



LIFE Project Number

**LIFE 11 ENV/FI/000909**

## **FINAL Report**

**Covering the project activities from 01/10/2012 to 31/12/2015**

Reporting Date

**31/03/2016**

LIFE+ CITYWATER

## **CITYWATER – Benchmarking water protection in cities**

### Project Data

<b>Project location</b>	Finland and Estonia
<b>Project start date:</b>	01/10/2012
<b>Project end date:</b>	31/12/2015
<b>Total Project duration (in months)</b>	39 months
<b>Total budget</b>	1158515 €
<b>Total eligible budget</b>	1158515 €
<b>EU contribution:</b>	578909 €
<b>(%) of total costs</b>	49.97
<b>(%) of eligible costs</b>	49.97

### Beneficiary Data

<b>Name Beneficiary</b>	City of Helsinki
<b>Contact person</b>	Ms Kajsa Rosqvist
<b>Postal address</b>	P.O. Box 500, FIN-00099, City of Helsinki
<b>Visit address</b>	Viikinkaari 2a, Helsinki
<b>Telephone</b>	+358-405102294
<b>Fax:</b>	
<b>E-mail</b>	Kajsa.Rosqvist@hel.fi
<b>Project Website</b>	www.citywater.fi

# 1. Table of contents

1.	Table of contents .....	2
2.	Executive Summary .....	3
3.	Introduction .....	7
4.	Administrative part.....	8
4.1	Description of the management system .....	8
5.	Technical part.....	14
5.1.	Technical progress, per task .....	14
5.1.2	Action B.1: Demonstration of the Baltic Sea Challenge.....	14
5.1.3	Action B.2: How to communicate the benefits of voluntary water protection work.....	25
5.1.4	Action B.3: Implementation of voluntary storm water solutions with special reference to landscape planning and biodiversity .....	31
5.1.4	Action C.1: Environmental impact and cost-benefit analysis of water protection measures .....	39
5.1.5	Action C.2: Toolbox of water protection measures in cities: Compilation of project results and their impact .....	45
5.2	Dissemination actions .....	48
5.2.1	Objectives.....	49
5.2.2	Dissemination: overview per activity.....	49
5.3	Evaluation of Project Implementation.....	53
5.3.1	Methodology and effectiveness of the dissemination .....	53
5.3.2	Comparing and visibility of results against objectives.....	55
5.4.	Analysis on long-term benefits .....	55
5.4.1	Environmental benefits .....	55
5.4.2	Replicability, best practice lessons and demonstrative value .....	56
5.4.3	Long-term indicators of project success.....	57
6	Comments on the financial report .....	58
6.1.	Summary of Costs Incurred.....	<b>Virhe. Kirjanmerkkiä ei ole määritetty.</b>
6.2.	Accounting system .....	60
6.3.	Partnership arrangements .....	61
6.4.	Auditor's report/declaration.....	61
7.	Annexes .....	61

## 2. Executive Summary

The overall objective of the CITYWATER – Benchmarking water protection in cities project was to implement and facilitate environmentally relevant and cost-beneficiary voluntary water protection measures in cities and municipalities in the Baltic Sea Region in order to improve the state of coastal waters. The project further aimed at changing working procedures by increasing environmental communication and knowledge in cities and municipalities in the Baltic Sea Region in order to ensure continuous work for water quality improvement in local waters.

### Specific and concrete objectives

**B.1: To increase commitment for saving the sea:** Promote and facilitate voluntary water protection work through demonstrating the Baltic Sea Challenge (BSC) by spreading good examples in the Baltic Sea Region.

**B.2: To raise awareness:** Improve the knowledge of beneficiaries and stakeholders on how to communicate their message within their own organization and to the general public and on how to motivate people to act in order to protect the Baltic Sea.

**B.3: To show example:** Implement concrete water protection measures on local level.

**C.1: To provide arguments:** Assess the environmental impact and benefit-cost ratio of different water protection measures and of different activities that cities and municipalities carry out in perspective of the Baltic Sea.

**C.2: To compile the results:** Partly to monitor the impact of project actions, partly to compile the result from the project to be disseminated in the end of the project and to be used in the continuation and valorisation of the project.

### Actions

The project was based on the Baltic Sea Challenge initiative which was used as a demonstration basis for implementation of the project.

The project consisted of three entities of actions. The first entity, B. Implementation actions, contained action B.1) demonstrating and spreading the Baltic Sea Challenge initiative as well as strengthening the Baltic Sea Challenge network, B.2) measures to improve the environmental communication and ways to find more efficient tools to communicate the valuable voluntary water protection work that was being done by the project beneficiaries and B.3) implementation of storm water solutions, where the aim was to construct nature-based storm water handling solutions, in Finland and Estonia.

The second entity of actions, C. Monitoring the impact of the project actions, contained action C.1) assessment of the environmental impact and the benefit-cost ratio of different water protection measures on local level, and action C.2) a toolbox, where all the experience, knowledge and the lessons learned from the project actions and the Baltic Sea Challenge in general was compiled.

The third entity consists of D. Communication and dissemination actions, disseminating the project activities and results and promoting the project as well as E. Project management and monitoring, aimed at facilitating the achievements of general project activities and aims.

### Means

**Action B.1** Demonstration of the Baltic Sea Challenge was carried out by sub-action B.1.1 Two large networking events among Baltic Sea Challenge actors and invited participants and by sub-action B.1.2 Promotion and demonstration of the Baltic Sea Challenge to new actors.

Within B.1.1 The first large networking event was organized in connection to the Gulf of Finland Year 2014 (GoF) opening in January 2014 in Helsinki. The networking event was called “Cities Forum”, and dealt with the topic “Benefits of water protection – a range of concrete measures for local actors” gathering about 70 participants. Networking event 1 was successful. People that are actually doing grass root work were presenting their experience to their corresponding colleagues. This is what the BSC network aims for, and events like this contribute to strengthening the network of BSC actors. The second networking event was organized in March 2015. It was called “Baltic Sea Forum” and dealt with the topic “Water protection in municipalities – it costs money, because it saves money”. Also the second event was successful gathering a similar audience as the first networking event. In addition to current presentations on the state of the Baltic Sea and BSC partner presentations on their protection work, project results were emphasized.

Within B.1.2 CITYWATER has participated in several events arranged by others in Finland, Sweden, Estonia and Latvia, including both international events and national events. Through these events, new audiences beyond already established contacts have been reached and the project as well as the financing programme EU LIFE+ have been promoted. Additionally, in order to support new actors to join the work for a healthy Baltic Sea, the Project expert responsible for B.1 coordination in cooperation with the Baltic Sea Challenge coordinator at the City of Helsinki Environment Centre have offered support where ideas and different options for actions have been discussed, either in face-to-face meetings or in meetings over Skype or phone. Furthermore, as part of promoting the B1 action, a project assistant from Latvia was recruited for six months, to promote the Baltic Sea Challenge in Latvia. Detailed descriptions on the work done are found below.

**Action B.2** How to communicate the benefits of voluntary water protection work was carried out by sub-action B.2.1 Survey: Environmental communication among Baltic countries population and within municipal organizations: how to get through and sub-action B.2.2 Two workshops on environmental communication on different levels especially directed for civil servants.

The survey was based on two different questionnaires which were sent out to respondents in Estonia, Latvia, Lithuania and Finland and then analyzed. One questionnaire was directed to civil servants working with water protection issues in municipalities and the other to the residents in the municipalities. Based on the results from the analyzed questionnaires a communication strategy was prepared. The strategy lists challenges relating to communication on environmental and especially water protection related questions and suggests actions for dealing with these. Furthermore, two workshop has been successfully held during spring 2014 and autumn 2015 collecting municipal civil servants. In the first workshop the BSC, the project and financing body was introduced and the first results from the questionnaires were discussed

in order to improve the coming strategy. In the second workshop, the strategy was presented and the suggested activities in order to improve communication in municipalities were discussed. The results of this action will help the beneficiaries and stakeholders in communicating their message within their organizations and among the general public, as well as in involving and motivating people with varying backgrounds to protect the Baltic Sea.

**Action B.3** Implementation of voluntary storm water solutions with special reference to landscape planning and biodiversity was carried out by sub-actions B.3.1 Study trip, B.3.2 Construction plan, B.3.3 Expert meeting, B.3.4 Construction of storm water handling solutions in Finland and Estonia and B.3.5 Documentation and brochure on implementations for storm water solutions in cities as a water protection measure.

A successful study trip was realized for civil servants from the three beneficiary cities to the City of Malmö during the fall 2013. Based on this trip and following discussions the preparation of construction plans was made in the Cities of Turku, Helsinki and Tallinn during 2014. When these plans were ready, the expert meeting was held in the beginning of December 2014. The concrete solutions and associated info boards were finalized in Helsinki and Tallinn during 2015. The brochure telling about the solutions both in wording and by pictures from the sites was compiled in the end of the project. The results of this action will give concrete examples on the storm water measures and on how to carry out such a process with in the city administration.

**Action C.1** Environmental impact and cost-benefit analysis of water protection measures was carried out by the sub-action C.1.1 Two workshops, C.1.2 Five visits to Baltic Sea Challenge cities and sub-action C.1.3 Survey: Environmental impact and cost-benefit analysis of water protection measures and of different activities that cities and municipalities carry out in perspective of the Baltic Sea and coastal waters.

Both workshops within the cost-benefit theme were successfully held and synchronized the needs for the work, set out objectives and concrete measure choices as well as informed civil servants on the methods and results. The visits carried out where directed to cities, which provided water protection measures used as cases in the survey. The visits fulfilled the need for data compiling as well as committing case cities to the survey work. The survey was finalized in the beginning of year 2015 and spread to stakeholders.

**Action C.2** Toolbox of water protection measures in cities was compiled during the last half year of the project. The toolbox was realized as a web-based application listing project results in a way of tools in support for municipal water protection work. The tools are found below the topics Networking & Collaboration (B.1 Action related to BSC), Awareness raising & Communication (B.2 Action related to Environmental communication), Decision-making & Implementation (B.3 Action related to implementation of measures, e.g. storm water solutions) and Economics & Financing (Action C.1 related to the cost-benefit survey). In addition, the page provides a data base called the Bank of actions in which concrete water protection measures implemented by BSC partners are listed.

**Action D.1** Printed material, project webpage and events is realized by the sub-actions D.1.1 Project website, D.1.2 LIFE+ info boards, D.1.3 Project brochure, D.1.4 Opening seminar, D.1.5 Final seminar, D.1.6 Layman's report and D.1.7 After life communication plan. All of these have been successfully compiled.

**Action E.1** Project management and monitoring was carried out by facilitating the realization of project actions in general and by taking special care of fluent communication within the project. Project management has also been preparing and organizing steering group meetings.

In conclusion, the project was running smoothly and was by making an amendment to the original application able to finalize its actions and reach its targets within the life-span of the project. The teamwork within the project has been fluent and continuously risen added value to the work. The relationships among partners has also given birth to new cooperation projects after finishing CITYWATER.

### 3. Introduction

The Baltic Sea, bordered by nine countries but having up to fourteen countries within its drainage area, is an example of an environmental crisis of multi-national scale. The sea suffers from severe threats due to a variety of human activities, which may be solved only by increased targeted water protection measures on local level and ambitious international cooperation.

The main polluting sources are the sectors of waste water treatment, agriculture, marine traffic, societal living and construction in general and storm water management. These activities cause excess leakage of substances such as nutrients, hazardous substances, general littering and oil, as well as differing physical pressures related to increased forms of utilisation of the water, coastal and catchment areas. Due to the naturally stressed environment originating from the characteristics of low water exchange and salinity in the Baltic Sea, all these anthropogenic impacts get an even more devastating outcome on marine life.

In the CITYWATER project the main demonstration character was the Baltic Sea Challenge concept in order to involve more local actors internationally for saving the sea and the local waters. The Baltic Sea Challenge was developed in 2007 by the Cities of Helsinki and Turku, which by setting an example of achieving constantly better water protection above the legal requirements wanted to inspire other actors to do the same. The Baltic Sea Challenge has spread successfully in Finland and has for now over 250 partners in its network, while the commitment internationally has not been equally strong from the beginning.

Several things may be identified as reasons for the lower awareness and prioritizing of environmental issues internationally, some of them being culturally bound or communication related and thus of more fundamental character needing thorough adjustment. For instance, due to historical reasons people in the Baltic States do not spend as much leisure time along the Baltic Sea coast as people in e.g. the Northern countries do. Furthermore, the Baltic Sea coast looks very different thus also expressing the environmental problems differently among countries. In addition, a bad economic or political situation or a lack of knowledge on how to apply for funding will not help.

Thus, to achieve more commitment from local actors to save the Baltic Sea the CITYWATER project has been working with the following needs and actions:

- 1) Raising awareness, which was done by help of the background surveys of action B.2 and the following communication strategy.
- 2) Providing arguments, which was done in action C.1 by the cost-benefit analysis which compiled all cost and benefits gained from a measure for its entire lifespan and studied the cost-effectiveness from a societal perspective.
- 3) Showing example, which was done in action B.3 by building exemplary sustainable storm water management solutions and show-casing the process.
- 4) Giving a context or platform to act within, which was done in action B.1 by inviting actors to the Baltic Sea Challenge network to gain help and support and to organize events in order to provide actors with visibility and knowledge.

## 4. Administrative part

### 4.1 Description of the management system

#### *General description of the management activities*

The project started 1.10.2012. The coordinating beneficiary City of Helsinki and the City of Turku encountered some delays in the recruitment process of the **project personnel** and, consequently, the related Project manager and project staff started their work in the beginning of January, while other beneficiaries started their work earlier. The project was however running on full effect from January onwards and was well in schedule by the end of March. Some changes in personnel has occurred since the start due to persons leaving the project for differing reasons (maternity leaves or new job positions), but the replacements has been handled smoothly. For details on tenures, please see the Project team section below.

From the very beginning of the project, the coordinating beneficiary has paid special attention to fluent **coordination and management** by facilitating direct contacts among partners and delivering supportive information that aids the associated beneficiary project personnel to reach their goals. Contact by email and phone has been kept at least on a weekly basis, and both skype and face-to-face meetings were organized frequently in different compositions, approximately once a month. An effective way to communicate within the project was additionally to use the project facebook page.

The **preparatory management actions** i.e. the Partnership agreements, the Dissemination plan and the Management plan were finished within the first milestone of the project. The partnership agreement was made in four copies, and an original version has been mailed to each partner. The agreement effectively follows the guidelines set out by the LIFE+ programme and the Common provisions. In addition information about the project personnel and contact details were delivered to all partners as well as general guidelines (including LIFE+ programme guides, logos etc.) and a timetable for project implementation and reporting.

A **steering group** was nominated and a work schedule of the steering group was established in the partnership agreement. No costs for the steering group work were foreseen in the project proposal, and these costs were decided to be covered by reallocating money within each partner budget, within the budget variation limits.

The **Inception report** was finalized by 30.6.2013 and the **Mid term report** by 30.11.2014. All beneficiaries have been actively involved in both the financial and activity reporting process regarding their respective actions, while the Coordinating beneficiary has been coordinating the process and finalizing the reports.

*Partnership agreements as well as the Management and Dissemination plan has been delivered with the Inception report.*

#### *Steering group meetings*

The **first steering group meeting** was organized in Helsinki 20.3.2013 (hosted by the City of Helsinki Environment Centre) in connection to the first cost-benefit workshop (action C.1). On



the steering group meeting project objectives, overall activities, reporting practices and general roles of the beneficiaries for project implementation were handled. According to this a project overview, as well as a presentation on the management and communication plan and partnership agreements was given by the Project manager. Furthermore, every associated beneficiary gave a presentation on their preliminary plan or view for the work to be done within the action of concern.

The **second steering group meeting** was held 23.10.2013 in Tallinn (hosted by the Institute of Ecology at Tallinn University) combined with a project meeting. At the project meeting every beneficiary presented a more detailed overview of the activities undertaken and planned for every action of concern. Tallinn University presented action B.2 (How to communication the benefits of voluntary water protection work), City of Helsinki presented action B.1 (Spreading the Baltic Sea Challenge), C.1 (the Cost-benefit analysis) and D.1 (dissemination actions), while every city beneficiary presented their part in B.3 (storm water constructions). Furthermore, the brand new project brochure was presented. On the steering group the budgeted money for travel were seen scarce and the need for scheduling steering group meetings together with other project activities was stressed by the Project manager. A need for a possible amendment budget was discussed. The Coordinating beneficiary has actively been updating the budget on project level and guided the associated beneficiaries on the issue.

The **third steering group meeting** was held 22.5.2014 in Tallinn (hosted by the Institute of Communication at Tallinn University) in parallel with the communication workshop organized in the B.2 action by Tallinn University. During the meeting, every beneficiary gave a status report on the activities on their part. Furthermore, the Mid term reporting process was discussed and it was decided that all beneficiaries will participate by reporting on their activities and finances to the coordinating beneficiary, who will collect all parts together into a consistent entity.

The **fourth steering group meeting** was held as a skype meeting 18.11.2014 (organized by the Coordinating beneficiary) in order to accept the Mid term Report draft. The structure and content of the activity and financial report was presented by the Coordinating Beneficiary and accepted by the meeting. Also coming activities for the project was discussed and the timetable was checked.

The **fifth steering group meeting** was held 25.3.2015 in Tallinn in connection to the second networking event. During the meeting the feedback from the Commission regarding the acceptance of the Mid term report was discussed as well as general proceedings of partner activities. The meeting also discussed the problems with too scarce budgets considering the storm water solutions and the challenges with the timetable for construction of the same. The meeting decided to go forward with an amendment request to the Commission considering project prolongation and certain changes among budget lines especially relating to storm water constructions. The amendment process is described below in section 4.2 Evaluatin of management system.

The **sixth steering group meeting** was the last one during active project time and was held in Tallinn 8.9.2015 in connection to the Final seminar. During this meeting partners reported on the activity since the last meeting, and the remaining activities were noted in order to assure that everything will be handled before the end of the project. Also contact persons for the remaining project time and reporting period were noted since some of the persons ended their work contracts within the original project time (30.9.2015).

*The steering group meeting reports relating to the first three meetings have been sent with the Mid term report. The reports considering the following three meetings (4-6) are annexed (E.1).*

### ***Project team and management structure***

**The project team** has been functioning well despite some changes due to personnel leaving the project either due to leaves of absence or terminations. The present and former project personnel is listed below.

#### Project personnel in Helsinki:

- Project manager Kajsa Rosqvist, Satu Viitasalo-Frösen: Project management
- Project expert Jenni Jäänheimo, Elina Häkkinen: Financial management
- Project expert Tina Nyfors: Coordination of Action B.1
- Project expert Eliisa Punttila, Kajsa Rosqvist: Coordination of Action C
- Project expert Eliisa Punttila: Responsible for CBA survey
- Project assistant Sintija Dzelme: Action B.1

#### Project personnel in Turku:

- Coordinator Anna Räisänen: Action B.3 coordinator

#### Project personnel in Tallinn City:

- Coordinator Karolin Kairo-Gasman, Irina Vais: Action B.3
- Expert Helmut Koidla

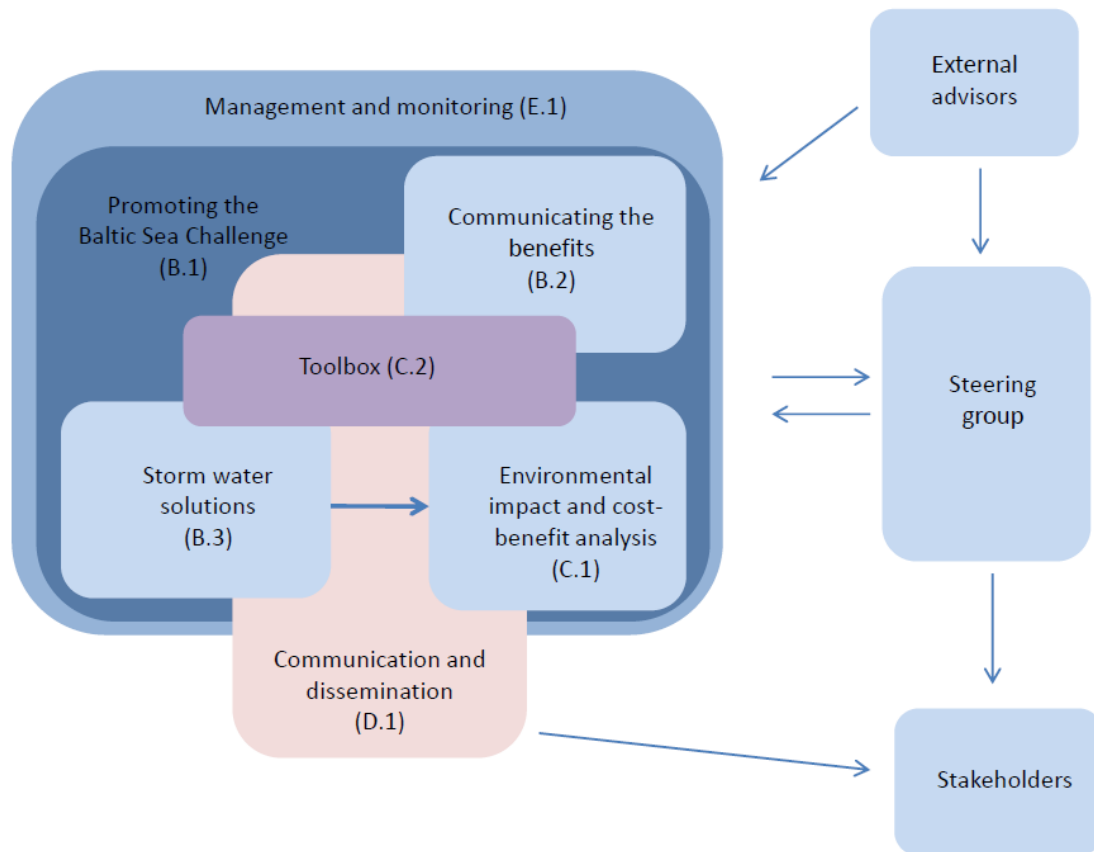
#### Project personnel in Tallinn University:

- Coordinator Arko Olesk, Päivi Tirkkonen: Action B.2 coordinator
- Survey expert Esta Kaal
- Professor Kaja Tampere

#### Steering group:

Päivi Kippo-Edlund (chair), Director of Environmental Protection and Research, City of Helsinki, Olli-Pekka Mäki, Director of Environmental Protection, City of Turku, Märt Holtsmann, Head of the Environmental Management Division, Tallinn City, Mihkel Kangur, Director of the Institute of Ecology, Tallinn University.

The **project management structure** is presented in the organigramme below:



### ***Role of the Coordinating beneficiary***

The role of the coordinating beneficiary was to handle overall project management (additionally to leading actions B.1 and C) and dissemination activities in such a way, that general project aims and activities are reached successfully. The coordinating beneficiary completed the basic preparatory management actions as well as in cooperation with other partners organized the kick-off meeting (Opening seminar), Final seminar and steering group meetings mentioned above. Furthermore the coordinating beneficiary has organized communication meeting as well as general project meetings on skype. The coordinating beneficiary has further actively participated in the work and events run by partners, especially by promoting the work done by associated beneficiaries. For instance, considering the workshop and publications handled by action B.2 the coordination beneficiary has been present and helped with the material. In addition, the coordinating beneficiary has actively coordinated and facilitated the storm water work within action B.3. As a large supportive and coordinative function, the coordinating beneficiary has also handled overall budgeting and given continuous advice when ever needed considering associated beneficiary project budgets. The coordinating beneficiary was also responsible for the amendment process.

## 4.2 Evaluation of the management system

### ***General evaluation of the project management process***

The management process has worked fluently and co-operation among beneficiaries has been positive. The partnership agreements are followed and arrangements have been in line with the application. The amendment process during the last year of the project was also agreed upon unanimously. Partnerships within the project has had a significant added value for initiatives regarding new cooperation and future projects, as well as for spreading of information additional to the core issues agreed upon in the proposal.

The personal changes within the project could have been a delaying obstacle for progress but have gone smoothly and the new personnel has either been familiar with the tasks from before or been well supported and instructed to avoid time lags.

### ***Monitoring visits and official communication with the European Commission***

Official correspondence with the European Commission considering management of the project (action E including financial issues) are dealt with below. Issues relating to the content actions (actions B and C) and dissemination (action D) commented by the Commission in their correspondence, are dealt with when needed in connection to respective action in section 5.

The monitoring expert (Camilla Strandberg-Panelius) advised for the project has answered all questions in a very fast and professional manner and been of great help and support during the entire implementation of the project.

#### Monitoring visit 8.5.2013 and following letter from the European Commission dated 14.6.2013

The first monitoring visit was held on 8.5.2013. In the letter (dated 14.6.2013) from the Commission following the visit it was stated that the start and overall progress of the project has been well. Following the feedback, the Layman's report was added to the tasks of the project. The reporting schedule was also updated and the Mid term report deadline was postponed based on communication after words to the 30.11.2014.

#### Inception report and following letter from the European Commission dated 26.7.2013

In the feedback following the Inception report it was noted, that the Inception report as well as the project webpage was of good quality. However, the deliverables were noted to be missing from the webpage and those have been added since (<http://www.citywater.fi/publications/citywater-material-2/>). Business card where supported as eligible for persons working 100 % for the project. Furthermore, the submitted Indicator table lacked total budget costs, which now are added and the table was resubmitted along with the Mid term Report.

#### Monitoring visit 5.2.2014 and following letter from the European Commission dated 18.2.2014

The feedback from the Commission stated that the project was running well. The only management related issues of concern, was the reminder of carefully following the budget, as some reallocations were needed among the cost categories Personnel and External Expertise (in actions B.2 and C.1). The budget monitoring by the Coordinating beneficiary has been strict and so far reallocations had stayed within the flexibility rule defined in the Common Provisions.

#### Monitoring visit 27.10.2014 and Mid term Report, and the following letter from the European Commission dated 18.2.2015

The feedback from the Commission was in general positive on the Mid term Report, but arose also some specific questions/comments relating to management and financing on the following:

1. E.1.: Flexibility limit for hiring a full-time financial secretary
2. VAT certificates for City of Tallinn and Tallinn University which proves that VAT is refundable or not
3. Personnel:
  - a. The daily rates for employees Satu Viitasalo-Frösén and Olli-Pekka Mäki
  - b. National legislation for the practice used for Satu Viitasalo-Frösén relating to her maternity leave
  - c. City of Tallinn timesheets for Irina Vais
4. Travel:
  - a. Request for invoices for Tallinn and Turku
  - b. Reminder of filling in columns G for all invoices
5. External assistance:
  - a. Request of submitting invoices for Tallinn University, Helsinki and Tallinn
  - b. Reminder of filling in column for Tallinn University

*Issues 1-5 above are addressed in a separate document with attachments which are annexed (E.1).*

Monitoring visit 1.12.2015 and the following letter from the European Commission dated 17.12.2015

The monitoring expert visited the project in Helsinki 1.12.2015 and the status of the project and financing report was assessed. Also the Final report process was dealt with.

### ***Amendment to application***

Planning and constructing storm water solutions have shown to be very challenging and time-consuming especially when implemented in the city center and involving cooperation among several city departments administrating different areas and permits. Furthermore, linking project based work to city planning processes in general and especially to funding programs is difficult. Due to several reasons of this kind the entire process of planning and constructing storm water solutions was both more expensive and time-consuming than originally planned in both the City of Helsinki and Turku. The experienced delays and the reasons to it was also touched upon already earlier in the correspondence with the Commission following the second monitoring and the Mid term report. However, after Mid term the situation became more alarming for the City of Turku, which withdraw from constructing the storm water solution within project time. Also in the City of Helsinki, the time limit and budget limit set in the original project application was foreseen to be unbearable. Thus, the steering group decided on its fifth meeting (25.3.2015) to proceed with an amendment.

Project management started to prepare an amendment to the original application in spring 2015. The amendment considered a technical change (the solutions were seen as prototypes), a budget related change (the City of Turku partner withdraw from constructing and the lead partner City of Helsinki implemented a bigger and more diverse solution in order to cover for the loss of the solution in Turku and thus still reach project level aims) and a project prolonging (1.10-31.12.2015 in order to secure the finishing of the solution in Helsinki). The amendment proposal sent on 29.4.2015 to the Commission was approved by the same on 17.7.2015. Further details on the amendment is found in the Letter to the Commission sent with the amendment request.

## 5. Technical part

### 5.1. Technical progress, per task

#### **5.1.2 Action B.1: Demonstration of the Baltic Sea Challenge**

##### *Activities undertaken and outputs achieved*

The aims of the B1 action are being reached by the sub-actions B.1.1. Organizing two large networking events and B.1.2. Promotion and demonstration of the Baltic Sea Challenge to new actors in events organized by others. By these actions, new actors from different countries around the Baltic Sea region have been challenged to join the Baltic Sea Challenge (BSC) network, to commit to water protection work and choose their own water protection measures. Additionally, in order to support new actors to join the work for a healthy Baltic Sea, the Project expert responsible for B.1 coordination in cooperation with the Baltic Sea Challenge coordinator at the City of Helsinki Environment Centre have offered support where ideas and different options for actions have been discussed, either in face-to-face meetings or in meetings over Skype or phone. Furthermore, as part of promoting the B1 action, a project assistant from Latvia was recruited for six months, to promote the Baltic Sea Challenge in Latvia. Detailed descriptions on the work done are found below.

##### **B.1.1. Organizing two large networking events**

**The first large networking event was organized in connection to the Gulf of Finland Year 2014 (GoF) opening on the 21.1.2014 in Helsinki, Finland.** The networking event was called “Cities Forum”, and dealt with the topic “Benefits of water protection – a range of concrete measures for local actors”. The event brought up themes related to waste water treatment in cities and harbors, storm water handling and food – all themes being connected through a cost-benefit perspective on Baltic Sea protection. There were about 70 participants who represented a versatile group of actors, both BSC actors and organizations working with relevant themes. One third of the registered participants were from other countries than Finland. The Coordinating beneficiary was the main responsible organizer, but planning and arrangements of the Networking event were carried out in close cooperation with the GoF Secretariat at the Finnish Environment Institute SYKE.

In summary, Networking event 1 was successful. People that are actually doing grass root work were presenting their experience to their corresponding colleagues. This is what the BSC network aims for, and events like this contribute to strengthening the network of BSC actors. Networking event 1 showed that the BSC provides an excellent platform for meeting face to face, for cooperation, networking, exchange of ideas and working models. CITYWATER (with EU LIFE+ references) and BSC material were available during the Networking event as well as in connection to the other sessions at the Gulf of Finland Year opening.

**The second networking event was organized in connection to the Estonian Municipality Days 26.3.2015 in Tallinn, Estonia.** The second networking event was called “Baltic Sea

Forum” and dealt with the topic “Water protection in municipalities – it costs money, because it saves money”. The first part of the seminar was concentrated on the Gulf of Finland Year 2014 and looking ahead as a state of the art review of the environmental situation. The second part was entitled Tools for water protection work and presented the work in the CITYWATER project and its financing body. Especially the power of networking (The Baltic Sea Challenge), the Communication strategy and the Cost-benefit analysis was gone through in more detail. The third part of the seminar showcased local water protection actions implemented within the Baltic Sea Challenge network. Among these were The Race of the Baltic, the City of Trelleborg and the City of Tallinn. There were about 60 participants from Estonia, Finland, Latvia, Lithuania, Poland and Sweden, which represented a versatile group of actors, both BSC actors and organizations working with relevant themes. The Coordinating beneficiary was the main responsible organizer, but planning and arrangements of the Networking event 2 were carried out in close cooperation with the Estonian municipality days (i.e. the Association of Estonian Cities) and Tallinn City.

In summary, the event worked out very well. It met the project targets; the project results and associated themes were presented and discussed, the technical and practical arrangements went smoothly, and the event received much positive feedback from participants. Having the opportunity to arrange the event as part of the Estonian Municipality Days was an excellent context for reaching a relevant audience, and doing it in cooperation with the Association of Estonian Cities added value to the event. Also, project staff was able to utilize experiences from Networking event 1 which resulted in developing the event to involving the participants more actively in discussions.

*The agenda, report, participant list and pictures for networking event 1 have been annexed to the Mid term report. The agenda, report, participant list and pictures relating to Networking event 2 are annexed.*

### **B.1.2. Promotion and demonstration of the Baltic Sea Challenge to new actors in events organized by others**

CITYWATER has participated in several events arranged by others, including both international events and national events. Through these events, new audiences beyond already established contacts have been reached and the project as well as the financing program EU LIFE+ have been promoted. It has been cost-efficient to have the B.1. coordinator (sometimes together with other action coordinators) taking part in several events with a well prepared speech framework, slightly modified to suite the specific occasions. The events are described more in detail below.

#### International events

**Baltic Sea Regional workshop 6-7.5.2014, Stockholm, Sweden.** The workshop was organized by Zennström Philanthropies’ Race for the Baltic (RFTB) and the topic “The Baltic Sea – Implementing Sustainable Economic Development in Cities and Municipalities” was highly relevant for the action B1. The aim for CITYWATER to participate in the workshop was twofold: Firstly, to promote the BSC network and give a presentation on 6.5, and secondly, to discuss possible further cooperation with Zennström Philanthropies on 7.5.

Participating in the event supported well the aim of action B.1.2; to demonstrate the BSC by spreading good examples in the Baltic Sea region. The event offered an excellent opportunity to reach a relevant audience beyond already established contacts. The workshop had about 40 participants representing municipalities, companies, networks, investment institutions and foundations from Sweden, Lithuania, Latvia, Estonia and Finland. CITYWATER and the BSC material were available during the workshop. Also the working meeting on 7 May held with Race for the Baltic/ Zennström Philanthropies, UBC and the City of Turku was fruitful. General CITYWATER-RFTB collaboration on events in the Baltic States was discussed, especially on the theme eco-tourism and the Baltic Sea.

**Turku Baltic Sea Days 1-5.6.2014, Turku, Finland.** CITYWATER organized two side events during the Turku Baltic Sea Days (TBSD). TBSD was a major international event that during one week brought up a broad range of topics and attracted a wide audience. Among the program of the week can be mentioned the 16th Baltic Development Forum Summit and the 5th Annual Forum of the EU Strategy for the Baltic Sea Region (EUSBSR). Hence, the context was highly relevant considering the objective of action B1: To promote and facilitate voluntary water protection work and to demonstrate the BSC in the Baltic Sea region. The side events – a workshop and a seminar – were organized on 2.6 as part of the Baltic Sea Forum organized by the Centrum Balticum Foundation.

One of the side events was a **communication workshop** where results of the action B.2 communication survey conducted by Tallinn University were presented for the first time internationally. The workshop was planned in cooperation between actions B.2 and B.1. and the input received from the workshop audience was perceived as very useful for Tallinn University.

The other side event was the seminar “**Save the sea – is it worth it?**” where CITYWATER was a co-organizer and participated in a panel discussion. During the seminar, one new and one coming BSC member briefly told about their engagement.

**Gulf of Finland Year 2014 seminar, 30.9.2014, Lahti, Finland.** The seminar “Cost-efficient protection of the Gulf of Finland” was organized as part of the Gulf of Finland Year and accordingly, it had participants from Estonia, Russia and Finland. Both the theme and the target group were highly relevant for the action B.1. CITYWATER took part in the event in order to have a presentation and to promote the BSC network. The seminar had 100 participants and it provided a very good opportunity to reach a new audience beyond already established contacts.

Two CITYWATER representatives took part in the event: The C.1 and the B.1 coordinators. In the presentation, the C.1 coordinator told about the cost-benefit survey cases and results, and invited the audience to join the BSC network. A list where participants could sign up for more information about the BSC was sent around and it was signed by 34 persons. Having the opportunity to give a presentation during the prominent event was a result of good contacts to the Gulf of Finland Year secretariat at the Finnish Environment Institute SYKE. Previous experiences of good cooperation include organizing Networking event 1 in connection to the official Gulf of Finland Year opening. During the event, CITYWATER and the BSC material were available at a material desk in the seminar room and the BSC/CITYWATER poster and the BSC roll up were put up.



**The Baltic Sea Day, 19.3.2015, St Petersburg Russia.** The aim of taking part in the Baltic Sea Day event was twofold: holding a presentation, and taking part in the round table discussion about marine litter.

The CITYWATER presentation was held in the session “Summary of significant projects in the region” and focused on project results (especially the cost-benefit analysis) with reference to the EU Life+ funding instrument as well as the Baltic Sea Challenge. Other presentations in the same section included results of the Gulf of Finland Year 2014, the Saint-Petersburg Initiative, Global Water Partnership, Water security and Nord Stream Pipeline through the Baltic Sea. Participating in the seminar was fruitful in terms of reaching out to a Russian audience. The CITYWATER presentation was held in front of a big audience, around 350 persons. During the presentation, a list was circulating where people could sign up for more information about the Baltic Sea Challenge network and about 60 people signed up. Later they received an email with an invitation to join the network.

During the round table discussion on marine litter, the Baltic Sea Challenge was brought up as a tool for water protection and project material was handed out. Here, also the Public Council of Rosprirodnadzor, the Committee for environment protection of St. Petersburg, Vodokanal of St.Petersburg, and the Inter/regional Environmental Organization “Nature Protection Union” held presentations. There were about 20 participants which gave an opportunity for closer face-to face discussions.

**Baltic Sea related camp for teachers, 3-6 August 2015, Aegna island, Tallinn, Estonia and Harakka island, Helsinki, Finland.** The idea of the camp was to give teachers in Finland and Estonia more knowledge about the Baltic Sea, to inspire them to actively involve the Baltic Sea in the teaching, and to invite the schools to join the BSC. The B1 coordinator represented the BSC during the camp, and held a presentation about the BSC and the CITYWATER project. The presentation included main results from the Tallinn University survey which pointed to citizens’ lack of awareness about their influence on the state of the Baltic Sea, which further underlined the importance of the camp and pointed to the central role of schools in raising public awareness. The discussions about what the schools could do for the Baltic Sea and as BSC members were summarized in a document and shared with all participants and BSC coordinator after the seminar.

There were 11 participants on the camp, 6 of them came from Tallinn, Estonia. The camp was an excellent platform for networking and reaching out to new contacts, and the Estonian teachers showed a great interest in joining the BSC network. As a consequence, the school Kadrioru German School (Kadrioru Saksa Gümnaasium) joined the BSC in September 2015.

The camp was organized by the Harakka environment centre at the City of Helsinki Environment Centre, the Estonian training and development centre Hared, and Tallinn City, in cooperation with the Baltic Sea Challenge, CITYWATER, and the zoos in Tallinn and Helsinki. *Travel expenses for the CITYWATER B.1 coordinator was covered by the Baltic Sea Challenge.*

### National events

**Tallinn, Estonia: Estonian Municipality Days, 13-14.2.2013.** The Estonian municipality days is an annual event that gathers large numbers of participants including municipal managers, public authorities, experts and politicians, i.e. a highly relevant audience considering the aims of action B.1. CITYWATER had a stand at the event which was a good way of promoting water

protection work, demonstrating the BSC in Estonia and invite actors to join the network. Present were the B.1 coordinator and the present and coming coordinators for B.3 from Tallinn City. Additional benefits were gained by the fact that the Tallinn representatives were able to speak to conference participants in Estonian. Also, the BSC coordinator participated in the event.

The aim of getting in touch with new contacts was reached, and a number of CITYWATER fact sheets were handed out (as the project brochure was not yet produced).

**Pavilosta, Latvia: Coastal municipalities meeting 24-25.10.2013.** The annual meeting for Latvian coastal municipalities was well suited for reaching a new relevant audience beyond already established contacts. It was a big asset to be able to have the opportunity to promote the BSC at a national event in Latvian, since language can be a barrier. Among the 30 participants were 17 municipality representatives; there were representatives also at NGO and ministry levels. At the meeting, contacts were made with both new and already known actors and participants were invited to join the BSC network and to participate in Networking event 1.

CITYWATER was represented by a project assistant, the B.1 coordinator and the B.2 coordinator. The practical arrangements related to the trip were taken care of by the project assistant who had previous contacts to Latvian municipalities. Furthermore, City of Helsinki had previous contacts to the organizer, the Latvian Association of Local and Regional Governments, which was a great asset and opened doors for promotion of the BSC at the coastal municipalities meeting. Also, the project assistant held a presentation about the BSC in Latvian. It proved to be a big benefit for CITYWATER to have a Latvian speaker when promoting the BSC in Latvia. During the event, CITYWATER and BSC materials were distributed.

**Tallinn, Estonia: Estonian Municipality Days 26-27.3.2014.** This was the second time that CITYWATER took part in the Estonian Municipality Days. The event was particularly well suited for action B.1 objectives given that among the seminars held, there was an Environment Forum bringing up the theme year Gulf of Finland Year 2014. Also, it turned out to be a clear advantage to participate in the same event several times; the concept was familiar and CITYWATER was able to utilize further the possibilities to market the BSC and network. This year project staff stayed for two days which gave opportunities to hold a stand and presentation, listen to other presentations and network during the dinner arranged for conference participants on the 26.3.

CITYWATER was represented by the B.1 coordinator and by the B.3 coordinator from Tallinn City. Many useful contacts were made; tens of people visited the CITYWATER/BSC stand and contact details to about 20 Estonian actors were received. The arrangement with having a native speaker present was made based on the good experiences from the Municipality Days 2013 and the meeting in Pavilosta, and again, it was noted that it worked very well. The presentation was held in the Environment Forum by the B.1 coordinator. The topic was “The BSC as a tool for cities and municipalities to participate in saving the Baltic Sea”. The power point slides were translated into Estonian and the presentation was in English. The Environment forum had 25 participants. During the event, CITYWATER and BSC materials were distributed.

**Panevėžys, Lithuania: Regional workshop 23.10.2014.** CITYWATER participated in the workshop “The Baltic Sea – Protecting our Economic Future Connecting the Tourism Industry & the Baltic Sea” that took place in Panevezys, Lithuania. The main organizer was the Baltic Sea Challenge partner Race for the Baltic. There were around 20 participants, among them were representatives from different sectors: municipality, business, national park, NGO and waste

water treatment. The seminar provided a day with interesting presentations and new contacts from different parts of Lithuania, and provided a very good opportunity to market the Baltic Sea Challenge (BSC) network to a Lithuanian audience.

During the seminar, the Baltic Sea Challenge was brought up as a tool for taking concrete action for the Baltic Sea. The CITYWATER project expert and the Baltic Sea Challenge coordinator had the opportunity to have one brief talk each, where the Baltic Sea Challenge network and the CITYWATER project as well as the Life+ programme as the main co-funding instrument of the project were presented, and participants were welcomed to join the network.

Participating in the seminar was fruitful in terms of getting new contacts in Lithuania and the event served well the purpose of reaching a new audience beyond already established contacts. Among the Lithuanian contacts made were Krekenava regional park; the Lithuanian Fund for Nature; the Lithuanian Countryside Tourism Association; Klaipeda district municipality; Vilnius University and Swedish contacts were Fair Travel and Destination Sigtuna. Kursiu nerija national park joined the BSC network after the event.

**Cooperation meeting in Tallinn, Estonia 10.11.2014.** CITYWATER held a meeting gathering new divisions within Tallinn City and the City of Helsinki Environment centre in order to in depth discuss present and future common cooperation possibilities for promoting the Baltic Sea Challenge and water protection work in general. As a result of this meeting, partners present decided to cooperate on the following concrete matters: spreading the Baltic Sea Challenge in schools in Tallinn through a school tour and organizing a joint Teachers camp in Harakka, Finland and Aegna, Tallinn. These cooperation events are described separately in the report (below the topics National events and International events, respectively).

**Jurmala, Latvia, Regional workshop 17.3.2015.** The event was another example of collaboration between the BSC partner Race for the Baltic and BSC. The theme was how Latvian local governments can work more strategically with water management in order to spur economic growth. CITYWATER results, the cost-benefit analysis report, were presented at the event by the BSC coordinator. The event was useful in terms of reaching a new audience. About 35 persons took part in the event and provided a good opportunity to promote the CITYWATER results to a Latvian audience. *CITYWATER was represented by the BSC coordinator and there were no travel costs for the project.*

**Baltic Sea Challenge to schools in Tallinn, Estonia spring 2015.**

In order to intensify work for promoting the Baltic Sea Challenge in Estonia, Baltic Sea lectures presenting the Baltic Sea Challenge as well as the ecology and environmental problems of the Baltic were held in Tallinn during spring 2015. The technic used during the lectures was to have the pupils touch and work with different Baltic Sea fish species and from that perspective discuss the Baltic Sea environment and what could be done to increase water quality. Eight schools and in all almost 300 pupils were reached.

Until project end one of the visited schools had joined the Baltic Sea Challenge, and many were very interested and the sincere believe is that several schools will join later on. Joining the BSC usually takes some time since the matter often requires discussions and decisions within the organisation in question. However, the Union of Estonian Natural Science Teachers Association behind the cooperation of the visited schools did join the BSC and will work for spreading it wider. Also the Baltic Sea Project, funded by the Ministry of the Environment in Estonia, which is cooperating with the visited schools, agreed to spread the BSC in the future.

### Project assistant from Latvia

As part of promoting action B.1, a project assistant from Latvia was recruited for six months, to promote the BSC in Latvia. The work done include promoting the BSC in Latvia and establishing and re-establishing contacts with a number of Latvian municipalities and other actors. An important part of the work done was participation in an event in Pavilosta as part of action B.1.2. The project assistant took care of all practical arrangements and it was fruitful for promoting BSC (described above).

The project assistant prepared two documents to mainly be used in an internal purpose for the project and the Baltic Sea Challenge, to ensure continuation of the work in Latvia after the six month period; (i) Communication plan for Latvia and (ii) a reflection paper “Ways forward – promoting the BSC in Latvia”, both documents finished by 31.10.2013:

- (i) The communication plan gives a background of water protection work in Latvia and of general facts to be kept in mind when working with water protection there. Communication goals and key messages are tailored to Latvian audiences. Also, the communication work done by the project assistant is summarized. Lists of contacts are provided, including organizations, cities and municipalities. Newspapers, online news rooms and other useful links are also listed.
- (ii) The reflection paper sums up the work done by the project assistant and contains suggestions for continuous work. There is a brief summary about each of the five Latvian BSC partners which is helpful when encouraging them to do an action plan. The chapter Promoting the BSC in the future includes a list of seven municipalities to which initial contacts were made and that can be followed up (Ainaži, Engure, Kolka, Roja, Salacgrīva, Sigulda and Ventspils). Contacts were also established to a company (Let’s live Green). In addition, a list of four other potentially interesting municipalities were listed (Daugavpils, Jēkabpils, Ogre and Valmiera).

Recommendations for further work from the two papers include: active communication to network partners; organizing a yearly BSC meeting for international partners; keep developing the BSC website (e.g. adding texts in Latvian); publish information from Latvia on the Facebook page; doing research about current issues in different target countries; keeping an up to date contact list; finding key contact persons in each country; and involving also schools in BSC. Both reports were useful for the work in Latvia done by the project and by BSC. Some of the recommendations have also been implemented: the concept of organizing an annual international BSC event has been realized during the project time; the BSC promotion has become more focused on creating cooperation with other organizations (as described above); a list with contacts has been created; and there has been a focus on involving schools in the network (Teachers’ camp in Estonia). In addition the project assistant published an article about storm water management and the CITYWATER project in the Latvian environmental magazine Vides Vestis.

As a result of the work done by the project assistant, two new partners joined BSC (the NGO Baltic coasts and the company Let’s live green) and one new action plan was received (by the BSC partner Kuldīga municipality). Also, the contact to LARLG has been intensified. It has been noted that in order to successfully promote BSC in other countries, it is of central

importance to have people from the country in question working with the issue or to have close cooperation with local organizations. During the six months, the project assistant was a valuable asset for the project and for taking the B.1. work forward in Latvia. The two documents will be useful for the BSC also after the project ends.

*Agendas, reports, participant lists and pictures from the The Baltic Sea Day in St Petersburg, Russia, Techers Camp in Aegna, Estonia and Harakka, Finland, the Regional workshop in Jurmala, Latvia and Panevėžys, Lithuania, the Cooperation meeting and School tour are annexed (B.1.2). Reports etc. from other events described in this section as well as the Communication plan and Reflection paper Ways forward – promoting the BSC in Latvia were disseminated with the Mid term report.*

### **Dissemination activities within action B.1**

The entire B.1 action is mainly about dissemination and the main content of the action has been described before. Additionally to this, three **articles** have been written by project personnel:

- Latvia: Vides Vestis 1/2014 (about storm water handling, in Latvian)
- Estonia: The Baltic Sea Project newsletter 1/2014 (about the Baltic Sea Challenge, in English)
- The biology and geography teachers' magazin Kägu 2013 (about the Baltic Sea Challenge, same text as in the newsletter, in Estonian)

*Published articles were annexed to the Mid term report (B.1.2).*

### ***Comparison with planned output and time schedule***

#### **B.1.1. Organizing two large networking events**

Both networking events were organized according to the project plan; they supported well the aim of strengthening the BSC network. The reports were written in time, and speakers' presentations and the reports from the event were made available on the project webpage.

#### **B.1.2. Promotion and demonstration of the Baltic Sea Challenge to new actors in events organized by others**

##### Events where CITYWATER promoted the Baltic Sea Challenge

Action B.1. has focused on the three Baltic States Estonia, Latvia and Lithuania, but also Sweden and Russia, since the beneficiaries had good contacts to be used in these areas when starting the project work. In the project application only large international events are mentioned, however, both international and national events have been targeted, since they attract a somewhat differing audience and thus a combination of these is a fruitful and diverse way of promoting the BSC network. The possibility for participants to use their own language has proved to be rather important for some actors (especially in the Baltic states and Russia), while others are more used to an international atmosphere. Furthermore, smaller events with below 50 participants have proved particularly good for networking and building contacts.

Although the annual events that were mentioned as examples in the project application, including the Baltic Sea Day organized in St Petersburg, the Green Week Conference in Brussels and European Maritime Day, have been considered, other events have been perceived better suited for reaching the B.1 goals. Regarding the Green week conference in Brussels, the theme of 2013 was clean air and in 2014 circular economy, while the European Maritime Day took place in the Mediterranean on Malta in 2013 and in Bremen, Germany in 2014. Overall, events specifically targeting the Baltic Sea region were considered having a more relevant focus in order to reach the B.1 objectives of promoting the BSC and inviting new actors to join the network. In 2014, the Baltic States had crystallized as main target countries, and the focus remained the same until the end of the project. One event in Russia was targeted, the Baltic Sea Day 2015 in St. Petersburg, as foreseen in the Mid term report. Regarding the Baltic States, the Estonian Municipality Days proved to be a very suitable event for promoting the BSC in Estonia as well as to participants from the two other Baltic States. CITYWATER participated in the event in 2013 and 2014, and in 2015 the second big Networking event was organized back to back with the Estonian municipality days.

Furthermore, as outlined in the project application (p.31), action B.2 studies that will assess possible communication barriers and communication differences, have been useful tools when promoting the BSC in the Baltic States. Although the reports were finalized in the very end of the project, the survey results have been shared within the project at an early stage, and facts such as the low awareness in all Baltic States of one's own impact on the Baltic Sea, have been utilized both as a driver to include a section about the state of the sea in every presentation (although included facts might have been perceived to be well known among the public in e.g. Finland), and as a motivation for potential BSC partners to take action themselves (e.g. Teachers' camp in August 2015).

### New partners in the Baltic Sea Challenge

Within the B1 action, hundreds of new contacts have been received, cooperation with other organizations has been established and a network with old and new contacts has been activated and utilized in spreading the BSC in the region. The number of new international actors that have joined the BSC until 31.12.2015 is 17; 9 from Estonia, 2 from Latvia, 1 from Lithuania, 3 from Sweden, 2 from Russia. The new actors include 2 municipalities, 4 companies, 5 NGOs, 4 education institutions, one association, and one national park.

The Baltic Sea commitments include awareness raising like Baltic Sea related activities for pupils as well as the general public; publishing Baltic Sea related articles; creating engagement around a report focused on Baltic Sea protection; developing the youth network "River watch"; and cooperation with other BSC actors in other countries. Also, it includes activities with direct impact on the water, such as beach cleaning days; storm water management work; giving kindergartens the opportunity to try environment friendly detergents; and supporting development of green procurement in municipalities.

The target of new partners stated in the application was 30. Considering spreading of the BSC, before CITYWATER, there were 15 international municipalities (and around 5 international cruising companies) in the network, out of which only two had submitted an action plan, which illustrates some of the challenges in engaging in water protection issues. Against this background, 17 new partners and 19 new action plans is a remarkable result; keeping in mind also the contacts that have shown interest in the network but not yet joined.

There have been challenges in promoting the network in different countries, however, e.g. through targeting the ones that show most interest, cooperation actors can also be found in countries where water protection work is more challenging. The challenges faced can be connected to cultural and historical differences; lack of a common language; low environmental awareness; economic constrains; and different ways of relating to and using the sea. All of these challenges have been tackled throughout the project, and the different actions in the project gives support for each challenge. As a concrete result, the Tools for water protection webpage lists tools to overcome such challenges.

Although the City of Helsinki has been the main responsible partner for the B.1 action, the work with promoting BSC in Estonia received great help from Tallinn City who promoted the network in schools during the spring 2015. Six new Estonian partners were the direct result of the work done by Tallinn City, and more contacts might join after the project has ended.

*A list of new BSC partners is annexed (B.1.2)*

### Schedule

Work has progressed through the project as scheduled regarding action B.1

### ***Indicators used to test the performance of the action***

#### **B.1.1. Organizing two large networking events**

The number of participants was about 70 and 60 in the networking events, respectively and exceeded the expected number of 50 participants used as an indicator objective.

#### **B.1.2. Promotion and demonstration of the Baltic Sea Challenge to new actors in events organized by others**

##### Number of participants in the events

The number of participants in events arranged by others where the BSC and CITYWATER project with funding references were presented was foreseen to be 200 per event in the project application, which means a total of 800. Also the Indicator list submitted with the Mid term report sets a target of reaching 800 persons in total when considering all events (workshops, seminars and conferences). The table below gives the number of persons reached in events organized by others and shows that the target was exceeded.

Number of people reached through the sub-action B.1.2.Participating in events organized by others.

<i>International events</i>	<i>Audience</i>	<i>Additional contacts</i>
Baltic Sea Regional Workshop 2014	40	
Turku Baltic Sea Days 2014	43	10
Gulf of Finland Year 2014 seminar	101	
The Baltic Sea Day in St Petersburg 2015	350	20
The Teachers camp in Aegna and Harakka 2015	11	
<i>National events</i>		
Estonia: Municipality Days 2013		70
Latvia: Coastal municipalities meeting 2014	31	
Latvia: Regional workshop 2015	35	
Estonia: Municipality Days 2014	25	20
Lithuania: Regional workshop 2014	20	
School Tour 2015 in Tallinn	300	10
<b>Total:</b>	<b>More than 1000 persons</b>	

### New actors and Baltic Sea Action plans by Baltic Sea Challenge actors

There is in total 17 new commitments for actions (after the BSC concept was renewed, it is no longer called “action plan” but commitments for single concrete actions). All new partners have submitted commitments for action. In addition to this, thanks to work within action B.1, new commitments have been received from two old partners, Kuldiga, Latvia (municipality) and Tallinn City, Estonia. This was part of the effort to activate partners without outlined concrete actions to draft their own actions, as outlined in the Inception report (p.7).

### *Changes in the action*

In the project plan it is outlined that the BSC will be promoted and demonstrated at four events. However, as it was confirmed by the Commission (in the letter following the monitoring 5.2.2014), at least five events will be attended. By now, at least 12 events both internationally and nationally have been attended. The goals of action B.1 has been reached, and the travel costs are within the flexibility identified in the Common Provisions article 15.

Besides the increased event participation, also the hired personnel was extended within the B.1 action in order to support the goals for the work in Latvia. As noted in the letter by the Commission (dated 14.6.2013) the extra personnel resource on communication of the BSC in Latvia has been realized within the budget flexibility limits set by the Common Provisions. The extra work resulted in a Communication Plan for the BSC in Latvia, a reflection paper on Ways forward in Latvia and in an article published in the magazine Vides Vestis, as noted by the Commission in their letter (dated 26.6.2013). Unfortunately, the article in Vides Vestis was not bearing a reference to the LIFE+ instrument due to a human mistake. However, the article with a LIFE+ reference was published on the web page of the BSC member organization Baltic Coasts from Latvia in 2015.

### *Major problems*



No major problems have been encountered.

### ***Perspectives for continuation of the action after the project has ended***

The perspectives for continuing the action are good since action B.1 has all the time worked closely with the BSC to feed activities into the permanent work of the network. As part of CITYWATER work, the network has grown and got stronger and the new partners continue in the network also after the project has ended. A concrete marker of continuation of the action are the water protection activities that partners have committed to and which are implemented also after CITYWATER has ended.

The contacts made regarding strategic cooperation can continue developing also after the project ends, and there is a good chance to maintain other received contacts since action B.1 coordinator and the two BSC coordinators had a close collaboration. Also, working procedures developed within CITYWATER can be used also after the project.

After the project end, the continued dissemination and communication of results will take place through three main channels: 1) the Baltic Sea Challenge network, the 2) “Tools for water protection” web portal that was developed during the CITYWATER project and 3) new international projects (some of which are EU funded). The dissemination of project results are further elaborated in the After life communication plan.

### **5.1.3 Action B.2: How to communicate the benefits of voluntary water protection work**

#### ***Activities undertaken and outputs achieved***

Tallinn University was the responsible associated beneficiary for the Action B.2: How to communicate the benefits of voluntary water protection work. The main activity of the action has been defined as sub-action B.2.1 Survey: Environmental communication among Baltic countries population and within municipal organisations: How to get through and B.2.2 Two workshops on environmental communication on different levels especially directed for civil servants.

The results of this action were designed to help the beneficiaries and stakeholders in communicating their message within their organisations and among the general public, as well as in involving and motivating people with varying backgrounds to protect the Baltic Sea. The following sections will give an overview of the activities and their outputs.

#### **B.2.1 Survey: Environmental communication among Baltic countries population and within municipal organizations: how to get through**

Sub-action B.2.1 was conducted in forms of two separate surveys. In the planning phase it became clear that in order to fulfil the objectives of this action the survey needs to be run in two

parts: one that is studying the knowledge, attitudes and behaviour of citizens, and another that will look at the current and desired practices in local municipalities. The conclusions of both surveys were synthesized into a communication strategy

### Citizen survey

The preparation for the citizen survey ran as scheduled and the questionnaire was prepared by the end of 2013. The citizen survey was conducted by the market research company TNS Emor in January-February 2014. The selection of the survey company used for the citizen survey was done by a procurement procedure. Three major market research companies that operate in all three Baltic countries were invited to submit their bids. All of them did and qualified. Based on the price and quality criteria, the Tallinn University committee selected TNS Emor to be the winner. A contract with them was finalized in December 2013.

A representative sample constituting of 1,500 permanent residents aged 18-74 years in Estonia, Latvia and Lithuania (500 per country) were used for the survey. The survey method was computer-assisted personal interviewing (CAPI-interview) at the respondent's home. Translation into Latvian, Lithuanian and Russian were also done by the company. The questionnaire consisted of 40 questions that covered topics such as attitudes to water protection in general, water protection in the home area, participation in the water protection activities of the local municipality, and attitudes towards the Baltic Sea. The data were handed over to Tallinn University on 26 February 2014. Initial analysis results have been presented at the workshops within action B.2.2 and the Turku Baltic Sea Days described below. The survey report was released at the end of the project.

### Municipality survey

The municipalities' survey was conducted as a web-based questionnaire using the SurveyMonkey web service. The target group consisted of all municipalities in Estonia, Latvia and Lithuania that lie on or close to the Baltic Sea. By help of the City of Helsinki Environment Centre also Finland was included later on to the survey following same criteria as in the other countries. The preparation stage included two visiting days in March and April 2014 to various Estonian municipalities and institutions for interviews with people responsible for water protection in order to learn about the current practices, barriers and attitudes. More specifically, the survey was targeted to the environmental specialists of the municipalities (or water protection specialist if there were any; in case of no dedicated environmental specialist the survey was addressed to the mayor/rural mayor of the municipality). The municipalities' questionnaire contained 40 questions, divided into four main sections: Risks related to water and water protection activities, co-operation related to water and environmental protection, the Baltic Sea and analyses and evaluations.

In total, 72 responses were received: 32 from Finland, 26 from Estonia, 10 from Latvia and 4 from Lithuania. The achieved response rate of over 40 % was considered good as the response rates for web-based surveys usually lie below 50 %. The gathered data cannot be considered fully representative but sufficient to fulfil the survey aim which was to map the general trends in the field of local-level water protection and indicate potential obstacles and problems to improving the efficiency of the water protection activities. The survey report was released at the end of the project.

## Communication strategy

The two surveys provided an overview of current behaviours in the field of water protection by both citizens and local municipalities and identified barriers that stand on the way of more efficient actions. These problems were addressed in the communication strategy document, which proposed a list of communication activities that could be used to overcome these barriers and motivate people for voluntary action to protect Baltic Sea. The target group of the strategy are local level water protection actors, especially the municipality water protection specialists. The strategy was released at the end of the project.

## Participation in events

**Annual meeting for Latvian coastal municipalities** in Paviļosta, Latvia, 24-25.10.2013 (described as an activity of B.1.2). Participation in the meeting was part of the preparations for the municipalities' survey. The trip was valuable in giving insight in the possibilities of interacting with Latvian municipalities and led to a re-arrangement in the setup of the survey.

**Cost-benefit workshop** in Helsinki, 23.4.2014 (described as an activity of B.1.2). The cost-benefit approach is able to provide municipality environmental specialists with results and arguments that help to initiate and sustain water protection activities. Hence, it is also a valuable tool in communication activities. The participation in the workshop helped to understand the concept and discuss its applicability for the communication activities.

The environmental communication related work was also presented at the events organized by the project, i.e. in the Gulf of Finland Year Opening, the Turku Baltic Sea Days, Networking event 2 (The Baltic Sea Forum) and the Final seminar.

*Questionnaires, agendas, reports and participant lists relating to events mentioned have been annexed to the Mid term Report (B.2.1). The finalized two reports on communication and the communication strategy are annexed (B.2.1).*

### **B.2.2 Two workshops on environmental communication on different levels especially directed to civil servants**

The expected results of the B.2 action included two workshops, mainly aimed at civil servants. The aims of the workshops were two-fold: to present the results of the project activities and get input from civil servants for Baltic Sea water protection. The first workshop was held in 22.5.2014 and the second workshop in 8.9.2015 as part of the project Final seminar.

**The first workshop** was attended by 15 environmental specialists of Estonian municipalities who received an overview of the initial survey results, introduction and invitation to BSC initiative and introduction to the basic principles of cost-benefit analysis. Also, part of the workshop was a discussion session where the participants reflected on the survey results and discussed bottlenecks of communication and their wishes for future activities. This served as input for the communication strategy.

**The second workshop** was initially planned for May 2015 but after a low number of initially registered participants it was decided to move the event to September and hold it as part of the

Final seminar. It was held on September 8, 2015 and attended by 22 municipality representatives. Project members from Tallinn University presented the final results from the surveys and introduced the communication strategy. The active discussions after every presentation showed that these issues were of great interest to all participants and were perceived relevant and useful for their daily work.

*The agenda, report and pictures from the first workshop have been annexed to the Mid term Report. The agenda, report and pictures of the second workshop are annexed (B.2.2).*

### **Dissemination activities within action B.2**

Participation in the Turku Baltic Sea Days and organizing the communication session there was a complementary activity to the project workshop held a few days earlier in Tallinn. Its aims were similar: to disseminate survey results and to gather input from various actors. As the participants represented differing actors from several Baltic Sea countries the input and feedback received proved to be valuable for the formulation of the communication strategy.

Another dissemination event took place in Tallinn University on 16.4.2014. As part of the University's Green Week, the Institute of Communication organized a workshop to discuss water protection activities. The structure of the workshop was similar to the later events: first a short presentation with the survey results, followed by a workshop to find new ways of engaging citizens in water protection activities. 35 students participated in the 3-hour workshop. The workshop involved no costs to the project. Project and LIFE+ logos were displayed on presentations and Facebook posts about the event were made on the BSC page and Tallinn University Institute of Communication page.

Also, an internal project meeting was organized in Helsinki after the first results of the citizen survey were received. During that meeting on March 19th 2014, Tallinn University presented some of the results to the coordinating beneficiary and future plans of dissemination. An article about the surveys and a BSC advertisement was published in the Estonian communication magazine *Kaja* in August 2014. The magazine is targeted to communication experts in Estonia, while the special issue with the project articles was concentrated on environmental communication and sent by the project to all municipalities in Estonia.

In addition to the above mentioned, communication survey results have been presented at the Opening and Final seminars, the second networking event.

The published survey reports were made available to the public on the project website and also on the university website. The reports were also distributed via mailing lists to almost 500 stakeholders and Facebook pages.

*The article published in the magazine Kaja was annexed to the Mid term Report (B.2)*

### ***Comparison with planned output and time schedule***

As the process of preparing and running the survey included more stages and involvement from the beneficiaries compared to the citizen survey (in detail described below under section Changes in action), there were thus some delays in the process. However, objectives of the

action set out in the project application were achieved since the results from the questionnaires were utilized during project work, i.e. events were designed taking consideration to the knowledge and activity level brought up by the surveys. Furthermore, the results were presented several times during the project even if the final form of the surveys were published only during the last fall of the project.

### ***Indicators used to test the performance of the action***

The results of activities within the Action B.2 were mostly evaluated by the number of people reached. The first workshop was attended by 15 persons, the second workshop by 22. Both fall within the target set out in the indicator list submitted with the inception report. The attendants belonged to the target group (municipality civil servants) we wished to reach with the events.

The surveys achieved the expected response rate, making them a valid source of data. The citizen questionnaire was answered by the desired number of respondents (1,500 in all). The answering percent (42% or 72 respondents) of the municipality survey was within expectations and allowed meaningful analysis of data. The second indicator used to evaluate the surveys was the initial reach of the final survey reports and the communication strategy document. These were sent out via various networks and e-mail lists (all Estonian, Latvian and Lithuanian municipalities as well as all other contacts collected during the CITYWATER project), reaching 900 people which exceeds the number of 700 mentioned in the application.

The workshops and the documents (two survey reports and the communication strategy) are the immediately visible results of the Action B.2. These reports identify the gap areas in risk perception between experts/ civil servants and citizen as well as shortcomings in current communication. The Communication strategy then offers concrete recommendations for communication activities to motivate people for protecting the Baltic Sea, as stated as expected results in the application. The activities within this action are also expected to have long-term effects, such as implementation of recommended communication activities into municipality work or changes in people's water protection behaviour. Such changes are more difficult to quantify and measure and were therefore not proposed as indicators. We consider the initial reach (via workshops and material distribution) within the target group of local level environmental specialists as a valid proxy measure.

### ***Changes in the action***

A change to the original setup was the decision to employ a professional market research company to conduct the citizens' survey. The initial plan proposed that the project's survey expert would be responsible for running the surveys. However, it became clear that the scale of the survey would be too large for one person and therefore a part of the expert's salary was transferred and used to hire the market research company. As a result, the overall expenditure did not change and the budget variation was kept within the flexibility rule set out in the Common Provisions. The arrangement further allowed the survey expert to focus on preparing and conducting the municipalities' survey.

Another change was the addition of the municipalities' survey. The initial plan was to gather input from municipalities during the first workshop organized within the action (B.2.2). However, the first contacts with municipalities raised questions about the practicality of this

approach. Furthermore, participation in the annual meeting for coastal municipalities in Pāvilosta, Latvia indicated that there is a substantial language barrier, i.e. many municipality representatives face troubles with using the English language. Therefore, a joint workshop of Finnish, Estonian, Latvian and Lithuanian municipalities or separate workshops in each of these countries would have required extensive translation and would become unfeasible with regard of the budget and the objective.

Due to these considerations, the involvement of municipalities was restructured into several stages and the survey was decided to be run as a web-based questionnaire. The preparation stage included two visiting days in March and April 2014 to various Estonian municipalities and institutions for interviews with people responsible for water protection in order to learn about the current practices, barriers and attitudes. The information gathered during these interviews (about one hour each) was very valuable in compiling the questionnaire.

Running the survey in Latvian and Lithuanian municipalities also required finding external helpers who could facilitate the survey: translate the questionnaire into the respective language, contact all the municipalities, collect answers and translate them back into English. These persons were found by targeted searching among former employees hosted by the project beneficiaries. These were hired with contracts of services and delivered the work on time and with high quality in May and June 2014.

As an extra part of the surveys, Finland was included in the municipality study. The questionnaire was translated to Finnish and Swedish and sent out to the coastal municipalities in Finland in August and September 2014. This work was done within the internal resources of the City of Helsinki Environmental Centre and CITYWATER project personnel and required thus no extra resources except for a one-month subscription to the survey software service provider.

The focus of the workshops also slightly shifted. Since the survey already gathered information from municipalities of various countries, the workshop sessions could focus on getting more in-depth information and feedback about the survey results. For this reason the workshops have mainly involved Estonian actors.

The survey reports and communication strategy were prepared as print-ready files but distributed only in electronical formats.

Furthermore, Tallinn University participated in the Cost-benefit workshop organized and this was communicated by the Commission (in their letter following the Inception report) to be acceptable.

### ***Major problems***

No major problems have been experienced within action B.2.

### ***Perspectives for continuation of the action after the project has ended***

This action has good perspectives for continuation after the project. The surveys have risen a lot of interest and will support the BSC network and its spreading as well as be spread through the network even after the project. Especially the communication strategy will function well for increasing environmental work for several actors within the Baltic countries.

#### **5.1.4 Action B.3: Implementation of voluntary storm water solutions with special reference to landscape planning and biodiversity**

Change in climate leads to more frequent and heavier rainfalls. At the same time densely constructed urban areas and paved surfaces are increasing. As an effect, cities in the Baltic Sea region are facing challenges in storm water management while suffering from storm water floods flushing nutrients and hazardous substances into water bodies. In order to affect this highly urgent matter, the CITYWATER project action B.3 was concentrated on piloting new nature-based functional storm water solutions as well as on inspiring and educating civil servants working with related issues to see the benefits of ambitious storm water management. The action was coordinated by the City of Helsinki and Turku and contained sub-actions B.3.1 Study trip, B.3.2 Construction plans of storm water handling solutions, B.3.3 Expert meeting, B.3.4 Construction of storm water handling solutions and B.3.5 Documentation and brochure on implementations for storm water solutions in cities as a water protection measure

#### ***Activities undertaken and outputs achieved***

##### **B.3.1 Study trip**

Implementing action B.3 started with sub-action B.3.1 Study trip. The aim of the study trip was to visit a city with advanced storm water solutions before starting the planning of storm water solutions to be constructed within the project.

All beneficiary cities participated in the travel arrangements, even if the City of Turku made most of the work. Planning of the study trip begun with searching for information about storm water solutions in different cities that could be of interest for participating civil servants in their work regarding storm water management and considering ideas for management solutions to be implemented. Solutions in Malmö, Växjö, Hamburg, Berlin, Stockholm, Roskilde and Freiburg were studied within the storm water working groups collected in every partner city. Finally, the City of Malmö was chosen as the study trip destination. For ticket and hotel reservations, all participating beneficiary cities used their travelling providers, which prior to agreements had been put out to tender.

The City of Malmö offers technical visits for municipalities, organizations, universities and such and the civil servants within the city were very helpful considering the coordination of our visit and contacts with experts in the city organization and Augustenborg Botanical Roof Garden. To the Western Harbour of Malmö as well as to the Augustenborg Roof Garden and surrounding residential areas a guided tour was organized while the rest of the storm water solutions were visited without guidance. Even though it would have been beneficial to have local guidance to all spots, the comprehensive report about storm water solutions in Malmö (Peter Stahre 2008: Blue-green Fingerprints in the City of Malmö, Sweden) provided excellent background information for self-guidance.

To be able to move around from one solution to another a charter bus was hired. Offers were collected from several charter bus companies in Malmö and finally the cheapest offer by Interbus Malmö was chosen. The study trip was realized 14-16.8.2013.

*The study trip report, participant list and pictures were annexed to the Mid term Report (B.3.1).*

### **B.3.2 and B.3.3 Construction plans and construction of storm water handling solutions**

Since construction plans and constructions are closely connected and since they are independently handled by the respective beneficiary, these two sub-actions are reported together beneficiary wise. In the original application the objective was to construct storm water solutions in three cities (Turku, Helsinki and Tallinn) but as described in section 4.2 the situation became unbearable for the City of Turku, which withdraw from construction and the project amendment request related to this was approved by the Commission 17.7.2015.

#### City of Helsinki

Already before the study trip, a **storm water working group** within the City of Helsinki was established in order to get CITYWATER storm water work adopted in the different departments of the city. The working group consisted of members from the Environment Centre, Building Control Department, Sports Department, Public works Department, City Planning Department, Property Department, Helsinki Region Environmental Authorities as well as the Economic Development and Planning division and International unit at the Executive Office. All together 29 people were considered for the group, of which 15 participated actively in the work.

The task of this storm water group was to support the storm water work within the CITYWATER project. The group members were giving their view and expertise as representatives of different Departments on the choice of a suitable construction location fulfilling the objectives of the project, as well in the planning and implementation phase of the chosen solution. This group gathered four times in all.

For the **construction** several suggestions were made. These consisted of a biofiltration pond attached to a highly trafficked road (Kehä 1), a densely populated street (Mäkelänkatu), a river (Kumpulanpuro), or for treatment of storm and waste waters originating from flooding on areas with combined pipes before entering the sea. Also a treatment solution for storm waters leaking from construction areas was discussed. All these suggestions were, however, rejected one-by-one due to one or several of the following reasons: the solution would have been too expensive considering the amount of money budgeted, the time limit set by the CITYWATER project was not flexible enough to consider potential delays due to planning processes within the city, the potential environmental impact of the solution would not be ambitious enough or was too uncertain or the pilot or best practice value of the solution was not seen dignified enough.

In summer 2014 the choice for the solution in Helsinki was finally made: **a purification and retention solution based on biofiltration is planned to the northern Pasila area which is part of the city center in Helsinki**. Here the solution incorporates a water course situated in the southern part of the Maunulanpuisto Park (which belongs to the Central park of Helsinki) next to road Metsäläntie. The water course collects storm waters from a large paved area



(outside the park) covering a highly trafficked road and transportation centre in the central parts of the city before transporting it to the Haaganpuro brook. This location was chosen for several reasons. Firstly, the storm waters collected from this area were known to be contaminated by mineral oils, heavy metals, nutrients (especially nitrogen) and high levels of suspended solids, thus the need for purification was obvious. Secondly, the transportation centre area will in the future be changed into a residential and office building area, thus causing even more heavily impacted storm waters during the constructing phase. Thirdly, a purification and retaining storm water solution had not earlier been built in the immediate centre of the city where, ironically though, the need and challenges for innovative storm water management are the highest thus enabling development of pilot solutions. Fourthly, the location of the solution in the recreationally highly appreciated Maunulanpuisto Park (as well as close to the future residential area), will bring added value due to the opportunities of marketing the importance of storm water management and financing potential by the EU LIFE+ programme to people crossing the site.

During summer of 2014 the **tendering process for the designing of the storm water construction plans** was conducted. The tender offer was quite ambitious, as the solution to be planned, should meet all requirements described above. Additionally, the solution should take consideration to safety issues, the natural biodiversity and character of the site as well as adopt to winter circumstances when possible. The tender offer was sent out to six providers: The Finnish Consulting Group, Pöyry Finland, Ramboll, Sito, Gaia and Ympäristö Insinööri Palvelut. Of these providers four commented or asked questions, while only one, The Finnish Consulting Group, gave an offer within the given time frame. After thoroughly considering the offer within the project and the storm water working group by comparing it to the conditions stated in the tender offer, the Head of Environmental Protection at the City of Helsinki made a positive procurement decision on the matter, after which the matter was further supported by the Environmental Board of the City of Helsinki. The contract concerning planning of the storm water solution was signed with the Finnish Consulting Group (FCG Suunnittelu ja tekniikka Oy) on 16.9.2014.

In mid September the start-up meeting was held with the consultant and first sketches for construction plans were drafted. Furthermore, a new, somewhat more concise **storm water monitoring group** was compiled to participate in meetings with the consultant as well as follow-up and guide their work. This group consisted of persons representing the Environment Centre, Construction Inspection, Public Works Department and City Planning Department. The monitoring group gathered in all three times with the consultant during the fall of 2014. When all documents for the construction planning was ready (principal plan, construction plan, cross and longitudinal pictures, water services plans, maps with soil, sediment and well information, bottom structure details, cost estimates for construction, management plan for usage and maintenance, quantity lists, safety documents and work descriptions) in the beginning of year 2015, the plans were approved by the Public Works Board of the City of Helsinki in March 2015 and the preparations for construction could finally start. Also a residential meeting was held to present the plans to local citizens.

The finalized construction plan was divided in two phases. The original plan was that the budgeted project money would have been enough to cover for the first phase, the biofiltration area. After the amendment and the increase in own financing from the part of City of Helsinki, the construction covered the biofiltration area, two sedimentation basins and meandering of a water course.

The **construction phase** started with cutting trees from the construction site area in late March 2015 before the seasonal bird nesting period started. A press release was also made in connection to the tree cutting. The press release was especially noted by the commercial TV channel MTV3 in Finland, with whom it was agreed to make a TV clip on the issue when the biofiltration area is ready. The actual construction, which was collaboration among the Public Works Department and the Environment Centre was set to start in August when all paper work was finished with the constructor Stara, which is a city owned company of Helsinki. The city has a tendered contract with Stara and constructions of the size of the present one falls within this contract. The construction phase went very smoothly and kept the timetable. The project manager of the CITYWATER project carefully followed the process by e-mail and visiting on spot. Furthermore, two meetings were held among the constructor, the project as well as the environment and public works department on the worksite during the constructing process in order to follow that all plans and safety requirements were fulfilled. The construction was received as ready 17.12.2015. Also the info board (with references to funding bodies) was in place at that time. 13.1.2016 a press release was sent on the finishing of the solution.

When the vegetation is fully rooted in summer 2016, a press conference is planned to be held by the solution and the info board promoting the sustainable storm water values, the project and the financing institution (LIFE+). In connection to this, also a monitoring programme on the effects of the solution will be started within the City of Helsinki Environment Centre.

*Meeting agendas and reports, as well as the preliminary landscape plan for the storm water construction (in Finnish) and pictures considering activities until 30.9.2015 were sent with the Mid term report (B.3.2 City of Helsinki).*

*The construction plan with its attachments, meeting minutes from the residential meeting (B.3.2) and pictures from the constructed solution (B.3.3 City of Helsinki) are annexed.*

### City of Turku

After considering several alternatives, the selection of the storm water solution to be built in Turku was after a somewhat lengthy process made by the CITYWATER **storm water working group** assessed for the task in Turku. The group consists of people working with storm water issues within different city departments i.e. the Property Management Division, Water Utility, Environmental Division departments, Urban Planning, Environmental protection and Building control.

Twenty possible places were touched upon regarding where storm water solutions are needed. After going through the criteria of location, the planning situation, land ownership, suitable solutions etc. the four most suitable locations were chosen. The biggest problems regarding non-selected places considered uncompleted city plans, large problem areas and remote locations far from the residents.

In the end it was decided that the City of Turku solution will be a **wetland in Toijainen, Hirvensalo**. The wetland will be built in a ditch called Peippolanoja to clean storm waters from surrounding areas before the water enter the already eutrophic Lake Illoistenjärvi. The location is ideal because it is possible to combine storm water management from construction sites and later on from residential areas at this location.

Hirvensalo is one of the fastest growing areas in Turku. In Peippolanoja catchment area there are six different city plan areas. Some are already being built, while some are still in the planning phase. The area around the lake resembles the country side at the moment but in the near future residential areas will be built there. During the building phase a lot of clay, nutrients etc. will be released to storm waters, and thus it is important to have the wetland ready before the work begins. After the construction work is finished the wetland will continue to clean and collect waters while creating a water element to the residential area park.

The **tendering process** for the designing of the storm water general and construction plans was conducted during autumn 2014. The tendering documents were based on those used in the City of Turku's Urban planning department for the same purpose. The description part of the tender offer was quite long and detailed in order to have all the requirements and aims of the project fulfilled. The tender offer was sent to seven different consultancies: Pöyry Finland, Ramboll Finland, Finnish Consulting Group (FCG), WSP, Destia, Pro Agria and SITO. Of these providers two asked questions and three other commented. Four of the consultancies (Pöyry Finland, Finnish Consulting Group (FCG), WSP Finland and Destia) gave an offer within the given time frame. All offers fulfilled the requirements given in the tendering documents. Of these offers the least expensive one made by Destia was chosen. The procurement decision was approved by the Urban Planning and Environmental Committee 11.11.2014 and the contract between City of Turku and Destia about the general and construction plans of the wetland was signed during the first planning meeting 17.11.2014.

The planning work was monitored and guided by a small group of City of Turku's personnel from different departments. The group consisted of representatives from the Environmental Division departments Urban planning and Environmental protection, Property Management Division and Water Utility.

According to the original schedule the final plan was to be ready by the end of the January 2015. However the time was pushed forward because additional field work had to be made concerning altitudes in the planning site. The plans also received numerous comments which led to revising some parts of the report and drawings. Because of these the consultant proposed that the City of Turku should pay for extra work. After negotiations it was agreed that City of Turku will pay extra for delays and inconveniences caused by insufficient materials but other parts of the extra work proposal would not be paid. The final version of the plans were finished 13.3.2015.

For the City of Turku the construction will be implemented outside project time.

*The construction plan as well as pictures from the site for the solution are annexed (B.3.2 City of Turku).*

### Tallinn City

Early after project start, Tallinn City found the **Lepiku water course within the Tallinn Botanical Garden** suitable as a site for the storm water construction to be implemented within the project. The water course was severely damaged and needed reconstruction since the original construction had collapsed in, the bottom and the culverts were full of sediments and in many places the soil had eroded. The reconstruction will prevent further pollution of storm

water, especially with concern for the river Pirita. In addition to water purification, the construction enables an opportunity for showing the Botanical Garden visitors exemplary storm water management and highlights the importance of managing storm waters both in a purification and flood prevention purpose. Furthermore, the financing channel provided by EU and the LIFE+ programme gains visibility here.

In order to start **planning** the storm water solution in Lepiku water course, the volume and quality of sludge in the water course were determined (December 2013). Thickness measures were performed by the company Maves AS, while water quality research was carried out by the Environment Department of Tallinn. Based on the pre-research of the site, a design sketch supporting natural storm water handling was drafted within the Environmental Department of Tallinn City for the construction. Following the sketch, the tendering process for designing of the storm water construction plans was conducted. In the tender offer the construction plan to be made should contain principles on the construction itself and on cleaning the area before and after construction. Thus in detail the construction plan should contain descriptions for removing sludge, assuring erosion prohibition, culvert installations and an oil separator, as well as a profile plan and a construction plan for a bridge to be placed over the ditch. Furthermore, a budget forecast and time plan was needed. The tender offer was sent out to four providers: Inseneribüroo Nugin OÜ, Artes Terrae OÜ, Kobras A and Merin AS, all of them having previous experiences of designing natural storm water handling projects. All providers were assured identical documents and equal opportunities for leaving an offer. Within the given time frame Inseneribüroo Nugin OÜ and Kobras AS gave an offer of which the first one was chosen mainly based on the lower price.

The construction plan was presented in time (April 2014). Following the budget forecast, it was decided to put the oil separator installations on hold and make only preparatory work for the bridge construction, while other parts of the design could be implemented within the project budget thus still achieving the original objectives. Installing of the oil separator as well as making the bridge ready can be done separately after the project has ended thereby continuing the work.

When the construction plan was ready the tendering process for **construction work** started. The tender offer was sent to five companies that Tallinn City Environment Department had cooperated with before, i.e. G-Floors OÜ, Baltrand OÜ, Lemmikainen OÜ, BauEst OÜ and Talteede OÜ before. Within the time frame given G-Floors OÜ and BauEst OÜ gave an offer, of which the first one was chosen basically mainly based on the lower price.

Following the new construction, parts of the old construction were removed. All stumps on the right side of the water course were erased, while roots were left as a natural barrier for erosion. Secondly, all the sediments from the bottom were excavated and culverts were cleaned and replaced where needed. After that, elements for the new water course were built up: At first a fabric suitable for the purpose was placed on the bottom and sides of the water course and on top of it gravel as well as limestone were spread out to construct the right slope, width and height. On the upper side of the course, a geocell was placed and filled with soil to avoid erosion. Along the watercourse, width and depth are constructed to vary in order to retain the water flow thus improving sedimentation of suspended material. Furthermore, plants were added along the course both on the bottom and sides.

All impacts on water quality following the water course reconstruction are not ready to be evaluated at the present moment. For instance, although, the flora and the stone structures,

which were installed in the bottom of the ditch, already work as the mechanical purification, the development of a biological purification process will function at its best in the coming years, when the flora is well rooted and there is a mix of micro-organisms in between. The Environment Department in Tallinn City will proceed with the monitoring process.

*The construction plan was annexed to the Mid term report (B.3.2 City of Tallinn). Pictures from the implemented solution are annexed (B.3.3 Tallinn City)*

#### **B.3.4 Expert meeting**

Due to the delay in planning of storm water solutions within the City of Helsinki and Turku also the Expert meeting was deliberately postponed, since the plan was to present preliminary construction plans at the meeting. The Expert meeting was held on 11.12.2014 in Turku for the civil servants involved in storm water management within beneficiary cities. Besides civil servants also participants from Environmental Administration, University of Helsinki and Turku University of Applied Sciences participated. All together thirteen participants were attending in the meeting.

During the meeting the current legislation regarding storm water management in Finland was thoroughly presented and compared with the legislation in Estonia. Also the storm water strategies and implementation within beneficiary cities and the planned solutions to be implemented within the CITYWATER project in Helsinki and Turku. Tallinn City was able to present the finished reconstructed water course as their plans had been executed ahead of the schedule. The meeting was finished with two presentations; one covered the quality of storm waters and how land use impacts it, the other presented different management solutions and their benefits.

*The agenda, report and pictures for the expert meeting are annexed (B.3.4).*

#### **B.3.5 Documentation and brochure on implementations for storm water solutions in cities as a water protection measure**

First planning meetings on the brochure content were held among project beneficiaries during spring 2015. The brochure on storm water solutions implemented within the project and the process of implementation within the cities was finished during fall 2015 by the help of a designer. The brochure was further language checked and translated to Estonian. The brochure has been disseminated during two events organized by the Baltic Sea Challenge in late 2015 and also in February 2016 at the Kick-off events of the Stormfilter and iWater projects, which both are concentrated on storm water issues. The brochure has also been promoted electronically via email to almost 500 stakeholders.

*The brochure is annexed (B.3.5).*

#### **Dissemination activities within B.3**

The storm water work has been actively disseminated during the entire project. At all events organised by the project the storm water solutions have been brought up as examples of water

protection activities and also as implementations that the LIFE+ funding programme has funded. The solutions and the storm water work in general has also been presented at almost all other events that the project has participated in either through the BSC or as an invited speaker. Several excursions by diverse groups have also already been organized to the sites. The solutions have raised a lot of interest and also the info boards by the solutions are good marketing tools for the theme and the concrete solution. The storm water work in CITYWATER stands as a basis for new projects (started after CITYWATER ended) and the results are brought up here through dissemination of the brochure, excursions to the sites and general experiences of planning and implementation.

### ***Comparison with planned output and time schedule***

The output was reached considering the study trip, the expert meeting, the construction plans and the brochure. Also the construction of the solutions were fulfilled for the City of Helsinki and Tallinn. For the City of Turku the construction will be implemented outside project time.

### ***Indicators used to test the performance of the action***

This action has fulfilled the expected results considering three construction plans, the expert meeting. Constructed solutions were two instead of three mentioned in the original application but as mentioned, this change was approved by the amendment process. Also the storm water brochure was compiled and 600 prints (500 in English and 100 in Estonian) was compiled. This is 100 prints less than mentioned in the application, but instead the brochure was compiled in two languages.

### ***Changes in the action***

As described under Management in section 4.2. City of Turku did not construct a storm water solution due to lack of funding. This change in action lead to an amendment on project level which was approved by the Commission on 17.7.2015. The amendment considered a technical change (the solutions were seen as prototypes), a budget related change (the City of Turku partner withdraw from constructing and the lead partner City of Helsinki implemented a bigger and more diverse solution in order to cover for the loss of the solution in Turku and thus still reach project level aims) and a project prolonging (1.10-31.12 in order to secure the finishing of the solution in Helsinki).

### ***Major problems***

Delays in the planning schedule might have been possible to overcome but money became the problem that halted the implementation of the storm water solution in Turku. Despite revising and simplifying the construction plans the cost of building was significantly more than what was budgeted in the project. After this became evident the city searched financing within the city organization. This proved to be impossible because of the way Property Management

Division that executes and finances the constructions in the city operates. Every construction has to be budgeted early on and approved in order to be included in the list of investments for each year. Because of this it was not possible to get extra funding for the wetland on a tight schedule required in the project timeframe. If the wetland has been built using only budgeted money in the project the solution would not have reached the objectives set in the project project; functional and presentable example of storm water solution with special reference to landscape planning and biodiversity. Thus, the City of Turku withdraw from constructing the storm water solution within project time. However, instead the City of Helsinki invested more own financing than originally planned on their solution, which was extended to including several parts (smaller separate solution entities in one) in order to meet project aims of showcasing several different technics for sustainable storm water handling.

### ***Perspectives for continuation of the action after the project has ended***

After the project has ended, the storm water solutions made in the project are standing as best practices that the BSC as well as the involved city departments will bring forth on storm water handling. Storm water issues are per definition concerning several administrative entities within the city, thus emphasising cooperation on these issues. The storm water working and monitoring groups compiled for the CITYWATER solution have further increased the practical knowledge and hands-on cooperation on city level, pin-pointed on the challenges that dispersed management experiences as well as showcased how planning and implementation process can be dealt with, among beneficiary cities and within the BSC network. In addition, potential new projects will further be tackling storm water handling and bringing forth the new technics used in the CITYWATER project.

For the case of the City of Turku, the wetland will be constructed simultaneously to the infrastructure in Illoistenjärvi pohjoinen city plan area. The timing is not set as the building schedule depends of the overall financial situation and demand for one-family houses. The wetland is meant to be constructed at the same time as the park where it is situated in. In an ideal situation the wetland would have been built before other constructions so that the storm waters coming from the building sites could have been cleaned before entering the lake Illoistenjärvi. This is however the second best option as infrastructure, like streets and parks, are built before the houses. Building of the infrastructure is already on the investment list so similar problems with timings and financing as the project faced this year should be avoided.

### **5.1.4 Action C.1: Environmental impact and cost-benefit analysis of water protection measures**

#### ***Activities undertaken and outputs achieved***

Action C.1 Environmental impact and cost-benefit analysis of water protection includes three sub-actions: C.1.1 Two workshops, C.1.2 Five visits to Baltic Sea Challenge cities and C.1.3 A cost-benefit analysis survey. City of Helsinki is the responsible beneficiary for action C.1.

### **C.1.1 Two workshops**

Action C.1 includes two workshops in order to initiate the activities in C.1 Action and to synchronize needs among the environmental impact and cost-benefit analysis (CBA). The first workshop “Finding benefits in local water protection – How much is clean water worth and where to put your money?” was a half-day event arranged on 20.3.2013 in Helsinki. The workshop consisted of two sessions providing presentations and discussions: the first session on economic valuation of environmental benefits and CBA, and the second on examples of municipal water protection measures. Potential water protection themes to be studied in the CBA were brought up during the workshop. These were storm water management, waste water treatment in the Baltic countries (possibly also in view of Poland and Russia), agriculture on city owned fields, or maritime and port activities. The workshop had participants, including civil servants and experts of water protection and related research fields as well as steering group members and other project personnel (as the first steering group was held in the morning before the workshop).

The second workshop, “CITYWATER Cost-Benefit Analysis Workshop” was arranged as a whole-day event on 23.4.2014 in Helsinki. The workshop was divided in a theoretical morning session as well as a more hands-on interactive afternoon session. The morning session was constructed in a lecture format offering the participants introductions to the CITYWATER CBA survey, economic valuation of environmental benefits and CBA methods. A working paper on the CBA survey was sent to the participants beforehand and the afternoon session was concentrated on the survey and the results in order to get feedback from the workshop participants for improving the work. At first the preliminary results were presented, then comment speeches from experts were heard and in the end participants were divided in groups in order to discuss, provide ideas and aspects on how the survey results could be communicated and used when ready. The workshop was attended by 25 participants representing the case cities in the survey, civil servants and experts.

*Workshop agendas, reports, participant lists and pictures were annexed to the Mid term report (C.1.1).*

### **C.1.2 Five visits to Baltic Sea Challenge cities**

After the first workshop in the autumn 2013 the case measures were chosen. These include five examples of water protection actions implemented by partners within the BSC network: 1) centralizing of several waste water treatment plants in the Pori region into one, the Pori Luotsinmäki waste water treatment plant (WWTP) (Finland), 2) technical improvements in the WWTP in the City of Liepaja (Latvia), 3) reception of sewage waters from ships without special fee in the Port of Helsinki (Finland), 4) building urban wetlands in Lahti (Finland) and 5) agricultural buffer zones in the City of Turku (Finland).

During the winter 2013-2014 when the case measures had been chosen the visits within C.1.2 to the cities that had implemented the chosen measures were conducted. The aim of these visits was to learn more of the sites and collect material for the CBA survey. In addition, the project as such as well as the cost-benefit analysis and its details were presented to each case representative. Furthermore, the visits gave excellent opportunities to discuss open questions and collect lacking data, as well as to promote the project and the EU LIFE+ programme as



such. In addition, the visits provided useful information for the project in general, especially considering water protection in Latvia and urban storm water management in Lahti. The CBA expert employed by the City of Helsinki to perform the survey, participated in all visits. In addition, the Project expert within the Coordinating beneficiary participated in two visits (Lahti and Liepaja) and the BSC coordinator participated in one visit (Pori). The visits were one-day visits except the visit to Liepaja which lasted for two days.

Furthermore, one data compiling visit was made to Lahti during summer 2014 due to the need for further detailed discussions with key persons.

*Reports on all visits and pictures were annexed to the Mid term report (C.1.2).*

### **C.1.3 Survey**

After the first workshop in summer 2013, the search for potential measures to be studied was done by browsing the Baltic Sea Challenge Action databank and by contacting cities and WWTPs participating in The BSC network in Finland, Estonia, Latvia and Lithuania. In early autumn 2013 the case studies were chosen for the survey: 1) centralizing of waste water treatment in the Pori region by merging several plants into one, the Pori Luotsinmäki waste water treatment plant (WWTP) (Finland), 2) technical improvement in WWTP in the City of Liepaja (Latvia), 3) reception of sewage waters without a special fee from ships in the Port of Helsinki (Finland), 4) building urban wetlands in Lahti (Finland) and 5) agricultural buffer zones in the City of Turku (Finland). The set of case studies were deliberately chosen to be diverse. Firstly, they cover several essential themes within the field of water protection: waste water treatment, storm water management, marine traffic related activities and agriculture. Secondly, the case cities are located around the Baltic Sea, including four coastal cities and one in-land (Lahti) giving a large geographical scale, and thirdly, there are both small- and large-scale investments exemplifying measures for actors of differing magnitude.

The survey entitled “*Cost-benefit analysis of municipal water protection measures: Environmental benefits versus costs of implementation?*” focuses on the role of cities and municipalities in saving the Baltic Sea and local waters. In more detail it aims to find out the magnitude of benefits that local water protection measures can provide and their potential in increase social welfare. These questions were studied through the five case studies introduced above. The impacts of measures were first identified, then measured and monetised over the lifespan of the measures. A comprehensive sensitivity analysis was also performed for the net present values. Finally, recommendations for local water protection were formed based on the results.

One of the main conclusion of the cost-benefit analysis case studies is that local actors are in a crucial role in protection of the Baltic Sea and the local waters. According to the case studies, local water protection measures can provide remarkable nutrient load reductions and also various other positive impacts, especially locally. The sign of net present value remained unclear in some cases, depending on the scenario on how the state of the Baltic Sea develops in the future. However, the net benefits of studied measures are likely to be positive, since some positive local impacts were not possible to measure and include in the analysis due to lack of data. The survey also provided experience on how the cost-benefit analysis can be applied as a tool to support water protection at municipal level, which also raised interest within municipalities towards this tool. The results were published in the CBA report in January 2015.

The monetary value of social benefits from reducing eutrophication of the Baltic Sea was one of the key variables in the survey but lacked reliable estimates in the existing literature. Thus, estimates on the marginal benefits (i.e. the benefit of one reduced unit of nutrient load) were assessed within the project in a report called “Marginal benefits of reducing nutrient loads to the Baltic Sea”. The report is based on data from the willingness to pay survey conducted by the BalticSUN-project as part of the BalticSTERN project (which also was mentioned as a cooperation partner in the application) and the calculations were performed by the authors within the same project. The report includes marginal benefit estimates on both nitrogen and phosphorus reductions to each sea basin and for each littoral state. The marginal benefit report was published as an annex to the CBA report on the project web page and the Toolbox (Action C.2).

In addition to the external expertise of BalticSUN researchers mentioned above, various contacts was used in identification of the impacts of water protection measures and to improve the survey in general. Especially communication and meetings on a personal level with case study representatives were important in order to collect needed background information and data for the survey. Comments from experts (e.g. from the project beneficiaries and the University of Helsinki) to the survey were collected mainly in meetings and workshops, during visits and by personal communication.

Furthermore, a CBA summary was compiled, which was not included in the original application, but planned in the Mid-term report. The coordinating beneficiary saw that the CBA report is a rather large publication and is alone not convenient for promoting project aims, while complemented by the CBA summary will provide comprehensive information for shareholders ready to study the CBA method in depth. The 5-page long document summarises the survey results and recommendations in easily accessible way. The summary document was published in Toolbox (Action C.2).

*The survey, its summary as well as the Marginal benefits of reducing nutrient loads to the Baltic Sea report are annexed (C.1.3).*

#### **Dissemination activities within action C.1**

A deliverable product from C.1 action was the CBA study report, which covers comprehensively the whole cost-benefit analysis performed for five case studies. The report consists of background, introduction to the research methods and data, case studies of municipal water protection measures, conclusion and discussion of the results and recommendations. The report is written in English, including abstracts also in Finnish, Swedish and Estonian. The report was published in January 2015 in the series *Publications by City of Helsinki Environment Centre*. A press release of the publication was announced in 28 January 2015 in Finnish and it was shared in two municipal web magazines (Kuntaliitto and Kuntatekniikka, approx. in English Association for local governments and Technical solutions for municipalities). The CBA report was disseminated in both printed form (100 copies) to key stakeholders (incl. case cities) and electronic form. Link to the electronic form was sent to 70 municipalities in the Baltic Sea region. In addition, the electronic form was disseminated on the project web page, the Tools for water protection webpage (Action C.2) the Baltic Sea Challenge web page and Facebook page, as well as in City of Helsinki Environment Centre web page and Facebook page. Layout of the CBA report was realised in-house.

Action C.1 and preliminary survey results were disseminated in the international event “Cost-efficient protection of the Gulf of Finland” in Lahti, Finland on 30 September 2014. The presentation held in Lahti is also published on the project webpage and on the webpage of the Gulf of Finland Year. Previously the CBA survey was presented at the Communication Workshop 1 (action B.2) in Tallinn 22 May 2014, and a comment speech about the survey was held at the Networking event 1 (action B.1) “Cities Forum” held in 21 January 2013.

The final results and published survey report were presented in several events during 2015. The main events from these were the Networking event 2 (Action B.1) “The Baltic Sea Forum” held in 26.3.2015 in Tallinn, in the meeting of the advisory group for The Water Protection Association of the River Vantaa and Helsinki Region (VHVSY) on 9.6.2015 in Helsinki and the Final Seminar held in 8-9.9.2015 in Tallinn.

The summary was sent electronically to several stakeholders and is added to the project webpage as well as the Toolbox.

*The press release is annexed (D.1)*

### ***Comparison with planned output and time schedule***

The C.1 Action was planned to be conducted from the last quarter 2012 to the second quarter 2015. The activities in C.1 Action have been implemented according to the plan. The first workshop was arranged in March 2013 and the work with the survey begun in summer 2013. After this five visits were made during the winter 2013-2014. The second workshop was arranged in April 2014 in where the preliminary results of the survey were presented. The survey was published in January 2015.

### ***Indicators used to test the performance of the action***

#### **C.1.1 Two workshops**

Two workshops with 10 participants each constituting a very specialized audience (experts, academics etc.) were planned in the application. Both workshops were arranged and over 20 people participated in both workshops. The content of both workshops was realized as planned.

#### **C.1.2 Five visits to Baltic Sea Challenge cities**

Five visits for five persons were foreseen in the application. Five visits were also made to the Baltic Sea Challenge cities. The aim of the visits was to collect material for the assessments and due to the person conducting the survey was working in-house, it was regarded unnecessary to arrange visits for that many persons, i.e. information conducted during the visits was spread smoothly anyway within the project and beneficiary. The visits were conducted by 1-2 persons. Please see “Changes in the action”.

### **C.1.3 Survey**

The CBA survey was planned to be distributed to 70 cities and municipalities in Finland and Estonia. The survey was published in January 2015 in printed (100 copies) and electronic form. Printed copies were delivered in events and sent to case cities and other important stakeholders. The link to electronic form was distributed to all Baltic Sea Challenge network members (over 200) and other stakeholders around the Baltic Sea, and it is found at the project web page and the toolbox (Action C.2). The distribution was clearly wider than planned. Please see “Dissemination activities within action C.1”.

### ***Changes in the action***

The survey was decided to be conducted in-house as also commented by the Commission (in their letter following the Inception report), as it was difficult to find a service provider with the specified knowledge that was needed for the purpose and as a suitable CBA expert to be employed in-house was found instead. Thus, in line with the correspondence with the Commission funding was reallocated from the external expertise budget category to the personnel cost category within the flexibility rule.

Initially it was planned to arrange five study trips for five civil servants working in the city in order them to learn more about the sites and collect material for environmental impact assessment as the study was planned to order from a consult. Because the CBA study was decided to be conducted in-house by a CBA expert hired by the city of Helsinki and the visits were made in the phase where it was most important to discuss especially the open questions and the availability of lacking material it was regarded most important that this person takes part in these visits and unnecessary to arrange visits for five persons. Together with the CBA expert one person from the City of Helsinki participated in some of the visits in order to learn more of the sites and to spread gathered information to other key persons within the project.

Conducting the survey in-house provided several benefits. Firstly, the general aims of the project and the Baltic Sea Challenge have been strongly connected with the survey aims from the beginning. Secondly, the interactions between C.1 and other actions have revealed to be productive because the CBA expertise is found close to the project personnel. For example, the C.1 action related questions were easily linked to the communication survey in B.2 action and the CBA survey was used also in action B.1 promoting the BSC. In addition, knowledge of storm water management systems and measuring the impacts have increased during the project because examples of storm water management in cities were discovered in the beginning of the CBA survey and one case study were included. Thirdly, the in-house CBA expertise has increased knowledge of the CBA within the City of Helsinki and other beneficiaries and fourthly, it has promoted the collaboration between the City of Helsinki and the University of Helsinki as well as other research institutions.

Another change in the C.1 action was that funds to cover travel costs of two case study representatives from Latvia participating in the CBA Workshop 2 were re-allocated from the C.1.2 budget for travel costs. This change was done because it was regarded important that these persons are present in the workshop and the change enabled their participation. This change was accepted by the Commission (in their letter of correspondence following the second monitoring visit).

The constraints and risks foreseen in the application were possible lack of suitable data for the survey and the too ambitious objectives for survey results. The availability of data for measuring and monetising the main impacts of the cases was sufficient in order to conduct the survey. However, some single potential impacts had to be excluded from the analysis due to lack of data, which likely lead to underestimation of the benefits from measures. In general collecting the data and information for each case study was time-consuming and challenging, because finding the key persons to help required several contacts and delays in receiving the certain material occurred. At this point, it is fair to stress the fact that the case cities participating were voluntarily involved in the survey without agreements and gathering many kinds of data from previous years were found out to be challenging even for them. The importance of face-to-face meetings in order to learn more of the sites and the general need of communication with the case study representatives were underlined.

The survey was not able to rank the measures based on greatest impact on water quality or benefits for the actor itself as proposed in the application, since this expectation is too ambitious. Nor should the five case studies be compared or generalised too widely since they are examples on actions that cities and municipalities have been implementing within very differing water protection themes. However, the study cases will provide both qualitative and quantitative information on e.g. environmental impacts, costs and benefits, monetary value of environmental impacts and the overall net benefits.

The CBA summary was not a foreseen product in the original application but was compiled as the document summarises the survey results and recommendations in easily accessible way, and addresses the concern brought up by the Commission in their response on the Mid term Report on dissemination of the CBA work.

Furthermore, the CBA survey was planned to be distributed to 70 cities and municipalities in Finland and Estonia and not to the initial number of 700 as stated in the original application. This number revealed to be a typo as also commented by the Commission (in their letter following the first monitoring visit).

### ***Major problems***

There are no major problems in action C.1.

### ***Perspectives for continuation of the action after the project has ended***

The results of action C.1 were integrated to be part of the toolbox completed within action C.2. The toolbox will be managed by the BSC coordinators and thus promoted after the end of the project. The toolbox will be actively used by civil servants and other local actors to gain support for water protection work. The results from the CBA survey and information on the CBA method in general will be useful for civil servants and other local actors in bringing benefits of water protection into decision-making and choosing water protection measures.

## **5.1.5 Action C.2: Toolbox of water protection measures in cities: Compilation of project results and their impact**

## *Activities undertaken and outputs achieved*

Activities in action C.2 began in December 2013 within in the City of Helsinki. Ideas and questions were presented on the Steering group meeting held in Tallinn 22 May 2014 to inform and remind all beneficiaries about the objectives of the toolbox. The kick off meeting for the toolbox was held as online meeting 8.12.2014 together with all beneficiaries and the BSC coordinators. After this several online meetings among this group was held to plan the toolbox further, and compile the content from project actions. The coordination of the toolbox compilation was made by the project expert (action C) and the content production was done by beneficiaries.

The realised toolbox is the Tools for water protection webpage [www.waterprotectiontools.net](http://www.waterprotectiontools.net) provides tools, information and examples to support implementing of water protection actions in cities, municipalities and other local organisations. In order to guarantee its visibility and existence after the project, it was decided to design it to have a tight connection with the current BSC web page, although it will be an individual, separate web page. In addition, the structure of the toolbox was designed in a way that it enables adding new content into the page in future.

Project results are integrated to the Tools for water protection webpage below following topics: Networking & Collaboration (B.1 Action related to BSC), Awareness raising & Communication (B.2 Action related to Environmental communication), Decision-making & Implementation (B.3 Action related to implementation of measures, e.g. storm water solutions) and Economics & Financing (Action C.1 related to the cost-benefit survey). Each tool provides multilevel-information: 1) information on why the tool is recommended, 2) example water protection action within the theme, 3) guidelines and recommendations, and 4) useful links and reports for further information. Example actions are presented on a map application “Bank of Actions”, which is developed based on a previous databank found on the Baltic Sea Challenge web page. Water protection measures related to the project, such as case studies in action C.1 and storm water solutions in action B.3, are presented on the map as well. The Bank of Actions provide information of concrete examples of water protection actions from various themes. The toolbox provides also an alternative approach to the content for the user: it is also categorised by water protection themes.

The technical and visual realisation of a Tools for water protection web page was ordered from a consult. Tendering begun in February 2015 and the consult was chosen in March. Unfortunately the first consult withdraw their offer after the Tools for water protection webpage kick-off meeting, since they have underestimated the resource requirements of the project and this caused unexpected delay in compilation of the Tools for water protection webpage. A new consult was found and the technical and visual realisation begun in the end of April. The work of the second consult was finished in August. The consult realised also a printed bookmark and electronic banner for promotion purposes.

The usability of the Tools for water protection webpage was tested in five user tests. The results and feedback from these tests were taken into account when improving the technical solution further. In addition, experts in communication, information technology and water protection from the City of Helsinki Environment Centre gave feedback of the technical and visual solution along the process. Feedback on the realisation was also gathered during the second Networking event and Final seminar.

The English language of the toolbox page was further language checked before publishing. The Baltic Sea Challenge has further translated the Tools for water protection web portal to Finnish and will continue by translating it to Swedish also.

*The toolbox bookmark is annexed.*

### **Dissemination activities**

The bookmark was realised as a two-sided leaflet and disseminated at all BSC events since it has been ready. In addition, an electronic banner, shaped as the leaflet, was ordered for marketing purposes. The banner was used on the Baltic Sea Challenge web page and Facebook page. The link to the Toolbox webpage together with the banner was sent to the Baltic Sea Challenge network members (over 200 organisations) as well as important stakeholders around the Baltic Sea region (almost 500 recipients).

When the compilation of the toolbox was in progress, it was presented during the second Networking event, the municipality event in Latvia, the Baltic Sea Days in St Petersburg, Almedalsveckan in Sweden (presentation by BSC), the Water week in Stockholm (presentation by BSC), the teachers camp, the Final seminar, the advisory group for The Water Protection Association of the River Vantaa and Helsinki Region (VHVSY), the Eurocities meeting, The BSC workshop during the Urban Magna event and the storm water seminar organised by the Centre for Economic Development (last three events described under section 5.2 as general project dissemination efforts).

Because the toolbox was designed to be linked to the Baltic Sea web page, it was realised in English and Finnish. Also a Swedish version is under construction. The Finnish and Swedish versions were paid by the Baltic Sea Challenge. The leaflet was realized in English.

As the toolbox was finished just in the end of the project and new tools and actions will be added in the future, the promotion and development of the toolbox is continuing by the Baltic Sea Challenge coordinators.

### ***Comparison with planned output and time schedule***

The activities in action C.2 were planned according to the application to begin on the second quarter 2014 when the action C.1 is in the end phase, and end on the third quarter 2015. The compilation of the toolbox begun in the end of year 2014, when the survey within action C.1 was in finalising phase. The first draft of the web-based application was received from consult 19.5.2015. The web-application and the marketing materials were finished by the consultant in September 2015, however, material was added from all actions until the project ended in December 2015.

### ***Indicators used to test the performance of the action***

In addition the toolbox was planned to be presented in at least five seminars, including a networking event (in B.1 action), the final seminar and at least three other events. The toolbox was presented in total of 12 events during the project, please see Dissemination.

The toolbox has mainly been promoted electronically since it seems the most effective way to use as it is an electronical media. The link to the toolbox has been distributed through the Baltic Sea Challenge facebook page (around 200 members) and to all contacts gathered during CITYWATER (ca 450).

### ***Changes in the action***

The toolbox was initially planned to be a web-based application to be located on the project webpage. However, the toolbox was realised as an individual web page, in a tight connection with the Baltic Sea Challenge web page in order to guarantee its existence in long-term and promote its visibility. It was also designed in a way that it could be expanded in the future with new actions and new tools. The Baltic Sea Challenge coordinators will manage and update the web page after the project.

### ***Major problems***

No major problems encountered.

### ***Perspectives for continuation of the action after the project has ended***

The toolbox will be managed and disseminated by BSC coordinators after the end of the project. In addition, new water protection actions and possible new tools (e.g. education, treatment of hazardous substances in waste water, tourism) will be added to the toolbox in future by the BSC coordinators and in collaboration with possible new projects. The toolbox will be actively used in the BSC by civil servants and other local actors to get support to the water protection work.

## **5.2 Dissemination actions**

As most of the actions and the entire project in a sense has a dissemination character much more dissemination activities have been carried out than the once mentioned in action D.1. Below are, however, dissemination activities relating directly to action D.1 described, while dissemination beyond relating to other actions B and C are described in section 5.1 in connection to the activity reporting on respective action.

The sub-actions within D.1 consist of D.1.1 Project website, D.1.2 LIFE+ info boards, D.1.3 Project brochure, D.1.4 Opening seminar, D.1.5 Final seminar, D.1.6 Layman's report and D.1.7 After life communication plan.



## **5.2.1 Objectives**

Communication plays a central role in the CITYWATER project; all project activities involve and depend on various types of communication and dissemination. Communication is both a tool and an objective, and plays a central role in the project implementation.

The dissemination plan outlines the communication goals, the overall goal being to provide cities and municipalities with information and experience on concrete water protection measures. The sub-goals are connected to giving visibility to the different project actions. The target audiences are cities, cities networks in the Baltic Sea region; NGOs; the general public; authorities and private companies. In order to clarify the messages, a set of key messages were developed related to what the project is doing, why, and why it is important. The key messages were also compiled in a message / audience matrix according to different target audiences. Also, the relationship between CITYWATER and the BSC network was spelled out; the project works side by side, in close collaboration with the network. Project communication activities include the project website; organizing and participating in events (action B.1.); targeting mass media; partner organizations communication; social media (Facebook); materials produced in the project; and direct contact through email, letter and phone. The dissemination plan also includes internal communication and defines internal target audiences. In the end of the dissemination plan, the evaluation indicators are summarized.

*The dissemination plan was annexed to the Inception report.*

## **5.2.2 Dissemination: overview per activity**

### **D.1.1 Project webpage**

Project website was opened on in March 2013 at [www.citywater.fi](http://www.citywater.fi). The website has been used effectively for different dissemination purposes, both to the general public and for deliverables to inform about project activities such as events, results and materials produced within the project. The webpage contains general information about the project, the actions, partners and contact information. The web page has both an English version and a bit more limited Estonian version. The webpage was compiled and is also mainly maintained by the coordination beneficiary, even if associated beneficiaries have contributed with material and translations. The webpage has served as planned and got good feedback from readers. By 31.12.2015 the number of visits was 4568, which means that the target of 5000 visit during the project life time was almost reached. However, in the indicators list the approximate visits targeted for on a monthly basis was set to 140, which is achieved since web page start (April 2013- September 2014).

### **D.1.2 Info boards**

Info boards have been erected by the solutions constructed in Tallinn and Helsinki. The design of them was developed by the help of a designer.

### **D.1.3 Project brochure**

The project brochure (with EU LIFE+ reference) was finalized during September 2013 and 1000 copies in total was printed in English and Estonian as planned in the proposal and indicators list. It has been distributed on all events organized and participated in, as well as in meetings with new contacts. About 900 copies have until now been distributed. The coordinating beneficiary was responsible for compiling the brochure, which has got good feedback.

#### **D.1.4 Opening seminar**

The Coordinating beneficiary organized the kick-off seminar in Helsinki on 31.1.2013. The Kick-off seminar gathered 26 participants representing all project beneficiaries as well as civil servants contributing to the project and guest lecturers from other organizations. The seminar was designed to give an introduction to all thematic parts to be considered within the project, as well as present the monitoring expert and her aiding function for project management in line with the proposal and indicators list.

#### **D.1.5 Final seminar**

The Coordinating beneficiary organized the Final seminar in Tallinn 8-9.2015. The seminar gathered 56 participants representing diverse stakeholders (municipalities, NGOs, companies, local authorities, state level representatives, financing organisations, educational units etc.) from several countries around the Baltic Sea. The first day of the final seminar included sessions on storm water work and on tools for decision making which presented the work of the CITYWATER project. The next day, the seminar looked ahead in trying to facilitate new projects by presenting funding opportunities and matching partners and ideas. The first day ended with a networking dinner. In all, the seminar was very successful and the seminar was a good way of officially starting to end the project.

#### **D.1.6. Layman's report**

The Layman's report was compiled in both English (electronic version and print, 50 copies) and Estonian (electronic version). Layman's report has been distributed to key stakeholders in print and on email to other stakeholders and added to the project webpage and the toolbox.

#### **D.1.7 After LIFE Communication Plan**

The after LIFE Communication Plan was compiled in English.

*The Project brochure and Kick-off agenda, report and participant lists and pictures were annexed to the Mid term Report (D.1.). The program, report, participant list and pictures from the Final seminar, the Layman's report, the After LIFE Communication Plan and pictures on the info boards are attached.*

#### **Additional activities**

A **poster** on the BSC initiative and CITYWATER project (with EU LIFE+ reference) was compiled in English and Estonian, as stated in the indicators list. It was printed in February 2013 by the Coordinating beneficiary.

Furthermore, **business cards** (with EU LIFE+ flag) have been printed for the personnel seconded to the project by the Coordinating Beneficiary. These have been distributed at all possible occasions in contact with new people promoting the project and its message.

The joint Baltic Sea Challenge and CITYWATER **facebook page** (with EU LIFE+ reference) was launched in February 2014 and has been in active use ever since. It was decided to start up a page for the network to ensure continuation of the page after the project ends. Project activities have been frequently brought up on the page. As of 31.12.2015, the page had about 200 likes. The page is found at the address <https://www.facebook.com/TheBalticSeaChallenge>

At all public occasions **photographs** have been taken to document the work and disseminate results.

**Mass media** has been used in order to reach the general public but also to reach cities, municipalities and organizations by writing articles in magazines and sending out press releases (these are also mentioned in connection to dissemination activities within B.1 connected to activity reporting in section 5.1), as stated in the indicators list.

Three **articles** written by project staff have been published:

- Latvia: Vides Vestis 1/2014 (about storm water handling, in Latvian)
- Estonia: The Baltic Sea Project newsletter 1/2014 (about the Baltic Sea Challenge, in English)
- The biology and geography teachers' magazin Kägu 2013 (about the Baltic Sea Challenge, same text as in the newsletter, in Estonian)
- The communication magazine Kaja, 08/2014 (in Estonian)

In addition to this, media visibility has been gained through Finnish Broadcasting Company YLE **interview** with the CITYWATER Project manager about natural storm water management.

Six **press releases** have been compiled by the coordinating beneficiary and sent out:

- 1) About natural storm water handling, in collaboration with the LIFE+ project Urban Oasis, 27.8.2013
- 2) In connection to Turku Baltic Sea Days, 31.5.2014
- 3) Storm water construction in Tallinn finished, 27.4.2015
- 4) Storm water construction will be built in Helsinki, 25.3.2015
- 5) Release of CITYWATER cost-benefit report, 28.1.2015
- 6) Storm water construction in Helsinki finished, 13.1.2016.

### **Project presentations (within action D.1)**

To these seminars below, the Project manager has been invited to hold a presentation about the project and its results and no separate travel report has been written since CITYWATER has not been an organizer. However, the presentation held is annexed. In some cases, also the travel costs have been covered by others. However, the BSC workshop during Urban magma makes

an exception and was planned together with the CITYWATER project and thus a separate travel report has been written.

**Presentation at the BSC workshop Nutrient Neutral Municipalities during Urban magma event 18-19.3.2015 in the City of Malmö.** The project manager of CITYWATER participated in the two-day event Urban Magma in Malmö, Sweden targeting on propelling the region into a center of excellence for Sustainable Cities. Baltic Sea Challenge. During the first day Key-note presentations, panels and different sessions were held. The second day started with varying excursions of which the one targeting the Augustenborg EcoCity area was very interesting because of the great sustainable storm water management implementations realized here. In the afternoon during the second day, the Baltic Sea Challenge organized a workshop called Nutrient Neutral Municipalities, during which the CITYWATER project and funding body (LIFE+) was promoted. The project manager held a presentation called Arguments for municipal water protection actions - a cost-benefit perspective on natural storm water management and functioned as a commentator in the concluding discussion. The program of Urban Magma can be seen at the webpage <http://urbanmagma.se/meetingpoint2015/>

**Presentation and discussion during Eurocities water group meeting in Brussels, Belgium 4.6.2015.** The CITYWATER project and its results as well as the financing body (LIFE+) was presented at the Eurocities water group meeting in Brussels. This was a very good context to promote the project on an European level and gave useful contacts for the work. *The travel expenses were covered by the City of Helsinki.*

**Presentation at the EUSBSR stakeholder event 5.6.2015 in Turku, Finland.** During the European Union Strategy for the Baltic Sea Region Annual meeting 5.6.2015 the Baltic Sea Challenge organized a theme meeting in Finnish called Meren pelastaminen (Saving the Sea) during which the CITYWATER project and funding body (LIFE+) was presented by a presentation entitled Making strategies happen – motivation and tools for a local actor.

**Presentation at the Storm water seminar organized by the Centre for Economic Development, Transport and the Environment 17.9.2015 in Turku.** The project manager was invited to a seminar called Hulevedet haltuun Lounais-Suomessa (Taking care of storm waters in South-western Finland) 17.9.2015 to present the CITYWATER project and its funding body (LIFE+), the storm water implementations made and the cost-benefit analysis results. The seminar consisted of a big audience of municipal storm water and planning experts and gave a good spreading of the storm water work done in the project to stakeholders in Finland.

The project with funding references was also presented to the Environmental minister of Estonia during her visit to Finland 21.8.2014.

*An overview picture of the poster, a copy of a business card, a selection of photographs as well as the press releases 1-2 (D.1) as well as the magazine articles (B.1.2 and B.2) were annexed to the Mid term Report. The programs and presentations related to trips to Malmö (also a report), Brussels, Turku as well as press releases 3-6 are annexed.*

## 5.3 Evaluation of Project Implementation

### 5.3.1 Methodology and effectiveness of the dissemination

**Methodology:** The Baltic Sea Challenge (BSC), which was the model to be demonstrated around the Baltic Sea region, has been a success in Finland with around 200 partners at CITYWATER project start in 2011. However, previous experiences has shown that the concept does not spread in the same way e.g. in the Baltic States. Where BSC has spread quickly in Finland through partners challenging their peers, this has not been the case elsewhere; rather, new actors have been engaged on a partner-by-partner basis.

This situation was the reason for compiling the CITYWATER project and work strategically with partners on the matter. When involving actors in different Baltic Sea countries, it was noticed that templates for actions are not directly transferable among countries, due to differences in e.g. public attitudes, historical and cultural use of the sea, geography of the coast and general administrative culture. The BSC network can, however, be used in different contexts. It can be adjusted to the national/local contexts through having an understanding of e.g. different perceptions and tailoring environmental communication according to these. The B.2. studies on environmental communication have added further understanding and tools to overcome the challenges in this theme. Another thing that has increased the possibilities to use BSC in different contexts is through providing tools for evaluating water protection measures in monetary terms, which was done within the C.1. action. Furthermore, the exemplary sustainable storm water solutions have showcased how local actors can in practice implement water protection actions by themselves and also pinpointed which financing bodies can be used. This combination of actions (awareness, financial and practices) worked very well, and gave a great support for the aims of the BSC. It further also attracted a diverse audience of different local actors and experts or supervisors working with varying tasks which then again spurred a broad dialogue on the challenges in increasing water protection. The added value of combining these, are the tools that has been compiled in the toolbox as so concrete recommendations as possible to support local actors to take action. If some self-criticism should be stated, the project could have invested even more time in the end of project duration on analyzing and synthesizing the interdisciplinary outcomes of the actions.

Based on the results of the project, development of the concept of the BSC has taken place, in cooperation among the BSC coordinators and the CITYWATER project, which has made promotion easier. A new international strategy and new marketing material has been produced, the commitment of joining has been renewed from an action plan to one action within a timeframe and the organizing of international events is done more strategically following developed concepts based on experiences and cooperation within CITYWATER. The project has also played a role in the enlargement of the network, not only in terms of involving new actors, but also in terms of the number of contacts and strategic cooperation partners in different countries that can convey the message at the local level. Strategic cooperation has been established with a number of organizations:

- Race for the Baltic (Zennström Philanthropies) (Several meetings in person and over phone. Participation/collaboration in Baltic Sea Regional workshops)
- Baltic coasts (Dissemination of Baltic Sea Challenge information to its network)
- The Gulf of Finland Year secretariat at the Finnish Environment Institute SYKE (Collaboration on Networking event 1 and the seminar in Lahti)

- Association of Estonian Cities - Eesti Linnade Liit (Cooperation related to Municipality Days 2014; inviting Estonian contacts to Networking event 1, Networking event 2 in Tallinn organized in cooperation with ELL)
- Etalon, Estonia. (Cooperation on two articles about the Baltic Sea Challenge)
- Union of the Baltic Cities, UBC (Cooperation around arrangements in Baltic Sea Regional workshop)
- Hared NPO Training and Development Centre. (One of the main organizers of the teachers' camp in 2015, where CITYWATER participated to promote BSC; promoted BSC in Estonian schools in 2015)
- Latvian Association of Local and Regional Government, LARLG (Has taken part in several CITYWATER events, a central contact in Latvia)

**Results:** The target of receiving 30 new actors accepting the BSC and committing to one or more actions was rather high. This was noted in the Inception report, and in the application the risk that BSC will not spread to new actors was seen as significant. However, the promotion of the BSC in the network has been successful, and many new actors have joined the network. Although the number of actors and action plans that were reached during project time was 17 and 19, respectively, and did not reach the target of 30 new actors, the result was seen as very good against the background of 20 international actors and only 2 action plans in the BSC network before CITYWATER. There are also additional partners that have expressed interest in the network, and that might join after the project has ended. Considering the results of Action B.2 and C actions the set objectives in the application were met and exceeded. Especially considering the C.1 action on the cost-benefit analysis, it is clear that the knowledge achieved was far more interesting and boundary-breaking than expected and has not only been used among stakeholders but also actively inside the partner organizations. Considering Action B.3 the original objective of constructing one storm water solution in every partner city was not met since following the accepted amendment Turku did not construct the planned solution. However, the City of Helsinki was able to build a solution compiling several smaller solutions parts or methods in one and thus the project level aim of demonstrating three different technics in two countries was still met. The technics used were meandering, sedimentation basins, biofiltration and cascading and the environmental impact of the storm water solutions and technics used, will be monitored by partner organizations after the project has ended. The pilot value for the cities of these solutions is huge; for the City of Helsinki the implemented solution was the first sustainable solution in the city center and the first biofiltration area implemented in the city as a whole. Thus, we consider all targets of individual actions met.

**Lessons learned:** During project time, there were of course a lot of smaller lessons learned and things that were done differently than planned. The biggest ones, however, are related to, once again the fact, that people around the Baltic differ in many senses, and that changing attitudes takes time and need individual relationships among persons and organizations. Another underestimated issue was, that the streamlining of both planning and constructing physical solutions in an urban municipal environment not following the normal procedures within the city since EU financed, takes a lot more time and bureaucratic processes than estimated. On the other hand, after CITYWATER we have very good recommendations and process descriptions on this (and other actions and lessons learned) in the toolbox, and next time will be easier. Overall, as stated before, even if an interdisciplinary compiling of project results was not directly an objective, now after words, it could have further increased the added value of the

results. An interdisciplinary look on the results may, however, be something that the BSC will work with in future projects.

**Amendment:** The project made an amendment request during the last half year of its duration. The amendment (which is described in section 4.2) considered a budget change (Turku not constructing the storm water solution, and Helsinki constructing a larger one), a technical change (the storm water solutions seen as prototypes) and a project prolonging (3 months). The amendment process was handled very smoothly by the monitoring expert and the Commission and was absolutely necessary for project aims to be reached within project time.

### **5.3.2 Comparing and visibility of results against objectives**

In a sense, all work done within the CITYWATER project has had a dissemination character since the main goal has been to increase water protection through expanding an existing dissemination network (BSC). However, also the BSC has worked in support for the project in giving a framework for dissemination of project results and the funding body. The main platform for project result compiling after the project is the “Tools for water protection” (toolbox) web page. This webpage and individual project results have been very lively disseminated through all events (organized or participated in relating to BSC or CITYWATER and other), emails (stakeholders and within own organizations), new project development consortia, facebook, the BSC twitter page etc. Project results will also further be disseminated by the network after the project ends and increase the strength and spreading of the BSC. In conclusion, the visibility of the project and its results have reached the objectives set, and one concrete proof of this is that CITYWATER partner organizations have developed new international projects for water protection based on the results and good experiences gained in CITYWATER.

## **5.4. Analysis on long-term benefits**

### **5.4.1 Environmental benefits**

The Baltic Sea is an example of an environmental crisis of multinational scale. International treaties together with national and intergovernmental legislation have not been powerful enough to bring a satisfying improvement of the state of the sea, even if most topics are well investigated and there is an understanding of what should be done or how to prohibit more damage. The Baltic Sea Action Plan by Helsinki Commission (HELCOM) hand in hand with the EU Baltic Sea Region Strategy, the Water Framework Directive and the Marine Strategy Framework Directive list actions to be implemented or the environmental status to be achieved. However, these suggested actions are various to their nature, some being within the reach of EU or governments, some directed to individuals, cities, regions, companies, research institutions or NGOs. Common for them all is that in practice most emissions may not be cut off on state level, but on local level, and thus municipalities and cities bear a great responsibility for several decisions and actions that have a direct impact on the state of the sea. Since the effects of nutrient loading influence local waters in first hand, the greatest benefit of reduced eutrophication comes to cities and municipalities as well as their citizens. In order to achieve such an improvement, voluntary actions are needed in addition to present legislation

This is where the CITYWATER project has made a difference, regarding work on local level. The project has engaged numerous new actors in the Baltic Sea Challenge network, who have committed to water protection activities. Committing to an activity in itself means activating actors at the local level, as it includes discussing the issue within the organization, going through alternatives for own action, choosing one or several actions, and then implement the action(s). Throughout the process, the BSC network offers support, possibilities to take part in events, networking possibilities, as well as visibility. All of this means taking action on a level that exceeds the legal requirements, which might be a big step forward in countries where organizations or citizens do not have a historical tradition to do so, perhaps due to historical reasons.

Awareness is a prerequisite for concrete action, and as of 2015, awareness among citizens on one's own impact on the Baltic Sea is low in the Baltic States, as was shown by the studies conducted within the project, and which has been seen in the practical work when meeting and discussing with people in the region. CITYWATER has focused much on rising awareness on the local level and on spreading good examples. Now, what does this mean with regard to improving the state of local waters and the Baltic Sea as a whole? In brief, it means that the project has contributed to paving the way for concrete action. CITYWATER has reached out to hundreds of people; done concrete water protection activities; and encouraged new actors to get involved in the work through inviting them to the BSC network. We claim that the project has strengthened the prerequisite for taking concrete water protection action in the Baltic States, and perhaps even more importantly, developed tools for continuing working on this issue. And not the least, the project has constructed two best practice storm water solutions that will keep on purifying storm water for several years to come and inspire the cities and other local actors to implement more. The reduction capacity of these solutions will be clear in a couple of years of monitoring when they have been working for some time and reached their maximum capacity.

Every new actor and action within the Baltic Sea Challenge network is a concrete indicator on an environmental benefit both on short and long-term. Furthermore for partners, the long-term benefit comes additionally from doing by yourself and thus initiating new processes, educating the personnel and bringing knowledge to the organization in new patterns and best practices. One of the biggest steps forward during CITYWATER has been to see how new actors have initiated more concrete environmental protection development and also started to develop EU-funded project applications in order to work more strategically for implementing. In general, cooperation among a lot of the BSC partners and stakeholders is more direct and familiar.

We thus consider that especially the prerequisites for fulfilling the Water Frame Work Directive, the Marine Strategy Directive, the EU Baltic Sea Region Strategy and the HELCOM Baltic Sea Action plan.

#### **5.4.2 Replicability, best practice lessons and demonstrative value**

When involving actors in different Baltic Sea countries, it has been noticed that templates for actions are not directly transferable among countries, due to differences in e.g. public attitudes, use of the sea and administrative culture. The BSC network can, however, be used in different contexts. It can be adjusted to the national/local contexts through having an understanding of



e.g. different perceptions and tailoring environmental communication according to these. The B.2. studies have added further understanding in this theme. Another thing that has increased the possibilities to use BSC in different contexts is through providing tools for evaluating water protection measures in monetary terms, which has been done within the C.1. action. The storm water solutions are as such directly best practice lessons to be copied and developed in new projects, which also is done for the moment. A fourth central strategic aspect for success for the demonstration, is the importance of involving strategic partners in different countries that can convey the message at the local level, and this has been done in CITYWATER.

### **5.4.3 Long-term indicators of project success**

Easily put, the greatest indicator for project success is when the BSC network gains new partners after the project has ended. Furthermore, the usage of the project toolbox and other results will indicate project success. Also an exemplary effect of storm water constructions increasing new implementations will be a positive long-term indicator sign.

## 6 Comments on the financial report

The following section provides information on the financial state of the project. The first section gives an overview of the costs in each cost category during **1.10.2012-31.12.2015**. The following sections explain how financial transactions and reporting documentation is managed by the project and the final section shows a summary of the costs per action and explains the most important discrepancies from the application budget. The budget has been corrected to respond to the project plan and budget amendment, approved by the Commission.

### 6.1. Summary of Costs Incurred

<b>PROJECT COSTS INCURRED</b>			
<b>Cost category</b>	<b>Budget according to the grant agreement*</b>	<b>Costs incurred within the project duration</b>	<b>%**</b>
<b>1. Personnel</b>	792 981	783 978,14	98,9 %
<b>2. Travel</b>	43 248	39 554,19	91,5 %
<b>3. External assistance</b>	146 500	129 614,69	88,5 %
<b>4. Durables: total <u>non-depreciated</u> cost</b>			
<i>- Infrastructure sub-tot.</i>			
<i>- Equipment sub-tot.</i>			
<i>- Prototypes sub-tot.</i>	100 000	99 000,00	99,0 %
<b>5. Consumables</b>	16 000	8 720,23	54,5 %
<b>6. Other costs</b>	5 000	5 608,34	112,2 %
<b>7. Overheads</b>	54 786	74 653,28	136,3 %
<b>TOTAL</b>	<b>1 158 517</b>	<b>€ 1 141 128,87</b>	<b>98,5 %</b>

\*) If the Commission has officially approved a budget modification indicate the breakdown of the revised budget. Otherwise this should be the budget in the original grant agreement.

\*\*\*) Calculate the percentages by budget lines: e.g. the % of the budgeted personnel costs that were actually incurred

#### **Personnel**

The amount of worked hours is lower than on average (especially considering the Coordinating beneficiary) since several of the persons seconded to the project have been working part-time (e.g. 50-80% for Satu Viitasalo-Frösén, Kajsa Rosqvist, Elina Häkkinen and Jenni Jäänheimo). However, due to the prolongation of the project implementation phase until 31.12.2015, two staff member of the Coordinating Beneficiary, Project Coordinator Kajsa Rosqvist and Project Financial Secretary Jenni Jäänheimo continued working for the project until 31.12.2015. Due to the prolongation of their contracts, the staff costs of the Coordinating Beneficiary were higher than originally budgeted. However, as some of the Associated Beneficiaries reported less personnel costs than budgeted, on the project level the personnel costs budget was balanced.

In City of Helsinki the CITYWATER project coordinator **Satu Viitasalo-Frösén** left on maternity leave in January 2014. Before the start of her maternity leave, she took out annual holiday days she had earned during the past year and since the maternity leave started in the beginning of the year, she has no recorded working hours for the project during the year 2014. Even though no working hours have been recorded to the project, the City of Helsinki has had personnel costs for Viitasalo-Frösén during the calendar year 2014 in the form of holiday payments and maternity leave compensation, both obligatory costs of the employer. The costs are directly related to the implementation of the project, since Viitasalo-Frösén has a temporary work contract and is employed only for the project.

The personnel costs reported for Satu Viitasalo-Frösén in the Standard Statement of Expenditure include salary and holiday compensation as well as maternity leave compensation from which the refund from the Finnish Social Insurance Institution (KELA) has been deducted. The hours worked for the project has in reality for 2014 been 0 because of reasons explained above, but since the Standard Statement of Expenditure table does not include the costs in case of no working hours, an hour has been added to show the costs. The legal background in which this solution is based, is explained in a separate clarification which was asked for by the Commission in their letter following the Mid-Term Report. *This separate clarification is attached (E.1).*

#### **Other costs and overheads**

The budget for other costs was slightly exceeded on project level due to some printing costs of project materials not foreseen in the project application.

Overheads haven been reported according to the 7% maximum allowed by the program, thus exceeding the amount budgeted in the Application.

#### 6.2. Accounting system

The beneficiaries follow internal and national legislation and practises concerning accounting of project finances. Project organizations utilize electronic accounting systems that are managed by financing administrators in each organization. Costs and support payments directly related to project implementation are registered in the beneficiary organizations by using separate codes separating project costs from costs linked to other activities. The codes used for identify project costs are:

**1097096071** (City of Helsinki) in 2012-2015; **1098019001** for the costs paid in 2016  
**601688** (City of Turku, AB)  
**KE-11 05600 2451513000** (Tallinn City, AB)  
**RU/12912** (Tallinn University, AB)

Invoices related to the project are checked and corrected if necessary by the project personnel after which they are approved by the head of the department in which the project personnel operates in each beneficiary organization. Partner spendings and budgets are followed up on a regular basis by both the partner personnel at the associated beneficiary organizations as well as by the coordinating beneficiary.

All project personnel and civil servants working for the project uses the model time-sheet provided by the Commission in reporting time worked for the project. In City of Helsinki and City of Turku employees flexible working time and electronic time registration systems are used. Time sheets are checked to comply with the electronic registration systems. In Tallinn City and Tallinn University working time is set to 8 hours per day without flexibility. All time-sheets are filled in on a daily basis and in the beginning of the next month sent to the superiors of each person for verification and signature. For those civil servants, who were working only part-time for the project and who only filled in time-sheets for the months in which they worked for the project, it was not possible to identify the actual annual working hours. Thus, for these staff members, standard rate of 1720 hours has been used to calculate the hourly rate.

The associated beneficiaries archive their own original versions of the time-sheets and send scanned copies to the coordinating beneficiary on a regular basis, usually in conjunction with partner financial reporting. The coordinating beneficiary checks the time-sheets once more before archiving the copies for reporting.

All project related invoices are checked by the project personnel before approval. When ordering a service or product the project personnel remind the provider that the project reference (LIFE 11/ENV/FI/000909 Citywater) should be included in the invoice to give a clear reference to the project. If the project reference for some reason is missing from the invoice the provider has sent, it is added when the invoice is verified of being directed to the project.

An external auditor (representing the tendered company KPMG) of the City of Helsinki has performed the obligatory external audit of all project partners' individual costs statements and supporting documents as well as the final consolidated cost statement of the project. *The audit report is attached to the final financial report.*

## 6.2. Accounting system

The beneficiaries follow internal and national legislation and practices concerning accounting of project finances. Project organizations utilize electronic accounting systems that are managed by finance administrators in each organization. Costs and support payments directly related to project implementation are registered in the beneficiary organizations by using separate codes separating project costs from costs linked to other activities. The codes used for identify project costs are:

1097096071 (City of Helsinki, CB)  
601688 (City of Turku, AB)  
KE-11 05600 2451513000 (Tallinn City, AB)  
RU/12912 (Tallinn University, AB)

Invoices related to the project are checked and corrected if necessary by the project personnel after which they are approved by the head of the department in which the project personnel operates in each beneficiary organization. Partner spending and budgets are followed up on a regular basis by both the partner personnel at the associated beneficiary organizations as well as by the coordinating beneficiary.

All project personnel and civil servants working for the project uses the model time-sheet provided by the EC in reporting time worked for the project. In City of Helsinki and City of Turku employees have flexible working time and electronic time registration systems are used. Time sheets are checked to comply with the electronic registration systems. In Tallinn City and Tallinn University working time is set to 8 hours per day without flexibility. All time-sheets are filled in on a daily basis and in the beginning of the next month sent to the superiors of each person for verification and signature.

The associated beneficiaries archive their own original versions of the time-sheets and sends scanned copies to the coordinating beneficiary on a regular basis, usually in conjunction with partner financial reporting. The coordinating beneficiary checks the time-sheets once more before archiving the copies for reporting.

All project related invoices are checked by the project personnel before approval. When ordering a service or product the project personnel remind the provider that the project reference (LIFE 11/ENV/FI/000909 Citywater) should be included in the invoice to give a clear reference to the project. If the project reference for some reason is missing from the invoice the provider has sent, it is added when the invoice is verified of being directed to the project.

### 6.3. Partnership arrangements

The coordinating beneficiary have made the support payments to the associated beneficiaries as soon as the support payments have been received from the European Commission. The shares of the pre-payments have been paid based on beneficiary support rates in the project application. Support payments based on reported costs (mid-term payment and final payment) were paid based on the reports.

Associated beneficiaries have been obliged to send financial reports to the coordinating beneficiary according to a predetermined reporting schedule. Supporting documents were also sent in conjunction with the financial reports. The responsibility for completing the financial reports lies with each beneficiary. The coordinating beneficiary have been checking financial reports and supporting documentation regularly and asked for corrections and specifications when needed.

### 6.4. Auditor's report/declaration

The external auditor of the coordinating beneficiary City of Helsinki have been used in the audit of the CITYWATER final report:

Leif-Erik Forsberg, Audit Partner, KHT, JHTT  
KPMG Julkishallinnon Palvelut Oy  
PL 1037  
00101 Helsinki

### 6.5 Summary of costs per action

The table below is an approximate compilation of realized costs until 31.12.2015. Since the project is not required to in detail update the action budgets and the reporting form does not

require to allocate "other direct costs" between actions, some small realized cost might be missing from the table but it should give a good overview of spent money. Below the table explanations to the numbers are added when needed. Possible changes mentioned below are in detail described in the technical activity reporting section 5.1

Action no.	Short name of action	1. Personnel	2. Travel and subsistence	3. External assistance	4.a Infrastructure	4.b Equipment	4.c Prototype	5. Purchase or lease of land	6. Consumables	7. Other costs	TOTAL
B.1		246 259,92	6 687,62	7 653,00					782,60	1 031,46	<b>262 414,60</b>
B.2		60 746,05	1 028,46	14 804,00					157,90	249,28	<b>76 985,69</b>
B.3		56 561,59	24 076,78	72 568,39			99 000,00		804,42	917,60	<b>253 928,78</b>
C.1		183 655,42	3 114,96	4 361,14					778,67	1 429,72	<b>193 339,91</b>
C.2				9 961,19					61,13	533,20	<b>10 555,52</b>
D.1		92 304,36	2 874,24	12 395,45					5 949,40	1 447,08	<b>114 970,53</b>
D.2		0	0	0					0	0	
E.1		144 450,80	1 772,13	7 871,52					186,11	0	<b>154 280,56</b>
Over-heads											<b>74 653,28</b>
	<b>TOTAL</b>	<b>783 978,14</b>	<b>39 554,19</b>	<b>129 614,69</b>	<b>0</b>	<b>0</b>	<b>99 000</b>	<b>0</b>	<b>8 720,23</b>	<b>5 608,34</b>	<b>1 141 128,87</b>

### B.1

- External assistance costs are higher than expected due to high organizing costs (mainly caused by translation, which was proven as a good idea) of networking event two
- Tallinn City realized the school tour (Baltic Sea lessons) as an extra action in order to promote the Baltic Sea Challenge to Estonian schools; this was discussed beforehand with the Life+ monitoring expert and considered to support the aims of the project
- Additional other costs were caused by participation fees to Estonian Municipality days, which were not foreseen in the project application but the participation was a very good way to meet local municipalities (during Networking event 2)

### B.2

- Higher than expected external assistance costs were caused by the decision of Tallinn University to implement part of the actions in B2 as external assistance rather than in-house work:
  - o Citizen survey about water protection in three Baltic states, December 2013-February 2014
  - o Contacting and communicating with municipalities in Latvia (April-June 2014)
  - o Layout of survey reports (September 2015)
  - o Contacting and communicating with municipalities in Latvia (April-June 2014)

### B.3

- The travel budget was exceeded on the storm water study trip but is still within flexibility
- The building of the storm water solution in Helsinki was transferred to the budget category “prototype” in the Amendment to the Grant Contract of July 2015

### C.1

- External assistance money has been transferred to personnel due to realizing the CBA survey in-house, which has caused an increase in the personnel costs
- The printing costs of CBA report were a bit higher than expected, therefore a slight increase of the “other direct costs” budget line

### D.1-D2

- Other direct costs were more than expected due to organizing costs of the final seminar
- Personnel costs were higher than expected due the decision to employ a full-time employee (Jenni Jäänheimo) person to replace the first Financial Secretary of the Coordinating Beneficiary, Elina Häkkinen. Approximately 50 % of Jäänheimo’s working time was allocated to D1 (project communication and dissemination and events). Also the working time allocated for the After Life Communication Plan was reported under D1.

### E.1

- Travel money not foreseen spent on steering group traveling

## 7. Activity and financial annexes

All annexes are referred to in the text and listed below. In the contents table below annexes are listed in action and sub-action order as well as according to the name of the event, publication etc. as to the contents table below. The same order is used in the electronic format. Those annexes that have been delivered with the Inception or Mid term Report are not included.

Deliverables included in the Final report are marked below **in bold** and other annexes included in the Final report are marked with a “•”.

### Contents table of Annexes

#### B.1

- B.1.1 Networking events
  - **Networking event 2\_2015\_03\_26**
- B.2.1 Promotion and demonstration of BSC
  - **List of new Baltic Sea Challenge partners**
  - Municipalities meeting Pavilosta/Vilna 2014\_10\_24
  - Municipality event Panevėžys 2014\_10\_23
  - Meeting minutes Panevėžys City 2014\_10\_22

- Meeting minutes RFTB 2014\_10\_24
- Cooperation meeting in Tallinn 2014\_10\_11
- Municipality event Jurmala 2015\_03\_17
- Baltic Sea Day in St. Petersburg 2015\_03\_19
- BSC to schools in Tallinn 2015\_03-04
- Teachers camp in Tallinn and Helsinki 2015\_08\_03-06

## B.2

- B.2.1 Survey on environmental communication
  - **Citizens survey report**
  - **Municipalities survey report**
  - **Communication strategy**
- B.2.2 Workshops
  - **Workshop 2\_2015\_08\_09**

## B.3

- B.3.2 Construction plan
  - **City of Helsinki** (only the actual plan is printed, not the annexes)
    - Residential meeting
  - **City of Turku** (only the actual plan is printed, not the annexes)
- **B.3.3 Expert meeting**
- **B.3.4 Construction of solutions**
  - **Tallinn City**
  - **City of Helsinki**
- **B.3.5 Documentation and brochure**

## C.1

- C.1.1 Workshops
- C.1.2 Visits
- **C.1.3 Survey**
  - Summary
  - Marginal benefit report

## C.2 Toolbox

- **Web application**
- Bookmark

## D

- **D.1.2 LIFE+ info boards**
- **D.1.5 Final seminar**
  - **Report**
- **Layman's report**
- Press releases
  - Storm water construction will be built in Helsinki, 25.3.2015
  - Release of CITYWATER cost-benefit report, 28.1.2015
  - Storm water construction in Helsinki finished, 13.1.2016.
- Promotion of project and funding body by presentations (LIFE+)



- BSC Nutrient Neutral Municipalities (Urban Magma), Malmö 2015\_03\_18-19
- Eurocities water group meeting in Brussels, Belgium 2015\_06\_04
- EUSBSR stakeholder event and BSC thematic meeting Turku, 2015\_06\_05
- Presentation at the Storm water seminar organized by the Centre for Economic Development, Transport and the Environment, Turku 2015\_09\_17
- After LIFE communication plan

#### E.1

- **SG meeting 4**
- **SG meeting 5**
- **SG meeting 6**
- Request in the Mid term Report for the Final report by the Commission

#### F

- Audit report
- Financial and individual cost statements for Helsinki, Tallinn, Turku, Tallinn University
- Consolidated cost statement and Standard payment request, Helsinki
- Clarification of 2% rule

**Photographs – categorized as for the annexes (not printed)**