

PFAS: EU and BE strategy

09/06/2021

Overview

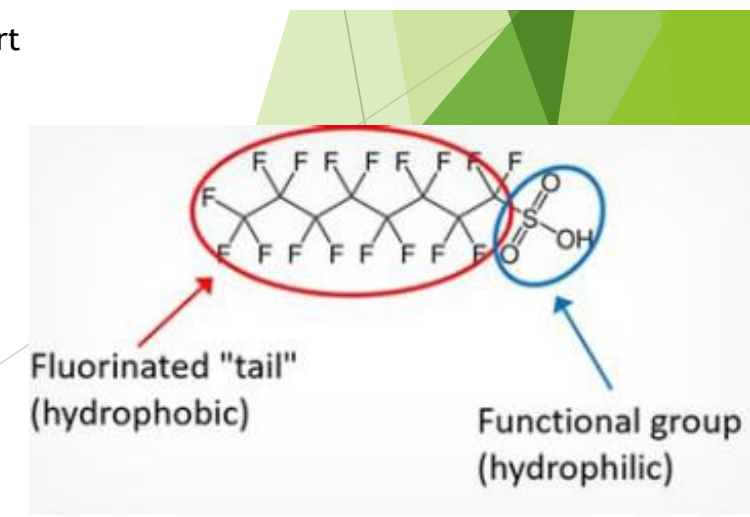
- ▶ What are PFAS?
 - ▶ Environmental fate and exposure
 - ▶ Hazards
 - ▶ PFAS in BE
- ▶ Regulatory actions
 - ▶ EU
 - ▶ CSS PFAS strategy
 - ▶ REACH restrictions
 - ▶ BE
 - ▶ CCIEP stakeholder group
 - ▶ Parliamentary resolution proposal
 - ▶ Flanders PFAS action plan

What are PFAS?

- ▶ PFAS = Per- and Polyfluoroalkyl substances
 - ▶ Very diverse group of substances (4730 plus substances)
 - ▶ Characterized by C-F bond
- ▶ Water and grease repellent characteristics
- ▶ Stability and thermo resistance
- ▶ Used for a wide variety of products:
 - ▶ Firefighting foam
 - ▶ Textile treatment
 - ▶ Food contact materials
 - ▶ Coatings
 - ▶ Construction articles
 - ▶ Electronics
 - ▶ ...

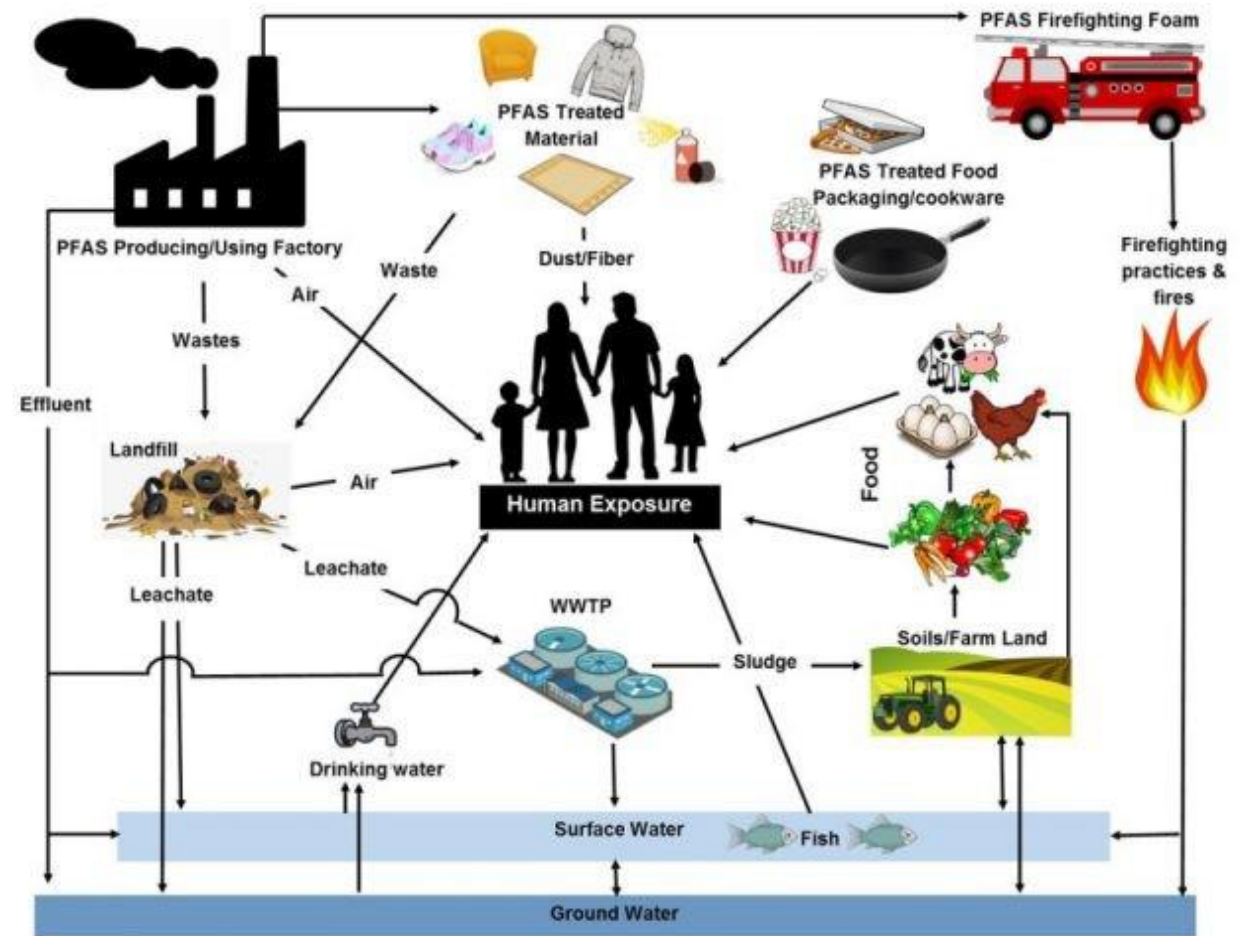


Source: OECD draft terminology report



Environmental fate and exposure of PFAS

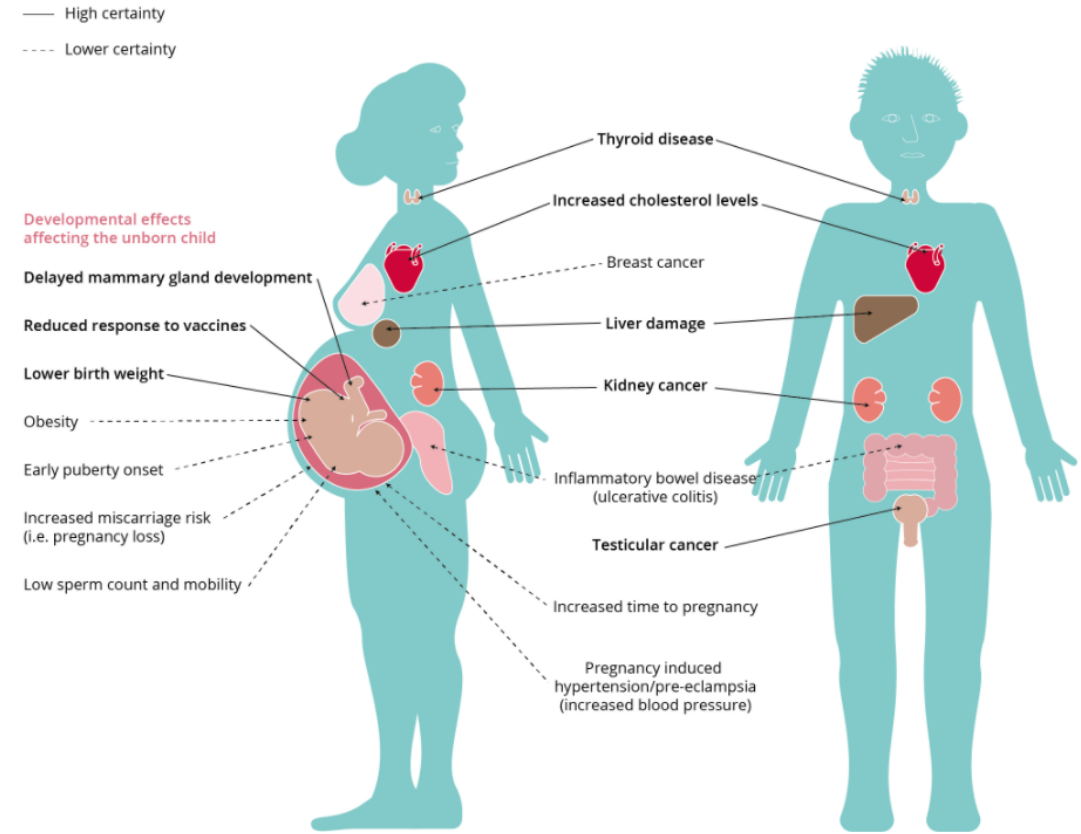
- ▶ C-F bond is extremely persistent in the environment
 - ▶ Irreversible environmental contamination
 - ▶ Very hard to remove from water, soil and air
- ▶ Widespread use in consumer products (textiles, food contact materials, cosmetics)
- ▶ Landfill leachate



Human Exposure and sources of PFAS
Image: DWP, adapted from Oliaei et al. 2013.

PFAS Hazards

- ▶ Major health concerns defined for some PFAS are:
 - ▶ Endocrine disrupting effects
 - ▶ Carcinogenicity
 - ▶ Toxicity to reproduction
 - ▶ Effects on immune system
 - ▶ link with COVID vaccine efficiency!
 - ▶ ...
- ▶ Lot of knowledge gaps!
 - ▶ Impossible to fill in all gaps in a reasonable time



Sources: US National Toxicology Program, (2016); C8 Health Project Reports, (2012); WHO IARC, (2017); Barry et al., (2013); Fenton et al., (2009); and White et al., (2011).

PFAS in Belgium

- ▶ Large amounts of legacy contamination (3M site Zwijndrecht, Antwerp, Fire fighting exercise grounds, ...)
- ▶ Widespread contamination in water, soil and biota
 - ▶ OVAM/VITO: Presence in soil near contamination sites
 - ▶ VMM/BIODIEN: Presence in aquatic biota (eel, perch, mussels)
 - ▶ Groffen et al., 2017: Highest PFAS levels in feathers ever measured
- ▶ Widespread presence in BE population
 - ▶ dOMG: Human Biomonitoring studies
 - ▶ Dufour et al., 2018: Thyroid function in newborns and mothers

Oosterweel graaft in chemisch vervuilde grond

VERONTREINIGING Door de graafwerken voor de Oosterweelverbinding dreigt overal in Vlaanderen verontreinigde grond terecht te komen, waarschuwen milieu-organisaties. De grond bevat de chemische stof PFOS, nauwelijks afbreekbaar en mogelijk niet zonder gevaar voor de gezondheid.

Source: De Standaard

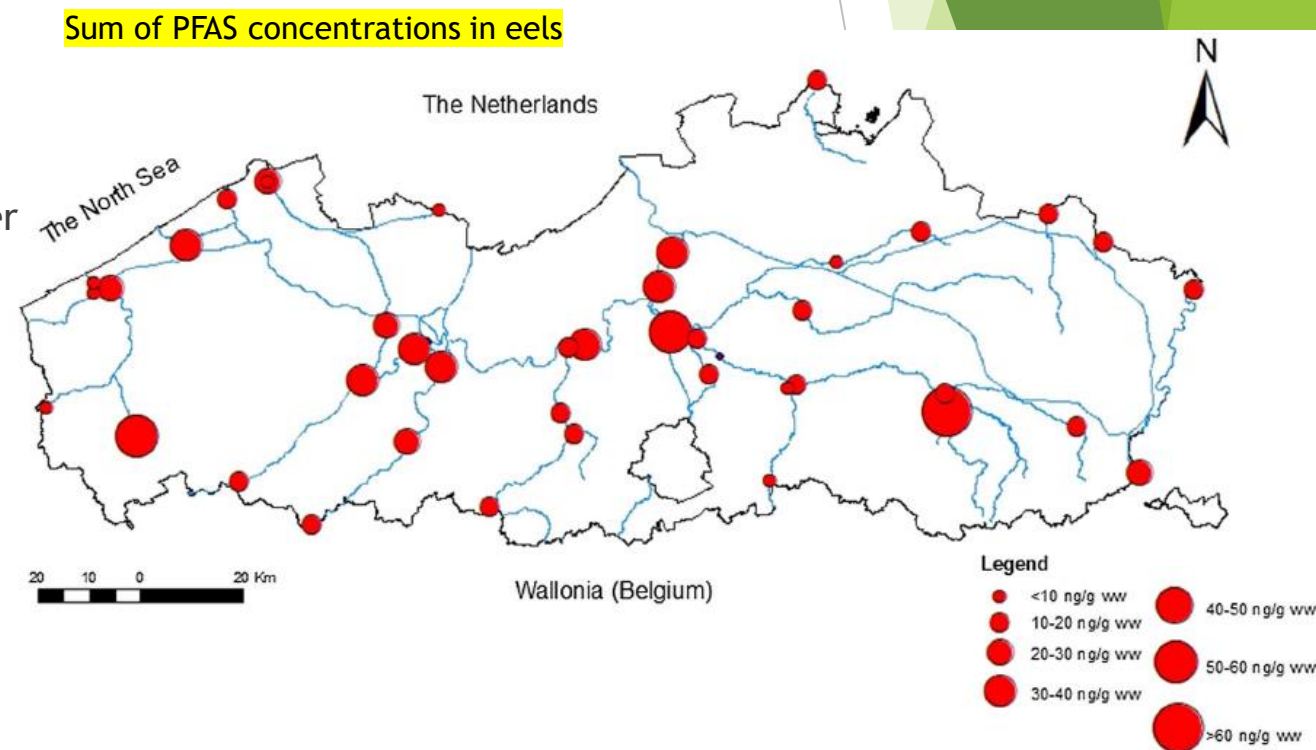


Fig. 2 Sum of PFAS concentrations measured in eel muscle tissue in Flanders (Belgium). Increased size of the circles indicates higher accumulated concentrations (ng/g ww)

EU and international actions

EU and other international actions

- ▶ 2012: ICCM3 identifies PFAS as **emerging policy issue**
- ▶ 2007: REACH: registrations, evaluations, restrictions,...
- ▶ 2008: CLP: classification and labeling
- ▶ 2016-2019: Development of **arrowhead (grouping) approach**
- ▶ 2019: 10 MS - **Elements for EU-strategy PFASs (Large BE contribution and CIMES approval)**
 - ▶ **Counsel and Parliament approval**
- ▶ 2020: Green Deal - **Chemical Strategy for Sustainability (CSS): EU-wide PFAS strategy**
- ▶ **2021: Circular economy: not easy to include PFAS!**
 - ▶ **Actors are different**
 - ▶ **(OVAM textile report short-chain comment)**
- ▶ **EU ecolabel (look at cabinet answer [REDACTED])**
- ▶ **PFAS included in the PRTR (IED)**
- ▶ **Climate change discussions (general restriction discussions)**
 - ▶ **As one of the additional arguments for the restriction**

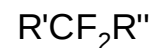
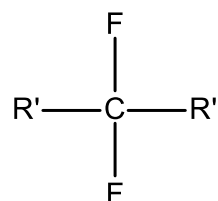
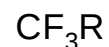
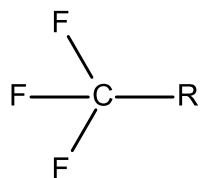
EU actions: CSS PFAS strategy

- ▶ Goal: **minimise** environmental and human exposure to PFAS, at all stages of their life cycle
- ▶ Proposed actions:
 - ▶ PFASs need to be **managed as a group**.
 - ▶ PFASs need to be **phased out** and only essential uses allowed until alternatives are available.
 - ▶ **Limit values** need to be set in different pieces of legislation.
 - ▶ Steps to ensure **effective enforcement** are needed.
 - ▶ **Environmental monitoring, awareness raising, research on alternatives, remediation and environmentally sound management of waste** are also needed



EU actions: REACH General PFAS restriction proposal

- ▶ REACH restriction proposal by 5 Member States (NL, DE, NO, SE, DK)
- ▶ Focus on the entire group of PFAS
 - ▶ “Substances that contain at least one aliphatic -CF₂- or -CF₃ element”.
 - ▶ Persistence as main common concern
 - ▶ Only “essential” uses can continue
 - ▶ Scope of restriction will depend on this discussion
- ▶ Proposal planned to be published in 2022
 - ▶ Restriction entering into force: planned for 2025



Other EU and international PFAS policy

- ▶ REACH and CLP:
 - ▶ Restrictions: C6 Siloxanes, C9-C14, PFHxA, Fire fighting foams, Textiles
 - ▶ ELOC: PFBS and GENx
 - ▶ CLP: PFOA, PFDA, PFNA, ...
- ▶ International
 - ▶ POP Regulation (Stockholm Convention): PFOS and PFOA included
 - ▶ PFHxS possibly included
 - ▶ Global Perfluorinated Chemicals Group (OECD): information gathering (reports and databases)
 - ▶ Latest report on the terminology of PFAS
- ▶ Others (**responsibility of regional and other competences**)
 - ▶ (EFSA limit: group tolerable weekly intake (TWI) of 4.4 ng/kg of body weight per week)
 - ▶ (Water Framework (WFD) and Drinking Water Directive (DWD) - 2013/39/EU and 98/83/EC)
 - ▶ (Food Contact Materials (FCM) - 2011/10/EU)
 - ▶ (Industrial emissions directive (IED) and Directive on Priority substances - 2013/39/EU and 2010/75/EU)
 - ▶ (Cosmetics, Plant protection and biocidal products, OSH, ...)
- ▶ **EU research (PARC)**

EU and International actions: BE involvement

► Involvement MRBC:

- Representing and negotiating for BE at EU and international discussions
- Implementing EU regulations in BE (CLP, REACH, food, pesticides, ...) + enforcement
 - Some aspects are managed by the regions
- Scientific expertise (CLH and substance evaluations, restrictions preparations, SVHC identification, PBT expert group, PFAS working group, ED expert group, ...)
- Information exchange and cooperation through CCIEP, BCR, CIMES
- SUP discussions
 - “Greener alternatives”

National actions

National actions: short-chain PFAS subgroup

- ▶ Double mandate: CCIEP and CIE (national EU and international)
 - ▶ Working on a report for short-chain PFAS substances
 - ▶ Experts participating in workshops and meetings on PFAS actions in Belgium (Minaraad, etc.)



Home Thema's Over de Minaraad Contact Zoeken Formulieren

Thema's > Klassiek milieubeleid > Webinar PFAS



16 okt 2020

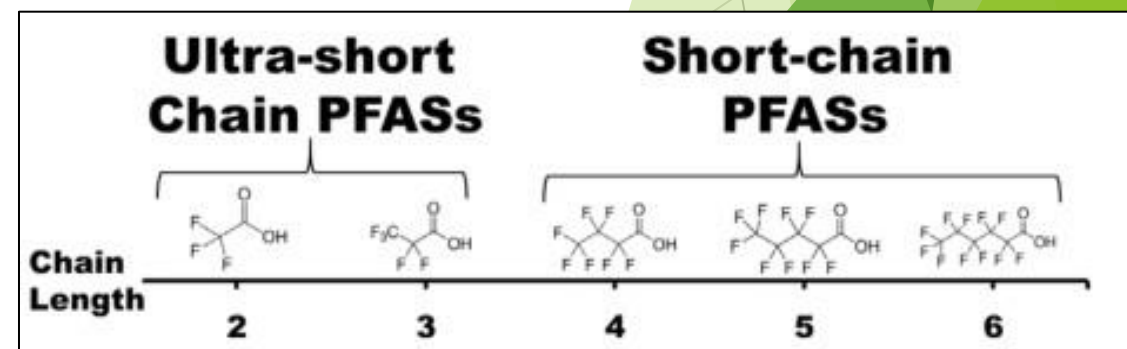
Webinar PFAS

ORIËNTATIEMOMENT KLASSIEK MILIEUBELEID

Samenvatting

Datum: 16 okt 2020
Tijd: 13:00 tot 16:00 uur

Perfluoroalkane sulfonic acids Long-chain: $n \geq 6$ Short-chain: $n < 6$ Example short-chain representative: PFBS ($n = 4$)	
Perfluoroalkyl carboxylic acids Long-chain: $n \geq 7$ Short-chain: $n < 7$ Example short-chain representatives: PFBA ($n = 3$), PFHxA ($n = 5$)	
Example of short-chain precursors 4:2 fluorotelomer alcohol ($n = 4$) 6:2 fluorotelomer alcohol ($n = 6$)	



BE actions: Parliamentary resolution proposal - 2/10/2020

- ▶ First proposal amended after remarks on competences
- ▶ “*Betreffende meer transparantie inzake de productie en het gebruik van PFAS*”
 - ▶ Government and industry have to cooperate to start **investigations and collect data**
 - ▶ **Government purchases** have to ensure that PFAS containing products, or products made using PFAS, should be excluded from purchasing
 - ▶ Infrastructure has to be built to **safely transport and expose of PFAS**
- ▶ Proposal
 - ▶ Mandatory labeling requirement
 - ▶ Obligate companies that produce PFAS to do toxicological tests
 - ▶ Obligate PFAS producing companies to make available the chemical structure of the PFAS they produce
 - ▶ Obligate PFAS producing companies to use standardized methods to detect PFAS
 - ▶ Expand the product responsibility of industry
- ▶ Furthermore
 - ▶ Start collaboration between competent authorities and industry
 - ▶ To make public register which lists PFAS containing products
 - ▶ Publish **yearly statistics** of production, import and export of PFAS products
 - ▶ **No longer purchase non-essential products containing PFAS or made using PFAS**

BE actions: Parliamentary resolution proposal - 2/10/2020

- ▶ “*Betreffende meer transparantie inzake de productie en het gebruik van PFAS*”
 - ▶ Government and industry have to cooperate to start **investigations and collect data** → **Regional competence**
 - ▶ **Government purchases** have to ensure that PFAS containing products, or products made using PFAS, should be excluded from purchasing → **Hard to check**
 - ▶ Infrastructure has to be built to **safely transport and expose of PFAS** → **expensive and technical challenges**
- ▶ Proposal
 - ▶ **Mandatory labeling requirement** → **large number of products and limited analytical methods, interesting for REACH/SCIP**
 - ▶ Obligate companies that produce PFAS to do **toxicological tests** → **already provision under REACH, could go under NAPED**
 - ▶ Obligate PFAS producing companies to make available the **chemical structure of the PFAS** they produce → **call foreseen in the Green Deal, most efficient through EU research and standardization**
 - ▶ Obligate PFAS producing companies to use **standardized methods** to detect PFAS → **no standardized methods?**
 - ▶ Expand the **product responsibility of industry** → **EPR, mostly regional competence**
- ▶ Furthermore
 - ▶ Start collaboration between competent authorities and industry
 - ▶ To make public register which lists PFAS containing products
 - ▶ Publish **yearly statistics** of production, import and export of PFAS products
 - ▶ **No longer purchase non-essential products containing PFAS** or made using PFAS

Conclusion:

- Most are covered by other (developing) acti (REACH, CLP and CSS)
- Others are regional competences
- Faster action: article 119 of REACH
→ Need for legal justifications!

Other BE actions

- ▶ Federal actions
 - ▶ Royal Decree of 11 May 1992: Food Contact Materials
 - ▶ FAVV: monitoring study on PFAS in foodstuffs
- ▶ Regional actions
 - ▶ Flanders PFAS action plan
 - ▶ OVAM/VITO: Proposed limit values for soil
 - ▶ dOMG/VITO/VMM/OVAM: (Bio)monitoring studies
 - ▶ Walloon region: BIODIEN monitoring project
 - ▶ However, regulatory action and data are lacking
- ▶ Research projects:
 - ▶ Fluorex: follow-up on the EFSA opinion
 - ▶ BELSPO proposal: link with NAPED
 - ▶ Response to parliament request
 - ▶ UA, KUL, CHU Liege, ...



Liège, le 26 juin 2018

Arrêté du gouvernement wallon allouant une subvention au Groupement d'Intérêt Scientifique wallon de Référence pour la qualité des EAUX (GISREAUX)

RECHERCHE DE PERTURBATEURS ENDOCRINIENS ET D'AUTRES SUBSTANCES D'INTÉRÊT RÉCENT DANS LES EAUX EN VUE DE LA PROTECTION DE LA SANTÉ PUBLIQUE ET DE L'ENVIRONNEMENT

PROGRAMME DE RECHERCHE « BIODIEN »

**TOETSINGSWAARDEN VOOR
PFOS EN PFOA IN BODEM EN
GRONDWATER
ONTWERP**

SAMEN MAKEN WE
MORGEN MOOIER
OVAM

WWW.OVAM.BE

In conclusion

- ▶ Action to ban the use and production of PFAS substances
- ▶ PFAS are a widespread problem that requires action on all regulatory levels (regional, federal, EU and international) to prevent further emissions and potential hazards
- ▶ Until now, BE has a strong position in EU and international discussions
- ▶ Collaboration with the regions will remain essential (good collaboration between administrations)

Thank you for your attention

