Lessons learned from addressing PFAS

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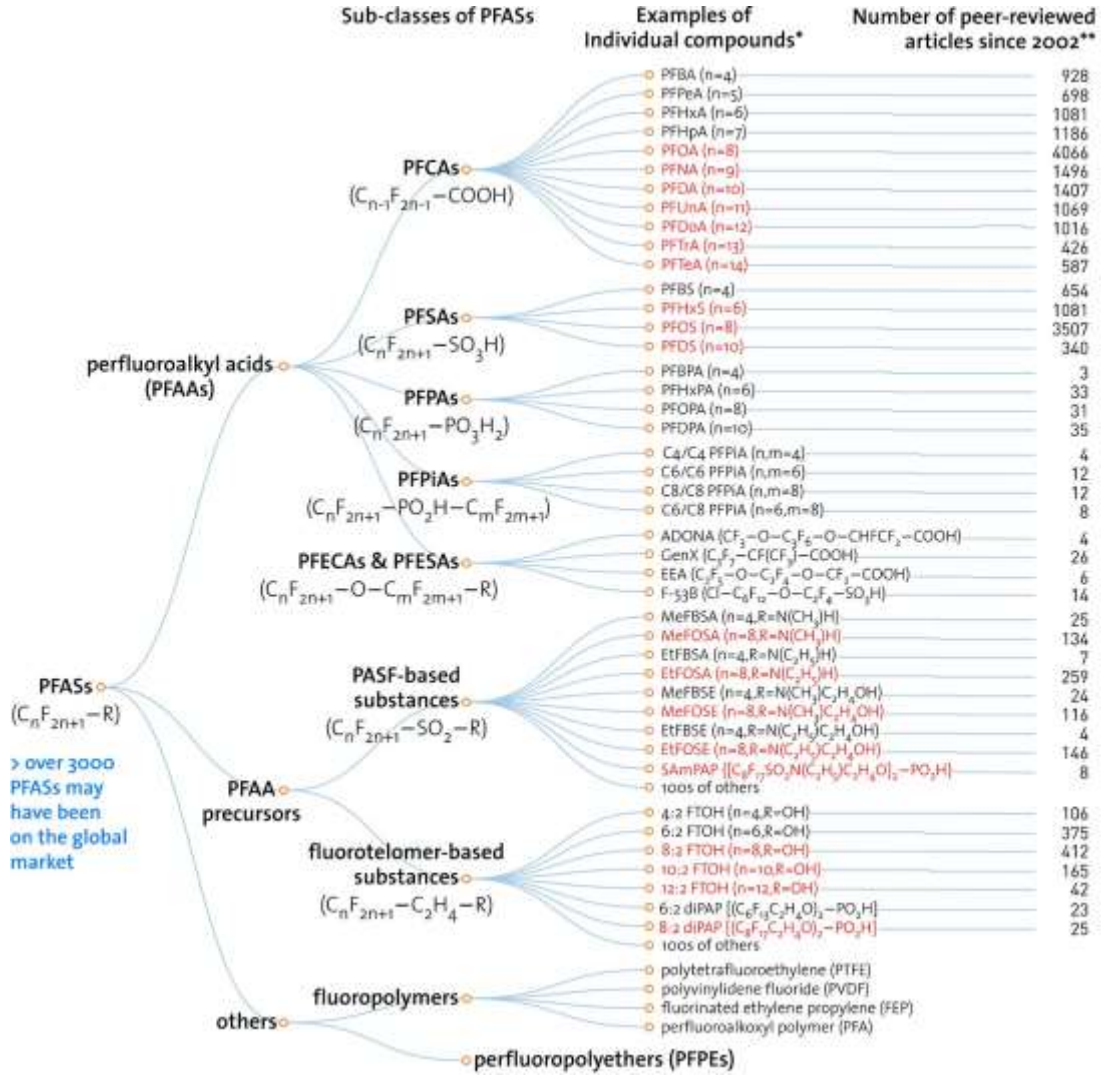
PFAS background

- Synthetic, highly mobile, persistent chemicals
- 9,000+ different chemicals in family
- Categories include C8 (“long-chain” like PFOA and PFOS) and C6 (“short-chain” like PFHxA and PFHxS)
- Can be used to build polymers
- Valuable chemical properties include: oil, stain, grease, and water repellant; non-reactive and stable chemicals; decreased friction; heat resistant; durable
- Used in wide range of industrial and consumer product applications



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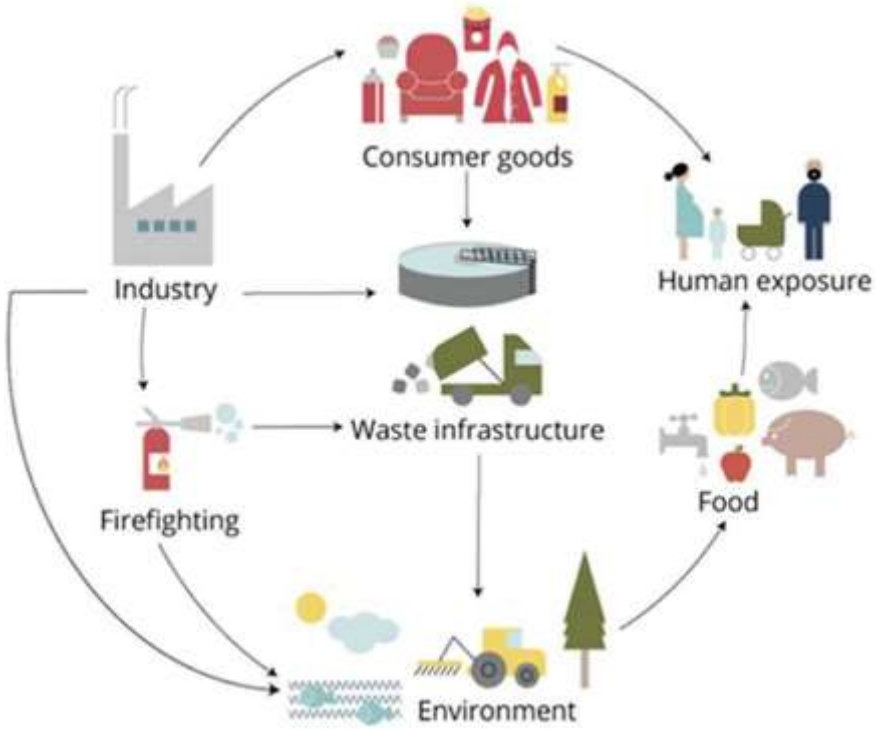
PFAS in the environment

- Chemical properties of PFAS (mobile, persistent, stable) help it spread and accumulate
- Spread by water and air
- Research shows several potential human exposure pathways: drinking water, food, occupational hazards, dust, air, contact



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PFAS and plastic: challenges in parallel

 Definitions	• Defined by a group of chemicals with shared characteristics rather than a singular chemical • Example: PFOA vs. PFAS
 Breadth of uses	• Uses include consumer product, food contact surfaces, and industrial processes • Implicates variety of industries in generation, use, and waste
 Scientific knowledge	• Fast development of scientific knowledge on fate and transport and media • Development of technology on testing • Discovery of broad impacts
 International scope	• International manufacturing, use, and waste disposal implications
 Multimedia implications	• Implications across variety of media, including air, water, and biological • Reflected in impacts and scientific findings

Federal

- Chemical production and use regulations (TSCA)
- Reporting regulations (TSCA, SDWA, EPCRA, CERCLA, CWA)
- Media regulations (CWA, CAA)
- Exposure prevention regulations (SDWA)
- Waste and cleanup regulations (RCRA, CERCLA)
- Whole of government approach (CPSC, FDA, DoD)

State

- Consumer product regulations
- Incorporation of federal standards across air and water
- Disposal regulations
- Purchase limitations

Lessons learned to be applied

- **Data collection** is a critical first step that can take place through many means
- Identification of **common indicators or proxies** can be a useful tool
- Existing authorities can provide a robust toolkit for regulation across a chemical's life cycle, particularly with a "whole of government approach"