Interreg
Baltic Sea Region

Co-funded by
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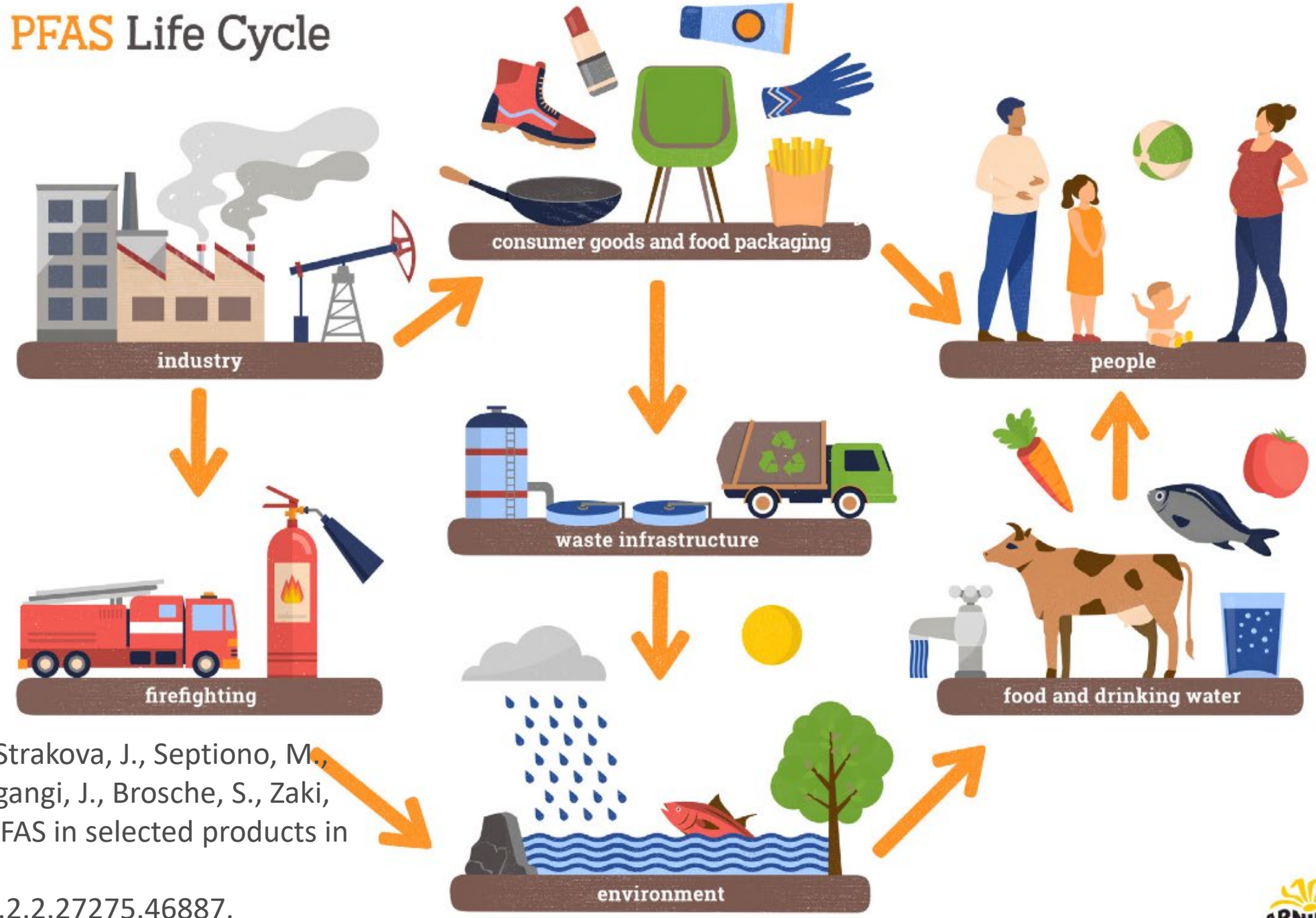
SUSTAINABLE WATERS
EMPEREST

PFAS risk assessment strategy for municipalities

UBC talks webinar | 26 March 2024

Kamila Gruskevica, Riga municipality/Riga Technical University

interreg-baltic.eu/project/emperest



Ismawati, Y., Strakova, J., Septiono, M., Anissa, A., Digangi, J., Brosche, S., Zaki, K.B. (2023). PFAS in selected products in Indonesia. 10.13140/RG.2.2.27275.46887.

O2.2

PFAS risk-assessment plan for local authorities

Tested with 18 municipalities in the Baltic Sea Region

- The project activities include developing a **PFAS risk assessment approach**. EMPEREST will co-develop **tailor-made tools and guidance** for local authorities enabling them to identify and assess PFAS-related risks and propose relevant risk mitigation strategies.
- Engaging in this work, the local authorities in the Baltic Sea Region will expand their understanding of the environmental risks posed by PFAS and will be able to **uptake and localise practical approach and functional tools** to manage the potential impact of PFAS entering the environment.
- The PFAS risk assessment framework validated within the project will be a basis to at least **5 local PFAS risk assessment plans.**

Coordinated by: **City of Riga**

2 Level approach:

	Risks			
1	Define if you have any of the biggest PFAS producers in Europe	YES	NO	NOT SURE*
	3M			
	AGC Inc.			
	Archroma			
	Arkema			
	BASF			
	Bayer			
	Chemours			
	Daikin			
	Dongyue			
	Honeywell			
	Merck			
	Solvay			
			Final score	
	NOT SURE* means that you are not certain about the answer and need to collect more information before submitting the right answer			
2	Define if your State/municipality have production facilities for:	YES	NO	NOT SURE*
	TULAC*			
	Medical devices			
	Applications of fluorinated gases			
	Food contact materials and packaging			
	Transport			
	Construction products			
	Petroleum and mining			
	Electronics and semiconductors			
	Energy sector			
	Lubricants			
	Metal plating and manufacture of metal products			
			Final score	

2 Level approach:

For anyone
Use our tool:

8 -10 simple questions (YES/NO) you can answer just using search engine.

To assess if your municipality potentially has PFAS problems.

With or without sampling.

For advanced users
Make PFAS risk assessment plan:

More elaborated approach.

To identify PFAS polluters.

Take samples.

Make mitigation strategy.

Risk assessment

6 steps

STEP 1

Identify stakeholders

STEP 2

Identify national database for classification of economic activities

NACE (or analogue)

STEP 3

Identify possible PFAS pollution sources according to economic activities classification

STEP 4

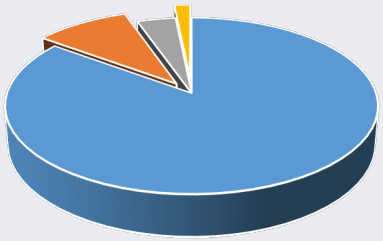
Select companies based on NACE classification

STEP 5

Now you have a full list of potential PFAS polluters

STEP 6

Contact a stakeholder, responsible for wastewater collection and treatment and compare your list



STEP 1

Identify stakeholders

- Limited liability company Rīgas ūdens, a capital company founded by Riga City Municipality, is the only provider of centralised water supply and sewerage services in Riga.
- Rīgas ūdens Ltd is solely owned by Riga City Municipality.

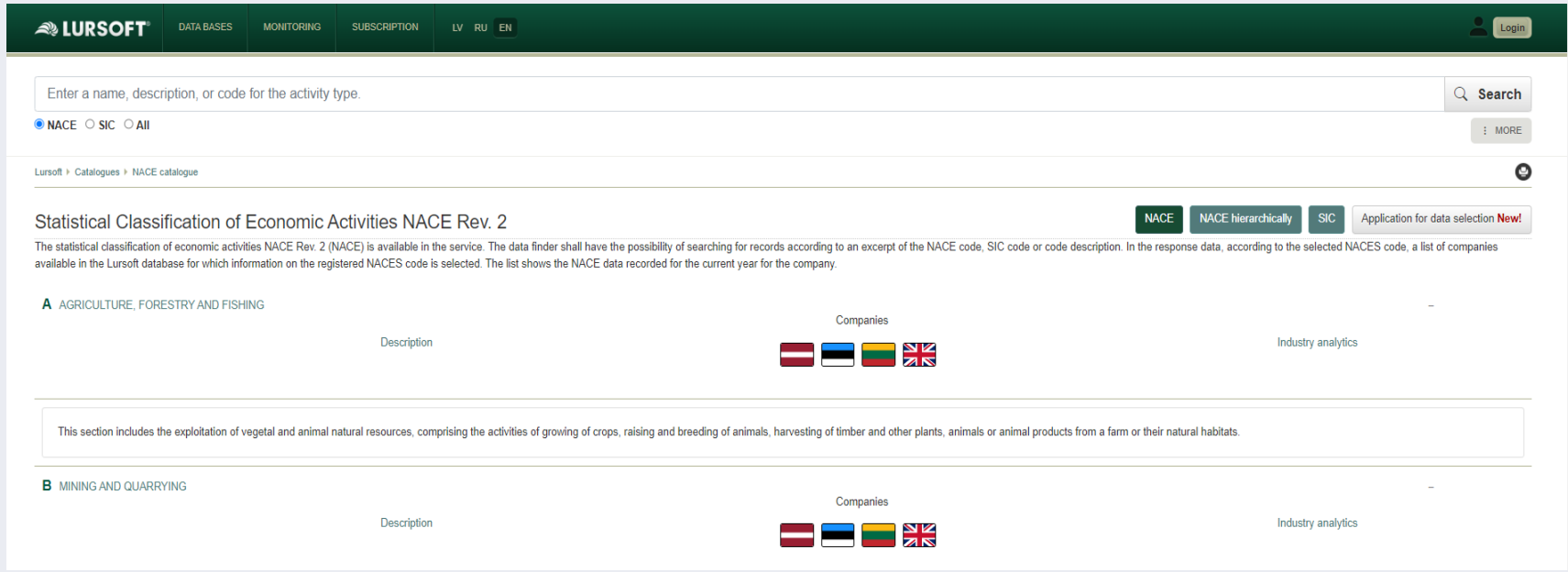
City:	**Riga**	
Water supply stage	**Stakeholder**	**Function**
Source	Riga water Ltd	Surface water quality control
Treatment and distribution	Riga water Ltd	Abstracting water; Treating water; Supplying drinking water
Wastewater treatment and collection	Riga water Ltd	Collecting wastewater; Treating wastewater

STEP 2

Identify national database for classification of economic activities

(NACE or analogue)

- The Statistical Classification of Economic Activities in the European Union is the standard industrial classification system used by the Member States and the Commission of the EU.
- https://www.infobelpro.com/en/blog/nace-codes
- https://nace.lursoft.lv/?l=en
- https://stat.gov.pl/en/metainformation/classifications/



STEP 3

Identify possible PFAS pollution sources according to economic activities classification

C	MANUFACTURING
13	Manufacture of textiles
14	Manufacture of wearing apparel
15	Manufacture of leather and related products
17	Manufacture of paper and paper products
19	Manufacture of coke and refined petroleum products
20	Manufacture of chemicals and chemical products
20.1	Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms
20.11	Manufacture of industrial gases
20.16	Manufacture of plastics in primary forms
20.17	Manufacture of synthetic rubber in primary forms
20.2	Manufacture of pesticides and other agrochemical products
20.3	Manufacture of paints, varnishes and similar coatings, printing ink and mastics
20.4	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
20.52	Manufacture of glues
20.59	Manufacture of other chemical products n.e.c.
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations
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
H	TRANSPORTATION AND STORAGE
52	Warehousing and support activities for transportation (Airports)

STEP 4

Select companies based on NACE classification

EXAMPLE

Add e-mail
Add home page
Add phone nr.

Manufacture of ceramic sanitary fixtures

Additional data!

Data av e to authorized users
(SRS taxpay ating to 17.03.2024)

How is the rating calculated?

Basic data

Name	"Aquatica" MARMITE SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA filiāle Previous names			
Legal form	Branch of a foreign merchant (AKF)			
Registration number, date	**40203369097, 23.12.2021**			
Register, Included in The Register	Commercial register, 23.12.2021			
SEPA identifier	LV55ZZZ40203369097			
Data from the VAT Register	VAT identification number	Status	Registered	Excluded
	LV40203369097	✔	21.01.2022	
	Check in EU VAT register			
Legal address	Rīga, Krišjāņa Valdemāra iela 21 - 11, LV-1010 Other registered in this address			
Postal address	Krišjāņa Valdemāra iela 21 - 11, Rīga, LV-1010			
Activity code (NACE)	Manufacture of ceramic sanitary fixtures (23.42, version 2.0) (Source: SRS, CSB, ZO.LV)			

Division/Title	Number of companies
13: Manufacture of textiles	160
14: Manufacture of wearing apparel	423
15: Manufacture of leather and related products	52
17: Manufacture of paper and paper products	58
19: Manufacture of coke and refined petroleum products	6
20: Manufacture of chemicals and chemical products	111
21: Manufacture of basic pharmaceutical products and pharmaceutical preparations	23
22: Manufacture of rubber and plastic products	116
23: Manufacture of other non-metallic mineral products	69
24: Manufacture of basic metals	22
25: Manufacture of fabricated metal products, except machinery and equipment	563
26: Manufacture of computer, electronic and optical products	139
27: Manufacture of electrical equipment	102
28: Manufacture of machinery and equipment n.e.c.	11
29: Manufacture of motor vehicles, trailers and semi-trailers	55
30: Manufacture of other transport equipment	68
31: Manufacture of furniture	414
32: Other manufacturing	190
35: Electricity, gas, steam and air conditioning supply	287
37: Sewerage	17
38: Waste collection, treatment and disposal activities; materials recovery	98
52: Warehousing and support activities for transportation	49
C: MANUFACTURING	
D: ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY	
E: WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES	

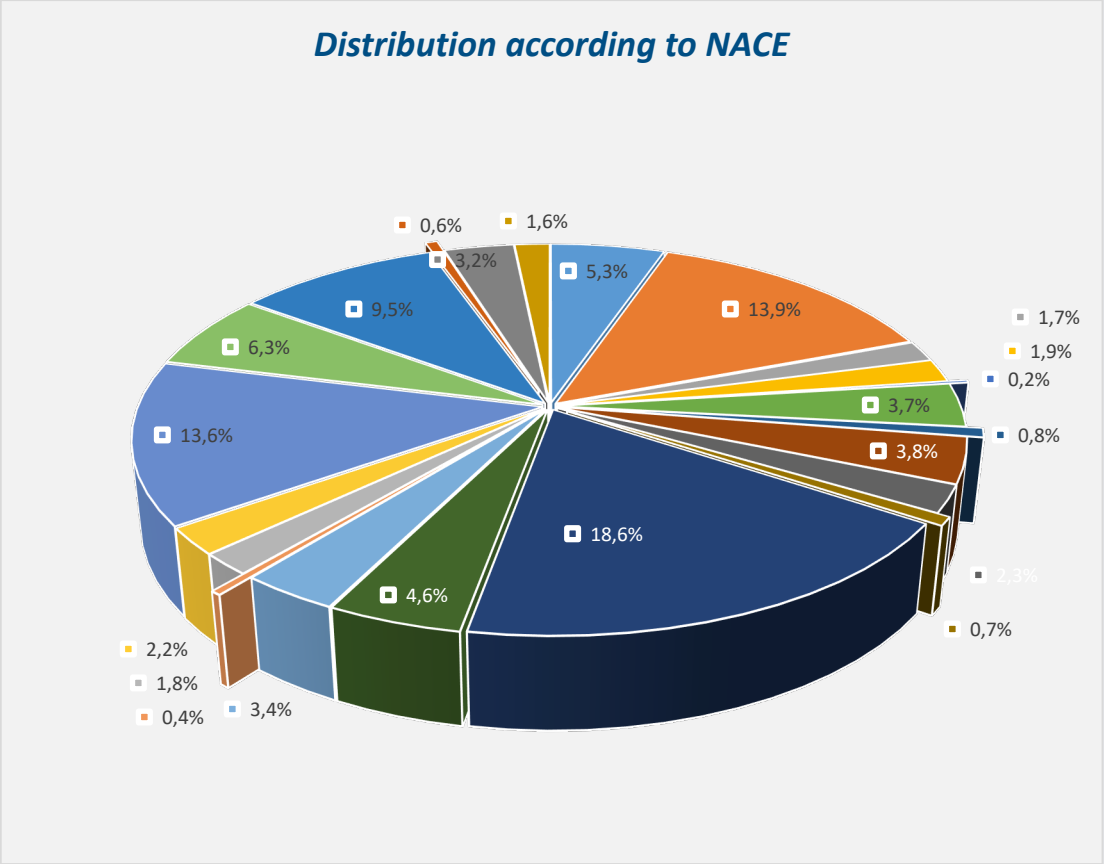
STEP 5

Now you have a full list of potential PFAS polluters

STEP 6

Contact a stakeholder, responsible for wastewater collection and treatment and compare your list

Statistical Classification of Economic Activities(NACE)				
Division/Title	Number of companies	Division effect, %	Section	Section effect, %
13: Manufacture of textiles	160	5,3	C	85,1
14: Manufacture of wearing apparel	423	13,9	C	
15: Manufacture of leather and related products	52	1,7	C	
17: Manufacture of paper and paper products	58	1,9	C	
19: Manufacture of coke and refined petroleum products	6	0,2	C	
20: Manufacture of chemicals and chemical products	111	3,7	C	
21: Manufacture of basic pharmaceutical products and pharmaceutical preparations	23	0,8	C	
22: Manufacture of rubber and plastic products	116	3,8	C	
23: Manufacture of other non-metallic mineral products	69	2,3	C	
24: Manufacture of basic metals	22	0,7	C	
25: Manufacture of fabricated metal products, except machinery and equipment	563	18,6	C	
26: Manufacture of computer, electronic and optical products	139	4,6	C	
27: Manufacture of electrical equipment	102	3,4	C	
28: Manufacture of machinery and equipment n.e.c.	11	0,4	C	
29: Manufacture of motor vehicles, trailers and semi-trailers	55	1,8	C	
30: Manufacture of other transport equipment	68	2,2	C	
31: Manufacture of furniture	414	13,6	C	
32: Other manufacturing	190	6,3	C	
35: Electricity, gas, steam and air conditioning supply	287	9,5	D	9,5
37: Sewerage	17	0,6	E	3,8
38: Waste collection, treatment and disposal activities; materials recovery	98	3,2	E	
52: Warehousing and support activities for transportation	49	1,6	H	1,6



MAP the polluters

Take samples

Develop mitigation strategy

Join us! We will help you to identify PFAS risks.

For more information and/or participation please contact:

lotta.lehti@turku.fi

kamila.gruskevica@riga.lv

Thank you for your attention!

Name
Organization
email@email.fi

#EMPEREST

Interreg Baltic Sea Region
Co-funded by the European Union
SUSTAINABLE WATERS EMPEREST
UBC UNION OF THE BALTIC CITIES SUSTAINABLE CITIES COMMISSION

Risk assessment

STEP 1

Identify possible PFAS pollution sources according to NACE classification

STEP 2

Contact a stakeholder, responsible for wastewater collection and treatment and compare your list

STEP 3

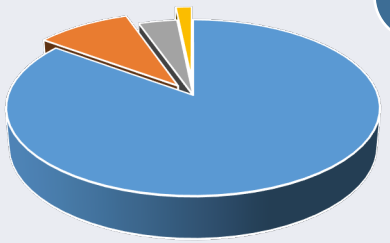
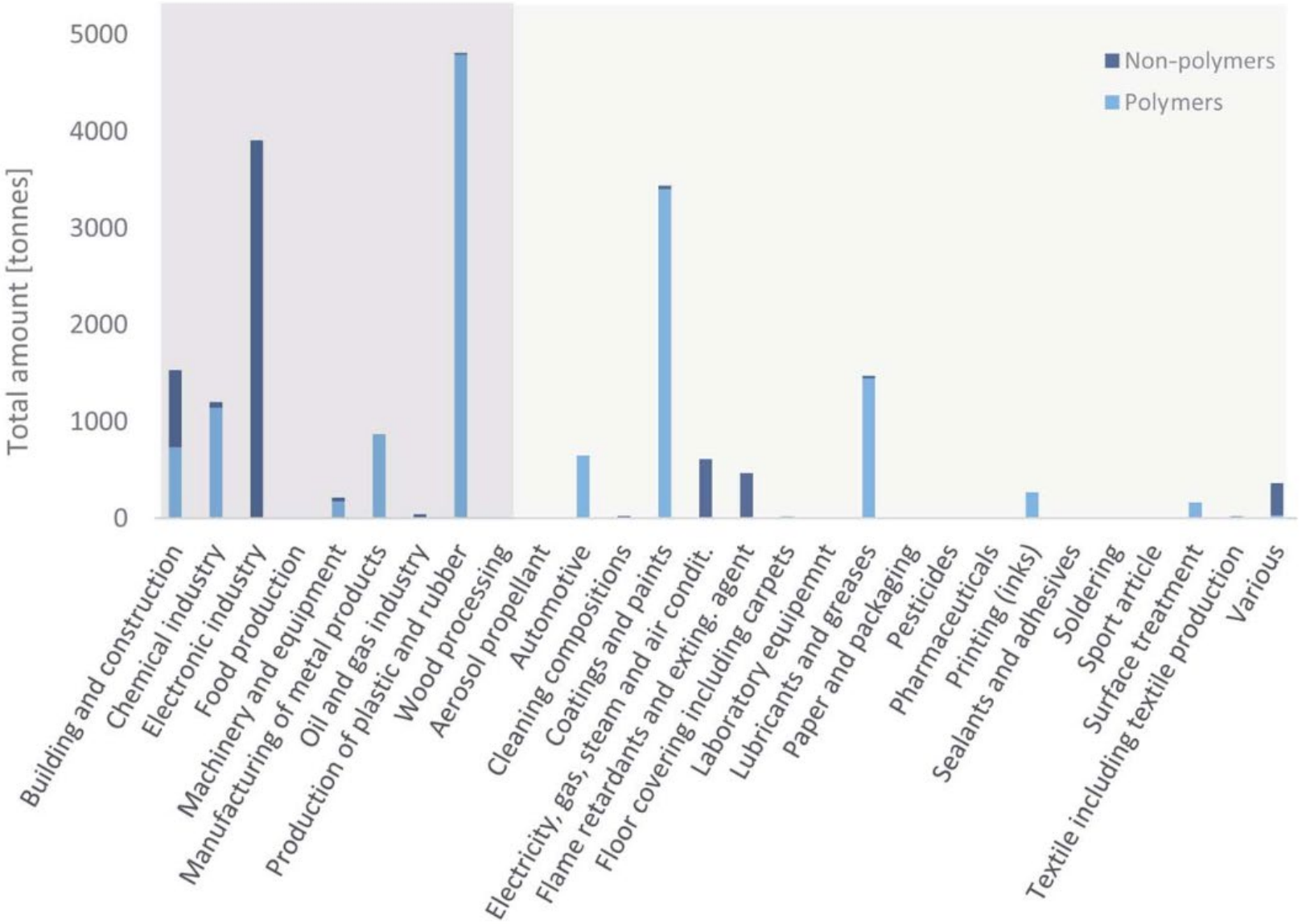
Perform mapping for potential polluting industries

STEP 4

Make sampling plan and take samples

STEP 5

Make a mitigation strategy



PFAS in different use categories