



Miljø- og
Fødevareministeriet

Overview of monitoring and risk management of PFAS in Denmark and regulatory foresight at the EU level

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Korsør case – a wake up call

- **Unexpected high levels of PFOS were found in a sewage treatment plant**
- **The source of PFOS turned out to be a former firefighting training ground area**
- **2020: Extremely high levels of PFAS were found in the blood of people who were all members of the same cow grazing association in Korsør**
- **The people in question were exposed to high levels of PFAS through the meat from the grazing cows**
- **The case in Korsør has led to a stronger focus on PFAS and the authorities now work systematically on monitoring and risk management**



Government coalition agreement, december 2022

To prevent, contain and clean up PFAS contamination concrete follow-up on the already decided national action plan must be ensured.

The Government will work towards a ban on PFAS substances at the EU level and on limiting their use in Denmark.



The Finance Act 2022-24

- **In 2022 3 mio DKK was set aside for PFAS cleaning methods.**
- **10 mio DKK in 2023 to one or more demonstration projects for cleaning up PFAS contamination to boost the development of technologies to clean up soil, ground water and drinking water.**
- **3 million DKK in 2023 and 5 million DKK in 2024 to a PFAS task force**
 - **Gather existing knowledge nationally and internationally and by end 2023 point out knowledge gaps**
 - **By the end of 2024 recommendations for a prioritized effort on PFAS contamination**
- **The Regions get 20 million DKK extra in 2023 for cleaning up contaminated land.**
- **In 2024 the proposal for Finance Act 2024 ca. 176 mio. DKK for different initiatives on environment incl. PFAS action plan**



Efforts on PFAS

- **Coordination between relevant authorities**
- **Mapping of firefighting training grounds**
- **Website containing information**
- **Stricter requirements based on health assessment**
- **Additional monitoring**
- **Injunctions on industries and landfills**
- **Control**





Monitoring and risk management



Stricter requirements include:

Sum of 4 PFAS and sum of 22 PFAS

- Soil
- Ground water
- Drinking water
- Indicative for waste water sludge

Revision of indicative limit values for industrial waste water

Revision of instructions on emissions of environmentally harmful substances from sewage treatment plants.

EU proposal to ban all non-critical uses of PFAS in the EU

EU ban on PFAS in firefighting foam

EU proposal on environmental quality standards for PFAS in surface water and ground water

Monitoring and screening

The case in Korsør started a strengthened monitoring of PFAS in e.g. drinking water, bathing waters, sea foam, streams, lakes, drain water, waste water, soil, grass, wild and farm animals.

Additional monitoring of fish and water in streams and lakes:

- **No exceedances of environmental quality standards for PFOS in biota. Concentration above the general environmental quality standards in 9 out of 27 measurements in streams.**

Screening of sea water:

- **Exceedance of quality standards in 8 out of 20 measurements in the North Sea.**



Ground water and drinking water

Additional monitoring of ground water:

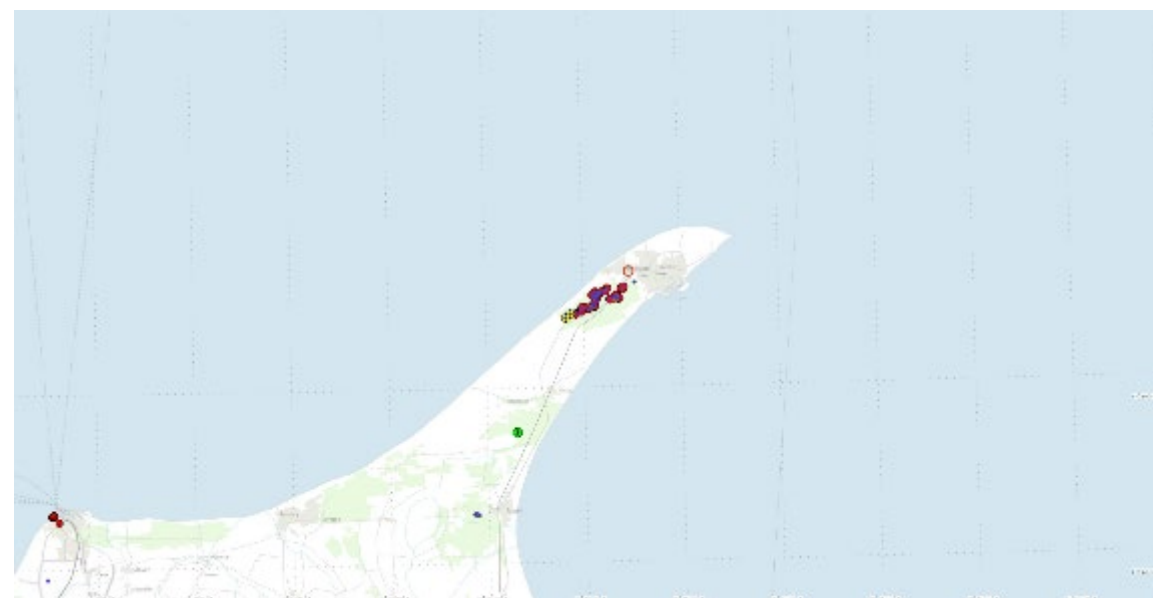
- In 0,3 % of the drillings the required value for sum of 12 PFAS is exceeded, in 5,8 % the low limit value for the sum of 4 PFAS is exceeded (not used for drinking water).

Latest status for drinking water control:

- Exceedings of the limit value for 4 PFAS at 3 public water supplies – they now receive emergency-supply are from other drinking water plants.

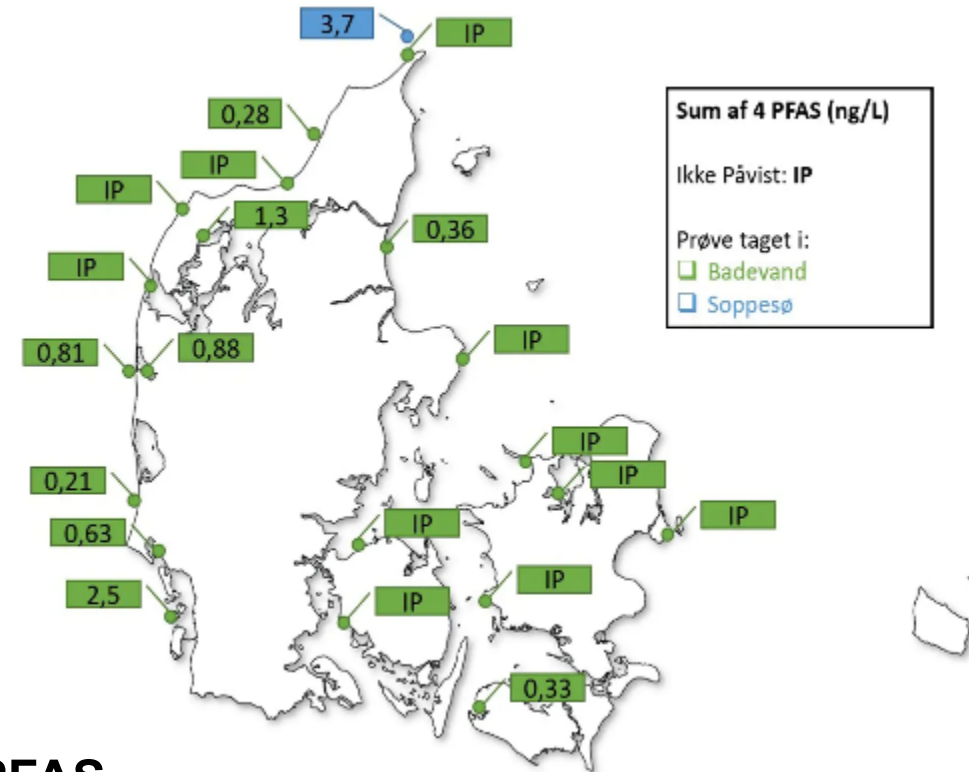
Case: Drinking water wells in coastal areas

- Skagen now gets water from Frederikshavn.
- Fanø is using new treatment of drinking water.



Screening of bathing waters and sea foam

- PFAS in bathing waters are below the quality standard of 40 ng/l.
- Sea foam can contain high concentrations of PFAS - contact is advised against.
- Collection of game and grass sample:
 - Calculations by The Danish Veterinary and Food Administration 60 out of 67 grass samples from coastal areas exceeds the indicator value.
 - Farmers are only allowed to sell grazing cattle for human consumption if the blood test shows a PFAS content below the indicator value.
- Risk assessment of waste water sludge in relation to PFAS
 - The regions have been examined and it is estimated that approx. 16,000 sites is at risk of PFAS contamination based on use



Kilde: Miljøstyrelsen

Injunctions

- **Injunctions have been issued to landfills and companies where the Danish EPA is the supervisory authority, following the discovery of PFAS contamination.**

Control and enforcement

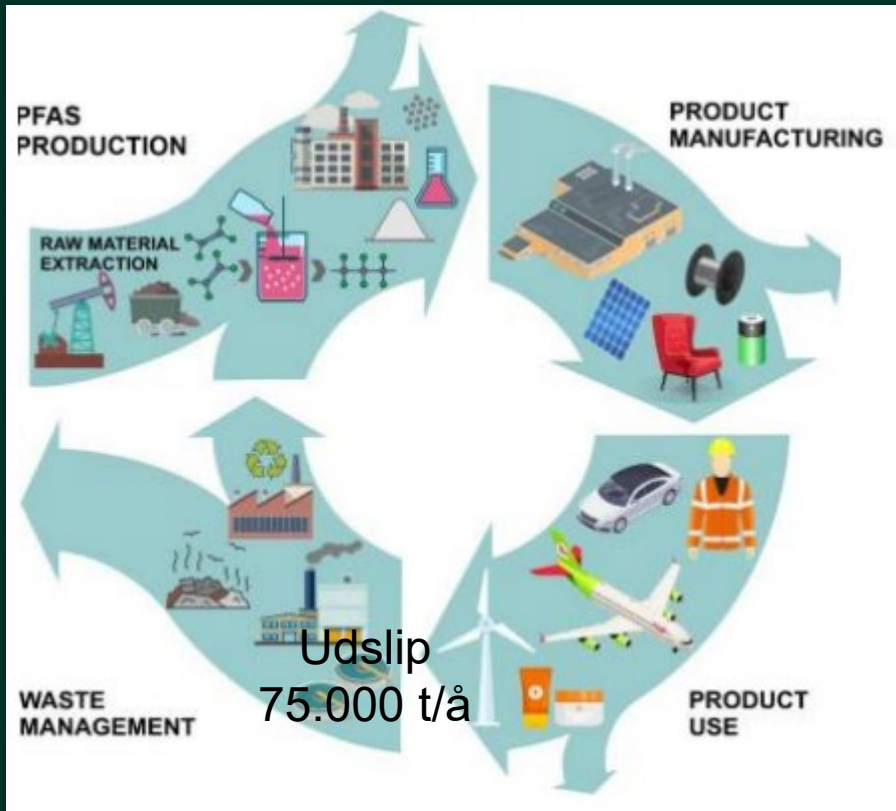
- **The Chemical Inspektion Service carries out risk-based control of illegal PFAS.**



Kilde: Pixabay



EU bans and national regulation



Wide-reaching EU ban

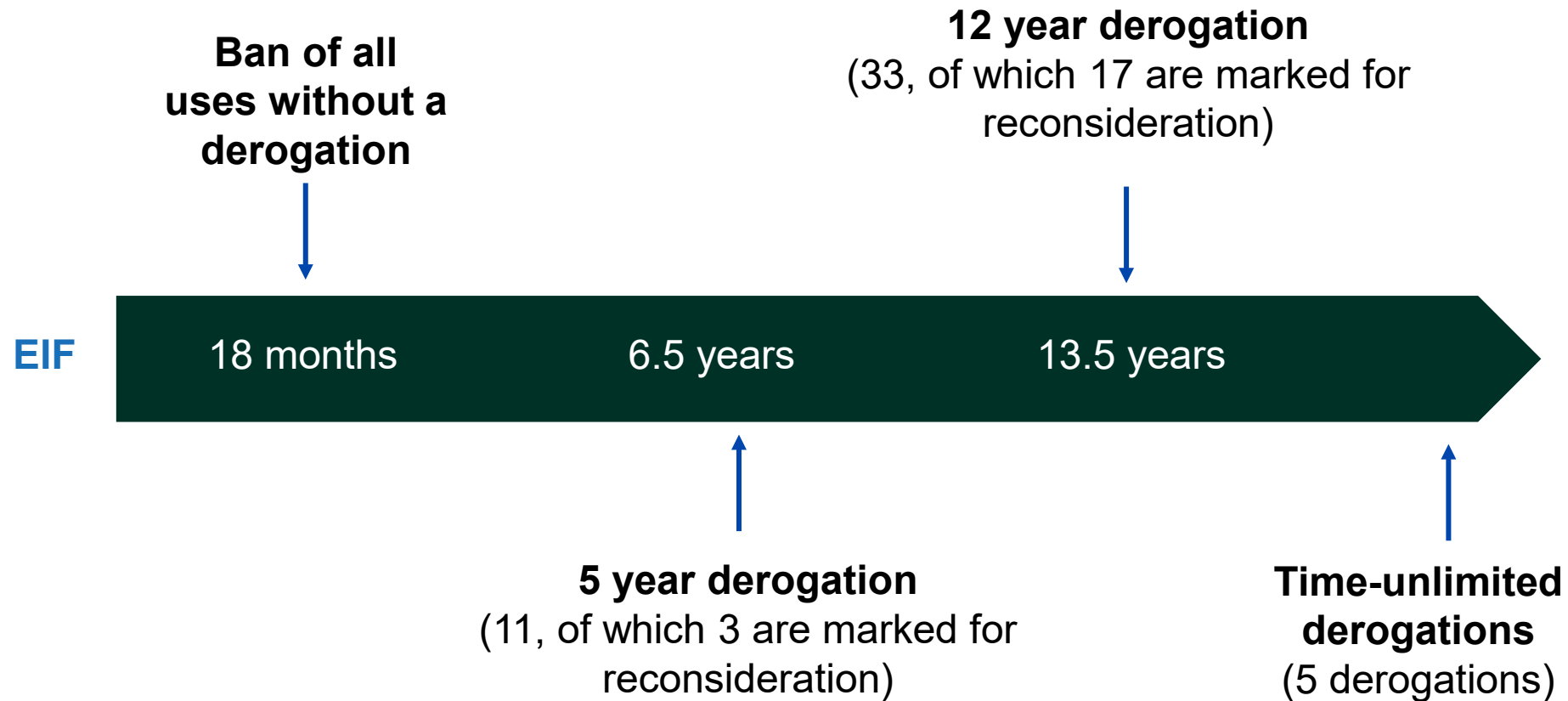
- EU proposal submitted January 2023 by DE, NL, SE, DK, NO
- Now in consultation process – examined by scientific committees
- Possible adoption 2025 – ban from 2026/27

Temporary national regulation

- Firefighting on training grounds
- Danish regulation has been notified to EU
- Enters into force January 1st 2024
- Other possibilities of limiting their use i Denmark is looked at

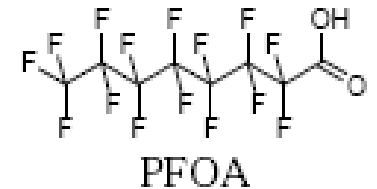


Phase-out timelines



Conclusions

- **Wake up call by Korsør –extensive PFAS surveys and monitoring**
- **PFAS are found in almost every place where screenings are carried out, including:**
 - **in streams, sea water and foam, waste water sludge, grass and farm animals.**
- **New limit or indicator values in place for PFAS in the environment**
- **EU restriction dossier generally banning PFAS with time limited exemptions**
 - **Will reduce 96% of 4.5 million tons of PFAS emitted over the next 30 years if no restrictions are made**
- **National restrictions of use of PFAS**
- **The Ministry of Environment, Ministry of Food and Ministry of Health works in a PFAS action plan in accordance with the Government Coalition Agreement.**



Kilde: Miljøstyrelsen