

Restriction of PFAs - landscape after completed ECHA public consultation and data collection

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Who are we

Main regulatory action in EU on PFAS:
Universal PFAS restriction

- a. Restriction proposal
- b. Cefic & FPP4EU Contributions to the consultation

Landscape after completed ECHA public
consultation and data collection

Conclusions and requests



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Who are we?

Membership



Represents producers, importers and users of the many potential substances that fall within the broad definition of PFAS.



FPP4EU

Vision – in a nutshell

We understand and support the need for balanced regulatory action on PFAS.

We seek to aid EU policymakers in achieving the ambitions set out in the EU Green Deal.

Aim is to come jointly to a final regulatory measure which:

- *is science-informed, implementable, and enforceable;*
- *enables the EU to meet its Green Deal, economic and other policy objectives.*

Our plans:

- *obtain common understanding of what a PFAS restriction under REACH may look like,*
- *collaborate and engage in constructive dialogues with all EU stakeholders,*
- *support further research and data generation to fill potential data gaps.*



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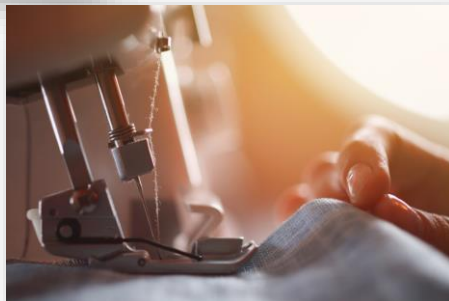
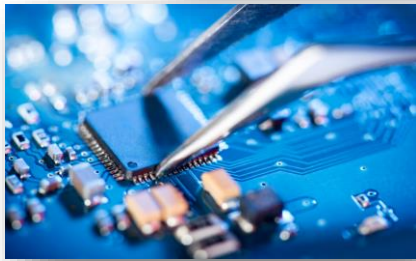
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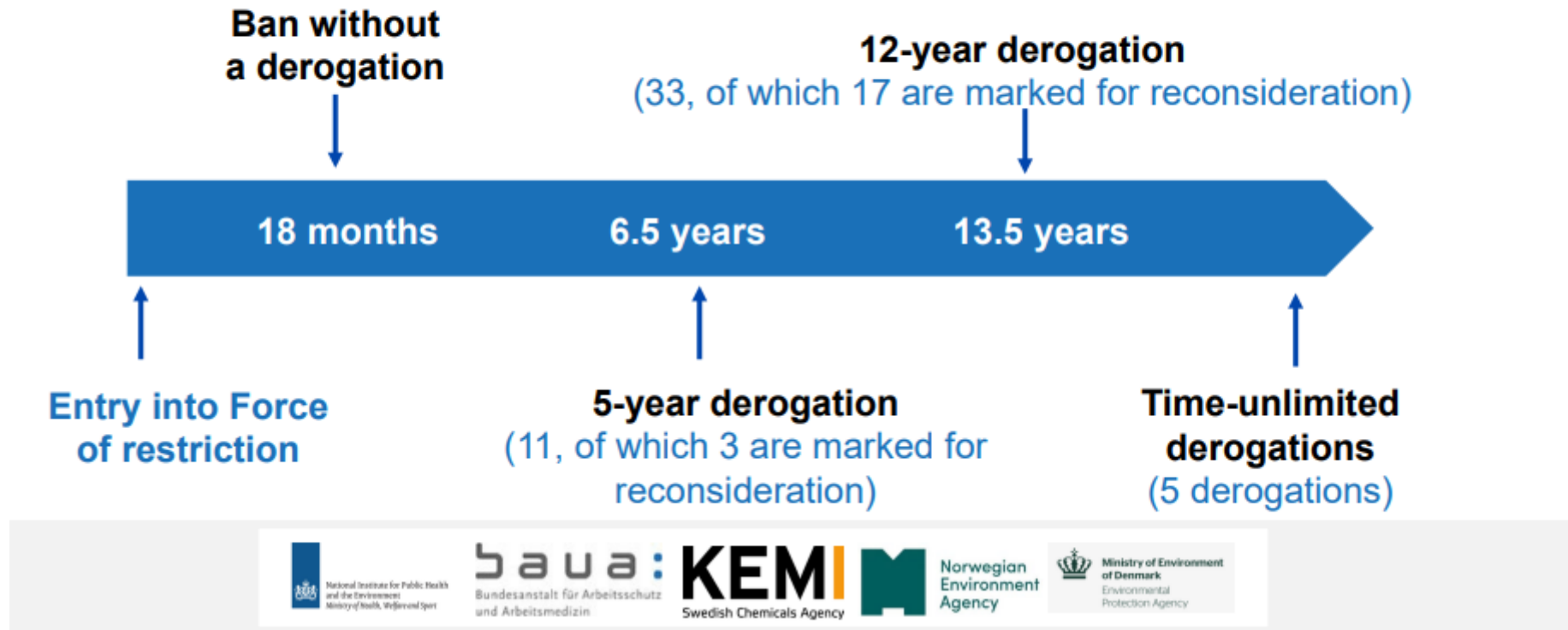


The U-PFAS restriction proposal: PFAS applications



The U-PFAS restriction proposal

Phase out timeline



The U-PFAS restriction proposal



The proposal imposes a **ban** on the manufacturing, placing on the market and use of PFAS as a substance on their own or as a constituent, together with a ban on placing on the market of mixtures or articles containing PFAS above a specific concentration level, and includes use specific derogations.

Which PFAS are included? fluoropolymers, perfluoropolyethers, F-gases and side-chain fluorinated polymers. It follows the OECD's 2021 definition

Why did the Competent Authorities launch the restriction? PFAS definition: emissions need to be addressed (estimated emissions of about 4.4 million tones over 30 years if no action taken), substance main concern persistence but there are other concerns (mobility, toxicity,) that vary among PFASs.



The U-PFAS restriction proposal

5 Time-unlimited derogations:

- Active substances in **biocidal products** (with a reporting obligation).
- Active substances in **plant protection products** in (with a reporting obligation).
- Active substances in **human & veterinary medicinal products** (with a reporting obligation).
- Calibration of measurements instruments and as analytical reference material.
- Refrigerants in HVACR- equipment's in buildings where national safety standards and building codes prohibit the use of alternatives.

44 Time-limited derogations (6.5 or 13.5 years after EiF):

Covering very specific industrial uses, medical devices, refrigerants, textiles incl. Personal protective equipment (PPE), uses in food contact materials, membranes in fuel cells, in transport applications, etc.

Most derogations are linked to different obligations: **reporting and site-specific management plans**
Derogations are not granted in the final text



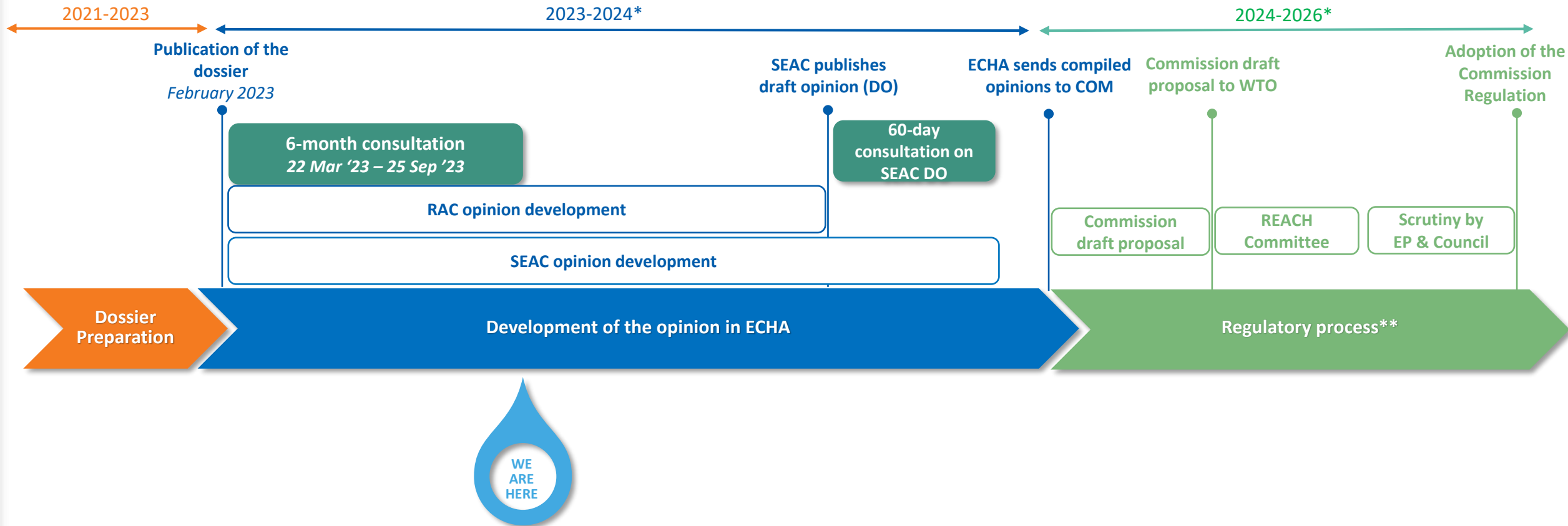
Our preliminary conclusions / analysis

- PFAS used in industry settings are under the scope of the restriction and mostly banned.
- Derogations on biocidal, plant protection and human & veterinary medicinal products do not cover the production of those products.
- 44 time-limited derogations mostly for very specific uses.
- **At this stage, consumer uses are proposed to be banned with few exceptions.**

If a use is not derogated = banned 18m after Entry into Force (EiF)



The restriction proposal: restriction process



*Assuming the earliest possible timeline.

**Commission regulation adopted by implementing acts

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1

Inventory of PFAS used in industrial equipment



Objective and approach



Study investigated **PFAS presence** in chemical industry plants, reviewed **potential alternatives**, and assessed **impacts**



600 question survey of **111 Cefic members**, covering **1421 plants**, advanced analytics of **1 M technical articles** and **more than 100k data points** from publicly available OEM datasheets and engineering books, analysis of **166K PFAS-related patent filings**



Highlights from its findings



PFAS found in several thousand of industrial equipment in a chemical plant – main applications valves, gaskets and coatings



Fluoropolymers and F-gases are the main PFAS types in chemical equipment



PFAS use is justified by unique combination of performance properties (chemical resistance, thermal resistance, mechanical strength, low coefficient of friction, waste/moisture resistance)



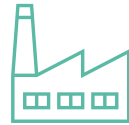
Some potential substitutes identified for specific use cases BUT most do not meet the combined performance requirements. Once alternatives are identified, expectations is that it will take 10+ years to replace



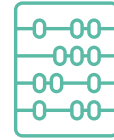
Highlights from its findings



Should a restriction on PFAS in industrial equipment be adopted, the impact on existing plants and on new investments expected to be profound



For existing plants, when alternatives are identified, 6-24 months of shutdown /20-50% of new built CAPEX/ 6-12 months of client requalification process/2-3 times higher maintenance expenditure would be required



For new investments, a 15-60% CAPEX increase/2-3 times higher maintenance expenditure/lower plant availability are anticipated





2

Assessment of economic impact on manufacturers and sample of downstream users



Objective and approach



Assessment of business and business-driven economic cost impacts of a universal PFAS restriction on PFAS manufacturers/ importers and downstream users of PFAS-containing and/or -using products



Covers PFAS manufacturers/importers and a sample of downstream users of PFAS-containing and/or using products



Followed as far as possible EC Better Regulation Guidelines



Objective and approach



Considered impacts of 3 scenarios against 2021 baseline



Survey of 13 manufacturers and 173 downstream users from 30 sectors



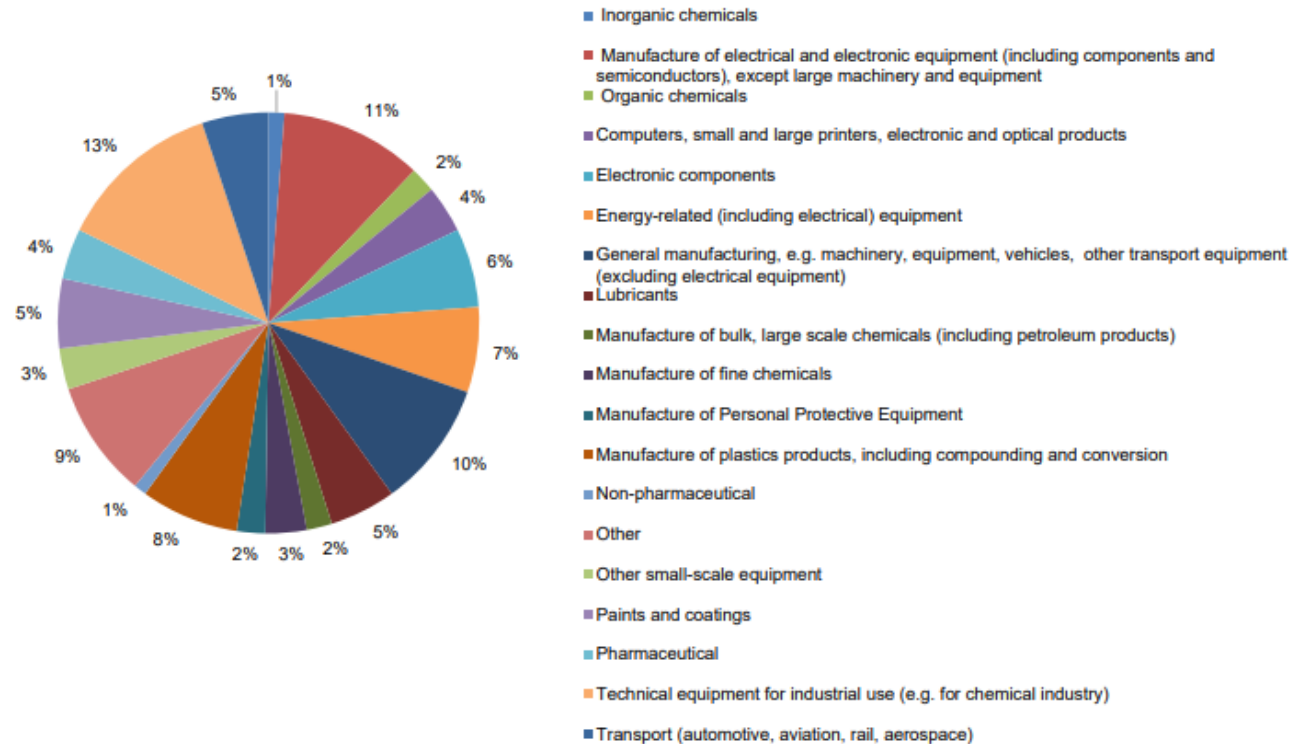
Data requested was either quantitative, to determine for example expected impacts on turnover and on employment, or qualitative to assess for example the availability of alternatives



Downstream users' participation



Overview of participating DUs sectors



Study findings: some highlights



Manufacturers

- Study estimated that they could lose 91% of the PFAS production portfolio
- In terms of employment, expected to see an impact on 30% of their workforce

Participating downstream users

- Size of the 'total potentially affected product portfolio' estimated to be around 63% of their turnover
- Reported potential employment impacts between 7 and 13%
- Surveyed downstream users only form a sample – impact on whole economy will be higher
- Regarding alternatives, 85% stated that there are currently no viable alternatives for their PFAS uses available on the market with the same properties, technical function and level of performance



3

FPP4EU input to the consultation – non-exhaustive list of PFAS
uses currently missing or only partially covered



Objectives and approach

It is the result of a survey completed by more than 50 companies and associations.

The goal was to investigate how many PFAS uses were not represented in the U-PFAS restriction. It also includes uses that fall outside of the sectors thoroughly investigated by the Dossier Submitters.

The list was submitted as part of FPP4EU's comments to the public consultation.

FPP4EU
FluoroProducts and PFAS for Europe
A sector group of Cefic

September 2023

Public consultation input provided by FPP4EU to the restriction on Per- and polyfluoroalkyl substances (PFAS)

Introduction

FPP4EU, the FluoroProducts and PFAS for Europe Sector Group of Cefic, welcomes the opportunity to provide input to the public consultation on the universal REACH restriction on Per- and polyfluoroalkyl substances (PFAS). As a representative of producers, importers and users of the many potential substances that fall within the broad definition of PFAS, FPP4EU seeks to support EU policymakers and authorities in achieving the ambitions set out in the European Green Deal. As such, FPP4EU members understand and support the need for balanced regulatory action on PFAS. This submission focuses on the overall positions of the Sector Group.

Individual member companies of FPP4EU may provide more specific information and data on their own submissions.

About FPP4EU

Cefic established a new Sector Group in March 2021. The group was set up to represent the views of producers, importers, and users of Fluoroproducts and PFAS as well as other parties with an interest in the Fluoroproducts and PFAS activities in Europe. FPP4EU represents 14 member companies and has also created the 'Collaboration Platform', where downstream users and other interested stakeholders are invited to exchange information, share useful documents, learn from each other. There are currently more than 150 parties participating in the Platform, including 13 national non-governmental federations representing the chemical industry in European countries. Participation continues to grow as industries become aware of the impact and their responsibilities under the restriction.

European ecosystems representation in FPP4EU Collaboration Platform

Ecosystem	Count
Mobility Transport/Automotive	30
Construction	26
Aerospace and defence	13
Electronics	10
Health	17
Renewable Energy	14
Textile	4
Retail	1
Digital	11
Energy Intensive Industries	47
Agri Food	16
Creative and Cultural Industries	3



Survey findings: some highlights

53 answers received, 299 partially covered uses, 596 missed uses, answers are not filtered.

Sectors reporting inadequate coverage include industrial settings, transport, health, electronics and energy.

FPP4EU Compilation of missed PFAS uses (non-exhaustive list!)

This document contains non-exhaustive lists of PFAS missed uses and uses partially covered in the restriction proposal submitted by the competent authorities. These lists have been established by collecting data from PFAS-producers and downstream users. For compliance reasons, FPP4EU is publishing all the information in an anonymized way. No representations or warranties are made with regards to the accuracy or completeness of their contents, and no liability will be accepted for any damages of any nature whatsoever resulting from the interpretation, use or reliance on these lists.

Sector of Use (please scroll down)	Describe Sector of Use (if you have chosen 'other')	PFAS missed uses (description of use/application)	Comments
Other	Chemical, power, petrochemical refining, food and pharma	Creates a seal preventing liquids or gases escaping to atmosphere	Chemically inert and resistant (especially alkaline), Food & Drug approved, App load
Other	Automotive, industrial	Seal hydrogen in high pressure application	Ductility, chemical resistance
Electronics and semiconductors	Mechanical applications	Moving parts, machinery, printers, Bearings, gear boxes, compressors etc	Low coefficient of friction, repellency
Transport		Guides and sliding parts for guiding the rubber throughout the production line of tyres	
Chemical industry		PTFE sealings	
Other	Machinery and equipment manufacturing industry	bearings/sliding bushes (PTFE) in air/process gas compressors	Safe handling of aggressive chemical Machinery and equipment manufacturing and building machinery, Fluid power, Compressors, Air technology, Agricultural technology, Mining, Food processing Systems (electricity and heat generation) machinery and equipment, Laundry Technology, Machinery and equipment manufacturing and building machinery, Fluid power, Compressors, Air technology, Agricultural technology, Mining, Food processing Systems (electricity and heat generation) machinery and equipment, Laundry Technology
Other	Machinery and equipment manufacturing industry	Separation technologies and filter media (PVDF, PTFE, FEP, ECTFE, PFA) e.g. used in compressed air or process gas filtration	
Energy sector		Filters for gas turbines	
Other	Cleaning - rinsing removal	HFEs and HFODs in cleaning are used for their low surface tension, their compatibility with a large number of materials, their low boiling point associated to their wetting properties. In some applications, Organic solvents as hydrocarbons are used to clean parts. They are efficient to clean but have a very high boiling point. HFODs and HFEs are used to rinse the parts (remove the hydrocarbon) or remove particles thanks to its low surface tension, with the low boiling point of the HFODs and HFEs, the part can dry very quickly. The solvents are recondensed in the process to avoid any evaporation/losses in the process. Without roller	
Transport			PTFE
Textile, upholstery, leather, apparel and carpets (TUL)	Industrial wastewater treatment	PVDF Membranes for wastewater treatment. Ultrafiltration and microfiltration membranes constructed of PVDF are specifically used in membrane bioreactor applications to reach wastewater discharge limits in all industries	
Chemical industry		FKM/FFKM gaskets (in pumps and other equipment)	Safe handling of aggressive chemical
Other	Semiconductor industry, Chemical industry, pharmaceutical industry	Pumping and sealing element in pumps, closing and opening element in valves	Chemically inert and high purity limiting to harsh cleaning treatments at high temperature
Transport		Rodend	PTFE
Other	Aerospace, Chemical, Defence, Food & Beverage	Creates a seal preventing liquids or gases escaping to atmosphere	Same as FKM except that it is even more resistant to a greater range of operating conditions



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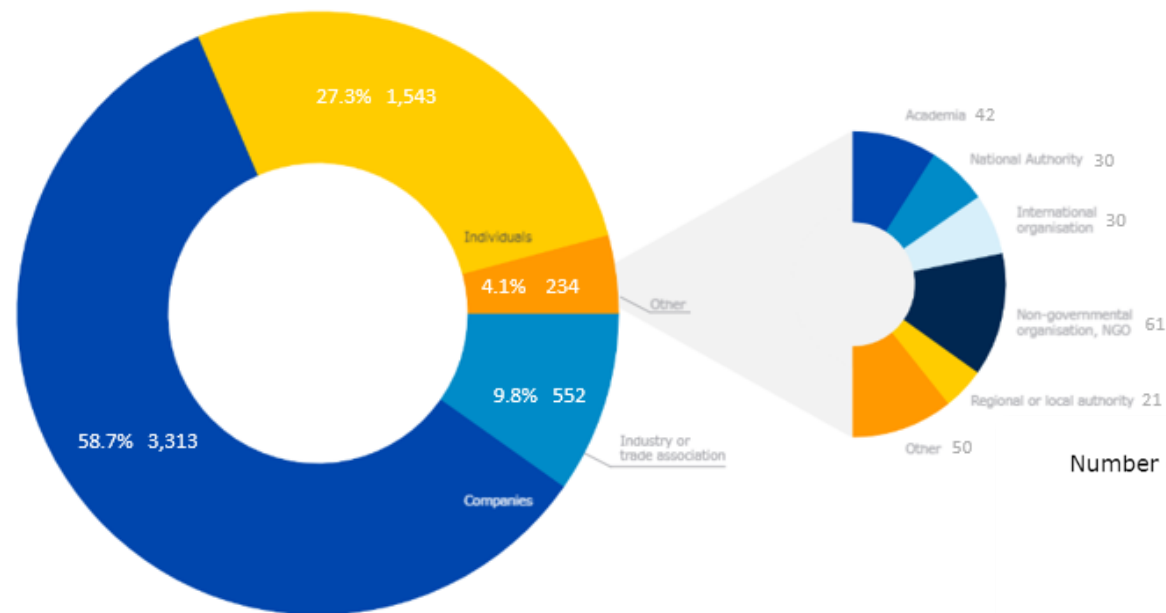
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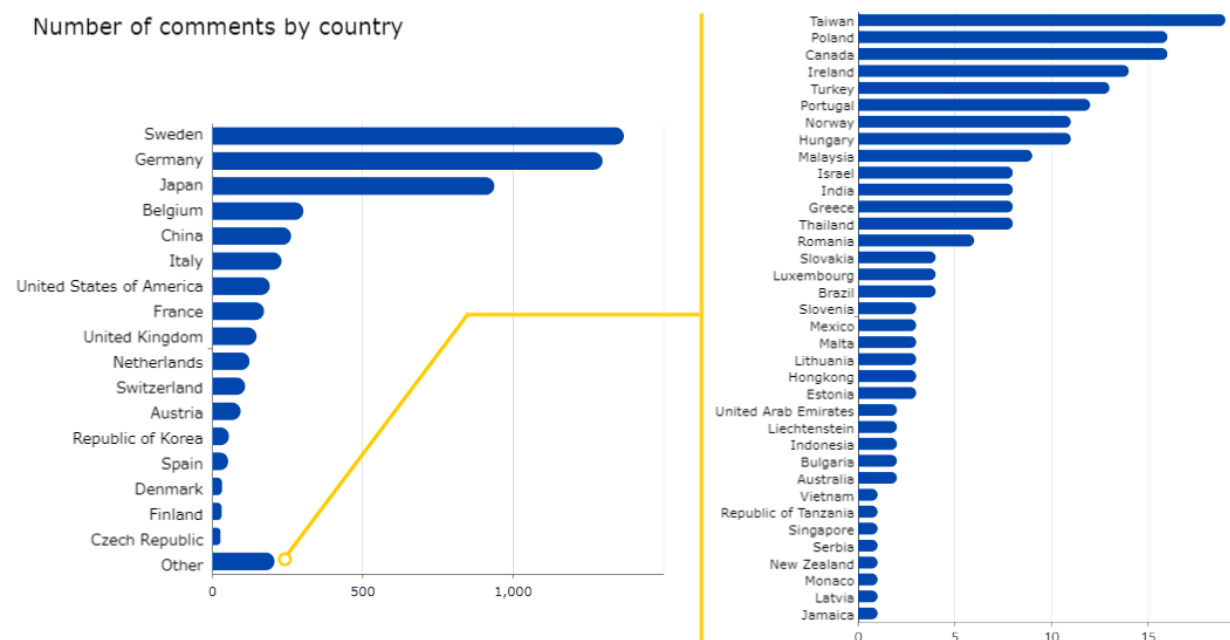
A snapshot of the input received by ECHA*

Comments by type of consultee



- 5,600+ comments
- 4,400+ organisations, companies and individuals submitted comments

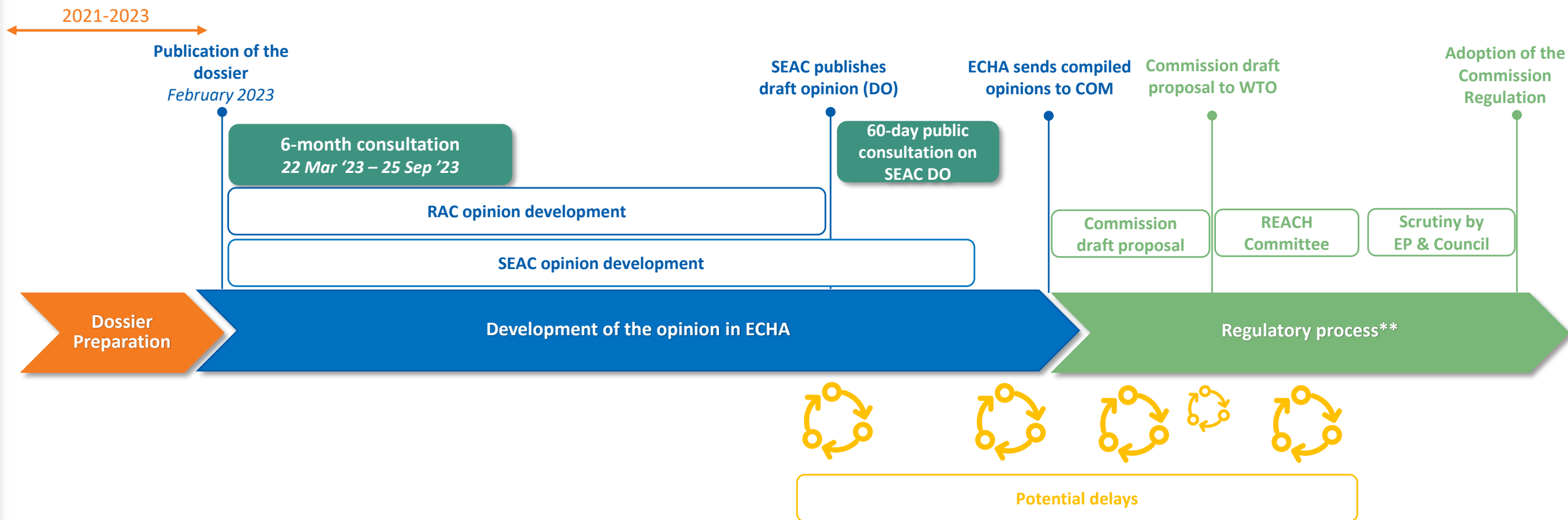
Number of comments by country



* Source: ECHA, <https://echa.europa.eu/-/echa-receives-5-600-comments-on-pfas-restriction-proposal>



The restriction proposal: restriction process



**Commission regulation adopted by implementing acts

Some hypothetical options in the ECHA process

UNLIKELY



Dossier Submitters decide to withdraw the restriction.



Dossier Submitters decide to narrow down the scope, focus only on well-known sectors/application.



ECHA's Committee deliver an Opinion on current proposal, conclusion might not be robust enough, and it is up to the Commission to address them.

LIKELY



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Conclusions on the landscape after consultation

SOME UNCERTAINTIES

- Estimation on the deadlines or adoption of the restriction
- Decision on the scope

SOME CERTAINTIES

- The discussions in ECHA will be organised by sectors /applications



Kind requests (ECHA)

PROCESS

- more visibility in the process including the structure of the discussions and if possible key deadlines expectations
- additional meeting and workshops, in particular for uses that were not sufficiently assessed

DEROGATIONS

- to consider a full exemption for PFAS use related to industrial equipment
- further derogations for PFAS that are needed to fulfil European strategies

How can you help?

- Raise the topic with your authorities and help us to advocate for needed derogations
- Continue mapping your PFAS uses
- Continue collaborating with us to contribute to the ECHA process



THANK YOU !



10 October 2023

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