

PFAS – Forever Chemicals Litigation, Insurance and Reinsurance

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Oxford
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Introduction: PFAS – Essentials of the topic

PFAS

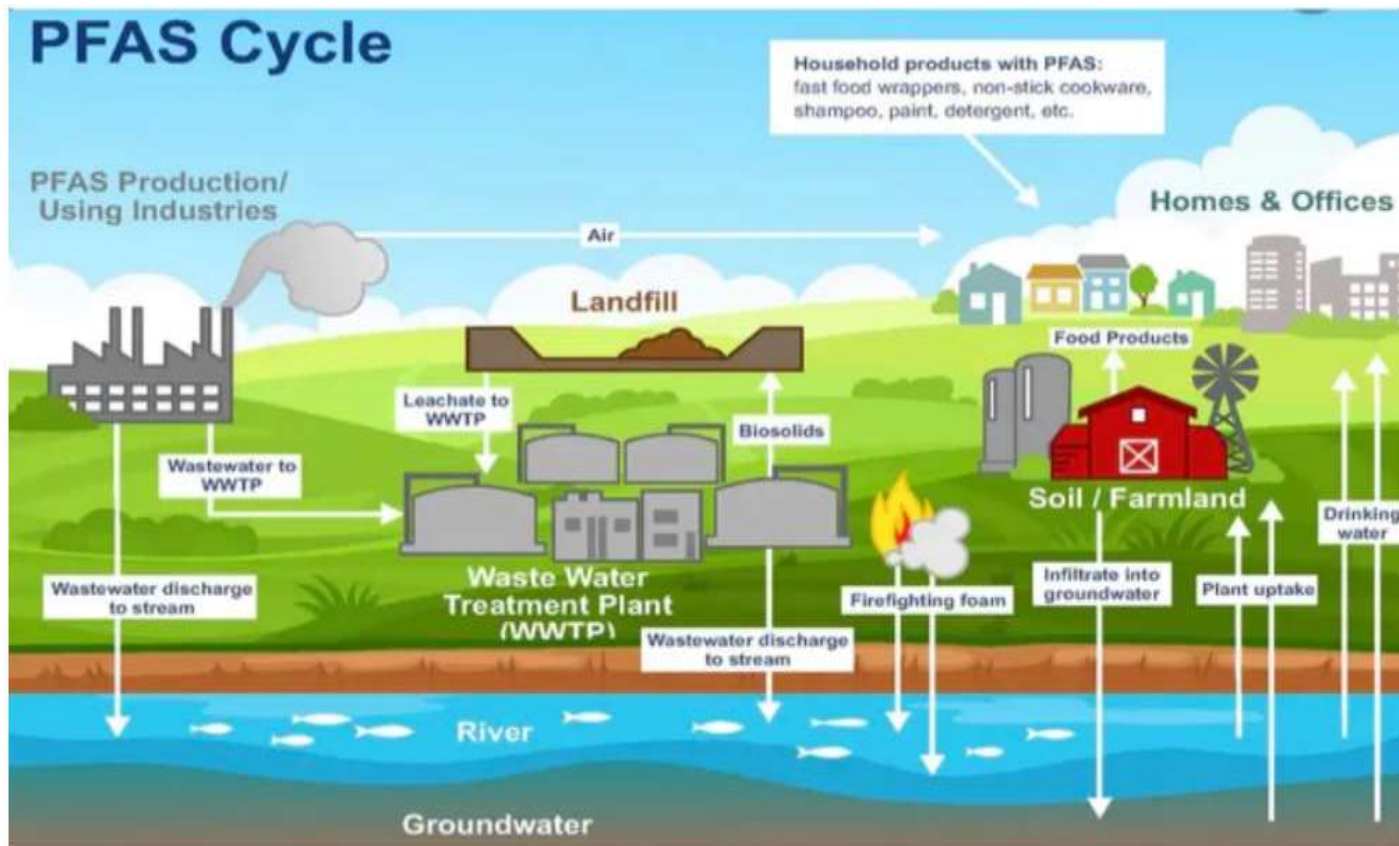
- Per- and polyfluorinated alkyl compounds (PFAS) are industrially produced substances which are used in a variety of products since the 1940s.
- There are estimated **over 14,000 different PFAS compounds** worldwide.
- Characteristics: Non-stick, water repelling, heat & stain resistance.
- Forever chemicals: do not break down/decompose; accumulate in the environment (soil, groundwater; human and animal tissue)
- The manufacturing and processing industry has started to withdraw critical PFAS compounds from the market.

PFAS – where to find



<https://pinellas.gov/per-and-polyfluoroalkyl-substances-pfas>

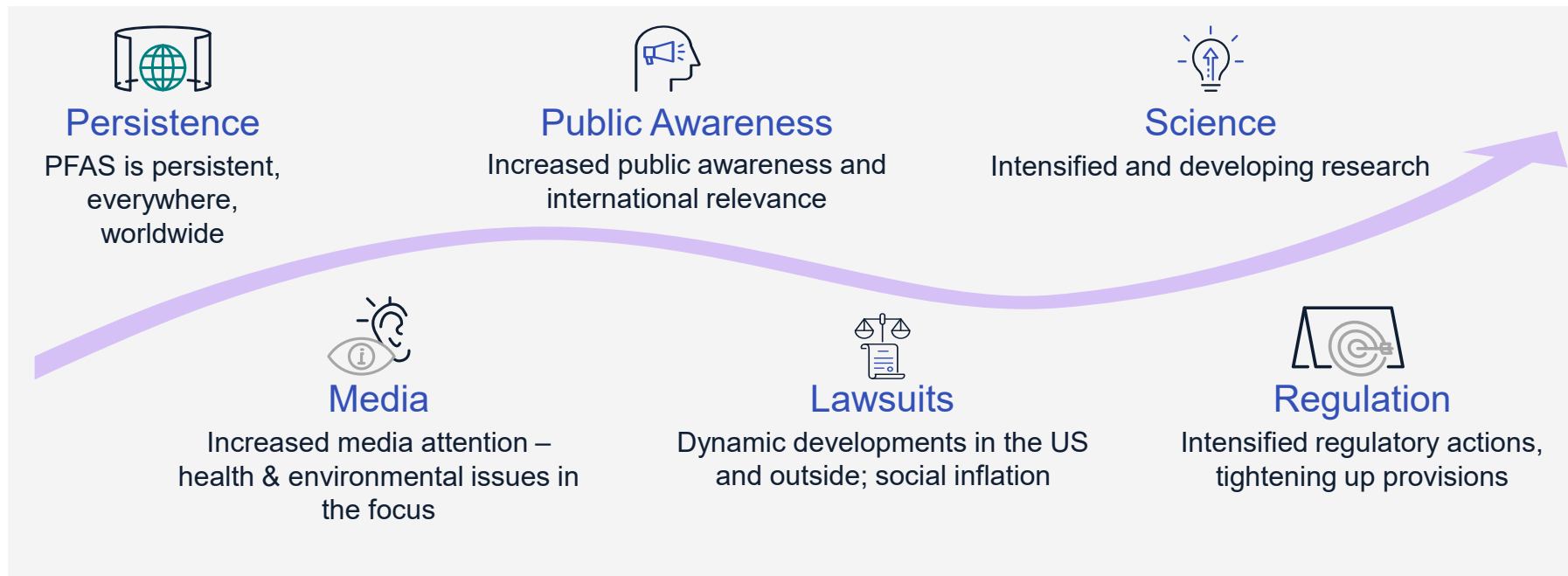
Introduction: PFAS – Essentials of the topic



Source:
<https://metroconnects.org/forever-chemicals-wastewater-challenge/>

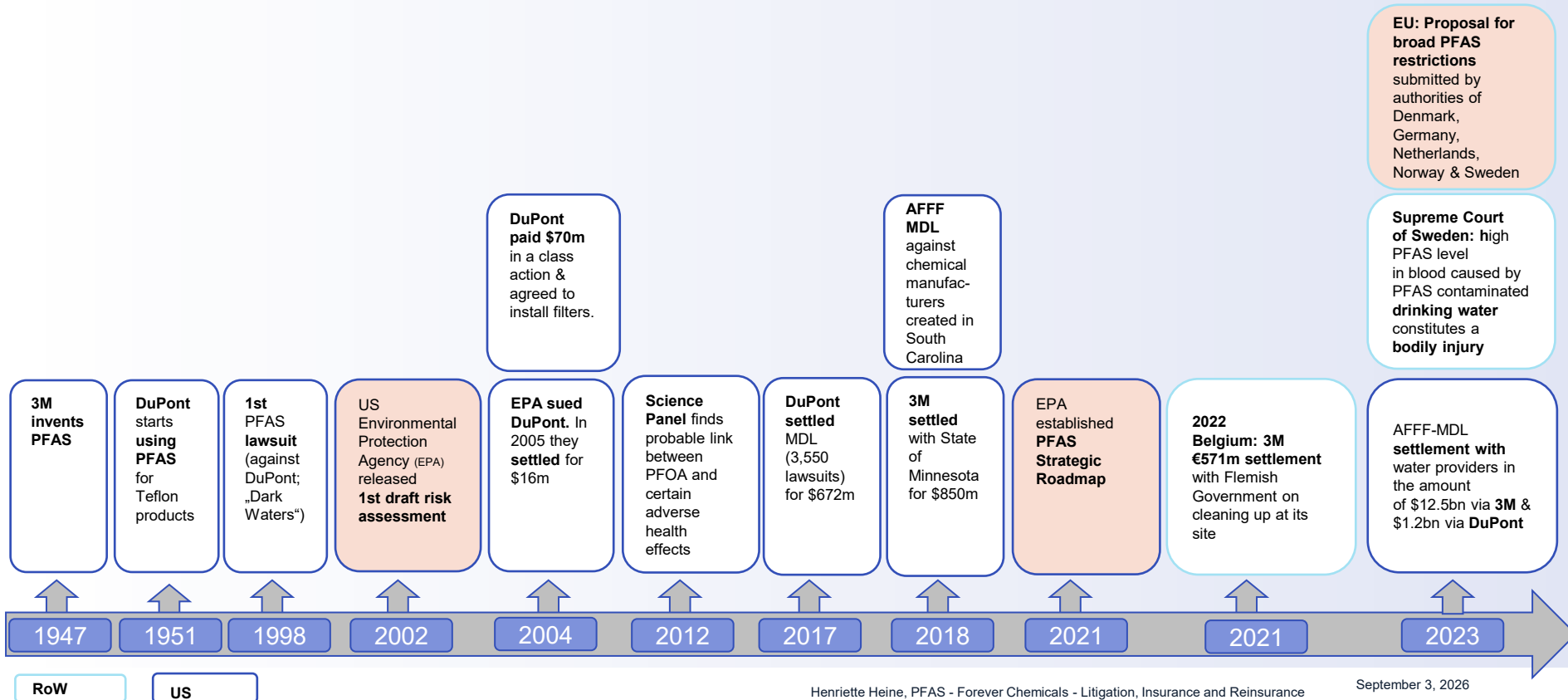
Introduction: PFAS – Essentials of the topic

Why is such an “old” topic becoming now a serious issue?



Introduction: PFAS – Essentials of the topic

Timeline PFAS Developments



Introduction: PFAS – Essentials of the topic

Timeline of PFAS Developments continued

AFFF-MDL Settlement
Carrier Global \$730m

AFFF-MDL settlement with Tyco and water providers in the amount of \$750m

AFFF-MDL settlement with BASF/Ciba and water providers in the amount of \$316m

EPA announces **Federal Drinking Water Regulation**

EPA declares **PFOA & PFOS** as hazardous substances

May 2025: Court of Vicenza recognized causal link between PFAS exposure of a worker in a chemical company and renal pelvis cancer.

May 2025: Hundreds of residents in Rhone Valley filed suit against Arkema and Daikin claiming health risks from elevated **PFAS** levels in blood.

June 20, 2025 Science Day: Presented causation experts to the MDL-Court for two diseases (liver & thyroid cancer). **Judge doubts statistical link** for liver & thyroid cancer.

08/25: ECHA (European Chemicals Agency) published updated proposal

Next steps: ECHA aims to complete scientific evaluation by the end of 2026.

09/25: US administration: Federal Drinking Water Standards:

Retain Maximum Contamination Levels für PFOA & PFOS
Rescind MCL for PFHxs, PFNA, Gen-X, PFBS

Hazardous Substances:

Unchanged – But will Trump EPA enforce?

August: DuPont settled with the State of New Jersey for an overall amount of \$2.5bn. It's the largest environmental settlement ever achieved by single state.

October, 2025 First bellwether trial in respect of bodily injury
Potential shift of focus from Water Provider Claims to Personal Injury Claims - POSTPONED

2024

2025Q2

2025Q3

2025Q4

RoW

US

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Associated Health Effects

Adverse Health Effects – EPA

According to the EPA (US Environmental Protection Agency), the following adverse health effects might occur:

- Reproductive effects such as decreased fertility or increased high blood pressure in pregnant women.
- Developmental effects or delays in children, including low birth weight, accelerated puberty, bone variations, or behavioral changes.
- Increased risk of some cancers, including prostate, kidney, and testicular cancers.
- Reduced ability of the body's immune system to fight infections, including reduced vaccine response.
- Interference with the body's natural hormones.
- Increased cholesterol levels and/or risk of obesity.

Linked Diseases – C8-Study

Plaintiffs alleging the following diseases have been selected for the first bellwether trial within in AFFF MDL:

- Kidney Cancer
 - Testicular Cancer
 - Thyroid Disease
 - Ulcerative Colitis
-
- Linked diseases: based on a science panel's determination that there is a „probable link“ between PFAS exposure and these diseases.

Introduction: PFAS – Essentials of the topic

Regulatory Developments – US-Focus



Federal Drinking Water Standard

- April 2024, EPA announced final National Primary Drinking Water Regulation (NPDWR)
- Regulation establishes for the first time legally enforceable levels for six PFAS in drinking water (MCL: Maximum Contamination Levels).
- 4ppt for PFOA & PFOS (Coming from 70ppt in 2016)
- The NPDWR requires municipal water systems to monitor and remediate these types of PFAS compounds.
- **UPDATE 09/25:**
EPA moved to vacate the NPDWR for certain PFAS compounds (PFHxS, PFNA, Gen-X, PFBS).
MCL's for PFOA & PFOS unchanged (4ppt)
EPA has extended the compliance deadline from 2029 to 2031.

PFOA & PFOS as Hazardous Substances under CERCLA

- 04/2024: EPA officially declared two forever chemicals (PFOA & PFOS) to be hazardous substances under federal law.
- CERCLA establishes liability for owners where hazardous substances were released or discharged.
- Under CERCLA, governmental entities and others can sue for contributions to cleanups or to recover costs regarding remediation efforts.
- **UPDATE 09/2025:**
EPA confirmed that PFOA & PFOS remain designated as hazardous substances
- **UPDATE 08/2026:**
U.S. Court of Appeals for the D.C. Circuit upheld the 2024 EPA designation of PFOA & PFOS as hazardous substances.

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Regulatory Developments – US-Focus



Summary

- Federal Regulations: Regulatory landscape in transition.
- Softening likely, but no complete reversal
- States might fill the new federal gap – States will likely take over the MCL's - States might become more important



Introduction: PFAS – Essentials of the topic

Regulatory Developments – EU-Focus



Stockholm Convention/POP Regulation

- Goal: eliminating certain persistent organic pollutants (POPs)
- Stockholm Convention came into force in 2004 and has been ratified by 186 countries.
- Various PFAS compounds are listed under the Stockholm Convention (e.g., PFOS, PFOA, PFHxS) – it's an ongoing process
- POPs under the convention are subject to bans/restrictions

EU – Drinking Water Directive (2020/2184)

- 0,1 µg/l for the sum of 20 specified PFAS compounds & 0,5 µg/l for the total concentration of all PFAS.
- EU Member States must comply with the new limits by January 12, 2026.
- Water providers are obliged to monitor drinking water for PFAS, including a duty to act if levels are exceeded.
- 2028: Limit of 0,02 µg/l will be applied to four specific PFAS: PFOA, PFNA, PFHxS, and PFOS.

EU – REACH (Registration, Evaluation, Authorisation & Restriction of Chemicals)

- REACH differentiates between restriction (use of chemical is prohibited) and listing in the “substance of very high concern” group (those chemicals are still manufactured and used).
- PFOS, PFOA, C9-C14 PFCAs, PFHxS restricted in production and use.
- Other PFAS substances (e.g., GenX) are part of list of “Substances of Very High Concern”.
- REACH has an extra-territorial effect.

EU – Proposal PFAS Restrictions

- 2023: initiative of five countries proposing significant restrictions (manufacturing, marketing, use); “Essential Use” – out of scope (health, safety, function of society)
- A ban would require products to be reformulated or discontinued in case replacement substances are not available.

Introduction: PFAS – Essentials of the topic

Regulatory Developments – Other parts of the world

UK

- The regulatory position in respect of PFAS in the UK broadly mirrors that of the EU.
- Kind of replication of the EU REACH regulations – introduced after UK's exit from the EU
- Responsible for REACH UK: Health & Safety Executive (HSE)
- 02/2026: 1st comprehensive PFAS plan (monitoring, stricter controls, upcoming statutory drinking water limits)

Australia

- PFAS National Environmental Management Plan (PFAS NEMP): national guide for PFAS management
- As of July 2025: strict ban of PFOA, PFOS, PFHxS
- Drinking Water Standards: Updated 2025 guidelines from the NHMRC set specific maximum levels for PFAS in water (e.g., 8 ng/L for PFOS).

Asia

- Influence of the Stockholm Convention
- Japan, South Korea, China: Leading countries
- Japan: strictest regulations in Asia so far
- In general: Great influence of the Stockholm Convention and mirroring approached taken in the U.S. and EU.

Latin America

- Fragmented, but evolving – Stockholm Convention as a leading principle.
- Brazil: leading country in respect of a national bill establishing comprehensive control

PFAS – Underlying Litigation

02





AFFF MDL South Carolina

Overview

- AFFF lawsuits bundled in MDL since 2018. Plaintiffs sue dozens of chemical manufacturers and others for damages caused arising out of Aqueous Film Fighting Foams (AFFF).
- Plaintiffs: Individuals, incl. firefighters, municipalities, water providers, State Attorneys
- Legal theory of Liability: Failure to warn, negligence, public nuisance....
- Settlements with some water providers and key defendants.



Bodily Injury Cases

➤ **Track 1: Kidney Cancer & Testicular Cancer**

Parties continue global settlement discussions; mediations took place.

➤ **Track 2: Thyroid Disease & Ulcerative Colitis**

Fact discovery complete.

➤ **Track 3: Thyroid Cancer & Liver Cancer**

Weak evidence linking these diseases to PFAS exposure (Science Day); Daubert Motion process initiated & ongoing



What else



➤ **Product ID**

Judge Gergel selected 12 airports or fire training sites for discovery.

- (1) Determining liabilities of non-settled defendants of water provider claims with smaller shares of PFAS liability
- (2) Exploring potential basis for “soil contamination” bellwether track to resolve claims brought by municipalities

➤ **Water Provider Opt-Out**

No longer part of the MDL: Water Provider which opted out of MDL settlement; trials continue before State Courts.

PFAS – Underlying Litigation

Notable Mentions out of the Thousands of PFAS lawsuits



Consumer Products

- Broad variety of products that contain PFAS compounds (textiles, cosmetics, food packages, etc.)
- So far, the focus has been on misrepresentation in marketing statements and/or consumer protection issues.

Firefighter Turnout Gear

- 06/2024, District of Connecticut: Uniformed Professional Fire Fighters Association (UPFFA) together with individual fire fighters, filed a class action alleging the exposure to harmful levels of toxic PFAS present in their protective equipment.
- Defendants: companies involved in the design, manufacture, sale & distribution of equipment or the chemicals used in the gear.
- 05/2026: City of Rochester, Minnesota tries to centralize five turnout gear lawsuits into MDL: (1) common allegations across defendants that the gear releases PFAS into firefighter`s bodies and facilities, causing injury/contamination; (2) common defendants; (3) efficiency and consistency

PFAS – Underlying Litigation

Notable Mentions out of the Thousands of PFAS lawsuits



Sludge

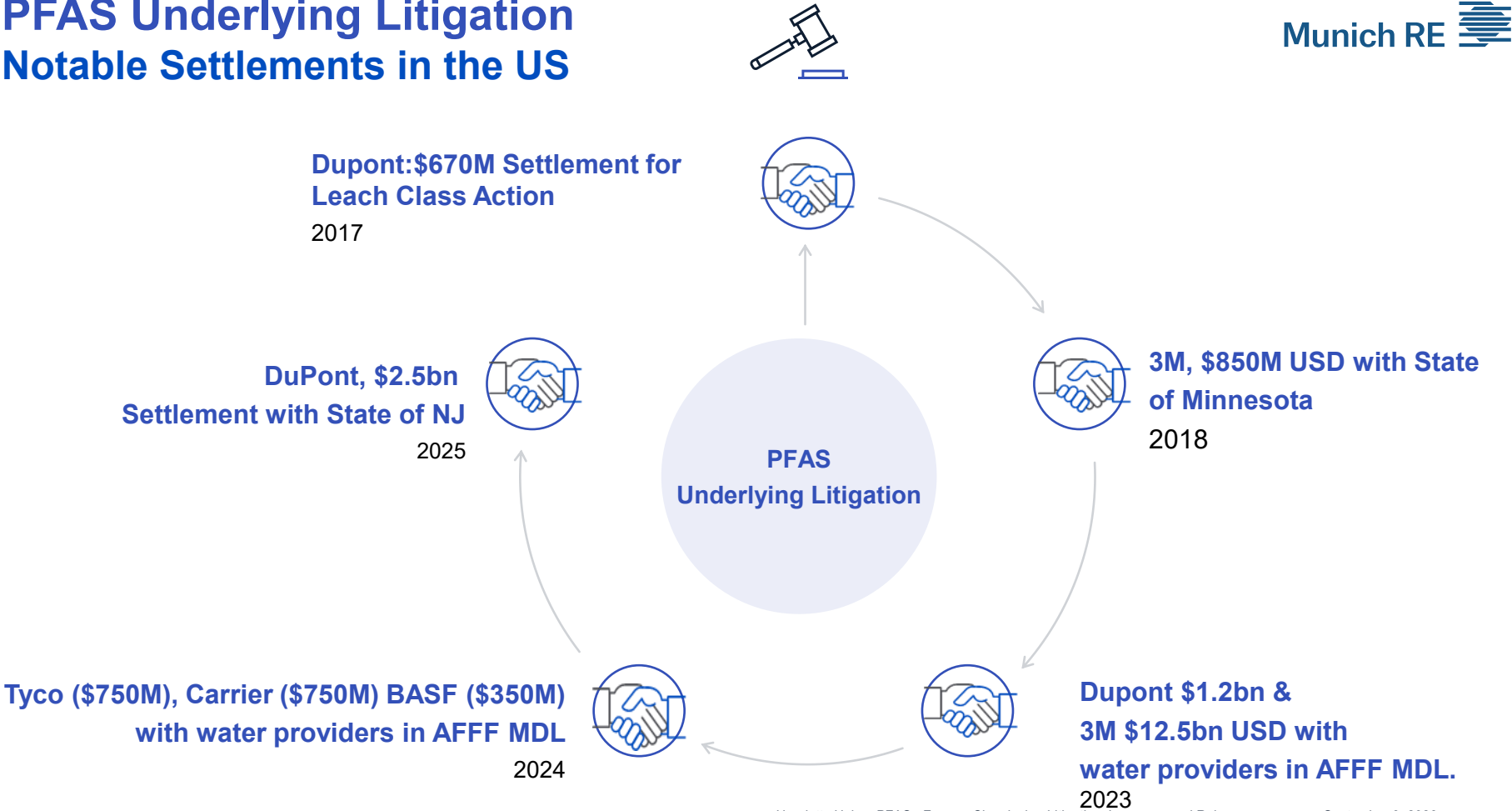
- Farmers against sludge companies because of contamination of U.S. farmlands by PFAS containing sludge.
- 02/2024: Farmer vs. Synagro Tech. – farmers seek to hold Synagro accountable for PFAS contents in its biosolid-based fertilizer.
- Synagro uses biosolids from wastewater facilities (“sewage sludge”).

State Attorney General Cases (outside the AFFF MDL)

- PFAS contamination to natural resources
- Various litigation pending through the U.S., in particular in states where there have been PFAS related manufacturing sites (New Jersey, South Carolina, Vermont, etc.)
- Allegations include discharge of PFAS at defendants’ facilities (manufacturers as well as companies which utilize PFAS in their operations).
- Claims are based on (gross) negligence, public nuisance, strict liability, trespass, violation of environmental law.
- Damages claimed: monetary damages, injunctive relief, civil penalties, testing programs, public information.
- 08/2025: DuPont settled with the State of New Jersey for an overall amount of \$2,5bn.
\$750m: abatement projects such as drinking water treatment, natural resources damages
\$1,2bn: remediation fund

PFAS Underlying Litigation

Notable Settlements in the US





More and More Litigation also in Europe



2023: Kallinge Decision by Swedish Supreme Court
PFAS in blood is bodily injury



2025: Miteni Decision in Italy. Worker in Miteni plant's
injury (cancer) caused by PFAS exposure at workplace



2025: Law suits filed by residents of „chemical valley“
against Arkema and Daikin for compensation of harm



Rastatt, South West Germany: Law suits by residents,
farmers and water provider against compost company



Law suits against 3M, by residents and Dutch government,
contamination from 3M's Belgian plant

PFAS – Potential Coverage Aspects

03



Potential Coverage Aspects

Trigger



Damages



Pollution
exclusion



Known/Expected
& Intended



Public Nuisance



PFAS Exclusions





Trigger

- Integrated Occurrence (Bermuda Form) & batch clauses
- Occurrence: PFAS exposure for decades
- Claims Made: When first made in writing?
- Over the years/decades: multiple triggers can be in play
- Allocation & Aggregation



Public Nuisance

- Some of the governmental entity claims are based on public nuisance theories of liability.
- Coverage could depend on the question whether costs can be qualified as „clean-up“ of past existing harm or whether just for remedial preventative measures.



Fortuity Defenses

- Sudden & unforeseen?
- Expected/intended exclusion



PFAS Exclusion

- Work in progress: PFAS exclusions are developing over the years.
- Variety of exclusions: from excluding only specific PFAS compounds (PFOA & PFOS) to all PFAS and PFAS successor products such as GenX.

- US-PE generally in policies since the 1970s, evolution over the decades
- Bermuda-Form: Strict PE – write-back for end-products
- RoW: Gradual pollution should generally be excluded.
- **Key Rulings (U.S.)**
 - ✓ PFAS is a “pollutant”: *Tonoga vs. New Hampshire Ins. Co.*, N.Y. appellate court: PFAS is a “pollutant”; no ambiguity even though PFAS was not understood as harmful when policy issued.
 - ✓ Several courts have held that while the PE may apply to environmental claims, it may not apply to claims for bodily injury arising out of direct exposure to a PFAS-containing product. PE applies to environmental contamination, but not “direct” exposure alleged by firefighter:
 - ✓ “Sudden and accidental” discharge exception:

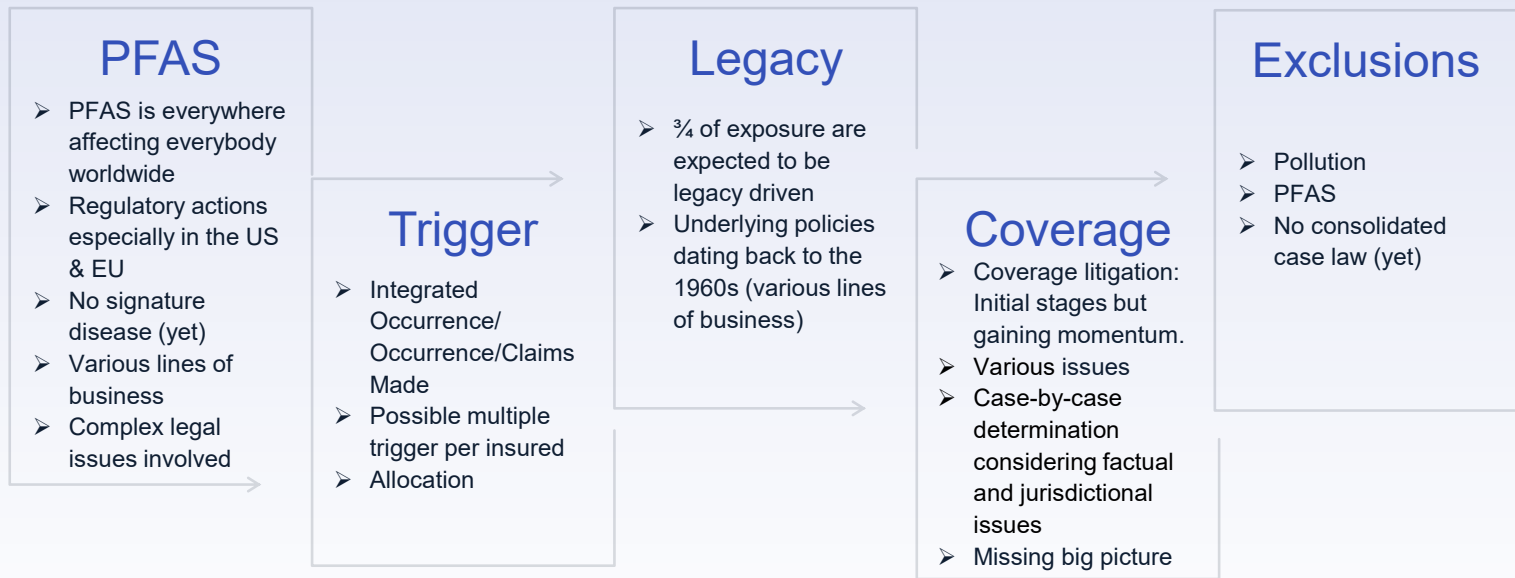
Wolverine vs. The American Ins. Co. (Michigan 2021): Duty to defend where non-intentional discharge possible.

Tonoga: Exception does not apply to discharge over years

PFAS – Challenges for (Re)-Insurers

04







AFFF Litigation

- Most advanced litigation/largest (MDL South Carolina)
- Majority of notified losses belong to this group.



Product related claims – other than AFFF

- Broad variety of products that contain PFAS compounds (textiles, cosmetics, food packages etc.).
- So far, the focus has been on misrepresentation in marketing statements/consumer protection issues.
- Less developed claim group



Environmental Claims

- Mainly arise out of PFAS contamination (soil/water) in the vicinity of landfills, airports, military premises, plant (manufacturer) premises.
- 2nd largest group of claims so far.



To be aware of

- Due to multiple involvements of insureds in different proceedings, there are overlaps between these three groups
- PFAS related claims across all these three groups might trigger multiple policy years, multiple policy types: the challenge of allocation & aggregation

PFAS – Conclusion & Outlook

05



Liability

- PFAS being everywhere makes it difficult to create individual consumer cases (causation/multiple sources).
- Increased regulation with stricter standards for PFAS levels being legally enforceable – causation might be easier to overcome.
- Contaminated (drinking) water as the probably biggest concern.
- Even if the majority of (consumer) claims will fail in the end, defence costs might be a factor.

Coverage

- Legacy exposure – difficult to evaluate
- Various coverage arguments are being discussed, e.g. pollution exclusions implemented to the general liability policies since the 1980s, PFAS exclusions, allocation/aggregation, damages etc.
- Coverage arbitration/litigation is in its early stages.
- Shaping of PFAS coverage landscape is a process for years to come.

Case-by-case determination considering factual and jurisdictional issues.



AI generated

Scientific Developments

- More PFAS compounds analysed
- More certainty regarding linked diseases/more linked diseases

Regulatory Developments

- Intensified regulation worldwide with stricter standards for PFAS levels
- Increased remediation efforts & costs
- Increased legal activities

Settlement Developments

- Benchmark for future settlements
- More plaintiffs might be encouraged to file legal actions

Court Decisions

- Decision regarding bodily injury claims
- Decision regarding fire fighter protective gear
- Court decisions can create an environment of uncertainty
- More plaintiffs might be encouraged to file legal actions

Coverage

- Pending Coverage arbitration/litigation

Changes
might impact
claims
frequency &
severity

Emerging Risks – Outlook

06





What will be the next
“hot topic”?

....

Data Center

Public Nuisance

Addictiveness, such as
Gambling, Gaming

....

Thank you for your attention!