



This is a report from the EU Green Week Partner Event, “*An ambitious EU Chemicals Strategy and a broad PFAS restriction – a requisite for urban water resilience*”, that took place on the 4th of June 2024 in Brussels, Belgium. The event was organised by Gothenburg European Office, EurEau and Svenskt Vatten (eng. Swedish Water and Waste Association).

About PFAS – why a broad restriction is needed

Clean water is essential for healthy ecosystems, human health and for many human uses, such as drinking, bathing, and in agriculture. Per- and polyfluoroalkyl (PFAS) substances or “forever chemicals” can be found in all sorts of products, ranging from frying pans to cosmetics. They are oil repellent, making them sought after in many industrial production processes, but cannot be broken down once released into nature. Instead, they accumulate everywhere in the water and food cycles.

PFAS can be found in different concentrations in all of EU surface water and most groundwater bodies. Point sources, such as production plants, fire drill sites and landfills, lead to very high local concentrations whereas diffuse sources, such as air, dust and wastewater can be considered background noise. Since PFAS is very persistent and accumulates, the levels increase year by year. Without a broad restriction, this will lead to a future where all European drinking water sources are contaminated. This will undoubtedly lead to societal costs that far exceed costs associated with a restriction.



Industry and energy sectors perceived as not doing enough.



Figure 1: showing the results from the May 2024 Eurobarometer “Attitudes of Europeans towards the environment”, compiled by Gothenburg European Office.

PFAS can also be found in wastewater in measurable quantities – and most of it is released back into the environment. The [updated Urban Wastewater Treatment Directive](#) includes PFAS from a risk

management perspective, which could require removal by the treatment plants to reach the new environmental quality standards (EQS). However, there is no technology readily available for this and using active carbon might increase EU dependency on critical raw materials.

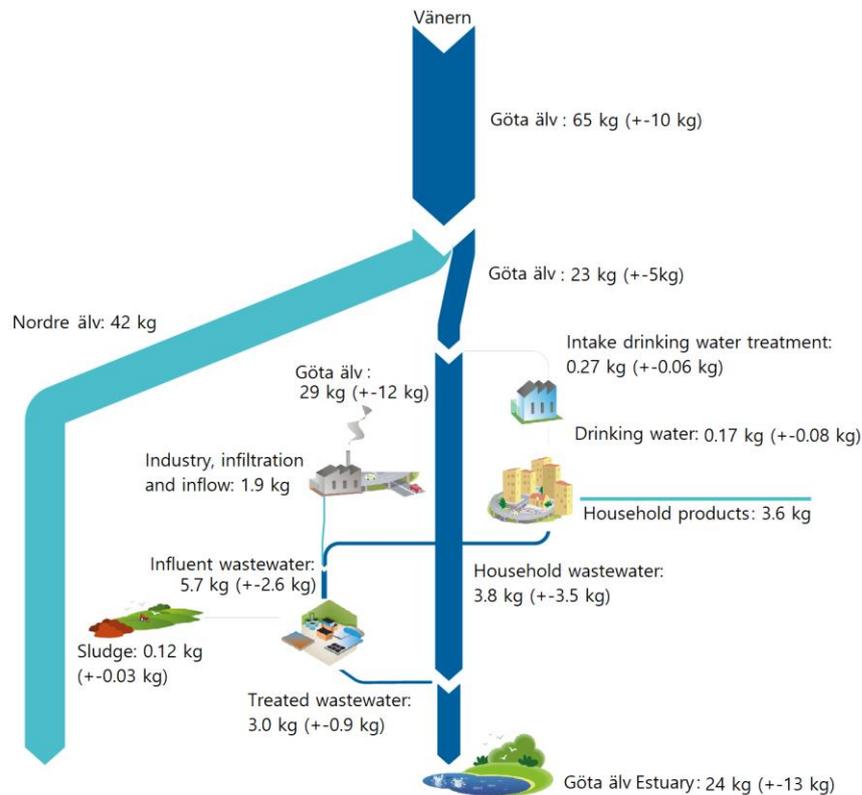


Figure 2: The City of Gothenburg has performed a PFASII mass balance in kg PFASII per year, clearly illustrating how persistent PFAS is and how prominent it is in our EU water bodies. The majority of PFAS origins from unknown sources. The figure also illustrates the urban water cycle, where PFAS can re-enter the water through effluence, and why end-of-pipe solutions are not enough.

Further, the EU has adopted ambitions of climate and energy neutrality, material and nutrient recycling and resilience in the water sector as part of the European Green Deal. These ambitions cannot be met if PFAS chemicals pollute our water cycles. Here, we need a shift from looking at wastewater treatment plants as facilities to handle wastewater to consider them *Resource Recovery Plants*.

The landscape of PFAS alternatives is also *not uniform*. Among the low-hanging fruits with available alternative solutions are F-gas applications, textiles, apparel, leather, food contact materials, in construction, cosmetics, lubricants, and ski wax among others. There is a growing number of solutions within transport, medical devices, petroleum, and mining. The last market segment consists of sectors with high innovation rate and huge market potential for electronics and semiconductors and the energy sector.

During our event, we focused on upstream (control at source) measures, the Polluter Pays Principle, and a broad restriction on PFAS chemicals. We considered how ensuring an ambitious implementation of the EU Chemicals Strategy can help meet the zero-pollution ambition and increase coherence of EU water policy, whilst ensuring that we have enough safe and affordable water to fulfil all of society's needs.

The following subjects were discussed during the seminar:

EU Chemicals Strategy for Sustainability

From a societal point of view, which policies are most effective to ensure compliance with end-of-pipe thresholds in the medium- and long-term?

- Policies that holistically tackle **upstream** measures
- **Implement the Council conclusions¹ and the European Parliament resolution² calling for a ban of all non-essential PFAS uses.**

How can Producers' responsibility for PFAS be introduced, for instance, regarding already contaminated drinking water sources to pay for drinking water treatment plants to treat and fulfil their PFAS requirements?

- Currently the legal processes look **different across EU member states** (court cases in the Netherlands and Sweden³ among others)

PFAS-specific

What are the consequences of inaction in keeping our environment and water PFAS-free?

- There are currently no PFAS free places on earth, it is impossible to escape, and they build-up over time, easy to pollute and difficult to measure. The consequence is that it will provide damage to human health and the environment.

Why are end-of-pipe solutions not enough to tackle PFAS pollution?

- End-of-pipe – only tackles small part of exposure. For instance, in the Netherlands it is only about 1,7% of the water that is used for drinking water that is treated.

Which “easy steps” can we start with now to minimise the use of PFAS?

- We need a broad EU restriction, starting with products containing PFAS where alternatives are readily available.
 - The national authorities of Denmark, Germany, the Netherlands, Norway and Sweden, [submitted a proposal](#) to ECHA in 2023 to restrict PFAS under the REACH Regulation.
 - The French National Assembly has also agreed to [ban the manufacture, import and sales](#) of products containing PFAS from 2026 (with some exceptions, such as kitchenware). Earlier this spring, Denmark adopted the [first national action plan](#) to combat pollution from PFAS.

PFAS & Mass Balance

Could we assume that the Gothenburg case is representative to other cities in Europe?

- From mapping the **mass flow of PFAS through the urban water cycle**, the case of the City of Gothenburg is representative of that of other cities in the European Union
- Further, common amongst all cities within the EU is that there is a large need to learn more about the origin of pollution – Now, there are lots of unknowns.
- Important **differences** across cities include:
 - Governance and **administrative processes** that might differ between EU Member States

¹ [Council conclusion - Sustainable Chemicals Strategy of the Union](#)

² [European Parliament Resolution - EU Chemicals strategy for sustainability](#)

³ [Swedish Court Case – PFAS in the drinking water \(in Swedish\)](#)

- **Foreign river flows** making it harder for cities or provinces to control what is in their water streams. In Gothenburg, it is easier to control the pollution since the water upstream originates from Sweden and, to a certain extent, Norway.
 - Dutch provinces are downstream in rivers originating from multiple countries – in case of failure to comply with EU laws – who pays?
 - This makes it crucial to tackle at EU level.

Is the PFAS mass transfer in the water systems comparable to transfers via air and soil?

- Air transfer is likely different to water and soil transfer, where soil contamination is easier to prove. They are also somewhat linked, in that air contamination might spread and land on soil that will leak through waterways.
- In the Netherlands there are examples of widespread soil contamination that has led to [potentially contaminated eggs](#).

Alternatives to PFAS

There is a need for new solutions – how can EU direct research towards these solutions?

- **Linking PFAS to existing EU policy areas**, such as the European Green Deal, to make it easier for the Commission to provide the **right resources**, particularly in the form of funding, to expand and explore relevant research.
- **Current funding lacks longevity**
- Creating **financial incentives** for companies to avoid the use of PFAS chemicals, for instance, through subsidies for using alternatives.

The PFAS restriction has clearly showed the need for increased knowledge on chemical content in products and processes – what regulatory measures can we take to support companies to be more transparent?

- One problem is that **only the people affected or interested are vocal about the issue** – having the interest and awareness of the general public is crucial for long-term and effective change.
- What are the **private and societal benefits of removing PFAS**? We should explore these links further.

Regulating groups of chemicals is one way to decrease the risk of regrettable substitution – which steps can individual companies take to avoid that?

- Currently we do not have many established options that can replace PFAS successfully (especially in the medical field). There is a need **to test products** and make sure that there are **efficient alternatives** for the public and private sector to use. For instance, for companies it could be useful to focus on **what functionality they need** rather than the chemical – perhaps they can make do with an alternative to PFAS?

Contact

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