SPECIAL REPORT 31/2026 **EN**

The EU approach to PFAS (“forever chemicals”)

Slow progress in a race against time



EUROPEAN
COURT
OF AUDITORS

Contents

Paragraph

01-15 | Main messages 01

01-06 | Why this area is important

07-15 | What we found and recommend

16-73 | A closer look at our observations 02

16-39 | The EU legal framework is not well-adapted for PFAS

18-34 | The EU was among the first to act on harmful PFAS, but many PFAS remain unregulated

35-39 | A third of member states do not carry out checks to enforce PFAS restrictions under the chemicals legislation

40-66 | EU limits for PFAS in food and drinking water represent a trade-off between health and availability

41-58 | The EU started monitoring PFAS in food in 2010 and set limits for four PFAS in certain foodstuffs

59-66 | EU limits on PFAS in drinking water are largely met, but one third of EU member states apply additional national limits

67-73 | The Commission has supported successful projects to tackle PFAS, but does not have a consolidated picture of PFAS-related funding

68-70 | Most PFAS projects have fully or partially achieved their objectives

71-73 | The Commission does not have consolidated picture of PFAS-related funding

Annexes

Annex I – About the audit

Abbreviations

Replies of the Commission

Replies of the European Chemicals Agency (ECHA)

Timeline

Audit team

01

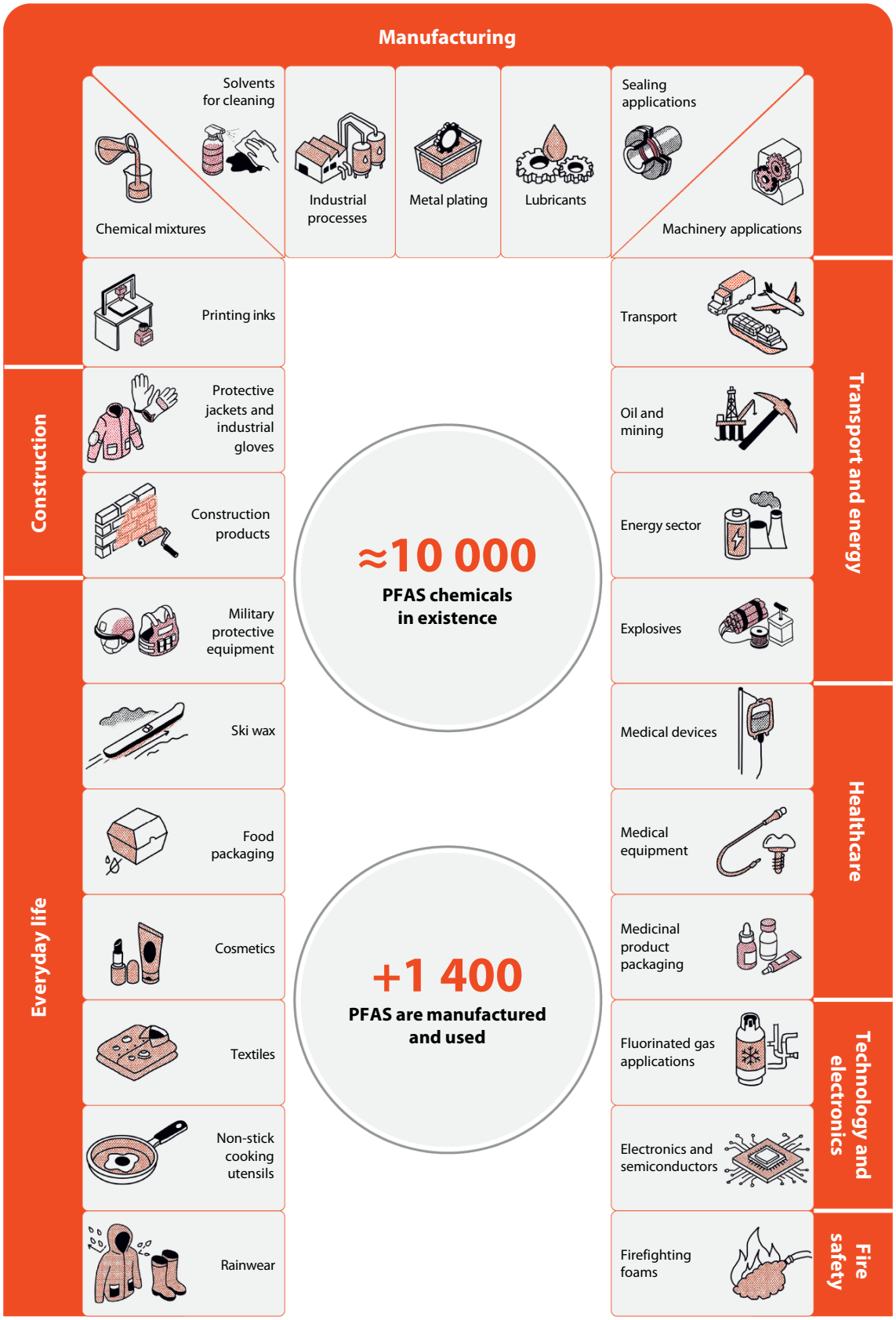
Main messages

Why this area is important

01 Per- and polyfluoroalkyl substances (PFAS) are a group of synthetic chemicals, characterised by their strong carbon-fluorine bond, meaning that they degrade extremely slowly over time. They are therefore known as “forever chemicals”.

02 Industrial production of PFAS started in the 1940s. Due to their unique ability to repel water, oil and stains, while resisting extreme heat and chemicals, PFAS have since been used in countless industrial and consumer products. Estimates indicate that the number of PFAS manufactured and used is in the thousands (***Figure 1***).

Figure 1 | Where PFAS ("forever chemicals") are used



Source: ECA based on information received from ECHA.

03 People are exposed to PFAS in many different ways, mainly through the consumption of food and water, and by breathing them in. Over the last decade, scientific studies have shown that exposure to PFAS leads to serious health effects, including cancer and reproductive effects. Other health effects such as a lower antibody response to some vaccines and increases in cholesterol levels have also been identified in epidemiological studies.

04 In 2019, the Council called on the Commission to develop an action plan to eliminate all non-essential uses of PFAS. In 2020, the European Parliament urged the Commission to set firm deadlines to ensure the rapid phasing out of all non-essential PFAS uses. Issued by the Commission in October 2020, the Chemicals Strategy for Sustainability pledged to better protect both human health and the environment against hazardous chemicals, and to boost innovation to find safe and sustainable chemicals. The list of key actions includes phasing out PFAS in the EU, unless their use is deemed essential.

05 The objective of this audit was to assess whether the EU had been effective in protecting human health from the harmful effects of PFAS. We examined whether: the EU chemicals legislation and its implementation were contributing effectively to protecting EU citizens against the harmful effects of PFAS; the EU had set limits for PFAS in food and drinking water that were both in line with the latest scientific research and were being applied across the EU; the EU had a coherent funding strategy to address the issue of harmful PFAS. We also looked at whether sampled projects were achieving their objectives. Our audit did not cover the potential economic implications of PFAS restrictions.

06 Our audit covered the period from January 2020 to March 2026. We visited three member states (Germany, Greece and the Netherlands) and carried out three surveys of the 27 member state authorities responsible for chemicals, food safety and drinking water, respectively. For more background information and details on the audit scope and approach, see ***Annex I***.

What we found and recommend

07 We found that the procedures to regulate PFAS in the EU were complex and lengthy, and not well-adapted to dealing with this issue. We also found that some member states had established additional PFAS limits for drinking water to those set at EU level, but not all member states carried out checks for PFAS in food.

08 The **EU was one of the first jurisdictions to start restricting PFAS** and was a founding party of the Stockholm Convention on Persistent Organic Pollutants (paragraphs ***18-20***). However, the EU legislative framework has **not led to sufficient information being**

collected to assess the hazards related to most PFAS. The principle of "no data, no market", on which the chemicals legislation in the EU is based, therefore remains largely theoretical when it comes to PFAS (paragraphs *22*-*23*).

09 The procedures to regulate chemicals in the EU are **not well-adapted for PFAS**, due to the large and ever-growing number of PFAS, the wide range of uses, and the lack of data on the effects of many of these chemicals. The PFAS hazard assessment can take many years, and the results can be inconclusive. The average length of the procedure to restrict a PFAS in the EU is five years. A restriction often leads to "**regrettable substitution**" whereby banned PFAS are replaced with others on the market (paragraphs *24*-*31*).

10 Following the restriction intention announced in 2020 and published in 2021, five countries submitted **a dossier to launch a process to assess all PFAS for all uses** in 2023, but due to the exceptionally large scope and high complexity of the proposal, this universal PFAS restriction procedure is taking a long time. Some member states have decided not to wait for the EU to take action and have independently introduced tighter restrictions than those currently applicable at EU level. However, since the proposal of the universal PFAS restriction, no other new PFAS restriction procedures have been launched at EU level (paragraphs *32*-*34*).

Recommendation 1

Improve the regulatory procedures to take action against harmful PFAS

The Commission, in cooperation with the European Chemicals Agency, should:

(a) without prejudging its outcome, expedite the process leading to a decision on the current proposal for a universal PFAS restriction;

(b) streamline procedures related to the chemicals legislation to reduce the amount of time needed to take regulatory action against harmful PFAS.

Target implementation date: (a) 2027; (b) 2029.

11 EU legislation requires member states to maintain an effective system of controls for chemicals. However, based on the replies to our survey on EU chemicals legislation, **a third of the 27 EU member states did not carry out any targeted PFAS checks** to verify compliance with chemicals legislation in 2020-2025 (paragraphs *35*-*39*).

Recommendation 2

Put in place checks to verify compliance with chemicals legislation

The Commission should cooperate with member states to put in place an effective system of controls for PFAS to check compliance with chemicals legislation.

Target implementation date: 2028.

12 The Commission has set limits for certain PFAS in some foods, based on a European Food Safety Authority scientific opinion that established a tolerable weekly intake limit. These **limits for PFAS in food represent a trade-off between health and the need to ensure food availability**. The Commission also set up a monitoring framework to gather a significant amount of data on PFAS in the EU. However, this data had not yet been used to update the existing limits, and some member states had not submitted any data (paragraphs *41*-*54*).

13 EU legislation does not establish a minimum number of checks to verify compliance with the limits for PFAS in food, and **some member states did not carry out any checks in this area**. The Commission has encouraged member states and non-EU countries to enforce limits on PFAS in food, and ensure that PFAS are included in their official sampling (paragraphs *55*-*58*).

Recommendation 3

Revise the limits for PFAS in food and support member states' monitoring and control

The Commission should:

(a) revise the limits for PFAS in food to reflect the most recent scientific and monitoring data;

(b) provide guidance to member states to monitor and control PFAS in food and transmit the data to the European Food Safety Authority.

Target implementation date: 2028.

14 The PFAS limits for drinking water were set in the Drinking Water Directive in 2020, based on evidence from 2017. We found that these limits were generally respected. However, they had not been revised since their introduction, even though new scientific evidence

was available. In addition, 8 out of the 25 member states which replied to our survey on drinking water had **already adopted additional legally binding or non-binding national limits** for PFAS (paragraphs *59*-*66*).

Recommendation 4

Assess the adequacy of the current PFAS limits in drinking water

The Commission, together with the member states, should:

(a) assess the adequacy of the current PFAS limits in drinking water, taking into account the European Food Safety Authority opinion and recent scientific data, and;

(b) propose new limits where warranted.

Target implementation date: 2028.

15 In our sample of PFAS-related projects, remediation projects financed by the EU had delivered good results overall. However, the Commission does not have **a consolidated picture of PFAS-related funding** (paragraphs *67*-*73*).

02

A closer look at our observations

The EU legal framework is not well-adapted for PFAS

16 Per- and Polyfluoroalkyl Substances (PFAS) are a group of thousands of man-made chemicals that have dangerous effects on the environment and human health. In the 2020 Chemicals Strategy for Sustainability, the Commission committed to phasing out any non-essential use of PFAS in the EU. The Commission's 2025 Chemicals Industry Action Plan further emphasised that PFAS should only remain in application where their use is indispensable, for example for health or safety – and if no alternatives are available.

17 We assessed how the issue of PFAS is addressed in the EU. We checked whether the European Chemicals Agency (ECHA), in cooperation with member states and the Commission, promptly analysed the available scientific evidence on the hazards of different types of PFAS. We also verified whether ECHA had managed to obtain sufficient cooperation from member states and companies, and whether it had sufficient information to guarantee that the PFAS manufactured, imported and used in the EU were safe.

The EU was among the first to act on harmful PFAS, but many PFAS remain unregulated

18 The **EU was one of the first jurisdictions to start restricting PFAS** – a few years behind the United States, but ahead of many other countries such as Canada and Japan. In 2006, the EU restricted a group of PFAS for the first time.

19 The Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention) is a global treaty which was adopted in 2001 (and came into effect in 2004) to protect human health and the environment from highly dangerous, long-lasting chemicals that accumulate in living beings (bioaccumulate) and travel across international borders. The EU was a founding party of the Stockholm Convention and implemented the agreement through the 2004 Persistent Organic Pollutants (POPs) Regulation. Four groups of PFAS were restricted or eliminated under the Stockholm Convention (in 2009, 2019, 2022 and 2025). Three of them had already been restricted in the EU before they were banned internationally under the Stockholm Convention.

20 The Commission, supported by ECHA, actively promotes the inclusion of persistent organic pollutants in the Stockholm Convention. A restriction under the Stockholm Convention has the advantage of reducing competitive imbalances between EU and non-EU countries, while increasing the level of protection, because the obligations apply to all signatories to the Convention. However, the restriction process takes several years for each group of PFAS.

21 In the EU, the manufacture, import and use of chemicals, including PFAS, are regulated through the Registration, Evaluation, Authorisation, and Restriction of Chemicals Regulation (REACH). REACH is based on the principle of "no data, no market" (***Box 1***).

Box 1

The "no data, no market" principle

Manufacturers and importers of chemical substances in the EU are required to submit a registration file to ECHA and provide technical and safety information, without which substances cannot be commercialised in the EU market. This principle aims to prevent chemical substances – for which little is known about the hazards – being put on the market, thereby exposing EU citizens and the environment to unknown risks.

The information required for each substance depends on the annual volume (tonnage) manufactured or imported. There are four tonnage bands: 1-10 tonnes; 10-100 tonnes; 100-1 000 tonnes; and above 1 000 tonnes. Full toxicological and ecotoxicological testing data only needs to be provided for the highest tonnage band of more than 1 000 tonnes per year. In addition, the registration process under REACH is not required for polymers (a sub-type of chemicals consisting of large molecules made from many smaller and simpler molecules).

Source: Registration, Evaluation, Authorisation, and Restriction of Chemicals Regulation (REACH).

The EU's chemicals registration process has not collected much hazard information about PFAS

22 Assessing the hazards related to chemical substances requires sufficient information (including test data) about the characteristics of those substances. We verified whether the REACH registration system allowed ECHA to collect sufficient information about PFAS and found that ECHA had counted 231 PFAS registrations for 119 different substances. None of these registrations belongs to the highest tonnage band of more than 1 000 tonnes per year (***Box 1***) which triggers greater data reporting obligations.

23 **The majority of PFAS are not registered under REACH** as they are produced or imported either in annual volumes below one tonne per year or in the form of polymers (such as the widely used polytetrafluoroethylene (PTFE)), which are exempt from registration (***Box 2***). Consequently, ECHA has little information about the potential hazards of these substances, and they are not subject to testing obligations (one of the options for generating the information needed to demonstrate the safe use of a substance). The principle of "no data, no market", on which the REACH Regulation is based, therefore remains largely theoretical for PFAS.

Box 2

A common PFAS without data: polytetrafluoroethylene (PTFE)

More than one third of PFAS are polymers. PTFE is one of the most widely used PFAS polymers and is used in non-stick cooking pans and waterproof textiles.

As there is no registration obligation for polymers under REACH, ECHA has not collected any safety information on PTFE through this process.

Source: ECA based on Polytetrafluoroethylene and information collected during the audit visit to ECHA.

Hazard assessment and restriction procedures take many years

24 To protect EU citizens and the environment against the harmful effects of PFAS, the REACH Regulation allows the Commission, ECHA and the member states to assess the hazards and risks of a substance or group of substances and decide whether to restrict their manufacture, placing on the market or use. We analysed whether the EU chemicals regulatory framework for PFAS could manage and mitigate their harmful effects effectively. We also checked whether, after having identified a harmful effect, the process was an efficient means of protecting EU citizens.

25 **ECHA's first step is to assess the hazards of chemical substances**. We found that for PFAS this assessment can take between six months and 10 years (with an average of 6 years). In addition, the results can be inconclusive when existing hazard information is insufficient (***Box 3***).

Box 3

An example of a bumpy road to regulate PFAS: perfluamine

Due to its chemical and thermal stability, and its resistance to harsh environments, perfluamine is primarily used in industrial applications as heat transfer fluid and as an industrial solvent. It is also used as a cooling and insulation material in the electronics industry.

The substance was first registered under REACH in 2013.

In March 2016 Belgium proposed perfluamine for substance evaluations. In parallel, also in March 2016, ECHA opened a compliance check (dossier evaluation) process on perfluamine. The substance evaluation by Belgium was postponed and started only in March 2020.

In 2021 and 2022, both ECHA's Member State Committee and ECHA itself asked the lead registrant to update the registration dossier with additional hazard information. As the response was unsatisfactory, in 2024 the case was referred to the competent national enforcement authorities of the relevant member state.

In November 2024, following the Member State Committee decision, ECHA added perfluamine to the substances of very high concern candidate list. In the meantime, two of the three registrants have withdrawn their registration, declaring that they have ceased to manufacture or import the substance.

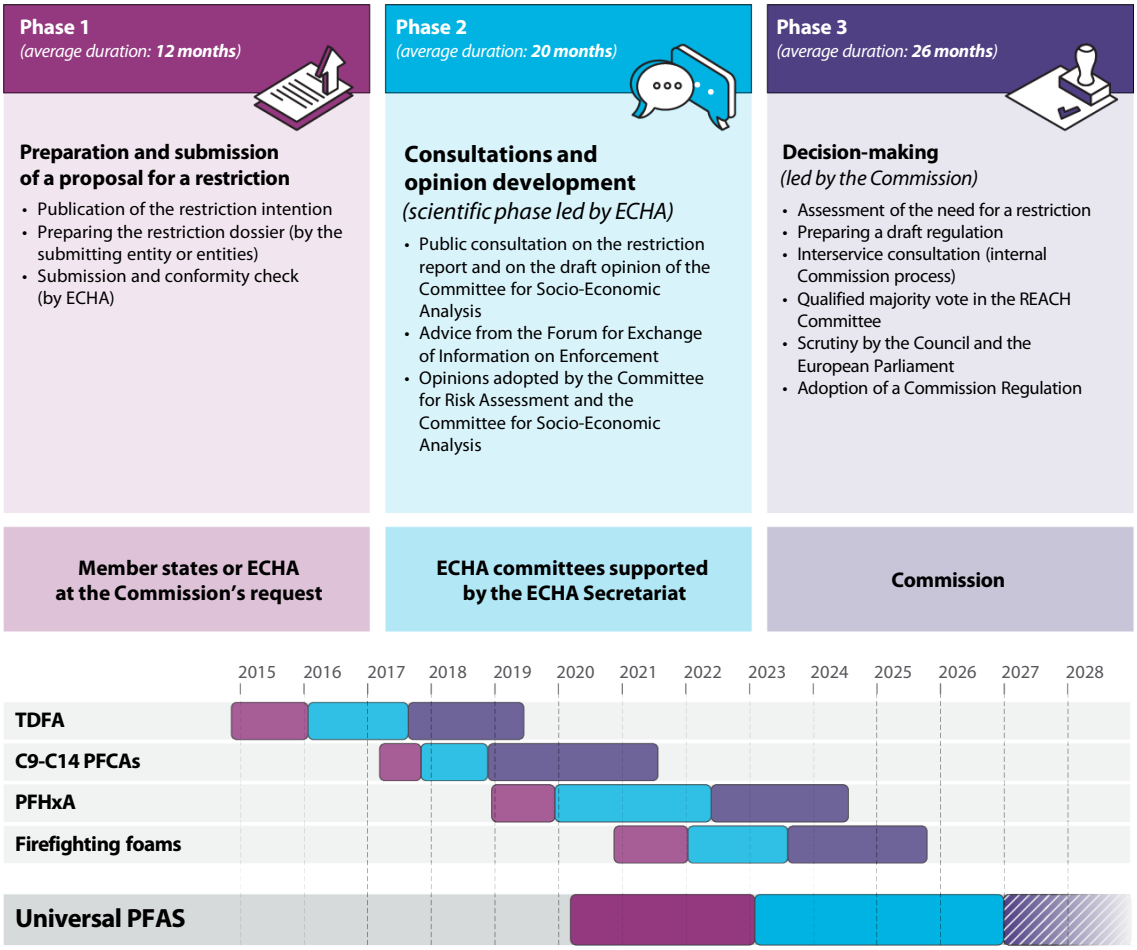
The process, which began in March 2016, concluded in December 2025 – almost 10 years later – that perfluamine was very persistent and very bioaccumulative, but the assessment was inconclusive regarding its toxicity. Since then, neither the member states nor ECHA has taken any further action.

Source: ECA based on information collected from ECHA.

26 Once a substance has been assessed as posing severe, long-term risks to human health or the environment, it can be included on the list of substances of very high concern. Recognition as a substance of very high concern creates information and notification obligations for producers and importers but – unlike a restriction – does not limit the use of the substance.

27 Under the REACH Regulation, when a substance is considered to pose an uncontrolled risk that needs to be addressed at EU level, **either ECHA (at the Commission's request) or a member state can launch a restriction procedure**. We analysed how PFAS restrictions work in practice. A restriction procedure consists of three phases (***Figure 2***).

Figure 2 | The phases and timeline of recent PFAS ("forever chemicals") restrictions



Source: ECA based on information provided by ECHA and the Commission.

28 We checked the time from the submission of the proposal until the approval of the final decision for the five (groups of) PFAS for which a restriction was either currently in place or was pending under REACH. We found that **the full procedure (from the publication of restriction intention until the restriction was adopted) for the most recent PFAS restrictions took, on average, almost five years** (***Figure 2***). In most cases, the adopted restriction provides longer transition periods and more exemptions than those proposed by ECHA's scientific committees.

29 We also checked whether the restrictions adopted under REACH had been effective in ensuring that PFAS had been substituted with less harmful substances. According to

scientific studies the "substance-by-substance" approach **led to "regrettable substitution**". When one type of PFAS was restricted, it was quickly replaced with another with a similar molecular structure and similar properties [1].

30 There is a large and constantly increasing number of PFAS, with a wide range of uses, but there is also a lack of data on the effects of many of these chemicals. In this context, the REACH Regulation processes to restrict harmful PFAS are slow and often ineffective, notably due to the "regrettable substitution" effect. This shows that the **current EU legal framework is not well-adapted to address the problem of harmful PFAS**.

31 However, the restriction procedure for firefighting foams, for which a restriction intention was published in 2020, marked a regulatory turning point; for the first time a restriction covered all PFAS used in firefighting foams. They are being phased out with transition periods ranging from 12 months to 10 years.

The assessment of the proposed restriction covering all PFAS is expected to be a lengthy process

32 Following the restriction intention announced in 2020 and published in 2021, the German authorities, together with the authorities of Denmark, the Netherlands, Sweden and Norway, submitted in 2023 a dossier to **launch a process to assess all PFAS for all uses**. The authorities proposed to substitute PFAS where alternatives exist. Following a public consultation of the restriction proposal in 2025, eight additional industrial sectors that used PFAS were added to the proposal. This illustrates the lack of comprehensive knowledge about the uses of PFAS, both in ECHA and in the member states.

33 The proposal has an exceptionally large scope and a high degree of complexity, covering thousands of PFAS and thousands of uses in dozens of industrial sectors. This means that the process resulting in the transmission of opinions from ECHA's Committee for Risk Assessment (RAC) and Committee for Socio-Economic Analysis (SEAC) to the Commission on the universal restriction will, according to ECHA's objective, take approximately four years (***Figure 2***). After that, the regulatory process takes an additional period of time, which may eventually lead to a restriction.

34 Since the universal PFAS restriction intention was published in 2021, no new PFAS restriction procedures were launched. Despite growing scientific evidence related to the

[1] From "forever chemicals" to fluorine-free alternatives: Identifying alternatives to PFAS requires weighing trade-offs and uncertainties; The unintentional role of chemical regulation in regrettable substitution: The case of PFAS; An Overview of Potential Alternatives for the Multiple Uses of Per- and Polyfluoroalkyl Substances.

potential harm of many newer types of PFAS, the rules for PFAS have remained unchanged since then with two exceptions; use in firefighting foams and perfluorohexanoic acid (PFHxA). **At least two member states (Denmark and France) have decided not to wait for EU action and have already introduced tighter restrictions than are currently applicable at EU level** (*Box 4*).

Box 4

Stricter national restrictions

France's PFAS product ban came into effect on 1 January 2026. Under a law enacted in February 2025, the import and sale of products containing PFAS was prohibited from 1 January 2026 in three major consumer categories: cosmetics, clothing textiles (with specified exceptions) and ski wax. The law also anticipates a broader application of the ban at a later date (in particular for textiles).

Source: ECA based on French law 2025-188.

A third of member states do not carry out checks to enforce PFAS restrictions under the chemicals legislation

35 The REACH and POPs Regulations require member states to maintain a system of controls and lay down the provisions on the applicable infringement penalties. Member states must take all necessary measures to ensure that the provisions are implemented, and penalties must be effective, proportionate and dissuasive.

36 In the three member states visited, we checked whether national and regional authorities had put in place an effective enforcement system. We also surveyed the national competent authorities in all member states about their enforcement actions related to PFAS.

37 We found that the responsibility for enforcement was split over different authorities (environment, health, labour, customs, market surveillance, chemical agencies) and enforcement actions were mainly risk-based. According to the replies to our survey on EU chemicals legislation, **a third of the 27 EU member states did not carry out any targeted PFAS checks to verify compliance with REACH or POPs Regulations** between 2020 and 2025. The main reasons given were either because they prioritised other chemicals, a lack of laboratory capacity, or the cost of PFAS testing was too high. In the member states we visited we also found good examples of PFAS enforcement (*Box 5*).

Box 5

A good example of PFAS enforcement in Germany

Regular checks on restricted PFAS in ski wax have been carried out in Bavaria. In 2022, 23 out of 111 ski wax samples used in six skiing competitions exceeded the maximum levels of restricted PFAS. Ski teams were ordered not to use these types of ski wax anymore and to make sure they were properly disposed of. The ski wax producers and the responsible market surveillance authorities were informed of the non-compliance in order to stop their production, marketing and use.

Bavaria followed up on these checks with another in 2023, focusing on the retail trade (online and offline) instead of skiing competitions. Out of 40 samples from eight different brands, five exceeded the maximum levels for restricted PFAS. The producers and retailers were ordered to stop selling these ski waxes. Follow-up checks carried out at the retailers in 2024, showed that no newly produced ski waxes exceeded the maximum levels of PFAS. This demonstrates that the producers had already substituted the original ski waxes, indicating a positive trend towards PFAS-free products.

Source: ECA, based on information collected during the audit visit to Germany.

38 We also found that **neither the Commission nor ECHA had an overview of the enforcement measures taken by member states** specifically related to PFAS. Member states are only required to provide summary information about their enforcement activities to the Commission every five years. The latest five-yearly report by the Commission on the operation of REACH and Classification, Labelling and Packaging Regulation (CLP) dates from 2022, but covers the 2015-2019 reporting period. ECHA and the Commission also use a forum to exchange information on enforcement established under REACH to harmonise and strengthen the national enforcement, but the forum activities have only occasionally covered PFAS.

39 Not all member states carried out checks on PFAS, which weakened the enforcement of the REACH requirements. The current system largely relies on companies to self-regulate to assess and manage the risks posed by chemicals and provide appropriate safety information.

EU limits for PFAS in food and drinking water represent a trade-off between health and availability

40 People mainly absorb PFAS through food and drinking water [2]. Studies have shown that PFAS are present in the blood of many EU citizens (***Box 6***).

Box 6

Study on the presence of PFAS in people

The **European Human Biomonitoring Initiative** (HBM4EU), which ran from 2017 to 2022, was a joint effort involving 24 member states and four other countries, together with the European Environment Agency, and was co-funded under Horizon 2020. The main aim of the initiative was to coordinate and improve human biomonitoring in Europe.

HBM4EU found that 14.26 % of the European teenagers tested had more PFAS in their bodies than the European Food Safety Authority (EFSA) tolerable weekly intake guidance value (4.4 ng/kg bodyweight per week).

Source: European Human Biomonitoring Initiative website.

The EU started monitoring PFAS in food in 2010 and set limits for four PFAS in certain foodstuffs

41 Establishing limits for PFAS in food based on health considerations (i.e. the recommended value for a safe maximum exposure) and a framework to ensure compliance with those limits can protect citizens from harmful PFAS ingestion. We checked how EU limits for PFAS in food had been set, whether EFSA had managed to collect sufficient monitoring data on PFAS in food, and whether member states had carried out the required checks.

The Commission set limits for some PFAS in certain foods

42 According to the Regulation on procedures for contaminants in food, food containing a contaminant at a level unacceptable from a public health point of view should not be placed on the market. Contaminant levels should be kept as low as can reasonably be

[2] PFAS webpage of the European Environmental Bureau.

achieved following recommended practice at all stages of production. We assessed whether the Commission had set limits for PFAS, taking these principles into account.

43 The Regulation on maximum levels for certain contaminants in food sets maximum levels for four PFAS: perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA) and perfluorohexan sulfonic acid (PFHxS), and the sum of their total amount, in specific foodstuffs such as eggs, meat, offal, fish and shellfish (***Figure 3***).

Figure 3 | Maximum levels for PFAS ("forever chemicals") in food, as set in the EU legislation



	Maximum level (µg/kg)				
	PFOS	PFOA	PFNA	PFHxS	Sum of four PFAS
Meat and edible offal					
Bovine, pig and poultry meat	0.3	0.8	0.2	0.2	1.3
Sheep meat	1.0	0.2	0.2	0.2	1.6
Bovine, sheep, pig and poultry offal	6.0	0.7	0.4	0.5	8.0
Game meat *(with the exception of bear meat)*	5.0	3.5	1.5	0.6	9.0
Game offal *(with the exception of bear offal)*	50.0	25.0	45.0	3.0	50.0
Fish products and bivalve molluscs					
Fish meat *(except fish listed below)*	2.0	0.2	0.5	0.2	2.0
Meat from Baltic herring, bonito, burbot, European sprat, flounder, grey mullet, horse mackerel, pike, plaice, sardine, pilchard, seabass, sea catfish, sea lamprey, tench, vendace, silverly lightfish, wild salmon, wild trout, wolf fish *(except for the production of food for infants and young children)*	7.0	1.0	2.5	0.2	8.0
Meat from anchovies, babel, bream, char, eel, pike-perch, perch, roach, smelt and white fish other than those listed above *(except for the production of food for infants and young children)*	35.0	8.0	8.0	1.5	45.0
Crustaceans and bivalve molluscs	3.0	0.7	1.0	1.5	5.0
Eggs					
Eggs from poultry	1.0	0.3	0.7	0.3	1.7

Note: The maximum level for the sum of PFAS is a separate regulatory limit and does not necessarily correspond to the sum of the individual PFAS limits.

Source: ECA based on the Regulation on maximum levels for certain contaminants in food.

44 The Commission only sets limits if there is scientific evidence that a contaminant poses a risk to human health. At the Commission's request, EFSA issued an opinion on PFAS in 2020. It established a tolerable weekly intake limit of 4.4 ng per kilogram of body weight for the sum of four PFAS (PFOS, PFOA, PFNA, PFHxS) due to health risks. The opinion also stated that "fish meat", "fruit and fruit products", and "eggs and egg products" were the main contributors in terms of human dietary exposure to PFAS. EFSA also noted that a representative set of data was still lacking for many PFAS in a broad range of widely consumed food products and that there was insufficient scientific evidence to establish a tolerable weekly intake for other PFAS.

45 The maximum levels of PFAS set out in the legislation followed the conclusions of EFSA's opinion regarding the health risks of PFOS, PFOA, PFNA and PFHxS. However, in line with the Regulation on procedures for contaminants in food, the limits are also based on the "as low as reasonably achievable" principle. This principle means that limits must take into account what can be achieved by all operators in the food chain, following recommended good practices.

46 In practice, for PFAS (as for other similar contaminants), for each foodstuff **the maximum levels in food are typically established at the 95th percentile, meaning that around 5 % of production exceeds the maximum level and cannot be placed on the market**. This approach aims to ensure the security of food supply and prevents food waste. However, respecting those limits does not necessarily imply that consumption over a longer period of time will be safe. We calculated the amount of food that can be consumed within the tolerable weekly intake limits for PFAS for some foods, assuming that the foods contained PFAS at the applicable maximum level (*Box 7*).

Box 7

Examples of the amount of food that can be consumed within the tolerable weekly intake limits for the sum of four PFAS, assuming that the foods contained PFAS at the maximum allowed levels

EFSA defines tolerable weekly intake as the maximum amount of a substance, that a person can consume each week over a lifetime without an appreciable risk to health.

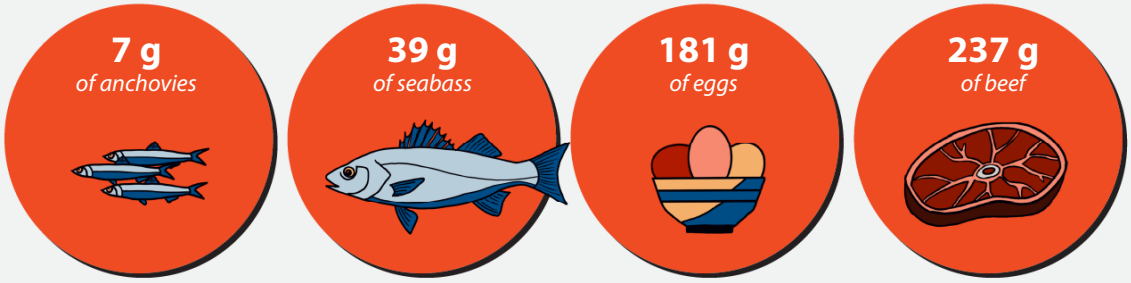
Based on established tolerable weekly intake limit of 4.4 ng per kilogram of body weight for the sum of four PFAS (PFOS, PFOA, PFNA, PFHxS), we calculated the amounts of food that would lead to an excessive weekly intake of PFAS for a person weighing 70 kg, assuming that the foods contained PFAS at the applicable maximum limit.

We found that if a food contained the maximum level of PFAS allowed, a person could eat for example, no more than 7 g of anchovies, or 39 g of seabass or wild salmon, or 181 g of

eggs, or 237 g of beef or pork per week, before exceeding the tolerable weekly intake as established by EFSA. These examples should not be considered as dietary advice. Based on the information in the EFSA database, the results of controls show that the concentrations of PFAS in these foods are usually below the maximum levels.

Examples of maximum safe weekly consumption amounts

If food contains the maximum allowed levels of PFAS



Source: ECA, based on the Regulation on maximum levels for certain contaminants in food and on EFSA's opinion.

The EU has a lot of data on PFAS in food that has not been used to update the limits

47 Sufficient data on the presence of PFAS in food would be required to be able to assess dietary exposure to PFAS and if necessary, set limits for PFAS in food. We assessed whether the Commission and EFSA had set up a monitoring framework to provide sufficient data and whether the data had been used.

48 We found that since 2010, EFSA had been compiling data on PFAS in food based on monitoring carried out by member states and following a Commission Recommendation. An updated Recommendation on monitoring PFAS in food was issued in 2022, further encouraging member states to monitor PFAS in food and submit the results to EFSA. Since 2023, the Regulation on official controls in food, together with the Regulation on maximum contaminant levels in food have made it mandatory for member states to report their data to EFSA. This monitoring framework has provided EFSA with a significant amount of data on PFAS in the EU. The number of samples increased each year in the 2020-2024 period for nearly all PFAS (from 17 300 in 2020 to 99 000 in 2024).

49 However, not all member states contribute to the existing data set. **For the 2020-2024 period, five member states did not submit any data**. The data from the other member states in EFSA's database varies between five results for PFAS in eggs for Greece to

more than 90 000 results in many different foods for Germany. More than half of the PFAS monitoring data came from four member states: Denmark, Germany, France and the Netherlands. The fact that not all member states contributed to the available data set affects the Commission's ability to set or update limits – something which requires a representative set of data.

50 Moreover, the EFSA database does not include any monitoring data for trifluoroacetic acid (TFA), a substance that forms during the breakdown of some PFAS and is of growing concern (***Box 8***).

Box 8

Trifluoroacetic acid (TFA)

TFA is a broken-down product from multiple sources such as industrial chemicals and some PFAS pesticides. It is a very persistent (non-degradable) and highly mobile PFAS, which is increasingly found in both drinking water and plant-based food, in which the presence of other PFAS is not widespread.

A sharp increase in contamination levels has been observed since 2010, and TFA has become the most abundant environmentally present PFAS.

Source: ECA, based on Trifluoroacetic acid.

51 We found that the Commission had not yet used this data to decide whether a revision of the existing limits would be needed, or to decide whether new limits should be set for other food categories or for other PFAS. The Commission decided not to start discussions on the possible need to revise or set new maximum levels for PFAS in food, while it was still waiting for the full data set.

52 We collected the information provided by the member states to EFSA and analysed the levels of PFAS concentrations in the different foods. Almost two-thirds of the PFAS checks were related to fish meat (27 %), mammal and bird meat (21 %), eggs (more than 10 %) and animal liver (7 %). A smaller – though significant – number of checks (several thousands) had been carried out for fruits and vegetables and for drinks (milk, wine, drinking water and beer), for which the Commission had not yet set any PFAS limits.

53 In total, more than 50 different PFAS have been found in food. The quantities are generally low, except for PFOS, PFOA and PFNA. Overall, less than 2 % of the test results exceeded the maximum levels set by the Commission. The highest concentrations were detected in wild boar liver (in some cases exceeding 1 000 µg/kg, i.e. more than 20 times the maximum levels for offal from game, where the maximum level is already the highest of all

food categories). Other sources of liver also show high concentrations and numerous cases where maximum levels have been exceeded. We also found that there were foodstuffs containing PFAS in measurable concentrations for which the Commission had not set any limits.

54 The EU has a significant database with information on the presence of PFAS in food. However, not all member states provide the same level of information, and the EU has not yet used the information to update the limits for PFAS in food.

The EU has established a control system, but not all member states apply it

55 For effective protection, limits must not only be set but also respected. The EU has established a control system. The results of the checks carried out are included in the EU database with information on the presence of PFAS in food. We verified whether national authorities had carried out checks to enforce them and whether the Commission had taken measures when they did not.

56 We found that EU legislation has not established a minimum number of checks to verify compliance with the PFAS limits for food. Enforcement authorities have a wide margin of discretion to decide which part of their checks on contaminants would concern PFAS, taking into account the specific circumstances in their territory.

57 The Commission has made efforts to stimulate member states' and non-EU countries' enforcement of PFAS limits in food. For example, when the Commission audited checks carried out by non-EU countries and found that these checks did not cover PFAS, the Commission had recommended that the competent authority should ensure that PFAS be included in the official sampling. The Commission also recommended the four member states which had not included any PFAS checks in their national 2025 control plans (Bulgaria, Hungary, Romania and Slovakia) to do so in their plans for 2026.

58 However, the Commission has not made similar efforts towards member states that only performed checks for part of the products for which maximum levels exist, for example, member states that did not check imported products. Only 14 out of the 23 member states that replied to our survey on PFAS in food answered that they had tested imported products in the framework of the Recommendation on monitoring of PFAS in food or had checked compliance with the limits. We also found good practices to make checks efficient and prevent food waste (***Box 9***).

Box 9

Indicative maximum level for PFAS in the blood of live cattle

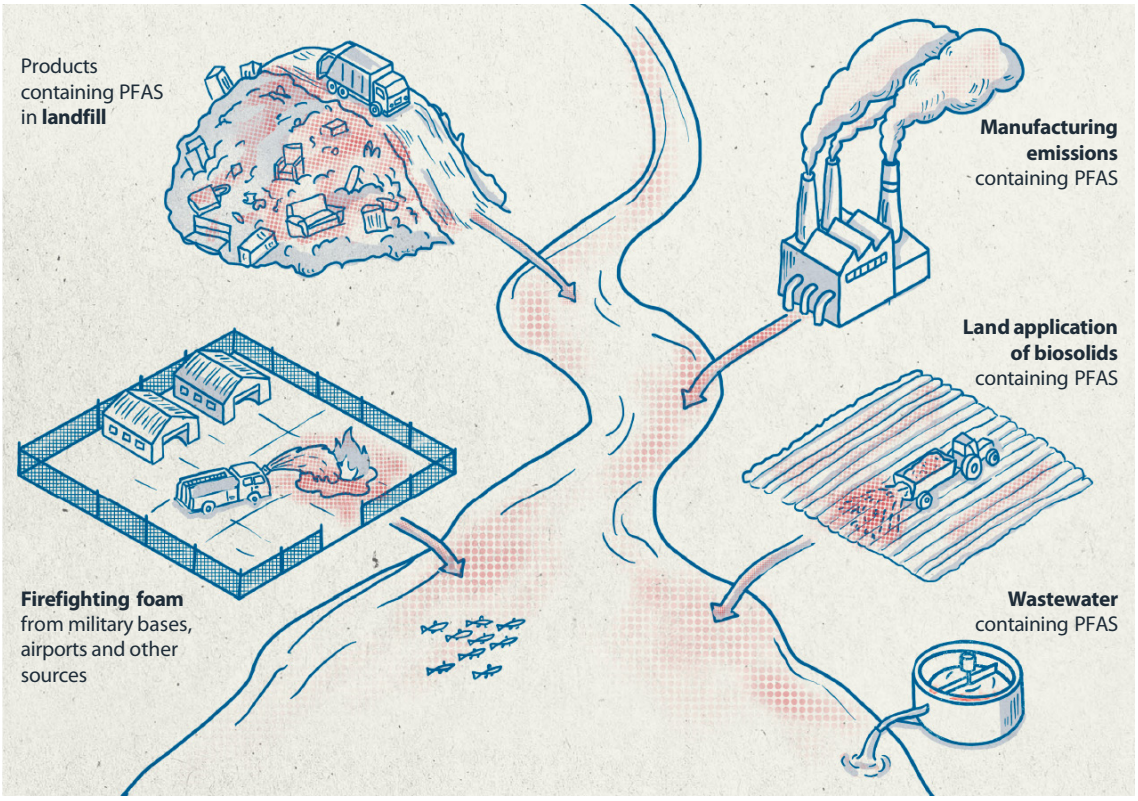
Belgium, Denmark, the Netherlands and Sweden apply an indicative maximum level for PFAS in the blood of live cattle. If this level is exceeded, the farmer can try to lower animals' PFAS levels by grazing them on a different plot of land, with – hopefully – fewer PFAS in the soil, or using other feed. Belgium, Denmark and the Netherlands are now working together to develop a harmonised method.

Source: ECA, based on information received from member states through survey replies and interviews.

EU limits on PFAS in drinking water are largely met, but one third of EU member states apply additional national limits

59 PFAS in drinking water come from different sources (***Figure 4***). PFAS are covered by the EU Drinking Water Directive, which introduced mandatory, harmonised monitoring and set binding limit values for "PFAS total" and "sum of PFAS". From 12 January 2026, a limit of 0.5 µg/l for "PFAS total" and 0.1 µg/l for "sum of PFAS" (a group of 20 individual PFAS – PFAS-20) applies. Each member state can decide whether to implement one of these limits or both.

Figure 4 | Main sources of PFAS ("forever chemicals") in drinking water



Source: ECA.

60 Limits should be science-based and regularly revised to ensure that they align with the latest scientific evidence. According to Article 20(1) of the Drinking Water Directive the Commission must, at least every five years, review the limits in light of scientific and technical progress. We examined how the Commission had set the limits and whether it had been reviewing the limits in a timely manner.

61 The PFAS limits for drinking water set in the Drinking Water Directive extend beyond those which the World Health Organization recommended to the European Commission in 2017. Following the precautionary principle, the EU adopted a group approach, offering better human health protection.

62 The Commission acknowledged that new scientific knowledge, and in particular the 2020 EFSA opinion on PFAS and two other studies, warrant a review of the PFAS limits for drinking water. In 2023, it asked the World Health Organization to recommend health-based PFAS guidance values. Because the Commission is waiting for these recommendations, which are now expected in 2027, it will take more than five years to review the PFAS limits for drinking water.

63 EU legislation should contribute to a harmonised EU-wide PFAS approach to protect EU citizens against the harmful effects of PFAS in an equal way. We surveyed the member

states to find out how they implemented the Drinking Water Directive and if they had chosen to go beyond EU requirements.

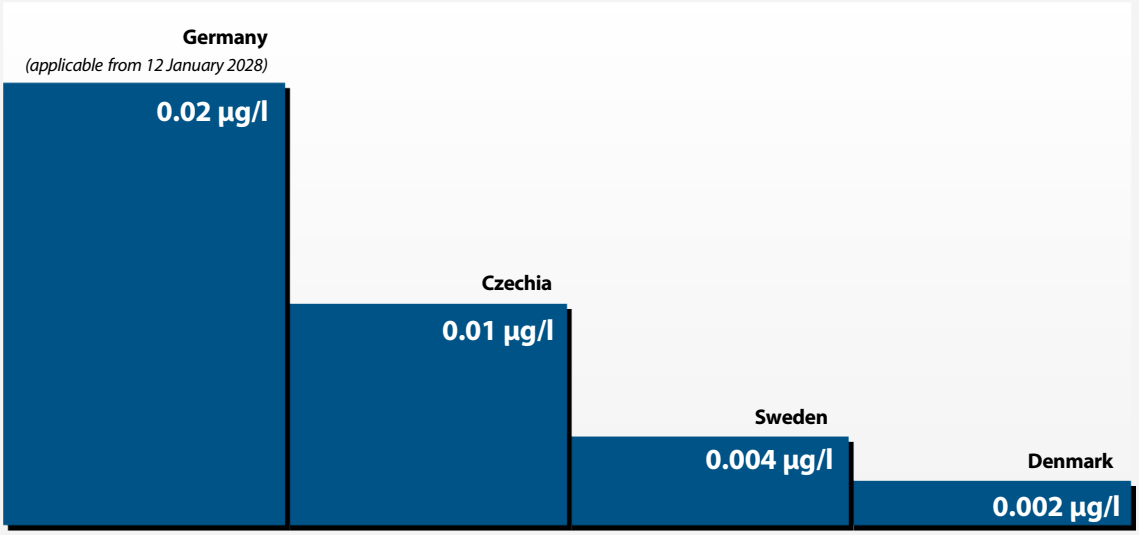
64 **Of the 25 member states that replied to our survey on drinking water, 8 had already adopted additional legally binding or non-binding national limits for PFAS**, mostly based on the 2020 EFSA opinion (***Box 10***).

Box 10

Examples of additional national limits for specific PFAS

Four member states have introduced national limits for the sum of four PFAS: PFOS, PFOA, PFNA and PFHxS. These are the PFAS for which EFSA established a tolerable weekly intake (paragraph ***44***). The Drinking Water Directive does not set limits for the sum of these four PFAS.

The national limits set are as follows.



Source: ECA, based on the replies to the survey on drinking water.

65 Member states have had to comply with the limits set in the Drinking Water Directive since 12 January 2026. We assessed to what extent EU drinking water met these limits, focusing on tap water. Although the Drinking Water Directive did not require water suppliers to monitor PFAS before 12 January 2026, 15 of the 25 member states that replied to our survey on drinking water reported that they began monitoring before that date to make sure that they would not exceed the limits when the requirements entered into force. Of the member states that replied to our survey on drinking water, 12 of the 25 stated that the cost of PFAS tests was one of the main hurdles in monitoring PFAS in drinking water more frequently.

66 No centralised monitoring data on PFAS in drinking water exists yet at EU level. However, the replies to our survey received from EU drinking water authorities that have monitored PFAS indicate that close to 100 % of EU drinking water respected the limits in recent years. In some areas near heavily polluted sites, the limits are sometimes exceeded and additional water treatment is necessary. Due to the continuing accumulation of PFAS in the environment, a study carried out for the Commission reported that it expected the Drinking Water Directive limits to be exceeded more frequently in the future (from 0 % in 2024 to 2.9 % in 2030, 3.2 % in 2040 and 18.1 % in 2050). This would lead to estimated additional water treatment costs of €264 million in 2030, €276 million in 2040 and €1.4 billion in 2050[3], assuming that no action is taken. These estimates are one indication of the costs associated with PFAS being released into the environment.

The Commission has supported successful projects to tackle PFAS, but does not have a consolidated picture of PFAS-related funding

67 In 2020, the Commission's chemicals strategy for sustainability vowed to "establish an EU wide approach and provide financial support under research and innovation programmes to identify and develop innovative methodologies for remediating PFAS contamination in the environment and in products", and to "provide research and innovation funding for safe innovations to substitute PFAS under Horizon Europe".

Most PFAS projects have fully or partially achieved their objectives

68 We searched PFAS projects in the Commission's databases and found that as of December 2025, 131 PFAS projects were under the direct management of the Commission and its executive agencies (42 under Horizon 2020, 75 under Horizon Europe and 14 under LIFE) in the publicly available Cordis and LIFE databases for the 2014-2027 period. These projects addressed remediation, substitution and various types of risk assessment. PFAS projects funded by Horizon programmes exceeded €717 million, with an increase from €290 million for 2014-2020 to €427 million for 2021-2027. PFAS projects funded by LIFE programmes amounted to over €34 million, with almost 90 % concentrated in 2021-2027.

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[3] European Commission: Directorate-General for Environment, WSP, Ricardo and Trinomics, *The cost of PFAS pollution for our society – Final report*, Publications Office of the European Union, 2026, p. 81.

69 We selected 10 projects and assessed their progress against the objectives set in the grant agreement. We focused our selection on recent projects that already had sufficient time in their implementation stage, i.e. we excluded projects that started after 2023 and projects that were finalised before 2020. From this population, we selected the projects with the highest EU grant amount, covering remediation, substitution and risk assessment. We included two LIFE projects, which generally have a lower budget than the Horizon projects.

70 The four PFAS remediation projects we analysed delivered good results (***Box 11***). However, two out of four PFAS substitution projects that we selected faced difficulties in delivering results, due to the challenges in identifying equally effective alternatives.

Box 11

Example of a PFAS remediation project delivering results

PROMISCES is a Horizon 2020 funded project which addresses the contamination of soil and water by PFAS and other substances. It was intended to develop monitoring tools, remediation technologies and policy frameworks across the full life cycle of these chemicals. The project received an EU contribution of €12 million and ran from November 2021 to April 2025. It mobilised a consortium of 27 partners from nine member states, including universities, research centres, private companies and water utility companies, to develop and validate the approaches in seven field-based case studies.

Scientific outputs exceeded targets, with 23 peer-reviewed publications produced against an initial target of 10. The technology readiness level for remediation and treatment reached the fully functional prototype phase and two patent applications were initiated. In addition, nine policy recommendations were submitted across five EU regulatory frameworks.

Source: ECA based on information collected from the Commission's grant management systems.

The Commission does not have consolidated picture of PFAS-related funding

71 We analysed how the Commission implements the chemicals strategy for sustainability. In particular, we examined how the Commission has managed PFAS-related funding.

72 We identified eight calls launched by the Commission under Horizon programmes to specifically address PFAS-related projects. In addition, there are other calls with broader scope that can also fund PFAS-related projects. However, we found that the Commission does not have a consolidated picture of total PFAS-related funding. This was due to the

fragmentation of project databases across programmes and the frequent absence of explicit PFAS references in project descriptions.

73 In September 2022, the Commission published a strategic research and innovation plan (SRIP) for chemicals and materials. This plan identified research and investment needs throughout chemicals' life cycles. While several chapters in the SRIP were relevant for PFAS, the plan did not identify available amounts. We note that, even though this plan may contribute to a more targeted funding approach for PFAS, the translation of SRIP priorities into actual PFAS-specific funding will depend on the final outcome of the Horizon Europe and LIFE work programmes.

This report was adopted by Chamber I, headed by Ms Joëlle Elvinger, Member of the Court of Auditors, in Luxembourg at its meeting of 8 October 2026.

For the Court of Auditors

Tony Murphy
President

Annexes

Annex I – About the audit

PFAS

01 Per- and polyfluoroalkyl substances (PFAS) are a group of synthetic chemicals, characterised by the fact that they degrade extremely slowly over time. This is why they are also known as “forever chemicals”. Estimates indicate that the number of PFAS manufactured and used are in the thousands. Because of their chemical properties, such as the ability to resist heat and repel oil and water, PFAS are found in many different industrial and consumer products.

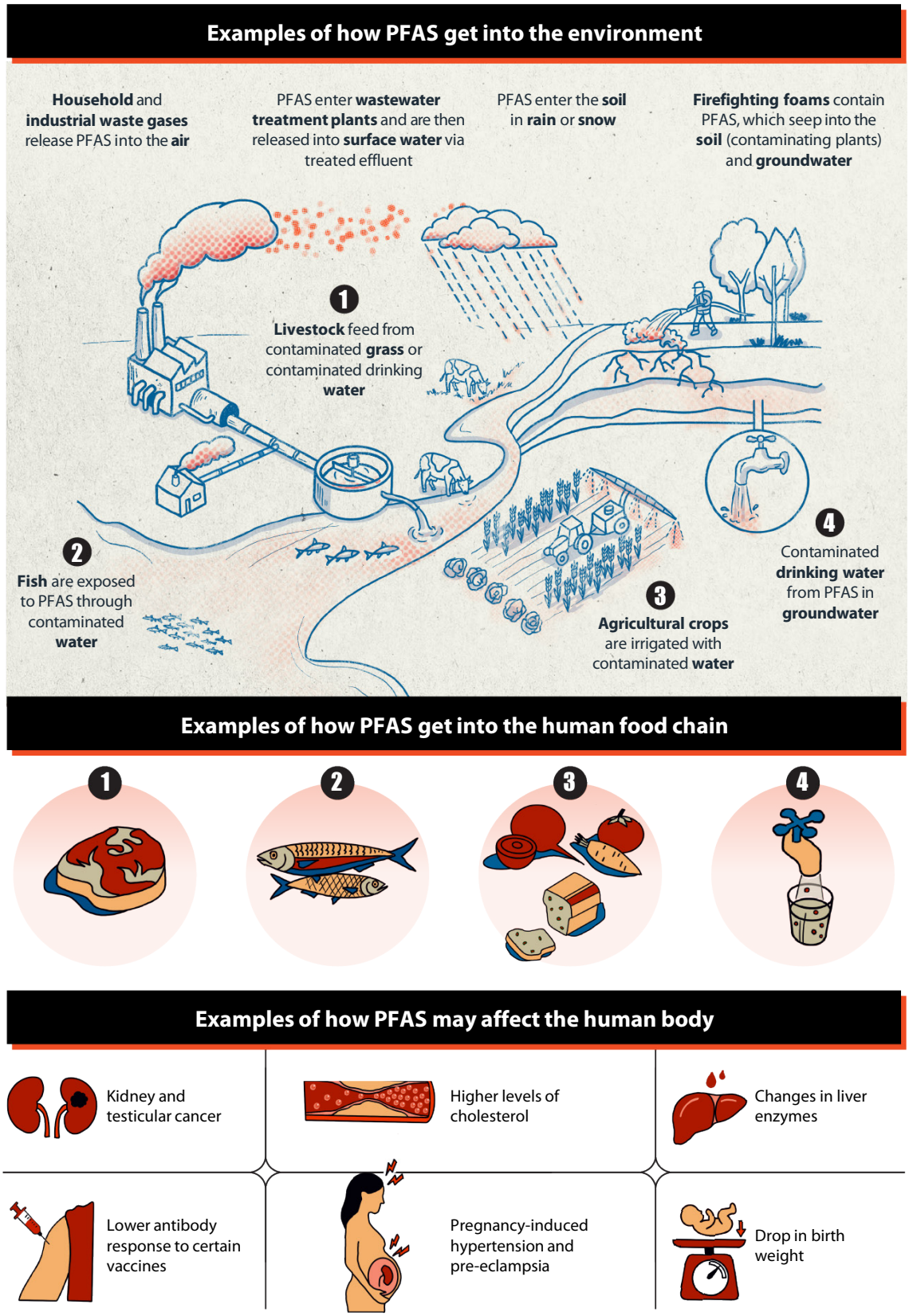
02 The European Chemicals Agency (ECHA) uses the definition from the Organisation for Economic Cooperation and Development which describes PFAS as fluorinated substances that contain at least one fully fluorinated methyl or methylene carbon atom with no hydrogen/chlorine/bromine/iodine atom attached to it. The carbon chain can be fully (perfluorinated) or partly (polyfluorinated) fluorinated.

03 PFAS contain carbon-fluorine bonds, which are among the strongest chemical bonds in organic chemistry. This means that they degrade extremely slowly when used or released into the environment. Most PFAS also travel easily throughout the environment, covering long distances from where they were initially released. PFAS have frequently been observed to contaminate groundwater, surface water and soil. It is technically difficult and costly to clean up polluted sites.

04 The widespread use of PFAS and their persistence in the environment means that PFAS from past and current use have resulted in increasing levels of air, water and soil contamination. Human exposure to PFAS occurs in many different ways (mainly through the consumption of food and water, and through inhalation). Scientific studies have linked exposure to (specific) PFAS with harmful health effects in humans and animals[4]. ***Figure 1*** illustrates the PFAS contamination chain and their impact on the human body.

[4] How PFAS Impacts Your Health, Agency for Toxic Substances and Disease Registry.

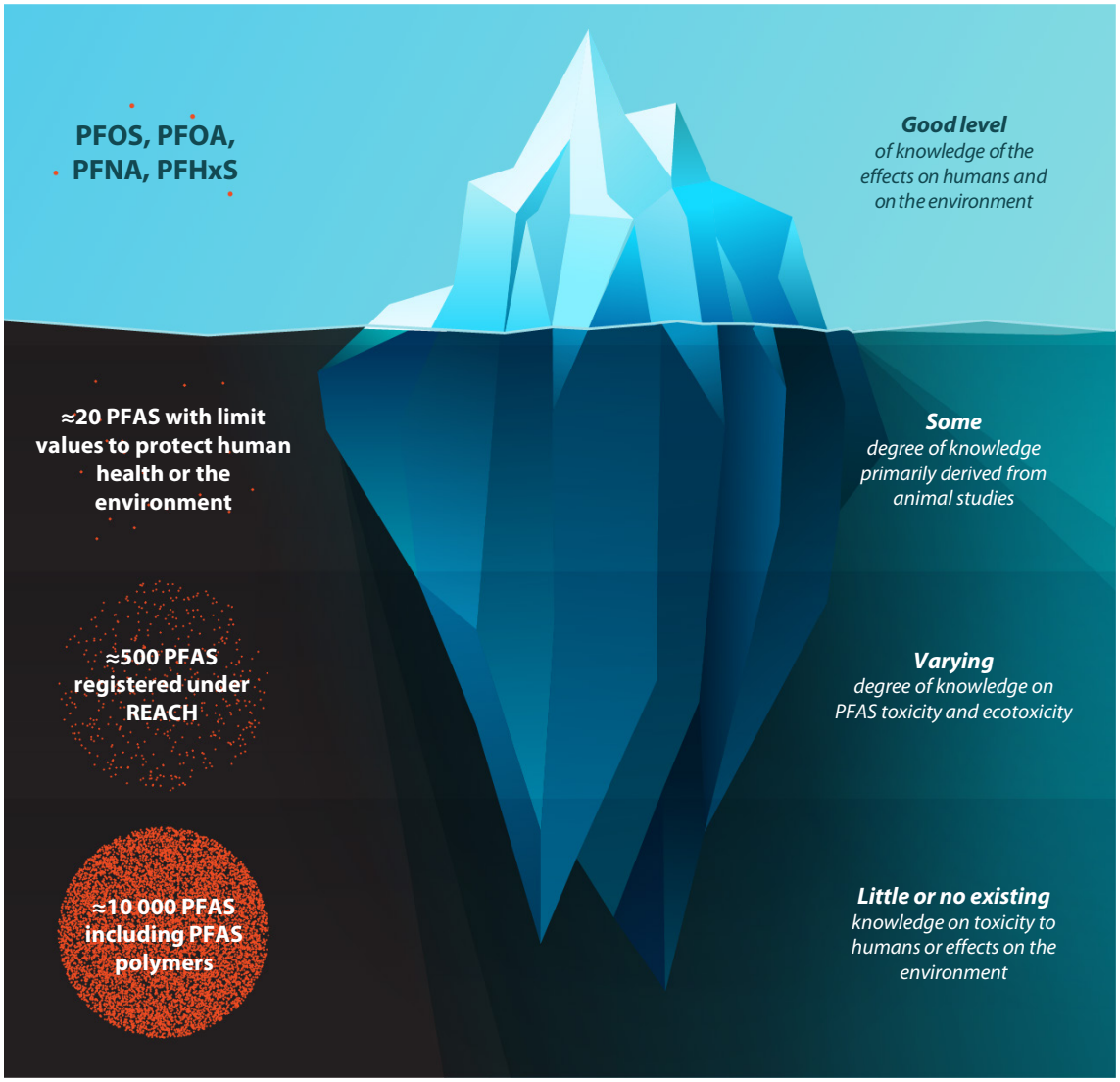
Figure 1 | The PFAS ("forever chemicals") contamination chain and examples of how it may impact the human body



Source: ECA, based on scientific articles, such as: Our Current Understanding of the Human Health and Environmental Risks of PFAS.

05 The level of knowledge of the effects of PFAS varies considerably depending on the type of PFAS (*Figure 2*).

Figure 2 | Level of knowledge of human health and environmental impacts of PFAS ("forever chemicals")



Source: ECA, based on European Environment Agency.

EU policy framework

06 PFAS are regulated by a different EU regulations, directives and recommendations:

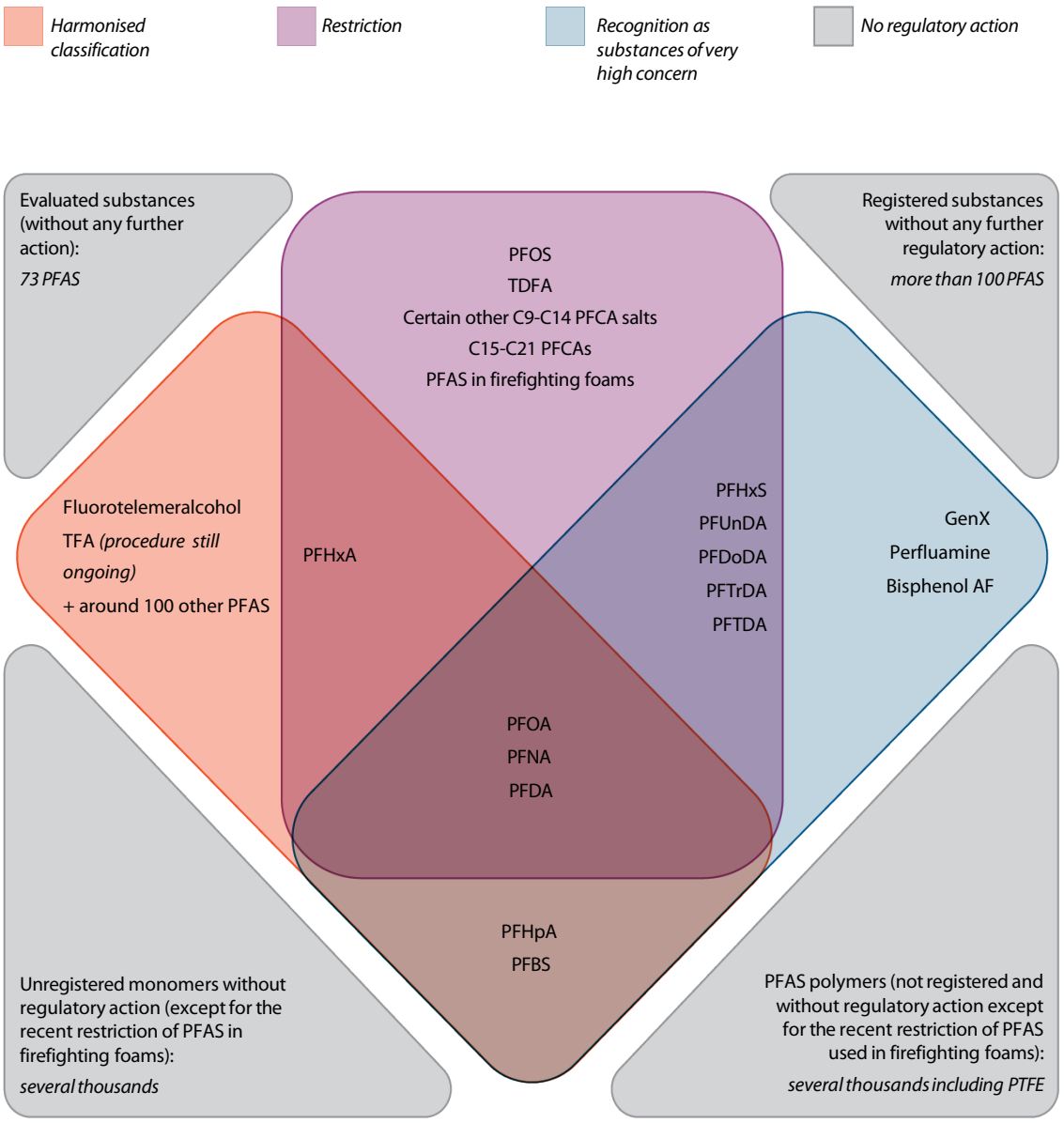
- The manufacturing, import and use of chemicals – including PFAS – are regulated through the Registration, Evaluation, Authorisation, and Restriction of Chemicals Regulation (REACH). The purpose of this Regulation is to ensure a high level of protection of human health and the environment, including the promotion of alternative methods for assessment of hazards of substances, as well as the free circulation of substances on the internal market, while enhancing competitiveness and innovation.

- The Classification, Labelling and Packaging Regulation (CLP) requires companies to classify, label, and package hazardous substances and mixtures appropriately before placing them on the market. Manufacturers, importers, and downstream users must identify hazards and notify ECHA to add substances to the classification and labelling inventory. Certain hazardous substances have a legally binding, harmonised classification.

- The Regulation on persistent organic pollutants (POPs) implements the Stockholm Convention, which restricts or bans four groups of PFAS at global level.

Figure 3 presents the PFAS that are subject to EU regulatory action under the REACH, POPs and CLP Regulations.

Figure 3 | PFAS ("forever chemicals") with and without EU regulatory action



TFA = Trifluoroacetic acid; **PFOS** = Perfluorooctanesulfonic acid or perfluorooctane sulfonate; **TDFA** = tridecafluorooctyl silanetriol and derivatives; **C9-C14 PFCAs** = Perfluorocarboxylic acids with minimum 9 and maximum 14 carbon atoms; **C15-C21 PFCAs** = Perfluorocarboxylic acids with minimum 15 and maximum 21 carbon atoms; **PFHxA** = Perfluorohexanoic acid; **PFHxS** = Perfluorohexan sulfonic acid; **PFUnDA** = Henicosafluoroundecanoic acid (C11-PFCA); **PFDoDA** = Tricosafluorododecanoic acid (C12-PFCA); **PFTrDA** = Pentacosafluorotridecanoic acid (C13-PFCA); **PFTDA** = Heptacosafluorotetradecanoic acid (C14-PFCA); **GenX**: tetrafluoro (heptafluoropropoxy) propionic acid, its salts and its acyl halides (also referred to as HFPO-DA); **Bisphenol AF** = The fluorised version of bisphenol A; **PFOA** = Perfluorooctanoic acid; **PFNA** = Perfluorononanoic acid (C9-PFCA); **PFDA** = Nonadecafluorodecanoic acid (C10-PFCA); **PFHpA** = Perfluoroheptanoic acid; **PFBS** = Perfluorobutanesulfonic acid; **PTFE** = Polytetrafluoroethylene

Source: ECA based on the ECHA Chem database and other information received from ECHA.

07 In addition to the horizontal REACH, CLP and POPs Regulations which regulate chemical substances, the EU food safety and drinking water legislation further protects human health from PFAS in food and drinking water. The Regulation on procedures for contaminants in food allows the Commission to set limits. In September 2020, EFSA adopted an opinion on the risk to human health related to the presence of PFAS in food, and established a tolerable weekly intake for the main PFAS that accumulate in the body of 4.4 ng per kilogram of body weight per week. Following this opinion, the Regulation on maximum levels for certain contaminants in food established maximum levels for these groups of PFAS and the sum thereof in certain foodstuffs.

08 The Drinking Water Directive contains two parametric values for PFAS: 0.5 µg/l for "PFAS total", meaning the total amount of PFAS in drinking water, and 0.10 µg/l for the "sum of PFAS", a subset of "PFAS total" consisting of 20 PFAS considered to be a concern in drinking water. Since 12 January 2026, member states have to monitor PFAS in drinking water and ensure compliance with one or both of these limits.

09 Certain specific PFAS uses have also been prohibited by sectoral legislation. For example, the use of some PFAS is restricted by the Toy Safety Regulation and the Cosmetic Products Regulation. ***Figure 4*** gives an overview of the key milestones for regulating PFAS in the EU.

Figure 4 | Key milestones for PFAS ("forever chemicals") and the EU regulatory framework

Key dates for PFAS and the regulatory framework

1940

The start of commercial PFAS production

1967

The European Economic Community adopts the Dangerous Substances Directive

2004

The Stockholm Convention on Persistent Organic Pollutants enters into force

2006

The EU restricts the use of the first PFAS (perfluorooctane sulfonic acid or PFOS)

2007

The (REACH) Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation enters into force

2009

January: the Classification Labelling and Packaging Regulation enters into force

May: the first PFAS (PFOS) is internationally restricted under the Stockholm Convention



2010

The Commission issues a recommendation on the monitoring of PFAS in food

2017

The EU restricts perfluorooctanoic acid (PFOA)



2018

EFSA establishes a tolerable weekly intake for PFOS and PFOA

2019

The Council calls on the Commission to develop an action plan to eliminate all non-essential uses of PFAS

2020

July: EFSA establishes a tolerable weekly intake for the sum of four PFAS

October: the Commission issues the Chemicals Strategy for Sustainability, expressing the intention to ban all non-essential PFAS uses

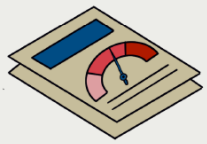
December: the EU adopts the recast Drinking Water Directive



2022

August: the Commission issues a second recommendation on the monitoring of PFAS in food

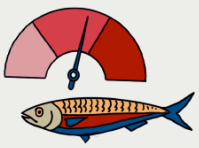
December: Commission Regulation (EU) 2022/2388 sets maximum levels for PFAS in food *(replaced by Commission Regulation (EU) 2023/915 in April 2023)*



2023

January: Denmark, Germany, the Netherlands, Sweden and Norway submit a proposal for a universal PFAS restriction

January: the maximum levels for PFAS in food enter into force



2025

February: France becomes the first EU country to systematically regulate PFAS and introduces a progressive ban on PFAS

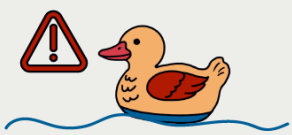
October: the Commission restricts all PFAS in firefighting foams



2026

January: the restrictions on PFAS in toys (set by EU Toy Safety Regulation) enter into force

The limits for PFAS set by the Drinking Water Directive become applicable



Source: ECA.

10 The 2020 Chemicals Strategy for Sustainability (*Box 1*) pledged to phase out the use of PFAS in the EU, unless their use was essential. The Commission's 2025 Chemicals Industry Action Plan further emphasised that PFAS should only remain in applications where their use is indispensable for health, safety, or the functioning of society and no alternatives are available. The plan also committed to establishing an EU-wide PFAS monitoring framework by 2026.

Box 1

PFAS in the Commission's chemicals strategy for sustainability

The Commission will:

- ban all PFAS (as a group) in firefighting foams as well as for other uses, only allowing them to be used where they are essential for society;
- address PFAS using a group-based approach, under relevant legislation on water, sustainable products, food, industrial emissions and waste;
- address PFAS concerns on a global scale through the relevant international forums and in bilateral policy dialogues with non-EU countries;
- establish an EU-wide approach and provide financial support under research and innovation programmes to identify and develop innovative methodologies to remedy PFAS contamination in the environment and in products;
- provide research and innovation funding for safe innovations to substitute PFAS under Horizon Europe.

Roles and responsibilities

11 The responsibilities of main players in the EU approach to PFAS are set out in *Figure 5*.

Figure 5 | The responsibilities of EU bodies and member states in the EU approach to PFAS ("forever chemicals")



Source: ECA.

Audit scope and approach

12 The objective of this audit was to assess whether the EU had been effective in protecting human health from the harmful effects of PFAS. We examined whether:

- the EU chemicals legislation (in particular the REACH and POPs Regulations) and its implementation were contributing effectively to the protection of EU citizens against the harmful effects of PFAS by restricting hazardous PFAS;
- the EU had set limits for PFAS in food and drinking water that were in line with scientific evidence and were being observed across the EU;
- the EU had a coherent funding strategy to address the issue of harmful PFAS and the funded projects were achieving their objectives.

13 We carried out this audit because of the huge cost of PFAS contamination for EU citizens. The Nordic Council of Ministers estimated that the direct healthcare costs from exposure to PFAS in Europe alone are €52-84 billion annually[5]. Our audit did not cover the potential economic impact of stricter PFAS restrictions, or of a possible universal restriction, on the wider EU economy, competitiveness, businesses, and ultimately, citizens.

14 Regulating PFAS is a particularly challenging task due to their long-term health effects, and the widespread use of PFAS in thousands of different products. It is therefore an ideal test case for the robustness and reactiveness of the EU's legislative framework for chemicals.

15 Our audit covered the period from January 2020 to March 2026. We obtained audit evidence from the sources presented in ***Figure 6***.

[5] The cost of inaction, Nordic Council of Ministers, 2019.

Figure 6 | Audit work done

We reviewed

- all regulatory action procedures related to PFAS that had been finalised during the audited period or that were still pending
- recent scientific literature about PFAS
- the Commission's strategies related to PFAS and to the funding of PFAS-related projects
- the measures taken by non-EU countries, and compared them with the EU approach



We analysed

- monitoring data for PFAS in food collected by EFSA from member states
- reports issued by the Commission and EU agencies related to PFAS
- a sample of 10 projects funded by the European Commission through the Horizon 2020, Horizon Europe and LIFE programmes, to foster the substitution and monitoring of PFAS, as well as the remediation of PFAS in soil and water. We checked their progress against the objectives set in the grant agreements



We interviewed

- representatives from the **Commission** departments with primary responsibility for the EU's chemicals legislation and for PFAS-related projects (Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Directorate-General for Environment, Directorate-General for Health and Food Safety and Directorate-General for Research and Innovation)
- representatives from ECHA and EFSA involved in PFAS procedures
- representatives from nine **member states**. We visited three member states (Germany, Greece and the Netherlands) and held online meetings with six other member states (Belgium, Denmark, Spain, Italy, Lithuania and Sweden). We selected Germany and the Netherlands because of their role in the universal PFAS restriction and the importance of their chemical sector. Greece was selected to ensure a broader geographical coverage. The other member states were chosen to discuss in more detail their relevant survey replies
- experts of non-governmental organisations and industry representatives with an interest in PFAS



We surveyed

- all EU member state authorities responsible for chemicals, food safety and drinking water. We obtained a response rate of 85 % for food safety, 93 % for drinking water and 100 % for chemicals legislation



Source: ECA.

16 Our audit methodology complies with the international standards on auditing issued by the International Organization of Supreme Audit Institutions (INTOSAI).

Abbreviations

Abbreviation	Definition/Explanation
CLP	Classification, Labelling and Packaging
ECHA	European Chemicals Agency
EFSA	European Food Safety Authority
PFAS	Per- and polyfluoroalkyl substances
PFHxA	Perfluorohexanoic acid
PFHxS	Perfluorohexan sulfonic acid
PFNA	Perfluorononanoic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid or perfluorooctane sulfonate
POPs	Persistent organic pollutants
PTFE	Polytetrafluoroethylene
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
TFA	Trifluoroacetic acid

Replies of the Commission

https://www.eca.europa.eu/en/publications/sr-2026-31

Replies of the European Chemicals Agency (ECHA)

https://www.eca.europa.eu/en/publications/sr-2026-31

Timeline

https://www.eca.europa.eu/en/publications/sr-2026-31

Audit team

The ECA's special reports set out the results of its audits of EU policies and programmes, or of management-related topics from specific budgetary areas. The ECA selects and designs these audit tasks to be of maximum impact by considering the risks to performance or compliance, the level of income or spending involved, forthcoming developments and political and public interest.

This performance audit was carried out by Audit Chamber I – Sustainable use of natural resources, headed by ECA Member Joëlle Elvinger. The audit was led by ECA Member Joëlle Elvinger, supported by Charlotta Torneling, Head of Private Office and Annabelle Miller, Private Office Attaché; José Parente, Principal Manager; Eddy Struyvelt, Head of Task; Di Hai, Vasileia Kalafati and Aris Konstantinidis, Auditors. Laura McMillan provided linguistic support. Alexandra-Elena Mazilu provided graphical support, Anthony Pantelis and Iveta Toleikyte provided data analysis support and Eleonora Dimitrova provided administrative support.



From left to right: Di Hai, Annabelle Miller, Eddy Struyvelt, Joëlle Elvinger, José Parente, Charlotta Torneling and Alexandra-Elena Mazilu.

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Annex – Figure 2: Iceberg illustration in the background: blauananas – stock.adobe.com.

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European Court of Auditors, special report 31/2026 “The EU approach to PFAS (‘forever chemicals’) – Slow progress in a race against time”, Publications Office of the European Union, 2026.

Per- and polyfluoroalkyl substances (PFAS) – also known as "forever chemicals" – are widely used in many different products. They degrade extremely slowly and can cause serious health effects. In 2020, the Commission committed to phasing out PFAS.

We assessed whether the EU has been effective in protecting human health from the harmful effects of PFAS.

We found that: the EU's complex and lengthy procedures were not well-adapted for dealing with PFAS; EU limits on PFAS in food and drinking water were not based on updated scientific data; and many member states did not check compliance with PFAS restrictions.

We recommend that the Commission speed up regulatory procedures, improve controls, and revise the limits for PFAS in food and drinking water where warranted.

ECA special report pursuant to Article 287(4), second subparagraph, TFEU.

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