

Action Plan for Lithuania – increase fo energy efficiency in multiapartment buildings

INTERREG Europe project „Novel roles of regional and
LOcal authorities in supporting energy consumers'
behaviour change towards a low CARBOn economy“
(LOCARBO)

by Kaunas University of Technology (KTU), Lithuania
Project Partner 5
August, 2018

Introduction

This document represents the Lithuania Action Plan developed by Kaunas University of Technology (KTU) (Lithuania), within the framework of the LOCARBO – “Novel Roles of Regional and Local Authorities in supporting Energy Consumers’ Behaviour Change towards a Low-carbon Economy” INTERREG Europe project.

It results from the learning process and exchange of experiences developed within project’s phase 1, namely the good practices identified by the other partners, and will be the basis for the influence of the Policy Instrument tackled by KTU within the LOCARBO project – Operational Programme for the European Union Funds’ Investments in 2014-2020 Republic of Lithuania. Supporting the shift towards a low-carbon economy in all sectors Priority axis 4. Promoting energy efficiency and production and use of renewable energy. Investment priority 4.3. Supporting energy efficiency, smart energy management and RES use in public infrastructures, including in public buildings, and in the housing sector. Specific objective 4.3.1. Reduce energy consumption in public infrastructures and multi-apartment houses..

This Action Plan is structured in several sections, including the identification of strategic objectives and fields of action, and the definition of expected impacts and required resources for its implementation:

- the regional/local motivations to develop the present Action Plan and the contextual basis to develop LOCARBO project aims in the region are presented.
- the main vision and strategic goals that KTU recommends to achieve with a successful Action Plan implementation.
- The specific objectives represent the measurable results that KTU suggest to accomplish, materializing the vision and strategic goals.
- The monitoring procedures are detailed with a compilation of the indicators and sources of verification that will guide the monitoring process.

1. Background and Subject

The purpose of the Action Plan is to provide a framework of implementation toward achieving project objectives. The core activity of the Action Plan is to improve the Policy Instrument selected. Therefore, the Action Plan sets out to deliver results in relation to the improvement of the chosen Policy Instrument.

The Lithuanian Policy Instrument selected in the LOCARBO project for further enhancement is the Operational Programme for the European Union Funds’ Investments in 2014-2020 Republic of Lithuania. Supporting the shift towards a low-carbon economy in all sectors Priority axis 4. Promoting energy efficiency and production and use of renewable energy. Investment priority 4.3. Supporting energy efficiency, smart energy management and RES use in public infrastructures, including in public buildings, and in the housing sector. Specific objective 4.3.1. Reduce energy consumption in public infrastructures and multi-apartment houses.

The indicator for the Lithuania, indicated in the project Application form is 20.000 households with improved energy consumption classification. The relevant has been chosen as relevant one for the Low Carbon economy and also important factor, indicating the awareness and willingness of the final energy users to apply the renovation process at their homes with the requirements for the quality (energy class). The activities of the project (from the national perspective) and this Action Plan is oriented to the renovation process of the Lithuanian multiapartment buildings.

This Action Plan presents the strategic aims of Lithuania in order to increase energy efficiency in the households, based on the implementation of the renovation process, while having the broader scope: sustainable development, rational use of energy, reduction of greenhouse gases emissions and decrease of the costs share the households have for the heating bills.

Thereby, it is coherent with the political ambition of the Ministry of Energy of the Republic of Lithuania, Ministry of the Environment of the Republic of Lithuania, administrative institutions (BETA, VIPA), and the Energy Efficiency strategies of local Municipalities (e.g. SEAP).

The Action Plan was developed within the framework of the LOCARBO project, which is an interregional cooperation project for improving low-carbon economy policies, focused on exploring policy instruments improvement combined with innovative practices on three strongly interrelated thematic pillars:

- Supplementary services and products offered by local authorities;
- Innovative cooperation models;
- Innovative smart technologies.

Each thematic pillar corresponds to one of the following strategic objectives:

- Improve policy instruments targeting demand-driven initiatives to increase energy efficiency and the use of renewables in the built environment;
- Find innovative ways for regional and local authorities to support energy consumers' behaviour change, enhancing motivation and awareness;
- Promote more conscious consumers' decisions on energy efficiency in buildings, and more investments on smart technologies.

This Action Plan development process was the result of a set of internal and external interactions under the LOCARBO project. At an internal level, a set of preceding documents were developed to prepare and frame the production of this Action Plan. These documents refer to the "Regional Analysis & Ambition Info Sheet" and the collected Good Practices, integrated in the project "Good Practices Inventory", and perfectly blended in each LOCARBO Thematic Pillar.

The "Regional Analysis & Ambition Info Sheet" consists in a context analysis, including themes like weaknesses/expectations within the policy-making process, resources exploitation, investments, community involvement, and the establishment of a short statement expressing KTU preliminary intentions on the Action Plan.

The project networking activities (including study visits, training sessions, interregional events and thematic conferences) brought excellent opportunities to knowledge transfer, namely best practices exchange to be incorporated into regional/local policies.

At an external level, the interaction that occurred between the local/regional stakeholder group and KTU as the national representative of the LOCARBO project and companies within the performed Local Living Lab (LLL) and Institutional Learning Platform (ILP) meetings, was also very useful for the analysis and proposal of achievable action lines and measures that are intended to be developed, implemented and monitored.

2. Strategic approach

State of the art and LOCARBO intentions for the improvement Lithuanian Policy Instrument

Despite some recent positive changes in energy intensity (EI), the consumption of energy in Lithuania is much higher than the average in the EU or old EU Member States. EI amounted to 311.05 kg of oil equivalent per EUR 1,000 in Lithuania in 2010 (the EU average was 152.08 kg of oil equivalent per EUR 1,000) (Eurostat). Compared to other EU Member States, Lithuania is among the states with the most inefficient energy consumption (EI is higher only in SK, RO, PL, LV, EE, CZ and BG). The above data show the magnitude of energy saving potential and call for enforced measures. 66% of the Lithuanian population live in multiapartment buildings (around 60% of these buildings were constructed during the last four decades of the last century). The average annual thermal energy consumption in these buildings amounts to 160180kWh/m², whereas the standards in newly constructed buildings built after 1993 is around 8090kWh/m² per year.

The necessity to improve energy efficiency in buildings is illustrated also by the magnitude of public spending on compensations for heating of housing, which increases every year. In 2012, it amounted to LTL 169.5 million. According to a recent study published by the Government, the comparison of expenses on heating and income received by consumers' shows that the Lithuanian population spend probably the largest share of their income on heating of their housing. The measures envisaged by the new OP and its relevant PA are in the right direction but important components regarding –inter alia – enforcing consumer commitment, raising attention of inhabitants through involving them into the design and the implementation of the OP are missing. With the improvement of the PI through using relevant lessons learnt from bottom up initiatives examined in LOCARBO the energy saving potential can be exploited much better.

The purpose of the Action Plan is to provide a framework of implementation toward achieving project objectives. The core activity of the Action Plan is to improve the Policy Instrument selected. Therefore, the Action Plan sets out to deliver results in relation to the improvement of the chosen Policy Instrument.

In the 2014/2020 programming period, the key challenge is to boost energy efficiency in fighting against energy poverty. To this end, energy saving reserves in the public and housing sectors must be fully used and internationally proven measures and new advanced solutions must be applied. That holds particularly for Priority Axis 4 measures since it is the major policy instrument in this area in the next 5 years. Energy conscious renovation of residential buildings requires a wider use of smart management and social innovation tools: types of initiatives, best practices that are explored in LOCARBO and that can be made compatible with SF regulation.

These require new, more demand oriented attitude of relevant authorities: providing supplementary innovative services based on lessons learnt in LC, like smart technologies (e.g. metering) that will also contribute to better assessment of energy saving potential in residential and public buildings. Innovative cooperation models like local energy communities may accelerate districtwide renovation projects due to bottom up approach creating higher commitment. Furthermore by using the Energy Service Company (ESCO) model, more inventive promotion of complex renovation can be achieved. Introducing these innovations call for new measures under PA 4 or revising the scope of supported activities of currently planned measures – these are the focal points for the improvement of the policy instrument addressed by KTU.

The renovation process has been started in Lithuania since 2004. But the effect has not been very meaningful. Financing of the Energy Efficiency in 2007 – 2013 program JESSICA HF (EIB) -173 MEUR - Loans for renovation of multi-apartment buildings and student dormitories. Results of the period 2007–2013: 923 multi-apartment buildings and 16 student dormitories have been renovated. The changes has been done since 2013 as the novel renovation model has been implemented, administrator Agency of Buildings Energy Efficiency (BETA), as the department of the Ministry of the Environment has been established for coordination of the renovation process.

The existent model of the renovation process is very improved and other countries take the Lithuanian renovation model as the benchmark process for the renovation of multiapartment buildings, increasing the energy efficiency and encouraging end users, with the relevant financial mechanisms.

However this process is very complex and different measures must be applied in order to guarantee the qualitative and quantitative results. Therefore the Action Plan is oriented to the sustainability of the Renovation process while supporting and maintaining the existent measures and integrating other good practices identified in the period of the first phase of the LOCARBO project.

Stakeholders

Project stakeholders consist of many groups interested in facilitating energy efficiency.

Government organizations and their decision making bodies, as they have the means to implement policy instruments which will be created in the project. As government supports are a key in realizing energy efficiency investments, the following players are key in their roles:

Institutional level/regulatory partners

- Ministry of Energy of the Republic of Lithuania
- Ministry of Environment of the Republic of Lithuania
- The Housing Energy Efficiency Agency (BETA) (established by the Ministry of Environment of the Republic of Lithuania) – as the administrative body is responsible for the coordination of the renovation process, by providing the following services for the end users (owners of the households): development of the investment projects, development of technical works projects, coordination of the projects implementation process and expertise of

the renovation; administration of the renovation process in the multiapartment buildings, technical supervision of the building process.

- VIPA Public Investment Development Agency – the role of VIPA is to organise and manage the Fund for Modernisation of Multi-apartment buildings (DNMF). Renovation of multi apartment buildings is funded through newly established Multi apartment building modernization fund (DNMF). Funds for the renovation are provided as soft loans. DNMF was established by the agreement between the Ministry of Finance, the Ministry of Environment and Public Investment Development Agency (VIPA). DNMF is a part of 2014-2020 European Regional Development Fund and manages 74 million euros. Since 2017, VIPA signed an agreement with the European Bank for Reconstruction and Development so as to further ensure the continuity of the process. VIPA has an intention to increase DNMF by integrating other possible private funds, therefore the role of VIPA in this Action Plan – to guarantee the sufficiency of the financing for the renovation projects.

Public sector partners can be of help in the local implementation, communicating the regional attributes as they have a deeper insight to local matters, and they can help identifying key points of interests, where Policy instruments should take actions for maximum effect on energy efficiency.

These partners are

- local municipalities,
- city councils,
- government agencies relevant to energy efficiency,

NGOs and Non-Profit organizations provide also good options for establishing a deep spread stakeholder network, and communicating project goals and action items towards the target segments, who will be affected by the project results.

Main stakeholders formulating the core of the Local Living Lab for LOCARBO are:

- Agency on Public Investments Development (VIPA)
- Aleksotas Community Center
- Association of Local Authorities in Lithuania
- Centre for the Education of Energetics
- Dainava district
- Energy Agency
- Energy Supply Operator (ESO)
- Housing Energy Efficiency Agency (BETA)
- JSC ELINTA
- Kaunas city municipality, Division of Energy,
- Kaunas city municipality, Division of Housing Management
- Kaunas Regional Energy Agency
- Kaunas University of Technology, National Innovation and Entrepreneurship Centre
- Kaunas University of Technology, Organic Chemistry department, Faculty on Chemical Technology
- Lithuanian Energy Institute, Laboratory on Energy System Research
- Lithuanian Energy institute, Renewable Energy sources and Energy efficiency laboratory
- Ministry of Environment of the Republic of Lithuania, Housing Division
- Ministry of Finance of the Republic of Lithuania, EU Structural Assistance Management Department
- Ministry of Transport and communication
- The Ministry of Energy, Heating and Energy Efficiency Division
- The Ministry of Energy, Renewable Energy Resources Division

That is the of the most important stakeholders influencing the Policy Instrument formulation and implementation, and some of the stakeholders which are representative of particular stakeholders group (e.g. academia, private companies, communities of consumers and etc.). Therefore the list does not represent all the relevant stakeholders which are participating in the Policy Instrument implementation process, because of the limitations of the project. Though they are considered out of scope in the context of rational project reach, their role is important.

Main objectives and impacts

The renovation process in Lithuania is financed by ERDF and other national and EU funds. Therefore, the LOCARBO Action Plan will be oriented to the influencing of the particular projects implementation, in order to reach the self-defined indicator at LOCARBO application form. KTU has contributed to the stakeholders in order to foster the quality of renovation process, based on the good practices received in LOCARBO project.

Integration of the awareness raising measures in order to increase the quality of the renovation projects and to boost the qualitative indicators. However, to the smooth continuation of national renovation process, the improvement of Policy Instrument ERDF 4.3.1. Priority. Therefore, the Action Plan will be oriented to promote the renovation with the high EE quality and to foster complex renovation, which could be useful for the speed increase of amount of the households with the increased energy efficiency class and the awareness raising campaigns to the end users in order to inform them about best practices. The integration of the end users as the proactive actors and making priority for the complex renovation, guarantees the sustainability of the renovation results, as the united landscape and common infrastructure will be renovated.

3. Vision, goals and results

According to the application form of LOCARBO project, and the table presented below, KTU has multiple objectives to achieve in this project. Main activities of KTU has been focused on the creation of Action Plan in the first phase of the project. While the second phase is oriented to the monitoring of the actions to be implemented in the context of Lithuania. Actions planned to be implemented by the stakeholders identified and the responsibilities they have, based on the legal documents and other national requirements. KTU, as the national partner of LOCARBO and the scientific institution, position itself as one of the stakeholders, providing the knowledge and education for other stakeholders of the energy sector and supporting stakeholder for the decision makers, and other assistance for the fluent implementation of this Action Plan, based on the competencies of KTU.

Based on the analysis made in the Phase I of the LOCARBO project, the **broad vision** could be defined based on the Policy Instrument analysis, the legal documents which are the basis for the implementation of the multiapartment buildings modernization process and the trends of renovation process in Lithuania:

Reduction of energy consumption in multi-apartment houses, through the innovative and proactive renovation process, where the quantitative and qualitative indicators are oriented to the strategic energy efficiency, low carbon economy and other sustainability issues: social, economic and technical ones.

Based on the vision, there is identified the following objectives and actions, which are included in the Action Plan and is the basis of the National Program of the multiapartment buildings renovation (modernization)¹

Table 1. Objectives and Actions of the Action Plan

Strategic objective	Specific objective	Action
A. Increase of heat energy savings by the breakthrough of renovation of multiapartment buildings	A.1. Continuous improvement of the renovation process	A.1.1. the delivering of efficient and sufficient financing measures,
		A.1.2. cooperation with the stakeholders in order to guarantee the transparent, smooth and on-time implementation of the modernization process.
	A.2. Stimulation of the renovation process by the education and	A.2.1 Communication for awareness raising

¹ Daugiabučių namų atnaujinimo (modernizavimo) programa, patvirtinta Lietuvos Respublikos Vyriausybės 2004 m. rugsėjo 23 d. nutarimu Nr. 1213 (Žin., 2004, Nr. 143-5232; 2012, Nr. 1-1) Aktuali redakcija nuo 2018 01 16: <http://atnaujinkbusta.lt/istatymu-igyvendinamieji-teises-aktai/>

	communication about the Good practices and Monitoring results of the renovated buildings	A.2.2. Promotion for motivation of the households' owners
		A.2.3. Consultation for the capacitation for participation in the renovation process

Measures and action lines

A.1. Continuous improvement of the renovation process

1. **The background** (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)

The main benefit of the project is the identification of good practices and involvement of the stakeholders, which helped to develop the action plan. There have been presented most of the good practices for the stakeholders which have participated at the LLLs. They have indicating the following GPs as the most important ones and relevant for the Lithuanian renovation process of multiapartment building:

GP TP1 PP3: Vila D'Este Housing Refurbishment

Vila d'Este Housing Refurbishment project is a large-scale rehabilitation project coordinated by Vila Nova de Gaia municipality under the period 2009-2015. It is one of the largest residential refurbishment projects in Europe and led to the improvement of the energy performance of the 109 buildings of the neighbourhood. Measures such as thermal insulation, glazing improvements and the introduction of shading elements were implemented, achieving a potential annual saving of 3,250 ton CO₂eq. The rehabilitation process was divided in two phases, one initiated in 2009 and the other initiated in 2013, with a total investment of approximately 12 million Euros, co-financed by European and national funds.

GP TP2 PP4 - Durham County Council Business Energy Efficiency Project (BEEP)

The County Durham Business Energy Efficiency Programme (BEEP) is an ERDF Low Carbon project that provides free energy assessments and grants to small and medium sized enterprises (SMEs). It provides one-to-one best practice support, training and expert technical advice, backed by an interactive website and social media support. The three year programme began in October 2016 and is led by Durham County Council's Sustainability and Climate Change Team, who have extensive experience in delivering energy efficiency and renewable energy improvements to non-domestic buildings of all types and sizes.

GP TP2 PP7 - Alba Iulia Municipality ANERGO – Alba Energy Observatory

Alba Energy Observatory - ANERGO was established in the framework of a European project, as a structure within Alba Energy Agency - ALEA. The role of the Energy Observatory is to fulfil the need for aggregate energy consumption data at local and regional level, per sectors for territorial-administrative units.

GP TP3 LP- Province of Potenza ATER (Territorial agency for residential buildings) Sustainable Public Housing

The GP represents a model of "sustainable design" promoted by ATER (public agency) for the social housing. It is oriented to energy saving promoting the use of innovative materials with a low environmental impact, and RES technologies

2. **Action** (please list and describe the actions to be implemented)

The action is oriented to the continuous improvement of the renovation process, by:

- a) the delivering of efficient and sufficient financing measures, in cooperation with the financing institutions and European, national funds. Based on the Regional Analysis of Ambitions info Sheet (RAAIS) the financing measures, while delivering preference credits are one of the most important aspects, which helps to increase the motivation of the end users to start the renovation process. The demand from the end-users side has increased in the last year therefore, there is the challenge to have

adequate financing resources in order to reach as high indicators of the increased energy efficiency, CO2 depletion in the scale of construction sector abilities. Based on those indicators the 500 buildings renovated each year could be secure amount while reaching the targets and based on the abilities of construction sector. Therefore the continuous improvement of the financing mechanisms would help to finance this amount of the buildings through the support for the implementation of the projects.

- b) cooperation with the stakeholders in order to guarantee the transparent, smooth and on-time implementation of the modernization process – continuous improvement of the administration process².

3. **Players involved** (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)

- **VIPA** Public Investment Development Agency – the role of VIPA is to organise and manage the Fund for Modernisation of Multi-apartment buildings (DNMF). Renovation of multi apartment buildings is funded through newly established Multi apartment building modernization fund (DNMF). Funds for the renovation are provided as soft loans. DNMF was established by the agreement between the Ministry of Finance, the Ministry of Environment and Public Investment Development Agency (VIPA). DNMF is a part of 2014-2020 European Regional Development Fund and manages 74 million euros. Since 2017, VIPA signed an agreement with the European Bank for Reconstruction and Development so as to further ensure the continuity of the process. VIPA has an intention to increase DNMF by integrating other possible private funds, therefore the role of VIPA in this Action Plan – to guarantee the sufficiency of the financing for the renovation projects.

The good Practices identified by PP4 Durham – BEEP could be used for the involvement of private funds for the increase of DNMF.

- **BETA** Housing Energy Efficiency Agency (established by the Ministry of Environment of the Republic of Lithuania) – as the institution, having the many years practice on projects' administration regarding the renovation. Effective administration of the projects is based on the information system, fixing the information relevant for every project (planning, monitoring, financing, services provided, the fixing of the real results after the implementation of the projects). Therefore the BETA is foreseen as the main organization coordinating the process of the multiapartment buildings renovation, in cooperation with the administrating bodies of the projects and the financing institutions. BETA guarantees the appropriate implementation of the renovation process and separate projects/buildings.

4. **Timeframe**

The renovation process in Lithuania has started since 2004 and the goals are identified until 2020 with the future trends for the 2023. Therefore the foreseen actions are planned to be integrated in the ongoing renovation process for the coming period (second stage of LOCARBO): 10.2018 – 09.2020

5. **Costs** (if relevant)

The indicated actions are planned to be performed by the mentioned institutions based on the projects according to the ERDF priority axes 4.3.1. It includes the corresponding actions oriented to the renovation process and technical or consultation services for the household owners. There is no need for additional funds in order to implemented actions developed according the LOCARBO project, as those actions will be integral part of the project activities foreseen in the mentioned projects.

Based on the technical assistance measure, it is calculated that for the further period (2018-2020), the amount of finance needed for the support of the projects is 60 mln. Eur., if the trends will be the same for the next period (2021-2022), there would be a need for 40 mln Eur more.

Based on the change of national action plan (2017.05.29), 48 mln. Are trasfered from other priorities to the renovation priority.

The establishment of Fund for Mutiartment Buildings Modernization, financed by the Eurpean Regional Development Fund, and the continuous maintenance would be crucial for the efficient renovation process.

6. **Funding sources** (if relevant):

The funding source is ERDF funds and European Bank for Reconstruction and Development (EBRD)

² <http://www.esinvesticijos.lt/lt/dokumentai/04-3-1-apva-v-023-priemones-daugiabuciu-namu-modernizavimo-technine-parama-projektu-finansavimo-salygu-apraso-priedo-projektas>

The indicated actions are planned to be performed by the mentioned institutions based on the projects according to the ERDF priority axes 4.3.1. as follows:

04.3.1-FM-F-001 Daugiabučių namų atnaujinimas – the planned fund is 314 000 000 Eur

04.3.1-APVA-V-023 Daugiabučių namų modernizavimo techninė parama – the planned fund is 48 800 000 Eur

Main funding sources:

- 1) National budget – compensation for the expenditures of the following measures:
 - a. 30% of investments on the energy efficiency increasing measures;
 - b. 10% for the installation or modernization of the heating regulation station in the building
- 2) Preferential or non-refundable credits from the Municipalities for the end users of social sensitive groups, having low incomes.
- 3) EU funds – 100 % compensation for the development and supervision of the renovation project

A.2. Stimulation of the renovation process by the education and communication about the Good practices and Monitoring results of the renovated buildings

7. **The background** (please describe the lessons learnt from the project that constitute the basis for the development of the present Action Plan)

The main benefit of the project is the identification of good practices and involvement of the stakeholders, which helped to develop the action plan. There have been presented most of the good practices for the stakeholders which have participated at the LLLs. They have indicated the following GPs as the most important ones and relevant for the stimulation of the renovation process by the education and communication about the Good practices and Monitoring results of the renovated buildings.

GP TP1 PP3: Gaiurb Technical Training and Awareness Sessions

Gaiurb in collaboration with external entities organises technical training and awareness sessions open to the general public (citizens and technicians), related with buildings sustainability and energy performance. The sessions are mainly related with the dissemination of the latest technical solutions for buildings energy rehabilitation, namely actions and incentives to improve the energy performance and buildings sustainability, and the principles and requirements of the latest energy performance concepts – nZEB and Passive House.

GP TP1/2/3 PP6: Virtual Power Plant Program Hungary

An EC EUSEW award-winning educational and motivational system for SMEs to act in a more energy efficient way and a good example of broad stakeholder involvement. <http://virtualiseromu.hu/en>

GP TP3 PP3 - Municipality of Vila Nova de Gaia Sustainability Observatory

GP TP1 PP4 - Durham County Council Big Switch Off

A staff awareness campaign that aims to reduce building electricity consumption by encouraging behavioural change in building users.

GP TP1/2/3 SCHOOL CARBON REDUCTION PROGRAMME/ Systemslink

The programme is coordinated by Durham County Council for all of the schools that buy into their Energy Service Level Agreement. The programme began in 2010 and provided for the first time a coordinated strategic approach to improving energy use and energy efficiency in schools across the County and enables

schools to access their energy data through the Systemslink online portal. In addition schools receive billing and technical support from the Low Carbon Team based centrally in Durham. Furthermore, they receive in-school support from a team of Education Specialists who provide educational sessions with pupils and teaching staff as well as working with school caretakers and business managers to look at whole school or budget saving opportunities.

8. **Action** (please list and describe the actions to be implemented)

The main idea of this action is to strengthen the awareness of the community and potential participants of the renovation process (beneficiaries) about the benefit of the renovation process and the procedures in order to foster the qualitative renovation process. The actions are oriented to the following directions:

- Communication for awareness raising, based on the Strategy for Public Awareness Raising 2016-2020 (coordinated by BETA)³
 - Promotion for motivation of the households' owners
 - Consultation for the capacitation to participate in the renovation process (from the national to the municipality level and houses community based level).
9. Based on the Strategy for Public Awareness Raising 2016-2020, the implementation of the public awareness raising campaign would increase the number participants intended to participate in the renovation process to 60 % in 2020. **Players involved** (please indicate the organisations in the region who are involved in the development and implementation of the action and explain their role)

The main player is BETA with the additional institutions which could act as mediators or partners.

Mediators are planned to be the stakeholders and groups which can have the role of the information multipliers. The partners are the stakeholders or the groups which could gain the direct benefit while participating in the process – for themselves or for the institutions they represent.

There are indicated the following mediators:

- State Inspection of Territorial Planning and Construction;
- National association on the passive house
- Center of expertise of the building projects
- State estate chamber
- Association of households
- Association of the municipalities
- Other associations, governmental organizations and independent experts

Partner role is foreseen for:

- Commercial banks providing the subsidised loans for renovation (modernisation) of multi-apartment buildings;
- Associations (of Lithuanian banks, of constructors, of construction and building industry);
- Projectors and consultants

This action integrates the following activities:

- Seminars for inhabitants;
- Seminars for the representatives of municipalities;
- Representation at the construction and real estate exhibitions
- Presentations at the conferences
- Consultations by the free phone line
- Dissemination of the information in the media (TV, press, internet, social networks)
- Calls for the participation in the program.
- Leaflets and catalogues for the dissemination of information on good practices and renovation procedures.

10. Timeframe

³ <http://www.betal.lt/wp-content/uploads/2014/02/2016-2020-m.-Visuomen%C4%97s-informavimo-kampanijos-strategija1.pdf>

The actions will be included in the proposal for the ERDF fund calling for the awareness raising projects for the coming period 2019-2020. Based on the strategy for the communication and awareness raising developed by BETA for the period 2016-2020, the coming call will be oriented to the second part of the second stage (2019) and the third stage (2020). Therefore the foreseen actions can be used for the second stage of the LOCARBO project in order to monitor the progress in the renovation process.

11. Costs (if relevant)

The funding of the communication activities is foreseen as integral part of ERDF priority 4.3.1. Therefore the actions proposed by the LOCARBO are not indicated as the separate ones, as those actions are integral part of communication projects.

12. Funding sources (if relevant):

The funding source is ERDF funds

4.3.1-APVA-V-003 Daugiabučių namų ir savivaldybių viešųjų pastatų modernizavimo skatinimas - 7 888 600,00 Eur Eur

Indicators and sources of verification

It is anticipated that the indicator intended in the Application Form will be reached as the trend of renovation process is very positive and speedy in the past years. The amount of households with increased EE class will be evaluated every half year based on the database of national institutions and statistics.

The Actions envisaged in the Action Plan will be as complementary ones oriented to the fostering of the qualitative aspects in parallel with the quantitative aspects.

The average energy savings in the past years reach 60 %, while in the further period before 2023 it could be stabilized and reach 40%. It is because the most majority of inefficient buildings have been renovated in the beginning stage of the renovation in Lithuania, as they had the greatest priority for the improvements. While the further renovation process is oriented to the various buildings, even having the better EE conditions, but with the potential to increase it.

The following indicators are planned to be monitored in the second phase of the LOCARBO project in order to reach the strategic objective of the Action Plan and to validate the overall indicator of the project for the Lithuania – 20 000 of the households with the increased energy efficiency class:

Table 2. Indicators for the monitoring of the Action Plan in the II phase of the project

Action	Indicator	Reference source of information for monitoring
Action Plan	Implemented modernization projects [households/year]	Periodic weekly information regarding the renovation process in Lithuania (on-line reports on the website of BETA) ⁴
A.1. Continuous improvement of the renovation process		
A.1.1. the delivering of efficient and sufficient financing measures,	Amount of the financed renovation projects [units/year]	Periodic weekly information regarding the renovation process in Lithuania (on-line reports on the website of BETA) ⁵ and annual

⁴ <http://www.betalt.lt/apie-mus/#veiklos-ataskaitos>

⁵ <http://www.betalt.lt/apie-mus/#veiklos-ataskaitos>

		reports on the project regarding the Fund of Multiapartment Buildings Modernization (delivered by VIPA) ⁶
	Amount of budget allocated to the renovation [amount of Eur/year]	Annual and quarter reports on the implementation of the renovation process ⁷ :
A.1.2. cooperation with the stakeholders in order to guarantee the transparent, smooth and on-time implementation of the modernization process.	Amount of the implemented measures for the increase of energy efficiency [amount of measures/year]	Annual reports of the renovations process in Lithuania (website of BETA and the Ministry of Environment)
	Amount of the implemented projects [amount of renovated buildings/year]	Annual reports of the renovations process in Lithuania (website of BETA and the Ministry of Environment)
	The decrease of heat energy demand in the multiapartment buildings, built before 1993 (based on the EE data on 2005) [GWh/year]	Annual reports of the renovations process in Lithuania (website of BETA and the Ministry of Environment)
	Decrease of CO ₂ (based on the data of 2005) [kt/year]	Annual reports of the renovations process in Lithuania (website of BETA and the Ministry of Environment)
A.2. Stimulation of the renovation process by the education and communication about the Good practices and Monitoring results of the renovated buildings		
A.2.1 Communication for awareness raising	Share of inhabitants with increased awareness on renovation process [%].	Results from sociological survey Annual reports of the renovations process in Lithuania (website of BETA and the Ministry of Environment)
A.2.2. Promotion for motivation of the households' owners	Households' owners intending to participate in renovation process [%/households/house]	Results from sociological surveys (BETA) Annual reports of the renovations process in Lithuania (website of BETA and the Ministry of Environment)
	Amount of the investment projects for renovation [projects/year]	Periodic weekly information regarding the renovation process in Lithuania (on-line reports on the website of BETA) ⁸

⁶ http://vipa.lt/puslapis/tyrimai_analiz%3Fs

⁷ <http://www.betalt.lt/apie-mus/#veiklos-ataskaitos>

⁸ <http://www.betalt.lt/apie-mus/#veiklos-ataskaitos>

A.2.3. Consultation for the capacitation for participation in the renovation process	Increased number of inhabitants who have favorable review of the renovation process [%/year].	Annual reports of the renovations process in Lithuania (website of BETA and the Ministry of Environment)
--	---	--