

Short update on the universal PFAS Restriction Proposal

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Content

- Need for regulation and approach to restriction options
- Findings from the public consultation
- Status/Next steps Dossier Submitters (DS) and ECHA
- Questions

REACH restriction

- **REACH = Registration, Evaluation, Authorisation and **restriction** of CHemicals**
- **Restriction proposal:**
 - ✓ Chemical identity
 - ✓ Hazards, risks, effects
 - ✓ Applications
 - ✓ Availability of alternatives
 - ✓ Socio-economic analysis – impact assessment



Need for regulation

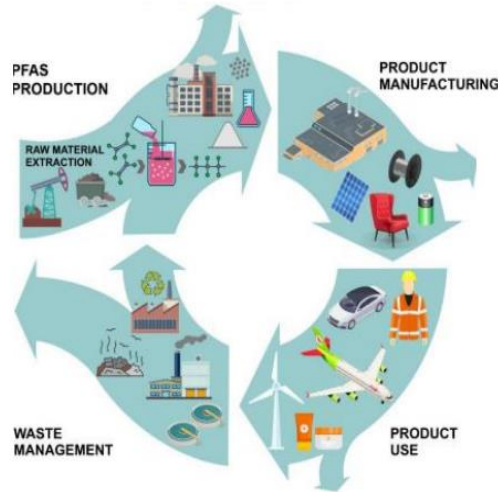
Hazardous Properties

Persistence

Mobility

Bioaccumulation

(Eco)toxicity, other properties



Emissions

75 000 tons
of emissions in 2020

4.5 Mio. tons
of emissions over 30
years

Source:

https://ec.europa.eu/environment/pdf/chemicals/2020/10/SWD_PFAS.pdf



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport

b a u a :
Bundesanstalt für Arbeitsschutz
und Arbeitsmedizin

KEMI
Swedish Chemicals Agency



Norwegian
Environment
Agency



Ministry of Environment
of Denmark
Environmental
Protection Agency



Rainwear



Non-stick coating



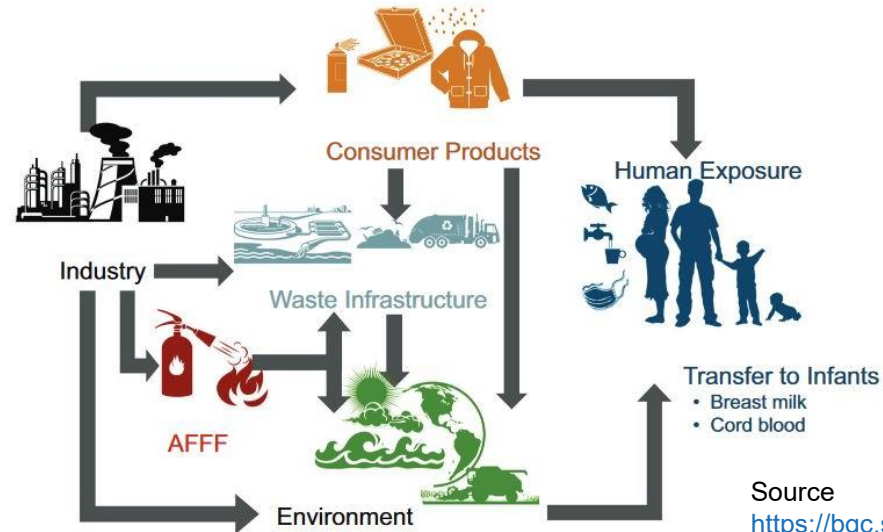
Cosmetics



Medical equipment

- Industrial processes
- Firefighting foams
- Textiles
- Food contact materials (incl. packaging)
- Metal plating/metal products
- Consumer mixtures
- Ski wax
- Transport
- Applications of fluorinated gases
- Electronics and semiconductors
- Energy sector
- Construction products
- Lubricants
- Petroleum and mining
- Medical devices
- Cosmetics
- Other uses

PFASs are found everywhere



Source

https://bgc.seas.harvard.edu/assets/sunderl_and_jeseerev_2018wsi.pdf

Examples of existing regulations on PFAS

REACH Annex XVII (Restrictions)

- C9-C14 PFCAs
- PFHxA
- In process: PFAS in AFFF – DD by COM

POP regulation

- PFOS, PFOA, PFHxS
- In process: long-chain PFCAs

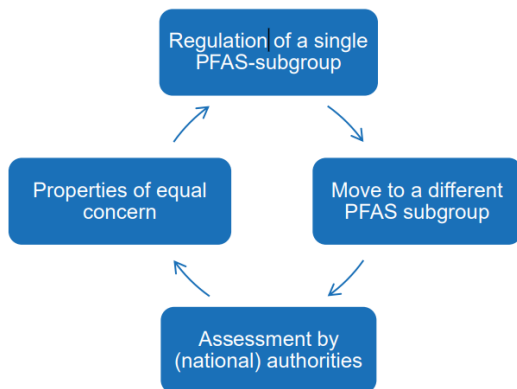
[F-gas regulation]

- Partly PFAS, partly non-PFAS
- Focused on GWP

Regrettable substitution-grouping approach

Previous regulatory approach for PFAS

- Small groups (various PFCAs)



Further emissions into the environment over decades

- High overhead for authorities
- Uncertainty for stakeholders

Approach

- ✓ Regulating all PFAS in one group
- ✓ Precautionary principle

Grouping approach

- Grouping based on two aspects:
 - i) Chemical structure (OECD 2021 PFAS definition) -
all polymeric and non-polymeric PFAS
 - ii) Persistence
- Acknowledged as a basis for risk reduction measures by several research groups: e.g. Cousins et al. (2020), Scheringer et al. (2022)
- Justified to avoid regrettable substitution
- Prevention of future exposures of PFAS which are not currently in use.

«Forever chemicals»

- All PFASs in scope of this restriction proposal are either persistent themselves or degrade to other persistent PFASs
- Persistence due to strength of the carbon-fluorine bond
- PFASs remain in environment for decades to centuries

General principle restriction dossier

- The intention of the Dossier Submitters is to minimize emissions of PFASs to avoid further build-up of PFAS in the environment and subsequent exposure to humans and the environment.
- The aim is to deliver a comprehensive Background Document on the need and details for regulating PFAS.

Emission reduction potential

Baseline:

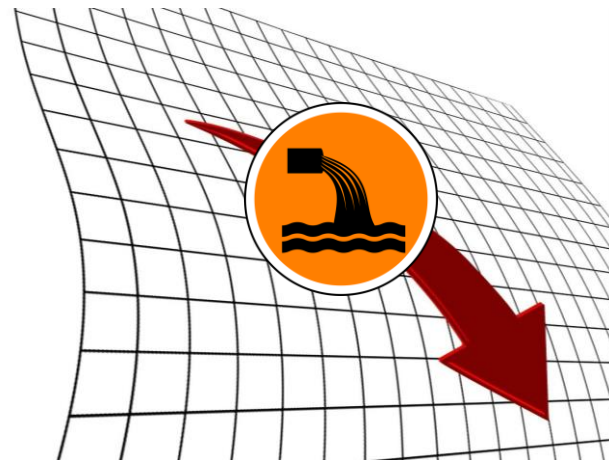
- 4.5 Mio tons of emissions (over 30 years)

RO1 (full ban):

- Ca. 4.3 Mio tons of avoided emissions (96%)

RO2 (restriction with use-specific derogations):

- Less effective: quantification in updated dossier



Full lifecycle of PFAS considered

- **Manufacture**
- **Use phase / Service life**
- **End of Life**
 - Incineration efficiency (no closed mass balance in experiments)
 - Non-hazardous waste (850°C): 99% destruction effectiveness assumed
 - Hazardous waste (1 100°C): 99.99% destruction effectiveness assumed
 - Landfill emissions dependent on PFAS type
 - Recycling assessed separately

The process so far



Restriction options

RO1

Full ban of all uses

- Transition period: 18 months

Ban with use-specific derogations

RO2

- Transition period: 18 months
- Duration of derogation:
 - 5 years (based on set criteria relating to alternatives)
 - 12 years (based on set criteria relating to alternatives)
 - Time-unlimited derogations (specifically justified)

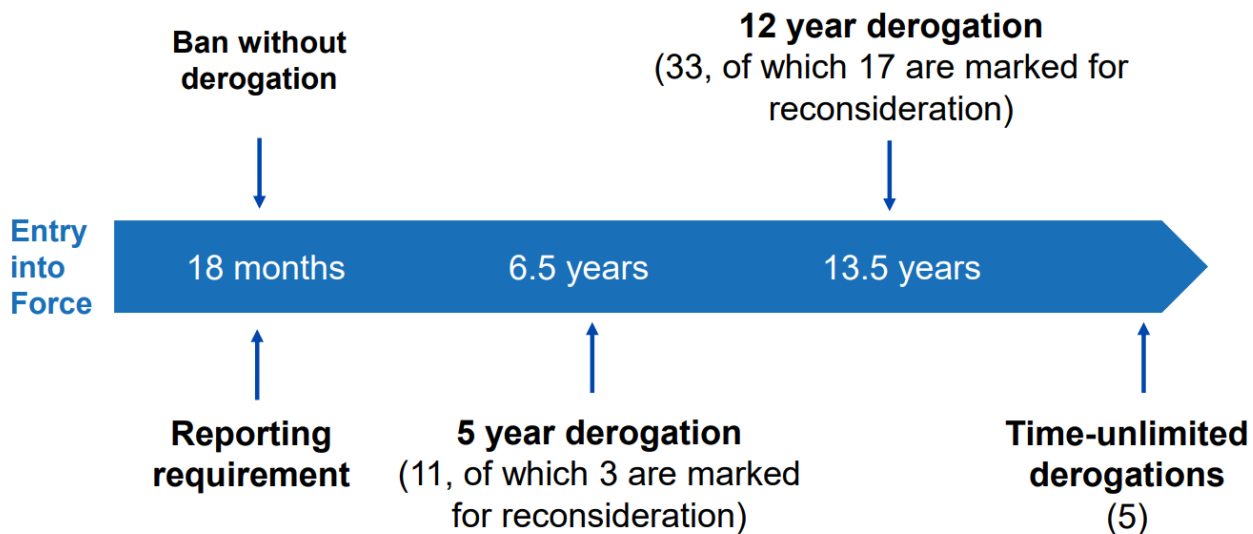
RO3: Restriction options other than RO2/RO1

- Other restriction options – if suggested with substantiated info in the consultation – are also considered for assessment
- Restriction options with additional emission reducing measures and requirements compared to RO2 with a view of improving the effectiveness of the RO
- Restriction options allowing continued use under strict conditions that minimize emissions over the full life cycle i.e., where adequate control of risks might be achievable through means other than a ban
- Assessment does not mean the DS considers such an option to be more appropriate

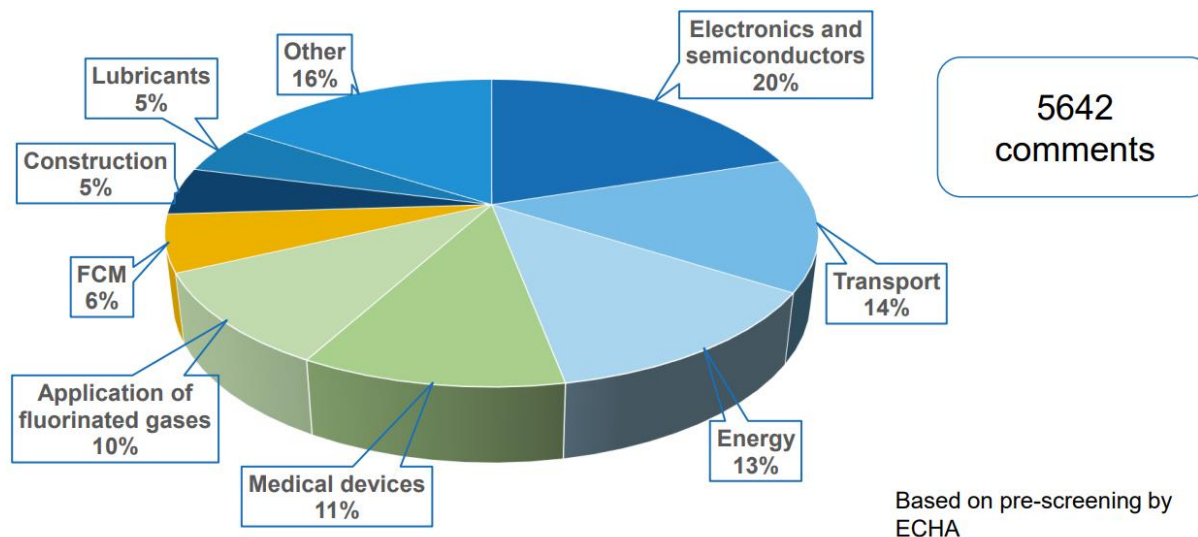
Approach to derogations – SEA considerations

18 months after EiF	18 months + 5 years	18 months + 12 years
Alternatives exist	Sufficiently strong evidence that technically and economically feasible alternatives are in development	Sufficiently strong evidence that technically and economically feasible alternatives are not available in near future (R&D)
No or not sufficiently strong evidence that alternatives are not available	Sufficiently strong evidence that alternatives exist, but not available in sufficient quantities and/or cannot be implemented by company before transition period ends	Certification or regulatory approval of PFAS-free alternatives cannot be achieved within a 5-year derogation period.

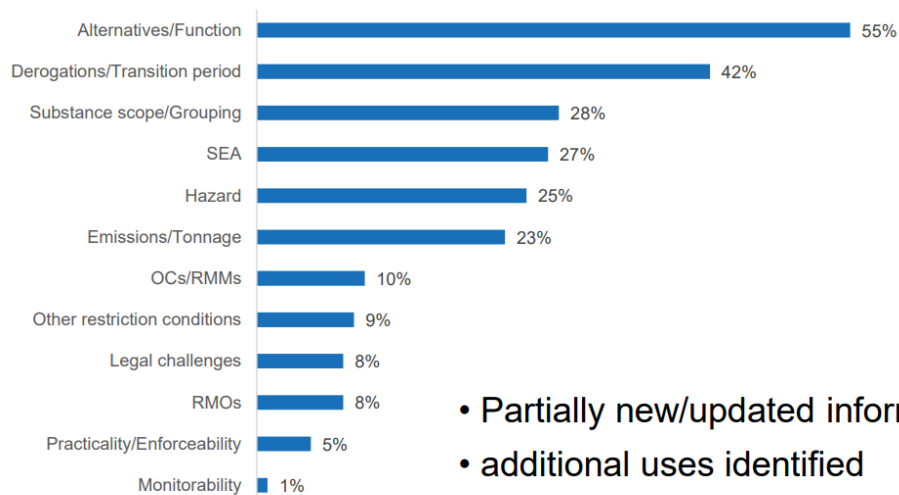
Proposed phase-out timelines



Findings from the public consultation



Comments sorted by topic



Based on pre-screening by ECHA

Comments can cover more than one topic

Allocation of some comments not possible

- Partially new/updated information for assessment
- additional uses identified

Assessment of comments

- Alternatives: Suitability of proposed derogations and transition periods
- Addressing identified risks over whole life cycle possible with other measures?
Submitted comments to be considered.

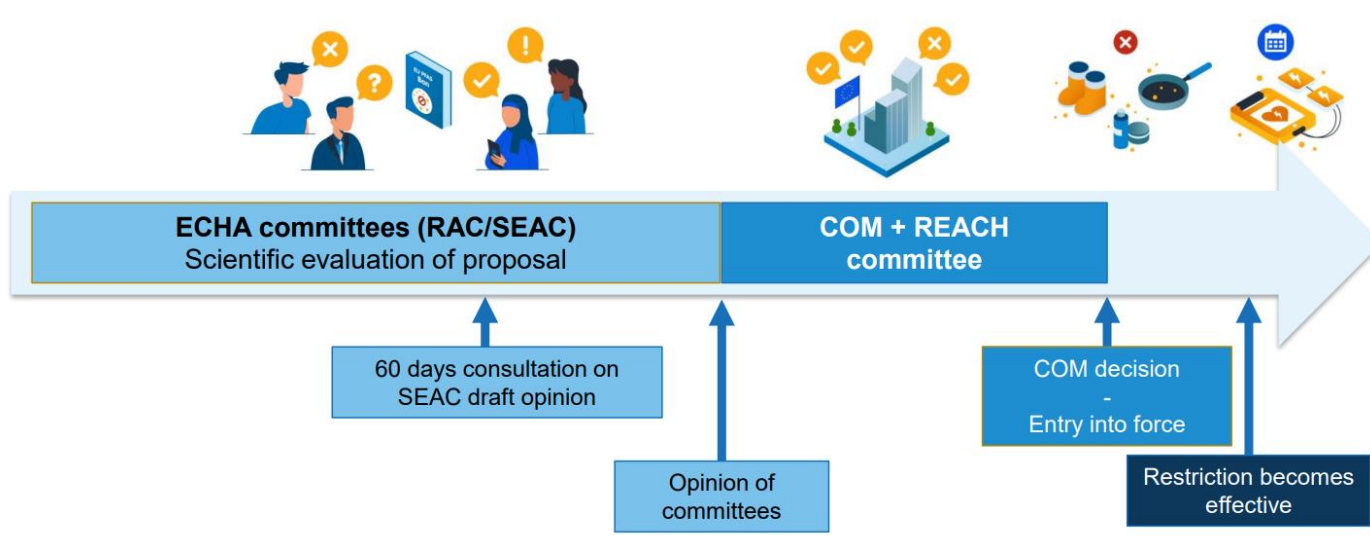
Examples of new sectors

- **Sealing applications:** fluoropolymer uses in consumer, professional and industrial applications, including seals, pipe lining, gaskets, valve parts, etc.
- **Other medical applications** (e.g. excipients and packaging for medicines)
- **Technical textiles:** uses of PFAS in for example high-performance membranes, outdoor technical textiles (like tarps), etc.
- **Printing applications:** permanent parts and consumables for printing applications
- **Military applications:** uses for military purposes, often linked to uses for civil purposes
- But also overarching topics, like
 - **Recycling**
 - **Spare parts**
 - **SR&D**

Next steps with consultation comments

- 8 of 9 planned Background document updates done by Dossier Submitters
- Review by RAC and SEAC
 - Response to submitted comments (RCOM)
 - Comments to be considered for opinion
- Transfer to COM together with other process documents (RAC/SEAC opinion and Background Document)
- Process managed by ECHA: time plan communicated by them
 - Sharing of updated dossier (“background document”) ?

Timeline



ECHA manages the opinion-making process, DS supports with updates

SEAC-consultation

- 60-day consultation once draft opinion is available
- Preparation can already start
- Targeted, representative (sector/EU) and comprehensible information, focus on DO, not BD
- Possible ideas for input:
 - Participation in RAC/SEAC meetings (associations)
 - Previous SEAC consultations/ORCOM of SEAC ([Registry of restriction intentions until outcome](#))
 - Additional information to submitted comments in consultation on Annex XV report, e.g. tonnage, emissions, alternatives, substitution possibilities or barriers
 - New information

Current discussions RAC/SEAC

- Stay up to date: <https://echa.europa.eu/nl/-/highlights-from-march-2025-rac-and-seac-meetings>
- Meeting minutes are being published

[Meetings of the RAC - ECHA \(europa.eu\)](#)

[Meetings of the SEAC - ECHA \(europa.eu\)](#)

- PFAS hot topics: <https://echa.europa.eu/en/hot-topics/perfluoroalkyl-chemicals-pfas>
- Including [status update](#) from ECHA and Dossier submitters

Conclusions

- Dossier presents a proposal made by competent authorities
- Focus currently: Assessment of comments/alternatives
- Revision of dossier → BD is basis for opinions from RAC/SEAC
- Aim: Minimisation of emissions
- Sector/use based approach; first sectors already discussed, others work in progress
- Publication of updated dossier (BD) by ECHA



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