1. Identification

Call	Date of submission
C1	26/04/2022

1.1. Full name of the project

Eliminating Micro-Pollutants from Effluents for REuse STrategies

64 / 250 characters

1.2. Short name of the project

EMPEREST

8 / 20 characters

1.3. Programme priority

2. Water-smart societies

1.4. Programme objective

2.1 Sustainable waters

1.6. Project duration

Contracting start	22/09/2022	**Contracting end**	31/12/2022
Implementation start	01/01/2023	**Implementation end**	31/12/2025
		Duration of implementation phase (months)	36
Closure start	01/01/2026	**Closure end**	31/03/2026

1.7. Project summary

PFAS discharge management is one of today's most pressing environmental challenges in BSR, thus strengthening of the management cycle, including monitoring and assessment, regional regulations at source and end of pipe solutions to prevent the release of these substances in the aquatic environment, is of high urgency. The project tackles following challenges:
- lack of comprehensive and accurate information on the level of PFAS contamination of the aquatic environment, their sources and pathways.
- lack of technological pilot-based information on the effect and feasibility of the most commonly considered advanced effluent treatment methods in WWTPs.

EMPEREST enables water utilities to make informed decisions about cost-effective treatment strategies and investment roadmaps for removing PFAS from wastewater streams. Implemented pilots will demonstrate novel treatment technologies on a sufficiently large scale to fully evaluate its effectiveness and economic viability to remove micropollutants (PFAS and other persistent organic pollutants). The aim is to demonstrate the efficient technologies to other water utilities in the region and to scale up its application. Training programme implemented in parallel with investments will improve professional skills of wastewater management experts to be better prepared to the upcoming regulatory changes regarding micropollutants in effluents, thus strengthening the overall water sector resilience to emerging risks.

1,480 / 1,500 characters

1.8. Summary of the partnership

The composition of the project partnership is built on five levels of competences:
1. Scientific community (PP3 UT, PP4 TUB, PP5 TUAS) - providing knowledge and science-based support for preparation of solutions in all GoAs of WP1; mentoring the piloting of the advanced wastewater treatment solutions in Estonia, Lithuania, Poland, Germany, Finland in GoA 2.3; preparing, in cooperation with water associations, GoAs 2.4, 3.2 and 3.3 the training package and capacity building activities targeted at service providers and local authorities. Providing feedback into monitoring work in GoAs 1.1, 2.1, 3.1.

2. Community of practitioners/service providers (PP6 Gdańsk Water Utilities, PP7 Water and Sewage Company of Szczecin, PP8 Kaunas water, PP9 Tartu Veevärk AS, PP10 AS Tallinna Vesi, PP11 Turku Region Wastewater Treatment Plant, AO3 Riga Water Ltd, AO4 Panevėžys Water Ltd.) - applying evidence-based activities, co-developing and demonstrating (Gdansk and Tartu) and following (Szczecin, Kaunas, Tallinn and Turku) the application of an advanced treatment technology pilot system to identify feasibility and efficiency of downstream removal of micropollutants of emerging concern, in connection to both municipal and industrial stream as well as validating replication/upscaling potential. Practitioners perform the construction and piloting of the system in GoAs 1.3 and 2.3, and participate in the development of the training package concept in 1.4. Transfer of knowledge tailored for practitioners is realised in GoA 3.3. Practitioners provide feedback for monitoring activities in GoAs 1.1, 2.1, 3.1.

3. Local authorities community (PP14 Riga, AO2 Malmö, AO5 Jonava, AO6 Taurage, PP1 UBC) - local actions for addressing PFAS in the urban environments, through monitoring, risk assessment activities, relevant upstream measures. Local communities develop and pilot their activities in GoAs 1.2 and 2.2, and help designing the training package in 1.4, before transferring the selected tools to other municipalities in GoA 3.2. Local authorities also provide feedback for the respective monitoring activities along GoAs 1.1, 2.1, 3.1.

4. Water associations community (PP12 DWA, PP13 ECAT-Lithuania, AO1 EVEL, AO 8 FWUA) - connecting the activities in science, practice and policy-making communities along all GoAs. National water associations as umbrella organisations are involved in the development and testing of the training package concept and content in GoAs 1.4, 2.4, and further dissemination of it to the nationally-based public service providers/water utilities beyond the consortium in 3.3.

5. Policy-making community (PP2 HELCOM, AO7 SEPA, PA Hazards, PA Nutri) - addressing the monitoring and assessment of PFAS group on the national and regional levels, researching and accumulating knowledge in GoA 1.1, validating prepared recommendations in GoA 2.1 and transferring the ready methodological recommendations for for monitoring and assessment of PFAS further in GoA 3.1.

3,000 / 3,000 characters

1.11. Project Budget Summary

Financial resources [in EUR]		Preparation costs	Planned project budget
ERDF	ERDF co-financing	0.00	4,794,968.83
	Own contribution ERDF	0.00	1,198,742.21
	ERDF budget	0.00	5,993,711.04
NO	NO co-financing	0.00	0.00
	Own contribution NO	0.00	0.00
	NO budget	0.00	0.00
NDICI	NDICI co-financing	0.00	0.00
	Own contribution NDICI	0.00	0.00
	NDICI budget	0.00	0.00
RU	RU co-financing	0.00	0.00
	Own contribution RU	0.00	0.00
	RU budget	0.00	0.00
TOTAL	**Total Programme co-financing**	0.00	4,794,968.83
	Total own contribution	0.00	1,198,742.21
	Total budget	0.00	5,993,711.04

2. Partnership

2.1. Overview: Project Partnership

2.1.1 Project Partners

No.	LP/PP	Organisation (English)	Organisation (Original)	Country	Type of partner	Legal status	Partner budget in the project	Active/inactive	
								Status	from
1	LP	Union of the Baltic Cities Sustainable Cities Commission c/o City of Turku	Itämeren kaupunkien liiton Kestävien kaupunkien komissio c/o Turun kaupunki	FI	Local public authority	a)	632,571.20 €	Active	22/09/2022
2	PP	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)	FI	International governmental organisation	a)	431,311.00 €	Active	22/09/2022
3	PP	University of Tartu	Tartu Ülikool	EE	Higher education and research institution	a)	535,330.00 €	Active	22/09/2022
4	PP	Berlin University of Technology	Technische Universität Berlin	DE	Higher education and research institution	a)	862,215.99 €	Active	22/09/2022
5	PP	Turku University of Applied Sciences (TUAS)	Turun ammattikorkeakoulu	FI	Higher education and research institution	a)	474,678.40 €	Active	22/09/2022
6	PP	Gdańsk Water Utilities	Gdańska Infrastruktura Wodociągowo-Kanalizacyjna Sp. z o.o.	PL	Infrastructure and public service provider	a)	644,722.30 €	Active	22/09/2022
7	PP	Water and Sewage Company Ltd. of Szczecin	Zakład Wodociągów i Kanalizacji Sp. z o.o	PL	Infrastructure and public service provider	a)	305,632.55 €	Active	22/09/2022
8	PP	Tartu Waterworks Ltd	Tartu Veevärk AS	EE	Infrastructure and public service provider	a)	646,798.00 €	Active	22/09/2022
9	PP	Tallinn Water Ltd	AS Tallinna Vesi	EE	Infrastructure and public service provider	a)	340,344.80 €	Active	22/09/2022
10	PP	"Kaunas water" Ltd.	UAB "Kauno vandenys"	LT	Infrastructure and public service provider	a)	201,576.00 €	Active	22/09/2022
11	PP	Turku Region Wastewater Treatment Plant	Turun seudun puhdistamo Oy	FI	Infrastructure and public service provider	a)	354,785.60 €	Active	22/09/2022
12	PP	DWA German Association for Water, Wastewater and Waste DWA Regional group North-East	DWA Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V. DWA-Landesverband Nord-Ost	DE	Interest group	b)	164,543.60 €	Active	22/09/2022
13	PP	Environmental Center for Administration and Technology	Aplinkosaugos valdymo ir technologijų centras, VšĮ	LT	NGO	b)	149,318.40 €	Active	22/09/2022
14	PP	City of Riga	Rīgas valstspilsētas pašvaldība	LV	Local public authority	a)	249,883.20 €	Active	22/09/2022

2.1.2 Associated Organisations

No.	Organisation (English)	Organisation (Original)	Country	Type of Partner
AO 1	Estonian Waterworks Association	Eesti Vee-ettevõtete Liit	EE	Interest group
AO 2	City of Malmö	Malmö stad	SE	Local public authority
AO 3	"Riga Water" Ltd.	SIA "Rīgas ūdens"	LV	Infrastructure and public service provider
AO 4	Panevėžys Water Ltd.	UAB "Aukštaitijos vandenys"	LT	Infrastructure and public service provider
AO 5	Jonava district municipality	Jonavos rajono savivaldybė	LT	Local public authority
AO 6	Taurage district municipality	Tauragės rajono savivaldybės administracija	LT	Local public authority
AO 7	Swedish Environmental Protection Agency	Naturvårdsverket	SE	National public authority
AO 8	Finnish Water Utilities Association	Suomen Vesilaitosyhditys ry	FI	Interest group

2.2 Project Partner Details - Partner 1

LP/PP Lead Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language Itämeren kaupunkien liiton Kestävien kaupunkien komissio c/o Turun kaupunki

75 / 250 characters

Organisation in English Union of the Baltic Cities Sustainable Cities Commission c/o City of Turku

74 / 250 characters

Department in original language -

1 / 250 characters

Department in English -

1 / 250 characters

Partner location and website:

Address Vanha Suurtori 7

16 / 250 characters

Postal Code 20500

5 / 250 characters

Town Turku

5 / 250 characters

Website www.ubc-sustainable.net

23 / 100 characters

Country Finland

NUTS1 code Manner-Suomi

NUTS2 code Etelä-Suomi

NUTS3 code Varsinais-Suomi

Partner ID:

Organisation ID type	Business Identity Code (Y-tunnus)
Organisation ID	0204819-8
VAT Number Format	FI + 8 digits
VAT Number	N/A ☐ FI02048198 (10 / 50 characters)
PIC	993966082 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Local public authority	Municipality, city, etc.
Sector (NACE)	84.11 - General public administration activities	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Financial data	**Reference period**	01/01/2020 –	31/12/2022
	Staff headcount [in annual work units (AWU)]		10,000.0
	Employees [in AWU]		0.0
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]		10,000.0
	Owner-managers [in AWU]		0.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]		0.0
	Annual turnover [in EUR]		158,300,000.00
	Annual balance sheet total [in EUR]		179,200,000.00
	Operating profit [in EUR]		10,236,000.00

Role of the partner organisation in this project:

The Union of the Baltic Cities Sustainable Cities Commission, based in the City of Turku, will lead the project's management and communication activities (LP). In WP1 and WP2, the organisation will be steering the activities implemented under the coordination of the respective GoA Leaders. UBC SCC will also lead the transfer and uptake activities within WP3. Coordinating the GoAs focused on the local authorities, the partner will enable outreach to both the cities and municipalities involved within the consortium, as well as local authorities from its network. UBC is a network of ca. 70 municipalities around the Baltic Sea, and disseminating the results to them can ensure further application of the project results in the region. LP will organise the project Kick-off conference, PSG meetings and dedicated sessions at the external events: EUSBSR Annual Forum, EU Green Week, IWA International Water Congress, NORDIWA conference.

940 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 2

LP/PP	Project Partner		
Partner Status	Active		
	Active from 22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM) (78 / 250 characters)
Organisation in English	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM) (78 / 250 characters)
Department in original language	- (1 / 250 characters)
Department in English	- (1 / 250 characters)

Partner location and website:

Address	Katajanokanlaituri 6 B (22 / 250 characters)	**Country**	Finland
Postal Code	FI-00160 (8 / 250 characters)	**NUTS1 code**	Manner-Suomi
Town	Helsinki (8 / 250 characters)	**NUTS2 code**	Helsinki-Uusimaa
Website	www.helcom.fi (13 / 100 characters)	**NUTS3 code**	Helsinki-Uusimaa

Partner ID:

Organisation ID type	Business Identity Code (Y-tunnus)
Organisation ID	1061002-1
VAT Number Format	FI + 8 digits
VAT Number	**N/A** ☑ (0 / 50 characters)
PIC	905111560 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	International governmental organisatio	HELCOM, BSSSC, CBSS, VASAB, etc.
Sector (NACE)	99.00 - Activities of extraterritorial organisations and bodies	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities?	Partly
VAT explanation	PARTLY – HELCOM is in some cases entitled to recover any paid Value Added Tax (VAT) by whatever means. (HELCOM is entitled to recover VAT in Finland for individual expenditures amounting to a minimum of EUR 170. Smaller individual expenditures will be reported including VAT.) (277 / 1,000 characters)

Role of the partner organisation in this project:

In general, HELCOM leads activities related to the development of methodological recommendations for monitoring and assessment of PFAS contamination in the aquatic environment. HELCOM co-leads WP1 with focus on coordination of drafting the methodological recommendations with active involvement of scientific community within the project consortium and across the Baltic Sea region. In WP2 HELCOM coordinates testing of the methodological recommendations and their validation and revision ensuring maximum representation of experts from the whole region. WP3 is focussed on transferring project results which will be arranged by HELCOM in the form of international science-policy dialog utilizing various regional platforms and project events. Main goal of the dialog is integration of the methodological recommendations in the Baltic Sea regional management framework for hazardous substances as a regional guideline (monitoring manual).

938 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 3

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Tartu Ülikool (13 / 250 characters)
Organisation in English	University of Tartu (19 / 250 characters)
Department in original language	Keemia instituut (16 / 250 characters)
Department in English	Institute of Chemistry (22 / 250 characters)

Partner location and website:

Address	Ravila 14a (10 / 250 characters)	**Country**	Estonia
Postal Code	50411 (5 / 250 characters)	**NUTS1 code**	Eesti
Town	Tartu (5 / 250 characters)	**NUTS2 code**	Eesti
Website	http://www.ut.ee (16 / 100 characters)	**NUTS3 code**	Lõuna-Eesti

Partner ID:

Organisation ID type	Registration code (Registrikood)
Organisation ID	74001073
VAT Number Format	EE + 9 digits
VAT Number	N/A ☐ EE100030417 (11 / 50 characters)
PIC	999895013 (9 / 9 characters)

Partner type:

Legal status	a) Public

Type of partner	Higher education and research instituti	University faculty, college, research institution, RTD facility, research cluster, etc.
Sector (NACE)	85.42 - Tertiary education	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Role of the partner organisation in this project:

University of Tartu (UT) has taken part in various local and international projects, dealing with wastewater treatment (WWT) and sludge disposal, and other water sector related topics. UT has good background in environmental chemistry in both analysis and data interpretation, previous focuses include heavy metals and pharmaceutical residues in wastewater and waste activated sludge. In the EMPEREST project, UT will be one of the project steering group members and one of the leaders of WP2, mainly focussing on the piloting activities. UT is also a GoA leader for the GoA1.3 and 2.3, which deal with the preparation, installation and piloting of the advanced effluent treatment mobile pilot plants and will coordinate the creation of D1.3 and O2.3 (Strategies and technological means for minimising organic micropollutant emissions from WWTPs).

847 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

Justification why the partner's activities are not State aid relevant

The activities in the EMPEREST project are not part of the University's ordinary basic research and educational activities, usually funded with State Aid. Furthermore, the project activities would not be carried out without the project funding.

During the EMPEREST project, no development of business activities is carried out that could be considered as leading to a profitable activities after the project. All results of the project, the advanced effluent treatment strategies and the training materials are aimed to be freely accessed by both the public and relevant stakeholders (WWTPs, municipalities, NGOs, interest groups, national authorities etc.)

658 / 3,000 characters

2.2 Project Partner Details - Partner 4

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Technische Universität Berlin
	29 / 250 characters
Organisation in English	Berlin University of Technology
	31 / 250 characters
Department in original language	Fachgebiet Siedlungswasserwirtschaft
	36 / 250 characters
Department in English	Department of Urban Water Management
	36 / 250 characters

Partner location and website:

Address	Straße des 17. Juni 135	**Country**	Germany
	23 / 250 characters		

Postal Code	10623 (5 / 250 characters)	**NUTS1 code**	Berlin
Town	Berlin (6 / 250 characters)	**NUTS2 code**	Berlin
Website	www.tu.berlin/siwawi (20 / 100 characters)	**NUTS3 code**	Berlin

Partner ID:

Organisation ID type	Tax (identification) number (Steuer(identifikations)nummer)
Organisation ID	DE811231089 (11 / 50 characters)
VAT Number Format	DE + 9 digits
VAT Number	N/A ☐ DE811231089 (11 / 50 characters)
PIC	999986678 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Higher education and research instituti	University faculty, college, research institution, RTD facility, research cluster, etc.
Sector (NACE)	72.19 - Other research and experimental development on natural sciences and engineering	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Financial data	**Reference period**	01/01/2019 –	31/12/2019
	Staff headcount [in annual work units (AWU)]		7,243.0
	Employees [in AWU]		7,243.0
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]		0.0
	Owner-managers [in AWU]		0.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]		0.0
	Annual turnover [in EUR]		581,261,170.93
	Annual balance sheet total [in EUR]		0.00
	Operating profit [in EUR]		11,937,722.52

Role of the partner organisation in this project:

TUB will lead GoA 1.4, 2.4. A main task will be to develop the training material together with the water associations and training materials. TUB will be in charge to select suitable topics for the project workshops and webinars and especially establish contacts to relevant external experts. TUB will also contribute to the development of the mobile container solutions (GoA 1.3) and guide the piloting acitivities (GoA 2.3). In the transfer phase (WP3) TUB will colaborate with GoA leaders 3.3 and 3.4 to transfer the training package. TUB will support the activities related to development of the monitoring (GoA 1.1) and take a role in collecting sampling and analyzing according to the agreed monitoring scheme (GoA 2.2). TUB will join the PSG.

751 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

2.2 Project Partner Details - Partner 5

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Turun ammattikorkeakoulu (24 / 250 characters)
Organisation in English	Turku University of Applied Sciences (TUAS) (43 / 250 characters)
Department in original language	Tekniikka ja Liiketalous (24 / 250 characters)
Department in English	Engineering and Business (24 / 250 characters)

Partner location and website:

Address	Joukahaisenkatu 3 (17 / 250 characters)	**Country**	Finland
Postal Code	20520 (6 / 250 characters)	**NUTS1 code**	Manner-Suomi
Town	Turku (5 / 250 characters)	**NUTS2 code**	Etelä-Suomi
Website	www.tuas.fi (11 / 100 characters)	**NUTS3 code**	Varsinais-Suomi

Partner ID:

Organisation ID type	Business Identity Code (Y-tunnus)
Organisation ID	2528160-3
VAT Number Format	FI + 8 digits
VAT Number	**N/A** ☐ FI25281603 (10 / 50 characters)
PIC	948193431 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Higher education and research instituti	University faculty, college, research institution, RTD facility, research cluster, etc.
Sector (NACE)	85.42 - Tertiary education	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Role of the partner organisation in this project:

PP5 will support development of monitoring recommendations by offering strong practical experience and expertise on planning and carrying out sampling and monitoring schemes, including procedures for data quality assurance and quality control. TUAS is among the few organisations in Finland, who offers specific training for water sampling and has the right to issue certificates for those who wish to work as sample takers in commercial laboratories. PP5 will support PP14 in carrying out the local risk assessment plan for PFAS. PP5 will share experiences from mapping of sources and fate of PFAS in Turku (NonHazCity) and Water Safety Planning tool and drainage basin management approaches.PP5 will participate in practical piloting of the mobile plant at the Turku WWTP. PP5 will support PP11 in developing the piloting plan, including monitoring and data analysis and carrying out the test runs. PP5 will participate in compiling the training package.

960 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

2.2 Project Partner Details - Partner 6

LP/PP Project Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language Gdańska Infrastruktura Wodociągowo-Kanalizacyjna Sp. z o.o.

59 / 250 characters

Organisation in English Gdańsk Water Utilities

22 / 250 characters

Department in original language n/a

3 / 250 characters

Department in English n/a

3 / 250 characters

Partner location and website:

Address Kartuska 201

16 / 250 characters

Postal Code 80-122

6 / 250 characters

Town Gdańsk

6 / 250 characters

Website www.giwk.pl

11 / 100 characters

Country Poland

NUTS1 code Makroregion północny

NUTS2 code Pomorskie

NUTS3 code Gdański

Partner ID:

Organisation ID type	Tax identification number (NIP)
Organisation ID	5832870369
VAT Number Format	PL + 10 digits
VAT Number	N/A ☐ PL5832870369 (12 / 50 characters)
PIC	n/a (3 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Infrastructure and public service provi	Public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc.)
Sector (NACE)	37.00 - Sewerage	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Financial data

Reference period	01/01/2021 –	31/12/2021
Staff headcount [in annual work units (AWU)]		1,577.0
Employees [in AWU]		1,431.0
Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]		146.0
Owner-managers [in AWU]		0.0
Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]		0.0
Annual turnover [in EUR]		36,098,039.96
Annual balance sheet total [in EUR]		306,219,693.65
Operating profit [in EUR]		3,572,282.58

Role of the partner organisation in this project:

PP6 Gdańsk Water Utilities is a Demonstrator WWTP responsible for design and construction of a pilot plant to identify feasibility and efficiency of downstream advanced wastewater treatment at the WWTP in Gdańsk. PP6 will be responsible for testing and evaluating the performance of the advanced treatment process focused on removal of the targeted emerging micropollutants taking in consideration circular economy opportunities. Further, the partner will be preparing and evaluating report on the results of the conducted pilot studies including the analysis of remaining gaps which will be the base for the individual investment roadmap providing important ground for future investments for PP6 will develop guidelines for design of a full-scale tertiary treatment systems dedicated to remove emerging pollutants from wastewater discharged to the environment. PP6 will organise a workshop in Gdansk and promo/education campaign on mitigating adverse environmental effects of PFAS pollutants.

998 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 7

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Zakład Wodociągów i Kanalizacji Sp. z o.o (41 / 250 characters)
Organisation in English	Water and Sewage Company Ltd. of Szczecin (41 / 250 characters)
Department in original language	- (1 / 250 characters)
Department in English	- (1 / 250 characters)

Partner location and website:

Address	10 Golisza St. (14 / 250 characters)	**Country**	Poland
Postal Code	71-682 (6 / 250 characters)	**NUTS1 code**	Makroregion północno-zachodni
Town	Szczecin (8 / 250 characters)	**NUTS2 code**	Zachodniopomorskie
Website	www.zwik.szczecin.pl (20 / 100 characters)	**NUTS3 code**	Miasto Szczecin

Partner ID:

Organisation ID type	Tax identification number (NIP)
Organisation ID	8512624854
VAT Number Format	PL + 10 digits
VAT Number	**N/A** ☐ PL8512624854 (12 / 50 characters)
PIC	n/a (3 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Infrastructure and public service provi	Public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc.)
Sector (NACE)	37.00 - Sewerage	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities?	Yes

Role of the partner organisation in this project:

We want to be a regular and active partner, gain new experiences, increase competence of staff.
Our facilities (POMORZANY and / or ZDROJE wastewater treatment plants) will be available for carrying out the necessary tests, measurements, sampling, etc.
In order to meet new challenges, we will assess the possibilities of using treated wastewater in industry, agriculture and public utilities.
The concept-container for pilot plant to be built for Gdańsk Water Utilities, will be moved (transported) later to Pomorzany/Zdroje WWTPs.
Moreover, we plan to establish cooperation with the West Pomeranian University of Technology in order to conduct research there and use it for didactic and scientific purposes.

712 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 8

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Tartu Veevärk AS (16 / 250 characters)
Organisation in English	Tartu Waterworks Ltd (20 / 250 characters)
Department in original language	- (1 / 250 characters)
Department in English	- (1 / 250 characters)

Partner location and website:

Address	Tähe 118 (8 / 250 characters)	**Country**	Estonia
Postal Code	51013 (5 / 250 characters)	**NUTS1 code**	Eesti
Town	Tartu (5 / 250 characters)	**NUTS2 code**	Eesti
Website	www.tartuvesi.ee (16 / 100 characters)	**NUTS3 code**	Lõuna-Eesti

Partner ID:

Organisation ID type	Registration code (Registrikood)
Organisation ID	10151668
VAT Number Format	EE + 9 digits
VAT Number	N/A ☐ EE100017676 (11 / 50 characters)
PIC	n/a (3 / 9 characters)

Partner type:

Legal status	a) Public

Type of partner	Infrastructure and public service provi	Public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc.)
Sector (NACE)	37.00 - Sewerage	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Financial data

Reference period	01/01/2021	–	31/12/2021
Staff headcount [in annual work units (AWU)]			86.0
Employees [in AWU]			86.0
Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]			0.0
Owner-managers [in AWU]			0.0
Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]			0.0
Annual turnover [in EUR]			12,736,499.00
Annual balance sheet total [in EUR]			103,168,830.00
Operating profit [in EUR]			2,491,202.00

Role of the partner organisation in this project:

Tartu Waterworks will be one of the two demonstrator plants in the EMPEREST project, where the mobile advanced effluent treatment pilots will first be set up and tested. This means Tartu Waterworks is where one of the investments of the EMPEREST project will be carried out. Tartu Waterworks will be heavily involved in GoA1.3 and 2.3, while also supporting other activities in all work packages, especially the transfer of piloted information and practices in WP3.

465 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 9

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	AS Tallinna Vesi
	16 / 250 characters
Organisation in English	Tallinn Water Ltd
	17 / 250 characters
Department in original language	-
	1 / 250 characters
Department in English	-
	1 / 250 characters

Partner location and website:

Address	Ädala 10	**Country**	Estonia
	8 / 250 characters		

Postal Code	10614 (5 / 250 characters)	**NUTS1 code**	Eesti
Town	Tallinn (7 / 250 characters)	**NUTS2 code**	Eesti
Website	www.tallinnavesi.ee (19 / 100 characters)	**NUTS3 code**	Põhja-Eesti

Partner ID:

Organisation ID type	Registration code (Registrikood)
Organisation ID	10257326
VAT Number Format	EE + 9 digits
VAT Number	N/A ☐ EE100060979 (11 / 50 characters)
PIC	n/a (3 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Infrastructure and public service provi	Public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc.)
Sector (NACE)	37.00 - Sewerage	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Role of the partner organisation in this project:

Tallinn Water Ltd is the largest municipal wastewater treatment plant in Estonia taking care of most of the wastewater from the capital of Estonia. In the EMPEREST project, Tallinn Water will be one of the follower plants, concluding the testing of the advanced effluent treatment mobile pilot plant. Tallinn Water will be mainly connected to the activities in GoA1.3 and 2.3 and in the preparation of the D1.3 and O2.3 (Strategies and technological means for minimising organic micropollutant emissions from WWTPs). Tallinn Water will also take part in other related project activities and facilitate the transfer of the EMPEREST project outputs.

647 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 10

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	UAB "Kauno vandenys" (20 / 250 characters)
Organisation in English	"Kaunas water" Ltd. (19 / 250 characters)

Department in original language	Techninis - projektų skyrius (28 / 250 characters)
Department in English	Technical - project department (30 / 250 characters)

Partner location and website:

Address	Aukstaiciu str. 43 (18 / 250 characters)	**Country**	Lithuania
Postal Code	44158 (5 / 250 characters)	**NUTS1 code**	Lietuva
Town	Kaunas (6 / 250 characters)	**NUTS2 code**	Vidurio ir vakarų Lietuvos regionas
Website	www.kaunovandenys.lt (20 / 100 characters)	**NUTS3 code**	Kauno apskritis

Partner ID:

Organisation ID type	Legal person's code (Juridinio asmens kodas)
Organisation ID	327513610
VAT Number Format	LT + 9 digits
VAT Number	**N/A** ☐ LT327513610 (11 / 50 characters)
PIC	132751369 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Infrastructure and public service provi	Public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc.)
Sector (NACE)	37.00 - Sewerage	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Role of the partner organisation in this project:

PP10 Kaunas Water is a Follower WWTP and will be involved in uptake of the mobile pilot plant after tests at the WWTPs in Szczecin (Pomorzany and Zdroje) for identification feasibility and efficiency of downstream advanced wastewater treatment. PP10 will be responsible for testing and evaluating the performance of the advanced treatment process focused on removal of the targeted emerging micropollutants taking in consideration circular economy opportunities. Further, the PP10 will be preparing and evaluating report on the results of the conducted pilot studies including the analysis of remaining gaps which will be the base for the individual investment roadmap providing important ground for future investments and upgrade of the plant. PP10 will test guidelines for design of a full-scale tertiary treatment systems dedicated to removal of emerging pollutants from wastewater discharged to the environment. PP10 will participate in the training programme and validate the programme.

991 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 11

LP/PP Project Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language Turun seudun puhdistamo Oy (26 / 250 characters)

Organisation in English Turku Region Wastewater Treatment Plant (39 / 250 characters)

Department in original language - (1 / 250 characters)

Department in English - (1 / 250 characters)

Partner location and website:

Address Polttimonkatu 2 (16 / 250 characters)

Postal Code 20100 (6 / 250 characters)

Town Turku (5 / 250 characters)

Website www.turunseudunpuhdistamo.fi (28 / 100 characters)

Country Finland

NUTS1 code Manner-Suomi

NUTS2 code Etelä-Suomi

NUTS3 code Varsinais-Suomi

Partner ID:

Organisation ID type Business Identity Code (Y-tunnus)

Organisation ID 1774713-5

VAT Number Format FI + 8 digits

VAT Number N/A ☐ FI17747135 (10 / 50 characters)

PIC n/a (3 / 9 characters)

Partner type:

Legal status a) Public

Type of partner Infrastructure and public service provi — Public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc.)

Sector (NACE) 37.00 - Sewerage

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Role of the partner organisation in this project:

PP11 Turku Region Wastewater Treatment Plant is a Follower WWTP and will be involved in uptake of the mobile pilot plant after tests at the WWTPs in Tartu and Tallinn for identification feasibility and efficiency of advanced wastewater treatment. PP11 will be responsible for testing and evaluating the performance of the advanced treatment process focused on removal of the targeted emerging micropollutants taking in consideration circular economy opportunities. PP11 will be preparing and evaluating report on the results of the conducted pilot studies including the analysis of remaining gaps which will be the base for the individual investment roadmap providing important ground for future investments and upgrade of the plant. PP11 will test guidelines for design of a full-scale tertiary treatment systems dedicated to removal of emerging pollutants from wastewater discharged to the environment. PP11 will participate in the training programme and validate its aplication.

981 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 12

LP/PP Project Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language
DWA Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V.
DWA-Landesverband Nord-Ost

100 / 250 characters

Organisation in English
DWA German Association for Water, Wastewater and Waste DWA Regional group North-East

84 / 250 characters

Department in original language
n/a

3 / 250 characters

Department in English
n/a

3 / 250 characters

Partner location and website:

Address
Halberstädter Str. 40a

30 / 250 characters

Postal Code
39112

13 / 250 characters

Town
Magdeburg

18 / 250 characters

Website
www.dwa-no.de

21 / 100 characters

Country Germany

NUTS1 code Sachsen-Anhalt

NUTS2 code Sachsen-Anhalt

NUTS3 code Magdeburg, Kreisfreie Stadt

Partner ID:

Organisation ID type	Other registration number (Sonstige)
Organisation ID	VR 3562 (15 / 50 characters)
VAT Number Format	DE + 9 digits
VAT Number	N/A ☐ DE123381953 (11 / 50 characters)
PIC	n/a (3 / 9 characters)

Partner type:

Legal status	b) Private	
Type of partner	Interest group	Trade union, foundation, charity, voluntary association, club, etc. other than NGOs
Sector (NACE)	85.59 - Other education n.e.c.	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Financial data	**Reference period**	01/01/2021 –	31/12/2021
	Staff headcount [in annual work units (AWU)]		2.8
	Employees [in AWU]		2.8
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]		0.0
	Owner-managers [in AWU]		0.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]		0.0
	Annual turnover [in EUR]		403,690.00
	Annual balance sheet total [in EUR]		276,648.00
	Operating profit [in EUR]		15,800.00

Role of the partner organisation in this project:

DWA represents the target group interest group in the project consortium. Being involved in professional training of national authorities and infrastructure and service providers, DWA will support the development of the training package in WP1 and piloting of trainings during WP2. This includes organizing one training in Germany. DWA will lead the GoA 3.3 Transfer of tools, methods and training for infrastructure and public service providers. DWA already worked in other transnational projects (IWAMA, CWpharma) and has gained experencies in the specific needs of transnational collaboration for professional trainings. DWA will organize the final conference of the project in Berlin.

688 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 13

LP/PP	Project Partner		
Partner Status	Active		
	Active from 22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Aplinkosaugos valdymo ir technologijų centras, VšĮ (50 / 250 characters)
Organisation in English	Environmental Center for Administration and Technology (54 / 250 characters)
Department in original language	- (1 / 250 characters)
Department in English	- (1 / 250 characters)

Partner location and website:

Address	Lydos 4 (7 / 250 characters)	**Country**	Lithuania
Postal Code	LT-44213 (8 / 250 characters)	**NUTS1 code**	Lietuva
Town	Kaunas (6 / 250 characters)	**NUTS2 code**	Vidurio ir vakarų Lietuvos regionas
Website	www.ecat.lt (11 / 100 characters)	**NUTS3 code**	Kauno apskritis

Partner ID:

Organisation ID type	Legal person's code (Juridinio asmens kodas)
Organisation ID	210069790
VAT Number Format	Please select
VAT Number	**N/A** ☑ (0 / 50 characters)
PIC	950614842 (9 / 9 characters)

Partner type:

Legal status	b) Private	
Type of partner	NGO	Non-governmental organisations, such as Greenpeace, WWF, etc.
Sector (NACE)	94.99 - Activities of other membership organisations n.e.c.	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities?	No

Financial data	**Reference period**	01/01/2020	–	31/12/2020
	Staff headcount [in annual work units (AWU)]			3.0
	Employees [in AWU]			1.0
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]			0.0
	Owner-managers [in AWU]			2.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]			0.0
	Annual turnover [in EUR]			71,721.00
	Annual balance sheet total [in EUR]			84,521.00
	Operating profit [in EUR]			8,787.00

Role of the partner organisation in this project:

The organisation is contributing to the development of the approaches on addressing PFAS from the local and national side. It will be particularly involved in the development of the training package along the GoAs 1.4, 2.4, 3.2. and 3.3, to support the development of the capacities of the local authorities and service providers with targeted materials and tools. ECAT-LT will also support the GoAs 1.2 and 2.2 addressing the development of the local risk assessment plans.

474 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 14

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Rīgas valstspilsētas pašvaldība (31 / 250 characters)
Organisation in English	City of Riga (12 / 250 characters)
Department in original language	Rīgas pašvaldības aģentūra “Rīgas enerģētikas aģentūra” (55 / 250 characters)
Department in English	Riga Municipal Agency “Riga Energy Agency” (42 / 250 characters)

Partner location and website:

Address	Mazā Jauniela 5 (16 / 250 characters)	**Country**	Latvia
Postal Code	LV-1050 (7 / 250 characters)	**NUTS1 code**	Latvija
Town	Riga (4 / 250 characters)	**NUTS2 code**	Latvija
Website	www.rea.riga.lv (15 / 100 characters)	**NUTS3 code**	Rīga

Partner ID:

Organisation ID type	Unified registration number (Vienotais reģistrācijas numurs)
Organisation ID	90011524360
VAT Number Format	LV + 11 digits
VAT Number	N/A ☐ LV90011524360 (13 / 50 characters)
PIC	937861670 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Local public authority	Municipality, city, etc.
Sector (NACE)	84.11 - General public administration activities	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Role of the partner organisation in this project:

Project partner, leader of GoAs 1.2. and 2.2.

45 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

◉ Yes ○ No

2.3 Associated Organisation Details - AO 1

Associated organisation name and type:

Organisation in original language: Eesti Vee-ettevõtete Liit (26 / 250 characters)

Organisation in English: Estonian Waterworks Association (32 / 250 characters)

Department in original language: - (1 / 250 characters)

Department in English: - (1 / 250 characters)

Legal status: a) Public

Type of associated organisation: Interest group — Trade union, foundation, charity, voluntary association, club, etc. other than NGOs

Associated organisation location and website:

Address: Järvevana tee 3 (15 / 250 characters)

Country: Estonia

Postal Code: 10132 (5 / 250 characters)

Town: Tallinn (7 / 250 characters)

Website: www.evel.ee (11 / 100 characters)

Role of the associated organisation in this project:

EVEL will be one of the key organisations to reach a wider spread of public service providers in Estonia with the information, solutions and outputs gathered and put together in the EMPEREST project. EVEL can be indispensable when disseminating the O2.3 (Strategies and technological means for minimising organic micropollutant emissions from WWTPs) and O2.3 (Transferable training package for infrastructure and service providers approved by EMPEREST project) and the contact network of EVEL as a association of waterworks in Estonia will be used in WP3 for the transfer of project solutions.

593 / 1,000 characters

2.3 Associated Organisation Details - AO 2

Associated organisation name and type:

Organisation in original language: Malmö stad (10 / 250 characters)

Organisation in English: City of Malmö (13 / 250 characters)

Department in original language: Miljöförvaltningen (18 / 250 characters)

Department in English: Environmental Department (24 / 250 characters)

Legal status: a) Public

Type of associated organisation: Local public authority — Municipality, city, etc.

Associated organisation location and website:

Address: Bergsgatan 17 (14 / 250 characters)

Country: Sweden

Postal Code: 20580 (6 / 250 characters)

Town: Malmö (5 / 250 characters)

Website: www.malmo.se (12 / 100 characters)

Role of the associated organisation in this project:

City of Malmö will support the project activities aimed at the local public authorities, incl. providing feedback into the work on local risk assessment plans (GoAs 1.2, 2.2) and development of the training package for local authorities and water operators to raise their capacities and equip them with relevant materials on addressing PFAS in the environment (GoAs 1.4, 2.4, 3.2, 3.3). The AO2 will also actively communicate project achievements on local level and run the PFAS awareness raising campaign based on materials developed by the project consortium.

561 / 1,000 characters

2.3 Associated Organisation Details - AO 3

Associated organisation name and type:

Organisation in original language
SIA "Rīgas ūdens"
17 / 250 characters

Organisation in English
"Riga Water" Ltd.
17 / 250 characters

Department in original language
Tehniskais departaments
23 / 250 characters

Department in English
Technical Department
20 / 250 characters

Legal status
a) Public

Type of associated organisation
Infrastructure and public service provi
Public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc.)

Associated organisation location and website:

Address
Zigfrīda Annas Meierovica bulvāris 1
36 / 250 characters

Country
Latvia

Postal Code
LV-1495
8 / 250 characters

Town
Riga
4 / 250 characters

Website
www.rigasudens.lv
17 / 100 characters

Role of the associated organisation in this project:

Riga Water Ltd as the municipal utility service provider in the City of Riga, providing Riga residents with drinking water, sewerage and wastewater treatment services, will be involved in all EMPEREST project activities as the local experts. In particular, Riga Water Ltd will host the local pilot site and coordinate pilot imlementation.
340 / 1,000 characters

2.3 Associated Organisation Details - AO 4

Associated organisation name and type:

Organisation in original language
UAB "Aukštaitijos vandenys"
27 / 250 characters

Organisation in English
Panevėžys Water Ltd.
20 / 250 characters

Department in original language
-
1 / 250 characters

Department in English
-
1 / 250 characters

Legal status
a) Public

Type of associated organisation
Infrastructure and public service provi
Public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc.)

Associated organisation location and website:

Address
Velžio kelias 13
16 / 250 characters

Country
Lithuania

Postal Code
LT-36111
8 / 250 characters

Town
Panevėžys
9 / 250 characters

Website
www.avandenys.lt
16 / 100 characters

Role of the associated organisation in this project:

UAB “Aukštaitijos vandenys” supplies drinking water, collects and manages wastewater, operates water supply and sewage disposal networks and activities related to equipment maintenance. In the project this partner will take part in the following Groups of Activities:
- 1.1/1.2 Monitoring and assessment of contamination of the aquatic environment by PFAS group - data on PFAS discharges from AO4 will be used as a base for selection of test sites for monitoring methodology,
- 2.4 Tailoring the assembled training package for target group needs - participation and validation of the training programme,
- 3.3 Transfer of tools, methods and training for infrastructure and public service providers
The partner is interested in possible Follower WWTP role and pilot tests with the mobile pilot after the project closure based on guidance and experiences from the project Demonstrator WWTPs. As potential Follower WWTP, partner will participate in trainings at the Demonstrator WWTPs.

995 / 1,000 characters

2.3 Associated Organisation Details - AO 5

Associated organisation name and type:

Organisation in original language
Jonavos rajono savivaldybė
26 / 250 characters

Organisation in English
Jonava district municipality
28 / 250 characters

Department in original language
Turto ir aplinkos apsaugos skyrius
34 / 250 characters

Department in English
Division of Property and Environmental Protection
49 / 250 characters

Legal status
a) Public

Type of associated organisation
Local public authority
Municipality, city, etc.

Associated organisation location and website:

Address
Žeimių g. 13
12 / 250 characters

Country
Lithuania

Postal Code
55158
5 / 250 characters

Town
Jonava
6 / 250 characters

Website
www.jonava.lt
13 / 100 characters

Role of the associated organisation in this project:

Jonava District Municipality will support the project activities aimed at the local public authorities, incl. providing feedback into the work on local risk assessment plans (GoAs 1.2, 2.2) and development of the training package for local authorities and water operators to raise their capacities and equip them with relevant materials on addressing PFAS in the environment (GoAs 1.4, 2.4, 3.2, 3.3).

401 / 1,000 characters

2.3 Associated Organisation Details - AO 6

Associated organisation name and type:

Organisation in original language
Tauragės rajono savivaldybės administracija
43 / 250 characters

Organisation in English
Taurage district municipality
29 / 250 characters

Department in original language
Architektūros ir geodezijos skyrius
35 / 250 characters

Department in English
Department of Architecture and Geodesy
38 / 250 characters

Legal status
a) Public

Type of associated organisation
Local public authority
Municipality, city, etc.

Associated organisation location and website:

Address
Respublikos g. 2
16 / 250 characters

Country
Lithuania

Postal Code
72255
5 / 250 characters

Town
Taurage
7 / 250 characters

Website
www.taurage.lt
14 / 100 characters

Role of the associated organisation in this project:

Tauragė district municipality will support the project activities aimed at the local public authorities, incl. participating in the PFAS risk assessment methodology testing to protect Taurage district municipality drinking water supply (GoAs 1.2, 2.2), and capacity building for local specialists by supporting the development of the training package for local authorities and water operators on addressing PFAS in the environment (GoAs 1.4, 2.4, 3.2, 3.3).
457 / 1,000 characters

2.3 Associated Organisation Details - AO 7

Associated organisation name and type:

Organisation in original language: Naturvårdsverket (16 / 250 characters)

Organisation in English: Swedish Environmental Protection Agency (39 / 250 characters)

Department in original language: Miljögiftsenheten (17 / 250 characters)

Department in English: Environmental contaminants unit (31 / 250 characters)

Legal status: a) Public

Type of associated organisation: National public authority — Ministry, etc.

Associated organisation location and website:

Address: Virkesvägen 2 (13 / 250 characters)

Country: Sweden

Postal Code: 106 48 (6 / 250 characters)

Town: Stockholm (9 / 250 characters)

Website: www.naturvardsverket.se (23 / 100 characters)

Role of the associated organisation in this project:

The Environmental contaminant unit at the SEPA mainly work with the national monitoring programs for contaminants so the information coming out of the EMPEREST project will be very valuble for our work. SEPA will contribute to the D1.1 Drafting recommendations and guidelines for regional and national monitoring programmes and assessment procedures for PFAS, including analytical procedures, assessment methodologies since SEPA is initiating a national project developing PFAS guidelines for monitoring during 2022.

520 / 1,000 characters

2.3 Associated Organisation Details - AO 8

Associated organisation name and type:

Organisation in original language: Suomen Vesilaitosyhditys ry (27 / 250 characters)

Organisation in English: Finnish Water Utilities Association (35 / 250 characters)

Department in original language: n/a (3 / 250 characters)

Department in English: n/a (3 / 250 characters)

Legal status: a) Public

Type of associated organisation: Interest group — Trade union, foundation, charity, voluntary association, club, etc. other than NGOs

Associated organisation location and website:

Address: Ratamestarinkatu 7B (19 / 250 characters)

Country: Finland

Postal Code: 00520 (5 / 250 characters)

Town: Helsinki (8 / 250 characters)

Website: www.vvy.fi (10 / 100 characters)

Role of the associated organisation in this project:

Finnish Water Utilities Association will be one of the umbrella organisations ensuring wider outreach to water utilities in Finland beyond the project consortium. The partner will be involved in the discussions at the project seminars and provide feedback to the produced outputs and solutions thus supporting the validation of the respective outputs and adjusting them to the local needs. As public service providers (water utilities) are one of the main target group of the project, Finnish Water Utilities Association will support the aim of localising and disseminating project outputs and solutions to its members for further uptake in Finland.

652 / 1,000 characters

3. Relevance

3.1 Context and challenge

Within the recent decades, there has been a rise in knowledge about different organic micropollutants such as pharmaceuticals or PFAS. Together with this increased knowledge concrete steps would need to be taken in order to lessen the sources of this pollution. Although this challenge has partially been addressed in some countries in the BSR for a number of years now (SE, DK, DE), the situation is regionally very uneven. Wastewater treatment plants (WWTPs) are a centralised node, where a lot of the diffuse pollution from common households is luckily gathering, while due to being a part of the public services, there are strict regulations in place about what can be included in the water price. As there are no concrete international legislations or strict limit values, expenses for advanced treatment technologies are not justified to be included in the water price in most countries.

At the same time, international legislations, whether on the EU or HELCOM level have not been set up due to scarse data and a lot of uncertainty about the volume of pollution (insufficient environmental monitoring). Furthermore, no new legislations or strict limit values of pollutants can be posed upon WWTPs without concrete knowledge of technologies that could be able to fulfil them. This has unfortunately created a situation, where organic micropollutants are continuously accumulating in the aquatic systems while activities to address them are stuck behind multiple barriers.

EMPEREST is tackling two specific barriers that are currently on our way:
- lack of comprehensive and accurate information on the level of PFAS contamination of the aquatic environment as well as their sources and pathways. A universal monitoring plan would be needed to gather enough knowledge for the development of respective measures and legislations;
- lack of technological pilot-based information on the effect and feasibility of the most commonly considered advanced effluent treatment methods in the WWTPs.

1,998 / 2,000 characters

3.2 Transnational value of the project

The matter of pollution of the environment by persistent, mobile organic pollutants is complex and cannot be addressed by a single country. The level of knowledge and expertise in addressing these emerging pollutants differs significantly in different parts of the BSR, therefore, a transnational approach ensuring a comprehensive view on the problem, as well as solutions developed to be suitable for the whole region, is needed. The knowledge exchange in the water sector in BSR has been ongoing for years, while some gaps in understanding still remain due to different approaches to organic pollutants and safety of the treated effluent and sludge. These differences often arise from uneven quantity of research and studies, as the forerunners in the region have much better information about potential hazards. In order to bridge these gaps in the region, the project mobilises scientific community, policy makers and practitioners to jointly develop policy and technological solutions addressing POPs.

Due to the long use, PFAS can be found everywhere in the environment. Transferred by water, they do not respect borders. That is why a transnational approach is needed and the BSR has the chance to become a worldwide lighthouse. The Baltic Sea is something the whole region shares, and transnational cooperation between the surrounding countries is vital to its health. Further analysis and technology testing need to take place fast to make sure the current degradation can be halted, and the situation would turn towards a positive change. Evidence-based information about the problem will significantly improve the approach and understanding in the region, taking the first steps towards a toxic free environment objective. Reducing the PFAS discharges from WWTPs, setting up a monitoring plan and showing the potential in water reuse will not only benefit the Baltic Sea, but also help the EU to more firmly establish itself as a global leader in sustainability and circular economy.

1,999 / 2,000 characters

3.3 Target groups

Target group	Sector and geographical coverage	Its role and needs
Infrastructure and public service provid	Water sector/Municipal Water Utilities/Wastewater Treatment Plants WWTPs are a focal point for the removal of pollutant particles before they are discharged into aquatic environment. 1. Poland (Gdańsk, Szczecin) 2. Estonia (Tartu, Tallinn) 3. Finland (Turku) 4. Lithuania (Kaunas) 5. Latvia (Riga) 300 / 500 characters	Demonstrator WWTPs (Gdansk, Tartu) will be responsible for the design and construction of an advanced treatment technology pilot system to identify feasibility and efficiency of downstream removal of micro-pollutants of emerging concern. The Follower WWTPs will do 2nd and 3rd step tests with the mobile pilot plants relocated to their facilities, based on guidance and first experiences from the Demonstrator WWTPs, while also collaborating with them during the design and construction phase. Follower WWTPs will also have training at the Demonstrator WWTPs. As new restrictions on organic micropollutants are seen in the near future, WWTPs need information on the best relevant technologies (economic feasibility, technological efficiency and environmental effect). Together with the technological side, WWTPs also need guidelines on operating these processes, trainings increasing capacities, and legal support and incentives to launch wide spread of investments in advance effluent treatment. 996 / 1,000 characters

Target group	Sector and geographical coverage	Its role and needs
National public authority	National public authorities from Baltic Sea countries responsible for establishing of national environmental monitoring programmes under the EU MSFD and WFD. National competent authorities representing Contracting Parties in Helsinki Commission, providing data for regional assessments and utilizing the results of regionally coordinated assessments for the development of national programmes of measures and evaluation of their effects e.g Swedish Environmental Protection Agency. 484 / 500 characters	Regional coordination of methods to assess PFAS contamination requires harmonization of national monitoring programmes of the EU member states in the BSR. Validation of the solution developed in the frame of the project is key task for this target group. National competent authorities will prove economic feasibility of the proposed monitoring and assessment methodologies, and that information obtained applying this methodology will cater for respective needs of environmental management. National authorities delegate representatives to participate in the activities related to PFAS in the environment organized by PA Hazards, including PA's steering group, where project outputs will be considered and reviewed. National authorities delegate experts to HELCOM EG Hazards where regionally harmonized methodology for PFAS monitoring and assessment will be considered. This will facilitate adoption of the developed solution at national and regional levels (sustainability of project outputs). 995 / 1,000 characters
International governmental organisation	HELCOM, Baltic Marine Environment Protection Commission and its subordinated bodies, as intergovernmental organization (IGO), serves as a platform for science-policy dialog and knowledge transfer for competent representatives of the EU members states in the Baltic Sea region. HELCOM also coordinates regional effort to assess the state of the Baltic Sea marine environment, environmental pressures and undertake regional activities to jointly address respective challenges. 475 / 500 characters	The role of IGO is to organize a science-policy dialog enabling thorough reviewing of project outputs and validating their applicability for regionally coordinated efforts to monitor and assess the magnitude of PFAS contamination and to justify respective measures. Due to the complexity of the issue, finding feasible solutions requires the involvement of extensive transnational expertise to transfer scientific knowledge to regional policy. The project will mobilize international scientific community for co-creation of required knowledge and HELCOM will provide suitable platform for that. Respective HELCOM expert and working groups will consider and review project outputs such as methodological recommendations for monitoring and assessment of PFAS contamination and respective guideline. It will assure transnational context of the project outputs, and integration of these outputs into HELCOM framework will guarantee sustainability of the project results for long-term perspective. 994 / 1,000 characters
Local public authority	Urban environment-related departments of the Riga City Council, City of Malmö, Jonava district municipality, Taurage district municipality as well as Panevėžys city and Panevėžys water company, and cities of the Union of the Baltic Cities network. 247 / 500 characters	The cities' role is to assess the challenge of the environmental contamination by PFAS on the local level, and develop measures for addressing the local management practices on this issue. Local authorities need local risk assessment plans and tools to facilitate optimal risk management paths and propose preventive solutions. Local authorities participating in the project consortium as regular and associated partners will be involved in the elaboration process to establish the understanding of the environmental risks posed by PFAS in aquatic ecosystem and to identify the approach to manage the potential impact of PFAS entering the environment. UBC network of 70 cities will be involved in this process for collecting feedback on the wider regional situation and local contexts. 786 / 1,000 characters

Target group	Sector and geographical coverage	Its role and needs
Interest group	National water associations are politically and economically independent. They are committed to the development of save and sustainable water management. Representing experts and decision makers from municipalities, authorities, consultants, companies and science, they offer forums for ideas and the exchange of opinions and support politics with their advice. Environmental training centres in some BSR countries have similar role in professional training. Target groups come from DE, LT, EE. 496 / 500 characters	The associations are involved in preparing and updating national standards and guidelines. They are also engaged in national and international cooperation to draft special standards. Their work does not only refer to technical and scientific issues, but also to the economic and legal aspects of environmental and water protection. By organizing workshops and special trainings the national water associations play an important role in capacity building for water professionals via life long learning. National water associations and environmental training centres will mainly support the necessary training and knowledge transfer processes. They have the necessary networks and expertise from their long-term experiences in professional training. The main task of the project is to supply the target group with dedicated, tested material for workshops and hands-on training of water professionals. 899 / 1,000 characters

3.4 Project objective

Your project objective should contribute to:

Sustainable waters

The project develops activities and outputs aiming at improving the sustainable management of water resources in the Baltic Sea Region. Tackling the complex subject of emerging micropollutants, the extensive list of which has not been established yet to ensure comprehensive region-wide monitoring process, the project aims at eventual addressing of the whole water cycle, from investigating the drinking water quality, to monitoring of wastewater, and to wastewater treatment measures.

EMPEREST will address the needs of target groups by both direct and comprehensive activities. The project will launch mobile plants to cost-efficiently pilot advanced wastewater treatment consequently in several BSR countries, to provide WWTPs with information on best technologies and specifics of operating these processes. WWTPs will also be involved in the training and mentoring process, to equally raise knowledge and capacities for addressing micropollutants in wastewater stream. These activities will lead to reducing the water pollution on the downstream side of the water cycle.

Local and national public authorities will be involved in the work on validating recommendations for monitoring and assessment of PFAS contamination and inputs, to ensure that these target groups are equipped with relevant, reliable and concise data on the state of environment and environmental pressures. From the international governance level, HELCOM is involved to both secure the science-policy link addressing the water pollution cross-sectorally and transnationally, and bringing the project results to the regional policy level.

Local authorities also need concrete tools and guidance on addressing pollution by hazardous substances in the spheres where the mandate lies within the city administrations. Project will deliver both training and tools for the holistic uptake of activities on monitoring and addressing PFAS on the local level.

1,931 / 2,000 characters

3.5 Project's contribution to the EU Strategy for the Baltic Sea Region

Please indicate whether your project contributes to the implementation of the Action Plan of the EU Strategy for the Baltic Sea Region (EUSBSR).

(•) Yes ( ) No

Please select which Policy Area of the EUSBSR your project contributes to most.

PA Hazards

Please list the action of this Policy Area that your project contributes to and explain how.

PA Hazards Action 1 Prevent pollution and reduce the use of hazardous substances

Objective: To develop and implement (non)-regulatory measures and BSR wide policies to prevent emissions of hazardous substances to the BS.

The project is in line with action - to prevent pollution and reduce the use of hazardous substances, as well as to mitigate and remediate contamination. Since we can't manage what we don't measure, the focus of the project is to provide a comprehensive and accurate information on the level of PFAS contamination in the aquatic environment and to pilot the most feasible advanced effluent treatment methods for PFAS group of emerging pollutants. EMPEREST will develop practical solutions and policy recommendations for reduction of PFAS pollution in the region and thus provide direct inputs to PA Hazards. The focus of the project is on PFAS and aim is to tackle the issue on a macro-regional level, enabling knowledge transfer from countries that have come further in the process of developing national actions (SE, DE).
EMPEREST will contribute by:
- strengthening the PA Hazards PFAS expert platform with knowledge and experts (scientific community; piloted and validated advanced technology solutions);
- developing policy recommendations to monitor PFAS (proposal for regionally harmonized indicators for the assessment of the state of the aquatic environment, applicable for regional assessment of the Baltic Sea environment and national reporting under MSFD).

1,493 / 1,500 characters

If applicable, please describe which other Policy Areas of the EUSBSR your project contributes to and how.

EMPEREST will support PA Nutri activities leading to ensuring safe and sustainable nutrient recycling. Safe nutrient recycling is crucial for unlocking the circular economy approach and project addresses this issue by harmonizing the regional monitoring of PFAS in water and promoting advanced technologies for wastewater purification. The project would not only work on further outlining the sources of emissions and pathways to the environment, but also possible mitigation measures and technologies. Investments in WWTPs to safely degrade the substances in the effluents is one of the key points proposed.

Project will have positive impact on PA Health (increasing knowledge and understanding of health impacts and uncertainties) and PA Safe (strengthening monitoring framework against marine pollution) as well as PA Bioeconomy, especially in respect to its actions on Bio-based business (engaging the private sector in dialogue and cooperation on circular economy business solutions), R&D and Innovation (improving the overview of research institutions knowledge and excellence and opportunities through shared use of hard and soft test and demonstration infrastructures) and Outreach (accelerating transition towards the circular economy through awareness raising).

1,273 / 1,500 characters

3.6 Other political and strategic background of the project

Strategic documents
The EU chemicals strategy for sustainability is a part of the EU's zero pollution ambition, which is a key commitment of the EU Green Deal. Project outputs will contribute to the Strategy's action related to the use of per- and polyfluoroalkyl substances (PFAS) in the EU. Project outputs related to harmonized monitoring methodologies is direct contribution to another component of the EU Green Deal - Zero pollution action plan for water, air and soil with regard to "Zero Pollution Monitoring". (497 / 500 characters)
Project outputs will contribute to the implementation of the HELCOM BSAP segment on hazardous substances providing solutions for the development of monitoring and setting assessment targets and thus strengthening the management cycle for hazardous substances. The project contributes to the implementation of several BSAP actions aimed to reduce emissions of hazardous substances and identification of regional priorities. (423 / 500 characters)
EU Circular Economy Action Plan and the Regional Nutrient Recycling Strategy consider safe recycling of valuable components of sewage waters as one of the key objectives. The project solutions will serve for better understanding of sources and pathways of PFASs and contribute to the development of respective quality standards leading to safe recycling of valuable components. (377 / 500 characters)

3.7 Seed money support

Please indicate whether your project is based on a seed money project implemented in the Interreg Baltic Sea Region Programme 2014-2020.

(•) Yes ( ) No

Please enter the title of this seed money project.

EMPEREST - En-masse Mapping of PFAS In Wastewater Treatment Plant Effluents for REuse STrategies in the Baltic Sea Region

121 / 200 characters

Please select which Policy Area (PA) or Horizontal Action (HA) this seed money project contributed to most.

PA Hazards

3.8 Other projects: use of results and planned cooperation

Full name of the project	Funding Source	Use of the project outcomes and/or planned cooperation
BSR WATER – Platform on Integrated Water Cooperation (52 / 200 characters)	Interreg Baltic Sea Region Programme 2014 – 2020 (48 / 200 characters)	BSR WATER platform aimed at enhancing cross-sectoral water cooperation through the exchange of experiences and practices, and delivering regional policy inputs. Platform involved 7 transnational projects holistically targeting sustainable water management. Platform launched a portal Baltic Smart Water Hub for the exchange of practices, solutions, innovations and expertise, which, already known internationally, will be used to ensure the durability of the EMPEREST project results. Hub Experts Group will be used for validation of the pilots and recommendations for PFAS monitoring and assessment. Outcomes from platform projects BEST and RBR will be utilised, incl: BEST project recommendations for addressing micropollutants in industrial stream; RBR project pilots for downstream measures for reduction of harmful substances; BSR WATER PFAS Policy briefs and report on micropollutants. The results will be utilised in GoA 1.1 policy recommendations and GoA1.2.technical pilots assessment. (997 / 1,000 characters)

Full name of the project	Funding Source	Use of the project outcomes and/or planned cooperation
Baltic Leadership Programme on per- and polyfluoroalkyl substances (BLP PFAS) 77 / 200 characters	Swedish Institute 17 / 200 characters	BLP PFAS is a platform for PFAS experts and facilitating PFAS information, started in 2019. The platform aims to connect people to gather the knowledge and promote collaboration to reduce emissions of PFASs to the natural environment. The main output of platform is the network, which some of the project partners are also members of. This network of interested experts on the field will be used to gather information, knowledge and data from different interests groups. The platforms regular monthly "online coffee breaks" will be used to keep in touch with other professionals working on the same field and keep up to date with latest advancements in legislation or analytical methods. The network will also be invited to many of the EMPEREST project workshops, trainings and activities planned and used as an alternative method for the dissemination of project outputs and finding opportunities to transfer the solutions to other interested parties in the field. 965 / 1,000 characters
ZeroPM: Zero pollution of Persistent, Mobile substances 55 / 200 characters	Horizon 2020 - Green Deal Call 30 / 200 characters	According to the already available descriptions three projects funded by the Green Deal Call included wastewater treatment in their agenda. Cooperation with them will be established in WP1, ZeroPM seen as most promising for exchange, but also PROMISCES and SCENARIOS will generate knowledge transferable to the BSR. Findings of the projects will be discussed at PSG meetings and shared through project organised training events. The exchange on the following common topics for all projects is foreseen: - new analytical methods and toxicological tools to provide data on persistent, mobile substances (PM) in complex environmental matrices - sources and pathways of PM released from WWTPs and via urban runoff into relevant environmental compartments (surface water, groundwater). - characterization of the fate of persistent and mobile substances during waste water sludge treatment; - cost-efficient and sustainable technologies for the removal of PM substances from different media. 989 / 1,000 characters

Full name of the project	Funding Source	Use of the project outcomes and/or planned cooperation
MORPHEUS: Model Areas for Removal of Pharmaceutical Substances in the South Baltic 82 / 200 characters	Interreg South Baltic Programme 2014 – 2020 43 / 200 characters	The project combined information on upstream pharmaceuticals consumption patterns with estimates of the downstream discharge of pharmaceuticals from selected WWTPs located in SE, DE, LT and PL. An inventory of the status of existing treatment technologies was prepared. Among the outputs of MORPHEUS especially the published Roadmaps for investment in advanced treatment technologies at selected regional wastewater treatment plants will be considered relevant for development of full-scale investments in EMPEREST. It is intended to get in touch with both the WWTPs and authors of the roadmaps for intensified exchange during WP1. In parallel, IBSR-funded project CWPharma and its successor CWPharma2 also dealt with the options advanced WWT offers to remove pharmaceutical residues from wastewater. The guidelines and design suggestions as well as operational experiences published in the reports will be considered. DWA as former partner in CWPharma will have a considerable role in uptaking. 996 / 1,000 characters
BONUS CLEANWATER 16 / 200 characters	BONUS 5 / 200 characters	BONUS CLEANWATER focused on developing ecotechnologies for removing microplastics and organic micropollutants, such as pharmaceuticals, biocides, flame retardants, and personal care products, from wastewater to reduce the inputs into the Baltic Sea. Project delivered an assessment of the predominant ways of input of microplastics and micropollutants (MP) as well as advances in analytical processes. CLEANWATER focused on urban aquatic emissions of microplastics and micropollutants and considered the following pathways: treated (and untreated) wastewater, stormwater and combined sewer overflow. The EMPERST will utilise the critical knowledge and lessons learned from the finalised project on how ecotechnologies can be used for removing organic micropollutants from wastewater in order to reduce the inputs into the Baltic Sea. In particular the cost-benefit assessment of technologies will be used for selecting and testing the best available technological solutions for PFAS removal. 991 / 1,000 characters

3.10 Horizontal principles

Horizontal principles	Projects's direct impact
Sustainable development	positive
Non-discrimination including accessibility	neutral
Equality between men and women	neutral

4. Management

Allocated budget 15%

4.1 Project management

☑ **Please confirm that the lead partner and all project partners will comply with the rules for the project management as described in the Programme Manual.**

If relevant, please indicate any other important aspects of the project management, e.g. external entity supporting the lead partner in the management of the project, advisory board, steering committee, any other relevant working groups, etc.

The UBC Sustainable Cities Commission will act as a Lead Partner and chair the Project Steering Group (PSG), the body responsible for monitoring of project progress in line with work plan and budget. The PSG will consist of WPs and GoAs leaders meeting on regular basis in both offline and online formats to discuss main project directions. Representatives of PA Hazard, PA Nutri and UBC Representation Office in Brussels will be invited to the PSG meetings to validate strategic/policy relevance.

497 / 500 characters

4.2 Project financial management

☑ **Please confirm that the lead partner and all project partners will comply with the rules for the financial management and control as described in the Programme Manual.**

If relevant, please indicate any other important aspects of the financial management, e.g. external entity supporting the lead partner, positions planned for financial management, involvement of special financial experts (e.g. for public procurement), etc.

LP will appoint a Financial Management Team (FMT). FMT will consist of financial manager, project manager and public procurement expert. Public procurement expert will be consulted in case of specific procurement related operations. FMT ensures that all partners will follow the financial guidelines set by the funding authority, use sound accounting system for accurate financial reporting and secure that the finances are committed adequately, cost-beneficiary and according to eligibility rules.

498 / 500 characters

4.3 Input to Programme communication

☑ **Please confirm that you are aware of the obligatory inputs to Programme communication that must be submitted along the pre-defined progress reports, as described in the Programme Manual.**

If relevant, please describe other important aspects of project communication that you plan to introduce, e.g. a communication plan, opening and closing events, social media channel(s) etc.

EMPEREST will reach out to the target groups via events on the regional and EU level (e.g.EU Green Week, EUSBSR Annual Forum); moreover, events of the partners UBC and HELCOM will be especially utilised to reach out to their members (local and national authorities) for transferring developed outputs to the strategic/decision-making level. Portal Baltic Smart Water Hub will be used for structural outreach to water experts through the existing tool well-recognized in the region.

481 / 500 characters

4.4 Cooperation criteria

Please select the cooperation criteria that apply to your project. In your project you need to apply at least three cooperation criteria. Joint development and joint implementation are the obligatory ones you need to fulfill in your project.

Cooperation criteria	
Joint Development	☑
Joint Implementation	☑
Joint Staffing	☑
Joint Financing	☑

5. Work Plan

Number	Work Package Name
1	Preparing solutions

Number	Group of Activity Name
1.1	Monitoring and assessment of PFAS contamination in the aquatic environment
1.2	Preparing draft framework for local PFAS risk assessment plan
1.3	Designing mobile advanced effluent treatment technology pilots for organic micropollutant removal
1.4	Assembling a training package on monitoring and removal of PFAS and other organic micropollutants

Number	Work Package Name
2	Piloting and evaluating solutions

Number	Group of Activity Name
2.1	Testing and validation of recommendations for monitoring and assessment of PFAS
2.2	Local authorities involvement: piloting and validation of draft local PFAS risk assessment
2.3	Testing the mobile advanced effluent treatment technology pilots for organic micropollutant removal
2.4	Tailoring the assembled training package for target group needs

Number	Work Package Name
3	WP3 Transferring solutions

Number	Group of Activity Name
3.1	Strengthening regional environmental management framework for PFAS group
3.2	Transfer of tools, methods and training for local authorities
3.3	Transfer of tools, methods and training for infrastructure and public service providers

Work plan overview

Period:	1	2	3	4	5	6	Leader
WP.1: Preparing solutions							**PP1**
A.1.1: Monitoring and assessment of PFAS contamination in the aquatic environment							PP2
D.1.1: Draft methodological recommendations to monitor PFAS group in the aquatic environment			D				
A.1.2: Preparing draft framework for local PFAS risk assessment plan							PP14
D.1.2: Draft framework for local PFAS risk assessment plan			D				
A.1.3: Designing mobile advanced effluent treatment technology pilots for organic micropollutant removal							PP3
D.1.3: Individual roadmaps for advanced effluent treatment pilot investments		D					
A.1.4: Assembling a training package on monitoring and removal of PFAS and other organic micropollutants							PP4
D.1.4: Conceptual framework of the training package		D					
WP.2: Piloting and evaluating solutions							**PP1**
A.2.1: Testing and validation of recommendations for monitoring and assessment of PFAS							PP2
O.2.1: Methodological recommendations for monitoring and assessment of PFAS in the aquatic environment				O			
A.2.2: Local authorities involvement: piloting and validation of draft local PFAS risk assessment							PP14
O.2.2: PFAS risk assessment plan for local authorities					O		
A.2.3: Testing the mobile advanced effluent treatment technology pilots for organic micropollutant removal							PP3
O.2.3: Strategies and technological means for minimising organic micropollutant emissions from WWTPs					O		
A.2.4: Tailoring the assembled training package for target group needs							PP4
O.2.4: Transferable training package for infrastructure and service providers approved by EMPEREST project					O		
WP.3: WP3 Transferring solutions							**PP1**
A.3.1: Strengthening regional environmental management framework for PFAS group							PP2
O.3.1: Regional science-policy dialog to promote monitoring and assessment of PFAS in the environment						O	
A.3.2: Transfer of tools, methods and training for local authorities							PP5
D.3.2: Report on the promotional campaign for local authorities						D	
A.3.3: Transfer of tools, methods and training for infrastructure and public service providers							PP12
D.3.3: Report on the developed capacities of infrastructure and public service providers						D	

Outputs and deliverables overview

Code	Title	Description	Contribution to the output	Output/ deliverable contains an investment

D 1.1	Draft methodological recommendations to monitor PFAS group in the aquatic environment	The purpose of the deliverable is to provide a draft for methodological recommendations to monitor PFAS group in the aquatic environment, which will be piloted and validated in the WP2. The draft will include: identification of indicative PFASs or characteristic groups for monitoring in the aquatic environment; description of spatial and temporal parameters suitable to achieve successful monitoring; and identification and prioritization of matrixes (components of the environment) as subject for monitoring. Further the draft will recommend sampling procedures for each matrix and selection of feasible analytical methods providing sufficient data quality to support environmental assessments of environmental state or pressures/inputs against threshold values or targets. Finally, the draft will contain description of procedures for data quality assurance and quality control, proposals for target values and reporting procedures. A substantial part of the deliverable is proposals for national and regional indicators for the assessment of the state of the aquatic environment. This part will be specifically focused on regional assessment of the Baltic Sea environmental health and an inseparable part of it will focus on providing of the guidance for the assessment of ecological status of the marine environment for national MSFD reporting. The draft methodological recommendations will guide piloting PFAS monitoring in WP2 and be utilized as a starting point for regional dialog on the regionally harmonized approach to monitoring and assessment of PFAS in the environment, which will be organized within PA Hazards and HELCOM.	2.1 Methodological recommendations to monitor PFAS group in the aquatic environment	
D 1.2	Draft framework for local PFAS risk assessment plan	A city-specific PFAS risk assessment framework (approach, a tool "PFAS risk register" incl. users' manual, guidelines) enabling local authorities to identify and assess PFAS related risks and propose relevant risk mitigation strategies.	O.2.2: PFAS risk assessment plan for local authorities	
D 1.3	Individual roadmaps for advanced effluent treatment pilot investments	Each investment will have a separate roadmap about specific details important for the tendering and piloting activities in WP2. These details include: -specific technological details and parameters of the planned investment, -prepared overall tender documentation for the purchase and installation of the technological investment, -a general timetable of the proposed piloting activities in each of the consequent users of the mobile pilot plan, -preliminary laboratory analysis plan with main analytes and analysis points outlined, -an overall transfer strategy of the mobile pilot plant from one location to another. As the allocated time for piloting activities is quite short, this preparation of important details will be vital for smooth operation and transfer of the mobile pilot plants. The roadmaps and the outlined activities, details and analysis descriptions within them will also be an important part of the output O2.3 Strategies and technological means for minimising organic micropollutant emissions from WWTPs, with extra commentaries about how each of the prepared sections panned out in the practice added during the piloting in WP2. This collection of physically tested and piloted practices can be used to facilitate new full-scale investments in the Baltic Sea region, with the deliverables from D1.3 intended to be used as a basic plan according to which the future investments and their details can be decided on.	O2.3 Strategies and technological means for minimising organic micropollutant emissions from WWTPs	
D 1.4	Conceptual framework of the training package	The conceptual framework of the training package developed in GoA 1.4 will serve as a basis for pilot courses, project workshops and hands-on trainings held in the next project phase. The training package framework will guide the project partners involved in this work to organize and implement the trainings. It will also enable collecting feedback from project partners in order to prepare the training package well-suited for the needs of the target groups. This deliverable will include detailed instructions for content to be presented at the trainings and will also suggest suitable training formats. The training package will significantly reduce the efforts in preparation of workshops, as the identified important topics will be already outlined in the framework. The framework will be based on the State of Play described in EMPEREST Seed project output, with certain updates on the occurred progress in the field, be it on the legislative or research base. The training material will be based on latest available international knowledge incl. findings of the Green Deal projects, and will therefore be applicable by trainers in the BSR and beyond.	2.4 Transferable training package for infrastructure and service providers	
O 2.1	Methodological recommendations for monitoring and assessment of PFAS in the aquatic environment	The output – methodological recommendations for monitoring and assessment of PFAS in the aquatic environment – will be produced after testing and validation of the draft recommendations delivered by respective group of activities of WP1 (i.e. the lessons learned from the pilot study will be used to review and update the solution developed in WP1). The purpose of the output is to provide regionally harmonized guidance for monitoring and assessment of PFAS group for the aquatic environment. The recommendations will include: definition of indicative PFASs or their sub-groups for monitoring in the aquatic environment; description of spatial and temporal parameters of monitoring; identification and prioritization of matrices (components of the environment) as the monitoring subject. Further the recommendations will provide guidance on sampling procedures for each matrix and feasible analytical methods providing sufficient data quality. Finally, the recommendations will guide procedures for data quality assurance and quality control, proposals for target values and reporting procedures. A substantial part of the output is proposals for regionally harmonized indicators for the assessment of the state of the aquatic environment, applicable for regional assessment of the Baltic Sea environment and national reporting under MSFD. The Methodological recommendations for monitoring and assessment of PFAS in the aquatic environment will be further (WP3 GoA 3.1) transferred into a Guideline (monitoring manual) through regional science-policy dialog, which will be organized within PA Hazards and HELCOM.		

O 2.2	PFAS risk assessment plan for local authorities	The purpose of the output is to provide local authorities with the apprach, tailor-made tools and guidance for the PFAS risk assessment, enabling local authorities to identify and assess PFAS related risks and propose relevant risk mitigation strategies. The output will include the PFAS risk assessment framewotk and at least 5 local PFAS risk assessment plans elaborated, following the developed PFAS risk assessment framework that will be validated with at least 18 other municipalities of the BSR. The successful development and implementation of the risk assessment plan by local public authorities will help them to improve the understanding of the water supply system, improve stakeholder collaboration and operational efficiency of the water utility as well as provide a robust framework to better target sustainable and long-term capital investments. The output, which is a comprehensive PFAS risk assessment framework, will contribute to the overall water utility risk management and thus strenghthen safe and sustainable management of drinking water resources by municiplities. It will help local authorities to understand the complete system, identify where and how risks could arise, recognise barriers, determine control measures and monitoring plans as well as develop overall PFAS management system.		
O 2.3	Strategies and technological means for minimising organic micropollutant emissions from WWTPs	As one of the main challenge addressed in the EMPEREST project, the increased knowledge about a wide variety of organic micropollutants in the environment needs concrete actions to be taken, especially in a shared aquatic environment such as the Baltic Sea. A multi-pronged approach will be needed to address this serious environmental issue with adverse health effects, including more strict regulations and physical large-scale investments. Output 2.3 of the EMPEREST project addresses the wastewater treatment plant effluents, as a "point source" of organic micropollutants to the environment. "Strategies and technological means for minimising organic micropollutant emissions from WWTPs" outlines the options that WWTPs can take, starting from preventive measures (such as more stricter control of industrial polluters accepted to the public sewerage) and ending with overviews of potential advanced treatment technologies that can be used to eliminate the pollution from effluent. The output will not only be equipped with data gathered from other studies done in the EU, but also in-depth data, practical operation knowledge and cost-efficiency calculations collected during the 6 operation cycles of mobile advanced treatment pilot plants in the GoA 2.3 of the EMPEREST project. The individual investment roadmaps (D 1.3), equipped with commentaries based on the real-life piloting experiences, will also be a part of the output, showing the potential issues and problems of investing into, operating and analysing the efficiency of the advanced effluent treatment system in real life. The potential opportunities for the reuse of the treated water will also be included in the GoA 2.3, as water scarcity in some sub-regions could be a significant driving force for advanced effluent treatment investments even in the Baltic Sea area. This output will aim to bring together the necessary knowledge needed for larger WWTPs in the Baltic Sea region to be able to start planning their own investments into advanced effluent treatment in the near future. As explained previously, legislation and investment support need to be developed jointly in order to facilitate change in the region. This output as a collection of data and practices aims to be one of the base levels of the investment support needed in the region to move towards a more sustainable water and wastewater use.		Yes
O 2.4	Transferable training package for infrastructure and service providers approved by EMPEREST project	The purpose of the training package is to enable national water associations and other relevant multipliers to offer dedicated information for decision-makers and experts among the infrastructure and service providers, as well as local authorities, who in their daily work might not have seen the need to address PFAS, since PFAS are not regulated in most national legal water/environmental frameworks. The training package will include instructions for practical training courses for operating staff, as well as materials for addressing PFAS within the interests and mandates of the municipalities. The experiences gained through the transfer activities will be integrated. The training package will incl. a.o. general and advanced information on the subject, presentations, recordings and short educational videos. As the training package will be developed based on demands of the BSR countries collected in the series of interviews, it will integrate all necessary information for those with lower/beginners' knowledge to those with already advanced knowledge. With respect to larger cities and WWTPs having usually higher qualified staff but limited possibilities for national experience exchange, the transnational exchange with WWTPs of same size/technology level will support informal learning via personal exchange during project workshops and meetings, training courses.		

O 3.1	Regional science-policy dialog to promote monitoring and assessment of PFAS in the environment	Monitoring and assessment are integral parts of the environmental management cycle, providing scientifically sound evidence base for the development and implementation of measures to minimize or eliminate environmental pressure caused by release of toxic substances to the aquatic environment. It also serves as a tool to follow up the effect of these measures and progress towards good environmental status. The purpose of the output is to strengthen regional environmental management in relation to PFAS, building regional framework for obtaining reliable and sufficient data on PFAS contamination and related environmental pressures. Integration of new methodological recommendations into daily practice requires an open regional dialog involving major target groups - scientists, managers and decision makers - to assure scientific correctness, economic feasibility and policy relevance of the proposed management framework. Such open science-policy dialog will lead to the acceptance of proposed approaches and subsequently their integration in casual management cycle as a regional guideline (monitoring manual). Regional Guideline for monitoring and assessment of PFAS in the aquatic environment (monitoring manual) will be based on methodological recommendations developed within WP1 and tested and validated in WP2 and include proposals for regionally coordinated target values and indicators for the assessment of state of the aquatic environment. The document will provide guidance for the assessment of ecological status of the marine environment and related environmental pressure as a part of national MSFD processes and implementation of Helsinki Convention. The science-policy dialog will incorporate consideration of scientific evidence of the need for measures to manage PFAS with presentation of ready solutions related to monitoring and assessment of the state of the environment in relation to its PFAS contamination. The dialog will include presentations and discussions at PA Hazards' "Platform to decrease harmful and toxic PFAS pollution", submission of respective documents for consideration at HELCOM EG Hazards and other relevant HELCOM working group meetings. Thematic workshop for all regional stakeholders will be arranged. Being integrated in the regional management framework the document will be continuously reviewed when new scientific information is available, which assures durability of the project results.		
D 3.2	Report on the promotional campaign for local authorities	Promotional campaign will be organised targeting local authorities to focus on environmental impacts, upstream measures, and advanced wastewater treatment, oriented towards emphasizing different measures for preventing PFAS and other organing micropollutants leaching to the environment. The campaign will be oriented at cities and municipalities to enable them with information relevant for municipal experts and potentially available for their outreach to citizens. Promotional campaign will be supported by different regular and associated partners (PP1 UBC, cities involved in the consortium) and will be realised in social media (Facebook, Twitter, Instagram, Youtube) and via targeted newsletters. As a result of the campaign, a report will be drawn reflecting the results of this outreach process. The report will include collected feedback (interviews/comments) from the local authorities that took part in the uptake of the training package (O2.4), highlighting benefits of the produced output and related project activities for the local-level actors.	2.4 Transferable training package for infrastructure and service providers	
D 3.3	Report on the developed capacities of infrastructure and public service providers	It is important to disseminate the developed materials to the specific target groups, and the materials tailored for water operators and experts will be transferred in GoA 3.3. The transfer of the developed and tailored training materials will enable development of capacities of the local public service providers. The training package, combined in WP2, will be transferred further in the region, not only to the project partners, but also beyond the project consortium, through the network connections of the partnership (a.o. UBC network city contacts; national water associations; Baltic Smart Water Hub experts network). The materials will be presented in the Water Hub portal to ensure their free availability and durability after the project's end and will be therefore available for uptake by any water experts in the region. The result of the transfer activities in GoA 3.3 will be described in a report demonstrating the transfer scope in BSR, and exemplifying potential benefits of the training package's uptake for further actors.	2.4 Transferable training package for infrastructure and service providers	

Work package 1

5.1 Preparing solutions

5.2 Aim of the work package

The aim of this work package is to prepare solutions to help address the identified challenge. You can either develop entirely new solutions or adapt existing solutions to the needs of your target groups. Prepare your solutions in a way that you can pilot them in Work Package 2. Consider how you involve your target groups in preparation of the solutions.
Organise your activities in up to five groups of activities to present the actions you plan to implement. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1 PP 1 - Union of the Baltic Cities Sustainable Cities Commission c/o City of Turku

Work package leader 2 PP 2 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

5.4 Work package budget

Work package budget 30%

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Infrastructure and public service provider Water sector/Municipal Water Utilities/Wastewater Treatment Plants WWTPs are a focal point for the removal of pollutant particles before they are discharged into aquatic environment. 1. Poland (Gdańsk, Szczecin) 2. Estonia (Tartu, Tallinn) 3. Finland (Turku) 4. Lithuania (Kaunas) 5. Latvia (Riga) 300 / 500 characters	Significant number of WWTPs are in the project consortium, who will be the main representatives of the target group in WP1. Two of these WWTPs will be "Demonstrators" (the mobile pilot plants will be tendered by them, where the assembling and first stage tests will take place) and others "Followers" (2nd and 3rd stage tests will take place in their facilities, while the Follower plants are also supporting the Demonstrators). Internal communication with this target group (also incl. AOs 3&4) will mostly be done via emails and online meetings, with 2 physical meetings planned to take place in WP1: kick-off meeting in Turku (P1) for opening project activities and launching discussions, and an orienteering workshop in Kaunas (P2), before the piloting of technologies begin. During the Kaunas workshop, a call for followers for the mobile piloting will be launched for other potential WWTPs to join the following and, potentially, locally piloting the process. 966 / 1,000 characters
2	National public authority National public authorities from Baltic Sea countries responsible for establishing of national environmental monitoring programmes under the EU MSFD and WFD. National competent authorities representing Contracting Parties in Helsinki Commission, providing data for regional assessments and utilizing the results of regionally coordinated assessments for the development of national programmes of measures and evaluation of their effects e.g Swedish Environmental Protection Agency. 484 / 500 characters	At the drafting stage competent authorities responsible for national monitoring programs under MSFD will be invited to share their experience in monitoring and assessment of PFAS contamination at EUSBSR Policy Area Hazards' Platform to decrease harmful and toxic PFAS pollution", which will lay basis for drafting methodological recommendations. A dedicated seminar will be organized involving scientists and national authorities to assure that the scientific development will cater management needs. HELCOM framework, involving representatives of national environmental authorities, will also be utilized to arrange consultations and get required feedback. 657 / 1,000 characters
3	International governmental organisation HELCOM, Baltic Marine Environment Protection Commission and its subordinated bodies, as intergovernmental organization (IGO), serves as a platform for science-policy dialog and knowledge transfer for competent representatives of the EU members states in the Baltic Sea region. HELCOM also coordinates regional effort to assess the state of the Baltic Sea marine environment, environmental pressures and undertake regional activities to jointly address respective challenges. 475 / 500 characters	HELCOM as IGO, will coordinate drafting methodological recommendations for monitoring and assessment of PFAS contamination. The drafting will be mainly performed within the project consortium which is the main tool for the involvement of this target group in the project implementation. However, the project implementation plan foresees organization of an expert workshop to take stock of scientific knowledge available in the region and also assure coordination with other activities related to the project as well as establish links which would guarantee synergy between the project and other activities. 606 / 1,000 characters

	Target group	How do you plan to reach out to and engage the target group?
4	Local public authority Urban environment-related departments of the Riga City Council, City of Malmö, Jonava district municipality, Taurage district municipality as well as Panevėžys city and Panevėžys water company, and cities of the Union of the Baltic Cities network. 247 / 500 characters	Local authorities (PP14 Riga, AO2 Malmö, AO4 Panevėžys water company as well as its city contacts, AO5 Jonava, AO6 Taurage) will be involved in the development of risk assessment plans, and in providing feedback for the training package's conceptual framework. Regular and associated partners will be involved in this process via internal communication, online meetings, as well as physical events (kick-off in Turku in P1, orienteering workshop in Kaunas in P2). During the physical events, already in WP2 the invitations will be extended to encourage more local authorities to join. Feedback into the conceptual framework of the training package will be also collected by PP1 UBC surveying its 70 member cities for a wider representation of key topics of interest/needs when addressing PFAS on the local level. 812 / 1,000 characters
5	Interest group National water associations are politically and economically independent. They are committed to the development of save and sustainable water management. Representing experts and decision makers from municipalities, authorities, consultants, companies and science, they offer forums for ideas and the exchange of opinions and support politics with their advice. Environmental training centres in some BSR countries have similar role in professional training. Target groups come from DE, LT, EE. 496 / 500 characters	National water associations (PP12 DWA, AO1 EVEL) are represented in the project consortium. Via their international contacts to other water associations as well as by individual contacts established during recent project activities (BSR WATER, IWAMA) also other water associations will be invited to contribute with their needs. Other actors from the field of professional environmental training are also part of the consortium (PP13 ECAT-Lithuania) and will contribute with their knowledge about the specific regional needs for GoA 1.4 on building the conceptual framework of the training package and supporting the knowledge transfer. Project findings will be constantly communicated via dedicated newsletters, and representatives of the associations and training centers will be invited to the kick-off in Turku (P1), project workshop in Kaunas (P2) and other project events. 878 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
1.1	**Monitoring and assessment of PFAS contamination in the aquatic environment**
1.2	**Preparing draft framework for local PFAS risk assessment plan**
1.3	**Designing mobile advanced effluent treatment technology pilots for organic micropollutant removal**
1.4	**Assembling a training package on monitoring and removal of PFAS and other organic micropollutants**

WP 1 Group of activities 1.1

5.6.1 Group of activities leader

Group of activities leader PP 2 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

A 1.1

5.6.2 Title of the group of activities

Monitoring and assessment of PFAS contamination in the aquatic environment

74 / 100 characters

5.6.3 Description of the group of activities

Environmental monitoring and assessment of the state of the environment are key elements of environmental management cycles. Monitoring provides vital information to identify environmental priorities, develop respective programmes of measures and understand the environmental effect. The PFAS has been identified as a group of priority contaminants in the Baltic Sea marine environment. Development of a solution for comprehensive and feasible monitoring system to address PFAS is the focus area of this group of activities. The solution will include proposals for a set of environmental indicators enabling an assessment of the state of the aquatic environment, a proposal for an evaluation of drivers, sources and pathways, an evaluation of environmental pressure caused by inputs of PFAS chemicals, and a proposal on appropriate follow-up (i.e. potential measures to reduce the pressure).

1st step in solution preparation is identification of indicative PFASs or relevant groupings, a spatio-temporal overview, and an overview of monitored components. It will also include a desktop study of production, use and trade of PFAS or PFAS containing products in the region as well as their pathways into the environment and expected level of contamination. 2nd step involves description of sampling procedures and selection of feasible analytical methods providing data of sufficient quality. 3rd step focusses on quality assurance and quality control, proposals for target values (environmental state and pressure/input), reporting procedures and potential indicators to assess pressure(s) and state of the aquatic environment.

Recommendations will be developed utilizing available regional and national expertise in measuring PFAS in the aquatic environment. Scientific community in the project consortium will be involved in drafting recommendations. Representatives of national authorities, responsible for the development of national monitoring programmes will be mainly involved at the 1st and 3rd stages providing input directly as project consortium members or through existing expert networks (e.g. HELCOM EG Hazardous Subst., PA Hazards). Intergovernmental organizations will be involved through respective regional working groups. Organization of thematic workshops in cooperation with the EUSBSR PA Hazards, which considers PFAS as one of the priorities, will enable involvement of broad spectrum of stakeholders in co-creation of the solution. Rec for monitoring PFAS in the aquatic env including proposals for the assessment of the state of the env and respective env pressure will be drafted by project partners accounting for the input from respective target groups. The recommendations will also include proposals for environmental indicators. Transnational context of this activity is provided by project partners from 7 countries, requirements of the EU directives (WFD, MSFD), HELCOM policy framework identifying PFAS group as one of the emerging pollutants and EUSBSR PA Hazards.

3,000 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.1

Title of the deliverable

Draft methodological recommendations to monitor PFAS group in the aquatic environment

85 / 100 characters

Description of the deliverable

The purpose of the deliverable is to provide a draft for methodological recommendations to monitor PFAS group in the aquatic environment, which will be piloted and validated in the WP2. The draft will include: identification of indicative PFASs or characteristic groups for monitoring in the aquatic environment; description of spatial and temporal parameters suitable to achieve successful monitoring; and identification and prioritization of matrixes (components of the environment) as subject for monitoring. Further the draft will recommend sampling procedures for each matrix and selection of feasible analytical methods providing sufficient data quality to support environmental assessments of environmental state or pressures/inputs against threshold values or targets. Finally, the draft will contain description of procedures for data quality assurance and quality control, proposals for target values and reporting procedures.
A substantial part of the deliverable is proposals for national and regional indicators for the assessment of the state of the aquatic environment. This part will be specifically focused on regional assessment of the Baltic Sea environmental health and an inseparable part of it will focus on providing of the guidance for the assessment of ecological status of the marine environment for national MSFD reporting. The draft methodological recommendations will guide piloting PFAS monitoring in WP2 and be utilized as a starting point for regional dialog on the regionally harmonized approach to monitoring and assessment of PFAS in the environment, which will be organized within PA Hazards and HELCOM.

1,640 / 2,000 characters

Which output does this deliverable contribute to?

2.1 Methodological recommendations to monitor PFAS group in the aquatic environment

83 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.1: Monitoring and assessment of PFAS contamination in the aquatic environment						
D.1.1: Draft methodological recommendations to monitor PFAS group in the aquatic environment						

5.6.7 This deliverable/output contains productive or infrastructure investment

WP 1 Group of activities 1.2

5.6.1 Group of activities leader

Group of activities leader PP 14 - City of Riga

A 1.2

5.6.2 Title of the group of activities

Preparing draft framework for local PFAS risk assessment plan

61 / 100 characters

5.6.3 Description of the group of activities

This GoA aims to develop PFAS risk assessment approach and tools for local authorities supporting optimal PFAS risk management and establishment of preventive solutions, thus enabling the local authorities in the BSR to expand their understanding of the environmental risks posed by PFAS as well as uptake and localise practical approach and functional tools to manage the potential impact of PFAS entering the environment.

One of characteristics of PFAS is their mobility in the environment. This property, combined with persistency, causes PFAS accumulation in water bodies, drinking water, plants, and air. A large number of PFAS contamination cases of water, including drinking water and soil, have been detected in the EU and globally. Drinking water is often obtained from surface water bodies and chemically purified to ensure that drinking water standards are met, however, PFAS are currently not actively monitored in EU cities. There is no specific clarity on the effects of PFAS on human health, but it does exist. EC has set up a deadline for the development of technical guidelines on monitoring methods for PFAS parameters, their limit values and sampling until 2024. In turn, EU member states must uptake the measures by 2026 to ensure that drinking water complies with the set PFAS limit values.

In order to assist local authorities to fulfil the requirements of Drinking Water Directive, a city-specific PFAS risk assessment framework (approach and functional tool) will be developed, enabling local authorities identify and assess PFAS related risks and identify relevant risk mitigation strategies.

PFAS risk assessment approach will focus as a minimum on the following aspects:
(1) baseline review of potential PFAS contamination in cities/municipalities (e.g., from EIA reports and other data sources);
(2) sampling of PFAS in drinking water from open water bodies and analysis of samples at the laboratory in charge to detect PFAS;
(3) determining potential exposure of PFAS on the residents of cities/municipalities and assessing the real risk of PFAS;
(4) developing local PFAS risk management plans (risk assessment, preventive measures).

A user-friendly excel-based functional PFAS risk assessment tool "PFAS risk register" will be developed, as well as the users' manual and guidelines will be elaborated to ensure high replication potential of PFAS risk assessment framework in other cities/municipalities of the BSR.

2,458 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.2

Title of the deliverable

Draft framework for local PFAS risk assessment plan

51 / 100 characters

Description of the deliverable

A city-specific PFAS risk assessment framework (approach, a tool "PFAS risk register" incl. users' manual, guidelines) enabling local authorities to identify and assess PFAS related risks and propose relevant risk mitigation strategies.

238 / 2,000 characters

Which output does this deliverable contribute to?

O.2.2: PFAS risk assessment plan for local authorities

54 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.2: Preparing draft framework for local PFAS risk assessment plan						
D.1.2: Draft framework for local PFAS risk assessment plan						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 1 Group of activities 1.3

5.6.1 Group of activities leader

Group of activities leader PP 3 - University of Tartu

A 1.3

5.6.2 Title of the group of activities

Designing mobile advanced effluent treatment technology pilots for organic micropollutant removal

97 / 100 characters

5.6.3 Description of the group of activities

The group of activities is focussed on setting up the mobile advanced wastewater treatment pilots in order to prove their efficiency for organic micropollutant removal from wastewater treatment plant effluents. The mobile pilot plants are planned to be using ozonation, coupled with granular activated carbon filtration and UV disinfection. This combination has been proved previously to have a very high degradation rate of different organic micropollutants, reacing up to 90% reduction in many problematic substance groups.

Within this group of activities, roadmaps for all individual investments will be established and tenders for necessary technology and equipment will be put together and launched. Specific details about the technological set-up will be agreed with project partners, with all investing partners in collaboration with the universities supporting the investments and analysis. This is done via mainly online meetings, with a possible in-person meeting in one of the piloting locations or another facility equipped with some similar technology. Analysis plans for both baseline analysis of the current situation together with an in-depth analysis plan during the pilot test period will be agreed upon and established as part of the individual investment roadmap.

With thorough discussions and supporting knowledge from different published articles about laboratory and pilot scale testing of advanced effluent treatment technologies, final investment details and specifics concerning to the tendering, building, testing, operating, efficiency analysis and transfer of the mobile pilots will be agreed upon (D 1.3 Individual investment roadmaps). These details will help us assure a high quality piloting phase in WP2. The data collected during the piloting in WP2 will be used to improve the current knowledge about organic micropollutant (including PFAS) management in the wastewater treatment plants and will make up for an integral part of Output 3.3 (Strategies and technological means for minimising organic micopollutant emissions from wastewater treatment plants in the Baltic Sea region).

2,120 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable

✔

D 1.3

Title of the deliverable

Individual roadmaps for advanced effluent treatment pilot investments

69 / 100 characters

Description of the deliverable

Each investment will have a separate roadmap about specific details important for the tendering and piloting activities in WP2. These details include:
-specific technological details and parameters of the planned investment,
-prepared overall tender documentation for the purchase and installation of the technological investment,
-a general timetable of the proposed piloting activities in each of the consequent users of the mobile pilot plan,
-preliminary laboratory analysis plan with main analytes and analysis points outlined,
-an overall transfer strategy of the mobile pilot plant from one location to another.

As the allocated time for piloting activities is quite short, this preparation of important details will be vital for smooth operation and transfer of the mobile pilot plants. The roadmaps and the outlined activities, details and analysis descriptions within them will also be an important part of the output O2.3 Strategies and technological means for minimising organic micropollutant emissions from WWTPs, with extra commentaries about how each of the prepared sections panned out in the practice added during the piloting in WP2. This collection of physically tested and piloted practices can be used to facilitate new full-scale investments in the Baltic Sea region, with the deliverables from D1.3 intended to be used as a basic plan according to which the future investments and their details can be decided on.

1,441 / 2,000 characters

Which output does this deliverable contribute to?

O2.3 Strategies and technological means for minimising organic micropollutant emissions from WWTPs

98 / 100 characters

5.6.6 Timeline

	Period: 1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.3: Designing mobile advanced effluent treatment technology pilots for organic micropollutant removal						
D.1.3: Individual roadmaps for advanced effluent treatment pilot investments						

5.6.7 This deliverable/output contains productive or infrastructure investment

☐

WP 1 Group of activities 1.4

5.6.1 Group of activities leader

Group of activities leader PP 4 - Berlin University of Technology

A 1.4

5.6.2 Title of the group of activities

Assembling a training package on monitoring and removal of PFAS and other organic micropollutants

97 / 100 characters

5.6.3 Description of the group of activities

Although the health and environmental risks from PFAS have been noticed already a while ago, they are still present in the environment. The deliverable prepared in the GoA 1.4 will address the identified lack of knowledge on the fate of PFAS during wastewater treatment and in the environment. Subsequently it will be turned into an output, to be transferred in a tailor-made way for the relevant target groups.

GoA 1.4 will focus on developing a conceptual framework of the training package. The outline of the package will be prepared under the lead of PP4 in cooperation with other university and water association partners, incorporating feedback and inputs on specific topics or issues from water experts to ensure an output of transnational value.
The input from water experts will be collected via interviews with selected representatives of national and local authorities, interest groups, infrastructure and service providers and NGOs present in- or cooperating with the consortium. This includes exchange with PA Hazards and the Baltic Sea PFAS network, successor of Baltic Leadership Programme. It is very important to synthesize the current status in the BSR countries to tailor the training according to the individual group's but also transnational cooperation needs, emphasizing basics or advanced topics. By assembling the interviews and supplementary materials (UBC survey to member cities), university partners and water associations will combine necessary information with information from "source" projects aka Green Deal projects, and selected external experts where needed. A framework of necessary content and formats will be developed by university partners together with the national water associations. Already in the drafting phase, close cooperation with the GoA monitoring and the GoA piloting activities as additional content sources is foreseen.

The conceptual framework of the training package developed within this GoA will be designed to include materials in different formats easy to uptake by different target groups, a.o. both general and advanced information on the subject, presentations, recordings, short educational videos.

Main task in the preparatory work will be to define the mandatory topics to be covered by the training package with respect to the different target groups' needs. Already in this stage, the mandatory topics are pre-defined to include chemical background on the group of PFAS, applications of PFAS, identified pathways and the knowledge about treatment options. Validation of these, and any auxiliary content can be added at later stages of the project implementation. This includes potential benefits of advanced wastewater treatment in terms of circular economy, especially water reuse.

The activities will be carried out back-to-back with pysical project meetings and other regional events, but the process is not limited to physical meetings. Another tool used for collecting materials will be online meetings and webinars.

2,996 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.4

Title of the deliverable

Conceptual framework of the training package

44 / 100 characters

Description of the deliverable

The conceptual framework of the training package developed in GoA 1.4 will serve as a basis for pilot courses, project workshops and hands-on trainings held in the next project phase.

The training package framework will guide the project partners involved in this work to organize and implement the trainings. It will also enable collecting feedback from project partners in order to prepare the training package well-suited for the needs of the target groups. This deliverable will include detailed instructions for content to be presented at the trainings and will also suggest suitable training formats. The training package will significantly reduce the efforts in preparation of workshops, as the identified important topics will be already outlined in the framework. The framework will be based on the State of Play described in EMPEREST Seed project output, with certain updates on the occurred progress in the field, be it on the legislative or research base. The training material will be based on latest available international knowledge incl. findings of the Green Deal projects, and will therefore be applicable by trainers in the BSR and beyond.

1,159 / 2,000 characters

Which output does this deliverable contribute to?

2.4 Transferable training package for infrastructure and service providers

74 / 100 characters

5.6.6 Timeline

	Period: 1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.4: Assembling a training package on monitoring and removal of PFAS and other organic micropollutants						
D.1.4: Conceptual framework of the training package						

5.6.7 This deliverable/output contains productive or infrastructure investment

☐

Work package 2

5.1 Piloting and evaluating solutions

5.2 Aim of the work package

The aim of this work package is to pilot, evaluate and adjust solutions. Plan one or several pilots to validate the usefulness of the solutions prepared in Work Package 1. Start Work Package 2 early enough to have time to pilot, evaluate and adjust solutions, together with your target groups. By the end of this work package implementation the solutions should be ready to be transferred to your target groups in Work Package 3.
The piloted and adjusted solution should be presented in one project output.
Organise your activities in up to five groups of activities. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1 PP 1 - Union of the Baltic Cities Sustainable Cities Commission c/o City of Turku

Work package leader 2 PP 3 - University of Tartu

5.4 Work package budget

Work package budget 30%

5.4.1 Number of pilots

Number of pilots 4

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Infrastructure and public service provider Water sector/Municipal Water Utilities/Wastewater Treatment Plants WWTPs are a focal point for the removal of pollutant particles before they are discharged into aquatic environment. 1. Poland (Gdańsk, Szczecin) 2. Estonia (Tartu, Tallinn) 3. Finland (Turku) 4. Lithuania (Kaunas) 5. Latvia (Riga) 300 / 500 characters	Significant number of WWTPs are in the project consortium and will continue to be the main representatives of the target group in WP2. As explained in WP1, two of these WWTPs will be "Demonstrators" (the mobile pilot plants will be tendered by them, assembly and first stage tests will take place there) and others "Followers" (2nd and 3rd stage tests will take place in their facilities, while the Follower plants are also supporting the Demonstrators). Communication with this TG (listed WWTPsAOs 3&4) will mostly be done via emails and meetings, both online and physical. In WP2, 2 workshops are planned (preliminarily, in Gdansk (P3) and Tartu (P4)) as important places for the WWTPs to trade knowledge and first observations about the piloted technologies and operational details. Other local WWTP outside of the project consortium are also planned to be invited to set up opportunities for the transfer of the solutions for WP3. 936 / 1,000 characters
2	National public authority National public authorities from Baltic Sea countries responsible for establishing of national environmental monitoring programmes under the EU MSFD and WFD. National competent authorities representing Contracting Parties in Helsinki Commission, providing data for regional assessments and utilizing the results of regionally coordinated assessments for the development of national programmes of measures and evaluation of their effects e.g Swedish Environmental Protection Agency. 484 / 500 characters	National public authorities from Baltic Sea countries responsible for establishing of national environmental monitoring programmes under the EU MSFD. One of the MSFD requirements is regional harmonization of these monitoring programmes. HELCOM provides regional platform for this harmonization through its expert and working groups. It assures involvement of representatives of national competent authorities in validation of methodological recommendations for monitoring and assessment of PFAS contamination. Competent national authorities delegate representatives to participate in the activities related to PFAS in the environment organized by PA Hazards, including PA's steering group, where project outputs will be considered and reviewed. Also, national authorities will provide data for selection of sites to test the methodology. 837 / 1,000 characters

	Target group	How do you plan to reach out to and engage the target group?
3	International governmental organisation HELCOM, Baltic Marine Environment Protection Commission and its subordinated bodies, as intergovernmental organization (IGO), serves as a platform for science-policy dialog and knowledge transfer for competent representatives of the EU members states in the Baltic Sea region. HELCOM also coordinates regional effort to assess the state of the Baltic Sea marine environment, environmental pressures and undertake regional activities to jointly address respective challenges. 475 / 500 characters	HELCOM as IGO, in line with regional monitoring and assessment strategy, regularly organizes holistic assessment of the Baltic Sea health applying regionally harmonized methodologies, including respective environmental quality standards and indicators. This assessment is carried out in accordance with regionally agreed methodological documents (guidelines or manuals). HELCOM expert, representing Baltic Sea countries, will consider and review draft methodological recommendations for monitoring and assessment of PFAS contamination developed in WP1. The review will be organized in the frame of HELCOM expert groups and updated draft of the document will be further considered by representatives of national authorities with the view to recommend it for further use in regional assessments. It will assure transnational context of the project outputs, and integration of these outputs into HELCOM framework will guarantee sustainability of the project results for long-term perspective. 989 / 1,000 characters
4	Local public authority Urban environment-related departments of the Riga City Council, City of Malmö, Jonava district municipality, Taurage district municipality as well as Panevėžys city and Panevėžys water company, and cities of the Union of the Baltic Cities network. 247 / 500 characters	Involvement of local authorities (PP14 Riga, AO2 Malmö, AO4 Panevėžys water company +its city contacts, AO5 Jonava, AO6 Taurage) continue in WP2 with validating the work on the development of risk assessment plans, and preparing the training package according to the target group needs identified in the conceptual framework. Regular and associated partners will be involved in this process via internal communication, online meetings, as well as physical events (workshops in Gdansk (P3) and Tartu (P4)). The invitations to the workshops will be extended to more cities and municipalities outside the project consortium, incl. UBC member cities. Information about the progress in GoAs 2.2 and 2.4 will be shared in dedicated newsletters, bulletins and social media targeted at local authorities. Local authorities are also involved in GoA 2.1 for ensuring the relevance and further acceptance of the developed monitoring-related recommendations to ensure sustainability of project results. 990 / 1,000 characters
5	Interest group National water associations are politically and economically independent. They are committed to the development of save and sustainable water management. Representing experts and decision makers from municipalities, authorities, consultants, companies and science, they offer forums for ideas and the exchange of opinions and support politics with their advice. Environmental training centres in some BSR countries have similar role in professional training. Target groups come from DE, LT, EE. 496 / 500 characters	National water associations and professional environmental training organisations (PP12 DWA, PP13 ECAT-Lithuania, AO1 EVEL) will be involved in WP2 to evaluate the current work in GoAs 2.3 and 2.4. Project findings will be communicated via newsletters, and representatives of the associations and training centers will be invited to the workshops in Gdansk (P3) and Tartu (P4) and other project events. 402 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
2.1	**Testing and validation of recommendations for monitoring and assessment of PFAS**
2.2	**Local authorities involvement: piloting and validation of draft local PFAS risk assessment**
2.3	**Testing the mobile advanced effluent treatment technology pilots for organic micropollutant removal**
2.4	**Tailoring the assembled training package for target group needs**

WP 2 Group of activities 2.1

5.6.1 Group of activities leader

Group of activities leader PP 2 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

A 2.1

5.6.2 Title of the group of activities

Testing and validation of recommendations for monitoring and assessment of PFAS

79 / 100 characters

5.6.3 Description of the group of activities

The solution – draft methodological recommendations for PFAS monitoring in the aquatic environment – drafted in GoA 1.1 will be tested and validated with the involvement of a broad expert community representing different Baltic Sea countries. The aim is to revise the initial proposal and adjust it for practical use, utilizing the best available scientific expertise. To obtain robust testing, results piloting of PFAS monitoring will be arranged in several observation points (spatial and coverage of gradients) and cover seasonal variation. Test sites will be selected utilising existing data on potential occurrence of PFAS groups in the aquatic environment (e.g. national reports, HELCOM report on micropollutants, regional and national screening campaigns). The sites will be evaluated in different Baltic Sea sub-basins and different countries to assure representativeness of pilot observations and transnational context. Information on potential sources of PFAS releases to the aquatic environment in the vicinity to test sites is crucial for the interpretation of observations and for data quality assurance. This information will be retrieved from available national reports and regional compilations. Evaluating components such as inputs and marine status support understanding of substances within a contextual framework and thereby underdoing of management solutions (e.g. measures, follow-up, etc). Piloting PFAS monitoring will allow optimal selection of sampling approaches and analytical procedures which will demonstrate the highest data reliability and feasibility, and support regional harmonisation. The results of the monitoring methodology tests will be summarized and presented to regional expert and working groups involving representatives of the scientific community and national competent authorities. This will be arranged utilizing project consortium, HELCOM expert networks, Baltic Smart Water Hub Experts, PA Hazards networking and dedicated workshops and seminars including thematic sessions of the EUSBSR Annual Forum.

The draft methodological recommendations accounting for outcomes of testing will be advanced and specified based on expert reviews. Transnational context of the recommendations will be assured by utilizing the proposal as basis for harmonized regional monitoring guidelines for PFAS. The methodological recommendations will include proposals for respective regional indicators (HELCOM core indicators) which will also be utilized for national MSFD reporting. The recommendations will provide methodological background for identification of contaminants of high regional concern and subsequent update of the HELCOM list of priority pollutants in line with corresponding recommendations for the EU priority lists. Tested and validated methodological recommendations for PFAS group monitoring in the aquatic environment will be an output of this group of activities.

2,918 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

O 2.1

Title of the output

Methodological recommendations for monitoring and assessment of PFAS in the aquatic environment

95 / 100 characters

Description of the output

The output – methodological recommendations for monitoring and assessment of PFAS in the aquatic environment – will be produced after testing and validation of the draft recommendations delivered by respective group of activities of WP1 (i.e. the lessons learned from the pilot study will be used to review and update the solution developed in WP1). The purpose of the output is to provide regionally harmonized guidance for monitoring and assessment of PFAS group for the aquatic environment. The recommendations will include: definition of indicative PFASs or their sub-groups for monitoring in the aquatic environment; description of spatial and temporal parameters of monitoring; identification and prioritization of matrices (components of the environment) as the monitoring subject. Further the recommendations will provide guidance on sampling procedures for each matrix and feasible analytical methods providing sufficient data quality. Finally, the recommendations will guide procedures for data quality assurance and quality control, proposals for target values and reporting procedures. A substantial part of the output is proposals for regionally harmonized indicators for the assessment of the state of the aquatic environment, applicable for regional assessment of the Baltic Sea environment and national reporting under MSFD. The Methodological recommendations for monitoring and assessment of PFAS in the aquatic environment will be further (WP3 GoA 3.1) transferred into a Guideline (monitoring manual) through regional science-policy dialog, which will be organized within PA Hazards and HELCOM.

1,614 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 International governmental organisation HELCOM, Baltic Marine Environment Protection Commission and its subordinated bodies, as intergovernmental organization (IGO), serves as a platform for science-policy dialog and knowledge transfer for competent representatives of the EU members states in the Baltic Sea region. HELCOM also coordinates regional effort to assess the state of the Baltic Sea marine environment, environmental pressures and undertake regional activities to jointly address respective challenges.	The Helsinki Convention obliges its Contracting Parties to co-operate in establishing complementary or joint programmes for monitoring. Implementing provisions of Helsinki Convention, HELCOM monitoring, and assessment strategy supports regionally coordinated activities of the HELCOM Contracting Parties in respect of monitoring and assessment in implementing the BSAP and for those CPs being also EU member states the requirements of the EU MSFD. Thus, methodological recommendations for monitoring and assessment of PFAS in the aquatic environment will be utilized to develop regionally harmonized framework for monitoring and assessment of contamination of the aquatic environment by these compounds, develop coordinated programmes of measures to prevent pollution, evaluate their effectiveness and follow-up progress towards good environmental status of the Baltic Sea environment. 887 / 1,000 characters
Target group 2 National public authority National public authorities from Baltic Sea countries responsible for establishing of national environmental monitoring programmes under the EU MSFD and WFD. National competent authorities representing Contracting Parties in Helsinki Commission, providing data for regional assessments and utilizing the results of regionally coordinated assessments for the development of national programmes of measures and evaluation of their effects e.g Swedish Environmental Protection Agency.	The EU Marine Strategy Framework Directive (MSFD) commits the EU Member States to establish national monitoring programmes and environmental targets as necessary step towards achieving good environmental status. The Directive also requests that monitoring programmes shall be compatible within marine regions or subregions. Guidance provided in the methodological recommendations for monitoring and assessment of PFAS in the aquatic environment will be utilized by the HELCOM Contracting Parties being the EU Member States for establishing harmonized national monitoring programmes and respective environmental targets. Harmonization of the monitoring methodologies will enable national competent authorities to report consistent data for regional assessments and thus, fulfill their obligations for the implementation of the Helsinki Convention. 847 / 1,000 characters

Durability of the output

Above mentioned national obligations of the EU Member State and HELCOM Contracting Parties related to environmental monitoring and assessment assure the development of regionally coordinated national monitoring and assessment programmes. Since, PFAS group has already been identified as one of the regional priorities, integration of methodological recommendations for monitoring and assessment of PFAS in the aquatic environment into HELCOM framework for hazardous substances assures regional political acceptance of their provisions and provides their subsequent transposition into respective national monitoring programmes. Close cooperation with different target groups, including scientific community, municipalities, practitioners, public authorities, throughout the project lifetime will assure acceptance of the developed methodological recommendations in the region and thus, sustainability of the project results.

924 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: Piloting and evaluating solutions						
A.2.1: Testing and validation of recommendations for monitoring and assessment of PFAS						
O.2.1: Methodological recommendations for monitoring and assessment of PFAS in the aquatic environment						

5.6.7 This deliverable/output contains productive or infrastructure investment

WP 2 Group of activities 2.2

5.6.1 Group of activities leader

Group of activities leader PP 14 - City of Riga

A 2.2

5.6.2 Title of the group of activities

Local authorities involvement: piloting and validation of draft local PFAS risk assessment

90 / 100 characters

5.6.3 Description of the group of activities

This GoA will take forward the outcomes of the GoA 1.2. - A city-specific PFAS risk assessment framework (approach, a tool "PFAS risk register", user's manual, guidelines) enabling local authorities to identify and assess PFAS related risks and propose relevant risk mitigation strategies. The PFAS risk assessment framework will be tested and validated among local authorities participating in EMPEREST as well as other local authorities in the BSR.

Local authorities participating in EMPEREST project each will elaborate a local PFAS risk assessment, following the PFAS risk assessment framework. All together, at least 5 local PFAS risk assessment plans will be elaborated in 5 participating municipalities (PP14 Riga, AO2 Malmö, AO4 Panevėžys, AO5 Jonava, AO6 Taurage).

In parallel, the PFAS risk assessment framework will be tested with at least 18 other BSR municipalities, a minimum with 3 other local authorities of each participating country: Finland, Estonia, Latvia, Lithuania, Poland, Germany, and possibly also with the municipalities from other BSR countries, via training events and workshops held back-to-back with the EMPEREST online workshops, local events and international meetings. Taking into consideration the outcomes of these training events and workshops, the PFAS risk assessment framework will be adjusted and validated.

1,353 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable

O 2.2

Title of the output

PFAS risk assessment plan for local authorities

47 / 100 characters

Description of the output

The purpose of the output is to provide local authorities with the apprach, tailor-made tools and guidance for the PFAS risk assessment, enabling local authorities to identify and assess PFAS related risks and propose relevant risk mitigation strategies. The output will include the PFAS risk assessment framewotk and at least 5 local PFAS risk assessment plans elaborated, following the developed PFAS risk assessment framework that will be validated with at least 18 other municipalities of the BSR.

The successful development and implementation of the risk assessment plan by local public authorities will help them to improve the understanding of the water supply system, improve stakeholder collaboration and operational efficiency of the water utility as well as provide a robust framework to better target sustainable and long-term capital investments. The output, which is a comprehensive PFAS risk assessment framework, will contribute to the overall water utility risk management and thus strenghthen safe and sustainable management of drinking water resources by municiplities. It will help local authorities to understand the complete system, identify where and how risks could arise, recognise barriers, determine control measures and monitoring plans as well as develop overall PFAS management system.

1,317 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 Local public authority Urban environment-related departments of the Riga City Council, City of Malmö, Jonava district municipality, Taurage district municipality as well as Panevėžys city and Panevėžys water company, and cities of the Union of the Baltic Cities network.	Local public authorities will be the end users of the output. Involved local authorities (PP14 Riga, AO2 Malmö, AO4 Panevėžys, AO5 Jonava, AO6 Taurage) as well as other local authorities from the BSR involved in testing and validating of the PFAS risk assessment framework, will benefit from the new knowledge gained within the development, testing and validating the output.

379 / 1,000 characters

Durability of the output

Local authorities will be involved in the development, testing and validation of the outputs in order to ensure the relevance and further acceptance of the developed PFAS risk assessment framework (approach, a tool "PFAS risk register", user's manual, guidelines), thus ensuring the sustainability of EMPEREST project results. The uptake of this output will be ensured by wider promotion campaign and trainings organised in the framework of the project. Local authorities (municipalities) beyond EMPEREST project interested in the uptake of the output will receive the support form the GoA Leader and science community involved in developement of the output. The uptake plan will be elaborated during the WP1 and WP2 to ensure that all necessary steps for output implementation are documented in the guidelines and available for target groups.

847 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: Piloting and evaluating solutions						
A.2.2: Local authorities involvement: piloting and validation of draft local PFAS risk assessment						
O.2.2: PFAS risk assessment plan for local authorities						

5.6.7 This deliverable/output contains productive or infrastructure investment

WP 2 Group of activities 2.3

5.6.1 Group of activities leader

Group of activities leader PP 3 - University of Tartu

A 2.3

5.6.2 Title of the group of activities

Testing the mobile advanced effluent treatment technology pilots for organic micropollutant removal

99 / 100 characters

5.6.3 Description of the group of activities

As one of the main activities in the EMPEREST project, mobile advanced effluent treatment pilot plants will be first set up in Gdansk and Tartu WWTPs to test the effects different conditions and wastewater compositions can have on organic micropollutant removal from the effluent. Based on the individual investment roadmaps assembled in the GoA1.3, this group of activities consists of two investments, both of which are mobile advanced effluent treatment pilot plants, equipped with general effluent filtration, ozonation, granulated activated carbon filtration and UV-disinfection. The combination of these technologies have shown great efficiency in treating organic micropollutants is effluent and should also result in a disinfected effluent that should be ready for reuse in different industries. The specific configuration of the investments will be developed jointly with all piloting partners within GoA 1.3.

This GoA will involve a training course for all piloting WWTP operators during the initial assembly of the pilot(s) in Gdansk, constant experience and results sharing between the project consortium. A total of 6 piloting cycles will be planned to take place during the GoA using the two mobile treatment plants. The first investment will be assembled in Gdansk (PL) and after initial testing period the mobile pilot plant will be transported to Szczecin (PL) and Kaunas (LT). The second investment will be assembled in Tartu (EE) and after the initial testing period the mobile pilot plant will be transported to Tallinn (EE) and Turku(FI)/Riga(LT). An estimated time of 5 months is assumed for each transportation, installation and testing cycle.

With a multi-WWTP piloting approach, EMPEREST project will be able to evaluate how the different operating conditions, temperatures and environments will influence the advanced treatment, allowing for a comprehensive approach and holistic picture about the potential efficiencies and related costs of advanced effluent treatment in various geographical locations. Although similar systems have been tested in Switzerland and Southern parts of Germany, the Baltic Sea area WWTP currently face a lot of uncertainties connected to new investments into advanced treatment systems. The experiences gathered during the piloting cycles in at least 6 different WWTPs will be evaluated using the experts and operators from at least 4 BSR countries and scientific personnel from 3 universities and a comprehensive overview on the benefits, limitations and costs of advanced effluent treatment systems will assembled. This overview, called the "Strategies and technological means for minimising organic micropollutant emissions from WWTPs" will be the main output of this GoA. This document will be aimed towards facilitating future full-scale investments in advanced effluent treatment and support the effluent reuse in the circular economy framework.

2,912 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

O 2.3

Title of the output

Strategies and technological means for minimising organic micropollutant emissions from WWTPs

93 / 100 characters

Description of the output

As one of the main challenge addressed in the EMPEREST project, the increased knowledge about a wide variety of organic micropollutants in the environment needs concrete actions to be taken, especially in a shared aquatic environment such as the Baltic Sea. A multi-pronged approach will be needed to address this serious environmental issue with adverse health effects, including more strict regulations and physical large-scale investments. Output 2.3 of the EMPEREST project addresses the wastewater treatment plant effluents, as a "point source" of organic micropollutants to the environment. "Strategies and technological means for minimising organic micropollutant emissions from WWTPs" outlines the options that WWTPs can take, starting from preventive measures (such as more stricter control of industrial polluters accepted to the public sewerage) and ending with overviews of potential advanced treatment technologies that can be used to eliminate the pollution from effluent. The output will not only be equipped with data gathered from other studies done in the EU, but also in-depth data, practical operation knowledge and cost-efficiency calculations collected during the 6 operation cycles of mobile advanced treatment pilot plants in the GoA 2.3 of the EMPEREST project. The individual investment roadmaps (D 1.3), equipped with commentaries based on the real-life piloting experiences, will also be a part of the output, showing the potential issues and problems of investing into, operating and analysing the efficiency of the advanced effluent treatment system in real life. The potential opportunities for the reuse of the treated water will also be included in the GoA 2.3, as water scarcity in some sub-regions could be a significant driving force for advanced effluent treatment investments even in the Baltic Sea area.

This output will aim to bring together the necessary knowledge needed for larger WWTPs in the Baltic Sea region to be able to start planning their own investments into advanced effluent treatment in the near future. As explained previously, legislation and investment support need to be developed jointly in order to facilitate change in the region. This output as a collection of data and practices aims to be one of the base levels of the investment support needed in the region to move towards a more sustainable water and wastewater use.

2,386 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 Infrastructure and public service provider Water sector/Municipal Water Utilities/Wastewater Treatment Plants WWTPs are a focal point for the removal of pollutant particles before they are discharged into aquatic environment. 1. Poland (Gdańsk, Szczecin) 2. Estonia (Tartu, Tallinn) 3. Finland (Turku) 4. Lithuania (Kaunas) 5. Latvia (Riga)	Output 2.3 will be aimed toward the WWTPs as the main benefactors of the "Strategies and technological means for minimising organic micropollutant emissions from WWTPs". There have been many discussions in both the BSR and EU about applying advanced treatment technologies in the WWTPs to minimise the environmental risk of antimicrobial resistance increasing and keep a wide variety of organic micropollutants out of the aquatic environment. The output will provide information, guidelines and strategies to the WWTPs to start planning their full-scale investments in this field, which can be expected to become mandatory in the region for larger WWTPs. Infrastructure and public service providers can reference this document in their planning activities, estimate costs based on pilot tests done in their nearby cities and get a good overview on what operating such systems should entice. Smaller WWTPs can use the preventive measures outlined in the document, to also better their operations. 995 / 1,000 characters
Target group 2 National public authority National public authorities from Baltic Sea countries responsible for establishing of national environmental monitoring programmes under the EU MSFD and WFD. National competent authorities representing Contracting Parties in Helsinki Commission, providing data for regional assessments and utilizing the results of regionally coordinated assessments for the development of national programmes of measures and evaluation of their effects e.g Swedish Environmental Protection Agency.	Output 2.3 will also be vital for national authorities, who coordinate the activities in the region and are often the sources or adapters of legislations. Restrictions directed to organic micropollutants have so far been problematic in the EU as there's not enough proven data and methodologies in the region, showing that any proposed limit values could cost-efficiently be reached in the WWTPs. Output 2.3 outlines the various technologies, costs and bottlenecks, that national authorities can use when planning legislation adoption and adaption to local circumstances. National authorities are also one of the key players needed for the support of large-scale and expensive investments, which the output 2.3 can give a foundation for. 737 / 1,000 characters

Durability of the output

The O2.3 is a finalised output, showing regional strategies and related technologies for cost-efficient micropollutant removal. The output will be supported by project partners after the project closure and used in full-scale investment planning by the public service providers and national authorities for legislation development.

During the transfer of the output in WP3, additional follower WWTPs are also considered, who would like to conduct their own cost-efficiency tests based on the O2.3 results. Preliminarily interested sites for this testing have been added as project associated partners (Riga and Panevezys WWTPs) so they could be involved at the project activities and development of the outputs. This potential additional testing using the two mobile pilot plants is expected to happen either during WP3 or after the official project closure and is not limited to the project partners/associated partners.

922 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: Piloting and evaluating solutions						
A.2.3: Testing the mobile advanced effluent treatment technology pilots for organic micropollutant removal						
O.2.3: Strategies and technological means for minimising organic micropollutant emissions from WWTPs						

5.6.7 This deliverable/output contains productive or infrastructure investment ✔

	Investment no.	I2.3_1

Title

Mobile pilot plant for organic micropollutant removal from effluent with industrial influences

94 / 100 characters

Description

The pilot will combine physical and chemical treatment facilities dedicated to effective removal of persistent organic pollutants from secondary effluents of WWTs, i.e. coarse/fine filtration, ozone oxidation, activated carbon adsorption and UV disinfection. Performance of the process will be monitored using in-line probes for measuring wastewater quality and advanced PLC control system. All facilities will be in the shipping container for ease of operation and transport to designated locations.

500 / 500 characters

Country

Poland

Responsible project partner(s)

PP 3 - University of Tartu
PP 4 - Berlin University of Technology
PP 5 - Turku University of Applied Sciences (TUAS)
PP 6 - Gdańsk Water Utilities
PP 7 - Water and Sewage Company Ltd. of Szczecin
PP 10 - "Kaunas water" Ltd.

Justification

Construction of the mobile pilot plant provides a cost-effective method for testing advanced treatment system prior to designing full-scale facilities. Mounting the facilities within mobile shipping container ensures flexibility and adaptability to specific conditions at designated locations of the plant. The results of the pilot tests will make it possible to develop guidelines for design of full-scale advanced treatment systems for removal of organic micropollutants.

473 / 500 characters

Transitional relevance

The mobile pilot plant will be used to carry out the piloting tests in 2 countries, which will increase the transnational value of the collected results and practices. Advanced effluent treatment has not been sufficiently piloted in the BSR, all information about the efficiency, costs and operation of such systems will be valuable to the whole region.

354 / 500 characters

Benefits

Project partners that are planning to conduct pilot tests will obtain information essential for developing guidelines to design full-scale tertiary treatment process that will significantly improve performance of the existing WWTP and mitigate the effect of the plant on the environment. Operating the advanced wastewater treatment process will increase the capacity of the partners in the field of wastewater engineering.

422 / 500 characters

Location

The pilot plant will be used at three locations: WWTPs in Gdańsk (PL), Szczecin (PL) and Kaunas (LT). The main installation, assembly and storage site will be at Wschod WWTP at Benzynowa 26
83-011 Gdańsk, Poland.

214 / 250 characters

Gdański

Location ownership

Gdańsk Water Utilities.

23 / 250 characters

Ownership

Gdańsk Water Utilities.

23 / 500 characters

Maintenance

Gdańsk Water Utilities will be maintaining the investment after project closure, which can be used for continuous optimisation of processes within the WWTP or periodically transferred to other interested WWTPs in the region for short-period testing. Such further testing using either of the two pilot plants is also expected as a result of the O2.3 transfer in WP3 or after project closure (preliminarily interested locations have been added as project associated partners (Riga and Panevezys WWTPs).

500 / 500 characters

Climate proofing

☐ Ensured ☑ N/A

	Investment no.	I2.3_2

Title

Mobile pilot plant for organic micropollutant removal from effluent w/o major industrial influence

98 / 100 characters

Description

The investment I2.3_2 is planned technologically identical to I2.3_1 - an advanced effluent treatment pilot plant with a number of chemical and physical treatment technologies equipped (coarse/fine filtration, ozone oxidation, activated carbon adsorption and UV disinfection). All facilities will be in the shipping container for ease of operation and transport to designated locations. This investment will be tested within WWTP without significant industrial wastewater influence.

482 / 500 characters

Country

Estonia

Responsible project partner(s)

PP 3 - University of Tartu
PP 4 - Berlin University of Technology
PP 5 - Turku University of Applied Sciences (TUAS)
PP 8 - Tartu Waterworks Ltd
PP 9 - Tallinn Water Ltd
PP 11 - Turku Region Wastewater Treatment Plant
PP 14 - City of Riga

Justification

To jumpstart investments into advanced effluent treatment in the BSR, cost-efficiency of the new technologies need to be proven in various conditions. Having 2 technically identical investments and doing tests in at least 6 different WWTPs allows for a good gathering of required cost-efficiency data. While I2.3_1 is used in the testing of WWTPs with significant industrial influences, I2.3_2 is used in the testing of WWTPs with low or no industrial influence (difference in pollutant composition).

500 / 500 characters

Transitional relevance

The mobile pilot plant built within investment I2.3_2 will be used to carry out tests in 2 additional countries (no overlaps with I2.3_1), which will once again increase the transnational value of the collected results and practices. Advanced effluent treatment has not been sufficiently piloted in the BSR, all information about the efficiency, costs and operation of such systems will be valuable to the whole region and contribute to the O2.3.

446 / 500 characters

Benefits

As with investment I2.3_1, the piloting project partners will obtain information essential for the design of full-scale tertiary treatment process that will significantly improve performance of the existing WWTP and mitigate the effect of the plant on the environment. Operating the advanced wastewater treatment process will increase the capacity of the partners in the field of wastewater engineering. Other target groups will benefit from this knowledge via O2.3, which is includes piloting data.

499 / 500 characters

Location

The pilot plant will be used at three locations: WWTPs in Tartu (EE), Tallinn (EE) and Turku (FI). The installation, assembly and storage site of the pilot plant will be at Tartu WWTP at Tähe 118, 51013 Tartu, Estonia

217 / 250 characters

Lõuna-Eesti

Location ownership

Tartu Waterworks Ltd, the WWTP in Tartu

39 / 250 characters

Ownership

Tartu Waterworks Ltd

20 / 500 characters

Maintenance

Tartu Waterworks Ltd will be maintaining the investment after project closure, which can be used for continuous optimisation of processes within the WWTP or periodically transferred to other interested WWTPs in the region for short-period testing. Such further testing using either of the two pilot plants is also expected as a result of the O2.3 transfer in WP3 or after project closure (preliminarily interested locations have been added as project associated partners (Riga and Panevezys WWTPs).

498 / 500 characters

Climate proofing

☐ Ensured ☑ N/A

WP 2 Group of activities 2.4

5.6.1 Group of activities leader

Group of activities leader PP 4 - Berlin University of Technology

A 2.4

5.6.2 Title of the group of activities

Tailoring the assembled training package for target group needs

63 / 100 characters

5.6.3 Description of the group of activities

The conceptual framework for the training package developed within WP1 will be tested during GoA 2.4, and materials will be compiled and prepared in this project phase. The developed conceptual framework will be discussed and evaluated during sessions at the partner meetings. The conceptual framework will be presented at the topical project workshops foreseen in Kaunas and Gdansk in project periods 2-3. These and later workshops (Tartu in P4, Szczecin in P5) will also see first runs of modules of the training offered to the target groups infrastructure and service providers and local authorities. Feedback will be collected from internal and external participants of the project workshops to validate and adjust the training package for target group needs.

Different material elements will be launched, developed and combined according to the developed framework, a.o. both general and advanced information on the subject, presentations and recordings, short educational videos for easy transfer of complex knowledge.
Existing platforms like the Baltic Smart Water Hub with its international expert network, established in the previous Interreg funding period, will be used as an additional point for the knowledge exchange.

For the hands-on training materials, test runs are planned, both with project partners and other parties invited by national water associations. The test runs will be organized back-to-back with project workshops at the locations of the WWTPs involved in piloting the mobile container demonstrator for PFAS removal. Each test will include an evaluation via collecting feedback from participants for further assessment and adjustments of the training package.

Since materials within the training package will be mostly digital, the test runs can be implemented at any location in the BSR, or even online. Regarding training courses, these will be tied to pilot containers in order to enable hands-on training. It is intended to promote the international exchange during the training via at least integrating partner and associated partner WWTP to a local training group to create opportunities for exchange. The involvement of the target groups in the evaluation process will be done mainly through collecting and processing feedback during the several topical workshops and trainings. The description of the training package will be shared with the target groups to collect general feedback. Individual feedback from test runs will be synthesized and discussed with representatives of target groups in the consortium.

Based on the feedback gained after the test runs, necessary changes are integrated in the documentation of the training framework. If necessary, the content is reorganized. If applicable, also changing the suggested format of a specific section might be possible. It is foreseen that the training package will become an output of the project in GoA 2.4, to be further transferred in WP3 tailored for specific target groups of the project.

2,992 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

O 2.4

Title of the output

Transferable training package for infrastructure and service providers approved by EMPEREST project

99 / 100 characters

Description of the output

The purpose of the training package is to enable national water associations and other relevant multipliers to offer dedicated information for decision-makers and experts among the infrastructure and service providers, as well as local authorities, who in their daily work might not have seen the need to address PFAS, since PFAS are not regulated in most national legal water/environmental frameworks. The training package will include instructions for practical training courses for operating staff, as well as materials for addressing PFAS within the interests and mandates of the municipalities. The experiences gained through the transfer activities will be integrated. The training package will incl. a.o. general and advanced information on the subject, presentations, recordings and short educational videos.

As the training package will be developed based on demands of the BSR countries collected in the series of interviews, it will integrate all necessary information for those with lower/beginners' knowledge to those with already advanced knowledge. With respect to larger cities and WWTPs having usually higher qualified staff but limited possibilities for national experience exchange, the transnational exchange with WWTPs of same size/technology level will support informal learning via personal exchange during project workshops and meetings, training courses.

1,380 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 Infrastructure and public service provider Water sector/Municipal Water Utilities/Wastewater Treatment Plants WWTPs are a focal point for the removal of pollutant particles before they are discharged into aquatic environment. 1. Poland (Gdańsk, Szczecin) 2. Estonia (Tartu, Tallinn) 3. Finland (Turku) 4. Lithuania (Kaunas) 5. Latvia (Riga)	Developed training package is oriented towards public service providers and local authorities, both compiling and presenting relevant information for sharing knowledge and raising capacities of the operators, and informing local experts on possibilities and measures of addressing PFAS pollution on the local level. As one of the training package measures oriented on service provider personnel, loaning of the mobile container solution will be promoted, so that even more staff of infrastructure and service providers could receive training on advanced wastewater treatment technologies. 589 / 1,000 characters
Target group 2 Local public authority Urban environment-related departments of the Riga City Council, City of Malmö, Jonava district municipality, Taurage district municipality as well as Panevėžys city and Panevėžys water company, and cities of the Union of the Baltic Cities network.	Developed training package is oriented towards public service providers and local authorities, both compiling and presenting relevant information for sharing knowledge and raising capacities of the operators, and informing local experts on possibilities and measures of addressing PFAS pollution on the local level. This target groups should consider PFAS and other organic pollutants in all their decision-making with environmental impacts, especially safety of drinking water supply, but also as advanced treatment of wastewater as possible. The training package will include knowledge on these aspects to raise the capacities of the experts from local administrations working with these pollution issues. 708 / 1,000 characters
Target group 3 Interest group National water associations are politically and economically independent. They are committed to the development of save and sustainable water management. Representing experts and decision makers from municipalities, authorities, consultants, companies and science, they offer forums for ideas and the exchange of opinions and support politics with their advice. Environmental training centres in some BSR countries have similar role in professional training. Target groups come from DE, LT, EE.	Training package will be used to organize workshops within the framework of the national water associations and educational centres training courses as an additional topic. By reaching out to participants, the knowledge compiled throughout the project will shared. 264 / 1,000 characters

Durability of the output

The training package made available will be used by the national water associations in their training programmes. Research organisations might be requested to update certain parts whenever new knowledge is available. This flexibility regarding the content is already considered from the beginning of the design process. Any other partner will help in promoting these materials and introducing it to as many organisations engaged in professional training as possible.
The training package will be available on the Baltic Smart Water Hub portal.

543 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: Piloting and evaluating solutions						
A.2.4: Tailoring the assembled training package for target group needs						
O.2.4: Transferable training package for infrastructure and service providers approved by EMPEREST project						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

Work package 3

5.1 WP3 Transferring solutions

5.2 Aim of the work package

In Work Package 3, communicate and transfer the ready solutions to your target groups. Plan at least one year for this work package to transfer your solutions to the target groups, considering their respective needs. Select suitable activities to encourage your target groups to use the solutions in their daily work.
Organise your activities in up to five groups of activities. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1 PP 1 - Union of the Baltic Cities Sustainable Cities Commission c/o City of Turku

Work package leader 2 PP 4 - Berlin University of Technology

5.4 Work package budget

Work package budget 25%

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Infrastructure and public service provider Water sector/Municipal Water Utilities/Wastewater Treatment Plants WWTPs are a focal point for the removal of pollutant particles before they are discharged into aquatic environment. 1. Poland (Gdańsk, Szczecin) 2. Estonia (Tartu, Tallinn) 3. Finland (Turku) 4. Lithuania (Kaunas) 5. Latvia (Riga) 300 / 500 characters	Activities in WP3 are structured for dissemination tailored for the target groups needs. GoA 3.3 is oriented towards infrastructure and public service providers. Follower and Demonstrator WWTPs will continue being involved, invited to project events, incl. a workshop in Szczecin (P5) focusing on the transfer of the mobile pilot plant. Training package developed and tested in WP1-2 will be placed on the Baltic Smart Water Hub portal (oriented largely towards water experts and local decision-makers) for increased durability of the output, and will be available for all regional water experts. Training materials will be further disseminated to the water utilities beyond the consortium through the network connections of the partnership (a.o. cities of the UBC network, national water association, Baltic Smart Water Hub experts network). Resulting report on GoA3.3 activities will bring up benefits of O2.4 to encourage the uptake of it by further actors. 961 / 1,000 characters
2	National public authority National public authorities from Baltic Sea countries responsible for establishing of national environmental monitoring programmes under the EU MSFD and WFD. National competent authorities representing Contracting Parties in Helsinki Commission, providing data for regional assessments and utilizing the results of regionally coordinated assessments for the development of national programmes of measures and evaluation of their effects e.g Swedish Environmental Protection Agency. 484 / 500 characters	National competent authorities representing Contracting Parties in Helsinki Commission provide data for regional assessments and utilize the results of regionally coordinated assessments for the development of national programmes of measures and evaluation of their effects. Reginal assessments are carried out applying methodological approaches, utilizing environmental targets and indicators, which are approved by all Baltic Sea countries. HELCOM expert and working groups will be utilized as a platform for science-policy dialog, involving national competent authorities, with the aim to develop a proposal for regional guideline (monitoring manual). In addition, a dedicated workshop is foreseen in the frame of the project. Involvement of national competent authorities will prove economic feasibility of the proposed monitoring and assessment methodologies, and that information obtained applying this methodology will cater for respective management needs. 967 / 1,000 characters
3	International governmental organisation HELCOM, Baltic Marine Environment Protection Commission and its subordinated bodies, as intergovernmental organization (IGO), serves as a platform for science-policy dialog and knowledge transfer for competent representatives of the EU members states in the Baltic Sea region. HELCOM also coordinates regional effort to assess the state of the Baltic Sea marine environment, environmental pressures and undertake regional activities to jointly address respective challenges. 475 / 500 characters	HECOM as IGO is considered as regional policy maker in the field of marine environment protection. In order to transfer scientific knowledge to regional policy framework HELCOM will organize a science-policy dialog enabling thorough reviewing of project outputs and validating their applicability for regionally coordinated efforts to monitor and assess the magnitude of PFAS contamination and to justify respective measures. Due to the complexity of the issue, finding feasible solutions requires the involvement of extensive transnational expertise to transfer scientific knowledge to regional policy. The project will mobilize international scientific community for co-creation of required knowledge and HELCOM will provide suitable platform for that. Once being integrated in the regional policy framework solutions will become a subject for regular reviewing when new scientific knowledge is available, which guarantees sustainability of the project results in long-term perspective. 988 / 1,000 characters

	Target group	How do you plan to reach out to and engage the target group?
4	Local public authority Urban environment-related departments of the Riga City Council, City of Malmö, Jonava district municipality, Taurage district municipality as well as Panevėžys city and Panevėžys water company, and cities of the Union of the Baltic Cities network. 247 / 500 characters	GoA3.2 is oriented towards local authorities, with the training package tailored for local needs, interests and working scope. Training package will be shared on the Baltic Smart Water Hub portal (oriented largely towards water experts and local decision-makers) for increased durability. To increase the trainings' use and spread the information, promotional campaign (Facebook, Twitter, Instagram, newsletters) will be organised targeting local authorities to focus on environmental impacts, upstream measures, and advanced wastewater treatment, oriented towards emphasizing different measures for preventing PFAS. Campaign will enable local authorities with information relevant for municipal experts and potentially available for their outreach to citizens. Cities will be invited to the workshop (P5), final conference (P6), and PP1 will organise a city-focused webinar. Resulting report on GoA3.2 activities will bring up benefits of O2.4 to encourage the uptake of it by further actors. 994 / 1,000 characters
5	Interest group National water associations are politically and economically independent. They are committed to the development of save and sustainable water management. Representing experts and decision makers from municipalities, authorities, consultants, companies and science, they offer forums for ideas and the exchange of opinions and support politics with their advice. Environmental training centres in some BSR countries have similar role in professional training. Target groups come from DE, LT, EE. 496 / 500 characters	National water associations and training centres (PP12, PP13, AO1) will be involved in GoAs 3.2 and 3.3, participate in the workshop in P5 and a final conference in P6. PP12 will lead GoA 3.3. Trainings will be organised by this target group, and more of the water associations' members will be disseminated information, materials and tools delivered in the project. Communication will be organised internally via direct contacts and newsletters. Interest groups will be invited to the workshop in P5 and final conference in P6. Project outputs presented in the Baltic Smart Water Hub portal will be available for dissemination by the water associations and training centres. At least one training is planned to be organised together with a water association or training centre from outside the project consortium. Interest groups will be involved in delivering the report in GoA3.3 to describe the transfer activities and bring up benefits of O2.4 to encourage the uptake of it by further actors. 999 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
3.1	**Strengthening regional environmental management framework for PFAS group**
3.2	**Transfer of tools, methods and training for local authorities**
3.3	**Transfer of tools, methods and training for infrastructure and public service providers**

WP 3 Group of activities 3.1

5.6.1 Group of activities leader

Group of activities leader PP 2 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

A 3.1

5.6.2 Title of the group of activities

Strengthening regional environmental management framework for PFAS group

72 / 100 characters

5.6.3 Description of the group of activities

One of the key regional political agreements in the field of environment protection – the Baltic Sea Action Plan (BSAP) – emphasises that efforts towards achieving the BSAP goals on hazardous substances (hs) require the application of a holistic approach for their management on land and at sea, comprising measures addressing both legacy pollutants and contaminants of emerging concern such as PFAS and pharmaceuticals. Output of this activity will directly contribute to the BSAP action on the development of strategic approaches or hs regarding monitoring, indicators and priority substances. At the same time, the EU MSFD prescribes that Member States establish coordinated monitoring programmes for the ongoing assessment of the environmental status of their marine waters. The Directive specifically points out that the programmes shall be built upon and be compatible with relevant provisions for assessment and monitoring laid down by Community legislation, or under international agreements. These two documents lay the basis for the BSR framework for monitoring and assessment of PFAS in the environment.
WP2 output – methodological recommendations for monitoring and assessment of PFAS – will be promoted as a part of the holistic approach for management hs on land and sea. Since, monitoring and assessment is a vital component of environmental management cycle, the recommendations will be communicated with relevant target groups utilizing the following instruments.

The EU PA Hazards “Platform to decrease harmful and toxic PFAS pollution” will be used as an experience transfer and networking opportunity in the field of PFAS usage and management. This will allow to organize science-policy dialog involving key target groups and promoting integration of the advanced and harmonized monitoring methodologies in the BSR. HELCOM EG Hazards is intended to facilitate and further develop the coordination of regional work on hazardous hs. The methodological recommendations will be promoted to the EG for integration in the coordinated regional activities addressing PFAS group as contaminants of emerging concern.

Respective materials will be prepared to present the WP2 output – methodological recommendations to monitor PFAS in the aquatic environment – and demonstrate their applicability for national and regional monitoring programmes. These materials will be submitted to respective expert group meetings and presented there to encourage their adoption at regional and national level. Methodological recommendations for the environmental assessment and respective indicators will be submitted for consideration at the regional intergovernmental level to harmonize national MSFD reporting and in general assessment of the state of the BS. Dedicated workshops and seminars will be organized in cooperation with PA Hazards and HELCOM to publicize the results of pilot tests together with other available materials to raise awareness of the threat posed by PFAS for the environment.

3,000 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

O 3.1

Title of the output

Regional science-policy dialog to promote monitoring and assessment of PFAS in the environment

94 / 100 characters

Description of the output

Monitoring and assessment are integral parts of the environmental management cycle, providing scientifically sound evidence base for the development and implementation of measures to minimize or eliminate environmental pressure caused by release of toxic substances to the aquatic environment. It also serves as a tool to follow up the effect of these measures and progress towards good environmental status. The purpose of the output is to strengthen regional environmental management in relation to PFAS, building regional framework for obtaining reliable and sufficient data on PFAS contamination and related environmental pressures. Integration of new methodological recommendations into daily practice requires an open regional dialog involving major target groups - scientists, managers and decision makers - to assure scientific correctness, economic feasibility and policy relevance of the proposed management framework. Such open science-policy dialog will lead to the acceptance of proposed approaches and subsequently their integration in casual management cycle as a regional guideline (monitoring manual).

Regional Guideline for monitoring and assessment of PFAS in the aquatic environment (monitoring manual) will be based on methodological recommendations developed within WP1 and tested and validated in WP2 and include proposals for regionally coordinated target values and indicators for the assessment of state of the aquatic environment. The document will provide guidance for the assessment of ecological status of the marine environment and related environmental pressure as a part of national MSFD processes and implementation of Helsinki Convention.

The science-policy dialog will incorporate consideration of scientific evidence of the need for measures to manage PFAS with presentation of ready solutions related to monitoring and assessment of the state of the environment in relation to its PFAS contamination. The dialog will include presentations and discussions at PA Hazards’ “Platform to decrease harmful and toxic PFAS pollution”, submission of respective documents for consideration at HELCOM EG Hazards and other relevant HELCOM working group meetings. Thematic workshop for all regional stakeholders will be arranged. Being integrated in the regional management framework the document will be continuously reviewed when new scientific information is available, which assures durability of the project results.

2,450 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 International governmental organisation HELCOM, Baltic Marine Environment Protection Commission and its subordinated bodies, as intergovernmental organization (IGO), serves as a platform for science-policy dialog and knowledge transfer for competent representatives of the EU members states in the Baltic Sea region. HELCOM also coordinates regional effort to assess the state of the Baltic Sea marine environment, environmental pressures and undertake regional activities to jointly address respective challenges.	HELCOM monitoring and assessment strategy supports regionally coordinated activities of the HELCOM Contracting Parties in respect of monitoring and assessment in implementing the Baltic Sea Action Plan. Practically, HELCOM contracting parties organize holistic assessment of the health of the Baltic Sea marine environment every sixth years. The assessment is based on the data obtained through regionally harmonized monitoring carried out by contracting parties and utilizes regionally agreed indicators. Since PFAS group contaminants are considered as pollutants of emerging concern for the region, the guideline, in case of integration in the Baltic Sea environment management framework, will be utilized as a basis for the assessment of contamination level and evaluation of state of marine environment as well as the environmental pressure. The guideline will be used to monitor PFAS in the aquatic environment, compile respective data and assess state of the Baltic Sea. 978 / 1,000 characters
Target group 2 National public authority National public authorities from Baltic Sea countries responsible for establishing of national environmental monitoring programmes under the EU MSFD and WFD. National competent authorities representing Contracting Parties in Helsinki Commission, providing data for regional assessments and utilizing the results of regionally coordinated assessments for the development of national programmes of measures and evaluation of their effects e.g Swedish Environmental Protection Agency.	The EU MSFD commits the EU Member States to develop environmental monitoring programmes and establish environmental targets as necessary step towards achieving good environmental status of the marine environment. The Directive also requests that monitoring programmes shall be compatible within marine regions or subregions. The output will provide guidance for harmonized and coordinated monitoring and assessment of PFAS in the aquatic environment by the EU Member States across the Baltic Sea region. It will be utilized for establishing harmonized national monitoring programmes and respective environmental targets and thus facilitate fulfilment of respective EU regulations. Harmonization of the monitoring methodologies will also enable national competent authorities to report consistent data for regional assessments and thus, fulfil their obligations for the implementation of the Helsinki Convention. 911 / 1,000 characters

Durability of the output

The main goal of this activity is integration of the methodological recommendations for monitoring and assessment of PFAS group in the aquatic environment into the Baltic Sea casual environmental management framework. To achieve this goal, respective regional guideline will be drafted and submitted for consideration by regional expert and working groups. The draft guideline will be co-developed by project partners representing scientific community and competent authorities for application in the routine environmental management at national level and for coordinated effort to achieve good environmental status of the Baltic Sea region. Involvement of both target groups will ascertain acceptance of the output in the region and use for the development of respective national monitoring programmes and regional assessments, thus, providing institutionalization of the project output and its transnational effect.

917 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.1: Strengthening regional environmental management framework for PFAS group						
O.3.1: Regional science-policy dialog to promote monitoring and assessment of PFAS in the environment						

5.6.7 This deliverable/output contains productive or infrastructure investment

WP 3 Group of activities 3.2

5.6.1 Group of activities leader

Group of activities leader PP 5 - Turku University of Applied Sciences (TUAS)

A 3.2

5.6.2 Title of the group of activities

Transfer of tools, methods and training for local authorities

61 / 100 characters

5.6.3 Description of the group of activities

GoA 3.2 is oriented towards transferring tools, methods and trainings developed within the project to the local authorities.
With the training package tailored for this target group needs, its dissemination will be realised through increased or widened invitations to project workshops (in Kaunas, Gdansk, Tartu, and Szczecin in conjunction with the respective transfers of the mobile containers, throughout project periods 2-5), presenting the solutions at respective events (UBC events oriented at the local authorities of the network, meetings of local authorities in the countries, via Interreg contact points) to make the package more visible and foster its use for training of water professionals and environmental experts in local authorities.

This target groups should consider PFAS and other organic pollutants in all their decision-making with environmental impacts, especially safety of drinking water supply, but also as advanced treatment of wastewater as possible. This awareness raising is one of the main challenges. Promotional campaign will be organised targeting local authorities to focus on these factors, and emphasize different measures, including a.o. the upstream approach for preventing PFAS releases, which would be relevant for local authorities and their citizens to uptake. Promotional campaign will be supported by different regular and associated partners (PP1 UBC, cities involved in the consortium). In addition to social media (Facebook, Twitter, Instagram), also blog entries, videos and dedicated newsletters will be used to encourage the target group of local authorities. A report (D 3.2) will conclude the campaign, to bring up not only the documented results of the transfer process, but also feedback on the potential benefits for local authorities, to be collected from the actors involved in this process, to encourage even further uptake of the training package.

The project will foster transnational collaboration from the very beginning, involving partners from different countries in the common development of the deliverables and outputs within the training package development process. The transfer work will follow this approach and always consider the transnational perspective, to ensure the sustainability and applicability of the results around the Baltic Sea Region.

2,324 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 3.2

Title of the deliverable

Report on the promotional campaign for local authorities

56 / 100 characters

Description of the deliverable

Promotional campaign will be organised targeting local authorities to focus on environmental impacts, upstream measures, and advanced wastewater treatment, oriented towards emphasizing different measures for preventing PFAS and other organing micropollutants leaching to the environment. The campaign will be oriented at cities and municipalities to enable them with information relevant for municipal experts and potentially available for their outreach to citizens.
Promotional campaign will be supported by different regular and associated partners (PP1 UBC, cities involved in the consortium) and will be realised in social media (Facebook, Twitter, Instagram, Youtube) and via targeted newsletters.

As a result of the campaign, a report will be drawn reflecting the results of this outreach process. The report will include collected feedback (interviews/comments) from the local authorities that took part in the uptake of the training package (O2.4), highlighting benefits of the produced output and related project activities for the local-level actors.

1,062 / 2,000 characters

Which output does this deliverable contribute to?

2.4 Transferable training package for infrastructure and service providers

74 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.2: Transfer of tools, methods and training for local authorities						
D.3.2: Report on the promotional campaign for local authorities						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 3 Group of activities 3.3

5.6.1 Group of activities leader

Group of activities leader PP 12 - DWA German Association for Water, Wastewater and Waste DWA Regional group North-East

A 3.3

5.6.2 Title of the group of activities

Transfer of tools, methods and training for infrastructure and public service providers

87 / 100 characters

5.6.3 Description of the group of activities

GoA 3.3 will focus on transferring tools, methods and trainings developed and tailored for infrastructure and public service providers in WP1-2 for further uptake by this target group.

As the mobile pilot containers will travel in BSR within GoAs 1.3 and 2.3, dedicated webinars and on-site trainings offers at the current locations of the mobile container solution will be one of the main points for the further transfer, potentially in combination with providing theoretical input via a short webinar, offering a physical training and an online follow-up feedback meeting. For a wider and more efficient audience involvement, the trainings will be often organised in conjunction with the project workshops that will take place in Kaunas, Gdansk, Tartu, Szczecin throughout project periods 2-5.

GoA 3.3 will be led by PP12 DWA, and the trainings for infrastructure and public service providers will be organized under the umbrella of the national water associations and training centers involved in- (PP13 ECAT-Lithuania, AO1 EVEL) or cooperating with the consortium. This way, the water utilities will be involved not only on the direct basis, but the invitations and encouragements will also be extended and multiplied through the associations' networks. During the transfer phase, the scientific community of the partnership (PP3 UT, PP4 TUB, PP5 TUAS) will assist with the transfer activities. Trainings and the possibility of the local uptake of materials will also be promoted via the Baltic Smart Water Hub portal and to its experts (with online meetings for Water Hub Experts organised by PP1 UBC), to demonstrate the benefits of these to any actors of professional training and disseminate the information about the available training package further beyond the consortium.

At least one training is planned to be organised together with a water association or training centre from outside the project consortium. The training activities will also be described as the Baltic Smart Water Hub cases for easier promotion of the materials. Selected materials will be made available via the Water Hub.

The result of the transfer activities in GoA 3.3 will be described in a report.

2,189 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 3.3

Title of the deliverable

Report on the developed capacities of infrastructure and public service providers

81 / 100 characters

Description of the deliverable

It is important to disseminate the developed materials to the specific target groups, and the materials tailored for water operators and experts will be transferred in GoA 3.3.

The transfer of the developed and tailored training materials will enable development of capacities of the local public service providers. The training package, combined in WP2, will be transferred further in the region, not only to the project partners, but also beyond the project consortium, through the network connections of the partnership (a.o. UBC network city contacts; national water associations; Baltic Smart Water Hub experts network). The materials will be presented in the Water Hub portal to ensure their free availability and durability after the project's end and will be therefore available for uptake by any water experts in the region.

The result of the transfer activities in GoA 3.3 will be described in a report demonstrating the transfer scope in BSR, and exemplifying potential benefits of the training package's uptake for further actors.

1,044 / 2,000 characters

Which output does this deliverable contribute to?

2.4 Transferable training package for infrastructure and service providers

74 / 100 characters

5.6.6 Timeline

	Period: 1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.3: Transfer of tools, methods and training for infrastructure and public service providers					■	■
D.3.3: Report on the developed capacities of infrastructure and public service providers						■

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

6. Indicators

Indicators

Output indicators				Result indicators		
Output indicators	**Total target value in number**	**Project outputs**	**Please explain how the solution presented in this output serves the target group(s).**	**Result indicator**	**Total target value in number**	**Please explain how organisations in the target groups within or outside the partnership will take up or upscale each solution.**
RCO 84 – Pilot actions developed jointly and implemented in projects	4	N/A	N/A	**RCR 104 - Solutions taken up or up-scaled by organisations**	5	O.2.1 Methodological recommendation will be used by competent authorities to develop national monitoring programmes under WFD and MSFD. They also will be utilized by international organizations for regional assessment of the state of the marine environment and respective environmental pressures as a component of environmental management framework for PFAS. O2.2 will be co-developed with local public authorities to ensure relevance and commitment for uptake of the solution. The solution and guidance how to implement it will be presented at open project workshops and conferences. O2.3 will be aimed towards the WWTPs as the main benefactors of the output. The WWTPs will test advanced treatment technologies and receive all necessary knowledge, guidelines and tools to start planning their full-scale investments in this field, which can be expected to become mandatory in the region for larger WWTPs. Public service providers will use this document in their planning activities, estimate costs based on pilot tests and get a good overview on what operating such systems should entice. Smaller WWTPs will use the preventive measures outlined in the document to improve their operations. Local and national authorities will use project output when planning legislation adoption and incentives supporting large-scale and expensive investments. O.2.4 is oriented towards public service providers and local authorities, both compiling and presenting relevant information for sharing knowledge and raising capacities of the operators, and informing local experts on possibilities and measures of addressing PFAS pollution on the local level. O.3.1 will strengthen environmental management cycle for PFAS being applied to justify feasibility of measures to reduce environmental pressure and prove their effectiveness. This will allow authorities to develop national programmes of measures under MSFD and WFD and contributes to the implementation of respective measures from the BSAP. 1,994 / 2,000 characters

Output indicators	Total target value in number	Project outputs	Please explain how the solution presented in this output serves the target group(s).	Result indicator	Total target value in number	Please explain how organisations in the target groups within or outside the partnership will take up or upscale each solution.
		O.2.1: Methodological recommendations for monitoring and assessment of PFAS in the aquatic environment	Guidance provided in the methodological recommendations for monitoring and assessment of PFAS in the aquatic environment will be utilized by the HELCOM Contracting Parties being the EU Member States for establishing harmonized national monitoring programmes and respective environmental targets. Harmonization of the monitoring methodologies will enable national competent authorities to report consistent data for regional assessments and thus, support their efforts in implementation of the Helsinki Convention. The methodological recommendations for monitoring and assessment of PFAS in the aquatic environment will be utilized to develop regionally harmonized framework for monitoring and assessment of contamination of the aquatic environment by these compounds, develop coordinated programmes of measures to prevent pollution, evaluate their effectiveness and follow-up progress towards good environmental status of the Baltic Sea environment. 953 / 1,000 characters			

Output indicators	Total target value in number	Project outputs	Please explain how the solution presented in this output serves the target group(s).
RCO 116 – Jointly developed solutions	5	O.2.2: PFAS risk assessment plan for local authorities	PFAS risk assessment approach and tools for local authorities support optimal PFAS risk management and establishment of preventive solutions, thus enabling the local authorities in the BSR to expand their understanding of the environmental risks posed by PFAS as well as uptake and localise practical approach and functional tools to manage the potential impact of PFAS entering the environment. The solution will support local authorities in fulfilling the requirements of EU Drinking Water Directive. In the framework of a project local public authorities supported by the scientific community will co-develop a city-specific PFAS risk assessment framework (approach and functional tool) enabling identification and assessment of PFAS related risks and mitigation strategies. 783 / 1,000 characters

Output indicators	Total target value in number	Project outputs	Please explain how the solution presented in this output serves the target group(s).
		O.2.3: Strategies and technological means for minimising organic micropollutant emissions from WWTPs	Output 2.3 will be aimed toward the WWTPs as the main benefactors. The output will provide information, guidelines and strategies to the WWTPs to start planning their full-scale investments in this field, which can be expected to become mandatory in the region for larger WWTPs. Infrastructure and public service providers can reference this document in their planning activities, estimate costs based on pilot tests done in their nearby cities and get a good overview on what operating such systems should entice. Smaller WWTPs can use the preventive measures outlined in the document, to improve their operations. Output 2.3 will also be vital for national authorities, who coordinate the activities in the region and are often the sources or adapters of legislations. The output outlines the various technologies, costs and bottlenecks, that national authorities can use when planning legislation adoption and adaption to local circumstances. 946 / 1,000 characters
			This solution is oriented towards experts among the infrastructure and service providers, as well as local authorities. It will enable them, together with the additional target of interest groups (associations and environmental training centres in different BSR countries acting as multipliers for their local stakeholders), to take up and offer further the dedicated professional training package, responding to the needs of expert personnel in the BSR. By including comprehensive and evidence-based information about emerging pollutants like PFAS and targeted solutions in advanced wastewater treatment, the curricula in professional training stays updated and flexible for future demands. 692 / 1,000 characters

Output indicators			Result indicators
Output indicator	Total target value in number	Result indicator	Total target value in number	Please describe what types of organisations are planned to actively participate in the project. Explain how this participation will increase their institutional capacity. These types of organisations should be in line with the target groups you have defined for your project.
RCO 87 - Organisations cooperating across borders	22	O.2.4: Transferable training package for infrastructure and service providers approved by EMPEREST project		

Result indicator	Total target value in number	Please describe what types of organisations are planned to actively participate in the project. Explain how this participation will increase their institutional capacity. These types of organisations should be in line with the target groups you have defined for your project.	
PSR 1 - Organisations with increased institutional capacity due to their participation in cooperation activities across borders	40	Project partners and associated organisations	Organisations representing practitioners and public service providers (PP6 Gdańsk Water Utilities, PP7 Water and Sewage Company of Szczecin, PP8 Kaunas water, PP9 Tartu Veevärk AS, PP10 AS Tallinna Vesi, PP11 Turku Region WWTP, AO3 Riga Water, AO4 Panevėžys Water) - will actively co-develop, demonstrate (Gdansk and Tartu) and follow/upscale (Szczecin, Kaunas, Tallinn and Turku) the application of an advanced treatment technology pilot system to identify feasibility and efficiency of removal of micropollutants of emerging concern. Practitioners will increase their institutional capacities in operation and optimisation of the advances technologies. Local public authorities (PP14 Riga, AO2 Malmö, AO5 Jonava, AO6 Taurage, PP1 UBC) will be equipped with knowledge and tools to identify and assess PFAS related risks and prepare relevant risk mitigation strategies. National public authorities and organisations directly involved in policy making (PP2 HELCOM, AO7 SEPA) will gain new tools and methodologies for the monitoring and assessment of PFAS on the national and regional levels. National water associations (PP12 DWA, PP13 ECAT-Lithuania, AO1 EVEL) will be actively involved in the development and testing of the training package concept and content allowing them for further dissemination of it to their member utilities beyond the consortium thus gaining more competences and most recent scientific knowledge created through multilevel project approach. 1,484 / 1,500 characters

Result indicator	Total target value in number	Please describe what types of organisations are planned to actively participate in the project. Explain how this participation will increase their institutional capacity. These types of organisations should be in line with the target groups you have defined for your project.	
		Other organisations	In addition to the organisations directly connected to the project as regular or associated partners the aim is to reach out to organisations beyond the consortium but representing important stakeholders: - EUSBSR PA Hazards, Nutri, Health, Bioeconomy – to ensure policy relevance as project aim to contribute with tools and solutions enabling implementation of respective PAs Actions, - National public authorities and organisations directly involved in policy making i.e. development of national PFAS action plans and respective monitoring programmes e.g German Environment Agency (UBA), Swedish Chemicals Agency, Finnish Environment Institute (SYKE), - National water associations from Denmark, Finland, Latvia and Sweden and other WWTPs in BSR to mainstream the developed training materials and promote the uptake of advanced treatment technologies for micropollutants removal tested in the project, - Local public authorities from UBC network interested in uptake of PFAS risk assessment framework (approach, tool) enabling local authorities to identify and assess PFAS related risks, - Other EU funded projects addressing pollution from micropollutants to exchange on scientific findings and achievements in the field addressed e.g ZeroPM project, Baltic Leadership Programme on per- and polyfluoroalkyl substances (BLP PFAS), IVL Swedish Environmental Research Institute leading Baltic Sea PFAS Network. 1,415 / 1,500 characters

7. Budget

7.0 Preparation costs

Preparation Costs

Would you like to apply for reimbursement of the preparation costs?	No

7.1 Breakdown of planned project expenditure per cost category & per partner

No. & role	Partner name	Partner status	CAT1 - Staff	CAT2 - Office & administration	CAT3 - Travel & accommodation
1 - LP	Union of the Baltic Cities Sustainable Cities Commission c/o City of Turku	Active 22/09/2022	445,824.00	66,873.60	66,873.60
2 - PP	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)	Active 22/09/2022	324,085.40	48,612.81	48,612.81
3 - PP	University of Tartu	Active 22/09/2022	374,100.00	56,115.00	56,115.00
4 - PP	Berlin University of Technology	Active 22/09/2022	617,666.00	92,649.90	92,649.90
5 - PP	Turku University of Applied Sciences (TUAS)	Active 22/09/2022	334,368.00	50,155.20	50,155.20
6 - PP	Gdańsk Water Utilities	Active 22/09/2022	258,632.00	38,794.80	38,794.80
7 - PP	Water and Sewage Company Ltd. of Szczecin	Active 22/09/2022	198,948.00	29,842.20	29,842.20
8 - PP	Tartu Waterworks Ltd	Active 22/09/2022	224,460.00	33,669.00	33,669.00
9 - PP	Tallinn Water Ltd	Active 22/09/2022	209,496.00	31,424.40	31,424.40
10 - PP	"Kaunas water" Ltd.	Active 22/09/2022	113,520.00	17,028.00	17,028.00
11 - PP	Turku Region Wastewater Treatment Plant	Active 22/09/2022	222,912.00	33,436.80	33,436.80
12 - PP	DWA German Association for Water, Wastewater and Waste DWA Regional group North-East	Active 22/09/2022	99,072.00	14,860.80	14,860.80
13 - PP	Environmental Center for Administration and Technology	Active 22/09/2022	102,168.00	15,325.20	15,325.20
14 - PP	City of Riga	Active 22/09/2022	152,064.00	22,809.60	22,809.60
Total			3,677,315.40	551,597.31	551,597.31

No. & role	Partner name	CAT4 - External expertise & services	CAT5 - Equipment	CAT6 - Infrastucture & works	Total partner budget
1 - LP	Union of the Baltic Cities	53,000.00	0.00	0.00	632,571.20
2 - PP	Baltic Marine Environmen	9,999.98	0.00	0.00	431,311.00
3 - PP	University of Tartu	49,000.00	0.00	0.00	535,330.00
4 - PP	Berlin University of Techn	53,250.19	6,000.00	0.00	862,215.99
5 - PP	Turku University of Applie	28,000.00	12,000.00	0.00	474,678.40
6 - PP	Gdańsk Water Utilities	67,000.70	1,500.00	240,000.00	644,722.30
7 - PP	Water and Sewage Com	39,000.15	5,000.00	3,000.00	305,632.55
8 - PP	Tartu Waterworks Ltd	25,000.00	30,000.00	300,000.00	646,798.00
9 - PP	Tallinn Water Ltd	33,000.00	30,000.00	5,000.00	340,344.80
10 - PP	"Kaunas water" Ltd.	47,000.00	5,000.00	2,000.00	201,576.00
11 - PP	Turku Region Wastewate	49,000.00	8,000.00	8,000.00	354,785.60
12 - PP	DWA German Associatio	35,750.00	0.00	0.00	164,543.60
13 - PP	Environmental Center for	15,000.00	1,500.00	0.00	149,318.40
14 - PP	City of Riga	36,200.00	4,000.00	12,000.00	249,883.20
Total		540,201.02	103,000.00	570,000.00	5,993,711.04

7.1.1 External expertise and services

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value
1. Union of the Balti	Communication	CAT4-PP1-C-0	Printing costs, photos for publications (39 / 100 characters)	No	2.2 2.3 2.4 3.2 3.3 N/A	4,000.00
1. Union of the Balti	Events/meetings	CAT4-PP1-A-0	Kick-off meeting in Turku Catering, venue, services for the event (65 / 100 characters)	No	1.1 1.2 1.3 1.4 2.1 2.2 2.3 2.4 3.1 3.2 3.3	10,000.00
1. Union of the Balti	Events/meetings	CAT4-PP1-A-0	Project training events (24 / 100 characters)	No	1.4 2.4 3.2 3.3	4,000.00
1. Union of the Balti	Events/meetings	CAT4-PP1-A-0	External events (2 policy events, EUSBR AF, EU Green Week, World Water Forum) (78 / 100 characters)	No	1.1 1.2 1.3 1.4 2.1 2.2 2.3 2.4 3.1 3.2 3.3	10,000.00
1. Union of the Balti	Communication	CAT4-PP1-C-0	Translation costs (training materials) (39 / 100 characters)	No	1.4 2.4 3.2 3.3	2,000.00
1. Union of the Balti	Communication	CAT4-PP1-C-0	IT digital tools (17 / 100 characters)	No	N/A	3,000.00
	Total					540,201.02

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
1. Union of the Balti	Other	CAT4-PP1-G-0	Promotional campaign for local authorities 43 / 100 characters	No	1.4 2.4 3.2 3.3	20,000.00	
3. University of Tart	Other	CAT4-PP3-G-0	External laboratory analysis support for micropollutants 57 / 100 characters	No	1.3 2.3 3.3	25,000.00	
3. University of Tart	Other	CAT4-PP3-G-0	Sampling and analysis budget in support of the monitoring strategy development 79 / 100 characters	No	1.1 2.1	12,000.00	
3. University of Tart	Communication	CAT4-PP3-C-1	Translation costs (training materials, output abstracts) 56 / 100 characters	No	1.1 1.2 1.3 1.4 2.1 2.2 2.3 2.4 3.1 3.2 3.3	1,000.00	
3. University of Tart	Communication	CAT4-PP3-C-1	Printing, layouting, flyers 28 / 100 characters	No	1.3 2.3 3.1 3.2 3.3	1,000.00	
3. University of Tart	Events/meetings	CAT4-PP3-A-1	Workshop organising in Tartu (catering, venue, services for the event) 71 / 100 characters	No	1.1 1.2 1.3 1.4 2.1 2.2 2.3 2.4	10,000.00	
4. Berlin University	Other	CAT4-PP4-G-1	External laboratory analysis (PFAS, Spurenstoffe) 49 / 100 characters	No	1.3 2.3	25,250.00	
	Total					540,201.02	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
5. Turku Universitv	Other	CAT4-PP5-G-1	Sample analysis 16 / 100 characters	No	1.3 2.3	28,000.00	
6. Gdańsk Water U	Other	CAT4-PP6-G-1	Operation of the pilot plant 29 / 100 characters	Yes	I2.3_1	8,000.70	
6. Gdańsk Water U	Other	CAT4-PP6-G-1	Laboratory analyses of wastewater 34 / 100 characters	Yes	I2.3_1	30,000.00	
6. Gdańsk Water U	Events/meetings	CAT4-PP6-A-1	Organization of national event 31 / 100 characters	No	1.1 1.2 1.3 1.4 2.1 2.2 2.3 2.4	10,000.00	
6. Gdańsk Water U	Other	CAT4-PP6-G-1	Promotional/education campain 30 / 100 characters	No	1.2 1.3 1.4 2.2 2.3 2.4 3.2 3.3	15,000.00	
6. Gdańsk Water U	Other	CAT4-PP6-G-1	Printing, photos, layouting 28 / 100 characters	No	1.3 2.3 3.1 3.2 3.3	2,000.00	
6. Gdańsk Water U	Other	CAT4-PP6-G-2	translations 12 / 100 characters	No	1.3 2.3 3.2 3.3	2,000.00	
7. Water and Sewa	Other	CAT4-PP7-G-2	Pilot plant transportation 27 / 100 characters	Yes	I2.3_1	2,000.15	
7. Water and Sewa	Other	CAT4-PP7-G-2	Laboratory analysis 20 / 100 characters	Yes	I2.3_1	25,000.00	
	Total					540,201.02	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
7. Water and Sewa	Events/meetings	CAT4-PP7-A-2	Organization of meeting 24 / 100 characters	No	1.3 2.1 2.2 2.3 2.4	10,000.00	
7. Water and Sewa	Communication	CAT4-PP7-C-2	Printing, layouting, flyers 28 / 100 characters	No	1.3 2.3 3.1 3.2 3.3	1,000.00	
7. Water and Sewa	Communication	CAT4-PP7-C-2	Translation 12 / 100 characters	No	1.3 2.3 3.1 3.2 3.3	1,000.00	
8. Tartu Waterwork	Other	CAT4-PP8-G-2	External laboratory analysis of organic micropollutants 56 / 100 characters	Yes	I2.3_2	25,000.00	
9. Tallinn Water Ltd	Other	CAT4-PP9-G-2	External laboratory analysis of organic micropollutants 55 / 100 characters	Yes	I2.3_2	25,000.00	
9. Tallinn Water Ltd	Other	CAT4-PP9-G-2	Transportation of the pilot plant 34 / 100 characters	Yes	I2.3_2	3,000.00	
9. Tallinn Water Ltd	Other	CAT4-PP9-G-2	Installation of the pilot plant 32 / 100 characters	Yes	I2.3_2	5,000.00	
4. Berlin Universitv	Events/meetings	CAT4-PP4-A-3	PSG-Meeting Midterm review 26 / 100 characters	No	N/A	2,000.19	
4. Berlin Universitv	Communication	CAT4-PP4-C-3	communication 13 / 100 characters	No	1.3 1.4 2.3 2.4 3.1 3.2 3.3	1,000.00	
	Total					540,201.02	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
4. Berlin Universitv	Communication	CAT4-PP4-C-3	Translations 12 / 100 characters	No	2.3 2.4 3.1 3.2 3.3	1,000.00	
4. Berlin Universitv	Other	CAT4-PP4-G-3	External expertise 18 / 100 characters	No	1.3 1.4 2.3 2.4	4,000.00	
4. Berlin Universitv	Other	CAT4-PP4-G-3	Sampling costs GoA 1.2 22 / 100 characters	No	1.2	20,000.00	
10. "Kaunas water"	Other	CAT4-PP10-G-	Pilot plant transportation 26 / 100 characters	Yes	I2.3_1	2,000.00	
10. "Kaunas water"	Other	CAT4-PP10-G-	Laboratory analysis 20 / 100 characters	Yes	I2.3_1	35,000.00	
10. "Kaunas water"	Project management	CAT4-PP10-D-	First level control, verification of the reports 49 / 100 characters	No	N/A	9,000.00	
10. "Kaunas water"	Events/meetings	CAT4-PP10-A-	Co-organsing of events 22 / 100 characters	No	2.1 2.2 2.3 2.4 3.1 3.2 3.3	1,000.00	
11. Turku Region W	Other	CAT4-PP11-G-	Pilot plant transportation 27 / 100 characters	Yes	I2.3_2	5,000.00	
11. Turku Region W	Other	CAT4-PP11-G-	Laboratory analysis 20 / 100 characters	Yes	I2.3_2	40,000.00	
11. Turku Region W	Specialist support	CAT4-PP11-E-	Laboratory consultation costs 31 / 100 characters	Yes	I2.3_2	4,000.00	
	Total					540,201.02	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
12. DWA German	Communication	CAT4-PP12-C-	Translations 13 / 100 characters	No	1.4 2.4 3.2 3.3	1,000.00	
12. DWA German	Communication	CAT4-PP12-C-	Publications, printing 23 / 100 characters	No	1.4 2.4 3.2 3.3	1,250.00	
12. DWA German	Events/meetings	CAT4-PP12-A-	Organization of training workshop (catering, room rental, transfer) 68 / 100 characters	No	1.4 2.4 3.2 3.3	5,000.00	
12. DWA German	Events/meetings	CAT4-PP12-A-	Invited speaker of traning workshop (fee and travel expenses) 62 / 100 characters	No	2.4 3.2 3.3	11,000.00	
12. DWA German	Events/meetings	CAT4-PP12-A-	Organization of final conference (catering, room rental, transfer) 67 / 100 characters	No	1.1 1.2 1.3 1.4 2.1 2.2 2.3 2.4 3.1 3.2 3.3	10,000.00	
12. DWA German	Events/meetings	CAT4-PP12-A-	Invited speaker of final conference (fee and travel expenses) 62 / 100 characters	No	N/A	1,500.00	
12. DWA German	Project management	CAT4-PP12-D-	Auditing (First level control) 31 / 100 characters	No	N/A	6,000.00	
2. Baltic Marine Env	Events/meetings	CAT4-PP2-A-4	Organizaton of dedicated workshops 35 / 100 characters	No	1.1 2.1 3.1	9,999.98	
	Total					540,201.02	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
14. City of Riga	Events/meetings	CAT4-PP14-A-	Hosting an international project workshop in Riga (facilities, catering, local transportation) 94 / 100 characters	No	1.1 1.2 1.3 1.4 2.1 2.2 2.3 2.4 3.1 3.2 3.3	6,500.00	
14. City of Riga	IT	CAT4-PP14-B-	Development of PFAS risk register and users' manual 51 / 100 characters	No	1.2	7,200.00	
14. City of Riga	Specialist support	CAT4-PP14-E-	Sampling and analysis for PFAS detection by certified laboratory 64 / 100 characters	Yes	I2.3_2	15,000.00	
14. City of Riga	Events/meetings	CAT4-PP14-A-	Organising local PFAS risk assessment workshops (facilities, catering) 71 / 100 characters	No	1.2 2.2	4,500.00	
14. City of Riga	Communication	CAT4-PP14-C-	Translation, layout and printing of dissemination materials 59 / 100 characters	No	2.2 3.1 3.2 3.3	3,000.00	
13. Environmental	National control	CAT4-PP13-F-	First Level control 20 / 100 characters	No	N/A	6,000.00	
13. Environmental	Other	CAT4-PP13-G-	Organisation of project meeting in Kaunas 42 / 100 characters	No	1.1 1.2 1.3 1.4	5,000.00	
13. Environmental	Communication	CAT4-PP13-C-	Translation costs 19 / 100 characters	No	2.1 2.2 2.3 3.1 3.2 3.3	1,500.00	
13. Environmental	Communication	CAT4-PP13-C-	Promotional/education campain 30 / 100 characters	No	2.3 3.1 3.2 3.3	1,000.00	
	Total					540,201.02	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
13. Environmental	Communication	CAT4-PP13-C-	Printing, photos 17 / 100 characters	No	2.1 2.2 2.3 2.4	1,500.00	
	Total					540,201.02	

7.1.2 Equipment

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
5. Turku University	Laboratory equipmen	CAT5-PP5-D-0	Equipment for sampling 23 / 100 characters	No	2.3 3.3	10,000.00	
5. Turku University	IT hardware and soft	CAT5-PP5-B-0	Laptop 7 / 100 characters	No	N/A	2,000.00	
6. Gdańsk Water U	IT hardware and soft	CAT5-PP6-B-0	Laptop 6 / 100 characters	No	N/A	1,500.00	
7. Water and Sewa	Other specific equip	CAT5-PP7-H-0	Operational costs - activated carbon filters 45 / 100 characters	No	2.3 3.3	5,000.00	
8. Tartu Waterwork	Laboratory equipmen	CAT5-PP8-D-0	Internal laboratory analysis and chemicals/equipment costs 60 / 100 characters	No	1.3 2.3	30,000.00	
9. Tallinn Water Ltd	Laboratory equipmen	CAT5-PP9-D-0	Internal laboratory analysis and chemicals/equipment costs 60 / 100 characters	No	2.3	30,000.00	
	Total					103,000.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
4. Berlin University	IT hardware and soft	CAT5-PP4-B-0	3 x laptop for project staff 28 / 100 characters	No	N/A	6,000.00	
10. "Kaunas water"	Other specific equip	CAT5-PP10-H-	Operational costs - activated carbon filters 45 / 100 characters	No	2.3 3.3	5,000.00	
11. Turku Region W	Other specific equip	CAT5-PP11-H-	Operation of the pilot plant - activated carbon filters 56 / 100 characters	No	2.3 3.3	5,000.00	
11. Turku Region W	Machines and instru	CAT5-PP11-E-	Technical equipment (collection of data) 41 / 100 characters	No	2.3 3.3	3,000.00	
14. City of Riga	IT hardware and soft	CAT5-PP14-B-	2 x laptop for project staff 28 / 100 characters	No	1.2 2.2	4,000.00	
13. Environmental	IT hardware and soft	CAT5-PP13-B-	laptop 6 / 100 characters	No	1.1 2.2	1,500.00	
	Total					103,000.00	

7.1.3 Infrastructure and works

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value
6. Gdańsk Water U	Labour (related to co	CAT6-PP6-D-0	Design and construction of the pilot plant and related infrastructure works (75 / 100 characters)	Yes	I2.3_1	240,000.00
8. Tartu Waterwork	Labour (related to co	CAT6-PP8-D-0	Design and construction of the pilot plant and related infrastructure works (75 / 100 characters)	Yes	I2.3_2	300,000.00
9. Tallinn Water Ltd	Labour (related to co	CAT6-PP9-D-0	Installation and infrastructure works for the pilot plant (58 / 100 characters)	Yes	I2.3_2	5,000.00
10. "Kaunas water"	Labour (related to co	CAT6-PP10-D-	Installation and infrastructure works for the pilot plant (57 / 100 characters)	Yes	I2.3_1	2,000.00
11. Turku Region W	Labour (related to co	CAT6-PP11-D-	Installation and infrastructure works for the pilot plant (57 / 100 characters)	Yes	I2.3_2	8,000.00
14. City of Riga	Labour (related to co	CAT6-PP14-D-	Installation and infrastructure works for the pilot plant (57 / 100 characters)	Yes	I2.3_2	12,000.00
7. Water and Sewa	Labour (related to co	CAT6-PP7-D-0	Installation of pilot plant (27 / 100 characters)	Yes	I2.3_1	3,000.00
	Total					570,000.00

7.1.4 Investment summary

Investment item no.	Investment title	Total planned value
I2.3_1	Mobile pilot plant for organic micropollutant removal from effluent with industrial influences	347,000.85
I2.3_2	Mobile pilot plant for organic micropollutant removal from effluent w/o major industrial influence	447,000.00

Investment no. I2.3_1 - Mobile pilot plant for organic micropollutant removal from effluent with industrial influences

Contracting partner	Planned contract value
6. Gdańsk Water Utilities	278,000.70
10. "Kaunas water" Ltd.	39,000.00
7. Water and Sewage Company Ltd. of Szczecin	30,000.15

Investment no. I2.3_2 - Mobile pilot plant for organic micropollutant removal from effluent w/o major industrial influence

Contracting partner	Planned contract value
8. Tartu Waterworks Ltd	325,000.00
9. Tallinn Water Ltd	38,000.00
11. Turku Region Wastewater Treatment Plant	57,000.00
14. City of Riga	27,000.00

7.2 Planned project budget per funding source & per partner

No. & role	Partner name	Partner status	Country	Funding source	Co-financing rate [in %]	Total [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]	State aid instrument
1-LP	Union of the Baltic Cities Sustainable Cities Commission c/o City of Turku	Active 22/09/2022	FI	ERDF	80.00 %	632,571.20	506,056.96	126,514.24	For each partner, the State aid relevance and applied aid measure are defined in the **State aid section**
2-PP	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)	Active 22/09/2022	FI	ERDF	80.00 %	431,311.00	345,048.80	86,262.20	
3-PP	University of Tartu	Active 22/09/2022	EE	ERDF	80.00 %	535,330.00	428,264.00	107,066.00	
4-PP	Berlin University of Technology	Active 22/09/2022	DE	ERDF	80.00 %	862,215.99	689,772.79	172,443.20	
5-PP	Turku University of Applied Sciences (TUAS)	Active 22/09/2022	FI	ERDF	80.00 %	474,678.40	379,742.72	94,935.68	
6-PP	Gdańsk Water Utilities	Active 22/09/2022	PL	ERDF	80.00 %	644,722.30	515,777.84	128,944.46	
7-PP	Water and Sewage Company Ltd. of Szczecin	Active 22/09/2022	PL	ERDF	80.00 %	305,632.55	244,506.04	61,126.51	
8-PP	Tartu Waterworks Ltd	Active 22/09/2022	EE	ERDF	80.00 %	646,798.00	517,438.40	129,359.60	
9-PP	Tallinn Water Ltd	Active 22/09/2022	EE	ERDF	80.00 %	340,344.80	272,275.84	68,068.96	
10-PP	"Kaunas water" Ltd.	Active 22/09/2022	LT	ERDF	80.00 %	201,576.00	161,260.80	40,315.20	
11-PP	Turku Region Wastewater Treatment Plant	Active 22/09/2022	FI	ERDF	80.00 %	354,785.60	283,828.48	70,957.12	
Total ERDF						5,993,711.04	4,794,968.83	1,198,742.21	
Total						5,993,711.04	4,794,968.83	1,198,742.21	

No. & role	Partner name	Partner status	Country	Funding source	Co-financing rate [in %]	Total [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]	State aid instrument
12-PP	DWA German Association for Water, Wastewater and Waste DWA Regional group North-East	Active 22/09/2022	DE	ERDF	80.00 %	164,543.60	131,634.88	32,908.72	
13-PP	Environmental Center for Administration and Technology	Active 22/09/2022	LT	ERDF	80.00 %	149,318.40	119,454.72	29,863.68	
14-PP	City of Riga	Active 22/09/2022	LV	ERDF	80.00 %	249,883.20	199,906.56	49,976.64	
Total ERDF						5,993,711.04	4,794,968.83	1,198,742.21	
Total						5,993,711.04	4,794,968.83	1,198,742.21	

7.3 Spending plan per reporting period

	EU partners (ERDF)		Total	
	Total	Programme co-financing	Total	Programme co-financing
Period 1	849,548.83	679,639.08	849,548.83	679,639.08
Period 2	1,384,765.97	1,107,812.77	1,384,765.97	1,107,812.77
Period 3	976,102.85	780,882.28	976,102.85	780,882.28
Period 4	980,622.56	784,498.04	980,622.56	784,498.04
Period 5	947,122.53	757,698.02	947,122.53	757,698.02
Period 6	855,548.30	684,438.64	855,548.30	684,438.64
Total	5,993,711.04	4,794,968.83	5,993,711.04	4,794,968.83