

**ACTION C.11: A platform to enhance resource efficiency among public and private actors
- Satakunta expert and advisory network**

Beneficiary responsible for implementation:

City of Pori, Economic Development and Environment Division

Description (what, how, where, when and why):

What

An expert and advisory network of resource wisdom will be set up in Pori. This action will implement the aims (1.1, 1.2., 1.4., 2.2., 2.3., 2.4., 3.2., 4.1. and 6.2.) of the National Waste Plan NWP to promote reduced use of natural resources, reuse and increasing the recycling of waste as a material, to raise awareness of the importance of reducing the amount of waste, to enhance recycling, to promote composting to become more common, to encourage local actors to act for cleaner environment and reusing goods, to enhance green, resource-wise and responsible public procurement. The network will also develop measures to improve the sorting of hazardous waste and the reduction of littering.

Establishing network activities will promote the improvement of waste expertise and raise environmental awareness in the region. The network will gather together activities and actors, who work on themes such as waste management, recycling, status of the environment, sustainable development and public procurement.

The action of the Satakunta expert and advisory network includes the following sub-actions:

Sub-action C.11.1: Setting up and consolidating the network, finding a blueprint and resources for activities described in sub-actions 2-6 to continue 2022 onwards.

Sub-action C.11.2: Expert pathway will find collaboration possibilities between resource-wise experts at Satakunta region and at the network; and enhances regional waste competence.

Sub-action C.11.3: Environmental education pathway will develop environmental education program towards an ongoing process from the perspectives of resource wisdom, material efficiency, life cycle approach, sustainable and responsible consumption, recycling and mitigation of climate change impact.

Sub-action C.11.4: Resident pathway will produce information campaigns and encourage residents to make their own environment more pleasant to live in with voluntary work. The focus is on reducing waste, prevention of littering and cleaning up the nature.

Sub-action C.11.5: Green public procurement pathway will support public procurement where the criteria are the durability, updatability, reparability and other factors related to the material efficiency of the products. The focus is to enhance green procurement and spread resource-wise thinking among governance employees responsible of individual purchases.

Sub-action C.11.6: Circular economy roadmap. The roadmap is a key measure in the work of the City of Pori to promote circular economy and other sustainability goals linked

to it, as it brings together the city's previous commitments under one set of operational guidelines. By compiling a roadmap for the City the guidelines will be implemented for staff and decision-makers and the commitments to resource wisdom and sustainability and will be put into practice. The results of other sub-actions C.11.1–5 and C.3.1–5 will be used in the process of implementing the roadmap.

How

Sub-action C.11.1. Setting up and consolidating the network

The task of the network's experts is to raise the awareness of residents, companies and communities of the choices they make every day and their impacts on the environment. In co-operation with the network's actors, information, open lectures and public events aimed at residents as well as personal advice will be provided. The network will participate in national theme weeks and organise events in co-operation with environmental, consumer and resident associations.

A communications plan, separate website, social media tools and email addresses will be set up for the network. The network will be named in the communications plan. The activities of the network, organised events, lectures and personal advisory services will be presented on the website. All materials produced during the network's operation will be published on the network's website.

During the project, the network will find permanent funding and a model with which the project pathways will become established. The model will be extended to cover the entire region. The network will seek out new funding possibilities for projects that will increase waste management competence, recycling, utilisation of waste, sustainable development, environmental education, resource wisdom concerning public procurement, energy efficiency or other objectives that support the network.

Sub-action C.11.2. Expert pathway

The network will gather together resource-wise experts working in Satakunta. These experts are in NGOs, companies and in public administration. Network activities will begin by identifying the experts in the area that work in recycling, waste management, environmental education, sustainable development, green procurement, public projects and monitoring the status of the environment in NGOs, small and medium-sized enterprises and in public administration.

The participating organisations will gain a new aspect on responsibility: they will focus on the management of social and environmental aspects, such as the effective use of resources, reduction of waste and its harmfulness, recycling, emissions management, relationships with stakeholders and impacts on society.

The network will identify in particular the specialists found in NGOs, and the opportunities to purchase services from the organisations, for example for work related to the environmental education pathway. Experts from companies will be invited to events for disseminating expertise and co-operation in the network.

The network will arrange joint annual themed workshops (3) for specialists, in which they can exchange ideas on topical challenges in the region. In these workshops, proposed measures can be collected, for example for updating the regional waste management plan for Southern and Western Finland, which also serves the targets of the action C.1.

Implementation of national and international themed weeks for the sub-action C.11.4: Resident pathway, events and visibility will be planned in the workshops.

The network will create work opportunities for people writing their dissertation and new graduates in applied sciences, who are recipients of employment policy benefits. The network will offer suitable topics for practical reports and research studies leading to dissertations on reduction of waste and recovery and recycling of waste fractions, targeting residents or small companies and communities.

Dissertation 1: sorting waste at apartment buildings

Aim is to map out how waste is sorted in selected blocks of flats, after which advice will be enhanced through different methods. A few months later the survey will be done again, to see which means of giving advice seems to have the most effect on successful sorting and reduction of waste. The aim is to increase sorting by 10%.

Dissertation 2: composting at residential areas

Aim is to find out how common composting is at private homes in a target area by means of a survey, after which more effective composting advice can be directed at the area. In a couple of years, the survey on composting will be sent out again, and the objective is for composting to increase in that area by 20%.

The objective of the operations research is to try to increase waste management competence as well as planning and testing the information and education campaigns for sub-action C.11.4 Resident Pathway. The aim is to change ingrained habits and behaviour in a more sustainable direction: wastes will be sorted better and composting will become more common in the Pori region.

One way to learn how waste competence is increasing among the residents is to collect information in questionnaires at events and lectures arranged by network on sub-action C.11.4 Resident pathway. Each questionnaire will have a few key questions, which will be repeated during the 2017-2021. The aim is to find 20% better waste competence in answers in the end of 2021 than it was at 2017.

Sub-action C.11.3. Environmental education pathway

Environmental education means educational activity targeting all ages, with the goal of promoting change in the values, knowledge, skills and practices of individuals and communities in accordance with sustainable development. Environmental education in terms of education on sustainable development is a multifaceted issue. This project will develop environmental education collaboration in Satakunta from the perspectives of resource wisdom, material efficiency, life cycle approach, sustainable and responsible consumption, recycling and mitigation of climate change impact. The long-term objective is that, in the 2020s, environmental education collaboration in Satakunta will be wide-ranging that it covers variety of aspects of sustainable development.

An environmental education pathway will be designed in the project on the basis of the network established in sub-action C.11.1, i.e. material and visits will be planned to support environmental education and teaching at pre-school, comprehensive school and upper secondary school. The aim is for the environmental education pathway to act as a tool for teachers and experts in different sectors working on sustainable development. It will also support pre-school education and schools in compiling their sustainable development strategies.

The mapping of environmental education expert organisations is facilitated by the fact that an informal environmental awareness and education network has been active in Satakunta since 2008. The group consists of actors interested in popularising environmental education

and information, representing industry, organisations, universities, secondary education institutions as well as regional administration and municipalities.

During the project, pre-school teachers and schoolteachers will receive guidance and training from the network twice a year (2) for 30 participants/year. The network will also arrange a workshop (1) once a year (15/20 attendees). At the workshops, participants will learn about the experts' activities and develop practices where the expertise of the specialists can be utilised in the environmental education in pre-school education and at schools (lessons, field trips, activity sessions, workshops, theme days etc.). The aim is for 10-15 expert bodies to take part in the environmental education pathway, working together with teaching staff to develop an 8-10 point environmental pathway from pre-school to upper secondary education.

In designing and implementing the environmental education pathway, the Finnish new curricula for education that come into force in the autumn term of 2016 will be taken into account. Likewise, existing knowledge of environmental systems and sustainable programmes like the Green Flag programme, sustainable development certification and youth eco-teams will be utilised in the design and implementation. In addition, other readymade and proven environmental education material will be used, adapted where necessary.

Once the project is completed, the objective for the following years is that corresponding environmental education pathways can be formed in Satakunta for the other areas of environmental education.

The table below lists the view at the application stage of the possible content of the environmental education pathway at different levels of education:

Level	Pathway content	Expert and partner organisations
Pre-school	Recycling and waste sorting	Waste advisors: waste sorting games with the mascot Jätevaakku Mustavaris
Primary school	Prevention and reduction of waste	Associations, NGOs, e.g. 4H
	Recycling	Associations, NGOs, e.g. Finnish Red Cross "Kontti" second-hand shops
	Life cycle approach - services for repairing, lending, hiring and shared use of goods	Companies, e.g. cycle repair shops, furniture restorers, cobblers, toolending libraries, costume rental shops, libraries
	Littering - reducing harmful effects of waste management on health and environment	Associations, NGOs, e.g. environmental clubs
	Sustainable transport - transport habits, environmental impacts of transport and traffic, transport habits, safety in traffic	Associations, NGOs, public transport entrepreneurs, police
Lower secondary school	Food - food origin, environmental impacts of food production and consumption, responsible and environment-friendly food, composting	Associations, NGOs, e.g. Martha Organisation, "Maa- ja kotitalousnaiset" (Association for ladies in agriculture and home economics); entrepreneurs in the food business, food and catering industry training professionals

	Consumption habits - sustainable and responsible consumption	Associations, NGOs, shopkeepers
	Energy - renewable energy, decentralised energy, energy saving and consumption	Associations, NGOs, energy producers
Upper secondary education	Recycling - hazardous waste, composting	E.g. local recycling centre
	Sustainable lifestyle - everyday choices, eco-efficient products and services	Associations, NGOs
	Companies' social responsibility - effects of business activities on surrounding community and companies' stakeholders	Companies

Sub-action C.11.4. Resident pathway

The network supports residents by applying permits and negotiating with local governance to empower grass-root level actors at residential associations and non-governmental organizations at making events and voluntary work actions, which support the network's aims. It is important to make arranging events easy for local actors. Residents can arrange their own clean-up days, outdoor second hand market events or other activities with light bureaucracy and the access to public spaces for free of charge.

The focus of the resident pathway events will be on the reduction of waste. Under the subaction C.11.2. dissertations on sorting waste at apartment buildings and composting will be done. Results of those two operational studies will be used on planning campaigns. The aim of the campaigns are 1) to sort waste better at apartment buildings and to reduce the amount of waste there and 2) to make composting more common at residential areas.

The network will participate every year in national and international theme weeks on the prevention of waste, such as "Thrift Week" (week 16), "Let's Clean up Europe" (a cleaning campaign in May) and a "The European Week for Waste Reduction" week (week 48). The network will also arrange events aimed at residents (5), an awareness and information campaign (1), an exhibition (1) and an open series of lectures (1) per year. The network will utilise material ready-made by NGOs and public administration, and where necessary produce its own local material. One of the yearly themes will be domestic hazardous waste. Let's Clean up Europe is a cleaning campaign for residents to keep better care of their environment near-by. Littering is a recognised problem among residents and local residential associations occasionally make work bees to clean up together. The network will make a blueprint which will facilitate the arranging the clean-up activities and waste management for the litter.

The themes of the yearly events (5) will include the purchase of services rather than goods, exchange, lending and joint ownership of goods, the fine-tuning, renovation and repair of goods, replacement of hazardous substances with less harmful substances in household chores and buying eco-efficient products for the home. The network will create a blueprint, which will facilitate the joint use and ownership of goods for residents.

Collaboration will be made regarding the resident pathway on City of Pori Environmental Agency projects that support the aims of the network. The network and projects will organise together events and campaigns and take part in exhibitions, for example. Collaboration will provide good visibility in events aimed at residents.

The resident pathway will benefit from the results and the best practices developed in the complementary project Nutrient Bank (ends 30.11.2016) for utilising food waste, with the aim of increasing nutrient recycling through composting and reducing food waste. The Nutrient Bank project will experiment with non-commercial home parties on the themes of recycling, composting and leftover food. Other collaborators are actions Resource-efficient construction and housing in the Pori region - Preparatory actions A.1 and Concrete actions C.3, which focuses on resource efficiency in building and renovation.

Sub-action C.11.5: Green public procurement pathway

Public procurement is carried out either as individual, separate purchases or large joint purchases, repeated at regular intervals (the procurement of different product groups and individual pieces of equipment or services). The procurement begins by specifying the requirements and setting effective procurement criteria, so that the markets can compete with quality products. The largest procurement volumes of public purchases in the municipalities of the Pori area are concentrated as joint purchases by City of Pori procurement services. The procurement services use Motiva tools, and connected to action C.2 (Expert network) for example. The procurement services will prepare a procurement policy during 2016.

Network experts will support The City of Pori procurement services in three (3) procurements a year. The support of the experts will be used in the procurement of products, equipment, machinery and services, which will be chosen in collaboration with the procurement maker and the procurement services. Procurement will be selected for support where the criteria are the durability, updatability, repairability and other factors related to the material efficiency of the products. The aim is to select one purchase that support the use of recycled materials. The procurement could be for example building materials or a product related to earthworks.

The objective of supporting procurements is 1) to increase resource-saving procurement criteria for large or major joint purchases, 2) to find effective criteria for procuring services, in which the environment, waste flows, food management and saving effect of energy, are taken into account in producing the service and which enable social and ethical aspects to be taken into consideration in procurements.

The network will produce a tool for making individual purchases. This tool will help someone making an individual purchase to proceed correctly from requirement specifications up to competitive tendering. The tool is a pathway for structuring ideas, where the purchaser responds to various questions concerning the machinery, equipment or service. These questions enable the purchaser to consider and select the environmental, social and ethical criteria for enquiries.

Questions in the procurement tool stress the resource wisdom of the machinery, equipment and services 1) in terms of the environment: product life cycle impacts, energy consumption, 2) socially: can service entrepreneurs be required, for example, to employ the long-term unemployed in producing the service, 3) ethics: how are the products, machines and equipment produced, in what kind of circumstances and 4) financially: how purchase expenses appear at the moment of purchase, how they appear as maintenance and repair costs during use, how they appear at decommissioning. Use of the procurement tool will change the public sector procurement culture in a resource-wise direction.

Sub-action C.11.6: Circular economy roadmap

Development of a roadmap and utilisation of the results of other sub-actions C.11.1–5 and C.3.1–5 support the objectives of the National Waste Plan (From recycling to a circular economy - The National Waste Plan 2030) but also the upcoming new National Waste Plan that will be finished in 2021. The preparation of the roadmap is linked to all the paths of the

Action C.11 and C.3. In order to strengthen the operation of the expert network, a roadmap for the circular economy approved by the City Board is needed as a guideline.

The City of Pori has committed with a significant amount to promote circular economy through 5 Actions (A.1, A.2, C.3, C.4 and C.11) in National Circwaste – Finland towards circular economy project. Furthermore, the City of Pori has committed along with circular economy to carbon neutrality, i.e. an 80% reduction in emissions by 2030 (Towards Carbon Neutral Municipalities) and has gained a status for a Fair Trade City. Circular economy is strongly linked to these other sustainability goals by bringing resource wisdom as a part of the city's own operations. Furthermore, The City of Pori has been actively creating profitable circumstances for circular economy industries for instance in Peitto Recycling Park (Actions A.2. & C.4). With Circwaste project the City of Pori will promote circular economy business opportunities in Satakunta region.

By compiling a roadmap, which gathers these commitments into a set of operational guidelines, the guidelines will be implemented for staff and decision-makers and the commitments to resource wisdom and sustainability will be put into practice. The roadmap will serve as a strategic action plan for the city in the future, for example in construction, procurement, environmental education and, more generally, in the City's operations. The focus areas of the roadmap will be specified in the work of the working group. The results of Action C.3 are key factors in compiling the roadmap, as construction plays a significant role in the preparation of the City's circular economy roadmap. The roadmap compiles the results of C.3 sub-actions and puts all learnings into practice as part of the planning and implementation of sustainable life cycle assessed construction and land use in the City of Pori. Promoting circular economy in the City's own operation after the project is secured by compiling the roadmap.

In addition to the preparation of the roadmap, the funding opportunities for projects related to achieving the objectives of the circular economy roadmap will be actively monitored. We will be involved in the planning and promotion of new projects.

During the roadmap process, the lessons learned will be systematically collected to increase the understanding of how to successfully compile a strategic plan in a city organization and commit the various stakeholders in the whole value chain, how and what kind of information to use and how to avoid possible pitfalls. The lessons learned from preparing the roadmap will be disseminated through the networks of the Circwaste consortium. The process description offers good information for other municipalities who are making their own roadmap.

Measures for the coordination of the City of Pori circular economy roadmap across the entire city organization

Preparation (strategy, working group, preparatory workshops and guidelines include setting the target and reporting the baseline,)

Implementation (workshops, communications, maintenance plan)

Consolidating the commitment of responsible parties (commitment plan)

The sub-action C.11.6 coordinates the preparation of the roadmap in the entire City organization, commits the responsible parties and implements the prepared roadmap. The roadmap will be drawn up in a working group, to which representatives from various sectors will be appointed. The roadmap will mainly be prepared at workshops. The working group meets at least four times a year. The draft roadmap will be made available for comment and statements will be sought from trust bodies and other necessary parties. The roadmap project is comprehensively and throughout the process communicated to all staff. The City of Pori

will have its own internal webpage for the roadmap process. The updated information for the staff is compiled there.

The roadmap will be made electronic and will incorporate progress indicators and metrics. In the preparation of the roadmap will be considered the models and lessons learned of previously drawn circular economy roadmaps and the aim is to use Open Source when possible. In order to follow how the actions progress and how the overall progression of the roadmap will take place, various indicators and metrics will be incorporated in the roadmap. Also, information visualizations and other visualizations will take place in the roadmap to mark for example material flows and the overall progress. The roadmap will be updated as far as progress goes at least twice (2) a year. After the project trust bodies for updating the roadmap will be sought and other sectors (carbon neutrality for instance) can be incorporated into the roadmap.

The results and learnings of sub-actions C.11.1–5 and C.3.1–5 will be further utilized to implement the roadmap. Sub-action C.11.6 will offer also results and guidelines, how roadmap can be used as tool for disseminating pilot projects and best practices.

Where

The network will gather experts from Satakunta area and the activities will be held at Pori and the Satakunta region. The network will utilise existing meeting venues. No fixed premises will be built for the network, but network experts will take the information to the target groups at schools and businesses, to residents and public events. The network project management, financial administration and mailing address will be located at the Economic Development and Environment Division of the City of Pori.

When

The action C.11 is conducted during phases 1, 2 and 3 of the LIFE IP project, between October 2016 and September 2023.

Sub-action C.11.1 is carried out between October 2016, when the network is to be set up and June 2021, when consolidating must be ensured.

Sub-action C.11.2 is carried out between October 2016 and September 2021.

Sub-action C.11.3 is carried out between October 2016 and September 2021. Activities will have their yearly schedule from September 2017 till September 2021.

Sub-action C.11.4 is carried out in between January 2017 and September 2021. Activities will have their yearly schedule.

Sub-action C.11.5 is carried out in between January 2017 and September 2021. Green public procurement pathway is on-going process, depending on what kind of purchases are oncoming.

Sub-action C.11.6 is carried out in between October 2021 and September 2023. Roadmap will be ready March 2023 and implemented into action by September 2023.

Why:

The expert and advisory network to be set up in Pori will gather together collaborative projects and actors who work on themes related to waste management, recycling, the status of the environment, sustainable development and public procurement. Collaboration will enhance the visibility of the themes and improve regional expertise.

People's ability to observe the environment, the ability to embrace and deal with information about it and the desire to act responsibly are the basis of a sustainable use of the environment. Childhood and youth are crucial periods for forming one's attitude to the environment. That's why the sub-action C.11.3 Environmental education pathway is given a lot of resource. For adults, environmental education is given through sub-action C.11.4 Resident pathway with campaigns, events and series of lectures. It will be possible, via the network, to increase advice related to prevention of waste and to activate NGOs, companies and residents to act responsibly. By improved monitoring of wastes and material efficiency, reliable and illustrative information can be produced for residents, entrepreneurs interested in corporate responsibility, and decision makers.

Sub-action C.11.6 compiles the results of sub-actions C.11.1-5 and C.3.1-5 into concrete action models and promotes their dissemination process. With the roadmap the future commitment of City of Pori to circular economy can be ensured.

Constraints and assumptions

The consolidation of network operations depends on how the general municipal finances evolve in the 2020s, on attitudes to resource wisdom, and the outcomes achieved during the first five years of the network's operation. During the LIFE IP project period, the governance system in Finland is changing. The environmental protection, planning and education are likely to become less dependent on municipalities. Regional administration will be stronger actor in guiding environmental issues e.g. waste management. This will promote the aims of the project in regional level in future, for example establishing the expert and advisory network permanently.

The major threat to the network's operation would be a lack of enthusiasm among regional experts. If experts in the NGOs, companies and public sector organisations are not interested in participating in the network, the network will tail off. Network operations are based on expert collaborative partners. In order for the partners to find the work in the network enjoyable, they have to have a real opportunity to impact the themes and content promoted by the network and they must be committed to co-operation.

Expected results (quantitative information when possible):

Results of tasks in sub-action C.11.1:

- The network has its own regular activities, funding and a permanent employee(s), who will oversee the operations of the network. The network purchases regularly expert services from NGOs.

Results of tasks in sub-actions C.11.2-4:

- Two (2) dissertations will have a positive effect into composting in the areas of participating private homes will (increase by 20%) and waste sorting in blocks of flats will (improve by 10%).
- The preliminary questionnaires show that waste competence improves among residents by 20% in between 2017-2021.
- The network is in interaction with the most active NGOs, companies and experts from public administration and universities via the social media, email lists and regular meetings and workshops.
- Teachers (30) will participate twice (2) a year in environmental education pathway training.

- The experts of the environmental education pathway and teachers (15) will gather once (1) per year at a workshop and plan the implementation of a minimum of eight (8) points on the environmental education pathway. Pre-school education institutions and schools in the Satakunta region will proceed by academic year in accordance with the environmental education pathway.
- The network will organize events (5), awareness and information campaigns (1), exhibitions (1) and one (1) series of open lectures per year. The network will reach 3000 participants per year in their events.
- A blueprint 1) for the arranging the clean-up activities and 2) for the joint use and ownership of goods and the support from the network increases the grass-root level actions supporting the networks aims.

Results of tasks in sub-actions C.11.5:

- The City of Pori procurement services in three (3) purchases (joint purchases of products and services) per year. In one purchase the use of recycled materials will be taken into consideration.
- The network will produce a tool (a flow chart, specifications of procurement criteria for the features of products or services) for makers of individual purchases.

Results of tasks in sub-action C.11.6:

- The electronic circular economy roadmap that brings together the City of Pori's commitments as guidelines for the entire organization.
- The network's aim is to organize workshops (5) for implementing the roadmap.
- The workshops aim to reach minimum of 40% of the staff of City of Pori.

Cost estimation:

City of Pori

Personnel 558 033 €, Travel 6 048 €, External assistance 80 741 €, Consumables 7 619 €, Other costs 5 616 € + overheads. The network budget has been divided between sub-actions. The biggest cost is personnel. Total cost of the Action = 658 057 €. Increase with 162 730 € (Personnel cost has increased with 179 548, external assistance with 12 654 €) – the resources shifted from Actions A.1, A.2 and C.3.

The sub-action C.11.4 Resident pathway and the sub-action C.11.3 Environmental education pathway take most of the budget, excluding the personnel, because the residents and pupils are the main target groups for network. It is important to develop waste competence among people in their everyday lives.

All public permanent staff will be specifically seconded to the project.

Estimated No. of attendees for all conferences / seminars / workshops in this action:

- The network regular meetings and workshops (30 attendees three times a year). The network will reach 450 expert participants through the project.
- Teachers (30) will participate twice (2) a year in environmental education pathway training. The network will reach 300 teachers through the project.
- The experts of the environmental education pathway and teachers (15) will gather once (1) per year at a workshop. The network will reach 225 teachers and experts through the project at annual workshops. The network will organize events (5),

awareness and information campaigns (1), exhibitions (1) and one (1) series of open lectures per year. The network will reach 3000 participants per year in their events. The network will reach 15000 participants through the project.

Deliverables:

Sub-action C.11.1. Setting up and consolidating the network

1. brochure about operations FI + EN
2. annual reports FI (2017, 2018, 2019, 2020, 2021) on operations
3. agreement on administration and funding of network from 2022

Sub-action C.11.2. Expert pathway

1. identification of environmental experts operating in the region, who could participate in the expert pathway
2. dissertation work (2) on composting and waste sorting
3. report from the key questions that have been asked in questionnaires made at events and lectures

Sub-action C.11.3. Environmental education pathway

1. plan for environmental education pathway
2. environmental education material produced by the network for the environmental education pathway

Sub-action C.11.4. Resident pathway

1. campaign materials produced by the network
2. description of blueprint for joint use and ownership
3. description of blueprint for the arranging the clean-up activities

Sub-action C.11.5. Green public procurement pathway

1. tool for individual purchases
2. summary of supported purchases made during the procurement pathways and the impact of the use of environmental criteria on the purchases

Sub-action C.11.6. Circular economy roadmap

1. Process description on preparation, implementation and consolidating the roadmap (2023)
2. Electronical circular economy roadmap (2023)

Milestones:

- Sub-action C.11.1. Network starts: website, social media tools and to be completed (1.1.2017), network to consolidate its operations: agreements in permanent funding and blueprint for 2022 onwards to be approved (1.6.2021).
- Sub-action C.11.2. Experts for expert pathway have been identified and the first workshop has been held (1.3.2017), operational study on waste sorting in blocks of flats to be ready (1.10.2018), operational study on general adoption of composting in areas of private homes to be ready (1.10.2020).
- Sub-action C.11.3. Environmental education pathway: planning and a first package of materials to be prepared and ready for use in the autumn term

(1.10.2017), the first workshop and training for teachers in has been held (1.3.2017).

- Sub-action C.11.4. Resident pathway: network participates in national and international theme weeks (1.6.2017) and the first series of open lectures has been held (1.12.2017)
- Sub-action C.11.5. Green public procurement pathway tool for individual purchases will be ready (1.1.2021).
- Sub-action C.11.6. A working group has been set up to compile the roadmap, the first preparatory workshop organized, roadmap priorities selected, an internal website (Intranet) for the roadmap process is established and a scheduled plan drawn up for the roadmap (31.1.2022). The City Board approves an electronic circular economy roadmap (by 1.3.2023). Workshops (5) to implement the roadmap is organized (15.9.2023).

Code of action	Name of the Milestone or Deliverable	Type	Deadline according to previous Amendment	New suggested deadline
C.11.1_1	(C.11.1) brochure about operations FI + EN	Deliverable	Completed (phase I)	
C.11.1_2	(C.11.1) annual reports FI (2017 , 2018, 2019, 2020, 2021) on operations	Deliverable	Completed (phase I)	
C.11.1_3	(C.11.1) annual reports FI (2017, 2018 , 2019, 2020, 2021) on operations	Deliverable	Completed (phase I)	
C.11.1_4	(C.11.1) annual reports FI (2017, 2018, 2019 , 2020, 2021) on operations	Deliverable	31.1.2020	Completed (phase II)
C.11.1_5	(C.11.1) annual reports FI (2017, 2018, 2019, 2020 , 2021) on operations	Deliverable	31.1.2021	Completed (phase II)
C.11.1_6	(C.11.1) annual reports FI (2017, 2018, 2019, 2020, 2021) on operations	Deliverable	30.9.2021	Completed (phase II)
C.11.1_7	(C.11.1) agreement on administration and funding of network from 2022	Deliverable	1.6.2021	Completed (phase II)
C.11.2_1	(C.11.2) identification of environmental experts operating in the region, whcould participate in the expert pathway	Deliverable	Completed (phase I)	
C.11.2_2	(C.11.2) dissertation work (2) on composting and waste sorting	Deliverable	1.10.2020	Completed (phase II)
C.11.2_3	(C.11.2) report from the key questions that have been asked in questionnaires made at events and lectures	Deliverable	30.9.2021	Completed (phase II)
C.11.3_1	(C.11.3) plan for environmental education pathway	Deliverable	30.9.2021	Completed (phase II)
C.11.3_2	(C.11.3) environmental education material produced by the network for the environmental education pathway	Deliverable	30.9.2021	Completed (phase II)
C.11.4_1	(C.11.4) campaign materials produced by the network	Deliverable	30.9.2021	Completed (phase II)
C.11.4_2	(C.11.4) description of blueprint for joint use and ownership	Deliverable	30.9.2021	Completed (phase II)
C.11.4_3	(C.11.4) description of blueprint for the arranging the clean-up activities	Deliverable	30.9.2021	Completed (phase II)

C.11.5_1	(C.11.5) tool for individual purchases	Deliverable	1.1.2021	Completed (phase II)
C.11.5_2	(C.11.5) summary of supported purchases made during the procurement pathways and the impact of the use of environmental criteria on the purchases	Deliverable	30.9.2021	Completed (phase II)
C.11.6_1	Process description on preparation, implementation and consolidating the roadmap (2023)	Deliverable	New suggested deliverable	30.9.2023
C.11.6_2	Electronical circular economy roadmap	Deliverable	New suggested deliverable	30.9.2023
C.11	Sub-action C.11.1. Network starts: website, social media tools and tbe completed (1.1.2017), network tconsolidate its operations: agreements in permanent funding and blueprint for 2022 onwards tbe approved (1.6.2021).	Milestone	Completed (phase I)	
C.11	Sub-action C.11.2. Experts for expert pathway have been identified and the first workshop has been held (1.3.2017), operational study on waste sorting in blocks of flats tbe ready (1.10.2018), operational study on general adoption of composting in areas of private homes tbe ready (1.10.2020).	Milestone	Completed (phase I)	
C.11	Sub-action C.11.3. Environmental education pathway: planning and a first package of materials tbe prepared and ready for use in the autumn term (1.10.2017), the first workshop and training for teachers in has been held (1.3.2017).	Milestone	Completed (phase I)	
C.11	Sub-action C.11.4. Resident pathway: network participates in national and international theme weeks (1.6.2017) and the first series of open lectures has been held (1.12.2017)	Milestone	Completed (phase I)	
C.11	Sub-action C.11.3. Environmental education pathway: planning and a first package of materials tbe prepared and ready for use in the autumn term (1.10.2017), the first workshop and training for teachers in has been held (1.3.2017).	Milestone	Completed (phase I)	
C.11	Sub-action C.11.4. Resident pathway: network participates in national and international theme weeks (1.6.2017) and the first series of open lectures has been held (1.12.2017)	Milestone	Completed (phase I)	
C.11	Sub-action C.11.2. Experts for expert pathway have been identified and the first workshop has been held (1.3.2017), operational study on waste sorting in blocks of flats tbe ready (1.10.2018), operational study on general adoption of composting in	Milestone	Completed (phase I)	

	areas of private homes tbe ready (1.10.2020).			
C.11	Sub-action C.11.2. Experts for expert pathway have been identified and the first workshop has been held (1.3.2017), operational study on waste sorting in blocks of flats tbe ready (1.10.2018), operational study on general adoption of composting in areas of private homes tbe ready (1.10.2020).	Milestone	1.10.2020	Completed (phase II)
C.11	Sub-action C.11.5. Green public procurement pathway tool for individual purchases will be ready (1.1.2021).	Milestone	1.1.2021	Completed (phase II)
C.11	Sub-action C.11.1. Network starts: website, social media tools and tbe completed (1.1.2017), network tconsolidate its operations: agreements in permanent funding and blueprint for 2022 onwards tbe approved (1.6.2021).	Milestone	1.6.2021	Completed (phase II)
C.11	A working group has been set up to compile the roadmap, the first preparatory workshop organized, roadmap priorities selected, an internal website (Intranet) for the roadmap process is established and a scheduled plan drawn up for the roadmap.	Milestone	New suggested milestone	31.1.2022
C.11	The City Board approves an electronic circular economy roadmap	Milestone	New suggested milestone	1.3.2023
C.11	Workshops (5) to implement the roadmap is organized	Milestone	New suggested milestone	15.9.2023