1. Identification

Call	Date of submission
C1	25/04/2022

1.1. Full name of the project

Improving storm water management in cities

42 / 250 characters

1.2. Short name of the project

Geo-Neró

8 / 20 characters

1.3. Programme priority

2. Water-smart societies

1.4. Programme objective

2.1 Sustainable waters

1.6. Project duration

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

1.7. Project summary

The project tackles challenges related to storm water management for climate change mitigation and risk prevention in cities of Baltic Sea Region (BSR). The regions surrounding the Baltic Sea are enriched with special natural features such as lakes, rivers and waterways. Urbanization, accompanied with climate change effects, such as heavy rainfalls, storms, and sudden changes in weather conditions, is causing multiple challenges. For example, higher surface imperviousness ratio compared to catchment area is leading to urban flooding in cities. All cities in BSR share common challenges but not all cities have resources to develop more advanced solutions considering nature-based storm water solutions on their own. There is a need to share best practices and support local communities to adapt new solutions for managing sustainable waters.

This project will conduct four pilots on developing solutions for urban flooding and storm water management in cities around the BSR. Local public authorities will be implementing the pilots in Lahti, Finland (PP2), Siauliai, Lithuania (PP3) and Liepaja, Latvia (PP4). In Lund, Sweden the pilot site is managed by the University. With the expert support from higher education institutions LAB University of Applied Sciences, Finland (PP1) and Lund University, Sweden (PP5) the project consortium will provide comparative analysis of outcomes which can be utilized for solving similar challenges in other cities in the BSR.

1,473 / 1,500 characters

1.8. Summary of the partnership

The Geo-Neró project includes the target group 'local public authorities' from three BSR countries (PP2, Finland, PP3, Lithuania and PP4, Latvia) and 'higher education and research institutions' from two BSR countries (Finland PP1 and Sweden, PP5).

The local public authorities are the City of Lahti, Finland (PP2) and the City of Liepaja, Latvia (PP4) that host areas with challenges related to storm water management and urban water quality management. In addition, the local public authority the City of Siauliai, Lithuania (PP3) shares the same challenge, but is not yet in the pilot building phase. Instead PP3 will during the project prepare for investments through exchange and learning from the other partners in the consortium. Lund University (PP5) has extensive experience in the context of storm water quality management and administers an ongoing pilot in the City of Lund. PP5 brings in expertise through the research and development already done and builds further on it during this project. LAB University of Applied Sciences in Lahti (PP1) has expertise in urban planning and sustainable water management. PP1 and PP5 brings in research and development expertise through involving university students for all the participating regions. The associated organisation, Sweden Water Research, will support the partnership with high-level research and development in sustainable water management.

The compact partnership, including four countries with five partners and one associated organisation, enhances the development of cooperation where solutions are discussed, developed and shared. The interaction enables the partners to achieve a profound understanding of the challenges within each partner location and site specific circumstances as well as legislative and organizational background. Based on the joint understanding the partners are able to discuss and develop adaptable solutions for the pilot cases. The lead partner, PP1, has experience in hosting human resources as well as technical and administrative experience from managing international projects (Interreg, Erasmus, Horizon), and is thus capable of leading the project partnership.

2,171 / 3,000 characters

1.11. Project Budget Summary

Financial resources [in EUR]		Preparation costs	Planned project budget
ERDF	ERDF co-financing	0.00	1,103,082.88
	Own contribution ERDF	0.00	275,770.72
	ERDF budget	0.00	1,378,853.60
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	1,103,082.88
	Total own contribution	0.00	275,770.72
	Total budget	0.00	1,378,853.60

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	LAB University of Applied Sciences	LAB-ammattikorkeakoulu	FI	Higher education and research institution	a)	406,230.00 €	Active	22/09/2022
2	PP	City of Lahti	Lahden kaupunki	FI	Local public authority	a)	201,144.00 €	Active	22/09/2022
3	PP	Siauliai City Municipality Administration	Šiaulių miesto savivaldybės administracija	LT	Local public authority	a)	161,362.00 €	Active	22/09/2022
4	PP	Liepaja city municipality administration	Liepājas pilsētas pašvaldības administrācija	LV	Local public authority	a)	286,347.20 €	Active	22/09/2022
5	PP	Lund University	Lunds universitet	SE	Higher education and research institution	a)	323,770.40 €	Active	22/09/2022

2.1.2 Associated Organisations

No.	Organisation (English)	Organisation (Original)	Country	Type of Partner
AO 1	Sweden Water Research	Sweden Water Research AB	SE	Infrastructure and public service provider

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 LAB-ammattikorkeakoulu

22 / 250 characters

Organisation in English LAB University of Applied Sciences

34 / 250 characters

Department in original language Teknologia

11 / 250 characters

Department in English Technology

10 / 250 characters

Partner location and website:

Address Mukkulankatu 19

15 / 250 characters

Country Finland

Postal Code	15101 (5 / 250 characters)	**NUTS1 code**	Manner-Suomi
Town	Lahti (5 / 250 characters)	**NUTS2 code**	Etelä-Suomi
Website	www.lab.fi (10 / 100 characters)	**NUTS3 code**	Päijät-Häme

Partner ID:

Organisation ID type	Business Identity Code (Y-tunnus)
Organisation ID	2630644-6
VAT Number Format	FI + 8 digits
VAT Number	**N/A** ☐ FI26306446 (10 / 50 characters)
PIC	(0 / 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:

LAB University of Applied Sciences is the lead partner (PP1) of the project. PP1 is a higher education institution, which operates in the cities of Lahti and Lappeenranta. According to Finnish legislation, the role of Universities of Applied Sciences' is to promote regional development. PP1 is working in close cooperation with PP2 (City of Lahti). PP1 has the administrative capacity and previous project management experience to lead the project. PP1 provides strong competence of managing RDI projects in regional, national and transnational levels. The volume of the RDI is 9,7 M€/a (2021).

Master and Bachelor education in environmental technology and urban planning contain climate change adaptation and mitigation, water protection, storm water management and planning of nature-based solutions. These topics have been subjects of course works as well as thesis dissertations in both levels.

901 / 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 2

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

Partner name:

Organisation in original language	Lahden kaupunki (15 / 250 characters)
Organisation in English	City of Lahti (13 / 250 characters)
Department in original language	Kaupunkiympäristön palvelualue / Ympäristöpalvelut (51 / 250 characters)
Department in English	Urban environment service area / Environmental services (55 / 250 characters)

Partner location and website:

Address	Harjukatu 31 (12 / 250 characters)	**Country**	Finland
Postal Code	15100 (5 / 250 characters)	**NUTS1 code**	Manner-Suomi
Town	Lahti (5 / 250 characters)	**NUTS2 code**	Etelä-Suomi
Website	www.lahti.fi (12 / 100 characters)	**NUTS3 code**	Päijät-Häme

Partner ID:

Organisation ID type	Business Identity Code (Y-tunnus)
Organisation ID	0149669-3
VAT Number Format	FI + 8 digits
VAT Number	**N/A** ☐ FI01496693 (10 / 50 characters)
PIC	93986239 (9 / 9 characters)

Partner type:

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

Partner financial data:

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

Role of the partner organisation in this project:

City of Lahti joined this project application in order to tackle the problem with urban flooding and at the same time share the practices as European Green Capital 2021. City of Lahti has earlier experience of building succesful stormwater management arrangements inside the urban area. The city organisation is responsible for the planning, documentation & construction of the proposed storm water management pilot site located in the city. The city will also participate in joint development and sharing best practices as outlined in the project proposal. Particularly, this project partner will be leading in groups of activity 1.2 and 1.3.

643 / 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	Šiaulių miesto savivaldybės administracija (42 / 250 characters)
Organisation in English	Siauliai City Municipality Administration (41 / 250 characters)
Department in original language	Projektų valdymo skyrius (24 / 250 characters)
Department in English	Project Management Department (30 / 250 characters)

Partner location and website:

Address	Vasario 16-osios st. 62 (23 / 250 characters)	**Country**	Lithuania
Postal Code	76295 (5 / 250 characters)	**NUTS1 code**	Lietuva
Town	Siauliai (8 / 250 characters)	**NUTS2 code**	Vidurio ir vakarų Lietuvos regionas
Website	www.siauliai.lt (15 / 100 characters)	**NUTS3 code**	Šiaulių apskritis

Partner ID:

Organisation ID type	Legal person's code (Juridinio asmens kodas)
Organisation ID	188771865
VAT Number Format	Please select
VAT Number	N/A ☑ (0 / 50 characters)
PIC	(0 / 9 characters)

Partner type:

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

Partner financial data:

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

Role of the partner organisation in this project:

Siauliai City is participating as a project partner whose goal is to prepare for and to pilot the surface water management related technical documentation preparation for some specifically identified urban territories with innovative approach undertaken from the partnership. Siauliai City will take leading responsibility for the group of activities 3.2 in the work plan. In addition Siauliai City will benefit from learning from experience of partners who has piloting projects going on. The benefit will come from participating in all groups of activities planned for this project.

584 / 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 Liepājas pilsētas pašvaldības administrācija

44 / 250 characters

Organisation in English Liepaja city municipality administration

40 / 250 characters

Department in original language Attīstības pārvalde

19 / 250 characters

Department in English Development department

22 / 250 characters

Partner location and website:

Address Rozu iela 6

11 / 250 characters

Postal Code 3401

4 / 250 characters

Town Liepaja

7 / 250 characters

Website www.liepaja.lv/en

17 / 100 characters

Country Latvia

NUTS1 code Latvija

NUTS2 code Latvija

NUTS3 code Kurzeme

Partner ID:

Organisation ID type	Unified registration number (Vienotais reģistrācijas numurs)
Organisation ID	90000063185
VAT Number Format	LV + 11 digits
VAT Number	N/A ☐ LV90000063185 (13 / 50 characters)
PIC	(0 / 9 characters)

Partner type:

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

Partner financial data:

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

Role of the partner organisation in this project:

Liepaja city municipality is a project partner involved in all groups of activities with taking on leading role in groups of activities 1.1. and 2.2. of the work plan. The city will conduct a pilot on introducing innovative approach to the reconstruction of an urban street with focus on integrating sustainable storm water management solutions. Liepaja will benefit from learning from experience of partners with more developed expertise on storm water solutions as well as share knowledge on pilot preparations.

513 / 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 5

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

Partner name:

Organisation in original language	Lunds universitet (17 / 250 characters)
Organisation in English	Lund University (15 / 250 characters)
Department in original language	Institutionen för Kemiteknik, Lunds tekniska högskola (LTH) (59 / 250 characters)
Department in English	Department of Chemical Engineering, Faculty of Engineering (LTH) (64 / 250 characters)

Partner location and website:

Address	Lund University, Department of Chemical Engineering, Box 124 (60 / 250 characters)	**Country**	Sweden
Postal Code	22100 (5 / 250 characters)	**NUTS1 code**	Södra Sverige
Town	Lund (4 / 250 characters)	**NUTS2 code**	Sydsverige
Website	www.lunduniversity.lu.se (24 / 100 characters)	**NUTS3 code**	Skåne län

Partner ID:

Organisation ID type	Organisation number (Organisationsnummer)
Organisation ID	202100-3211
VAT Number Format	SE + 12 digits
VAT Number	**N/A** ☐ SE202100321101 (14 / 50 characters)
PIC	(0 / 9 characters)

Partner type:

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

Partner financial data:

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

Role of the partner organisation in this project:

Lund University will conduct research project using a pilot set-up in the city of Lund, Sweden, to demonstrate the benefits and the efficiency of storm water ponds with respect to the treatment of urban runoff. The pilot set-up consisting of a pond and membrane unit will include field measurements, systematic samplings, and assessment of water quality. Moreover, partners in Lund University will combine hydrodynamic modelling with computational flow dynamics (CFD) to illustrate how the treatment capacity of a storm water pond in urban environment is affected by different rainfall intensities (including extreme events). This pilot project in Lund will provide essential knowledge on how storm water ponds as nature-based solutions contribute to improved runoff quality and how they are impacted by climate change. The partner will be responsible for execution of WP 2 of the work plan and in addition, will be having leading role in 3.1. group.

952 / 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

2.3 Associated Organisation Details - AO 1

Associated organisation name and type:

Organisation in original language: Sweden Water Research AB (24 / 250 characters)

Organisation in English: Sweden Water Research (21 / 250 characters)

Department in original language: Föroreningar i vattenmiljön (27 / 250 characters)

Department in English: Pollutants in the water environment (35 / 250 characters)

Legal status: a) Public

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

Associated organisation location and website:

Address: Ideon Science Park, Scheelevägen 15 (35 / 250 characters)

Country: Sweden

Postal Code: SE-223 70 (9 / 250 characters)

Town: Lund (4 / 250 characters)

Website: www.swedenwaterresearch.se/en/ (30 / 100 characters)

Role of the associated organisation in this project:

Sweden Water Research is a company owned and funded by water utility companies VA SYD, NSVA and Sydvatten to conduct world leading research and development in sustainable water management. Sweden Water Research is the lead manager of REWAISE project in Sweden. Geo-Nero pilot in Lund will be planned and implemented in collaboration with REWAISE-project. Sweden Water Research will have a supportive role in the whole Geo-Nero, with focus on Group of activity 1.3 and Group of activities 2.1 & 2.3. Through collaboration with Sweden Water Research and REWAISE, the Geo-Nero pilot in Lund will have access not only to REWAISE lessons, but also contact with a broader network of stakeholders will be maintained. Sweden Water Research will contribute to pilot preparations in coordination with REWAISE to achieve added value and synergy in both projects.

851 / 1,000 characters

3. Relevance

3.1 Context and challenge

The project tackles challenges and improves solutions related to urban flooding and storm water treatment and quality management for climate change mitigation, adaptation and risk prevention. The regions surrounding the Baltic Sea are enriched with waterbodies such as lakes and rivers as well as other water courses. With the increasing urbanization, these areas share common grounds for vulnerabilities because of land-use changes, soil-compaction, chemicals dispersed through run-off from urban areas towards the natural water bodies, eventually leading to pollution of the Baltic Sea.

Given the challenges facing the EU in achieving a green path, there is growing financial support and capacity to tackle negative climate change, but there is often a lack of technical capacity to implement appropriate solutions. Sustainable stormwater management is one of them. Traditional rainwater drainage systems are unsustainable, and a new approach is required. In addition, promoting national regulations for sustainable urban water management is needed.

Moreover, a common platform for expertise sharing for improvement of water management practices amongst the areas of the Baltic region needs to be developed through an inclusive approach including community and the environmental protection bodies. This project aims to install pilot projects in sites with high vulnerability in BSR to prevent future flood damage, control erosion and support effective urban stormwater management as a long-term solution. In addition, the project aims to provide mutual support to the partnering countries for expertise, best practices and results sharing for optimum outcome of the piloting actions.

1,690 / 2,000 characters

3.2 Transnational value of the project

Sustainable environmental management, tackling urban flooding and storm water management are shared challenges in the cities participating in the project. At the same time these are joint challenges in the whole BSR. Cities are facing similar problems of reduced catchment areas leading to urban flooding from time to time. With the rising threat of climate change, flows are expected to increase alarmingly in the upcoming years. A shared challenge enables regions to search for synergies in finding future solutions. The project supports transnational sharing and development of expertise and innovations.

Through the interregional exchange, the project shares expertise of the universities and cities in developing solutions for the local pilot sites. The pilots have been gathered to enable a variety of sites tackling the same challenge from different perspectives. Through the project and implementing pilots, the partners will increase their capacity in facing similar upcoming challenges in their regions.

Synergies between different pilot areas are supported to help the development of future oriented and sustainable storm water management solutions. The expertise of the universities participating in the project will be utilized in all pilot sites. The example of the pilot site and expertise of the Lund University boost the other cities with research knowledge. While city of Lahti is moving from quantity to quality aspects in storm water management Lund university provides important knowledge of storm water quality and different treatment methods. Knowledge-sharing also supports Liepaja to build modern storm water solutions as a part of their Street Reconstruction Programme. On the other hand, Siauliai city can share own experience and know-how in developing a planning document in which the storm water management related problems are solved in a holistic way. All the partners benefit from the co-operation based on their different situation.

1,972 / 2,000 characters

3.3 Target groups

Target group	Sector and geographical coverage	Its role and needs
Local public authority	Represented in the partnership by: City of Lahti, Finland (PP2), City of Siauliai, Lithuania (PP3, City of Liepaja, Latvia (PP4). Field of responsibility: City Municipality Administrations, Environmental Services Departments, Water Utility Sectors and Urban Planning Departments within municipalities. 302 / 500 characters	Local public authorities have the executive power to develop and implement urban flooding and storm water management solutions. They are working with drainage network, sustainable water management, strategic planning, and climate action groups which are all relevant actors for this project. Also urban planning sector is included because their need to prepare suitable type of instructions in planning documents to consider storm water management. To tackle the challenges, authorities need quality data and shared information about the different storm water management techniques to develop effective, long-term run-off management strategies. Positive synergies can be created with co-operation together with other target groups, such as interest groups and higher educational institutes. 791 / 1,000 characters

Target group	Sector and geographical coverage	Its role and needs
Higher education and research instituti	Represented in the partnership by: LAB University of Applied Sciences (PP1) and Lund University (PP5). Field of responsibility: Faculty of Technology / Degree programmes in urban sustainability and environmental technology in LAB University of Applied Sciences and the Department of Chemical Engineering at Lund University. 325 / 500 characters	LAB provides research, development and training expertise related to urban planning and storm water management. In addition, experience in project management and communication can be utilized. Lund University (LU) provides expertise on monitoring, modeling, evaluation, and optimization of blue-green stormwater systems as measures within the concept of nature-based solutions in urban drainage. In addition, run-off water quality related treatment methods are supported and competencies including rainfall-runoff modeling and CFD modeling are provided. By sharing knowledge and expertise, the education institutions can help to introduce and develop urban water management solutions. By training urban planning and water quality management experts, it is possible to address and solve the vicious problems of urban areas related to climate change. In order to tackle the challenges and implement solutions LAB and LU needs co-operation with public authorities and interest groups. 982 / 1,000 characters
Interest group	Field of responsibility: citizens and residents associations of the municipalities. Representatives come from all partner regions. 130 / 500 characters	To develop sustainable and long-term management strategy of urban water engagement with local actors and communities is essential. City residents will be actively included in the project implementation. For example, during the phase of preparation of technical documentation public consultations will be organized. Cooperation with interest groups will lead to developing and adopting environmentally friendly practices and increases the public acceptance of storm water management measures. The developed solutions, in the long-term perspective, shall contribute to the improvement of the daily life quality in cities. To adopt sustainable attitudes and practices education and guidance provided by local authorities and educational institutes is needed. 756 / 1,000 characters

3.4 Project objective

Your project objective should contribute to:

Sustainable waters

The main objective of the project is to increase knowledge and improve solutions related to urban flooding and storm water management in the participating cities of BSR. Urbanization, pollutants and litter from nonpoint sources and climate change are causing multiple challenges for managing the runoff waters. High surface imperviousness ratio of cities combined with increasing extreme weather conditions promotes urban flooding. In addition, many important water-related ecosystem services in urban areas are endangered.

When supporting transnational co-operation between cities tackling similar challenges and enabling a common platform to develop and share best practices of storm water management between stakeholders the project will contribute to achieving more sustainable water management in the BSR. This will have a positive effect on the Baltic Sea in the long run.

Through preparing different solutions for the joint challenge of urban flooding and storm water management the partners are able to develop and share expertise and best practices. Supported by the higher education and research institutions the partners jointly develop the best understanding to plan, implement, evaluate, adjust and follow up the pilots in the cities with the local public authorities. During the implementation phase and at the end of it, the partners contribute to wider regional transfer with the interest groups and transnational transfer on BSR and EU level in order to increase joint knowledge in storm water management for the all target groups involved.

The project also aim to increase public debate, information sharing and multidisciplinary cooperation between decision-makers and experts developing new solutions. By helping the target groups to meet their needs, the project will develop solutions related to run-off water management. The project will actively support to transfer solutions developed in this project for cities facing similar challenges in the BSR.

1,979 / 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 Nutri

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

In this project, measures that reduce nutrient discharges to the Baltic Sea are supported involving different target groups to tackle challenges related to urban water management. Development of innovative solutions is supported by cross-sectoral and transnational knowledge-sharing and discussion. In the work packages, different activities, such as data collection, piloting different storm water management solutions and water quality monitoring are taken. Cooperation between different target groups, such as citizens and higher educational institutes will raise awareness on the importance of storm water management in improving the state of the Baltic Sea. This co-operation also has the potential to affect residents' behavior and increase general acceptance of different storm water management measures. The results and the best practices are shared in different workshops hosted by partnering countries. In addition, a shared platform is formed during the project. As a result of executive power, the participation of national and local authorities in the project will enable more effective measures to be taken to improve the state of the Baltic Sea. Developing guidelines for the integration of sustainable rainwater management measures in the implementation of urban planning will help to develop regulatory framework. All these above-mentioned actions are consistent with Action 2 in PA Nutri.

1,406 / 1,500 characters

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

PA Hazards
This project aims to identify and develop practical measures to improve urban storm water quality and prevent urban flooding. This is done by piloting and sharing information and experiences of best practices transnationally. Improved run-off water quality on pilot sites will decrease the loads of hazardous substances ending up to the Baltic Sea from urban environment. In addition, water quality is being tested before and after the natural water management procedures, such as retention ponds. This will help to assess the effects of such procedures on the storm water quality ending up to the Baltic Sea. Encouraging the implementation of sustainable water management strategies as a mandatory part of urban planning, regulatory measures to prevent hazardous substances ending up to the Baltic Sea is promoted. All these above-mentioned actions are in line with Action 1, PA Hazards.

900 / 1,500 characters

3.6 Other political and strategic background of the project

Strategic documents
EU Green Deal: By developing urban water management strategies for cities in the BSR, this project will help implement the Green Deal actions for the environment and oceans. The project contributes to the priorities of the Green Deal including protecting biodiversity and ecosystems, reducing water pollution and ensuring the sustainability of blue economy and fisheries sector.
379 / 500 characters
HELCOM Baltic Sea Action Plan: Urban run-off is a diffuse source of nutrients, hazardous substances and litter. Storm water management and flood prevention decreases the waterborne loads of these substances to the Baltic Sea. By developing the run-off water management in cities, the project supports eutrophication and hazardous substances goals of BSAP. Also, proper urban water management increases the resilience of the marine ecosystems and helps to meet the biodiversity goal of BSAP.
493 / 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

Full name of the project	Funding Source	Use of the project outcomes and/or planned cooperation
REsilient WAter Innovation for Smart Economy (REWAISE) 54 / 200 characters	Horizon 2020 12 / 200 characters	In 2019, Lund University (PP5), VA SYD, City of Malmö, Sweden Water Research and others were granted a Horizon 2020 project, REsilient WAter Innovation for Smart Economy (REWAISE), through which ultrafiltration of storm water with membrane technology is being investigated to reduce drinking water consumption by providing an alternative water source for non-potable purposes. This application, as a sister project to REWAISE, addresses a complementary pilot project focusing on the demonstration of the treatment capacity of nature-based solutions, namely storm water ponds, using the same pond at which REWAISE has its membrane pilot plant. PP% will share the expertise of the REWAISE project with the Geo-Nero partnership. 725 / 1,000 characters
Protecting Baltic Sea from untreated wastewater spillages during flood events in urban areas (NOAH) 99 / 200 characters	INTERREG Baltic Sea Region Programme 2014-2020 46 / 200 characters	The project implemented in 2019-2021 improved spatial planning and the operation of urban storm water runoff and drainage systems in order to reduce pollution caused by extreme weather such as heavy rains and floods. The City of Liepaja (PP4) will share the outcomes of NOAH and further build on the knowledge in order to share how the project supported creation of a concept for holistic planning and implementation of smart drainage systems in real urban environments. Holistic planning aimed to combine stormwater management with spatial planning. 551 / 1,000 characters
Interactive Water Management (IWAMA) 37 / 200 characters	INTERREG Baltic Sea Region Programme 2014-2020 46 / 200 characters	The project implemented in 2016-2019 aimed at improving wastewater management in the BSR by developing the capacity of the wastewater treatment operators and implementing pilot investments to increase the energy efficiency and advance the sludge handling. IWAMA defined storm water management as one of the most challenging streams related to developing wastewater management. In Geo-Nero PP1 (partner in IWAMA) will share and build on the capacity development and expertise gathered in IWAMA related to storm water management. And in addition, further implement the experiences of storm water management in university education. 629 / 1,000 characters
Master in Urban Climate and Sustainability (MUrCS) 50 / 200 characters	Erasmus+ funded by the European Union 37 / 200 characters	The project provides a multidisciplinary two year Master programme lead by Glasgow Caledonian University (UK) with partner universities University of Huelva (ES), LAB University of Applied Sciences (FI) and HTW Dresden (DE). The project has been implemented first in 2018-2022 and the new funding period will last until 2026. The programme provides education in three main streams, science, planning and management and supports the international students to gain skills to orientate in the leadership and management of sustainable urban transitions impacted of climate change in cities. MUrCS programme is managed in cooperation of all the partners and supported by a network of academic associated partners and industrial and organisational partners. The students concentrate on their Master dissertation during the last semester of their studies and supervised by two staff members from different partner organisations. 922 / 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 10%

4.1 Project management

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

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

The project will be supported by a steering group with representatives from each partner country from partner cities and universities. The steering group meetings will take place during the opening meeting and the site visits planned in the project. The steering committee of the project will include at least one member from each partner organisation and will handle all practical issues during the project.

411 / 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.

PP1 has the administrative capacity and experience to manage transnational projects. LAB (PP1) is a part of the LUT Group, with Lappeenranta-Lahti University of Technology LUT acting as the head organisation. The financial management of the RDI projects are carried out by project services at Lappeenranta-Lahti University of Technology LUT.

341 / 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.

The communication plan is included in WP1 (group of action 1.4) and it will be prepared in the beginning of the project. PP1 will together with the other partners manage the project website which will work as the main communication channel with the assistance of various social media channels. The final seminar will be advertised through different channels to gather the relevant target groups.

397 / 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	Plan of Action
1.2	Workshops on exchange of expertise for preparing pilots
1.3	Preparing piloting and construction
1.4	Communication plan

Number	Work Package Name
2	WP2 Piloting and evaluating solutions

Number	Group of Activity Name
2.1	Implementing the pilots
2.2	Workshops on exchange of expertise in implementing pilots
2.3	Evaluation of solutions, capacity building

Number	Work Package Name
3	WP3 Transferring solutions

Number	Group of Activity Name
3.1	Workshops on exchange of expertise in monitoring results and future development
3.2	Support in strategy development for long-term management of pilot project sites
3.3	Sharing expertise and best practices with a wider public

Work plan overview

Period:	1	2	3	4	5	6	Leader
WP.1: WP1 Preparing solutions							**PP1**
A.1.1: Plan of Action D.1.1: Joint guidelines for preparing solutions for urban flooding and storm water management		D					PP4
A.1.2: Workshops on exchange of expertise for preparing pilots D.1.2: Joint presentation of preparations for implementation of the pilots	D	D					PP2
A.1.3: Preparing piloting and construction D.1.3: Plans of solutions		D					PP2
A.1.4: Communication plan D.1.4: Communication plan	D						PP1
WP.2: WP2 Piloting and evaluating solutions							**PP5**
A.2.1: Implementing the pilots O.2.1: Implemented pilots improving the storm water management in cities				O			PP5
A.2.2: Workshops on exchange of expertise in implementing pilots D.2.2: Presentation of each pilot			D	D			PP4
A.2.3: Evaluation of solutions, capacity building D.2.3: Studies on evaluation of solutions				D			PP1
WP.3: WP3 Transferring solutions							**PP1**
A.3.1: Workshops on exchange of expertise in monitoring results and future development D.3.1: Exchange of expertise					D	D	PP5
A.3.2: Support in strategy development for long-term management of pilot project sites D.3.2: Development of long-term management strategies						D	PP3
A.3.3: Sharing expertise and best practices with a wider public D.3.3: Different types of publications	D	D	D	D	D	D	PP1

Outputs and deliverables overview

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

D 1.1	Joint guidelines for preparing solutions for urban flooding and storm water management	This deliverable contains joint guidelines for preparing sustainable solutions for storm water management in urban environments. The purpose of these guidelines is to create common instructions for partners on central issues to take into account when preparing and developing storm water related solutions in their pilot areas. The joint guidelines help the cities to offer knowledge and technical information from different sustainable storm water management methods considering the place specific information of each location. The guidelines are developed so that they can also be utilized in other urban sites around the Baltic Sea. They are implemented practically in WP 2.	O.2.1:Implemented pilots improving the storm water management in cities	
D 1.2	Joint presentation of preparations for implementation of the pilots	The purpose of this deliverable is to introduce the prepared solutions to other partners and report the specification of the plans during the design process. The presentations of the solutions are published on the project webpage. Online publishing increases the transparency of the project and helps to engage different target groups. This deliverable helps to share the expertise and up-to-date knowledge about the solutions and as such further development of the output is possible. The deliverable also supports understanding of the contents of planning processes in which place specific information has to be taken into consideration to achieve the best available solution. Public presentations of solutions can further be utilized in transnational development of urban areas.	O.2.1:Implemented pilots improving the management of urban flooding and storm water in cities	
D 1.3	Plans of solutions	Detailed implementation plans including material-, technical and nature-based specifications will be produced for each piloted solution, enabling replicability within other locations when there are similar circumstances available. The plans will also include descriptions and guidelines necessary for replicating the solutions considering local conditions such as catchment area features and soil characteristics. Plans related to post-construction maintenance requirements, timetables and other practical information will also be produced to ensure that adequate performance is achieved in the long term. The plans will be supported by the universities (PP1, PP5) through thesis works which can have different approaches to the pilot cases and their planning processes. Planning is a necessary preliminary step to implementing pilot solutions, that is the output of this project. In addition, detailed plans help to implement transnationally scalable solutions in the BSR.	O.2.1:Implemented pilots improving the storm water management in cities	
D 1.4	Communication plan	The deliverable of this group of activity is a communication plan (document) including activities, channels, time frame, target groups (described in detail in section 3.3) and responsibilities of each partner. The partners will prepare the plan together and agree to follow the joint plan. The communication plan sets the goals for both internal and external communication. With the help of the plan, it is possible to communicate effectively about the challenges identified and achievements and solutions developed during the project. The use of the communication plan during the project will create a coherent line of communication between the different partners helping to reach the output and leads to an effective dissemination of the piloted solutions also transnationally. The plan will be updated during the project implementation if needed. All the partners have responsibilities to produce different kind of publications.	O.2.1:Implemented pilots improving the urban flooding and storm water quality management in cities	
O 2.1	Implemented pilots improving the storm water management in cities	The pilots are implemented in four regions. The purpose of these pilots is to adapt different storm water treatment methods to develop sustainable storm water and flooding management solutions for urban areas. The pilot implementations are tested and evaluated by different methods in site. The common challenge in urban areas, and also in all pilot case areas, is the significant amount of impervious surfaces which is causing the increased amount of storm water due to the so called sealed surfaces, for example areas with asphalt or pavements. This situation leads to the need to storm water treatment with new kind of solutions different from traditional drainage systems. Report on lessons learnt and desired adjustments to the piloted solutions for enhanced operation and increased efficiency are introduced. An overall synthesis of the piloted solutions in the project and presentation of results and conclusions in relation to each other is introduced. Pilot areas and solutions are described and presented in more detailed to different target groups through story map application. These story maps allow for multimedia presentations of pilot sites. In addition, the online platform allows data to be presented in an easily understandable way for different target groups. Co-operation between Nordic and Baltic countries will lead to improved solutions which can be applied transnationally. Transnational implementation of the pilots will promote: 1. the dissemination of research and expertise in the Baltic Sea Region, 2. harmonization of storm water solutions in a sustainable way in the region, 3.development of common guidelines and legislation for storm water management in the BSR.		Yes
D 2.2	Presentation of each pilot	The purpose of this deliverable is to introduce each of the pilots (including needed technical preparations, jointly developed solutions, implementation and evaluation) to other partners and the wider public. The content of this deliverable is the presentations compiled from responsible partners related to each pilot site. This deliverable helps to create a common understanding of the different pilots and as such further develop the output. Based on the presentation of different pilot sites and evaluating the different solutions, information can be utilized in transnational development of urban areas. A joint structure for the pilot presentation is agreed upon, keeping the format clear enough to be utilized by other representatives of the target group both in the participating cities and wider in the BSR.	O.2.1:Implemented pilots improving the storm water management in cities	

D 2.3	Studies on evaluation of solutions	The purpose of this deliverable is to evaluate and adjust the solutions developed in the pilots during this project. The evaluation of solutions related to sustainable storm water management is done through studies including data collection and analysis. At least one study per pilot is published. The research work is planned to be integrated as a part of Bachelor or Master thesis supervised by either LAB University of Applied Sciences (PP1) and MUrCS partner universities or Lund University (PP5). In theses the data and experience gathered from all pilot sites will be utilized. To support the transnational value of the project LAB being a partner organization in EMJMD programme will integrate the theses as a part of the MUrCS (Master in Urban Climate and Sustainability, www.murcs.eu). The studies on evaluation of the solutions will lead to the adjustment and development of the output.	O.2.1:Implemented pilots improving the storm water management in cities	
D 3.1	Exchange of expertise	The content of this deliverable is the documentation of transnational workshops organized by PP5 and PP1. The documentation of workshop organized by PP5 in Lund, includes contributions, reflection on shared experiences and results as well as a synthesis of project outputs. The documentation of the concluding workshop and conference organized bu PP1 in Lahti, includes contributions, reflection on highlights and synthesis of the impacts and prospective outcomes. The purpose of these workshops is to analyze and compare the experiences and results from the pilot cases jointly with different target groups. The purpose of the final conference is to introduce the project experiments and share the results with a larger audience including different stakeholders at the local, regional and national level in all partner countries. To gain a large audience the conference is aimed to organized with some other regional event in the City of Lahti. In addition virtual presentations are included. The joint gathering of different target groups to share their experiences will help to develop and transfer the piloted solutions. Piloted solutions can be transferred both geographically for the municipalities over the BSR and over time for future experts.	O.2.1:Implemented pilots improving the storm water management in cities	
D 3.2	Development of long-term management strategies	The purpose of this deliverable is to ensure that piloted solutions will have long-term benefits over the BSR. To achieve these goals long-term management strategies over the pilot areas are made. These strategies can be developed and adjusted by utilizing scenario thinking. Future scenarios will identify for example the possible environmental and climate changes in the Baltic Sea region based on climate change scenarios by IPCC. The future scenarios will help to prepare for the uncertainties caused by climate change, e.g., and increase the overall resilience of the BSR. This deliverable helps to reach the output described earlier in WP 2 (2.1) by supporting the long-term management of the pilot sites.	O.2.1:Implemented pilots improving the storm water management in cities	
D 3.3	Different types of publications	The content of this deliverable is information sharing and publication of the project activities. The purpose of this deliverable is to disseminate the expertise and best practices of the project to a wider public. Effective external communication concerning the project will facilitate to reach the output by increasing the public awareness of the solutions and creating general understanding and acceptance within different target groups. Active external communication and information sharing equals target groups in the BSR. It will also contribute to reduce the potential knowledge and expertise gap between different countries.	O.2.1:Implemented pilots improving the storm water management in cities	

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 - LAB University of Applied Sciences
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	Local public authority Represented in the partnership by: City of Lahti, Finland (PP2), City of Siauliai, Lithuania (PP3, City of Liepaja, Latvia (PP4). Field of responsibility: City Municipality Administrations, Environmental Services Departments, Water Utility Sectors and Urban Planning Departments within municipalities. 302 / 500 characters	This target group is one core of the project, as the solutions developed together with and will be implemented by local public authorities. The participating local public authorities (PP2, PP3, PP4) are prepared to share their challenges, expertise and ideas for solutions, and to jointly develop the expertise on the matter. In WP1 the main focus is on the cooperation inside the partnership to prepare for the piloting. Through sharing the guidelines developed also other local authorities in the BSR will be able to develop their expertise in storm water management. To reach out the local public authorities two workshops per each work packages is arranged. In the first two workshops arranged by PP1 and PP5, respectively, the aim is to find joint guidelines for the preparation and implementation of the pilots. Public presentations of the solutions presented in the workshops are also published on an online project webpage. 935 / 1,000 characters
2	Higher education and research institution Represented in the partnership by: LAB University of Applied Sciences (PP1) and Lund University (PP5). Field of responsibility: Faculty of Technology / Degree programmes in urban sustainability and environmental technology in LAB University of Applied Sciences and the Department of Chemical Engineering at Lund University. 325 / 500 characters	This is the other core target group of the project, as the universities stand for sharing and developing expertise that is needed to enable better solutions. It is in the interests of this target group to develop better sustainable solutions for the community, and at the same time enable their students to work on real life cases. Cooperation with Sweden Water Research organization will support research and expert work development and information sharing during the project. Active communication between educational institutions and national authorities will be supported during the preparatory phase by arranging workshops, supporting active (scientific) publishing and encouraging a public debate on the importance of sustainable storm water management planning. In addition, students are involved in the project through theses, which supports their professional development. 881 / 1,000 characters
3	Interest group Field of responsibility: citizens and residents associations of the municipalities. Representatives come from all partner regions. 130 / 500 characters	This target group is reached from two perspectives. As part of the municipal zoning process, residents are informed about pilots by the local public authorities. Residents will also be actively included into the project implementation during the phase of preparation as public consultations about technical documentations will be organized by PP3. Information about the preparation of pilots is provided through the public media such as local newspapers and municipal websites. On the other hand to gain public acceptance for pilots engaging residents to the process already in planning phase is important. The engagement will be done by educating residents about the importance of sustainable storm water management in collaboration with higher educational institutes, local authorities and residents 'associations. These actions will include information sharing through local and social media but also through attending information sharing events. 952 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
1.1	**Plan of Action**
1.2	**Workshops on exchange of expertise for preparing pilots**
1.3	**Preparing piloting and construction**
1.4	**Communication plan**

WP 1 Group of activities 1.1

5.6.1 Group of activities leader

Group of activities leader PP 4 - Liepaja city municipality administration

A 1.1

5.6.2 Title of the group of activities

Plan of Action

15 / 100 characters

5.6.3 Description of the group of activities

In this phase the current state and the preparation of the pilots are carried out through presentation of the relevant data. The pilot sites are in different planning phases which enables partners in early phases of their pilots to get support from other partners with more developed pilots and will provide examples of needed data, technical documents, and monitoring actions/programs. Detailed introduction of the pilot sites will address the specific challenges related to each pilot. By doing so, the different pilots are compared to find similarities and differences that are considered while developing solutions. Data from different storm water and urban flooding management solutions will be introduced to explore different technical solutions for those pilot cases which are still in the planning phase. Comparative data collection will be done in collaboration with higher educational institutions (PP1, PP5) e.g., by integrating it as a part of a Master thesis. The above-mentioned information is used to outline the overall picture in different pilot areas. By involving different target groups, research institutes and public authorities, in the data collection phase, the challenges are tackled from different perspectives. Cooperation enables positive synergies, multidisciplinary activities and joint development of solutions. When different competences are represented by the target groups, we'll get the most out of the planning phase. Transnational cooperation support is based on the data collection phase by creating common goals and guidelines for this group of activities right from the beginning.

With the help of data collected and best practices shared, a plan of action is developed with guidelines for the integration of sustainable storm water management measures in the implementation of urban planning. The guidelines enable to jointly define and implement specific solutions for sustainable storm water management, which should be considered by the developers of the technical documentation. The concept of the guidelines supports specific solutions and models for their integration into the technical construction documentation.

The guidelines aim to motivate and provide significant support for the improvement of public infrastructure, water quality, public outdoor space, the regulation of the micro climate, and the improvement of public health and productivity. In order to develop guidelines and piloting of sustainable drainage techniques, such as storm water harvesting or permeable paving, common discussion is needed. This activity group also includes development of sustainable solutions for different locations with specific technical parameters and modelled situations, which can be adapted and transferred to other locations and situations. In addition, definitions of the most significant costs and necessary changes to amend the national legislation are made.

2,917 / 3,000 characters

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

D 1.1

Title of the deliverable

Joint guidelines for preparing solutions for urban flooding and storm water management

86 / 100 characters

Description of the deliverable

This deliverable contains joint guidelines for preparing sustainable solutions for storm water management in urban environments. The purpose of these guidelines is to create common instructions for partners on central issues to take into account when preparing and developing storm water related solutions in their pilot areas. The joint guidelines help the cities to offer knowledge and technical information from different sustainable storm water management methods considering the place specific information of each location. The guidelines are developed so that they can also be utilized in other urban sites around the Baltic Sea. They are implemented practically in WP 2.

679 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the storm water management in cities

71 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.1: Plan of Action						
D.1.1: Joint guidelines for preparing solutions for urban flooding and storm water management						

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 2 - City of Lahti

A 1.2

5.6.2 Title of the group of activities

Workshops on exchange of expertise for preparing pilots

57 / 100 characters

5.6.3 Description of the group of activities

Topic of transnational workshop 1: Start of transnational exchange

The kick-off workshop is arranged by PP1 and PP2 in Lahti, Finland. The partners gather to share the data and discuss the current situation of each pilot. All pilots will be presented and their special challenges shared.

The kick-off workshop will start the transnational sharing of information and improve common understanding about the project content, place specific information, requirements, different roles of participants and stakeholders. In the workshop the aspects of the different target groups will be assessed and a joint understanding of how to proceed to reach the best results for each pilot will be outlined among partners. Target groups are presented in more detail in the application section 3.3.

The kick-off workshop includes a site visit to the pilot area in City of Lahti. The city strategy for storm water management in general and more detailed levels is presented to project participants. During the visit, participants will learn about the area and its special features, challenges and the development work done before in other urban areas in the city. Project partners will have the opportunity to see the area before the actual construction work begins. At the end of the construction phase, a second visit to the area will be made (see WP 3 group activities) and participants will be able to themselves detect and evaluate changes in the area as a result of piloting.

Topic of transnational workshop 2: Deepening the exchange and preparations to start the pilots

The 2nd workshop is organised by PP5 in Lund, Sweden. The workshop includes sharing the further developed stage of each pilot preparation and sharing expertise on current challenges of all pilots. A site visit to the pilot area in Lund is conducted. PP5 will present an existing storm water solution and partners become familiar with run-off water quality measurement and management techniques. The city strategy for storm water management in general and more detailed levels is presented to project participants.

In addition to elaborating the current situation in each visited region, workshops enable sharing expertise and best practices from previous projects.

All partner organizations participate in the workshops actively to share their experience and learn from the previous practises and solutions. If necessary, workshops can also be organized online, or as hybrid events by utilizing e.g. VR technology, to involve the widest possible range of participants.

2,547 / 3,000 characters

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

D 1.2

Title of the deliverable

Joint presentation of preparations for implementation of the pilots

67 / 100 characters

Description of the deliverable

The purpose of this deliverable is to introduce the prepared solutions to other partners and report the specification of the plans during the design process. The presentations of the solutions are published on the project webpage. Online publishing increases the transparency of the project and helps to engage different target groups. This deliverable helps to share the expertise and up-to-date knowledge about the solutions and as such further development of the output is possible. The deliverable also supports understanding of the contents of planning processes in which place specific information has to be taken into consideration to achieve the best available solution. Public presentations of solutions can further be utilized in transnational development of urban areas.

783 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the management of urban flooding and storm water in cities

93 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.2: Workshops on exchange of expertise for preparing pilots						
D.1.2: Joint presentation of preparations for implementation of the pilots						

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 2 - City of Lahti

A 1.3

5.6.2 Title of the group of activities

Preparing piloting and construction

35 / 100 characters

5.6.3 Description of the group of activities

In this group of activities, external planning expertise is utilized and necessary maps and detailed plans for the run-off retention areas are prepared. Technical requirements for storm water solutions are defined and pilot case implementations are designed. Geographical information system based data, digital solutions and storm water specific software are utilized in the design process. External experts are recruited for installing water quality sensors and monitoring water quality in storm water system in Lund, Sweden. In other pilot areas water quality is aimed to be monitored during pilot phase as well. Measurements can be made, for example, as part of thesis reports. Field specialists, who have professional knowledge of leading and planning of urban runoff water management processes are needed for technical documentation. In addition, external contractors are used to construct the pilot areas. The engagement of external experts will take place at this phase.

Guideline preparation (1.3.) support this group of activities, and furthermore, these activities help to prepare the pilot constructions and development of technical documentation and guidelines for sustainable water management (2.1).

Active co-operation with sister projects, such as REsilient WAter Innovation for Smart Economy (REWAISE), and building on expertise and outcomes of previous projects, such as Interactive water management (IWAMA) and NOAH, will substantially decrease pilot preparation time.

1,497 / 3,000 characters

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

D 1.3

Title of the deliverable

Plans of solutions

18 / 100 characters

Description of the deliverable

Detailed implementation plans including material-, technical and nature-based specifications will be produced for each piloted solution, enabling replicability within other locations when there are similar circumstances available. The plans will also include descriptions and guidelines necessary for replicating the solutions considering local conditions such as catchment area features and soil characteristics. Plans related to post-construction maintenance requirements, timetables and other practical information will also be produced to ensure that adequate performance is achieved in the long term. The plans will be supported by the universities (PP1, PP5) through thesis works which can have different approaches to the pilot cases and their planning processes. Planning is a necessary preliminary step to implementing pilot solutions, that is the output of this project. In addition, detailed plans help to implement transnationally scalable solutions in the BSR.

977 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the storm water management in cities

71 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.3: Preparing piloting and construction						
D.1.3: Plans of solutions						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 1 Group of activities 1.4

5.6.1 Group of activities leader

Group of activities leader PP 1 - LAB University of Applied Sciences

A 1.4

5.6.2 Title of the group of activities

Communication plan

18 / 100 characters

5.6.3 Description of the group of activities

To be able to start effective communication from the start of the project, a communication plan including the timeline and responsibilities for each partner will be defined. Also an analysis of how to reach the defined target groups in the best possible way is conducted in the beginning of the project as a part of the plan.

The higher education institutions (PP1 and PP5) will introduce the project content and results to their students. By this the project will reach an important channel to introduce storm water management as part of climate change mitigation and adaptation to new generations and their-based ability to manage storm water challenges in urban areas. Master and Bachelor students, from the different engineering programs will be offered to prepare their Bachelor/Master theses in connection with the project and learn from the project contents. Course works and project results will be integrated in the Urban Storm Water Management course at Lund University (PP5) and Urban ecology and Nature-based Solutions course in Master in Urban Climate and Sustainability (MUrCS) in which LAB University of Applied Sciences (PP1) is one partner university. Scientific, popular scientific and professional publications will facilitate communication with various target groups and stakeholders as well as broader public.

Moreover, communication to a broader public will be done through social media (for example Instagram and LinkedIn), project webpage, blogs and articles in local newspapers as well as in other media. Internal communication to increase the capacity of staff and stakeholders is facilitated and decision makers in the cities in the participating organisations are also included.

The communication plan is an intermediate step aiming to lead to an effective dissemination of the project at the local level of the involved cities and institutions, at regional and national level in each country and transnationally in the BSR.

1,964 / 3,000 characters

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

D 1.4

Title of the deliverable

Communication plan

18 / 100 characters

Description of the deliverable

The deliverable of this group of activity is a communication plan (document) including activities, channels, time frame, target groups (described in detail in section 3.3) and responsibilities of each partner. The partners will prepare the plan together and agree to follow the joint plan.

The communication plan sets the goals for both internal and external communication. With the help of the plan, it is possible to communicate effectively about the challenges identified and achievements and solutions developed during the project. The use of the communication plan during the project will create a coherent line of communication between the different partners helping to reach the output and leads to an effective dissemination of the piloted solutions also transnationally. The plan will be updated during the project implementation if needed. All the partners have responsibilities to produce different kind of publications.

936 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the urban flooding and storm water quality management in cities

98 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.4: Communication plan						
D.1.4: Communication plan						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

Work package 2

5.1 WP2 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 5 - Lund University

Work package leader 2 Please select

5.4 Work package budget

Work package budget 50%

5.4.1 Number of pilots

Number of pilots 4

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Local public authority Represented in the partnership by: City of Lahti, Finland (PP2), City of Siauliai, Lithuania (PP3, City of Liepaja, Latvia (PP4). Field of responsibility: City Municipality Administrations, Environmental Services Departments, Water Utility Sectors and Urban Planning Departments within municipalities. 302 / 500 characters	The participating local public authorities (PP2, PP3, PP4) are implementing and documenting the pilots. In WP2 the main focus is on the piloting and continuous development of the solutions based on evaluation. Through sharing the experiences related to setting up the pilots in practice other local authorities in the BSR will be able to learn concrete examples. In this WP two workshops to share the experiences and to evaluate the solutions are arranged. In addition, scientific, popular scientific and professional publications will be produced by PP1 and PP 5 to support decision-making of the authorities on storm water treatment management related issues. Consultation of residents during the implementation phase is also supported. These measures will support active dialogue between local public authorities and other target groups addressed in this project. 870 / 1,000 characters
2	Higher education and research institution Represented in the partnership by: LAB University of Applied Sciences (PP1) and Lund University (PP5). Field of responsibility: Faculty of Technology / Degree programmes in urban sustainability and environmental technology in LAB University of Applied Sciences and the Department of Chemical Engineering at Lund University. 325 / 500 characters	Research and development work of PP1 and PP5 is supported in this implementation phase of the pilots by enabling the target group to access to municipal information and software resources. Information is also shared to support educational activities and student learning. Knowledge sharing about the pilot construction and evaluation is done by the partners, e.g., via common platform. At this point, the role of internal communication in the project is emphasized. In addition, joint workshops will support the information sharing and evaluating process of the pilots. Sweden Water Research being an associate partner will expand the academic cooperation network. Extensive network of experts together with student collaboration will help the capacity building of piloted solutions. 788 / 1,000 characters
3	Interest group Field of responsibility: citizens and residents associations of the municipalities. Representatives come from all partner regions. 130 / 500 characters	The piloted solutions will lead for the improvement of public infrastructure and living comfort of the residents. In addition, pilot activities enhance to preserve the important ecosystem services in urban areas. To make these benefits of the pilots visible to the public, active communication via social and local media and municipalities and project websites is done. Through these communication activities, commentary channels for residents are also offered during the implementation phase of the pilots. While evaluating the solutions, collection of public feedback and public consultation are aimed to be organised. Through active communication and information sharing about the pilots, residents are engaged to the project activities. The commitment at this stage will continue to serve positively when looking at the long-term effects of the project. 859 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
2.1	**Implementing the pilots**
2.2	**Workshops on exchange of expertise in implementing pilots**
2.3	**Evaluation of solutions, capacity building**

WP 2 Group of activities 2.1

5.6.1 Group of activities leader

Group of activities leader PP 5 - Lund University

A 2.1

5.6.2 Title of the group of activities

Implementing the pilots

25 / 100 characters

5.6.3 Description of the group of activities

Four pilots will be implemented:

The City of Lahti (PP2) will implement a pilot in an industrial site near the city center where problems related to urban flooding, erosion and poor run-off water quality. A storm water basin in Paskurinoja brook will be constructed to increase water retention in the area and to improve the runoff quality.

Lund University (PP5) utilizes an existing storm water pond to pilot the effect of nature-based treatment solution on storm water quality. A membrane filtration unit is already being tested and assessed at the site, treating water from the pond (REWAISE project). In the pilot site prepared and administered by PP5, the inlet and outlet to/from the pond will be equipped with flow meters as well as automatic samplers that take flow proportional samples. Inflow and outflow samples from the pond and membrane pilot will be analyzed for heavy metals, PAHs and suspended solids to understand how the pond functions under different climate circumstances. Thus, the water quality treated by the pond and membrane unit during the same events can be benchmarked. Hydrodynamic modelling is combined with computational flow dynamics to demonstrate how the treatment capacity of a storm water pond in urban environment is affected by different rainfall intensities.

The City of Liepaja (PP4) is carrying out (re)construction works in different sections of Liepaja's streets with integrated sustainable storm water management solutions. In this pilot, one of the most important activities of the reconstruction is being carried out, aiming to introduce a new and innovative approach to the reconstruction of urban streets, completely or partially abandoning traditional storm water drainage solutions. The main goal of the activity is to innovatively pilot and prove that the solutions and methods included in the guidelines (WP1) are applicable and work in practice.

In the City of Sialulilai (PP3) final technical documentation for selected pilot areas is established. This pilot does not include testing in practice but a vital detailed planning phase for the coming development, and important to be supported with transnational expertise. The documents will contain concrete steps to be taken, actions to be done and infrastructure to be installed. Moreover, it will include calculations on investments. This pilot example will in the future serve in the strategic planning process of the city.

Documentation of development processes in pilot sites is documented through photos, videos from different stages of the construction. Preparation for chosen monitoring processes and installation of possible equipment is also documented. Documentation starts when the building of the pilot site is commenced. Also run-off water quality is monitored in different pilot sites. Students from the higher educational institutes (PP1 and PP5) will be involved in water quality monitoring.

2,916 / 3,000 characters

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

O 2.1

Title of the output

Implemented pilots improving the storm water management in cities

65 / 100 characters

Description of the output

The pilots are implemented in four regions. The purpose of these pilots is to adapt different storm water treatment methods to develop sustainable storm water and flooding management solutions for urban areas. The pilot implementations are tested and evaluated by different methods in site. The common challenge in urban areas, and also in all pilot case areas, is the significant amount of impervious surfaces which is causing the increased amount of storm water due to the so called sealed surfaces, for example areas with asphalt or pavements. This situation leads to the need to storm water treatment with new kind of solutions different from traditional drainage systems.

Report on lessons learnt and desired adjustments to the piloted solutions for enhanced operation and increased efficiency are introduced. An overall synthesis of the piloted solutions in the project and presentation of results and conclusions in relation to each other is introduced. Pilot areas and solutions are described and presented in more detailed to different target groups through story map application. These story maps allow for multimedia presentations of pilot sites. In addition, the online platform allows data to be presented in an easily understandable way for different target groups.

Co-operation between Nordic and Baltic countries will lead to improved solutions which can be applied transnationally. Transnational implementation of the pilots will promote: 1. the dissemination of research and expertise in the Baltic Sea Region, 2. harmonization of storm water solutions in a sustainable way in the region, 3.development of common guidelines and legislation for storm water management in the BSR.

1,712 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 Local public authority Represented in the partnership by: City of Lahti, Finland (PP2), City of Siauliai, Lithuania (PP3, City of Liepaja, Latvia (PP4). Field of responsibility: City Municipality Administrations, Environmental Services Departments, Water Utility Sectors and Urban Planning Departments within municipalities.	The local public authorities involved in the project will utilize the project experiences in their daily work (PP2, PP3, PP4 and also indirectly PP5). The experiences of the pilots will be used as examples in the participating cities for further development in other sites. The successful experiences and challenges on implementing the pilots are documented and communicated among the participating cities as well as wider in the BSR region. 441 / 1,000 characters
Target group 2 Higher education and research institution Represented in the partnership by: LAB University of Applied Sciences (PP1) and Lund University (PP5). Field of responsibility: Faculty of Technology / Degree programmes in urban sustainability and environmental technology in LAB University of Applied Sciences and the Department of Chemical Engineering at Lund University.	The higher education and research institutions (HEI) involved in this project (PP1, PP5) will develop the expertise of their students and staff through addressing and solving real-life challenges of the project. To be able to develop high-level education of future experts this kind of projects provide a win-win situation where target groups, as in this case the local public authorities, get supported by the expertise of HEIs staff and students, and the students get real-life cases to solve. The HEI staff members also benefit from cooperation with different cities and other universities and knowledge sharing. 616 / 1,000 characters

Durability of the output

The local authorities involved in the pilots (PP2, PP3, PP4) will host and develop the pilots after the project as the pilots are implemented in urban sites. Lessons learnt will be utilized in future planning of storm water management in the cities. The pilot of PP5 is managed by the university, but also developed in close cooperation with the local authority and will have impact in the future planning of storm water management.

432 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.1: Implementing the pilots						
O.2.1: Implemented pilots improving the storm water management in cities						

5.6.7 This deliverable/output contains productive or infrastructure investment ✔

	Investment no.	I2.1_1

Title
Lahti storm water management pilot site
39 / 100 characters

Description
Infrastructure works related to the implementation of the Lahti storm water management pilot site
97 / 500 characters

Country
Finland

Responsible project partner(s)
PP 1 - LAB University of Applied Sciences
PP 2 - City of Lahti

Justification
The project aims to increase the knowledge base regarding storm water management solutions through the planning and construction of several pilot demonstrations.
161 / 500 characters

Transitional relevance
The knowledge gained during the planning and implementation stage of the Lahti pilot will enable the adaptation of solutions utilizing similar methods or technical solutions in other locations when needed. The planning and evaluation of performance of the pilot will be organized and reported in a way that takes into account potential differences with other geographical locations when adaptation opportunities are evaluated.
428 / 500 characters

Benefits
Increased climate change resilience to the local catchment area is achieved as well as improved quality of storm water discharged into the receiving Paskurinoja brook. Increased knowledge base for project partners via transfer of construction, planning and maintenance know-how and lessons learned during the project. Increased understanding of potential performance of the specific solutions piloted on-site (tbd during the project prior to implementation).
458 / 500 characters

Location
Lahti, Finland (ca. 150 m south of the Patometsänkatu/Ansiokatu crossing)
73 / 250 characters
Päijät-Häme

Location ownership
City of Lahti
13 / 250 characters

Ownership
City of Lahti
13 / 500 characters

Maintenance
City of Lahti
13 / 500 characters

Climate proofing
☑ Ensured ☐ N/A

	Investment no.	I2.1_2

Title
Reconstruction of gravel street section with integrated sustainable drainage techniques
87 / 100 characters

Description
Reconstruction of Pulkveza Brieza street's gravel section, approx. 200 m long, integrating sustainable storm water management solutions guidelines developed in WP1. In this pilot phase of the project, one of the most important activities is being carried out, which aims to introduce a new and innovative approach to the reconstruction of urban streets, completely or partially abandoning traditional storm water drainage solutions used in Latvia - the construction of storm water sewerage networks.
499 / 500 characters

Country
Latvia

Responsible project partner(s)
PP 4 - Liepaja city municipality administration

Justification
The activity needs to be implemented in order to pilot and prove the solutions and methods included in the guidelines that they are also physically applicable in practice and these solutions successfully functionate.
217 / 500 characters

Transitional relevance
Introducing new and sustainable solutions in the urban environment to motivate and provide significant support for the improvement of public infrastructure, water quality, public outdoor space, traffic flow etc. Sharing knowledge between partners on different specific local circumstances. Plans for building storm water management solutions and improving urban runoff water quality are discussed and evaluated among the partners as well as the plan for monitoring the impacts.
478 / 500 characters

Benefits
Reconstruction of this street section of gravel into green and sustainable street would be the first such street in the city of Liepāja, because in Liepāja so far no sustainable storm water management solutions have been used to reduce the risk of flooding. The main goal of the activity is to pilot and prove the solutions and methods included in the guidelines that they are also physically applicable in nature and these solutions successfully functionate.
459 / 500 characters

Location
Pulkveza Brieza street, Liepaja, LV-3414, Latvia
48 / 250 characters
Kurzeme

Location ownership
Liepaja City Municipality
25 / 250 characters

Ownership
Liepaja City Municipality
25 / 500 characters

Maintenance
Liepaja City Municipality
25 / 500 characters

Climate proofing
☑ Ensured ☐ N/A

WP 2 Group of activities 2.2

5.6.1 Group of activities leader

Group of activities leader PP 4 - Liepaja city municipality administration

A 2.2

5.6.2 Title of the group of activities

Workshops on exchange of expertise in implementing pilots

58 / 100 characters

5.6.3 Description of the group of activities

The WP contains two workshops arranged by PP3 in Siauliai, Lithuania and PP4 in Liepaja, Latvia. The main idea of these workshops is to support the piloting actions in partner countries.

Topic of transnational workshop 3: Exchange on implementation of pilots

The first workshop in this WP is organized by PP 3 in Siauliai, Lithuania. It will focus on the pilot implementation in. Partners PP2, PP3, PP4 and PP5 will present the stage of their pilots to each other. The workshop will include field visits to sites related to the project (PP3 partner work does not include a specific building site) or invited high-level expert presentations on the topic.

Topic of transnational workshop 4: Exchange on evaluating solutions of pilots

The second workshop of this WP is organized by PP3 in Liepaja, Latvia. It will focus on sharing experiences, newly discovered challenges and evaluation of developed solutions. The workshop will include a site visit to the pilot site to get to know local circumstances and special features of the pilot. The current stage of the pilots with focus on improving urban runoff water quality are evaluated among the partners, as well as the plan for monitoring the impacts.

If necessary, workshops and site visits can be organized online, on-site or as a hybrid event by utilizing VR technology, for example, to involve the widest possible range of participants. The exchange of expertise in implementing pilots during the workshops will lead to the development of the deliverable.

1,517 / 3,000 characters

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

D 2.2

Title of the deliverable

Presentation of each pilot

27 / 100 characters

Description of the deliverable

The purpose of this deliverable is to introduce each of the pilots (including needed technical preparations, jointly developed solutions, implementation and evaluation) to other partners and the wider public. The content of this deliverable is the presentations compiled from responsible partners related to each pilot site. This deliverable helps to create a common understanding of the different pilots and as such further develop the output. Based on the presentation of different pilot sites and evaluating the different solutions, information can be utilized in transnational development of urban areas. A joint structure for the pilot presentation is agreed upon, keeping the format clear enough to be utilized by other representatives of the target group both in the participating cities and wider in the BSR.

816 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the storm water management in cities

71 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.2: Workshops on exchange of expertise in implementing pilots						
D.2.2: Presentation of each pilot						

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 1 - LAB University of Applied Sciences

A 2.3

5.6.2 Title of the group of activities

Evaluation of solutions, capacity building

43 / 100 characters

5.6.3 Description of the group of activities

When the pilots of storm water management solutions have been implemented the monitoring actions are started and will provide data according to the actions agreed between partners. The data will be processed and analyzed by the partner organizations and external experts, and results will be published on the project webpage and in separate publications. Based on this monitoring, data solutions are jointly evaluated and discussed between the partners. Different partners have expertise in different fields, e.g. water management, urban planning and public administration. The multidisciplinary approach will also serve the different target groups identified in this project and is an important part of the capacity building towards more sustainable storm water management. The evaluation and adjustment of the solution based on quality data collected from the pilot sites will lead to the development of the output.

Connection with higher education will be a significant aspect of the capacity building. The pilot cases serve as learning environments for higher education institutions and also as targets of possible project works and thesis reports. LAB University of Applied Sciences (PP1) is partner organization in Erasmus Mundus Joint Master Degree programme MUrCS (Master in Urban Climate and Sustainability) in which Master thesis projects are planned to be based on the actions and research in this project. The project can be introduced also in the module “Urban Ecology and Nature Based Solutions” lead by HTW Dresden and LAB. In addition, Lund University (PP5) will arrange study visits to the piloted solutions in Lund for students who participate in the advanced course of “Urban Storm Water Management” at the Faculty of Engineering, Lund University. The course is offered to master students in Water Resources Engineering, Civil Engineering and Environmental Engineering students at Lund University. In the medium term, the results and outputs of the project will be integrated into course lectures. Cooperation with higher educational institutes will also transfer solutions and know-how not only transnationally but also intergenerationally for future professionals.

2,190 / 3,000 characters

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

D 2.3

Title of the deliverable

Studies on evaluation of solutions

35 / 100 characters

Description of the deliverable

The purpose of this deliverable is to evaluate and adjust the solutions developed in the pilots during this project. The evaluation of solutions related to sustainable storm water management is done through studies including data collection and analysis. At least one study per pilot is published. The research work is planned to be integrated as a part of Bachelor or Master thesis supervised by either LAB University of Applied Sciences (PP1) and MUrCS partner universities or Lund University (PP5). In theses the data and experience gathered from all pilot sites will be utilized. To support the transnational value of the project LAB being a partner organization in EMJMD programme will integrate the theses as a part of the MUrCS (Master in Urban Climate and Sustainability, www.murcs.eu). The studies on evaluation of the solutions will lead to the adjustment and development of the output.

897 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the storm water management in cities

71 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.3: Evaluation of solutions, capacity building						
D.2.3: Studies on evaluation of solutions						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

Work package 3

5.1 WP3 Transferring solutions

5.2 Aim of the work package

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

5.3 Work package leader

Work package leader 1 PP 1 - LAB University of Applied Sciences

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	Local public authority Represented in the partnership by: City of Lahti, Finland (PP2), City of Siauliai, Lithuania (PP3, City of Liepaja, Latvia (PP4). Field of responsibility: City Municipality Administrations, Environmental Services Departments, Water Utility Sectors and Urban Planning Departments within municipalities. 302 / 500 characters	The participating local public authorities (PP2, PP3, PP4) will utilize the lessons learned and developed in their daily work when preparing other investments for storm water management. Through sharing the expertise gathered in the project other local authorities in the BSR will be able to develop their expertise in storm water management. The engagement of local authorities will be done via a practical guidelines and a guidebook that is prepared by the PP. The guidebook is compiled based on the lessons learned through the partner pilot cases and is designed to support the daily work of municipal authorities. Concluding workshop is also organized to share the best practical advice and easily scalable solutions on sustainable storm water management. Future scenarios related to urban storm water management are publicly presented and can be utilized as such as a part of municipalities long-term storm water management strategies. 942 / 1,000 characters
2	Higher education and research institution Represented in the partnership by: LAB University of Applied Sciences (PP1) and Lund University (PP5). Field of responsibility: Faculty of Technology / Degree programmes in urban sustainability and environmental technology in LAB University of Applied Sciences and the Department of Chemical Engineering at Lund University. 325 / 500 characters	Project implementation is based on open information sharing via common platform and online webpage. The experience and open knowledge gathered during the project can be integrated into the daily teaching of higher educational institutes. Through the theses done during the project, information is also shared with future generations of urban planning experts. In addition, this target group is reached in wider context through workshops organized twice in this WP at the premises of the higher education and research institutions. Thematically these workshops will support the exchange of expertise and future development of the solutions. Open access publications and scientific articles written by PP1 and PP5 and co-operation with Sweden Water Research will help to reach and engage this target group wider outside the project. 832 / 1,000 characters
3	Interest group Field of responsibility: citizens and residents associations of the municipalities. Representatives come from all partner regions. 130 / 500 characters	To ensure public acceptance during the project, piloted solutions will be actively communicated to interest group. This communication will include e.g. public scientific articles, blogs, social media posts and short videos. In these different media, it is possible to present the solutions gained during the project, but also to guide the citizens in daily solutions that promote the management of sustainable storm water solutions. In addition, a practical guidebook will be prepared based on the lessons learned through the partner pilot cases. The idea of the book is to recognize the roles of different stakeholders and impacts of storm water management in urban planning in general. In the final conference, solutions will be communicated to the wider public. 765 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
3.1	**Workshops on exchange of expertise in monitoring results and future development**
3.2	**Support in strategy development for long-term management of pilot project sites**
3.3	**Sharing expertise and best practices with a wider public**

WP 3 Group of activities 3.1

5.6.1 Group of activities leader

Group of activities leader PP 5 - Lund University

A 3.1

5.6.2 Title of the group of activities

Workshops on exchange of expertise in monitoring results and future development

79 / 100 characters

5.6.3 Description of the group of activities

Topic of transnational workshop 5: Focus on monitoring

A virtual workshop is arranged by PP5 in Lund, Sweden to analyze and compare the experiences and results from the pilot cases through all produced material. This will support the decisions about what are the lessons learned from the experiments, not only from their results but also starting from the planning, construction and finally monitoring the impacts of the solutions. This workshop will be held online and is implemented so that pilot sites can be presented with the help of virtual reality technology.

Topic of transnational workshop 5: Future development

The last workshop for partners is organized by PP1 and PP2 in Lahti, Finland. The final workshop includes a site visit at Paskurinoja brook pilot area where construction work has been completed. This visit gives participants an overview of the change that has taken place in the area during the project.

Combined with the workshop a final conference is organized. It is arranged to introduce the project experiments and share the results with a larger audience including different stakeholders at the local, regional and national level in all partner countries. If possible (depending on schedules), the conference can be combined with some other regional event in the City of Lahti in order to reach a wider publicity. If necessary, workshops and site visits can be organized online, on-site or as a hybrid event by utilizing VR technology, for example, to involve the widest possible range of participants.

1,542 / 3,000 characters

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

D 3.1

Title of the deliverable

Exchange of expertise

22 / 100 characters

Description of the deliverable

The content of this deliverable is the documentation of transnational workshops organized by PP5 and PP1. The documentation of workshop organized by PP5 in Lund, includes contributions, reflection on shared experiences and results as well as a synthesis of project outputs. The documentation of the concluding workshop and conference organized bu PP1 in Lahti, includes contributions, reflection on highlights and synthesis of the impacts and prospective outcomes. The purpose of these workshops is to analyze and compare the experiences and results from the pilot cases jointly with different target groups. The purpose of the final conference is to introduce the project experiments and share the results with a larger audience including different stakeholders at the local, regional and national level in all partner countries. To gain a large audience the conference is aimed to organized with some other regional event in the City of Lahti. In addition virtual presentations are included. The joint gathering of different target groups to share their experiences will help to develop and transfer the piloted solutions. Piloted solutions can be transferred both geographically for the municipalities over the BSR and over time for future experts.

1,257 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the storm water management in cities

71 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.1: Workshops on exchange of expertise in monitoring results and future development						
D.3.1: Exchange of expertise						

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 - Siauliai City Municipality Administration

A 3.2

5.6.2 Title of the group of activities

Support in strategy development for long-term management of pilot project sites

79 / 100 characters

5.6.3 Description of the group of activities

A common exchange of expertise and discussion between partners will be arranged to identify critical factors in the future to support long-term management of the pilot cases and how to expand similar actions in other areas in each partner city. Subsequently, preferable future scenarios are produced for storm water management in cities. Building of the long-term management strategies (including future scenarios) is likely to serve as the useful aid that depicts the details of intended actions targeted at the future.

The partnership, in order to ensure the successful process of constructing long-term management strategies of pilot project sites, shall initiate the implementation of this activity in the 3rd year of the project implementation period. Exchange within the partnership will be arranged in order to identify critical factors in the future to support long-term management of the pilot cases and discuss possibilities of expanding similar actions in other areas in each partner city. Common points of progress monitoring will be discussed and agreed: preliminary terms will be decided, aims and tasks will be defined. Achieving tasks requires jointly agreed indicators that must be pursued towards the long-term goals, therefore indicators and minimal values to be reached will be developed within the partnership and linked with the respective timeline. Each partner will indicate preliminary responsible parties, monitoring periodicity will be agreed upon, the process of validation of long-term management activities of pilot project sites in each partnership country will be decided.

Developed pilots in Finland (PP2), Sweden (PP5) and Latvia (PP4) will serve as a solid background for the future strategic storm water planning in the partner cities. Implementation of pilots and respective evaluation of results on their turn shall play an important role within the development of future scenarios as they are likely to indicate practical challenges, to validate concrete requirements, to enable understanding of possible limitations in the future. On the base of know-how and experience assimilated from the project-topic-advanced partners, technical design documentation developed within the framework of the project activities in Siauliai (PP3) will be utilized in the future strategic planning process of the whole city. Concrete infrastructure solutions linked with urban run-off quality and storm water management for climate change mitigation will be offered to be developed in the covered areas.

In addition, during the project time, it will be investigated if there is a need for an open access data platform for future usage by cities facing similar challenges. The results of this projects will support setting up such a platform.

2,769 / 3,000 characters

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

D 3.2

Title of the deliverable

Development of long-term management strategies

47 / 100 characters

Description of the deliverable

The purpose of this deliverable is to ensure that piloted solutions will have long-term benefits over the BSR. To achieve these goals long-term management strategies over the pilot areas are made. These strategies can be developed and adjusted by utilizing scenario thinking. Future scenarios will identify for example the possible environmental and climate changes in the Baltic Sea region based on climate change scenarios by IPCC. The future scenarios will help to prepare for the uncertainties caused by climate change, e.g., and increase the overall resilience of the BSR. This deliverable helps to reach the output described earlier in WP 2 (2.1) by supporting the long-term management of the pilot sites.

713 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the storm water management in cities

71 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.2: Support in strategy development for long-term management of pilot project sites						
D.3.2: Development of long-term management strategies						

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 1 - LAB University of Applied Sciences

A 3.3

5.6.2 Title of the group of activities

Sharing expertise and best practices with a wider public

56 / 100 characters

5.6.3 Description of the group of activities

The main goal is to provide different types of publications for different target groups (like guidebook, open access articles, blogs) and different interest groups will benefit from blogs and short videos while practical guidelines and a separate guidebook are prepared for public authorities. The idea is to produce joint communication material that is transnationally applicable. The language of the joint publications is English. Depending on regional needs, each partner will translate material to their own language and also produce publications targeted at different stakeholders in their own language. Partners will also share information about the project and achieved results at local, regional, national and international events in addition to joint meetings and workshops.

Partners produce articles for scientific and professional publications (especially PP1, PP5) as well as for the wider public (all partners contribute). A practical guidebook will be prepared based on the lessons learned through the partner pilot cases (all partners contribute). The idea of the book is to recognize and understand the roles of different stakeholders and impacts of storm water management in urban planning in general. The documentation of the pilot construction process is also utilized in publications.

The details of publications (type, timeframe, responsibilities) will be defined in the communication strategy (group of action 1.4).

1,443 / 3,000 characters

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

D 3.3

Title of the deliverable

Different types of publications

32 / 100 characters

Description of the deliverable

The content of this deliverable is information sharing and publication of the project activities. The purpose of this deliverable is to disseminate the expertise and best practices of the project to a wider public. Effective external communication concerning the project will facilitate to reach the output by increasing the public awareness of the solutions and creating general understanding and acceptance within different target groups. Active external communication and information sharing equals target groups in the BSR. It will also contribute to reduce the potential knowledge and expertise gap between different countries.

634 / 2,000 characters

Which output does this deliverable contribute to?

O.2.1:Implemented pilots improving the storm water management in cities

71 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.3: Sharing expertise and best practices with a wider public						
D.3.3: Different types of publications						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

6. Indicators

Indicators

Output indicators

Output indicators	Total target value in number	Project outputs	Please explain how the solution presented in this output serves the target group(s).
RCO 84 – Pilot actions developed jointly and implemented in projects	4	N/A	N/A
RCO 116 – Jointly developed solutions	1	O.2.1: Implemented pilots improving the storm water management in cities	The pilots are conducted in cities (local public authorities) and increase their capacity in developing solutions for sustainable storm water management. The higher education and research institutions (HEI) can provide expertise and new solutions for the cities. It is a win-win situation for future development when the students and staff of HEIs can solve real-life challenges. The piloted solutions will lead to the improvement of public infrastructure and living comfort of the residents. In addition, pilot activities enhance to preserve the important ecosystem services in urban areas. Improved storm water management also increases cities' preparedness for climate change and reduces material damage caused by extreme weather events. 743 / 1,000 characters

Result indicators

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.
RCR 104 - Solutions taken up or up-scaled by organisations	1	The cities in the partnership will actively work on the solutions piloted in the project. PP3 will use the final technical documentation to further develop and reconstruct sustainable solutions for the city' s storm water management. Guidelines and piloted storm water solutions will be taken into account by PP 4 when announcing procurement for technical documentation of rebuilding gravel roads in city of Liepaja according to Gravel Street Reconstruction Programme 2022-2027. PP2 will up-scale their storm water solutions to cover not only the quantitative management of storm water but also its qualitative management. PP1 and PP5 will further adapt and develop solutions as a part of their RDI and training activities. Solutions serve as a basis for new projects and contribute to the further development of education. The piloting that started during the REWAISE project by PP5 will continue with this project. Cooperation with Sweden Water Research helps to up-scale the solutions introduced during this project since the scale of the solutions can be more easily increased with the support of an extensive research network. 1,137 / 2,000 characters

Output indicators

Output indicator	Total target value in number
RCO 87 - Organisations cooperating across borders	6

Result indicators

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.	
		Project partners and associated organisations	Higher educational institutes (HEIs), PP1 and PP5 are actively participating the project. The participation will promote the transnational networking and expertise sharing among the HEIs. In addition, participation will strengthen cooperation between educational institutions and municipalities as well as third sector actors. The involvement of Sweden Water Research as a world leading research and development institute in sustainable water management will contribute to the development of the increasing quality of education, innovation and research within PP1 and PP5. City Municipality Administrations, Environmental Services Departments and Water Utility Sectors within municipalities are also actively taking part in the project. The participation will help to amend the municipalities regulatory framework so that sustainable storm water solutions are promoted. Transnational cooperation with other municipalities and HEIs will increase knowledge of storm water solutions and implementation process will be supported in a multidisciplinary way. This supports municipalities in finding suitable solutions and makes the process cost effective. 1,151 / 1,500 characters

Result indicator	Total target value in number	Please describe what types of organisations are planned to actively participate in the project. Explain how this participation will increase their institutional capacity. These types of organisations should be in line with the target groups you have defined for your project.	
PSR 1 - Organisations with increased institutional capacity due to their participation in cooperation activities across borders	10	Other organisations	The dissemination of the solutions developed during this project will help the regional authorities to enhance sustainable solutions for land-use planning and storm water management in the long run. At regional level county administrative boards who stipulate discharge quality norms and limits for municipal authorities also benefit from the results of the project. At national level governmental agencies that are tasked to protect, restore and ensure sustainable use of freshwater resources and seas together with national research clusters and action groups will benefit to the active dissemination of the solutions developed under this project. The guidelines and best practices can be used to support national policy making and legislative reform. Other municipalities can increase their institutional capacity by using the guidelines developed in this project to elaborate the regulatory framework and to include sustainable storm water management measures as a mandatory requirement in urban zoning. The project will invite national authorities to participate in the workshops and knowledge sharing, for example, the Swedish Agency for Marine and Water Management, Finnish Environment Institute, the Latvian Environment, Geology and Meteorology Centre, the Central Government of Lithuania. 1,303 / 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	LAB University of Applied Sciences	Active 22/09/2022	24,000.00	278,640.00	41,796.00
2 - PP	City of Lahti	Active 22/09/2022	0.00	20,880.00	3,132.00
3 - PP	Siauliai City Municipality Administration	Active 22/09/2022	0.00	58,740.00	8,811.00
4 - PP	Liepaja city municipality a dministration	Active 22/09/2022	0.00	43,344.00	6,501.60
5 - PP	Lund University	Active 22/09/2022	0.00	200,208.00	30,031.20
Total			24,000.00	601,812.00	90,271.80

No. & role	Partner name	CAT3 - Travel & accommodation	CAT4 - External expertise & services	CAT5 - Equipment	CAT6 - Infrastucture & works
1 - LP	LAB University of Applied	41,796.00	19,998.00	0.00	0.00
2 - PP	City of Lahti	3,132.00	24,000.00	0.00	150,000.00
3 - PP	Siauliai City Municipality	8,811.00	85,000.00	0.00	0.00
4 - PP	Liepaja city municipality a	6,501.60	30,000.00	0.00	200,000.00
5 - PP	Lund University	30,031.20	51,000.00	12,500.00	0.00
Total		90,271.80	209,998.00	12,500.00	350,000.00

No. & role	Partner name	Total partner budget
1 - LP	LAB University of Applied Sciences	406,230.00
2 - PP	City of Lahti	201,144.00
3 - PP	Siauliai City Municipality Administration	161,362.00
4 - PP	Liepaja city municipality a dministration	286,347.20
5 - PP	Lund University	323,770.40
Total		1,378,853.60

7.1.1 External expertise and services

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value
1. LAB University of	Events/meetings	CAT4-PP1-A-0	Organising two workshops and the final conference (catering, room rent, transport to sites etc.) 97 / 100 characters	No	1.2 3.1	9,998.00
1. LAB University of	Communication	CAT4-PP1-C-0	Expertise in visualization for communication, graphic design, printing etc. 75 / 100 characters	No	1.4 3.3	10,000.00
2. City of Lahti	Specialist support	CAT4-PP2-E-0	Support detailed implementation planning of the Lahti pilot site & building site supervision 92 / 100 characters	Yes	I2.1_1	24,000.00
3. Siauliai City Muni	Events/meetings	CAT4-PP3-A-0	Organising a workshop (catering, room rent, transport to sites, meeting technology etc.) 90 / 100 characters	No	2.2	4,000.00
3. Siauliai City Muni	Other	CAT4-PP3-G-0	Audit services 14 / 100 characters	No	N/A	6,000.00
3. Siauliai City Muni	Specialist support	CAT4-PP3-E-0	Technical documentation design 30 / 100 characters	No	2.1	70,000.00
3. Siauliai City Muni	Communication	CAT4-PP3-C-0	Communication preparations and materials 40 / 100 characters	No	1.4 3.3	5,000.00
4. Liepaja city muni	Specialist support	CAT4-PP4-E-0	Development of Guidelines for sustainable rainwater management 62 / 100 characters	No	1.1 1.2	30,000.00
5. Lund University	Specialist support	CAT4-PP5-E-0	Installation and maintenance of flowmeters and ISCO automatic samplers 70 / 100 characters	No	1.1 1.3	45,000.00
5. Lund University	Events/meetings	CAT4-PP5-A-1	Organising two workshops (catering, room rent, transport to sites, meeting technology etc.) 93 / 100 characters	No	1.2 3.1	6,000.00
	Total					209,998.00

7.1.2 Equipment

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value
5. Lund University	Office equipment	CAT5-PP5-A-0	Computer for the project engineer 33 / 100 characters	No	1.1 1.2 1.3 1.4 2.1 2.2 2.3 3.1 3.2 3.3 N/A	2,500.00
5. Lund University	Laboratory equipmen	CAT5-PP5-D-0	Laboratory and analysis material 32 / 100 characters	No	2.1	10,000.00
	Total					12,500.00

7.1.3 Infrastructure and works

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value
2. City of Lahti	Labour (related to co	CAT6-PP2-D-0	Infrastructure works related to the implementation of the pilot site. 69 / 100 characters	Yes	I2.1_1	150,000.00
4. Liepaja city muni	Labour (related to co	CAT6-PP4-D-0	Reconstruction of gravel street (~200m) with integrated sustainable drainage techniques. 88 / 100 characters	Yes	I2.1_2	200,000.00
	Total					350,000.00

7.1.4 Investment summary

Investment item no.	Investment title	Total planned value
I2.1_1	Lahti storm water management pilot site	174,000.00
I2.1_2	Reconstruction of gravel street section with integrated sustainable drainage techniques	200,000.00

Investment no. I2.1_1 - Lahti storm water management pilot site

Contracting partner	Planned contract value
2. City of Lahti	174,000.00

Investment no. I2.1_2 - Reconstruction of gravel street section with integrated sustainable drainage techniques

Contracting partner	Planned contract value
4. Liepaja city municipality administration	200,000.00

7.2 Planned project budget per funding source & per partner

No. & role	Partner name	Partner status	Country	Funding source	Co-financing rate [in %]	Total [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]	State aid instrument
1-LP	LAB University of Applied Sciences	Active 22/09/2022	FI	ERDF	80.00 %	406,230.00	324,984.00	81,246.00	For each partner, the State aid relevance and applied aid measure are defined in the **State aid section**
2-PP	City of Lahti	Active 22/09/2022	FI	ERDF	80.00 %	201,144.00	160,915.20	40,228.80	
3-PP	Siauliai City Municipality Administration	Active 22/09/2022	LT	ERDF	80.00 %	161,362.00	129,089.60	32,272.40	
4-PP	Liepaja city municipality administration	Active 22/09/2022	LV	ERDF	80.00 %	286,347.20	229,077.76	57,269.44	
5-PP	Lund University	Active 22/09/2022	SE	ERDF	80.00 %	323,770.40	259,016.32	64,754.08	
Total ERDF						1,378,853.60	1,103,082.88	275,770.72	
Total						1,378,853.60	1,103,082.88	275,770.72	

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	154,433.60	123,546.88	154,433.60	123,546.88
Period 2	197,413.20	157,930.56	197,413.20	157,930.56
Period 3	358,391.20	286,712.96	358,391.20	286,712.96
Period 4	295,303.20	236,242.56	295,303.20	236,242.56
Period 5	168,391.20	134,712.96	168,391.20	134,712.96
Period 6	180,921.20	144,736.96	180,921.20	144,736.96
Total	1,378,853.60	1,103,082.88	1,378,853.60	1,103,082.88