



European Union
European Regional
Development Fund

Innovation in Waste Management Policies

SMART WASTE

Interreg Europe

Action Plan



KRATC

Klaipeda Regional Waste
Management Centre

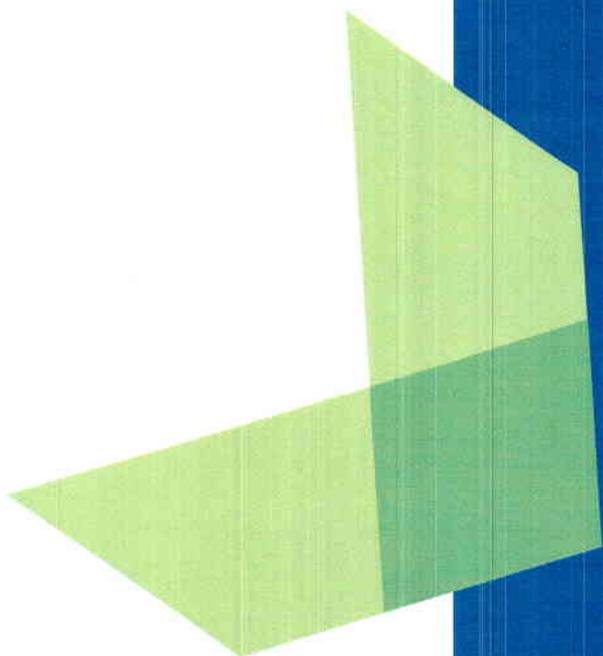


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General Information

Project : SMART WASTE - Innovation in Waste Management Policies

Partner organization :

Klaipeda Regional Waste Management Centre (Klaipėdos regioninis atliekų tvarkymo centras)

Country : Lithuania

NUTS-2 : Vidurio ir vakarų Lietuvos regionas (Central and Western Lithuania)

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Introduction

The essence of the Action Plan for the Klaipeda Regional Waste Management Centre is to implement policy improvement to the specific policy measure focusing on waste management – 05.2.1-APVA-R-008 (Development of municipal waste management infrastructure) of the Priority Axis 5 of the OP addressing “Environment, sustainable use of natural resources and adaptation to climate change” as the policy instrument to be improved. This will be achieved by the implementation of the investment project “Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region”.

As a result, Klaipeda Regional Waste Management Centre has developed the proposal for a pilot innovative waste processing project to be part-funded by the Lithuanian multi-fund Operational Programme (OP) for investing European Structural and Investment funds 2014-2020. An early output is an Action Plan focused on Good Practice transfer to fund new projects aimed at introducing new approaches and technologies to reduce, reuse, recycle and recover waste. A second stage Action Plan builds on interregional and regional evaluation and learning in the project to propose and implement such changes.

It is the focal issue of using the EU Structural Funds for the Green Economy, and in this way, it is directly linked to the national innovation strategy for smart specialisation (RIS3). The priority is named “Energy and Fuel Production from Biomass or Waste, Waste Treatment, Storage and Disposal” of the Priority R&D Area “Energy and Sustainable Environment”.

The Lithuanian multi-fund Operational Programme (OP) for investing European Structural and Investment funds 2014-2020 is the most relevant EU Structural Policy Instrument for the Lith-

uanian innovative waste management related policy instrument contents. The Priority Axis 5 of the OP addresses “Environment, sustainable use of natural resources and adaptation to climate change” with a specific policy measure focusing on waste management – 05.2.1-APVA-R-008 (Development of municipal waste management infrastructure) – playing the key role.

Klaipeda Regional Waste Management Centre has a long tradition of considering and introducing new approaches and technologies to reduce, reuse, recycle and recover waste. It aims to fit these into a comprehensive and circular approach. The SMART WASTE project was born to aid in this process by providing answers to the questions like Are the implemented measures and technologies having a real impact? Could they be done better? SMART WASTE evaluates to what extent current national, regional and local policies have promoted successful innovation in waste management. It then proposes interregional solutions to address policy weaknesses.

In this way, Klaipeda Regional Waste Management Centre together with other four SMART WASTE policy partners, with support from an expert Advisory Partner, contributes to European waste policy, including the Environmental Action Programme and the new Circular Economy rules. It contributes to Europe 2020 objectives for smart and sustainable growth. It supports Interreg Europe aims for improved policy on key societal challenges, thanks to interregional learning between territories with different experiences and stages of development.

Policy context

The reference policy instrument for the Action Plan of the Klaipeda Regional Waste Management Centre is the Lithuanian multi-fund Operational Programme (OP) for investing European Structural and Investment funds 2014-2020, Priority axis 5 "Environment, sustainable use of natural resources and adaptation to climate change" 05.2.1-APVA-R-008. The Lithuanian multi-fund Operational Programme (OP) brings together several key EU investment funds aimed at helping Lithuania's economic development as well as tackling social exclusion, unemployment and vital issues like energy security. It reflects the goals of the Europe 2020 strategy with a clear emphasis on boosting research and innovation, SME competitiveness, the shift to a low-carbon economy, the promotion of human capital, especially of young people, and the fight against poverty.

Priority Axis 5 of the OP addresses "Environment, sustainable use of natural resources and adaptation to climate change". In spring 2020, Ministry of Environment of the Republic of Lithuania has made an overview of the progress in the implementation of Measure No. 05.2.1-APVA-R-008 and found out that there is still a possibility to include one more action and project under this measure within the available budget of Lithuanian multi-fund Operational Programme (OP) within the framework of implementation of EU Directive 2018/851 on the requirements related to the collection and management of bio-waste. After the restructuring of the Priority Axis 5 of the OP in 2020, a remaining measure focuses on waste in the remaining the programming period of 2014-2020: "Development of municipal waste management infrastructure (R-008)." Beneficiaries, which are municipalities represented by municipal associations, shall receive funding for:

1. Purchase or modernisation of separately collected and / or recycled waste treatment facilities;
2. Public information on waste prevention / management issues.
3. Development of bio-waste collection containers / composting facilities;
4. Installation / reconstruction of container sites and purchase of containers;
5. Installation / upgrading / application for reuse of bulky waste disposal sites;
6. Creation of disposed item reuse infrastructure.

For the measure R-008, the Terms of Reference have been agreed between the Ministry of Environment and stakeholders for the remaining budget in 2020. As a result of active efforts of the staff of Klaipeda Regional Waste Management Centre, supported by SMART WASTE project institutional stakeholders in Lithuania, consensus was achieved with Ministry of Environment and its Environmental Project Management Agency (APVA), the body responsible for the implementation of Measure No. 05.2.1-APVA-R-008, that the additional action and project in this measure should be the development of food/kitchen waste sorting infrastructure in Klaipeda Region. **On June 17, 2021, Mr. Simonas Gentvilas, the Minister of the Environment of the Republic of Lithuania has signed the Executive Order No. D1-369 regarding the allocation of funding for the projects submitted under Priority 5 of the EU Lithuanian multi-fund Operational Programme (OP) for investing European Structural and Investment funds for the programming period 2014-2020.**

Details of the Action Envisaged

Title of the Action

Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region

Policy Need Addressed

As mentioned earlier, in spring 2020, Ministry of Environment of the Republic of Lithuania has made an overview of the progress in the implementation of Measure No. 05.2.1-APVA-R-008 and found out that there is still a possibility to include one more action and project under this measure within the available budget of Lithuanian multi-fund Operational Programme (OP) within the framework of implementation of EU Directive 2018/851 on the requirements related to the collection and management of bio-waste.

After the consolidation of the OP, a single measure within the Priority Axis 5 which is pertinent to the innovations in the municipal waste management is Measure No. 05.2.1-APVA-R-008 Development of municipal waste management infrastructure including the following actions and resulting projects:

- Development of bio-waste collection containers and / or composting facilities for individual holdings;
- Installation / reconstruction of container sites and acquisition of containers for container sites;
- Installation / upgrading and / or application of bulky waste disposal sites.

The new waste sorting infrastructure is expected to deploy various positive impacts for the citizens of Klaipeda Region, in particular:

- Possibility of sorting and separate collection of food waste, thus reducing the amount of mixed municipal waste used in incineration plants or landfilled, on which the cost of collection and treatment of mixed waste depends;
- Possibility of sorting the waste collected from the population, i.e. prepared for recycling in an environmentally and public health manner and subsequently recycled.

Moreover, an additional target group that will benefit from the solution are enterprises that want to use treated waste for biogas production. The main need of this group is to purchase a quality product at a reasonable price, which can be used for the production of biogas and fertilizer products. There are currently about 45 biogas plants in Lithuania. Of these, 16 power plants process agricultural waste (such plants have complex food waste treatment). Thus, the potential size of the target group is estimated at about 30 power plants.

However, not all of these power plants can accept larger amounts of food waste, treat it properly, and store it. It is estimated that only 5 power plants in Lithuania can receive and store large amounts of food waste. Chemically and mechanically pure depackaged food waste is a perfect raw material for the production of biogas and fertilizer products. Therefore, these five biogas power plants are direct beneficiaries of the project. In the next semesters, we will monitor the territorial impacts produced by the new project and provide specific information in the next reports.

Overview of the Policy Improvement that this Action refers to

Due to the paucity of the remaining funds within the Priority Axis 5 of the OP for the programming period of 2014- 2020, the Action Plan includes only one action aimed at the improvement of the policy measure "Development of municipal waste management infrastructure (R-008)." **The title of the action is "Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region"**. As mentioned above, it is part of an Operational Programme for investing European Structural and Investment funds 2014-2020, Priority Axis 5 "Environment, sustainable use of natural resources and adaptation to climate change" and Thematic Objective 6 "Maintaining and protecting the environment and promoting resource efficiency".

The focus of the action is on the EU Structural Funds' measure improvement through the development of food/kitchen waste sorting infrastructure in the Klaipeda Region. The proposed action complies with Programme requirements and that it can produce a positive impact in your territory. It provides the only opportunity to promote innovations in the EU-funded waste management policy in the remaining years and with remaining funds for 2014-2020 EU programming period in Lithuania.

The new food waste sorting infrastructure aims to create a facility for the collection of waste from the population. The sorting line of food waste special bags allows to separate food waste from general waste stream. The first beneficiaries are the users of municipal waste management services in Klaipeda and Neringa Resort municipalities of Klaipeda Region (Capacity 6700 tons per year, i.e., 100% of the total generated quantity by year 2023). Depacker is an important innovation in our region, contributing to the achievement of the new EU recycling targets (as set out by Directive (EU) 2018/851).

The Action Plan focuses on the Policy Improvement that falls within Type 1 – Implementation of new projects within the Lithuanian multi-fund Operational Programme (OP) for investing European Structural and Investment funds 2014-2020. the Lithuanian multi-fund Operational Programme (OP) has 10 priority axes. As mentioned earlier, the Policy Improvement that this Action refers to falls within the Priority Axis 5 "Environment, sustainable use of natural resources and adaptation to climate change", Thematic Objective 6 "Maintaining and protecting the environment and promoting resource efficiency". Altogether, the total amount of the EU funding earmarked for the Priority Axis 5 of the Lithuanian multi-fund Operational Programme (OP) for the period of 2014-2020 was ca. 1 Bio. €, with the EU contribution exceeding 0.7 Bio. €.

Background

As a result of active efforts of the staff of Klaipeda Regional Waste Management Centre, supported by SMART WASTE project institutional stakeholders in Lithuania, consensus was achieved with Ministry of Environment and its Environmental Project Management Agency (APVA), the body responsible for the implementation of Measure No. 05.2.1-APVA-R-008, that the additional action and project in this measure should be the development of food/kitchen waste sorting infrastructure in Klaipeda Region.

SMART WASTE was pivotal for 2 reasons: 1. realise the weaknesses of the Measure No. 05.2.1-APVA-R-008 in supporting innovation in waste management and, 2. identify the possible innovative solutions considering the development of innovative bio-waste management infrastructure in Klaipeda Region.

1. In Semester 2, Klaipeda Regional Waste Management Centre has applied SMART WASTE local evaluation methodology to Measure No. 05.2.1-APVA-R-008 and noted that it fails to support innovation in municipal waste management. Discussions with national, regional and local stakeholders resulted in a consensus that innovate technologies for municipal biowaste management were mainly necessary. These weaknesses were also rectified by discussing this issue with SMART WASTE partners.

2. Interregional exchange (physical / virtual meetings) was instrumental in understanding the importance of networking with national, regional and local stakeholders to support innovative biowaste management projects effectively addressing specific local and regional needs and serving as an example for future proliferation of innovations on the national level. As it was debated in the occasion of working groups at Kick-off and Project Meeting 2, Tuscany Region, represented by the SMART WASTE Lead Partner, served as a good example since it has a steady growing separate collection of organic and green waste.

SMART WASTE activities contributed to the development of the project "Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region" as a special action within the Measure No. 05.2.1-APVA-R-008 due to regular collaboration between KRWMC and SMART WASTE stakeholders.

The steps leading to the policy improvement were:

- **09/2019** : SMART WASTE kick-off meeting in Florence, KRWMC learned about the separate collection of organic and green waste;
- **11/2019** : KRWMC held bilateral discussions with the stakeholders discussing their views concerning the role of Measure No. 05.2.1-APVA-R-008 to support innovation in waste management;
- **01/2020** : meeting 2 in Kolding provided further knowledge on local innovative experiences in municipal waste management;
- **03/2020** : KRWMC held SG Meeting-1 eliciting and affirming stakeholder views concerning the role of Measure No. 05.2.1-APVA-R-008 regarding funding opportunities for innovative bio-waste management;
- **04-06/2020** : KRWMC was in touch with the stakeholders preparing Terms of Reference for the project "Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region" proposal, providing input related to the outcomes of the interregional exchange in SMART WASTE;
- **07-11/2020** : KRWMC takes care of the development of documentation for the project "Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region"
- **12/2020** : KRWMC held SG Meeting-2 coming to a consensus on the documentation for the project "Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region".
- **04-06/2021**, the Minister of Environment Lithuania amended the Order No. D1-281 "On the Description of Financing Conditions for Projects of Measure 05.2.1-APVA-R-008" Development of Municipal Waste Management Infrastructure "of Priority 5" Environment, Use of Natural Resources and Adaptation to Climate Change "of the Investment Operational Program of the European Union Funds for 2014-2020 approval"

Input from interregional exchange in SMART WASTE

Lessons learnt	Elements to be transferred for my policy improvement	Exchange process
“Support for improvement of waste management system in Zlatograd”, presented by SMART WASTE P4 - BAMEE	Benefits, in environmental and economic terms, resulting from high-efficiency separate collection of municipal waste.	As an integral part of the Good Practice exchange process in the SMART WASTE project
“Smart solutions for waste separation”, a GP provided by BIOREGIO, an Interreg Europe project	Innovative approaches in high-efficiency separate collection of municipal waste, especially biowaste	As an integral part of the Good Practice exchange process in the SMART WASTE project, as shared by BIOREGIO representatives during SMART WASTE webinar held on 13 September 2021P
“Reducing biowaste from domestic waste”, a GP provided by BIOREGIO, an Interreg Europe project	Innovative approaches in reducing biowaste from domestic waste on the level of municipalities and regions	As an integral part of the Good Practice exchange process in the SMART WASTE project, as shared by BIOREGIO representatives during SMART WASTE webinar held on 13 September 2021
Food waste campaign in the municipal kitchens”, a GP provided by ECOWASTE 4 FOOD, an Interreg Europe project	Active involvement of municipal stakeholders into the food waste reduction and sorting promotion campaigns	Quarried from the Good Practice database of INTERREG Europe

Regional / Local input, including input from SMART WASTE Stakeholder Group

The Action Plan was developed with an active involvement of the KRWMC SMART WASTE Stakeholder Group. The 3rd Stakeholder workshop took place in April, 2021 (online). Project contents and progress regarding good practices have been discussed, as well as the first draft of the Action Plan for Lithuania prepared by an external expert was discussed. Prof. Ramūnas Povilanskas, KRWMC Board Chairman has explained to the participants the aspirations of Interreg Europe and SMART WASTE for achieving best results in the situation of the COVID-19 pandemic. The Stakeholder Group endorsed the first draft of the Action Plan since the stakeholders came to a consensus, that the focus should be on the EU Structural Funds measure improvement through the innovative project aimed to facilitate reuse in food/kitchen waste management process in Klaipeda. It provides the best opportunity to integrate innovative approaches in the EU-funded waste management policy in the remaining years and with the remaining funds for 2014-2020 in Lithuania.

Specific Activities and Timeframe

Phase 2

Start Date: August 1, 2022 – End Date: September 30, 2022	Approval of the Environmental Impact Assessment
Start Date: October 1, 2022 – End Date: January 31, 2023	Purchasing of the 'Depacker' equipment
Start Date: February 1, 2023 – End Date: April 30, 2023	Installation of the 'Depacker' equipment
Start Date: May 1, 2023 – End Date: July 31, 2023	Launching and monitoring of the process of food waste sorting and treatment in the Klaipeda Region

Stakeholders involved

Name of Organisation / person (where possible)	Role in Action Plan
Environmental Project Management Agency (APVA) / Ministry of Environment, Mr. Vytautas Vrubliauskas	Disbursement and monitoring of funding and investment for the project action from the EU Structural Funds
EUCC – Coastal and Marine Union, Baltic Office, Prof. Dr. Artūras Razinkovas-Baziukas	Monitoring of the process of food waste sorting and treatment in the Klaipeda Region

Costs and Funding Sources

The total value of the project "Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region" was estimated based on the reasonable prices currently available on the market for this type of equipment and as a result of the development of documentation for the project "Establishment of Food Waste Sorting and Treatment Infrastructure in Klaipeda Region":

1. Food waste bag separation line	242'000 €
2. Front loader	181'500 €
3. Depacker equipment	544'500 €
4. Engineering services	47'190 €
5. Subcontracted construction services	792'792 €
6. Preparation of investment project	11'737 €
7. Project administration	14'520 €

TOTAL: 1,834,239 €

The project should be 80% financed from the EU Structural Funds measure 05.2.1-APVA-R-008 and 20% financed from the own resources of KRWMC.

Risk and Contingency Plans

Description of Risk	Level of probability (High, Medium, Low)	Description of Contingency Plan
Delay with the disbursement of the allocated EU funding for the project	Low	Purchasing and installing of the 'Depacker' equipment from the KRWMC own funds
Unwillingness of the inhabitants of Klaipeda and Neringa municipalities to separate their biowaste	Low	Implementation of an extra public promotion campaign for biowaste separation

Monitoring

Self-defined Performance Indicators		
Indicator	Target	Means of Verification
Number of improved measures for sorting municipal food waste in Klaipeda Regional Waste Management Centre	1	Implementation and monitoring report
Output Indicators		
Indicator	Target	Means of Verification
Amount of funds influenced	1.8 Mio. €	Accounting systems of APVA and KRWMC

Signature

Institution Environmental Project Management Agency

Name of Signatory Vytautas Vrubliauskas

Position Director

Date 2022-04-05

Stamp (if available)



Signature

