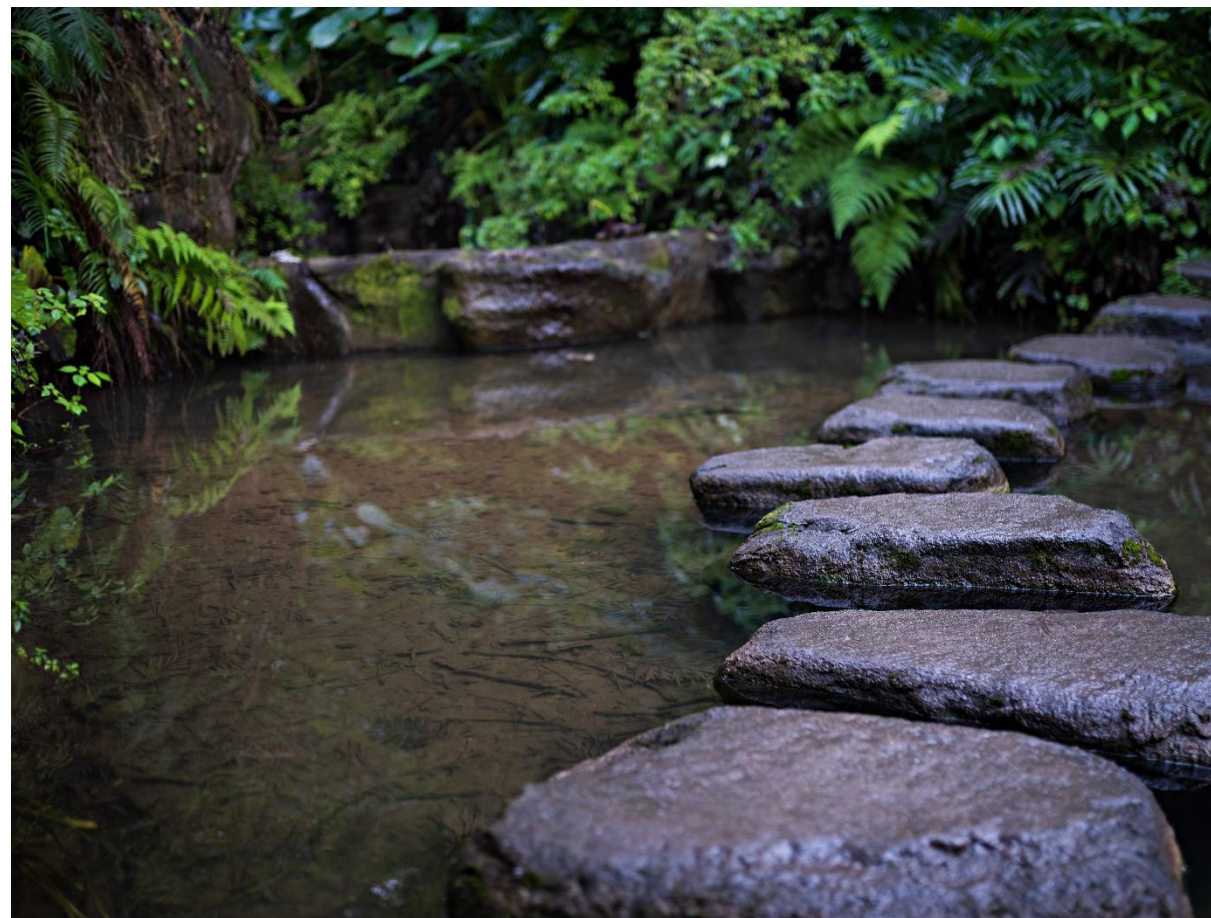
Second Regional Assembly Meeting of the
EU4GREEN Recovery East programme
1 July 2026, Paris, France

Implementing partners:



By the end of the programme, you will have:

- ✓ A clearer picture of the national situation
- ✓ A better understanding of relevant EU requirements
- ✓ Prioritised national actions for PFAS, pharmaceuticals and microplastics
- ✓ Stronger cooperation across sectors and institutions
- ✓ Access to regional expertise and practical experience
- ✓ A roadmap that can support future policy development and investments

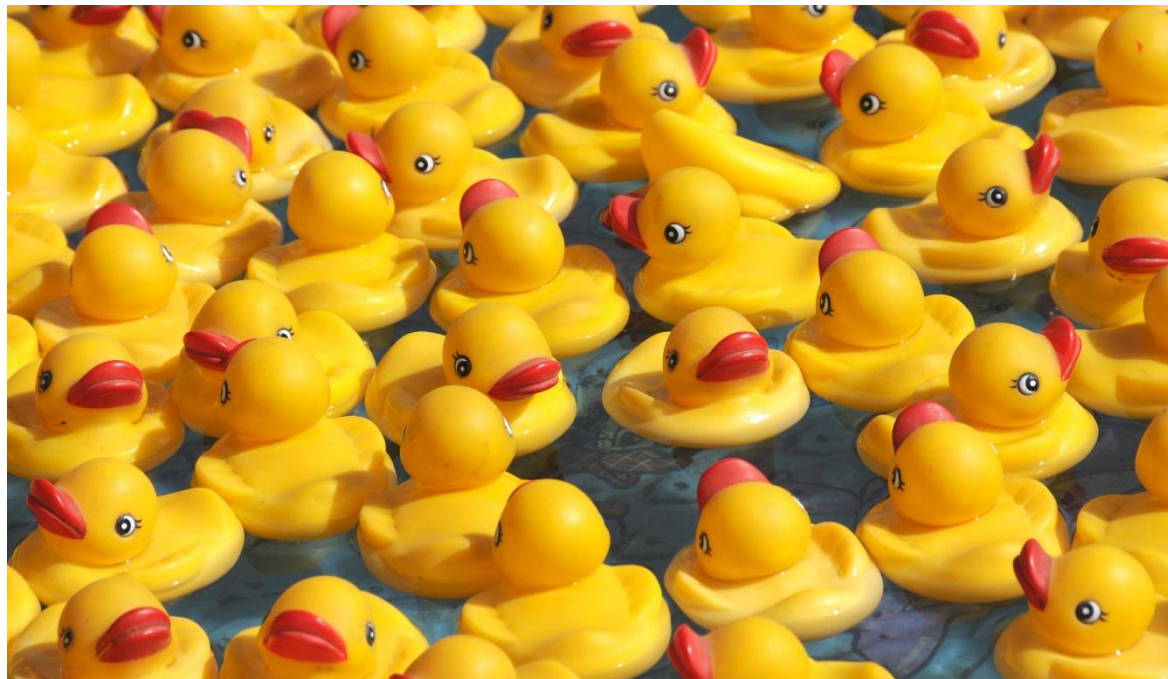


Implementing partners:



National Action Plans

Develop three National Action Plans each for Armenia, Moldova and Ukraine to address emergent pollutants in water in line with EU regulatory approaches and policy objectives.



The plan will:

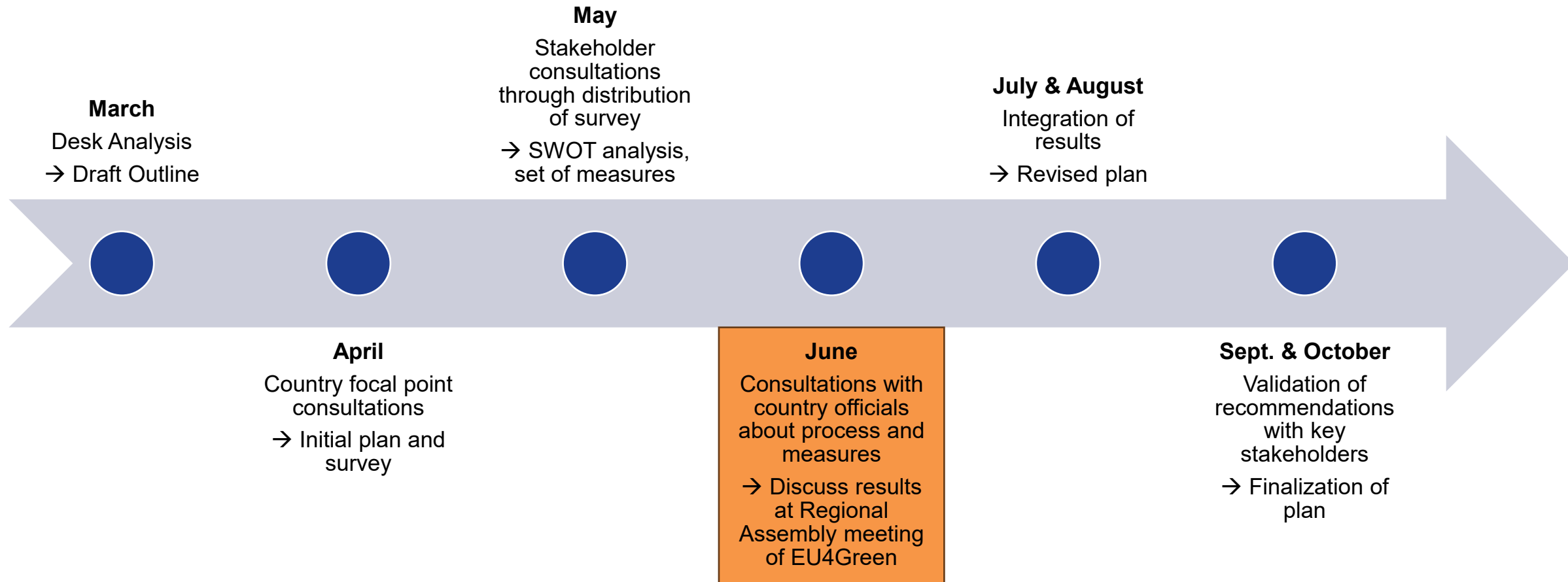
- translate EU experience into a context-specific roadmap that defines short-, medium-, and long-term actions across monitoring, prevention, treatment, financing, and governance;
- support the selected country in reducing pollution loads from PFAS, pharmaceuticals, and plastics;
- advance circular-economy transitions and strengthening institutional capacities under the EU4Green Recovery East framework.

What emergent pollutants are we addressing?

	 PFAS ("Forever Chemicals")	 PHARMACEUTICALS	 PLASTICS & MICROPLASTICS
 WHAT ARE THEY?	Per- and polyfluoroalkyl substances used in firefighting foams, textiles, non-stick coatings, food packaging, and industrial applications. 	Human and veterinary medicines entering water through consumption, disposal, and manufacturing. 	Plastic waste that fragments into microplastics (<5 mm) or is intentionally added to products. 
 WHY ARE THEY IMPORTANT?	Extremely persistent, mobile in water, bioaccumulative, and linked to adverse health and ecological effects. 	Biologically active compounds that can affect aquatic organisms and contribute to antimicrobial resistance. 	Persistent in the environment, ingested by wildlife, transport other contaminants, and accumulate in aquatic ecosystems. 
 TYPICAL PATHWAY TO WATER	Industrial products → wastewater/landfills → groundwater & rivers 	Consumption → wastewater → wastewater treatment plants → surface waters 	Plastic products → litter/landfills → fragmentation → rivers, lakes & marine waters 
 MAIN EU APPROACH	Source control + water quality standards 	Improved monitoring + advanced wastewater treatment 	Prevention, circular economy & source reduction 

Implementing partners:

Timeline (2026)



Policy Recognition of Emerging Pollutants

Pollutant Category	Ukraine	Moldova	Armenia
 PFAS Per- and polyfluoroalkyl substances	 Indirect recognition through chemicals and environmental legislation; no dedicated PFAS strategy	 Not yet explicitly addressed	 Not yet explicitly addressed
 Pharmaceuticals Human and veterinary medicines	 Increasingly recognised in environmental and wastewater policy discussions; addressed through the Watch list	 Indirect recognition through water, health and waste policies	 Limited recognition
 (Micro-)plastics Microplastics and plastic additives	 Not yet explicitly addressed	 Not yet explicitly addressed	 Not yet explicitly addressed

Implementing partners:

SWOT Analysis - Ukraine

STRENGTHS

- ✓ Legal framework
- ✓ Approximation to EU legislation
- ✓ Potential of scientific institutions
- ✓ Growing attention to health-related issues

WEAKNESSES

- ! Lack of awareness of emergent pollutants
- ! Outdate (waste-)water technologies
- ! Limited knowledge and capacity gaps
- ! Funding shortage
- ! War-related infrastructure damage

OPPORTUNITIES

- ★ International funding programmes
- ★ Development of (inter-) national research and innovation programmes on emerging pollutants
- ★ Upgrade of wastewater treatment infrastructure and technologies
- ★ Monitoring programmes related to EU water acquis

THREATS

- ! Lack of specialists
- ! Lack of monitoring and enforcement
- ! Resource constraints (funding, facilities, technology)
- ! Regulatory & technological implementation delays

SWOT Analysis - Moldova

STRENGTHS

- ✓ Approximation to EU legislation
- ✓ Leveraging funds and technological innovation partnerships
- ✓ Growing attention to environmental regulation

WEAKNESSES

- ! Lack of awareness of and information on emergent pollutants
- ! Regulatory gaps and governance issues
- ! Limited knowledge and capacity gaps
- ! Funding shortage
- ! Limitations in monitoring and data

OPPORTUNITIES

- ★ International funding programmes
- ★ Development of (inter-) national research and innovation programmes on emerging pollutants
- ★ Upgrade of wastewater treatment infrastructure and technologies
- ★ Monitoring programmes related to EU water acquis

THREATS

- ! Lack of specialists
- ! Lack of monitoring and enforcement
- ! Resource constraints (funding, facilities, technology)
- ! Climate and societal pressures

SWOT Analysis - Armenia

STRENGTHS

- ✓ Existing environmental monitoring institutions
- ✓ Established water governance structures
- ✓ Inter-institutional cooperation mechanisms
- ✓ Recognition of emergent pollutants as environmental issue

WEAKNESSES

- ! Limited alignment with EU requirements
- ! Lack of systematic monitoring programmes
- ! Limited understanding of pollutant pathways
- ! Limited capacities and knowledge
- ! Inadequate (waste-)water technologies

OPPORTUNITIES

- ★ Regional and international funding programmes and cooperation
- ★ Upgrade of wastewater treatment infrastructure and technologies
- ★ Monitoring programmes related to EU water acquis
- ★ Extended Producer Responsibility

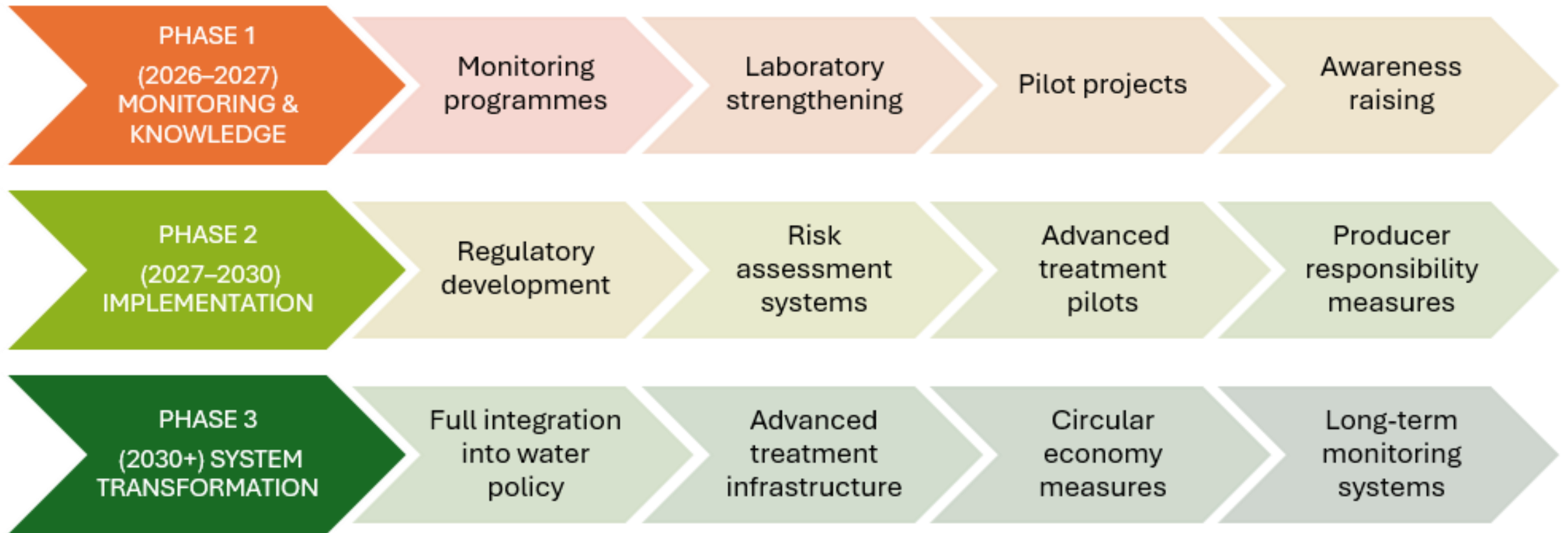
THREATS

- ! Delays in legislative reform
- ! Low public awareness
- ! Slow implementation of EU approximation measures
- ! Resource constraints (funding, facilities, technology)
- ! Increasing consumption of pollutant-containing products

Implementing partners:



Phased approach of measures





Feedback and questions



**Scan below to access
the background paper!**

