

Interreg
Baltic Sea Region



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SUSTAINABLE WATERS

EMPEREST

PFAS risk assessment: EMPEREST solution

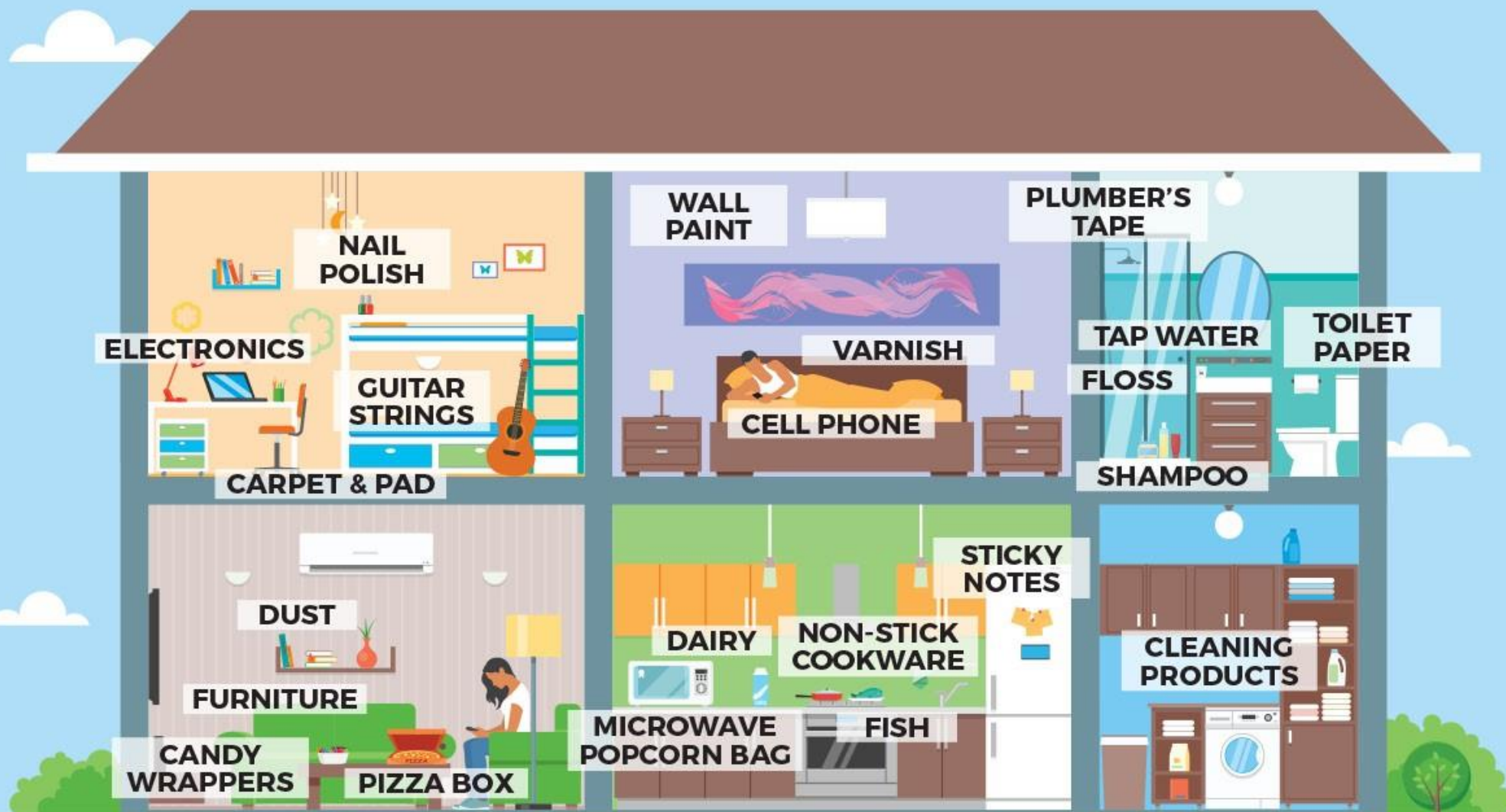
Rīga | 10 October 2024

Kamila Gruškeviča, Riga city/Riga Technical University

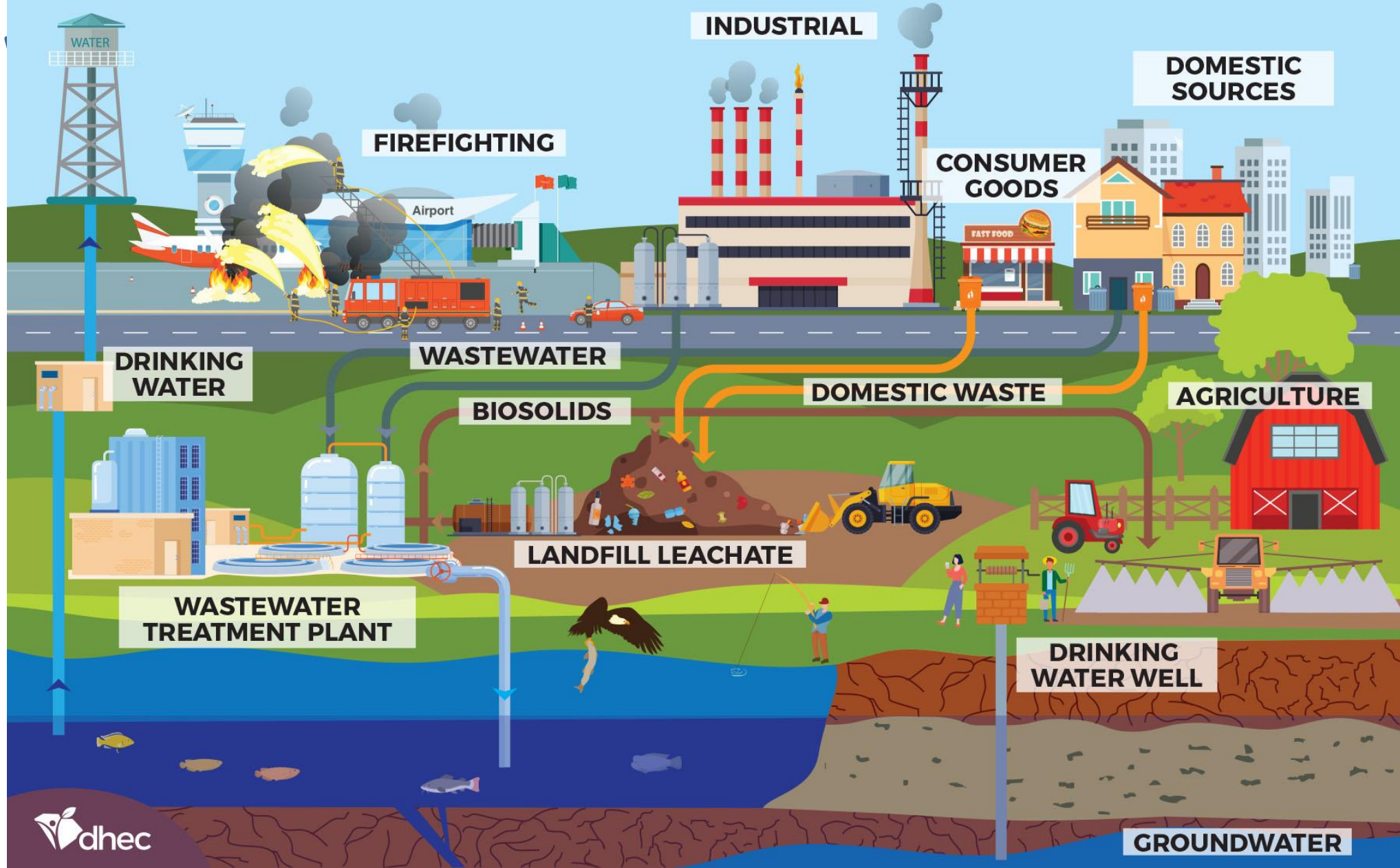
interreg-baltic.eu/project/emperest



PFAS SOURCES IN THE HOME



PFAS SOURCES IN THE ENVIRONMENT



How PFAS

Sampling



How do we know if we have PFAS in our environment?

Risk assessment

Sampling



Identify risks

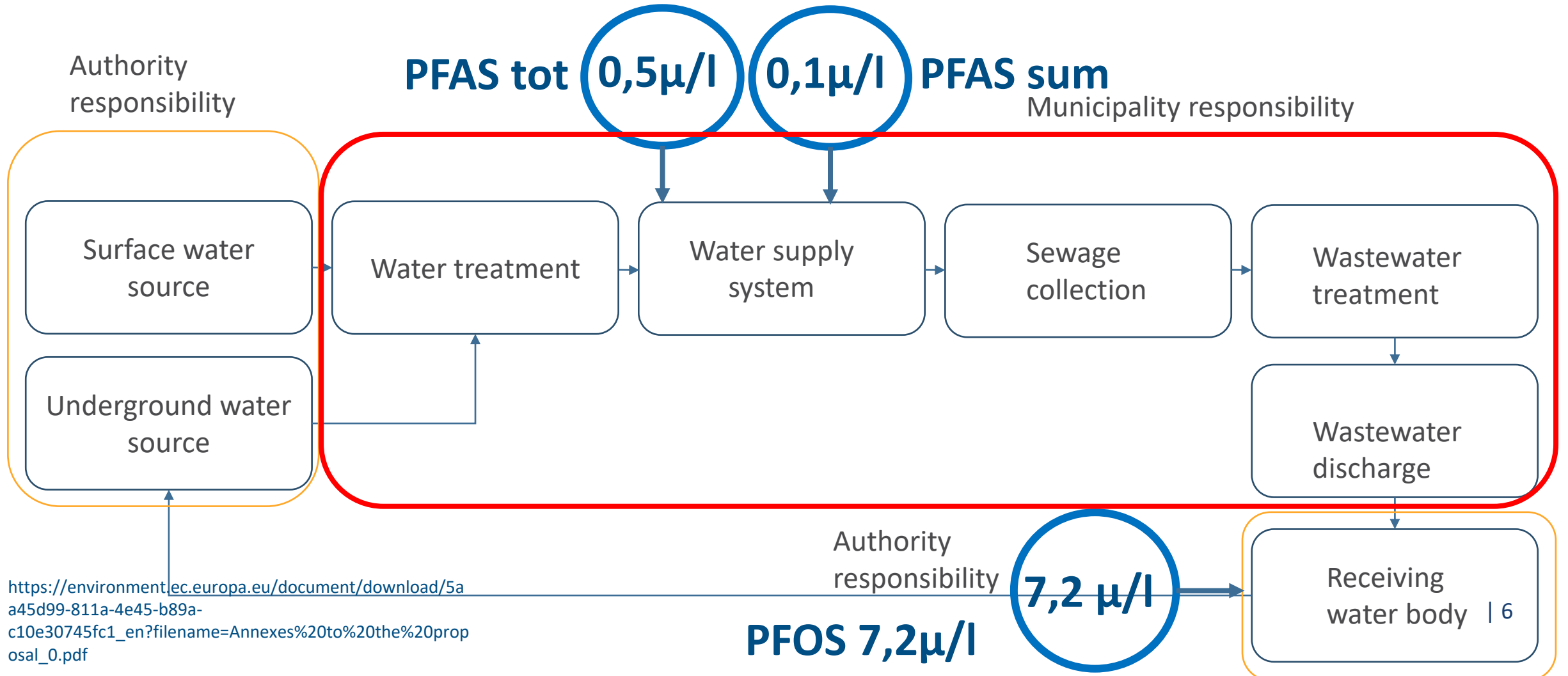


Sampling



EMPEREST project 02.2

Sustainable water management cycle stages



Draft framework for local PFAS risk assessment plan

EMPEREST – ELIMINATING MICRO-POLLUTANTS FROM EFFLUENTS
FOR REUSE STRATEGIES

City of Riga, 2024

- 5 municipalities completed risk assessment plans

Risk assessment plan

1. Know your stakeholders
2. Know your water sources
3. Do you have significant pollution sources?
4. Know your wastewaters
5. Potential largest PFAS producers
6. PFAS in water sources and drinking water (results)
7. Largest fluoropolymer producing facilities
8. Wells, voluntary firefighters, WWTP sludge use

21.2	Manufacture of pharmaceutical preparations
22	Manufacture of rubber and plastic products
23.3	Manufacture of clay building materials
23.5	Manufacture of cement, lime and plaster
23.6	Manufacture of articles of concrete, cement and plaster
24	Manufacture of basic metals
25	Manufacture of fabricated metal products, except machinery and equipment
26	Manufacture of computer, electronic and optical products
27	Manufacture of electrical equipment
28.25	Manufacture of non-domestic cooling and ventilation equipment
29	Manufacture of motor vehicles, trailers and semi-trailers
30	Manufacture of other transport equipment
31	Manufacture of furniture
32.5	Manufacture of medical and dental instruments and supplies
32.99	Other manufacturing n.e.c.
D	ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY
35.11	Production of electricity
E	WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES
37	Sewerage
38	Waste collection, treatment and disposal activities; materials recovery



The questions for the Talk Show

- What motivated you to do risk assessment?
- Who did you collaborate with?
- How much time did it take to complete the entire document?
- What was the most difficult question?
- What do you think is the biggest PFAS risk/source in your municipality?

Thank you!

Risk assessment

5 municipalities

Aim for the TOOL:

The tool
18 municipalities

- To develop a city-specific PFAS risk assessment tool to help local authorities to identify PFAS-related risks to aquatic environments and to propose risk mitigation strategies

8 steps representing all water management stages

WATER SOURCE

WATER SUPPLY

SEWAGE COLLECTION

SEWAGE TREATMENT



STEP 1

Identify stakeholders



STEP 2

Identify water sources



STEP 3

Identify potential significant
PFAS pollution sources



STEP 4

Evaluate risks for individual
wells users



STEP 5

Check PFAS analysis results



STEP 6

Voluntary firefighters



STEP 7

Understand wastewaters



STEP 8

Check PFAS in sludge

The TOOL

Is an interactive excel file

- **Intro** – WHAT ARE PFAS + links to videos from training materials

Production and use of PFAS

PFAS release to the environment

Emerging health and environmental issues

- **8 tables for data input** (covering all water management steps)
- Before filling each table there is a small intro with clarification
- After each filled table you will receive some clarifications and mitigation strategies for PFAS risks



Thank you for your attention!

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EMPEREST



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COMMISSION