1. Identification

Call	Date of submission
C1	25/04/2022

1.1. Full name of the project

Filling gaps in marine litter monitoring in the Baltic Sea

58 / 250 characters

1.2. Short name of the project

LITTERGAPS

10 / 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

Marine litter (ML) is one of the descriptors for assessing the state of the environment according to the EU Marine Strategy Framework Directive (MSFD). In the Baltic Sea, there is a section to ML in the State of the Baltic Sea report 2018 and in the HELCOM Baltic Sea Action Plan 2021. Reliable monitoring data is the basis for cost-effective management measures towards a significant reduction of ML: at national level, through the Programmes of Measures, and at regional level through the HELCOM Regional Action Plan on Marine Litter. Thus, authorities are to be provided with proposals on suitable monitoring methods so that they are able to fulfil their monitoring obligations.

LITTERGAPS will provide solutions to the identified ML monitoring gaps in relation to seafloor, floating litter and microplastics in biota. LITTERGAPS will, in co-operation with the target groups, test the methodological solutions. In addition to the more traditional sampling protocols, LITTERGAPS aims to utilise novel techniques, e.g. apply citizen science and video imaging in ML monitoring activities.

LITTERGAPS will evaluate the usability of the solutions and translate them into monitoring guidelines and programmes so that they are available for monitoring authorities to use. LITTERGAPS will share these solutions as proposals from the project with the HELCOM community, to be available for use at regional level. The solutions will be also communicated in the technical group working on ML at EU level.

1,497 / 1,500 characters

1.8. Summary of the partnership

The project consortium is composed of those proposing the solutions as well as the target groups of these solutions.

MoEE is the national authority responsible for policies regarding ML monitoring and reporting. MoEE will participate in the drafting of a regional proposal for microplastic monitoring guidelines in mussels and a monitoring programme of floating macrolitter.

SYKE is the national authority responsible for arranging and implementing ML monitoring nationally, and an expert on ML research. SYKE will lead the development of the mobile application. Co-operation has been planned especially with the associated organisations KST, KAT, Birdlife Finland and the City of Helsinki. SYKE will participate in the piloting of the video imaging approach for monitoring seafloor litter and testing the sediment traps and mussel cages for microplastic monitoring, and is responsible for the mussel biomarker analyses.

UTARTU, an expert of underwater surveys in marine environment, will be in charge of developing and testing the video imaging approach for seafloor litter monitoring. Together with target groups, UTARTU will contribute to the comparison of seafloor litter data collected using underwater video imaging techniques and the more commonly applied fish trawling. UTARTU will organise field training for the method for authorities and experts from the Baltic Sea region, and will be involved in the planning and evaluation of the other pilot activities.

UHAM is one of the leading research groups in analysing microplastics in marine environments. UHAM will coordinate the development of microplastic monitoring via sediment traps and mussel cages in collaboration with the target groups. UHAM will test the sediment trap sampling procedure within German marine waters and analyse all sediment samples generated in the project (in Estonia, Finland and Germany). In addition, UHAM will conduct sample treatment on mussel samples collected from German waters.

TalTech with their expertise in analysing microplastics is responsible for the piloting and evaluation of the sediment traps and mussel cages in Estonian waters, performing microplastic analysis of all mussel samples generated in the project, and biomarker analyses of mussels from Estonia. TalTech will be involved in planning the tests for the mobile application and for the video imaging approach. This work will be conducted in cooperation with MoEE.

KMRA has practical experience in steering international R&D projects where scientific expertise is aimed to support developing practical solutions. KMRA will be involved in testing and evaluating all produced solutions, and supporting the transfer of the solutions to the target groups.

HELCOM will organise formal discussions on the project proposals involving relevant institutions from HELCOM countries. HELCOM will work in close collaboration with the MoEE, and the associated organisation LUNG.

2,938 / 3,000 characters

1.11. Project Budget Summary

Financial resources [in EUR]		Preparation costs	Planned project budget
ERDF	ERDF co-financing	0.00	1,777,786.88
	Own contribution ERDF	0.00	444,446.72
	ERDF budget	0.00	2,222,233.60
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	1,777,786.88
	Total own contribution	0.00	444,446.72
	Total budget	0.00	2,222,233.60

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	Kotka Maritime Research Association (KMRA)	Meriturvallisuuden ja -liikenteen tutkimusyhdistys ry	FI	Interest group	a)	395,988.60 €	Active	22/09/2022
2	PP	Finnish Environment Institute (SYKE)	Suomen ympäristökeskus	FI	National public authority	a)	313,175.00 €	Active	22/09/2022
3	PP	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)	Baltic Marine Environment Protection Commission - Helsinki Commission	FI	International governmental organisation	a)	260,326.00 €	Active	22/09/2022
4	PP	Tallinn University of Technology (TalTech)	Tallinna Tehnikaülikool	EE	Higher education and research institution	a)	227,212.00 €	Active	22/09/2022
5	PP	University of Tartu (UTARTU)	Tartu Ülikool	EE	Higher education and research institution	a)	432,500.00 €	Active	22/09/2022
6	PP	University of Hamburg (UHAM)	Universität Hamburg	DE	Higher education and research institution	a)	543,532.00 €	Active	22/09/2022
7	PP	Estonian Ministry of the Environment (MoEE)	Keskkonnaministeerium	EE	National public authority	a)	49,500.00 €	Active	22/09/2022

2.1.2 Associated Organisations

No.	Organisation (English)	Organisation (Original)	Country	Type of Partner
AO 1	Keep Sweden Tidy Foundation (KST)	Stiftelsen Håll Sverige Rent	SE	NGO
AO 2	State Agency for Environment, Nature Conservation and Geology, Mecklenburg-Vorpommern (LUNG)	Landesamt für Umwelt, Naturschutz und Geologie Mecklenburg-Vorpommern (LUNG)	DE	Regional public authority
AO 3	Keep the Archipelago Tidy Association (KAT)	Pidä Saaristo Siistinä ry	FI	NGO
AO 4	BirdLife Finland	BirdLife Suomi ry	FI	NGO
AO 5	City of Helsinki	Helsingin kaupunki	FI	Local public authority

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

Meriturvallisuuden ja -liikenteen tutkimusyhdistys ry

53 / 250 characters

Organisation in English

Kotka Maritime Research Association (KMRA)

42 / 250 characters

Department in original language

n.a.

4 / 250 characters

Department in English n.a.

4 / 250 characters

Partner location and website:

Address Keskuskatu 7

12 / 250 characters

Postal Code FI-48100

8 / 250 characters

Town Kotka

5 / 250 characters

Website www.merikotka.fi/en

19 / 100 characters

Country Finland

NUTS1 code Manner-Suomi

NUTS2 code Etelä-Suomi

NUTS3 code Kymenlaakso

Partner ID:

Organisation ID type Business Identity Code (Y-tunnus)

Organisation ID 2023333-8

VAT Number Format FI + 8 digits

VAT Number N/A ☐ FI20233338

10 / 50 characters

PIC n/a

3 / 9 characters

Partner type:

Legal status a) Public

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

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

Role of the partner organisation in this project:

KMRA has practical experience in steering international R&D projects where scientific expertise is aimed to support developing practical solutions. KMRA will be involved in testing and evaluating the produced solutions, and supporting the transfer of the solutions to the target groups.

KMRA will participate in the planning, piloting, testing and evaluation of the solutions O2.1, O2.2 and O2.3. KMRA will participate in the outreach activities, both to the target groups as well as other stakeholders. KMRA will contribute to organising the joint events for the target groups, and to the final conference of the project in Finland.

636 / 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	Suomen ympäristökeskus (22 / 250 characters)
Organisation in English	Finnish Environment Institute (SYKE) (36 / 250 characters)
Department in original language	Merikeskus (10 / 250 characters)
Department in English	Marine Research Centre (22 / 250 characters)

Partner location and website:

Address	Latokartanonkaari 11 (20 / 250 characters)	**Country**	Finland
Postal Code	00790 (5 / 250 characters)	**NUTS1 code**	Manner-Suomi
Town	Helsinki (8 / 250 characters)	**NUTS2 code**	Helsinki-Uusimaa
Website	www.syke.fi (11 / 100 characters)	**NUTS3 code**	Helsinki-Uusimaa

Partner ID:

Organisation ID type	Business Identity Code (Y-tunnus)
Organisation ID	0996189-5
VAT Number Format	FI + 8 digits
VAT Number	N/A ☐ FI09961895 (10 / 50 characters)
PIC	999478010 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	National public authority	Ministry, 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

Role of the partner organisation in this project:

SYKE is the lead organisation for planning, developing and implementing ML research and monitoring in Finland. In LITTERGAPS, SYKE is the lead partner of WP2, and will also lead the activities A1.1 and A2.1, connected to developing and piloting of mobile reporting tools for marine macrolitter monitoring (floating litter and harm to biota). Co-operation has been planned especially with the associated organisations KST, KAT, the City of Helsinki and BirdLife Finland, but other interested organisations are invited to join, including the general public. SYKE will also actively participate in all other activities of LITTERGAPS, i.e. piloting the video imaging approach for monitoring seafloor litter and testing sediment traps and mussel cages for microplastic monitoring in Finnish waters, as well as the preparation of proposals for improved monitoring guidelines for ML.

877 / 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 Baltic Marine Environment Protection Commission - Helsinki Commission

69 / 250 characters

Organisation in English Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

78 / 250 characters

Department in original language n/a

3 / 250 characters

Department in English n/a

3 / 250 characters

Partner location and website:

Address Katajanokanlaituri 6 B

22 / 250 characters

Postal Code 00160

5 / 250 characters

Town Helsinki

8 / 250 characters

Website www.helcom.fi

13 / 100 characters

Country Finland

NUTS1 code Manner-Suomi

NUTS2 code Helsinki-Uusimaa

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 ☐ FI10610021

10 / 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

HELCOM is entitled to recover VAT in Finland for individual expenditures amounting to a minimum of EUR 170,00. Smaller individual expenditures will be reported including VAT.

174 / 1,000 characters

Role of the partner organisation in this project:

HELCOM works to protect the marine environment of the BS from all sources of pollution through intergovernmental co-operation and based on the legally binding "Convention on the Protection of the Marine Environment of the Baltic Sea Area" (1974 & 1992). The Contracting Parties (DK, EE, the EU, FI, DE, LV, LT, PL, RU and SE) shall individually or jointly take all appropriate legislative, administrative or other relevant measures to protect the marine environment of the BS from all sources of pollution. In the project HELCOM will (i) ensure that all expertise from HELCOM countries is taken onboard the project through close co-operation with relevant HELCOM experts and working groups (WP1 and WP2); and (ii) as lead of WP3, will translate the project´s solutions into HELCOM documentation proposals so that they are ready-to-use by relevant administrations. In addition, HELCOM will organise the final conference of the project in Helsinki to disseminate all the outputs of the project.

993 / 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 4

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

Partner name:

Organisation in original language	Tallinna Tehnikaülikool (23 / 250 characters)
Organisation in English	Tallinn University of Technology (TalTech) (42 / 250 characters)
Department in original language	Meresüsteemide Instituut (24 / 250 characters)
Department in English	Department of Marine Systems (28 / 250 characters)

Partner location and website:

Address	Ehitajate tee 5 (15 / 250 characters)	**Country**	Estonia
Postal Code	19086 (5 / 250 characters)	**NUTS1 code**	Eesti
Town	Tallinn (7 / 250 characters)	**NUTS2 code**	Eesti
Website	www.taltech.ee (14 / 100 characters)	**NUTS3 code**	Põhja-Eesti

Partner ID:

Organisation ID type	Registration code (Registrikood)
Organisation ID	74000323
VAT Number Format	EE + 9 digits
VAT Number	N/A ☐ EE100224841 (11 / 50 characters)
PIC	999842536 (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:

TalTech will be performing the following roles and tasks: in A1.3 participate in the preparation of piloting sediment traps and mussel cages for microplastic monitoring. In A2.3, TalTech will take part in the testing phase of the activity together with the target groups (piloting the use of sediment traps and mussel cages for microplastic monitoring), by carrying out the collection of field samples in Estonian waters, and the analysis of the mussel samples from all countries participating in project (DE, EE, FI). In A3.4, TalTech will participate in writing a proposal for microplastic monitoring guidelines by means of mussel cages, to be submitted to HELCOM forum. TalTech will participate in A2.1 and A2.2 from the planning phase to the evaluation phase, by giving feedback and expert opinion on the planned piloting, and also taking part in evaluating the pilots.

875 / 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	Tartu Ülikool (13 / 250 characters)
Organisation in English	University of Tartu (UTARTU) (28 / 250 characters)

Department in original language	Eesti Mereinstituut (19 / 250 characters)
Department in English	Estonian Marine Institute (25 / 250 characters)

Partner location and website:

Address	Ülikooli 18 (11 / 250 characters)	**Country**	Estonia
Postal Code	50090 (5 / 250 characters)	**NUTS1 code**	Eesti
Town	Tartu (5 / 250 characters)	**NUTS2 code**	Eesti
Website	www.ut.ee (9 / 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:

UTARTU is a multidisciplinary research institution with long term experience of international cooperation in the field of marine systems studies and marine biology, including fisheries science and remote sensing. The institute provides scientific support to management decisions in balancing marine systems related economic interests and minimising their environmental impacts based on marine systems studies and related environmental risk analysis. In LITTERGAPS, UTARTU will be in charge of developing and testing the video imaging approach for seafloor macrolitter monitoring in co-operation with SYKE and the target groups (A1.2 and A2.2). UTARTU together with SYKE and TalTech will organise a field training for the method for authorities and experts from the Baltic Sea region. UTARTU is also involved in the planning and evaluation of the other LITTERGAPS pilot activities, the mobile application and the microplastic monitoring using sediment traps and mussel cages in Estonian waters.

994 / 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	Universität Hamburg (19 / 250 characters)
Organisation in English	University of Hamburg (UHAM) (28 / 250 characters)
Department in original language	Fachbereich Erdsystemforschung Zentrum für Erdsystemforschung und Nachhaltigkeit (80 / 250 characters)
Department in English	Dept. of Earth System Research Center for Earth System Research and Sustainability (83 / 250 characters)

Partner location and website:

Address	Bundesstrasse 55 (16 / 250 characters)	**Country**	Germany
Postal Code	20146 (5 / 250 characters)	**NUTS1 code**	Hamburg
Town	Hamburg (7 / 250 characters)	**NUTS2 code**	Hamburg
Website	https://www.cen.uni-hamburg.de/en.html (38 / 100 characters)	**NUTS3 code**	Hamburg

Partner ID:

Organisation ID type	Tax (identification) number (Steuer(identifikations)nummer)
Organisation ID	DE 245 584 140 (14 / 50 characters)
VAT Number Format	DE + 9 digits
VAT Number	N/A ☐ DE245584140 (11 / 50 characters)
PIC	999905101 (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:

UHAM is leading and coordinating the activities on developing microplastic monitoring via sediment traps and mussel cages (A1.3, A2.3), in collaboration with the target groups. UHAM will carry out installations and sampling within German marine waters. Furthermore, UHAM will treat and analyse all sediment samples generated in this project (DE, EE, FI) and will do sample treatment on mussel samples from German waters. UHAM will be in charge of statistical and geo-statistical approaches and reporting of results on behalf of the respective activities on microplastic monitoring in sediment and mussels. UHAM will participate in writing the proposal for microplastic monitoring guidelines by means of mussel cages. UHAM will also participate in planning the pilots in A2.1 and A2.2, and give feedback on them during their evaluation phase especially from the German perspective.

880 / 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 7

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

Partner name:

Organisation in original language	Keskkonnaministeerium (21 / 250 characters)
Organisation in English	Estonian Ministry of the Environment (MoEE) (43 / 250 characters)
Department in original language	Merekeskkonna osakond (21 / 250 characters)
Department in English	Marine Environment Department (29 / 250 characters)

Partner location and website:

Address	Paldiski mnt 96 (15 / 250 characters)	**Country**	Estonia

Postal Code	13522 (5 / 250 characters)	**NUTS1 code**	Eesti
Town	Tallinn (7 / 250 characters)	**NUTS2 code**	Eesti
Website	envir.ee/en (11 / 100 characters)	**NUTS3 code**	Põhja-Eesti

Partner ID:

Organisation ID type	Registration code (Registrikood)
Organisation ID	70001231
VAT Number Format	EE + 9 digits
VAT Number	**N/A** ☐ EE100913275 (11 / 50 characters)
PIC	941609750 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	National public authority	Ministry, 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:

The role of the Estonian Ministry of the Environment in the project is to offer advice and expertise to partners related to needs and gaps in assessment of biological effects caused by ML (microplastics) in the marine environment at the national level (EE), to help in identifying target groups, distribution of the survey, testing of the new app and outputs of the project. The Ministry will take part in writing the proposal for regional microplastics monitoring guidelines with HELCOM and other partners.

509 / 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: Stiftelsen Håll Sverige Rent (28 / 250 characters)

Organisation in English: Keep Sweden Tidy Foundation (KST) (33 / 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: NGO — Non-governmental organisations, such as Greenpeace, WWF, etc.

Associated organisation location and website:

Address: Rosterigränd 4 (14 / 250 characters)

Country: Sweden

Postal Code: 117 61 (6 / 250 characters)

Town: Stockholm (9 / 250 characters)

Website: www.hsr.se (10 / 100 characters)

Role of the associated organisation in this project:

Keep Sweden Tidy is the coordinator of Re:Fish project application, submitted to Central Baltic Interreg programme in March 2022. It is a project about retrieval, recycling, and preventive actions for recreational fishing gear in the central Baltic Sea. Knowledge gaps about the losses of fishing gear are intended to be filled using citizen science and mobile application tools. Hereby, the project Re:Fish forsees synergies with the LITTERGAPS project and we are interested in testing of the mobile application piloted by SYKE. In case of negative funding decision for Re:Fish, we are still interested in following the development of the mobile application and to give feedback on it.

686 / 1,000 characters

2.3 Associated Organisation Details - AO 2

Associated organisation name and type:

Organisation in original language
Landesamt für Umwelt, Naturschutz und Geologie Mecklenburg-Vorpommern (LUNG)
76 / 250 characters

Organisation in English
State Agency for Environment, Nature Conservation and Geology, Mecklenburg-Vorpommern (LUNG)
92 / 250 characters

Department in original language
Abteilung 3: Geologie, Wasser und Boden
39 / 250 characters

Department in English
Department 3: Geology, Water and Soil
37 / 250 characters

Legal status
a) Public

Type of associated organisation
Regional public authority
Regional council, etc.

Associated organisation location and website:

Address
Goldberger Straße 12b
21 / 250 characters

Country
Germany

Postal Code
D-18273
7 / 250 characters

Town
Güstrow
7 / 250 characters

Website
Germany
7 / 100 characters

Role of the associated organisation in this project:

The associated organisation LUNG is the main responsible institution for monitoring of indicators taken into account for the evaluation of Good Environmental Status (GES) in the Southern Baltic Sea. LUNG will support the project with regional and technical expertise and advice within the planned stakeholder surveys, and within workshops and personal exchange. The stakeholder engagement of LUNG will mainly contribute to Activity 3 (microplastic monitoring), but is also a highly relevant stakeholder for Activity 1 (floating macrolitter).

541 / 1,000 characters

2.3 Associated Organisation Details - AO 3

Associated organisation name and type:

Organisation in original language: Pidä Saaristo Siistinä ry
25 / 250 characters

Organisation in English: Keep the Archipelago Tidy Association (KAT)
43 / 250 characters

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

Department in English: n/a
3 / 250 characters

Legal status: b) Private

Type of associated organisation: NGO — Non-governmental organisations, such as Greenpeace, WWF, etc.

Associated organisation location and website:

Address: Linnankatu 16
13 / 250 characters

Country: Finland

Postal Code: 20100
5 / 250 characters

Town: Turku
5 / 250 characters

Website: www.pidasaaristosiistina.fi/en
30 / 100 characters

Role of the associated organisation in this project:

KAT is one of the pioneers in Finland when it comes to marine litter and has worked with the subject since the association was formed in 1969. KAT has participated in several national and international projects and conducted field monitoring of beach litter in Finland for over a decade. KAT has approximately 13 000 members, broad public and private networks, as well as a wide audience in social media, where the association can bring awareness to the environmental issues it works with. In LITTERGAPS, KAT can provide guidance during the project as an expert in marine litter, as well as in the dissemination process, by helping to spread project results.

659 / 1,000 characters

2.3 Associated Organisation Details - AO 4

Associated organisation name and type:

Organisation in original language: BirdLife Suomi ry (17 / 250 characters)

Organisation in English: BirdLife Finland (16 / 250 characters)

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

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

Legal status: b) Private

Type of associated organisation: NGO — Non-governmental organisations, such as Greenpeace, WWF, etc.

Associated organisation location and website:

Address: Annankatu 29 A 16 (17 / 250 characters)

Country: Finland

Postal Code: 00100 (5 / 250 characters)

Town: Helsinki (8 / 250 characters)

Website: www.birdlife.fi (15 / 100 characters)

Role of the associated organisation in this project:

BirdLife Finland is the Finnish partner of BirdLife International, the world's largest nature conservation partnership of conservation organisations that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. BirdLife Finland operates all over Finland, has 30 member societies and over 22 000 members and supporters. BirdLife Finland will share the information of the mobile app through social media and encourage people to report their observations of birds entangled to litter.

567 / 1,000 characters

2.3 Associated Organisation Details - AO 5

Associated organisation name and type:

Organisation in original language: Helsingin kaupunki (18 / 250 characters)

Organisation in English: City of Helsinki (16 / 250 characters)

Department in original language: Kaupunkiympäristön toimiala, Ympäristöpalvelut (46 / 250 characters)

Department in English: Urban Environment Division, Environment services (48 / 250 characters)

Legal status: a) Public

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

Associated organisation location and website:

Address: Työpajankatu 8 (14 / 250 characters)

Country: Finland

Postal Code: 00580 (5 / 250 characters)

Town: Helsinki (8 / 250 characters)

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

Role of the associated organisation in this project:

The city of Helsinki can participate in the planning of marine litter monitoring based on its own needs and experiences and provide guidance as well as feedback to the project plans as the largest city in Finland working with waste management and marine litter issues. Helsinki has in total of over 130 km of strandline and thus valuable local information on ML hotspots, which may be utilized when monitoring for floating macrolitter and to biota by marine litter as well as seafloor litter are being planned in LITTERGAPS.

525 / 1,000 characters

3. Relevance

3.1 Context and challenge

Detection and quantification of marine litter (ML) is essential for the management of ML both in the open sea and coastal marine areas towards the targets of HELCOM and the EU MSFD, aiming at achieving healthy seas.

Currently, the main identified gaps in regard to ML in the Baltic Sea region are: 1) lack of data on floating macrolitter; 2) unknown distribution of seafloor macrolitter in the northern parts of the Baltic Sea region and the shallow waters; 3) insufficient information on the spatial and regional variability of microplastic concentrations and 4) only partial knowledge on the impact of ML on biota.

Thus, this project proposal aims to fill in these gaps and contribute to the achievement of the following commitments of the 2021 HELCOM Regional Action Plan on Marine Litter:

- Finalise by 2022 common indicator and associated definition of GES for litter on the seafloor for regional application in the years to follow;
- Finalise by the end of 2026 at the latest, a common indicator and associated definition of GES related to microlitter for regional application in the years to follow;
- Identify and further develop additional common indicators and associated definition of GES related to litter in other compartments;
- Improve coordinated monitoring programmes for seafloor litter indicators including data collection for regular assessment of the state of ML in the Baltic Sea area; and
- Establish by 2026 at the latest coordinated monitoring programmes for microlitter including data collection for regular assessment of the state of ML in the Baltic Sea area.

All of these points are regional commitments to be implemented by the national authorities in close coordination with the work of the EU Technical Group on Marine Litter (TG Litter).

1,811 / 2,000 characters

3.2 Transnational value of the project

ML is a rapidly growing concern in the Baltic Sea. It is a transboundary problem, knowing no borders, and requiring transnational management measures. As envisaged in the EU MSFD and the Commision Decision from 2017, standardised methods for monitoring and assessment should be defined, taking into account existing specifications and standards at EU or international level, including regional and subregional levels. Transnational cooperation is therefore needed to fill in these knowledge gaps and to produce proposals for a HELCOM monitoring programme on floating litter, HELCOM monitoring guidelines on microplastics in mussels, as well as complement the missing data in the current HELCOM monitoring programme on seafloor litter, to be utilised in all HELCOM countries. In addition, draft HELCOM monitoring guidelines on impact on biota will be provided based on the outputs of the project.

Monitoring is crucial for the planning of measures addressing ML at its origin, because it is a proxy of the anthropogenic pressures an area is subject to. This is why the wide geographical coverage of the partnership (southern, northern and eastern Baltic Sea) is so relevant, as we will be able to propose monitoring tools to be applied in a coordinated manner, but taking into account regional and national particularities. In addition, the partnership will include associated organisations from an additional Baltic Sea country, Sweden, which strengthens the transnational approach sought in this project. Finally, the fact that Estonia, Finland, Germany and Sweden are all active actors on ML issues in the HELCOM framework will contribute to the sharing of experiences and lessons learnt with the rest of the HELCOM countries and beyond.

1,742 / 2,000 characters

3.3 Target groups

Target group	Sector and geographical coverage	Its role and needs
National public authority	Competent environmental authorities responsible for ML monitoring in BSR, and subsequent reporting to EU and HELCOM. Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for assessment of the state of national marine reporting units in relation to ML. Region: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden.	The authorities are responsible for ML monitoring and reporting. Main identified gaps in regard to ML in the BSR: 1) lack of data on floating macrolitter; 2) unknown distribution of seafloor macrolitter in the northern parts of the Baltic Sea region and in shallow waters; 3) insufficient information on the spatial and regional variability of microplastic concentrations and 4) only partial knowledge on the impact of ML on biota. With the tools and commonly agreed methods they can fulfil their obligations for reporting. Currently these tools are lacking.
	498 / 500 characters	560 / 1,000 characters

Target group	Sector and geographical coverage	Its role and needs
Regional public authority	Competent regional environmental authorities responsible for ML monitoring in their regions and subsequent reporting to the responsible national administration. Field of responsibility: Collecting data on the presence of ML in different compartments through monitoring of floating litter, seafloor litter and microplastics in mussels. Region: Germany. 355 / 500 characters	The regional authorities are responsible for ML monitoring and reporting locally. Main identified gaps in regard to ML in the BSR: 1) lack of data on floating macrolitter; 2) unknown distribution of seafloor macrolitter in the northern parts of the Baltic Sea region and in shallow waters; 3) insufficient information on the spatial and regional variability of microplastic concentrations and 4) only partial knowledge on the impact of ML on biota. With the suitable tools and commonly agreed methods they can fulfil their obligations for reporting. Currently these tools are missing. 589 / 1,000 characters
International governmental organisation	HELCOM Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for the assessment of the state of the Baltic Sea in relation to ML. Region: Contracting Parties to the Helsinki Convention, which are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the EU. 448 / 500 characters	HELCOM countries are responsible for agreement on regional monitoring programmes, which are implemented nationally. Proposals for improvements of ML monitoring programmes in different compartments that are 1) based on high-quality scientific research and 2) co-produced/tested with the authorities carrying out the monitoring in practice are needed. 351 / 1,000 characters
NGO	NGOs participating in citizen science initiatives. Field of responsibility: Testing the usability of the mobile application tools in field conditions at sea and giving feedback based on their experiences. Region: Baltic Sea Region. 234 / 500 characters	NGOs are actively participating in the fight against ML pollution in the Baltic Sea Region. Their input in the testing of the mobile applications will be valuable for assessing the usability of the applications. Because of their role in the protection of the marine environment, they are interested in the development of practical tools which can be endorsed and further communicated widely, also towards their use by common citizens. 440 / 1,000 characters

3.4 Project objective

Your project objective should contribute to:

Sustainable waters

The MSFD requires the Member States to monitor both macro- and microlitter in various environmental matrices and to ensure that litter does not cause harm to the coastal and marine environment. At regional level, the 2021 Baltic Sea Action Plan contemplates both ML ecological ("no harm to marine life from litter") and managerial objectives ("prevent generation of waste and its input to the sea, including microplastics" and "significantly reduce amounts of litter on shorelines and in the sea") which are to be achieved through the implementation of the 2021 HELCOM Regional Action Plan on Marine Litter, a tool designed for that purpose.

In order to achieve these ambitious objectives, consistent ML data collection is needed. Thus, commonly agreed methods to plan and conduct the monitoring as well as reporting of findings is a must. By identifying the current gaps in knowledge and taking notice of the current needs of the authorities responsible for ML monitoring, LITTERGAPS will provide tools and commonly agreed methods to help them to fulfil their monitoring obligations. The proposals for new HELCOM monitoring programmes and guidelines produced by LITTERGAPS will cover the main identified gaps regarding ML distribution in the Baltic Sea region, and thus applying them in practice has a large potential to enhance our knowledge and further contribute to find solutions to reduce the amounts of ML present in the region.

1,439 / 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.

LITTERGAPS supports PA Hazards Action 1 (Prevent pollution and reduce the use of hazardous substances) by providing mapping and monitoring tools for the authorities to carry out their monitoring obligations defined by the EU MSFD and 2021 HELCOM Regional Action Plan on Marine Litter. It is worth mentioning that the revised Action Plan of the EUSBSR indicated that PA Ship is related to the following EU regional - and international strategic frameworks:

ML may be a source of hazardous substances, so better management of ML will help to decrease the inflow of hazardous substances into the Baltic Sea.

605 / 1,500 characters

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

LITTERGAPS is in line with the objectives of PA Ship Action 2: Support research on emerging thematic challenges related to clean shipping and its impact on the environment and wildlife in the Baltic Sea. One of the strategic priorities in this action is to "address and possibly reduce pollution by hazardous substances, invasive alien species (IAS) and plastics from maritime activities" (number 5).

LITTERGAPS will produce a mobile application for monitoring the floating macrolitter, and invite the maritime sector to contribute to the monitoring efforts, as the observations can be made from ships in ports and shipping lanes. Maritime activities are known to be one of the main contributors to the presence of ML at sea, and will thus contribute to the provision of the first comprehensive overview of floating litter in the Baltic Sea. Collection of data is the first step towards definition of appropriate measures to minimise the generation of plastics from maritime activities.

990 / 1,500 characters

3.6 Other political and strategic background of the project

Strategic documents

The project contributes to the implementation of the 2021 HELCOM Regional Action Plan on Marine Litter.

105 / 500 characters

The project contributes to the implementation of the EU MSFD, in particular in connection with national obligations on monitoring activities of descriptor 10, marine litter.

174 / 500 characters

The project contributes to the implementation of the 2021 Baltic Sea Action Plan.

81 / 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

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
Re:Fish (Retrieval, recycling, and preventive action for abandoned recreational fishing gear in the central Baltic Sea) 121 / 200 characters	Central Baltic Interreg 25 / 200 characters	Re:Fish application was submitted to the Central Baltic Interreg programme in March 2022. It is a project about retrieval, recycling, and preventive actions for recreational fishing gear in the central Baltic Sea. Knowledge gaps about the losses of fishing gear are intended to be filled using citizen science and the use of mobile application tools. In case of a positive funding decision, there are synergies with these two projects. Re:Fish is interested in testing and piloting the mobile application together with SYKE. 524 / 1,000 characters
MARELITT Baltic (Reducing the impact of marine litter in the form of derelict fishing gear in the Baltic Sea) 111 / 200 characters	BSR Interreg 12 / 200 characters	The project, which concluded in 2019, worked on the reduction of the impact of derelict fishing gear in the Baltic Sea. Among the results of the project there is the identification of the fishing gear accumulation areas in the region. This information, thanks to the close cooperation between HELCOM and WWF Poland, is currently being processed so that it is available in the HELCOM Map&Data service. 401 / 1,000 characters
FanpLESStic-sea (Initiatives to remove microplastics before they enter the sea) 79 / 200 characters	BSR Interreg 13 / 200 characters	The project (2019-2021) worked on initiatives to remove microplastics before they enter the sea. One of the outputs of the project, a review of existing policies and research related to microplastics, has been used in the preparatory phase of this project application to avoid duplication of work. 300 / 1,000 characters
HELCOM BLUES (HELCOM Biodiversity, Litter, Underwater noise and Effective regional measures for the Baltic Sea) 113 / 200 characters	DG Environment 14 / 200 characters	A central activity within the HELCOM BLUES project is to further develop the microlitter indicator for monitoring. Therefore, a survey on existing monitoring approaches has been carried out and draft guidelines for monitoring of microlitter in seabed sediments and surface water have been developed. The outcomes especially on seabed sediments and the resulting recommendations for sampling, analyses and data reporting are of high relevance and can be included and transferred to LITTERGAPS in large parts also to strive for harmonisation between compartments. 561 / 1,000 characters
BLASTIC (Plastic waste pathways into the Baltic Sea) 54 / 200 characters	Central Baltic Interreg 23 / 200 characters	The project (2016-2018) focused on reducing the inflow of plastic waste and hazardous substances into the Baltic Sea by mapping and monitoring ML amounts and developing tools for ML management. The management tools were especially targeted towards regional authorities who are responsible for waste management. 310 / 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.

A Steering Group will be set up for the project for ensuring efficient strategic management of the project. External expert will be utilised during drafting the Partnership Agreement by the Lead Partner.

205 / 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.

A part-time financial manager will be appointed by the LP.

61 / 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.

A project communication plan will be created for the project.

Series of events for the target groups will be organised during the project: in WP2 during the piloting of the outputs O2.1, O2.2 and O2.3, and in WP3 during transferring these solutions to the target groups. A final conference will be organised to disseminate all project outputs to the target groups, but also for increasing awareness of the citizens on the harm caused by marine litter and promoting behavioural change.

486 / 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	WP1 Preparing solutions

Number	Group of Activity Name
1.1	Developing a mobile reporting tool for marine macrolitter
1.2	Applying video imaging approach to monitor seafloor litter
1.3	Preparation on piloting sediment traps and mussel cages for microplastic monitoring

Number	Work Package Name
2	Piloting and evaluating solutions

Number	Group of Activity Name
2.1	Piloting the use of mobile app in the monitoring of floating macrolitter and harm to marine biota
2.2	Piloting the video imaging approach to monitor seafloor litter
2.3	Piloting the use of sediment traps and mussel cages for microplastic monitoring

Number	Work Package Name
3	Transferring solutions

Number	Group of Activity Name
3.1	Towards a HELCOM monitoring programme for floating litter
3.2	Proposal for Baltic Sea monitoring guidelines on the impact of marine litter on biota
3.3	Further development of the HELCOM monitoring programme on seafloor litter
3.4	Monitoring strategy of microplastics in mussels

Work plan overview

Period:	1	2	3	4	5	6	Leader
WP.1: WP1 Preparing solutions							**PP1**
A.1.1: Developing a mobile reporting tool for marine macrolitter							PP2
D.1.1: New mobile application monitoring tools for floating litter and harm to marine biota		D					
A.1.2: Applying video imaging approach to monitor seafloor litter							PP5
D.1.2: Plan for the pilot use of video imaging		D					
A.1.3: Preparation on piloting sediment traps and mussel cages for microplastic monitoring							PP6
D.1.3: Preparation of pilot tests on microplastic monitoring via mussel cages and sediment traps	D						
WP.2: Piloting and evaluating solutions							**PP2**
A.2.1: Piloting the use of mobile app in the monitoring of floating macrolitter and harm to marine biota							PP2
O.2.1: Piloted use of the mobile application				O			
A.2.2: Piloting the video imaging approach to monitor seafloor litter							PP5
O.2.2: Piloted video imaging approach to monitor seafloor litter					O		
A.2.3: Piloting the use of sediment traps and mussel cages for microplastic monitoring							PP6
O.2.3: Piloted use of sediment traps and mussel cages				O			
WP.3: Transferring solutions							**PP3**
A.3.1: Towards a HELCOM monitoring programme for floating litter							PP3
D.3.1: Proposal for a Baltic Sea monitoring programme for floating litter						D	
A.3.2: Proposal for Baltic Sea monitoring guidelines on the impact of marine litter on biota							PP3
D.3.2: Proposal for HELCOM monitoring guidelines on the impact of marine litter on biota						D	
A.3.3: Further development of the HELCOM monitoring programme on seafloor litter							PP3
D.3.3: Proposal for an improved HELCOM monitoring programme on seafloor litter						D	
A.3.4: Monitoring strategy of microplastics in mussels							PP3
D.3.4: Proposal for HELCOM monitoring guidelines of microplastics in mussels						D	

Outputs and deliverables overview

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

D 1.1	New mobile application monitoring tools for floating litter and harm to marine biota	At present, ML monitoring both in the Baltic Sea and in the EU relies much on beached macrolitter surveys, while the monitoring of other ML either suffer from a lack of spatial coverage or incomplete monitoring methods which need further development before being operational. However, at the same time there is an urgent need for collecting mandatory data on ML by the authorities. The purpose of D 1.1 is to enable transnational and thus spatially large-scale data collection on litter items which are visible to the human eye, but from which there is only sporadic information available. Because ML is a relatively recent monitoring parameter, and macrolitter monitoring relies on visual observations, mobile applications offer solutions for collecting and transferring field data for the use of the national authorities who are in charge of the national monitoring. Using a transnationally available and applicable survey tool will enable combining the observations made in different countries. This will further support Baltic Sea wide assessments on ML distribution. This deliverable lays the groundwork for wide-scale piloting of the mobile application in A 2.1 and reaching the output (O 2.1) by first investigating the needs of the local authorities regarding the monitoring of FMML and harm caused to marine biota by ML. Their viewpoints will be used to develop two new features to the mobile application, and these will be tested in practice within a smaller test group consisting of the project partners and associated organisations. The experiences of the test group will provide valuable information on how to improve the usability of the application and the data collection using it prior to moving into the piloting phase (A 2.1) and introducing the tools to a larger audience.	O2.1 Piloted use of the mobile application	
D 1.2	Plan for the pilot use of video imaging	Under A 1.2. a plan for the pilot use of video imaging in seafloor macrolitter research will be developed. The plan will include 1) an overview of survey methods available for marine regions where bottom trawling is not a possibility, 2) a fieldwork strategy across the depth range of 0 to 100 metres, and 3) maps of survey areas in the Baltic Sea region. The plan will include a detailed overview of the video imaging approach and form a solid guide for activities to be carried out under A 2.2.	O 2.2 Piloted video imaging approach to monitor seafloor litter	
D 1.3	Preparation of pilot tests on microplastic monitoring via mussel cages and sediment traps	a) Compilation of stakeholder-specific requirements on monitoring of biota and sediments: The collection of stakeholder-specific requirements via the (online) survey and stakeholder workshop will provide highly application-oriented information which integrates exactly the objectives and capabilities of the final users. This is a valuable and essential starting point for the meaningful application of the piloting of caged mussels and sediment traps. The survey will be carried out together with the survey on macroplastics (see A 1.1 and A 1.2). By involving stakeholders of different administrative levels from HELCOM countries, regional/sub-regional needs can be addressed. Furthermore, different administrative and legislative aspects and varying available resources will be taken into account. b) Specification of project implementation plan for the pilot use of traps and cages: The project implementation work plan for the pilot phase of the activity will define tasks and timelines of the installation stations and sampling frequencies, analysis and parameters to be recorded during the pilot phase. Based on the feedback from relevant stakeholders, the project plan will be adapted and logistic specifications made. The concrete activity plan to carry out the actual testing in WP2 will then be ready. c) Sample documentation forms and draft protocols: Draft protocols and survey forms will be generated so that participants conduct consistent sampling and comparable data are collected (UHAM, SYKE, TalTech).	O2.3 Piloted use of sediment traps and mussel cages	
O 2.1	Piloted use of the mobile application	At the end of A 2.1 the use of a mobile application in mapping the distribution of FMML and collecting observations on harm caused to marine biota by ML will have been piloted at least in three countries in the Baltic Sea. Based on the feedback of the target groups and the stakeholders piloting the mobile application, the use of the application for monitoring purposes will be evaluated and the application will be further adjusted to better serve the needs of the users. This output will feed into the A 3.1 and A 3.2. and help in assessing whether mobile applications in ML monitoring would be useful tools for the authorities who need to carry out their monitoring obligations in a cost-effective way. Furthermore, the information collected in the piloting phase will result in a preliminary data set on the occurrence of FMML and harm caused by litter to marine biota, which is visualised in the HELCOM Map&Data Service, if feasible. Due to the widespread and scattered distribution of FMML, engaging multiple actors such as leisure boaters, kayaking teams and professional maritime traffic operators into the monitoring of FMML is an efficient way to map its occurrence in the testing areas, and potentially later in the entire Baltic Sea region. It will also enhance dialogue with different stakeholders, which will further enable developing effective management options for tackling sea-based ML. Using the mobile application for reporting of entanglement or other obvious and visible harm experienced by marine biota will not only provide valuable data, but will also increase awareness of the citizens on the harm caused by ML, especially plastics, for the environment and promote behavioural change.		
O 2.2	Piloted video imaging approach to monitor seafloor litter	The video imaging approach to monitor seafloor macrolitter developed under A 1.2 will be tested and further modified as needed based on the results of activities under A 2.2. The output of A 2.2 will be a comprehensive overview of the video imaging approach in seafloor macrolitter monitoring for the areas not covered with bottom fish trawling and will serve as input for A 3.3 and D 3.3. In addition, the compiled database on seafloor macrolitter distribution, amount and composition in the northern Baltic Sea regions will serve, in the long run, as a basis for estimating the trends in seafloor litter.		

O 2.3	Piloted use of sediment traps and mussel cages	Biomonitoring of microplastic contamination is particularly suited to link the concrete pressures on marine habitats with potential biological effects. The use of caged mussels offers the advantage of monitoring through a homogenous set of baseline parameters combined with standardised exposure conditions. Thus, the influence of point-specific habitat conditions (e.g. location relative to the coastline, height above sea level) or individual-specific differences (e.g. size/weight of individuals), which also have an influence on filtration performance and thus on the potential ingestion rate, can be largely minimised. In parallel, sediment trap data on microplastics provide the opportunity to study time-related sedimentation of microplastics. Analysis of microplastics in seabed sediments is often masked by an uncertainty of local sedimentation rates and the degree of resuspension or bioturbation. It is still unclear to what extent microplastics in seabed sediments can be surveyed in a representative manner and whether valid monitoring data can be collected on the basis of such survey. By means of sediment traps, concrete point-related conclusions can be drawn and these questions can be evaluated in synergy with results from the analysis of seabed sediments. The focus of this output is on the question to what extent microplastic concentrations in caged mussels behave in correlation to microplastic concentrations in sediment traps and seabed sediments. The objective of the pilot phase is also the assessment of the number and distribution of stations required to get representative data for evaluation of microplastic concentrations and impact. The output consists of a database including its (geo)statistical analysis and an evaluation of the activities carried out. The output will be discussed with the relevant stakeholders and thus also serves to inform them about the requirements and benefits of monitoring via mussel cages and sediment traps.		
D 3.1	Proposal for a Baltic Sea monitoring programme for floating litter	A proposal for a coordinated Baltic Sea monitoring programme for floating litter will be drafted. The fact that the monitoring tool proposed (O 1.1) is also tested within the lifetime of the project (O 2.1) will enable a pragmatic approach towards the drafting process and thus the concerns that may arise from the authorities involved in the eventual application of the proposed monitoring programme will be addressed.	O 2.1 Piloted use of the mobile application	
D 3.2	Proposal for HELCOM monitoring guidelines on the impact of marine litter on biota	A proposal for coordinated Baltic Sea monitoring guidelines on the impact of marine litter on biota will be drafted. The Guidelines will be a ready-to-use protocol to be used when in the field to collect information, through the monitoring tool proposed (O 2.1) on the impact of ML on biota. It will allow, for the first time in the Baltic Sea, the collection and visualisation of harmonised data on the impact of ML on biota. Agreeing on these guidelines is the first and indispensable step towards a coordinated monitoring programme on impact of ML on biota in the Baltic Sea.	O2.1 Piloted use of the mobile application	
D 3.3	Proposal for an improved HELCOM monitoring programme on seafloor litter	A proposal for an improved HELCOM monitoring programme on seafloor litter will be drafted based on the A 2.2. The coordinated implementation of the amended monitoring programme will provide a holistic view of the status of the seabed in the Baltic Sea in relation to seafloor litter. This information, through the years, will contribute to the evaluation of the effectiveness of the regional and national measures addressing ML within the HELCOM Regional Action Plan on Marine Litter and the national Programmes of Measures. Once this evaluation is conducted, and pending on the results found, the current measures could be further defined to address the most predominant sources of litter.	O 2.2 Piloted video imaging approach to monitor seafloor litter	
D 3.4	Proposal for HELCOM monitoring guidelines of microplastics in mussels	A proposal for HELCOM monitoring guidelines of microplastics in mussels will be drafted. This proposal will be the first one addressing microplastics in biota in the Baltic Sea. It will specify the sampling and analysis protocols to follow as well as the calculation tools, reporting templates to the selected database e.g. EMODnet or ICES DOME depending on the suggestions made by the project partnership, with the contribution of the HELCOM Expert Group on Marine Litter and in cooperation with EU TG Litter. Furthermore, thanks to the pilot testing conducted in A 2.3, the guidelines will also contain a photo guide so that the identification of microplastics in samples is easier.	O 2.3 Piloted use of sediment traps and mussel cages	

Work package 1

5.1 WP1 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 - Kotka Maritime Research Association (KMRA)

Work package leader 2 Please select

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	National public authority Competent environmental authorities responsible for ML monitoring in BSR, and subsequent reporting to EU and HELCOM. Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for assessment of the state of national marine reporting units in relation to ML. Region: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden. 498 / 500 characters	To ensure that the project is goal-oriented from the outset and to guarantee maximum transferability and feasibility of the achieved outputs, relevant target groups will involved conceptually on the basis of their technical and regional expertise. The preparation of the pilot plans will therefore begin with a survey on the prerequisites and specific monitoring needs by the addressed target groups, related to the identified gaps in regard to ML in the BSR. The resulting quantitative and qualitative results will be reflected to the target groups and discussed in detail so that any necessary changes are incorporated into the planning in a timely manner and aspects not previously considered also taken into account. 723 / 1,000 characters
2	Regional public authority Competent regional environmental authorities responsible for ML monitoring in their regions and subsequent reporting to the responsible national administration. Field of responsibility: Collecting data on the presence of ML in different compartments through monitoring of floating litter, seafloor litter and microplastics in mussels. Region: Germany. 355 / 500 characters	To ensure that the project is goal-oriented from the outset and to guarantee maximum transferability and feasibility, relevant target groups will be involved conceptually on the basis of their technical and regional expertise. The preparation of the pilot plans will therefore begin with a survey of the prerequisites and specific monitoring needs by the addressed target groups, related to the identified gaps in regard to ML in the BSR. The resulting quantitative and qualitative results will be reflected to the target groups and discussed in detail so that any necessary changes are incorporated into the planning in a timely manner and aspects not previously considered are also taken into account. 706 / 1,000 characters

	Target group	How do you plan to reach out to and engage the target group?
3	International governmental organisation HELCOM Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for the assessment of the state of the Baltic Sea in relation to ML. Region: Contracting Parties to the Helsinki Convention, which are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the EU. 448 / 500 characters	The project concept and piloted solutions will be communicated and disseminated to intergovernmental institutions through participation in expert groups of the regional sea convention in the Baltic Sea area and the EU Technical Group on Marine Litter (EU TG Litter). This is ensured by the central coordinating role of HELCOM. 326 / 1,000 characters
4	NGO NGOs participating in citizen science initiatives. Field of responsibility: Testing the usability of the mobile application tools in field conditions at sea and giving feedback based on their experiences. Region: Baltic Sea Region. 234 / 500 characters	Development and testing of the mobile application will be carried out together with the associated organisations, such as KST and KAT, who are interested in ML issues and willing to follow the development of the mobile application and prepared to give feedback on it. NGOs have well established networks (including BirdLife Finland) and contacts with citizens which will assist LITTERGAPS to reach its goal with the mobile app. The NGOS, other than associated organisations, who are active in the ML topics in the BSR area will be identified by communicating with the EG Marine Litter members from the different countries. Their willingness to contribute will be confirmed, and the interested organisations will be engaged in the topic by presenting the state of the art on ML monitoring in the BSR (online interactive workshop) and the benefits for developing new tools. The ideas emerging during the workshop will be elaborated during the planning of the use of the application. 983 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
1.1	**Developing a mobile reporting tool for marine macrolitter**
1.2	**Applying video imaging approach to monitor seafloor litter**
1.3	**Preparation on piloting sediment traps and mussel cages for microplastic monitoring**

WP 1 Group of activities 1.1

5.6.1 Group of activities leader

Group of activities leader PP 2 - Finnish Environment Institute (SYKE)

A 1.1

5.6.2 Title of the group of activities

Developing a mobile reporting tool for marine macrolitter

57 / 100 characters

5.6.3 Description of the group of activities

SYKE has developed a prototype mobile application for reporting litter, including hotspots in the environment and lost and found fishing gear. Within LITTERGAPS, the prototype will be further developed to cover the identified ML monitoring knowledge gaps: floating marine macrolitter (FMML) and harm caused to marine biota by ML.

FMML monitoring tool development: FMML (items >2.5 cm) monitoring methods vary from personal observations by citizens to the use of drones or satellite images. Guidance for the use of different methods is currently being prepared in the EU TG Litter, which has the mandate to provide guidance on ML monitoring to EU Member States.The development of the reporting tool in LITTERGAPS will consider the previous experiences on visual FMML monitoring and the work currently carried out by EU TG Litter.

The reporting toolbox will include (i) basic instructions for carrying out monitoring from different types of vessels or alternatively from fixed sites; (ii) a dropdown menu of FMML categories by size and object characteristics; and (iii) a map interface for the visualisation of the monitoring effort locally as well as transnationally.

The tool for reporting harm to marine biota will enable reporting and visualisation of on-site observations of animals at risk because of ML.Typical incidents are entanglement of seabirds in e.g. fishing lines and traps, or animals suffocated due to ingestion of plastics.The ingestion of ML, especially plastics, can also be verified from regurgitated pellets of seabirds,and LITTERGAPS will test whether they can be used for ML monitoring.

The tool for reporting harm to marine biota is based on observed incidents, such as stranded animals, and will include (i) the identification of species/taxa; (ii) the type of litter causing the observed harm; (iii) the condition of the animal; (iv) ML in the regurgitated pellets; and (v) a map interface for the visualisation of the monitoring effort locally as well as transnationally. LITTERGAPS will investigate how the reported entangled birds can be cleaned/saved.

For both FMML and harm to marine biota tools, the observations will be shared through the HELCOM Map&Data Service, if feasible.

The characteristics of the toolbox will consider the needs of local authorities.To increase the transboundary use of the application an English user interface will be created.Also, benefits and possibilities for adding other languages (e.g. Estonian) will be explored.

The national authorities responsible for organising and conducting ML monitoring will be contacted through the HELCOM Expert Group (EG) on Marine Litter and interviewed on their viewpoints and needs with a joint questionnaire (common to A1.2 & A1.3).

The monitoring tools will be tested during period 2 by the project partners (SYKE, UTARTU) and AOs (e.g. KST, KAT, Birdlife Fi, Helsinki). Based on the experiences and comments from the target groups the tools will be finalised for their pilot use in A2.1.

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

New mobile application monitoring tools for floating litter and harm to marine biota

85 / 100 characters

Description of the deliverable

At present, ML monitoring both in the Baltic Sea and in the EU relies much on beached macrolitter surveys, while the monitoring of other ML either suffer from a lack of spatial coverage or incomplete monitoring methods which need further development before being operational. However, at the same time there is an urgent need for collecting mandatory data on ML by the authorities.

The purpose of D 1.1 is to enable transnational and thus spatially large-scale data collection on litter items which are visible to the human eye, but from which there is only sporadic information available. Because ML is a relatively recent monitoring parameter, and macrolitter monitoring relies on visual observations, mobile applications offer solutions for collecting and transferring field data for the use of the national authorities who are in charge of the national monitoring. Using a transnationally available and applicable survey tool will enable combining the observations made in different countries. This will further support Baltic Sea wide assessments on ML distribution.

This deliverable lays the groundwork for wide-scale piloting of the mobile application in A 2.1 and reaching the output (O 2.1) by first investigating the needs of the local authorities regarding the monitoring of FMML and harm caused to marine biota by ML. Their viewpoints will be used to develop two new features to the mobile application, and these will be tested in practice within a smaller test group consisting of the project partners and associated organisations. The experiences of the test group will provide valuable information on how to improve the usability of the application and the data collection using it prior to moving into the piloting phase (A 2.1) and introducing the tools to a larger audience.

1,799 / 2,000 characters

Which output does this deliverable contribute to?

O2.1 Piloted use of the mobile application

42 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.1: Developing a mobile reporting tool for marine macrolitter						
D.1.1: New mobile application monitoring tools for floating litter and harm to marine biota						

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 5 - University of Tartu (UTARTU)

A 1.2

5.6.2 Title of the group of activities

Applying video imaging approach to monitor seafloor litter

58 / 100 characters

5.6.3 Description of the group of activities

Information on seafloor macrolitter in deeper areas mainly originates as a co-product of bottom trawling used for fish stock assessments. Although it has damaging effects on the seafloor, bottom trawling is widely used in the Baltic Sea, particularly in the southern and central parts. Nevertheless, in these regions the use of bottom trawls provides valuable information on seafloor litter. Bottom trawling is however not a possibility in shallow areas nor in the northern and north-eastern part of the Baltic Sea due to rough seascape and dumped warfare. Though some targeted local-level research using drop-down video cameras and visual observations of seafloor litter have been carried out (e.g. in Estonia: pilot studies in 2017 and 2021, currently partly included in national marine monitoring program), for the northern part of the Baltic Sea the information on seafloor litter distribution, composition and abundance is mostly missing.

One aim of this project is to develop a seafloor macrolitter monitoring methodology suitable for the areas not covered by the monitoring connected to fish trawling, and eventually to fill in the knowledge gap regarding seafloor litter distribution, composition and amounts in these areas. The information gained within this project will complement the available data on seafloor litter (e.g. DATRAS, MARELITT) and will be provided to the HELCOM Map&Data Service, if feasible. Under A 1.2, a plan for the pilot use of video imaging in seafloor macrolitter research (including draft protocols etc.) will be developed and video imaging will be piloted in the field under A 2.2. The plan will be based on previous experience of the project partners, available research material from the Baltic Sea region, and international literature. Suitable monitoring methods and equipment will be overviewed in detail. The target areas are those for which the information on seafloor litter is especially scarce (Gulfs of Finland, Gulf of Bothnia and Baltic Proper).

There is some knowledge about marine areas where waste has been dumped either intentionally (e.g. dumping sites of household litter) or unintentionally (e.g. drowned vehicles on ice roads). An attempt will be made to map these areas in more detail. Also when planning the study areas, anthropogenic pressures in the region will be taken into account (e.g., activities related to fishery, leisure boating, shipping lines etc.), and both human-affected and natural areas will be addressed. Additional information will be collected from local authorities, harbour personnel etc. A joint questionnaire targeted at monitoring authorities will also be prepared jointly with A 1.1, A 1.2, and A 1.3 to guarantee the unity of the project and better interpretation of the results. The questionnaire will be distributed via the HELCOM network. When possible, additional surveys regarding different aspects of ML will be planned in collaboration with the associated organisations (e.g. KST).

2,981 / 3,000 characters

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

D 1.2

Title of the deliverable

Plan for the pilot use of video imaging

39 / 100 characters

Description of the deliverable

Under A 1.2. a plan for the pilot use of video imaging in seafloor macrolitter research will be developed. The plan will include 1) an overview of survey methods available for marine regions where bottom trawling is not a possibility, 2) a fieldwork strategy across the depth range of 0 to 100 metres, and 3) maps of survey areas in the Baltic Sea region. The plan will include a detailed overview of the video imaging approach and form a solid guide for activities to be carried out under A 2.2.

496 / 2,000 characters

Which output does this deliverable contribute to?

O 2.2 Piloted video imaging approach to monitor seafloor litter

64 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.2: Applying video imaging approach to monitor seafloor litter						
D.1.2: Plan for the pilot use of video imaging						

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 6 - University of Hamburg (UHAM)

A 1.3

5.6.2 Title of the group of activities

Preparation on piloting sediment traps and mussel cages for microplastic monitoring

83 / 100 characters

5.6.3 Description of the group of activities

Within activity A 1.3 the focus will be on testing and applying caged mussels and sediment traps for monitoring purposes.

First, information from stakeholder groups will be gathered through a questionnaire (jointly with A 1.1. and A 1.2) in order to identify specific challenges and needs of relevant appliers. Therefore, a combined qualitative/quantitative online survey form will be developed and distributed among relevant monitoring stakeholders, such as legal authorities, implementing institutions and laboratories. HELCOM will contribute to the widespread distribution of the questionnaire. The information received is compiled and actively discussed within a stakeholder workshop to integrate target groups that are currently not represented in the project consortium in order to cover relevant prerequisites and essential stakeholder views on the topic. Alongside, a distinct project plan with a schedule for the pilot use of traps and cages that defines the installation and sampling specifics and areas will be developed. It includes, for example, the location of cage deployment stations and installation of sediment traps depending on their exposure, sampling depths, frequencies and techniques, transport conditions, as well as analytical procedures and protocols in the laboratory.

1,299 / 3,000 characters

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

D 1.3

Title of the deliverable

Preparation of pilot tests on microplastic monitoring via mussel cages and sediment traps

89 / 100 characters

Description of the deliverable

a) Compilation of stakeholder-specific requirements on monitoring of biota and sediments:

The collection of stakeholder-specific requirements via the (online) survey and stakeholder workshop will provide highly application-oriented information which integrates exactly the objectives and capabilities of the final users. This is a valuable and essential starting point for the meaningful application of the piloting of caged mussels and sediment traps. The survey will be carried out together with the survey on macroplastics (see A 1.1 and A 1.2).

By involving stakeholders of different administrative levels from HELCOM countries, regional/sub-regional needs can be addressed. Furthermore, different administrative and legislative aspects and varying available resources will be taken into account.

b) Specification of project implementation plan for the pilot use of traps and cages:

The project implementation work plan for the pilot phase of the activity will define tasks and timelines of the installation stations and sampling frequencies, analysis and parameters to be recorded during the pilot phase. Based on the feedback from relevant stakeholders, the project plan will be adapted and logistic specifications made. The concrete activity plan to carry out the actual testing in WP2 will then be ready.

c) Sample documentation forms and draft protocols:

Draft protocols and survey forms will be generated so that participants conduct consistent sampling and comparable data are collected (UHAM, SYKE, TalTech).

1,530 / 2,000 characters

Which output does this deliverable contribute to?

O2.3 Piloted use of sediment traps and mussel cages

51 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.3: Preparation on piloting sediment traps and mussel cages for microplastic monitoring						
D.1.3: Preparation of pilot tests on microplastic monitoring via mussel cages and sediment traps						

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 2 - Finnish Environment Institute (SYKE)

Work package leader 2 Please select

5.4 Work package budget

Work package budget 40%

5.4.1 Number of pilots

Number of pilots 5

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	National public authority Competent environmental authorities responsible for ML monitoring in BSR, and subsequent reporting to EU and HELCOM. Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for assessment of the state of national marine reporting units in relation to ML. Region: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden. 498 / 500 characters	A2.1: The target groups already engaged to the work (A1.1) will be kept onboard throughout the piloting phase -by arranging a dedicated live/on-line workshop on the method development leading to the final application and the usability of the application pilot version. -by actively sharing information on the progress and outcome of the pilot field work in social media and the project's website and in the regular meetings of the ML expert groups. A2.2: -by arranging a workshop and joint field trip(s) for the target groups in order to guarantee better exchange of knowledge and skills regarding seafloor litter monitoring. A2.3: -stakeholders from the target groups will be actively integrated in the process of station selection and installation and can provide logistic support and advice. -interactive exchange about specific requirements and continuous feedback on the performance of the pilots is provided via regular meetings and communications within national expert groups on ML. 999 / 1,000 characters

	Target group	How do you plan to reach out to and engage the target group?
2	Regional public authority Competent regional environmental authorities responsible for ML monitoring in their regions and subsequent reporting to the responsible national administration. Field of responsibility: Collecting data on the presence of ML in different compartments through monitoring of floating litter, seafloor litter and microplastics in mussels. Region: Germany. 355 / 500 characters	A2.1: The target groups already engaged to the work (A1.1) will be kept onboard throughout the piloting phase -by arranging a dedicated live/on-line workshop on the method development leading to the final application and the usability of the application pilot version. -by actively sharing information on the progress and outcome of the pilot field work in social media and the project's website and in the regular meetings of the ML expert groups. A 2.2: -by arranging a workshop and joint field trip(s) for the target groups in order to guarantee better exchange of knowledge and skills regarding seafloor litter monitoring. A 2.3: -stakeholders from the target groups will be actively integrated in the process of station selection and installation and can provide logistic support and advice. -interactive exchange about specific requirements and continuous feedback on the performance of the pilots is provided via regular meetings and communications within national expert groups on ML. 1,000 / 1,000 characters
3	International governmental organisation HELCOM Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for the assessment of the state of the Baltic Sea in relation to ML. Region: Contracting Parties to the Helsinki Convention, which are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the EU. 448 / 500 characters	-the project concept and piloted solutions will be communicated and disseminated to intergovernmental institutions through participation in expert groups of the regional sea convention in the Baltic Sea area and the EU TG Litter. This is ensured by the central coordinating role of HELCOM. 289 / 1,000 characters
4	NGO NGOs participating in citizen science initiatives. Field of responsibility: Testing the usability of the mobile application tools in field conditions at sea and giving feedback based on their experiences. Region: Baltic Sea Region. 234 / 500 characters	-the mobile app (A 2.1) will be tested and feedback collected from the associated NGOs for adjustments. -high visibility of the mobile app will be sought among volunteers, including the general public via networks of the NGOs. -feedback from the citizens will be collected through social media. 295 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
2.1	**Piloting the use of mobile app in the monitoring of floating macrolitter and harm to marine biota**
2.2	**Piloting the video imaging approach to monitor seafloor litter**
2.3	**Piloting the use of sediment traps and mussel cages for microplastic monitoring**

WP 2 Group of activities 2.1

5.6.1 Group of activities leader

Group of activities leader PP 2 - Finnish Environment Institute (SYKE)

A 2.1

5.6.2 Title of the group of activities

Piloting the use of mobile app in the monitoring of floating macrolitter and harm to marine biota

97 / 100 characters

5.6.3 Description of the group of activities

The new functions in the toolbox of the mobile application for the monitoring of FMML and the harm to biota caused by ML will be piloted by the project partners, associated organisations and other identified stakeholders. The contacts of the LITTERGAPS, HELCOM EG Marine Litter and the associated organisations of LITTERGAPS will enable the localization of local and regional stakeholders interested in carrying out the coastal FMML monitoring (e.g. Rotarians, leisure boaters).

FMML monitoring will be piloted (i) in open sea areas onboard passenger ferries (e.g. Helsinki–Tallinn, Helsinki–Hanko, Helsinki–Stockholm, potentially also Helsinki–Travemünde) by the project partners and (ii) on the coastlines of the Gulf of Finland (Finland and Estonia) and in the southern Baltic Sea (Germany) from small boats, e.g. private sailing boats by the engaged associated organisations and stakeholders. The piloting will be carried out in spring–autumn during periods 3 and 4 to evaluate seasonal changes. The coastal monitoring will cover both urban areas most affected by anthropogenic pressures as well as rural areas.

The observers will receive a web-based evaluation form, through which they will give feedback during and after each monitoring trip. The form will include e.g. technical questions regarding user friendliness, logic, and impact of weather on the monitoring, and this feedback will be used to refine the mobile application and to evaluate the quality of the collected data.

The reporting of harm to marine biota will be based on incidental occurrences; hence, collecting data requires this piloting approach to be carried out on a wide spatial scale. The application will be first piloted by the associated NGOs and promoted to citizens in the entire Baltic Sea region through social media (incl. Twitter, Instagram, Facebook) by utilising networks of the associated NGOs and other interested stakeholders of the target groups.

A dedicated workshop on the method development leading to the final application, its usability and first results will be arranged. During the workshop the engaged stakeholders and the representatives of the target groups will be able to comment on the functionalities of the pilot application.

Through the experience gained during the pilot phase testing of the mobile reporting tool for FMML (A 2.1) developed under A 1.1 it will be possible to draft a proposal for a coordinated Baltic Sea monitoring programme for floating litter in WP3.

All the piloting activities will be carried out in the north-eastern and southern Baltic Sea (Finland, Estonia and Germany). Data from the piloting activities will be gathered and stored by SYKE, linked to the project´s website and may also be stored in the HELCOM Map&Data Service, if feasible. It is foreseen that visualisation of the observations on map will encourage more observers to join in the reporting.

2,910 / 3,000 characters

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

O 2.1

Title of the output

Piloted use of the mobile application

37 / 100 characters

Description of the output

At the end of A 2.1 the use of a mobile application in mapping the distribution of FMML and collecting observations on harm caused to marine biota by ML will have been piloted at least in three countries in the Baltic Sea. Based on the feedback of the target groups and the stakeholders piloting the mobile application, the use of the application for monitoring purposes will be evaluated and the application will be further adjusted to better serve the needs of the users. This output will feed into the A 3.1 and A 3.2. and help in assessing whether mobile applications in ML monitoring would be useful tools for the authorities who need to carry out their monitoring obligations in a cost-effective way. Furthermore, the information collected in the piloting phase will result in a preliminary data set on the occurrence of FMML and harm caused by litter to marine biota, which is visualised in the HELCOM Map&Data Service, if feasible.

Due to the widespread and scattered distribution of FMML, engaging multiple actors such as leisure boaters, kayaking teams and professional maritime traffic operators into the monitoring of FMML is an efficient way to map its occurrence in the testing areas, and potentially later in the entire Baltic Sea region. It will also enhance dialogue with different stakeholders, which will further enable developing effective management options for tackling sea-based ML.

Using the mobile application for reporting of entanglement or other obvious and visible harm experienced by marine biota will not only provide valuable data, but will also increase awareness of the citizens on the harm caused by ML, especially plastics, for the environment and promote behavioural change.

1,716 / 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 National public authority Competent environmental authorities responsible for ML monitoring in BSR, and subsequent reporting to EU and HELCOM. Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for assessment of the state of national marine reporting units in relation to ML. Region: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden.	The mobile application will provide data which the authorities need to be able to assess the state of the sea and to report on ML. 130 / 1,000 characters
Target group 2 Regional public authority Competent regional environmental authorities responsible for ML monitoring in their regions and subsequent reporting to the responsible national administration. Field of responsibility: Collecting data on the presence of ML in different compartments through monitoring of floating litter, seafloor litter and microplastics in mussels. Region: Germany.	The mobile application will enable the collection of data on FMML and harm to marine biota as part of national monitoring. 123 / 1,000 characters

Target groups	How will this target group apply the output in its daily work?
Target group 3 International governmental organisation HELCOM Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for the assessment of the state of the Baltic Sea in relation to ML. Region: Contracting Parties to the Helsinki Convention, which are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the EU.	The pilot testing of the mobile reporting tool for marine macrolitter is a compulsory step towards the drafting of a proposal for a coordinated Baltic Sea monitoring programme for floating litter envisaged to be drafted in WP3. 227 / 1,000 characters
Target group 4 NGO NGOs participating in citizen science initiatives. Field of responsibility: Testing the usability of the mobile application tools in field conditions at sea and giving feedback based on their experiences. Region: Baltic Sea Region.	The mobile application will enable their participation in the data collection on FMML and harm to marine biota in general or as a part of national monitoring, if feasible. 172 / 1,000 characters

Durability of the output

The mobile application will be maintained and further developed by SYKE after the project, and available for its use in ML national monitoring.

143 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: Piloting and evaluating solutions						
A.2.1: Piloting the use of mobile app in the monitoring of floating macrolitter and harm to marine biota						
O.2.1: Piloted use of the mobile application						

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 5 - University of Tartu (UTARTU)

A 2.2

5.6.2 Title of the group of activities

Piloting the video imaging approach to monitor seafloor litter

62 / 100 characters

5.6.3 Description of the group of activities

Under A 2.2 the plan for the pilot use of video imaging developed under A 1.2 will be tested in the field to evaluate its suitability and make adjustments if needed. All project partners will be involved in the activity, e.g. giving feedback and expert opinion on the planned piloting, and also taking part in evaluating the pilots. Some of the study areas are planned to partly overlap with those of A 2.1 and A 2.3. Contact will be held also with the ICES Working Group on Marine Litter that deals with seafloor litter monitoring methods. Activities under A 2.2 are planned to be carried out in the second year of the project. EE and FI sea areas will be used as testbed areas for the method, and all partners will take part in planning and evaluating the method. Associates are invited to contribute with their expertise.

Close collaboration will be held between the institutions responsible for the fieldwork and data collection. For that reason, a workshop and joint field trip(s) will be carried out in EE and/or FI in order to guarantee better exchange of knowledge and skills regarding seafloor litter mapping. External experts on various research fields related to ML pollution and interested target groups will be invited to participate.

The video images obtained during fieldwork will be analysed, and in addition to seafloor litter, environmental data regarding sediment composition and benthic biota will be noted. Database on seafloor macrolitter for the studied regions (Gulf of Finland, Gulf of Bothnia, Baltic Proper) will be compiled. Comparison of litter data from trawling and from video imaging will be conducted when possible. The database will be a solid base for further research. Also, the information on seafloor litter distribution, composition and amount will give guidance on preventive measures that would be needed to minimise the litter input into the marine environment both at local and regional level.

Based on the obtained results and experiences in A 1.2 and A 2.2, the updated information for seafloor litter monitoring in areas not covered by the seafloor litter monitoring connected to fish trawling will be provided for A 3.3.

2,180 / 3,000 characters

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

O 2.2

Title of the output

Piloted video imaging approach to monitor seafloor litter

57 / 100 characters

Description of the output

The video imaging approach to monitor seafloor macrolitter developed under A 1.2 will be tested and further modified as needed based on the results of activities under A 2.2. The output of A 2.2 will be a comprehensive overview of the video imaging approach in seafloor macrolitter monitoring for the areas not covered with bottom fish trawling and will serve as input for A 3.3 and D 3.3. In addition, the compiled database on seafloor macrolitter distribution, amount and composition in the northern Baltic Sea regions will serve, in the long run, as a basis for estimating the trends in seafloor litter.

607 / 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 National public authority Competent environmental authorities responsible for ML monitoring in BSR, and subsequent reporting to EU and HELCOM. Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for assessment of the state of national marine reporting units in relation to ML. Region: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden.	The information gained and provided by A 2.2 on seafloor macrolitter monitoring in the Baltic Sea can be used for developing the existing national marine monitoring strategies, e.g. national Programmes of Measures in relation to the EU MSFD, Marine litter plan (in Estonia), the Finnish marine monitoring program etc. 317 / 1,000 characters
Target group 2 Regional public authority Competent regional environmental authorities responsible for ML monitoring in their regions and subsequent reporting to the responsible national administration. Field of responsibility: Collecting data on the presence of ML in different compartments through monitoring of floating litter, seafloor litter and microplastics in mussels. Region: Germany.	The information gained and provided by A2.2 on seafloor macrolitter monitoring in the Baltic Sea can be used for developing the existing national marine monitoring strategies (e.g. national Programmes of Measures in relation to the EU MSFD). 242 / 1,000 characters
Target group 3 International governmental organisation HELCOM Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for the assessment of the state of the Baltic Sea in relation to ML. Region: Contracting Parties to the Helsinki Convention, which are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the EU.	The information gained and provided by A2.2 on seafloor macrolitter monitoring in the Baltic Sea region will be shared with relevant HELCOM expert and working groups (e.g. EG Marine Litter and State & Conservation Working Group). 229 / 1,000 characters

Durability of the output

HELCOM will use the output of A2.2 to further develop the HELCOM monitoring programme on seafloor litter with the support of national governmental authorities and research institutes, thus assisting those HELCOM countries being EU Member States in fulfilling their monitoring requirements under the EU MSFD. If the improved monitoring programme is feasible, countries can apply the video imaging method as part of their national monitoring in the future to fulfil their monitoring requirements.

494 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: Piloting and evaluating solutions						
A.2.2: Piloting the video imaging approach to monitor seafloor litter						
O.2.2: Piloted video imaging approach to monitor seafloor litter						

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 6 - University of Hamburg (UHAM)

A 2.3

5.6.2 Title of the group of activities

Piloting the use of sediment traps and mussel cages for microplastic monitoring

79 / 100 characters

5.6.3 Description of the group of activities

The aim of A2.3 is to pilot methods for monitoring microplastics. The objective is to investigate the pathways and destination of microplastics in marine environments in relation to vectors of introduction, particle size, morphology, polymer type and marine processes. Microplastics in marine sediments, their sedimentation and accumulation processes will be studied using sediment traps (pilot 1) and caging experiments with mussels during the summer season (pilot 2).

Pilots will be carried out in coastal areas in the Gulf of Finland (both northern (Finland) and southern coast (Estonia)) and in the southern Baltic Sea (Germany). Pilot instrumentation is done in parallel at all stations and consists of sediment traps and two mussel cages each. Common protocols on sample selection criteria, field and laboratory protocols developed or adapted within A1.3 will ensure comparability.

Samples are analysed in partner laboratories (sediment samples from traps and seabed at UHAM, microplastic samples of mussels at TalTech, mussel biomarkers at SYKE (Finnish and German samples) and Estonian samples at TalTech), providing harmonisation via dedicated workshops, interlab comparison tests and evaluation of recovery tests.

The laboratory protocol of sample processing and analysis will be transferred to sediment trap and caged mussel samples according to draft guidelines provided by EU MSFD on mussel monitoring and the HELCOM BLUES “Draft protocol on monitoring guidelines for seabed sediments”.

Results from microplastics and biomarker analysis will undergo statistical analysis in order to evaluate results and to draw conclusions on the pilots’ performance and suitability. Microplastics results from sediment traps will also be compared to results from seabed sediments that are currently the target monitoring matrix within the EU MSFD and HELCOM.

Results and experience gained from the pilot tests will be introduced and discussed with the target groups in a dedicated workshop that also implies demonstration and training activities. Pilot solutions will be adjusted accordingly in terms of feasibility, sampling frequencies and protocols in order to transfer the pilots to WP3 and future use in regular monitoring activities.

The planned activities in A2.3 will lead to the finalisation of survey documents and guidelines for a comprehensive support of target groups. The work will be carried out in three separate areas in the Baltic Sea in transnational cooperation to obtain knowledge from varying sites (different microplastic sources, water circulation patterns, exposure, seabed conditions) to allow better understanding of the processes and conditions that should be taken into account when moving into routine monitoring. The transnational setting in close cooperation with target groups is thus of utmost importance to address regional or national differences in monitoring activities, as well as logistic and administrative prerequisites.

2,971 / 3,000 characters

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

O 2.3

Title of the output

Piloted use of sediment traps and mussel cages

46 / 100 characters

Description of the output

Biomonitoring of microplastic contamination is particularly suited to link the concrete pressures on marine habitats with potential biological effects. The use of caged mussels offers the advantage of monitoring through a homogenous set of baseline parameters combined with standardised exposure conditions. Thus, the influence of point-specific habitat conditions (e.g. location relative to the coastline, height above sea level) or individual-specific differences (e.g. size/weight of individuals), which also have an influence on filtration performance and thus on the potential ingestion rate, can be largely minimised.

In parallel, sediment trap data on microplastics provide the opportunity to study time-related sedimentation of microplastics. Analysis of microplastics in seabed sediments is often masked by an uncertainty of local sedimentation rates and the degree of resuspension or bioturbation. It is still unclear to what extent microplastics in seabed sediments can be surveyed in a representative manner and whether valid monitoring data can be collected on the basis of such survey. By means of sediment traps, concrete point-related conclusions can be drawn and these questions can be evaluated in synergy with results from the analysis of seabed sediments.

The focus of this output is on the question to what extent microplastic concentrations in caged mussels behave in correlation to microplastic concentrations in sediment traps and seabed sediments. The objective of the pilot phase is also the assessment of the number and distribution of stations required to get representative data for evaluation of microplastic concentrations and impact. The output consists of a database including its (geo)statistical analysis and an evaluation of the activities carried out. The output will be discussed with the relevant stakeholders and thus also serves to inform them about the requirements and benefits of monitoring via mussel cages and sediment traps.

1,975 / 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 National public authority Competent environmental authorities responsible for ML monitoring in BSR, and subsequent reporting to EU and HELCOM. Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for assessment of the state of national marine reporting units in relation to ML. Region: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden.	Results and experience gained from the pilot tests on sediment traps and mussel cages will be introduced and discussed with the target groups, including definition of relevant stations according to location, exposure, feasibility and (external) influencing factors, preparation of administrative and legislative requirements for monitoring, and planning of resources for long-term monitoring. Pilot solutions will be adjusted accordingly in terms of feasibility, sampling frequencies and protocols in order to transfer the pilots to WP3 and future use in regular monitoring activities. 586 / 1,000 characters
Target group 2 Regional public authority Competent regional environmental authorities responsible for ML monitoring in their regions and subsequent reporting to the responsible national administration. Field of responsibility: Collecting data on the presence of ML in different compartments through monitoring of floating litter, seafloor litter and microplastics in mussels. Region: Germany.	Results and experience gained from the pilot tests on sediment traps and mussel cages will be introduced and discussed with the target groups, including definition of relevant stations according to location, exposure, feasibility and (external) influencing factors, preparation of administrative and legislative requirements for monitoring, and planning of resources for long-term monitoring. Pilot solutions will be adjusted accordingly in terms of feasibility, sampling frequencies and protocols in order to transfer the pilots to WP3 and future use in regular monitoring activities. 586 / 1,000 characters
Target group 3 International governmental organisation HELCOM Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for the assessment of the state of the Baltic Sea in relation to ML. Region: Contracting Parties to the Helsinki Convention, which are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the EU.	The information gained and provided by A2.3 on microplastics monitoring in mussels and in sediments will be shared with relevant HELCOM expert and working groups (e.g. HELCOM EG Marine Litter and State & Conservation Working Group). 233 / 1,000 characters

Durability of the output

The concept and the outcomes from A2.3 are disseminated to national and international working groups and authorities by all partners. This will be done within the regular expert group meetings and via international, national and regional workshops with stakeholders. The O2.3 will contribute to the D3.4 Proposal for HELCOM monitoring guidelines of microplastics in mussels. If the proposal is feasible, countries will apply the protocol to monitor microplastics in mussels as part of their national monitoring in the future, to fulfil their monitoring requirements.

566 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: Piloting and evaluating solutions						
A.2.3: Piloting the use of sediment traps and mussel cages for microplastic monitoring						
O.2.3: Piloted use of sediment traps and mussel cages						

5.6.7 This deliverable/output contains productive or infrastructure investment

☐

Work package 3

5.1 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 3 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

Work package leader 2 Please select

5.4 Work package budget

Work package budget 20%

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	National public authority Competent environmental authorities responsible for ML monitoring in BSR, and subsequent reporting to EU and HELCOM. Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for assessment of the state of national marine reporting units in relation to ML. Region: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden. 498 / 500 characters	The main HELCOM forum to reach out and engage national public authorities will be the HELCOM EG Marine Litter. The group is the forum where all technical discussions related to ML monitoring, assessment and implementation of the HELCOM Regional Action Plan on Marine Litter are held. With over 55 representatives from all HELCOM countries, the expert group will be regularly contacted throughout the implementation of activities in WP3, to gather their input and ensure that the final products are what they need to fulfil their monitoring requirements according to the EU MSFD and the 2021 Action Plan on Marine Litter. In addition, HELCOM will organise the final conference of the project in Helsinki to disseminate all the outputs of the project. 753 / 1,000 characters
2	Regional public authority Competent regional environmental authorities responsible for ML monitoring in their regions and subsequent reporting to the responsible national administration. Field of responsibility: Collecting data on the presence of ML in different compartments through monitoring of floating litter, seafloor litter and microplastics in mussels. Region: Germany. 355 / 500 characters	Regular communication will be established with LUNG. 55 / 1,000 characters
3	International governmental organisation HELCOM Field of responsibility: Collecting data on the presence of ML in different compartments through national monitoring of floating litter, seafloor litter and microplastics in mussels. Subsequent use of this data for the assessment of the state of the Baltic Sea in relation to ML. Region: Contracting Parties to the Helsinki Convention, which are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the EU. 448 / 500 characters	HELCOM is the lead of this WP3, and therefore its involvement is ensured. 74 / 1,000 characters
4	NGO NGOs participating in citizen science initiatives. Field of responsibility: Testing the usability of the mobile application tools in field conditions at sea and giving feedback based on their experiences. Region: Baltic Sea Region. 234 / 500 characters	NGOs such as Friends of the Earth Latvia, Keep the Archipelago Tidy Association, Keep the Estonian Sea Tidy Association, KIMO International, Plastics Europe, Waste Free Ocean, WWF Poland, are active members of the HELCOM EG Marine Litter. Therefore they will be reached out via the expert group. 297 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
3.1	Towards a HELCOM monitoring programme for floating litter
3.2	Proposal for Baltic Sea monitoring guidelines on the impact of marine litter on biota
3.3	Further development of the HELCOM monitoring programme on seafloor litter
3.4	Monitoring strategy of microplastics in mussels

WP 3 Group of activities 3.1

5.6.1 Group of activities leader

Group of activities leader PP 3 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

A 3.1

5.6.2 Title of the group of activities

Towards a HELCOM monitoring programme for floating litter

57 / 100 characters

5.6.3 Description of the group of activities

The HELCOM Monitoring Manual provides a catalogue listing existing marine monitoring carried out in the Baltic and their links to indicators developed to assess progress towards GES. Among the categories contemplated by the Manual, there is one dedicated to litter, which is subdivided according to the different compartments where this pressure is monitored: beach litter, floating litter, litter in biota, seafloor litter and microlitter. The current HELCOM floating litter monitoring programme contains an enumeration of the scarce national monitoring activities recognising the lack of coordination on the monitoring activities on this parameter. Through the experience gained during the pilot phase testing of the mobile reporting tool for marine macrolitter (O 2.1) developed under A 1.1 and A 1.2, and taking into account work on the matter within the EU TG Litter, it will be possible to draft a proposal for a coordinated Baltic Sea monitoring programme for floating litter. Such a proposal will be developed within the project, but to ensure that all expertise available is included in the drafting process, cooperation will be sought with the HELCOM EG Marine Litter. Thus, the content of the draft will be discussed and further elaborated in meetings of the EG, and once this drafting process is concluded, it will be presented to the HELCOM State & Conservation Working Group for further consideration. The drafting process will follow an interactive approach, when meetings as well as e-mail correspondence with relevant Expert Groups and Working Groups will be established as needed. If eventually agreed by Contracting Parties, the proposal will be part of the HELCOM Monitoring Manual.

1,703 / 3,000 characters

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

D 3.1

Title of the deliverable

Proposal for a Baltic Sea monitoring programme for floating litter

66 / 100 characters

Description of the deliverable

A proposal for a coordinated Baltic Sea monitoring programme for floating litter will be drafted. The fact that the monitoring tool proposed (O 1.1) is also tested within the lifetime of the project (O 2.1) will enable a pragmatic approach towards the drafting process and thus the concerns that may arise from the authorities involved in the eventual application of the proposed monitoring programme will be addressed.

420 / 2,000 characters

Which output does this deliverable contribute to?

O 2.1 Piloted use of the mobile application

43 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: Transferring solutions						
A.3.1: Towards a HELCOM monitoring programme for floating litter						
D.3.1: Proposal for a Baltic Sea monitoring programme for floating litter						

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 3 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

A 3.2

5.6.2 Title of the group of activities

Proposal for Baltic Sea monitoring guidelines on the impact of marine litter on biota

85 / 100 characters

5.6.3 Description of the group of activities

A proposal for Baltic Sea monitoring guidelines on the impact of marine litter on biota will be drafted. Such a proposal will use the mobile app as the main tool for reporting on entanglement or other harm of marine biota visually observed. The proposal will provide details on how the mobile app is to be used, how data is to be reported, how it is visualised in the HELCOM Map&Data Service and all required information to ensure a harmonised methodology is applied by users. The drafting process will be conducted in the frame of the project, but in close cooperation with the HELCOM EG Marine Litter to ensure that all expertise available is taken on board.

An online workshop is envisaged to present the proposal for Baltic Sea monitoring guidelines on the impact of marine litter on biota so that end users have the opportunity to familiarise themselves with it, and raise questions and concerns on its implementation. This will enable the fine tuning of the proposal before submission to the State & Conservation Working Group, the HELCOM Working Group addressing monitoring and assessment issues in the HELCOM framework, for consideration.

In addition, the mobile app has the potential to increase awareness on the harm caused by ML, and will be used to promote behavioural change. For this purpose, the mobile app will be shared in social media (e.g. HELCOM YouTube channel, Twitter, LinkedIn) as well as advertised via NGOs to citizens.

1,450 / 3,000 characters

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

D 3.2

Title of the deliverable

Proposal for HELCOM monitoring guidelines on the impact of marine litter on biota

81 / 100 characters

Description of the deliverable

A proposal for coordinated Baltic Sea monitoring guidelines on the impact of marine litter on biota will be drafted. The Guidelines will be a ready-to-use protocol to be used when in the field to collect information, through the monitoring tool proposed (O 2.1) on the impact of ML on biota. It will allow, for the first time in the Baltic Sea, the collection and visualisation of harmonised data on the impact of ML on biota. Agreeing on these guidelines is the first and indispensable step towards a coordinated monitoring programme on impact of ML on biota in the Baltic Sea.

579 / 2,000 characters

Which output does this deliverable contribute to?

O2.1 Piloted use of the mobile application

42 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: Transferring solutions						
A.3.2: Proposal for Baltic Sea monitoring guidelines on the impact of marine litter on biota						
D.3.2: Proposal for HELCOM monitoring guidelines on the impact of marine litter on biota						

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 3 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

A 3.3

5.6.2 Title of the group of activities

Further development of the HELCOM monitoring programme on seafloor litter

74 / 100 characters

5.6.3 Description of the group of activities

The use of video imaging to monitor seafloor litter will enable the coverage of the areas which are not subject to the seafloor litter monitoring connected to fish trawling. The current HELCOM monitoring programme of seafloor litter, which is based on data connected to fish trawling, will be amended to include video imaging. The amending process will be conducted in the frame of the project, but in close cooperation with the HELCOM Expert Group on Marine Litter to ensure that all expertise available is taken on board. This is particularly critical when it comes to the analysis and comparability of data obtained from the two methodologies applied. There, the long experience of the Swedish Environmental Protection Agency and the Ministry of Estonia on registering seafloor data to the ICES DATRAS database will be of utmost importance. Online communication and e-mail exchange will be used to conclude on whether such a comparability of data sources is reasonable.

The proposal for an improved HELCOM monitoring programme of seafloor litter will be presented in an online workshop, so that end users have the opportunity to familiarise themselves with it, and raise questions and concerns on its implementation. This will enable the fine tuning of the proposal before submission to the State & Conservation Working Group, the HELCOM Working Group addressing monitoring and assessment issues in the HELCOM framework, for consideration.

1,444 / 3,000 characters

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

D 3.3

Title of the deliverable

Proposal for an improved HELCOM monitoring programme on seafloor litter

72 / 100 characters

Description of the deliverable

A proposal for an improved HELCOM monitoring programme on seafloor litter will be drafted based on the A 2.2. The coordinated implementation of the amended monitoring programme will provide a holistic view of the status of the seabed in the Baltic Sea in relation to seafloor litter. This information, through the years, will contribute to the evaluation of the effectiveness of the regional and national measures addressing ML within the HELCOM Regional Action Plan on Marine Litter and the national Programmes of Measures. Once this evaluation is conducted, and pending on the results found, the current measures could be further defined to address the most predominant sources of litter.

691 / 2,000 characters

Which output does this deliverable contribute to?

O 2.2 Piloted video imaging approach to monitor seafloor litter

64 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: Transferring solutions						
A.3.3: Further development of the HELCOM monitoring programme on seafloor litter						
D.3.3: Proposal for an improved HELCOM monitoring programme on seafloor litter						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 3 Group of activities 3.4

5.6.1 Group of activities leader

Group of activities leader PP 3 - Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)

A 3.4

5.6.2 Title of the group of activities

Monitoring strategy of microplastics in mussels

48 / 100 characters

5.6.3 Description of the group of activities

The use of mussel cages to monitor microplastics in mussels will enable closing the loop on microplastics monitoring in the Baltic Sea. Currently, proposals for HELCOM monitoring guidelines on microlitter in the water column and in sediments, outputs from Activity 3 of the HELCOM BLUES project, co-funded by the EU, are under consideration. The work envisaged in this activity will not only provide a protocol to monitor microplastics in mussels, but also enable the analysis and comparison of microplastics recorded in sediments with those in mussels.

The drafting of the monitoring guidelines will be conducted in the frame of the project, but in close cooperation with the HELCOM EG Marine Litter to ensure that all expertise available is taken on board. In addition, information on the development of this activity will be shared with EU TG Litter.

Recording of on-site-demonstration both in the field and in the laboratory is envisaged. The recording of these demonstrations will be shared in an online workshop where relevant stakeholders in the Baltic Sea region will be invited to attend. In the workshop, a draft proposal of the monitoring guidelines will be presented, discussed and further developed so that its finalised version is submitted for consideration to the State & Conservation Working Group, the HELCOM Working Group addressing monitoring and assessment issues in the HELCOM framework.

1,414 / 3,000 characters

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

D 3.4

Title of the deliverable

Proposal for HELCOM monitoring guidelines of microplastics in mussels

69 / 100 characters

Description of the deliverable

A proposal for HELCOM monitoring guidelines of microplastics in mussels will be drafted. This proposal will be the first one addressing microplastics in biota in the Baltic Sea. It will specify the sampling and analysis protocols to follow as well as the calculation tools, reporting templates to the selected database e.g. EMODnet or ICES DOME depending on the suggestions made by the project partnership, with the contribution of the HELCOM Expert Group on Marine Litter and in cooperation with EU TG Litter. Furthermore, thanks to the pilot testing conducted in A 2.3, the guidelines will also contain a photo guide so that the identification of microplastics in samples is easier.

685 / 2,000 characters

Which output does this deliverable contribute to?

O 2.3 Piloted use of sediment traps and mussel cages

52 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: Transferring solutions						
A.3.4: Monitoring strategy of microplastics in mussels						
D.3.4: Proposal for HELCOM monitoring guidelines of microplastics in mussels						

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	5	N/A	N/A	**RCR 104 - Solutions taken up or up-scaled by organisations**	3	O2.1: Piloted use of the mobile application The target groups in the partnership which are responsible for planning/organising/implementing or compiling data on ML will benefit from the tailored solutions for collecting data that is currently lacking. Also, the authorities having similar obligations and roles in other Baltic Sea countries will be able to use the already piloted and adjusted methodologies for collecting data in a harmonised way, and contribute to the development of a transnational ML assessment in the Baltic Sea. O2.2: Piloted video imaging approach to monitor seafloor litte The methodological solutions for seafloor litter monitoring provided within O2.2 can be incorporated in the every-day work of institutions (both within and outside the partnership) responsible for these kinds of monitoring activities within their countries. O2.3: Piloted use of sediment traps and mussel cages Target groups in the partnership that are responsible for monitoring activities within their countries will evaluate the integration of biomonitoring of microplastics via caged mussels and sediment trap implementation in their routine monitoring program. The monitoring of microplastics ingested by biota has yet to be established in order to meet MSFD requirements. With the piloted and evaluated approaches a ready to use application will be available for responsible authorities on international, national and regional levels to use. Given a positive evaluation of the pilots on sediment traps for microplastic monitoring it is reasonable to suggest this approach for monitoring on a regional and/or subregional level. Given the heterogeneity of seabed sediments that question their suitability for providing representative data, sediment traps can serve as central reference stations for long-term monitoring e.g. on regional level. 1,863 / 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).
		O.2.1: Piloted use of the mobile application	National and regional authorities: The mobile app will not only allow the collection of data on FMML but also on biota impacted by ML in a harmonised way to be used in the first national compilations of ML from these matrices. HELCOM: The coordinated use of the mobile app at national level will enable the compilation of data at regional level, providing the first overview of the status of floating litter and harm due to ML to marine biota in the region. NGOs: The use of the mobile app by NGOs will not only improve the quality and quantity of data on ML and increase the compilation of this data, but also serve as a tool for raising awareness, which may eventually lead to a behavioural change against the generation and mismanagement of ML. 756 / 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.2.2: Piloted video imaging approach to monitor seafloor litter	National and regional authorities: Countries which currently lack data on the presence of seafloor macrolitter, because benthic fish trawling is not conducted there, will be able to collect such information with the underwater video surveys. The video imaging approach is non-destructive and is also usable in the shallow depths and rough seascape - that also enables widening the survey areas of seafloor macrolitter in the regions where bottom trawling is conducted. HELCOM: The use of video imaging in the areas which are not subject to fish trawling and that therefore lack data on the presence of seafloor litter will enable gathering such data and thus complete the whole picture on the status of this indicator in the Baltic Sea region.

Output indicators		Result indicators		
RCO 116 – Jointly developed solutions Output indicator	Total target value in number 3	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	12	PSR 1 - Organisations with increased institutional capacity due to their participation in cooperation activities across borders	22	Project partners and associated organisations: National authorities (SYKE, MoEE), regional authority (LUNG), intergovernmental organisation (HELCOM) and NGOs (KST, KAT, BirdLife Finland) are actively participating in the project. The participation of the national authorities will ensure that all their national particularities and needs are taken into account during the lifetime of the project. Thus, the final deliverables of the project, proposals for monitoring guidelines and programmes of several ML indicators will be available for them to use. Data collected through their use will allow them to fulfil the regular monitoring reporting required under the EU MSFD and HELCOM. The same would apply to the regional authority, which would need to report at national level. When it comes to the intergovernmental organisation, HELCOM, these ready-to-use proposals will allow HELCOM to fulfil commitments on ML monitoring as specified in the 2021 HELCOM Regional Action Plan on Marine Litter (RAP ML). In addition, the use of these outputs will make it possible to obtain data on the status of the environment of the Baltic Sea, paving the way towards the evaluation of the effectiveness of the measures included in the RAP ML. Finally, NGOs will benefit because they follow the same aim as national and regional authorities:“a healthy Baltic Sea environment with diverse biological components functioning in balance, resulting in a good ecological status and supporting a wide range of sustainable economic and social activities”. 1,494 / 1,500 characters
				Other organisations: In order for a project to succeed, its outputs are to serve the purposes and needs of all, not only of the project partners. This is why, during the lifetime of the project, a close cooperation with relevant experts in different fora (HELCOM EG Marine Litter, EU TG Litter, ICES Working Group on Marine Litter) will be sought to ensure that the monitoring guidelines and programmes proposed can be applied in a coordinated manner producing comparable data available for managers to be used in the definition of measures addressing the most problematic litter sources. 568 / 1,500 characters

7. Budget

7.0 Preparation costs

Preparation Costs

Would you like to apply for reimbursement of the preparation costs?	Yes

Other EU support of preparatory cost

Did you receive any other EU funds specifically designated to the development of this project application?	No

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

No. & role	Partner name	Partner status	CAT0 - Preparation costs	CAT1 - Staff	CAT2 - Office & administration
1 - LP	Kotka Maritime Research Association (KMRA)	Active 22/09/2022	7,000.00	264,222.00	39,633.30
2 - PP	Finnish Environment Institute (SYKE)	Active 22/09/2022	4,000.00	189,750.00	28,462.50
3 - PP	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)	Active 22/09/2022	4,000.00	196,020.00	29,403.00
4 - PP	Tallinn University of Technology (TalTech)	Active 22/09/2022	0.00	139,240.00	20,886.00
5 - PP	University of Tartu (UTART)	Active 22/09/2022	4,000.00	290,000.00	43,500.00
6 - PP	University of Hamburg (UHAM)	Active 22/09/2022	4,000.00	380,880.00	57,132.00
7 - PP	Estonian Ministry of the Environment (MoEE)	Active 22/09/2022	1,000.00	30,000.00	4,500.00
Total			24,000.00	1,490,112.00	223,516.80

No. & role	Partner name	CAT3 - Travel & accommodation	CAT4 - External expertise & services	CAT5 - Equipment	Total partner budget
1 - LP	Kotka Maritime Research	39,633.30	40,500.00	5,000.00	395,988.60
2 - PP	Finnish Environment Instit	28,462.50	26,000.00	36,500.00	313,175.00
3 - PP	Baltic Marine Environmen	29,403.00	0.00	1,500.00	260,326.00
4 - PP	Tallinn University of Tech	20,886.00	8,500.00	37,700.00	227,212.00
5 - PP	University of Tartu (UTAR	43,500.00	20,000.00	31,500.00	432,500.00
6 - PP	University of Hamburg (U	57,132.00	15,522.00	28,866.00	543,532.00
7 - PP	Estonian Ministry of the E	4,500.00	9,500.00	0.00	49,500.00
Total		223,516.80	120,022.00	141,066.00	2,222,233.60

7.1.1 External expertise and services

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value
6. University of Ha	Events/meetings	CAT4-PP6-A-0	Kick-off workshop Hamburg - hosting and catering (48 / 100 characters)	No	1.1 1.2 1.3 2.1 2.2 2.3 3.1 3.2 3.3 3.4	3,900.00
6. University of Ha	Events/meetings	CAT4-PP6-A-0	Participation of the central stakeholders (external participants) in the dedicated workshop (n=2) (97 / 100 characters)	No	2.1 2.3 3.2 3.3	1,748.00
6. University of Ha	Events/meetings	CAT4-PP6-A-0	External participants - onsite training Helsinki (07/2023, 2 stakeholder participants) (86 / 100 characters)	No	3.1 3.2 3.3	2,864.00
6. University of Ha	Other	CAT4-PP6-G-0	Shipping time including staff for deployment, sampling campaigns and recovery (77 / 100 characters)	No	2.3	4,250.00
6. University of Ha	Other	CAT4-PP6-G-0	Transport costs for mussel samples (34 / 100 characters)	No	2.3	2,160.00
6. University of Ha	Other	CAT4-PP6-G-0	Mussel samples from mussel farms (32 / 100 characters)	No	2.3	600.00
5. University of Tart	Events/meetings	CAT4-PP5-A-0	WP2 Joint field training; accomodation & food for participants (62 / 100 characters)	No	2.2	10,000.00
5. University of Tart	Other	CAT4-PP5-G-0	WP2 Joint field training: costs related to travel of external experts (69 / 100 characters)	No	2.2	5,000.00
5. University of Tart	Events/meetings	CAT4-PP5-A-0	WP3 Contibuting to the project partner/stakeholder meeting in Estonia (room rent and catering) (94 / 100 characters)	No	3.1 3.2 3.3 3.4	5,000.00
4. Tallinn University	Events/meetings	CAT4-PP4-A-1	WP3 Contributing to the partner/stakeholder meeting in Estonia (room rent, catering etc) (88 / 100 characters)	No	3.1 3.2 3.3 3.4	5,000.00
	Total					120,022.00

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
4. Tallinn Universitv	Other	CAT4-PP4-G-1	Transportation of samples to Germany 36 / 100 characters	No	2.3	500.00	
4. Tallinn Universitv	Other	CAT4-PP4-G-1	Article publishing 18 / 100 characters	No	3.2	3,000.00	
7. Estonian Ministrv	Communication	CAT4-PP7-C-1	Promotion of the project, its results, publications 51 / 100 characters	No	2.1 2.2 2.3 3.1 3.2 3.3 3.4	1,500.00	
7. Estonian Ministrv	Communication	CAT4-PP7-C-1	Translation of result materials into Estonian; translation of developed app into Estonian 89 / 100 characters	No	2.1 2.2 2.3 3.1 3.2 3.3 3.4	2,000.00	
7. Estonian Ministrv	Communication	CAT4-PP7-C-1	Seminars and meetings for increasing public involvement and results distribution among target groups 100 / 100 characters	No	2.1 2.2 2.3 3.1 3.2 3.3 3.4	6,000.00	
2. Finnish Environm	IT	CAT4-PP2-B-1	Programming work, development of the mobile marine litter monitoring application 80 / 100 characters	No	1.1 2.1	12,000.00	
2. Finnish Environm	Other	CAT4-PP2-G-1	Boat rental and assistance on field. Sedimen trap and mussel cage deployment. 77 / 100 characters	No	2.3	1,500.00	
2. Finnish Environm	Other	CAT4-PP2-G-1	Boat rental and assistance on field. Carrying out underwater marine litter survey pilots. 89 / 100 characters	No	2.2	10,000.00	
2. Finnish Environm	Other	CAT4-PP2-G-1	Transport costs for field samples. 34 / 100 characters	No	2.3 3.3	1,500.00	
	Total					120,022.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
2. Finnish Environm	Other	CAT4-PP2-G-2	Services e.g. coffee for workshops engaging target groups 58 / 100 characters	No	1.3 2.3 3.3	1,000.00	
1. Kotka Maritime	Events/meetings	CAT4-PP1-A-2	Travel costs for external experts and associated organisations in project events 81 / 100 characters	No	2.1 2.2 2.3 3.1 3.2 3.3 3.4	12,000.00	
1. Kotka Maritime	Events/meetings	CAT4-PP1-A-2	Costs for organising workshops and training events 50 / 100 characters	No	2.1 2.2 2.3 3.1 3.2 3.3 3.4	8,000.00	
1. Kotka Maritime	Communication	CAT4-PP1-C-2	Communication and publicity materials for project outreach 58 / 100 characters	No	2.1 2.2 2.3 3.1 3.2 3.3 3.4	6,500.00	
1. Kotka Maritime	Events/meetings	CAT4-PP1-A-2	Contribution to the final conference costs (e.g. online streaming) 66 / 100 characters	No	3.1 3.2 3.3 3.4	10,000.00	
1. Kotka Maritime	Specialist support	CAT4-PP1-E-2	Legal expert services for contracting (partnership agreement) 61 / 100 characters	No	1.1 1.2 1.3 2.1 2.2 2.3 3.1 3.2 3.3 3.4	4,000.00	
	Total					120,022.00	

7.1.2 Equipment

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
3. Baltic Marine Env	IT hardware and soft	CAT5-PP3-B-0	Laptop 6 / 100 characters	No	3.1	1,500.00	
6. University of Ha	Other specific equip	CAT5-PP6-H-0	Sediment trap incl. buoys and fixation (used in pilots and after the project ends) 82 / 100 characters	No	2.3	20,850.00	
6. University of Ha	Other specific equip	CAT5-PP6-H-0	Mussel cages and fixation (used in pilots and after the project ends) 69 / 100 characters	No	2.3	5,360.00	
6. University of Ha	Other specific equip	CAT5-PP6-H-0	Transport costs installation and recovery trap 46 / 100 characters	No	2.3	640.00	
6. University of Ha	Laboratory equipmen	CAT5-PP6-D-0	Chemicals for sediment analyses 31 / 100 characters	No	2.3	1,056.00	
	Total					141,066.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
6. University of Ha	Laboratory equipmen	CAT5-PP6-D-0	Chemicals for mussel analyses 29 / 100 characters	No	2.3	360.00	
6. University of Ha	Laboratory equipmen	CAT5-PP6-D-0	Sample jars and boxes 21 / 100 characters	No	2.3	600.00	
5. University of Tart	Other specific equip	CAT5-PP5-H-0	Professional underwater portable video system (used in pilots and after the project ends) 89 / 100 characters	No	2.2	20,000.00	
5. University of Tart	Office equipment	CAT5-PP5-A-0	Working place equipment (laptop, monitors) 42 / 100 characters	No	1.2	3,000.00	
5. University of Tart	Other specific equip	CAT5-PP5-H-1	Equipment related to diving 27 / 100 characters	No	2.2	2,000.00	
5. University of Tart	Other specific equip	CAT5-PP5-H-1	Underwater drone (used in pilots and after the project ends) 60 / 100 characters	No	2.2	6,000.00	
5. University of Tart	Other specific equip	CAT5-PP5-H-1	Hand-held GPS 13 / 100 characters	No	2.2	500.00	
4. Tallinn University	Other specific equip	CAT5-PP4-H-1	Sediment trap with buoys, fixation (used in pilots and after the project ends) 78 / 100 characters	No	2.3	21,000.00	
4. Tallinn University	Other specific equip	CAT5-PP4-H-1	Mussel cages, fixation (used in pilots and after the project ends) 66 / 100 characters	No	2.3	5,000.00	
4. Tallinn University	Laboratory equipmen	CAT5-PP4-D-1	Consumables for laboratory equipment (chemicals,glassware, filters etc) 71 / 100 characters	No	2.3	9,000.00	
4. Tallinn University	Vehicles	CAT5-PP4-G-1	Car rent and boat fuel cost 27 / 100 characters	No	2.3	2,700.00	
2. Finnish Environm	Machines and instru	CAT5-PP2-E-1	Monitoring of seafloor macrolitter (underwater camera, housing, cables, batteries, control unit). 97 / 100 characters	No	2.2	30,000.00	
	Total					141,066.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
2. Finnish Environm	Machines and instru	CAT5-PP2-E-1	Sediment trap acessories (for motor and battery maintenance) 60 / 100 characters	No	2.3	2,000.00	
2. Finnish Environm	Tools or devices	CAT5-PP2-F-1	Laboratory kit for carrying out biomarker analyses 50 / 100 characters	No	2.3	3,500.00	
2. Finnish Environm	Other specific equip	CAT5-PP2-H-2	Chemicals and reagents for microlitter sample processing (prior to microscopy) 78 / 100 characters	No	3.2	1,000.00	
1. Kotka Maritime	Office equipment	CAT5-PP1-A-2	Computer, phone, head set 25 / 100 characters	No	1.1 1.2 1.3 2.1 2.2 2.3 3.1 3.2 3.3 3.4	5,000.00	
	Total					141,066.00	

7.1.3 Infrastructure and works

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
Please select	Please select	CAT6-PP--01	0 / 100 characters	Please select		0.00	
	Total					0.00	

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	Kotka Maritime Research Association (KMRA)	Active 22/09/2022	FI	ERDF	80.00 %	395,988.60	316,790.88	79,197.72	For each partner, the State aid relevance and applied aid measure are defined in the **State aid section**
2-PP	Finnish Environment Institute (SYKE)	Active 22/09/2022	FI	ERDF	80.00 %	313,175.00	250,540.00	62,635.00	
3-PP	Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)	Active 22/09/2022	FI	ERDF	80.00 %	260,326.00	208,260.80	52,065.20	
4-PP	Tallinn University of Technology (TalTech)	Active 22/09/2022	EE	ERDF	80.00 %	227,212.00	181,769.60	45,442.40	
5-PP	University of Tartu (UTARTU)	Active 22/09/2022	EE	ERDF	80.00 %	432,500.00	346,000.00	86,500.00	
6-PP	University of Hamburg (UHAM)	Active 22/09/2022	DE	ERDF	80.00 %	543,532.00	434,825.60	108,706.40	
7-PP	Estonian Ministry of the Environment (MoEE)	Active 22/09/2022	EE	ERDF	80.00 %	49,500.00	39,600.00	9,900.00	
Total ERDF						2,222,233.60	1,777,786.88	444,446.72	
Total						2,222,233.60	1,777,786.88	444,446.72	

7.3 Spending plan per reporting period

	EU partners (ERDF)		Total	
	Total	Programme co-financing	Total	Programme co-financing
Preparation costs	24,000.00	19,200.00	24,000.00	19,200.00
Period 1	405,244.25	324,195.40	405,244.25	324,195.40
Period 2	324,536.25	259,629.00	324,536.25	259,629.00
Period 3	432,586.90	346,069.52	432,586.90	346,069.52
Period 4	420,809.90	336,647.92	420,809.90	336,647.92
Period 5	303,379.10	242,703.28	303,379.10	242,703.28
Period 6	311,677.20	249,341.76	311,677.20	249,341.76
Total	2,222,233.60	1,777,786.88	2,222,233.60	1,777,786.88