

PFAS REVISION

CHALLENGES AND OPPORTUNITIES?

ONLINE EVENT

12 JUNE 2024 | 10:00 - 12:30 CET

ECRN

European Chemical Regions Network

In collaboration with



ChemSkills



FEC POSITION ON THE PFAS RESTRICTION PROPOSAL

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A LOOK BACK

- In February 2023 ECHA (European Chemical Agency) presented draft to restrict PFAS including fluoropolymers for cookware.
- ECHA used “persistence” (resistance to degradation) as a proxy for risk, to propose total ban (GRA: General Risk Assessment)
- From March to September a consultation was carried out by ECHA on this proposal.
- More than 5’600 feedbacks with more than 100’000 pages were received by the Risk Assessment Committee (RAC) and the Socio-Economic Assessment Committee (SEAC)



FEC POSITION

- FEC gave separate feedback to RAC and SEAC.
- Key Messages:
 - Fluoropolymers do not meet the criteria of “unacceptable risk” required for a restriction under REACH, nor do they present the same hazard properties as other PFAS. Consequently, fluoropolymers as a class should be exempted from the proposed restriction across all their uses in consumer and industrial sectors.
 - There is no scientific basis that PTFE-coated cookware and bakeware poses a risk to humans or the environment in the use phase.
 - The production of fluoropolymer-coated cookware does not result in significant PFAS emissions into the environment due to limited content of non-polymeric PFAS in raw materials (below 1 ppm) and effective environmental management measures.
 - The complete ban could result in 2,100 direct job losses in Europe in the short and medium term, to 4,200 in the long term (9% of the sector’s total employment).



GENERIC RISK ASSESSMENT = GROUP RESTRICTION

- “Persistence”: ECHA’s highest hierarchical criterion for restriction
- For expression of toxicity, persistent chemicals should bio-accumulate
- “Persistent” chemicals shall be “mobile” to bioaccumulate

Persistent ≠ Bio-accumulative ≠ Potentially toxic

- Low Molecular Weight (LMW) PFAS may be persistent and mobile, can bio-accumulate
- Polymeric PFAS may be persistent, are insoluble in water, NON-MOBILE, so the CANNOT bio-accumulate, and have no potential for toxicity



ADDITIONAL ECHA CONCERNS BEYOND PERSISTENCE

- Emission of LMW PFAS (monomers, polymerization aids) during polymers production
- Emission of degradation products in the waste management phase (thermal treatment in Municipal Solid Waste plants)
- Release of microplastics during use, with Long-Range Transport potential and accumulation in biota



RELEASE DURING MANUFACTURING

- ECHA's restriction proposal estimates emissions from Food Contact Materials of max 100 ton/year, unrealistically extrapolated from emissions at a single plant
- Reality is < 1 ton/year
- Ongoing voluntary phase-out of F-based LMW polymerization aids in cookware manufacturing
- Programme launched Q4 2023 :
 - Industry-led commitment to achieve Average Emissions for LMW PFAS residues used in the fluoropolymer manufacturing:
 - By end 2024: 0.009% to air; 0.001% to water
 - By end 2030: 0.003% to air; 0.0006% to water
 - Platform to promote adoption of commercially available state-of-the-art technologies to minimize LMW PFAS emissions in manufacturing; and,
 - Commitment to inform downstream users of fluoropolymers on safe handling and use (Guide for the Safe Handling of Fluoropolymer Resins).



END-OF-LIFE

- Approx. 85% of all fluoropolymers end up in waste-to-energy recovery (CONVERSIO-2022)
- Landfilling is rapidly decreasing, the target of max 10% by 2035 set by WFD has been already exceeded in many EU MS; fluoropolymers nevertheless are highly stable in landfill conditions and do not represent a source of low molecular weight PFAS
- Recent studies- Karlsruhe Inst. of Technology, 2023- show that PTFE is entirely transformed in HF under MSW treatment conditions, with very low trace of LMW

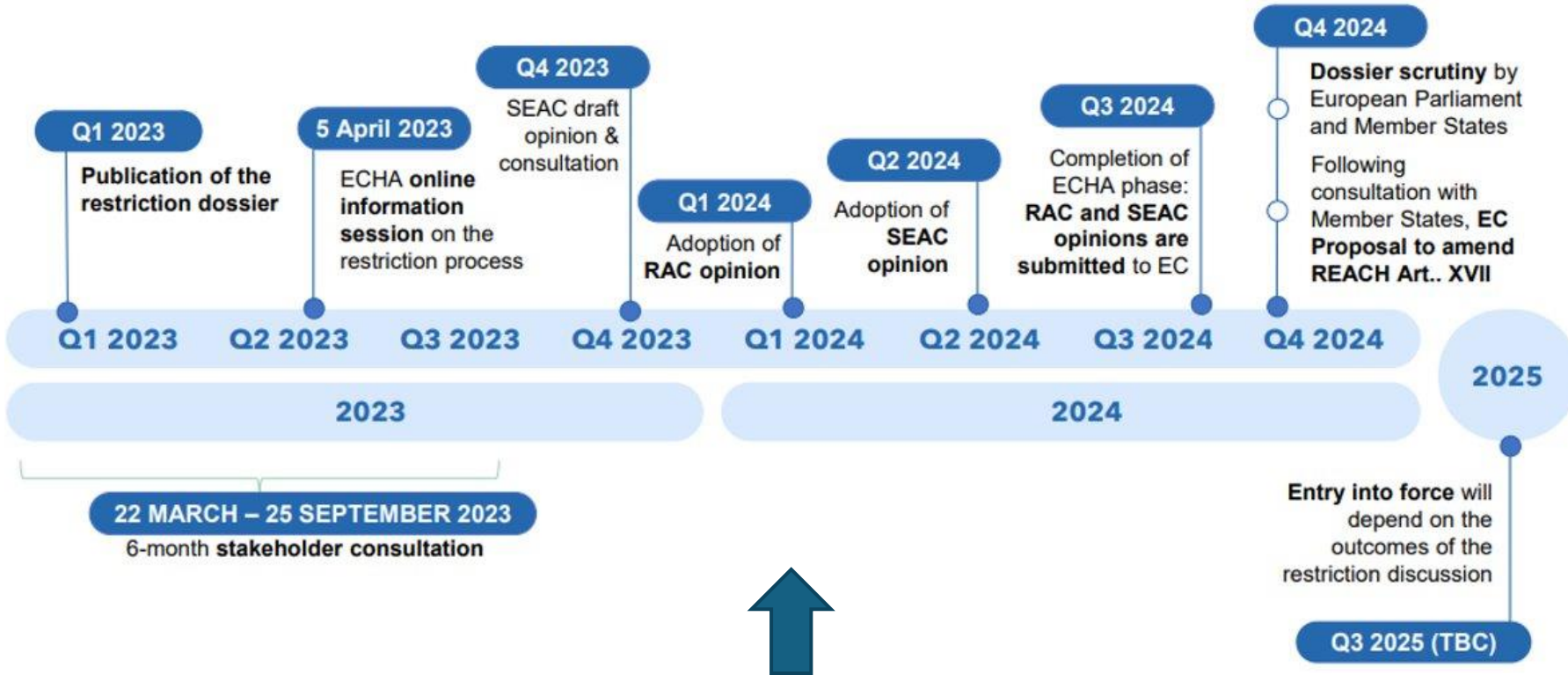


FORMATION OF MICROPLASTICS

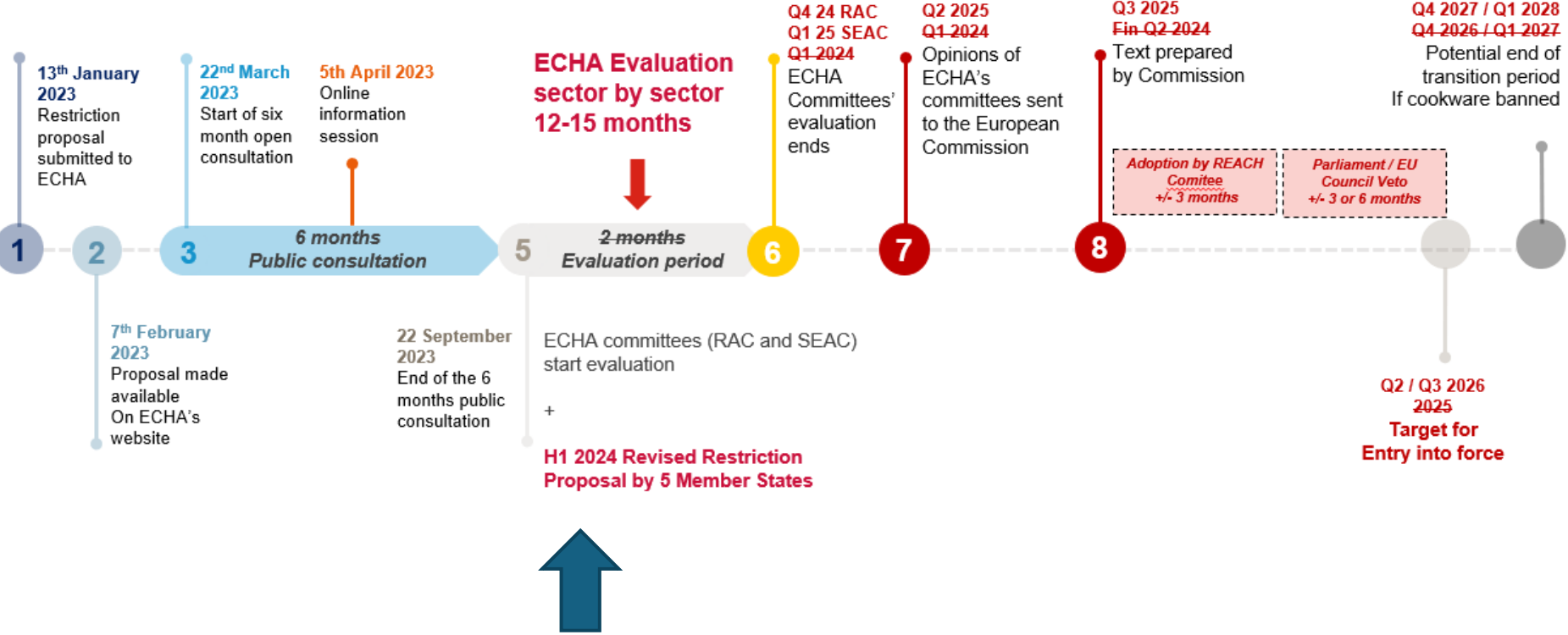
- ECHA holds that microplastics from fluoropolymers “cannot be excluded”; this has never been observed in landfilling conditions, due to their stability
- ECHA holds that Long-Range Transport of Fluoropolymers’ microplastic “are not to be excluded”, however accumulation in biota has never been observed
- Microplastics are already regulated in the corresponding EU regulation and should not be treated under REACH again
- Studies on the formation on microplastics from fluoropolymers are ongoing
- ECHA holds that there is little knowledge about short chained oligomers with less than 10 units, but this has to do with oligomers rather than “microplastics”: there is a lot of confusion in this field



ORIGINAL TIMELINE



(INOFFICIAL) EXPECTED TIMELINE



CONCLUSIONS

- FEC firmly re-state its position against the Generic Risk Assessment adopted by ECHA
- A clear distinction should be made between LMW PFAS and fluoropolymers
- The measure against fluoropolymers is not proportionate to the risk: the same protection can be achieved by reinforcing available and conventional risk prevention tools
- The incremental benefit of a ban of fluoropolymers will be negligible, if ever existing
- The restriction is putting thousands of jobs at risk and, because of use in strategic development areas and convenience market (energy production, electronic devices, automotive, food contact) the ban will offer a tremendous competitive advantage to non-EU industries

