



BUILD2LC Project
**Boosting Low Carbon Innovative Building
Rehabilitation in European Regions**

Topic Report:
New Financial Instruments
Version 1

The topic report is a communication action for the general public to show the main conclusions and results of the events being held with stakeholders in relation with BUILD2LC topics.

More info: <http://www.interregeurope.eu/build2lc/>

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1 Foreword

Mr. Tsvyatko Velikov, Directorate General Regional and Urban Policy of the European Commission (DG Regio)

The EU Cohesion Policy is channelling a tangible part of the public budget for energy efficiency in Europe's regions and cities. During 2014-2020 it provides about 17.000 million Euro from the EU Budget for energy efficiency renovation of public and residential buildings, enterprises and SMEs.

These investments are bringing important benefits. The EU Cohesion Policy is supporting Member States to achieve the EU climate and energy targets as reconfirmed in the Energy Union Strategy and further framed by the energy efficiency legislation.

The EU Cohesion Policy is also supporting the national regional development, competitiveness, growth and jobs, for tackling energy poverty and enhancing energy security of supply. In the shared management mode, the regions can make sure the availability of a stable budgetary support, tailored to regional needs and synchronized with overall national development policy.

To deliver these benefits on a sustainable path, the Commission is encouraging a wider use of financial instruments that mobilize private investments and allow the financing to revolve.

The Commission services are working with the Member State to deliver. Our common success is demonstrating the added value of the Cohesion Policy investments on the ground!



Mr. Gvidas Dargužas, Public Investment Development Agency of Lithuania (VIPA) CEO

The goal of the BUILD2LC project is creating new financial instruments that are necessary for the formation of efficient energy market for boosting energy efficiency in the region.

On the other hand, the main goal of the project participants and organizers is to rehabilitate buildings in the EU states, thus increasing energy efficiency and decreasing its consumption. It will be also sought to form energy consumption policy that would help to make better conditions for creating a specialized

company market in this sector, applying successful practices of other EU states for that purpose.

This project is relevant for all EU as it will help to create and identify new financial means of efficient energy, encourage innovative solutions and investment in the construction sector, as well as significantly increase public awareness in the field of energy and define or remove potential obstacles related to legal limitations.

It is greatly important to highlight the environment and energy issues: By participating in this project we will become a part of interregional collaboration, improve regional development policy in the field of innovation, knowledge economy, environmental and hazard prevention, and also contribute to the European economic modernization and boosting of its greater competitiveness.

**Mr. Cristóbal Sánchez, Andalusian Energy Agency
General Manager**

BUIDL2LC project is an initiative that has been created taking into account previous experience of the work carried out by the Andalusian Energy Agency on the development of the Sustainable Construction. As a consequence of the important challenges that we faced in Andalusia, we contacted other regions and local and national European entities, who share with us the interest through the BUIDL2LC project, to learn and exchange common experiences in this sector.

Important resources have been dedicated in Andalusia to these purposes. Most of the incentives and investments schemes have been aimed at the building

sector, setting up in 2014 a specific programme aimed at Sustainable Construction.

Since 2009, more than 136.000 projects have been promoted within the framework of the incentives for the sustainable energy development of Andalusia and Sustainable Construction, with a public contribution of 397 million Euro (70% ERDF).

Significant advances have been made thanks to these economic incentives, with measurable economical, energy, environmental, social, territorial, and market impact.

In short, we continue taking advantage of the opportunities offered by energy to foster a model that favors the growth of an innovative and competitive productive economy network, concentrating efforts in sectors or areas with greater potential for growth and employment generation.



2 Introduction to the topic *New Financial Instruments*

The main objective of the BUILD2LC project is **to increase the energy rehabilitation of buildings enhancing the implementation and change of policies**. The project is focused on four different topics:

- New financial instruments
- Professionalization of the construction sector
- Activation of demand and combating energy poverty
- Innovation

BUILD2LC addresses the topic *New Financial Instruments* focusing on the development of new, flexible and innovative financial instruments. Across the seven regions involved in BUILD2LC project, there is a common starting scenario of regulatory uncertainty and unreliable energy retribution scheme that directly endanger investments in energy rehabilitation of buildings.

It is required to elaborate cost-effective measures gathering the needs and expectations of beneficiaries, increasing the effectiveness of public funds with the use of Public-Private Partnerships (PPP) and promoting business models for the contracting of energy services, such as ESCO & EPC models. Nevertheless, lessons learned show that only large projects investments were realized through the ESCO model, since in most regions it is obligatory to produce technical documentation for each building separately which increases the price of the investment per property and extends the period for the return of investment. The replication of some solutions is limited also because objects purpose and energy efficiency investments payback periods vary drastically.

It shall be pointed out that, especially for the residential and domestic sector, there is a general reluctance to use financial instruments instead of subsidies. These beneficiaries got used to traditional grants and subsidies, a kind of “subsidy culture” so they are reluctant to the idea of getting indebted for a good investment choice. In fact, there are proven experiences showing that subsidies push the demand of energy efficiency products and services. According to this, the statement “no subsidy, no activity” turns to be true. Even more at present times when after the global economic crisis, domestic debt burden is too high in most regions of Europe, which makes more difficult to get new loans.

On the other hand, commercial private banks have generally low confidence towards energy efficiency projects and they use the same due diligence process for all the projects, regardless of the topic. It is a fact that energy rehabilitation of buildings and retrofitting is not seen as a priority for the private financial sector. Also, it is often required small but additional public funding support to ensure bankability of the projects. Moreover, there is a lack of credit availability as a consequence of harder financial markets that endanger the demand of sustainable building due to its capital intensive nature. It is also the case that promoter companies are usually quite small and financially weak so they have limited capital access to afford the required

investments or they cannot carry a high burden debt in their balance sheet. This is especially important for ESCOs as they work in an undeveloped market.

In short, there is a clear need across Europe for new financial instruments to boost energy rehabilitation of buildings, and these financial instruments must be adapted to the needs of diverse beneficiaries and different social classes with processes that should be shortened.

The 2014-20 European Cohesion policy is a comprehensive policy that allocates significant funding for sustainable energy investments. This includes more than 18.000 million Euro financing for more energy efficient buildings across Europe. Cohesion policy is financed by the *European Structural and Investment Funds* (ESIF).

The ESIF allocation for energy efficiency for the period 2014-2020 offers a substantial budget of some 35.000 million Euro that is three times higher than the 2007-2013 allocation. And it is not the only EU support for energy investments. Other Financial Instruments are channelled via *Horizon 2020* (5.700 million Euro for research and innovation in "Secure, clean and efficient energy"); *Connecting Europe Facility* (5.350 million Euro for TEN-E energy infrastructure of highest European added value), LIFE and COSME (also relevant for certain aspects, in particular for energy efficiency, including 'PF4EE' financial instrument under LIFE) and *European Fund for Strategic Investments* (EFSI, also known as *Junker Plan*).

This financing is insufficient to cover all the needs for energy investments as stated by the European Commission¹:

The scale of investment needed to meet the EU's 2020 energy efficiency target is estimated at around €100 billion per year. The EU has increased the amount of public funds available for energy efficiency, but there is a need to boost private energy efficiency investments through a targeted use of public funds, the development of robust investment solutions and support activities for project developers.

A wider use of financial instruments is encouraged also by the Juncker Plan and the Energy Union roadmap.

The ESIF allocation for energy efficiency is delivered under shared management through Managing Authorities and Line Ministries and covers a large scope of interventions and a high number of different activities, with different levels of implementation and responsibilities.

It is interesting to highlight that the ESIF allocation for energy efficiency is facing similar implementation challenges as other financing for energy efficiency, such as investments of small scale, technically complex, with needs of high upfront financing, with payback periods that could be long, standardisation often missing, market not visible for investors....and also needs a proper fix of suitable financing products,

¹European Commission: Energy. <https://ec.europa.eu/energy/node/1742>

dedicated and technically capable institutions, new policies and regulation and also should be carefully planned, allocated and monitored.



3 Interregional Seminar in Vilnius, Lithuania

The first BUILD2LC Interregional Seminar titled ***Challenges in setting up new financing and supporting instruments with EU funds for energy rehabilitation of buildings: feedback for successful projects*** was held in Vilnius on 10-11 of January 2017 in accordance with the annexed Agenda. The Seminar attracted about 120 attendants and speakers from different regions and various institutions, agencies, ministries, the European Commission, companies, municipalities and the other institutions.



The following summary collects the main conclusions and outcomes of the seminar, split by sessions and roundtables.

Summary of the Welcome opening and keynote speech

See Foreword at the beginning of this document.

Summary of the Session 1 – “New strategies to allocate EU funding to energy renovation of buildings”

- ✓ **Tsvyatko Velikov, Directorate General Regional and Urban Policy of the European Commission (DG Regio)** gives a presentation titled *ESIF support for sustainable energy efficiency financing at European level*. Explains the EU context for energy efficiency initiatives and policy proposals and how various EU funding schemes work.



In particular, Mr Velikov insists in reminding that ESIF allocation for energy efficiency well supports the smart finance for smart buildings initiative: an initiative for more effective use of public funding, projects assistance, aggregation and de-risking. It is true that ESIF allocation for energy efficiency *is facing similar implementation challenges as other financing for energy efficiency*. It shall be stressed that Investments are of small scale, can be technically complex, need high upfront financing, payback period can be long, standardisation is often missing, market are not visible for investors.... and also need a proper fix of suitable financing products, dedicated and technically capable institutions, information, policies and regulation. In addition, the initiatives should be carefully planned, allocated and monitored.

Mr. Velikov invites to use DG Regio's assistance, encourages to continue good governance and partnership on all levels, and to learn from good practices. Indeed, the EFSI comes with various tools to support the implementation, as TAIEX REGIO PEER 2 PEER, JASPERS, operational programmes technical assistance, the Smart Specialisation Platform on Energy, the Energy Managing Authorities Network, FI compass, Additional technical assistance mobilised by DG REGIO, etc. so we are not alone in applying for this financial instrument.



✓ **Marius Vaščega, Economic Governance Officer of the European Commission in Lithuania**, makes the presentation titled *European Fund for Strategic Investment (EFSI), opportunities in Lithuania (in the new context)* and gives a view of economic policy priorities, stressing the importance of using financial instruments as EFSIs to foster energy efficiency investments in Lithuania.

According to Mr Vaščega words, EFSIs can be used to counter-fight pro-cyclical financing, in more sectors than the traditional ESIF funds, and this way stabilize economic growth. Among other advantages, EFSI funding takes partial risk for the project (project financing features are applied), State aid rules are not applied to the projects, and can be used by more potential beneficiaries than ESIF. Indeed, expenditure eligibility criteria are not applied to the funded projects. Also, the European Investment Advisory Hub support can be used to structure projects.

The major identified challenge in any country is to actually have possibility to implement financial instruments and harmonize legislation with EU regulations. The Lithuanian government has addressed this question since establishment of the first financial instruments in 2007 by assessing and harmonizing legislation that conflicts with financial instruments established using public funds and developing special legislations (with continuous adjustment) for new financial products which can be trusted by all stakeholders.

- ✓ **Rūta Dapkutė-Stankevičienė, Deputy Director of the EU Investment Department of the Ministry of Finance of Lithuania**, presents *Financial instruments in Lithuania: lessons learned about the development of financial instruments in Lithuania*, main aspects, problems, and solutions. Ms. Dapkutė-Stankevičienė explains how several initiatives, such as JESSICA, JEREMY, INVEGA works and stresses the importance of attracting private financing. Also she states that the ESCO model is in the development stage yet in Lithuania.



When analyzing the key success factors of the financial instruments application in Lithuania, she outlines a good knowledge of market conditions and the needs of final recipients, ex-ante consultations with relevant stakeholders (financial institutions, central and regional governmental institutions, non-governmental sector, etc.), the combination of financial instruments with other means of support (coverage of non-viable part of the project, interest rate subsidies, backing support) or other positive incentives (capacity building trainings), the attraction of private resources encoded at the set-up of the financial instruments, and a quick reaction to changing market conditions.

The main challenges identified in the next 2014-2020 framework period are a Late adoption from the European Commission guidance vs. the implementation of the financial instruments, the need of ex-ante assessments, several strong requirements for the financial instruments selection, the combination of financial instruments with other forms of support, the phased payments together with relevant management costs and fees and the potential Combination of EFSI and ESIF – needed to be simplified at the implementation process of national level, not only at the EU level.



The Session 1 included a Roundtable discussion titled “**Good practices in innovative financing of projects for energy efficiency**” with three introducing guest speakers:

- ✓ **Hrvoje Maras, ZagEE Project Leader from North-West Croatia Energy Agency (REGEA)** introduces *ZagEE project: Reconstructed public buildings in Zagreb.*



Zagreb – Energy Efficient City (ZagEE) is a good practice of BUILD2LC², an ambitious public municipal building renovation program in the city of Zagreb, in collaboration with REGEA and many related stakeholders, with the aim of refurbishing 87 public buildings and 3.000 public lighting luminaries, but also to perform capacity building activities (technical, financial, managerial) of city office employees and building managers. The project is an answer to the poor state and high energy consumption of public infrastructure (90% of buildings below F energy class). It was launched in 2012 and funded under the Intelligent Energy Europe programme - Mobilizing Local Energy Investment Project Development Assistance (MLEI PDA).

One of the primary ideas behind ZagEE project was to assess and test different financing instruments or schemes that were available in Croatia since there was no relevant experience within the city with use of instruments such as soft loans, EPC and ESI Fund grants.

PDA for development of specific energy renovation plans in cities and regions provides necessary financial spark to initiate large capital investments. Although financial structuring of the project should ideally be set before signing of the PDA contract, ZagEE proved that on underdeveloped markets where there are no tailored financial instruments for energy renovation cities, it is needed to take a first step and create the demand for energy renovation instruments. A mandatory three-year period within which the investment has to be launched can be considered as a positive feature that creates an obligation and higher commitment level from local governments. PDA also offers very good opportunities for capacity building and training for public authorities so they can undertake similar capital investments in the future. Actually, the municipality acquired valuable information regarding expected investment costs for refurbishment of buildings and financial structuring of future renovation plans.

² See chapter “Good Practices”: Reconstructed public buildings in City of Zagreb under the ZagEE project.

- ✓ **Inesis Kiškis, Director of European Union Assistance Management Department of the Lithuanian Ministry of Environment** makes the presentation titled *Renovation of Multi-Apartment Buildings in Lithuania*. to illustrate the history of building renovation programs since the 1990's and the success of the JESSICA program in Lithuania. She insists on the need for the political will to reduce state support and shift to financial instruments.

The Multi-Apartment Buildings Renovation (MABR) in Lithuania is a complex and huge project that has been split into several good practices³ for the sake of a good adoption and smooth transfer among the BUILD2LC partners.



Regarding the shift to financial instruments, Ms. Kiškis, explained the development and adoption of innovative financial instruments as a way to raise high interest from stakeholders, since standard financial instruments do not meet expectations of final beneficiaries, nor financial intermediaries neither investors. Lithuania faces the problem that usual or standard financing sources are traditionally risk averse and conservative. Financing periods proposed by banks are too short for the investments in the non-commercial infrastructure (including deep renovation of buildings). Therefore, there is a need for non-standard financial instrument. This way, the Public Investment Development Agency of Lithuania (VIPA) VIPA has developed non-standard guaranty product, which is fast to launch, the investment percentage guaranteed is increasing over and it does not affect NPL's indicators up to guaranty amount. This innovative financial instrument is based on a securitization model to attract financing to MABR program even from international capital market.

- ✓ **Joaquín Villar Rodríguez, Head of Internationalization and Prospective Department of the Energy Agency (Andalusia)**, performed the presentation *Programme for Sustainable Construction in Andalusia*. Mr. Villar explained the concept of sustainable construction program in Andalusia and discussed its results⁴.



³ See chapter "Good Practices": Lithuania.

⁴ See chapter "Good Practices": Andalusia.

The *Programme for Sustainable Construction in Andalusia*, awarded with a Regio Star 2015 prize, seeks through energy saving and renewable energy to promote the energy refurbishment of buildings, rehabilitate urban areas, improve the competitiveness of companies of the construction sector, create skilled employment and reduce energy poverty. The Programme consists of three main actions: An incentive scheme funded with 116 million Euro and 48 possible actions to facilitate the energy refurbishment of existing buildings, mobilizing 258 million Euro of total investment outcome a financing line based on, revolving funds for companies and the “Sustainable Construction Round Table” involving more than 70 experts and stakeholders from different disciplines.

As a part of the Programme for Sustainable Construction in Andalusia, the financing tool relied on the Incentives Programme for Sustainable Construction in Andalusia, managed by the Andalusian Energy Agency. The financial incentives had the aim of the facilitating the rehabilitation of existing buildings through energy saving and efficiency and renewable energy measures and to promote a culture based on the sustainable energy rehabilitation of buildings.

The Incentives Programme for Sustainable Construction in Andalusia was fully developed with the collaboration of 8.300 private companies, “collaborating partner companies” liaising in integrative public-private collaboration with the Agency in the management and processing of incentives in a de-centralized way, which facilitated the administrative procedures to request incentives by end users. Most of the collaborating partner companies are SMEs, which contributes to generating economic activity in the weaker business environment. The Agency’s website included an interactive online mapping tool showing the geographical location of the collaborating companies, to ease the process to find a company freely.

At the **Q&A discussion** following these presentations it was found through debate that:

There were indicated commonalities in energy efficiency innovative financing practices that could be applied universally among partners:

- ✓ It was commonly agreed that overreliance on grants is harmful and the government's role is to be a catalyst and to provide incentives, but at some point, projects must increase the share of financial instrument and decrease or eliminate subsidies, which is a common denominator for all countries.
- ✓ It was highlighted the need to increase awareness among the citizens about the program, energy savings, quality and comfort.
- ✓ The focus should be on innovation and energy efficiency, but the main goal is to improve professional competence of the collaborating companies.

Suggestions how to improve the scale of the projects because the pace of the implementation in some countries is slow were provided:

- ✓ It was proposed to start with a good campaign in order to raise awareness among citizens. In particular, Multi-apartment building residents need to realize that they will get a higher level of comfort and cumulative savings.

Some reasons for the project's success in Andalusia:

- ✓ It was stressed the role of collaborating partners in spreading the knowledge about the project and underscored the importance of improving energy culture of the citizens.

The main insights were identified about the prospects of ESCO in the coming five years:

- ✓ ESCO system is well-developed in the Spanish market.
- ✓ At first conditions, it must be created in Croatia for it to develop.
- ✓ ESCO will work in Lithuania if an opportunity to make the business profitable is created.

Summary of the Session 2 – “Challenge for Managing Authorities in financing energy renovation of buildings”:

- ✓ **Isabelle Seigneur from the Joint Research Centre of the European Commission** makes the presentation titled *State of play of Energy Efficiency in the Operational Programmes*.

Ms. Seigneur performs a practical presentation throughout the ESIF viewer and other online tools to learn to navigate among the huge number of available funding possibilities in Europe. Explains the overall sustainable energy context and EU related funding sources, providing useful resources to get more information and explains.



- ✓ **Inmaculada Perriñez from the Joint Research Centre of the European Commission** makes the presentation *The Energy and Managing Authorities Network* on behalf of the Energy and Managing Authorities (EMA) Network. She presents information about the members of the network, its scope, tasks, and operation.

The EMA supports Member States to make best use of Cohesion Policy funding for energy by

strengthening connections, cooperation and exchange of information, knowledge and practices among all the authorities dealing with the integration of the energy dimension within the ERDF and CF, in particular with the implementation of energy related programmes and projects. As well, EMA acts as an informal platform of exchange among Member States, but also between the Commission and the representatives of the Member States.

Amon its members it can be found representatives of national energy authorities and of Cohesion Policy Managing Authorities dealing with energy. DG ENER and DG REGIO ensure the operation of the network. The representatives of relevant organisations representing International Financial Institutions (IFIs), industry or coalition of NGOs active on Cohesion Policy and on energy issues, are invited as appropriate to participate as observers in specific meetings.

The main tasks of the EMA Network are informing DG ENER and DG REGIO about relevant developments linked to energy policy and regional policy, to inform and share with national Energy and Managing Authoritie the Commission and other members progress and issues at national and regional level as regards energy related programmes and projects, sharing of good practices and addressing specific concerns and needs which would request more in-depth work.

- ✓ **Inmaculada Perriñez from the Joint Research Centre of the European Commission** makes also the presentation titled *Smart Specialization Platform on Energy* and invites to use the Joint Research Centre's resources, to ask questions and to interact during the session and dinner.

The Smart Specialization Platform on Energy is joint initiative that engages DG REGIO, DG ENER and Joint Research Centre with the objectives of getting a optimal uptake of the Cohesion Policy funds for energy, supporting energy innovation at all levels and their alignment with EU priorities within a bottom-up approach working directly with the regions on targeted activities. The launch of this initiative was on May 2015 in Spain and the first regions conference gathered in June 2016 more than 700 participants.

- ✓ **Francisco Tovar from the Ministry of Finance of Spain** makes the presentation *REBECA: the Spanish Network on Low Carbon Economy*. Explains how cooperation between Managing Authorities and national regional administration works in Spain.

REBECA, based on the Replication of EMA Network in Spain, is the **Low Carbon Economic Network**



(Red de Economía Baja en Carbono – EBC) which was created out of the need to set up a mechanism to manage low-carbon economic actions co-financed by the European Union. Furthermore, it will serve as a way to exchange information on EBC and financial funds, to broadcast project results, and to share good practices.

After these speeches there was a round table discussion by the **Policy Board** members incorporated by the **managing authorities of the BUILD2LC partners**.

The main conclusions and outcomes of the Session 2 round table discussion *Challenges in implementing programmes with ESI Funds*, moderated by Isabelle Seigneur from the Joint Research Centre, European Commission, were as follows:

Members of the Policy Board:

- **Norbert Tomkiewicz**, Director of the Department for Regional Development, Marshall's Office of Podkarpackie Region - Rzeszów (Poland).
- **Tilen Smolnikar**, Energy Directorate, Ministry of Infrastructures - Gorenjska (Slovenia).
- **Rūta Dapkutė-Stankevičienė**, Deputy Director of the EU Investment Department, Ministry of Finance (Lithuania).
- **Damir Gubić**, Head of Department for the Implementation of Financial Instruments, Ministry of Regional Development and EU Funds - Croatia.
- **Joaquín Villar**, Andalusian Energy Agency - Andalusia (Spain).
- **Dr. Erik-Widar Andersson**, Senior Advisor, Financial issues within regional development - Region Jämtland Härjedalen (Sweden).
- **Barry Wyatt**, Strategic Head of Development Services, Stroud District Council - Gloucester (United Kingdom).



The moderator proposes to discuss three main topics. The first one is the **rationale for ESIF investment in energy efficiency in public and residential buildings.**

- ✓ One of the justifications to invest heavily in energy efficiency in buildings in Lithuania is founding very high rates of energy consumption, because most of buildings were constructed during the Soviet era and were not meant to be energy efficient.
- ✓ Nine million m² need to be renovated in Slovenia by 2023 and, in this financial perspective, the Ministry of Infrastructure is the only institution that prepares calls for proposal for all types of buildings.
- ✓ The United Kingdom has lowered the influence of the Ministry of Environment. The focus currently is on business and enterprise, innovation and skills. It was expressed hope that CO₂ objectives will be re-integrated alongside business objectives.
- ✓ In Poland the justification is the high cost of heating low insulation parameters and outdated used technology; in addition, Poland is one of the most polluted areas in Europe. The targets are to increase energy efficiency, reduce greenhouse gases and dust and eliminate energy poverty.



- ✓ The construction sector is strong, even though it was affected by the economic crisis, the energy efficiency measures were meant to boost this sector. It is important to conduct pre- and post- analysis of potential projects.
- ✓ Fossil-free energy production dominates in Sweden. Notes that each generation of housing was up to standard at the time. But construction of new multi-apartment buildings is growing recently, so energy efficiency standards are in the spotlight.

After the discussion and questions provided from the audience, the general insights are:

- ✓ There is a need in Croatia, Slovenia and other regions to increase capacity building of standard banks about energy efficiency projects, so that they get actively involved in financing these projects.
- ✓ Banks are not active in Slovenia, because households are not interested in loans. There is also a good practice named “Eco Fund”⁵ that gives grants and loans for such projects.
- ✓ Poland counts on the BGK bank, which is a special bank that gives loans to SME's, energy efficiency projects, etc.

⁵ See chapter “Good Practices”: Eco Fund.

- ✓ The Green Investment Bank is a financial entity that finances large projects by mean of the Green Deal, which is a government-sponsored loan scheme for renovations in UK.

After the Part 2 of discussion: Interventions to support energy efficiency in buildings it was highlighted the main outcomes:

- ✓ The use of financial instruments were considered in regional programs in Poland, but they were not used because beneficiaries were not interested in them because the cost of investments was high and, in addition, there is a *National Fund for Thermal Modernization*, which offers more competitive conditions.
- ✓ It was expressed that the important actions are related to communication and information. As solutions it was mentioned the simplification of the process and a more complete catalogue of actions. It was stressed the need for certification of the impact before and after the action (ex- ante and ex- post) and to improve energy culture among the citizens while raising awareness. Notes more efficient technical and administrative management as the main challenges.
- ✓ The main challenges in Lithuania are to attract more private resources, combine different support mechanism, to develop ESCO model and establish a national promotional institution.
- ✓ Specific objectives are being considered in Croatia, such as a combination of grants and financial instruments. Notes that it is important to finish the first projects and use them as examples of good practice. The challenge is the balance between grants and financial instruments.
- ✓ Andalusia indicates the need to improve energy management, incentives schemes, selection, evaluation and monitoring of the projects. Notes the interest in the next meeting about professionalization and the sector clusterization, which will take place in Poland ending March.
- ✓ EU competitive funding is a complicated process and Sweden has not done a proper homework about.

After the Part 3 of discussion: Coordination and synergies with other regions, useful tools, EE partnerships, platform, interregional cooperation:

- ✓ The UK needs a holistic approach and a common national strategy; there is no strategy at the local level, stresses the need for a bottom-up model.

- ✓ Improved governance, preparation for the next period, innovation and energy poverty deserve to be more pronounced topics in the next operational program in Croatia -under development-.
- ✓ The main benefits are the access to examples of good practices from other countries and regions, which Slovenia will try to implement in the Operational Programme in this or next period.
- ✓ Participation in common European projects help to find solutions regarding energy efficiency and CO₂ reduction by experience sharing. Main problems and difficulties are technical and organizational knowledge.

Moderator Isabelle Seigneur thanks all the participants for the fruitful roundtable discussion.

Summary of the Session 3 – “Innovative financing tackling by end-users in energy efficiency projects”:

- ✓ The Session 3 started with **Gintarė Burbienė, Head of project implementation division, Housing Energy Saving Agency (BETA) making the presentation *Public awareness of the multi-apartment building renovation process in Lithuania technical assistance, promotion, construction works.***

The Public Company Housing Advisory Agency was established on 2001. After a reorganization in 2013, the public company was renamed Housing Energy Efficiency Agency (BETA). The Agency provides consulting services and assistance for homeowners on matters related to the renovation of multi-apartment buildings. It also evaluates and approves submitted investment plans and procurement documents, cooperates with municipal authorities, engineering consultancy companies, educational institutions, non-governmental organizations, etc. BETA also implements the project which purpose is to encourage the owners of the apartments and other premises in multi-apartment buildings to participate in the multi-apartment Building Renovation Programme.



Moreover, BETA participates in EU-funded international projects, which in turn strengthens cooperation with housing partners from other countries, and enhances skills and experience in developing projects related to the application of alternative energy resources in multi-apartment buildings, and in generating ideas for the construction of passive houses. It also performs activities related to encouraging homeowners to renovate multi-apartment buildings. In the near future the Agency is planning to coordinate the Programme for Energy Efficiency Improvements in Public Municipality Buildings⁶.

Quality of works regarding buildings modernization is one of the main issues to be tackled, because investments for the modernization are relatively high. Bad examples are usually more visible, save less energy, create important concerns among the citizens and are escalated in the media.⁷

The multi-apartment building renovation process in Lithuania is considered to be a success after an estimated total energy savings (kWh) of ~500.000 kWh

⁶ See chapter “Good Practices”: Standardization and Simplification in Public Buildings Modernization.

⁷ See chapter “Good Practices”: Quality in Multi-Apartment Building Modernization.

up to the date a reduction of emissions of ~116.000 ton CO2 equivalent. 1.500 buildings already renovated and ca. 400 million Euro investment materialized. The consequences are +37.000 households with improved energy consumption classification, over 120.000 engaged in support programmes and 272.000 kWh estimated annual final energy savings.

The Session 3 included a Roundtable discussion titled **Good practices in informing citizens on the use of innovative financing instruments**, based on these three speeches:

- ✓ **Barry Wyatt, Strategic Head of Development Services at Stroud District Council, Gloucestershire, United Kingdom**, makes a presentation titled *Warm & Well – Energy Efficiency Advice and Installation Scheme* with background information about energy efficiency and the buildings renovation situation as well as the typology of buildings prevailing in Gloucestershire

Mr Wyatt explains the Warm & Well concept, which was launched in 2001 that focuses on public health, fuel poverty, and energy efficiency improvements. Warm and Well is considered to be a good practice of BUILD2LC project.⁸



Warm & Well was launched in October 2001 to install energy efficiency improvements in the homes of domestic householders. In 2012 the Warm and Well scheme opened the Warm and Well advice line, allowing clients to access free energy efficiency advice and information on grants and funding available both nationally and locally. This advice line had been running in parallel to Warm & Well previously but then became integrated in order to ensure provision of a holistic programme.

The Warm & Well scheme aims to improve energy efficiency in the home and reduce the risk of fuel poverty and associated health problems by raising public awareness, providing specific and appropriate advice to all householders, making referrals into grant and discount schemes and addressing central links between energy efficiency, affordable warmth, cold living conditions and health risks, such as cardiovascular illness and condensation damp related respiratory illness,

The target groups for the project are households vulnerable to health problems associated with, or exacerbated by, low indoor temperatures, households likely to be living in fuel poverty, and unable to afford adequate heating and, the

⁸ See chapter “Good Practices”: Warm and Well.

general public, to promote awareness of energy efficiency and the related issues of ventilation and the avoidance of condensation damp.

Grants are available through the Warm and Well scheme and over the years have covered a variety of measures from solid wall installation, first time central heating systems and cavity and loft insulation. The funding has come from different sources, including government departments, local authorities, fuel supplier obligations and client funding. The scheme has been required to quickly adapt to changes in funding opportunities and explains the current funding available to clients in a clear manner.



✓ **Moa Breivik, municipal energy and climate advisor from the Jämtland-Härjedalen Region (Sweden)**, makes the presentation titled *Grant for municipal energy and climate advisors* (see chapter “Good Practices”).

Ms. Breivik explains how regional agencies work in Sweden providing background information about the Jämtland-Härjedalen region and the energy efficiency projects that are being carried out there.

All Swedish municipalities can apply for a grant for a municipal Energy and Climate Advisor. The size of the grant and the assignments for the advisors has evolved over the last 40 years as energy issues in society has changed.

The advisors target group is SMEs, organizations and individuals. The advisors provide information on relevant energy efficiency measures, technical solutions and relevant investment aids available as well as on renewable energy production and transport issues. The advisors have knowledge about regional conditions.

The advisors consult those who seek help, but also actively contact energy intensive target groups offering advice. The service is free of charge and commercially independent. The regional energy agencies coordinate the advisors.

The grant is provided by the Swedish Energy Agency. The size of the grant is 28.000 – 43.000 Euro/year depending on the number of residents in each municipality. Many municipalities are small and it is common that the grant covers approximately a 40% of the service.

The main success factors are the credibility of the independent advice, the national coverage with a local base that constitute a channel for the various efforts energy efficiency and reduced environmental impact, as well as the broad and good the skills of the advisers.

A survey conducted by Statistics Sweden on behalf of the Swedish Energy Agency shows that public awareness on energy and climate advice is about 30% of single-family owners and about 18% have been in contact with the energy and climate advisors. Once the information arrives through the advisers, a third of the single-family owners say that it has affected in their investment decisions in fairly large degree.

- ✓ **Piotr Pawelec – President at the Institute of Good Eco-solutions "Alternative" (Poland)**, makes the presentation titled *Rehabilitation of buildings and removal of asbestos* (see chapter “Good Practices”). He presented the situation in Poland, where asbestos had been widely used in construction sector from 1952 until 1997, noticing also that burning waste and low quality coal is still a serious problem in the Subcarpathian region, which is one of the poorest regions in the EU.



In 2002 there was about 15 million tons of inventoried asbestos in Poland. In addition, only 30% of asbestos products in Poland are thought to have been inventoried, meaning that it is uncertain as to where the asbestos is located. Most of asbestos was used as roofing in private households. People do not always realise how serious the problem of asbestos is. On the other hand, even if they do they often do not have will funds to remove asbestos (as it requires special treatment and processing). The total cost of their dismantling and transport as well as disposal of produced waste containing asbestos is estimated to amount to approx. PLN 40 billion (ca. 10.000 million Euro).

As an answer to this huge problem, in 2010 the National Government adopted in 2010 the *Programme for Asbestos Abatement in Poland 2009-2032* targeting the removal and disposal of products containing asbestos, trying to minimize adverse health effects and eliminating negative effect of asbestos on the environment. It is advised by Mr Pawelec that this Programme of asbestos removal could be an opportunity to renovate buildings according to the European energy policies. The main problem for program's beneficiaries is that they receive support for the removal of asbestos but do not receive support for new elements such as for example a new roof.

The main conclusions and outcomes of the Session 3 round table discussion “Good practices in informing citizens on the use of innovative financing instruments” are:

- ✓ Without knowledge citizens may not know what measures are available. We can help to find the alternatives and evaluate the risks. The main challenge is to make citizens change their habits by raising awareness.
- ✓ It was noted the importance of identifying the markets and the needs to be satisfied, which then should be aligned with national and regional programs.
- ✓ It was stressed the need to listen first to the people's needs, because the people usually know their problems well, and only then after to present ideas in the context of real needs.



Summary of the Session 4 – “Other Interregional experiences to boost innovative financing in energy efficiency projects”:

- ✓ **Violeta Greičiuvienė, Head of EU Assistance Division, Ministry of Energy (Lithuania)**, presents *Boosting innovative financing in energy efficiency projects in public buildings*. She speaks about financial instruments, the ESCO model for the renovation of government-owned buildings and street lighting and introduces several pilot projects.

Because of the legal restrictions in Lithuania, most central government buildings users are not able to borrow capital on their behalf. In order to address this

issue it was decided to apply the ESCO model and start to develop ESCO market in Lithuania⁹.

VIPA Agency from Lithuania signed an ELENA (technical assistance facility managed by EBRD) agreement to create project pipeline and to involve a certain number of stakeholders (Lithuanian ESCOs, public authorities and building owners participating in actual EnPC activities) big enough that they can then build on this experience and replicate the ESCO concept further. Transparent and secure framework conditions and sufficient demand of ESCO projects would allow a national ESCO industry to develop. Some requirements are ESCO must operate in EU territory, the energy class of a building must be D or lower, centrally owned public building must be managed by budgetary or public institutions (state enterprises are not eligible applicants), 51% of a building must belong and be used by the State to be considered public buildings.

There were no specific requirements for certain pay-back period or financial viability of the project, yet a minimum requirement for economic performance indicators was needed: after renovation to reach 30% minimum savings, at least energy class C and building usage by purpose not shorter than 10 years.

- ✓ **Carlos Serra from the Andalusian Energy Agency (Andalusia, Spain)** makes the presentation *FINERPOL: Financial Instruments for Energy Renovation Policies and REHABILITATE projects* on behalf of the FINERPOL project partner from Extremadura region (Spain).



The Financial Instruments for Energy Renovation Policies (FINERPOL) Project aims to increase the rate of refurbishment of buildings to increase their energy efficiency, by improving access to investment finance. It is supported by ERDF provided through the Interreg Europe Programme.

Increasing investment in energy efficiency and renewable energy for buildings is a major challenge to meet European Union and UK targets to reduce carbon emissions. However, austerity measures and a more riskaverse investment climate have slowed the rate of investment considerably.

FINERPOL partners aim to develop regional Action Plans to overcome these barriers, making use of EU funds, and national and other sources as appropriate, to attract investment finance from a range of sources for energy efficiency renovations.

⁹ See chapter “Good Practices”: Standardization and Simplification in Public Buildings Modernization.



✓ **Carlos Serra from the Andalusian Energy Agency (Andalusia, Spain)** makes the presentation *Innovative financial experiences in interregional projects to foster energy rehabilitation* on behalf of the Andalusian stakeholder **Ignacio Contreras, from The Spanish Institute of Financial Analysts.**

He stresses that every different situation needs a different financial vehicle depending on many factors as solvency, project size, kind of initiative, the existence of public funding, etc. It is important to attract private capital to increase the leverage of the public funding and, on the other hand, providing the project with public sources increase the bankability of the projects.

✓ **Joaquín Villar Rodríguez, Head of Internationalization and Prospective Department Energy Agency (Andalusia),** makes the presentation *European Partnership of regions to promote investment on energy efficiency in buildings*. Mr. Villar explains the aim, role and function of this Partnership inviting other actors to join the initiative of buildings in Europe initiative.

He presents as well a list of regions that have confirmed their participation in the project and next steps for the network to be developed.



The seminar ends at 13:30.

4 Study visits

Summary of the Session 5 “Study Visits”

During the interregional seminar in Vilnius, partners of the BUILD2LC project also accomplished two study visits.

Study Visit 1

The first study visit was held in the Museum of Energy and Technology which is in a unique object of heritage – the first Vilnius central power plant. The spaces of the former power plant have been adapted for visitors. It displays various objects of technical heritage and tells the story of the old power plant.



- ✓ **Gedas Janėnas, Representative of Šiaulių Bankas Project Manager at Department of Development of Financial Services**, made a presentation titled *Experience in implementing financial instruments*. It was introduced the activities of Šiaulių Bank which has been participating more than 15 years in multi-apartment buildings renovation (modernization) programme and takes a leading position in this area. In 2010, Šiaulių Bankas became the first financial partner of the EIB in Lithuania implementing the JESSICA facility.

Actively cooperating with the EIB as well as Lithuanian ministries, municipalities and other institutions, inhabitants and apartment building administrators, Šiaulių Bankas provides more than only credits to housing renovation. The bank acts as the nationally important project investor - during 2014-2016 it has contributed 80 million Euros of its own funds to the Renovation Programme. Housing modernization is one of the priority areas of Šiaulių Bankas. Mr. Janėnas shared their successful experience in housing renovation programme, explained financing conditions and requirements for applicants and how the scheme of state subsidy and loan repayment works.



Study Visit 2

The second study visit was held in **Jonava municipality** which is a real example of good practice in implementing financial instruments of energy efficiency projects in renovating multi-apartment buildings with a huge potential to continue with other projects, like renovation of public building with ESCO model, complex renovation, streets lighting projects and development of eco transport with an innovative approach both in the technical solutions chosen and the financing schemes.

- ✓ After the Jonava mayor welcome¹⁰, **Lineta Jakimaviciene, Head of strategic planning and the investment division**, introduced Jonava city and explained the history and stages of multi-apartment building renovation progress in Jonava municipality and shared their experience in issues and challenges which had to be solved at the starting point of renovation process, like: resistance and reluctance of inhabitants to start renovation of multi-apartment buildings. She provided data of standard project, which showed price of renovation of square meter per flat, savings, state support and the average amount of credit repayment. Later on, the BUILD2LC partners also had the opportunity to visit Jonava city and to see “in situ” examples of multi-apartment buildings before and after renovation.



Jonava's mayor reception and BUILD2LC delegates

In order to foster the multi-apartment building renovation process, the Lithuanian government decided to stipulate and simplify the process at the level of the final beneficiaries by involving municipalities¹¹. At the beginning, the process of modernization was administratively intensive, challenging because

¹⁰ Find it at the local news: <https://www.youtube.com/watch?v=tkbsqlt67Zw>

¹¹ See chapter “Good Practices”: Municipalities involvement in Multi-Apartment Building Modernization.

required to conciliate many owners, and these home owners were averse (did not want to borrow) and poorly organized. Therefore, the National Government set a plan based on municipalities' capacity building to draw lists of the worst energy performing buildings and appointment of renovation administrators.



An example of successful multi-apartment building renovation

5 Good practices

The key innovative aspect of BUILD2LC is its multidisciplinary approach, that counting on different complementary expertise at local (Gloucestershire County UK, and Gorenjska SI), regional (Andalusia ES, Rzeszow PL, Croatia and Jämtland Region, SE) and national (Lithuania and Croatia) level, will allow achieving the project goals.

The project achieves its objectives based on a complete learning process to facilitate an effective knowledge flow among regions, with a bottom-up approach methodology, counting on the regional stakeholder groups.

Regions and countries participating in the project identify Good Practices categorized in the four topics addressed by the project. For the BUILD2LC project purposes we consider the definition for Good Practice according Interreg Europe Programme:

Good practices is defined as an initiative (e.g. project, project, process, technique) undertaken in one of the programme's priority axes which has proved to be successful in a region and which is of potential interest to other regions. Proved successful is where the good practice has already provided tangible and measurable results in achieving a specific objective. Although the Interreg Europe programme primarily refers to good practices, valuable learning also derives from bad practices where lessons learnt can be taken into consideration in the exchange of experience process.

There is no limit on the number of good practices to be collected among the consortium members. As a requisite, a total minimum number of 70 shall be collected, an average of 10 for every region.

Hereinafter we present the compilation of Good Practices for the topic **New Financial Instrument**. A Good Practice can potentially match several topics at the same time. A number of 29 Good Practices in the topic has been collected among all the partners.

GOOD PRACTICES IN THE TOPIC 'NEW FINANCIAL INSTRUMENTS'	
ANDALUSIA REGION	
1	Closed Catalogue of energy improvement measures for the Incentives Programme for Sustainable Construction in Andalusia
LITHUANIA	
2	Carrot-and-Stick Game in Multi-Apartment Building Modernization
3	Quality in Multi-Apartment Building Modernization
4	Municipalities involvement in Multi-Apartment Building Modernization
5	Standardization and Simplification in Multi-Apartment Building Modernization
6	Standardization and Simplification in Public Buildings Modernization
7	Complex Projects
8	Innovation in Financial Instruments
9	Legal Framework Harmonisation
GLOUCESTERSHIRE REGION	
10	Warm & Well – Energy Efficiency Advice and Installation Scheme
11	Energy Company Obligation (ECO)
RZESZÓW	
12	Rehabilitation of buildings and removal of asbestos
CROATIA	
13	Reconstructed public buildings in City of Zagreb under the ZagEE project
14	croenergy.eu
JÄMTLAND REGION	
15	The Climate Step
16	Energy Mapping Grant
17	Grant for municipal Energy and Climate advisors
18	Smart procurement
SLOVENIA	
19	CHP Planina – Kranj
20	Contractual partnership in the building of Municipality of Kranj
21	Eco Fund, Slovenian Environmental Public Fund
22	ENSVET - Energy Advices for Citizens
23	Complete renovation of apartment buildings - System Dominum
24	Community of Preddvor – Kindergarten Storžek
REST OF EUROPE	
25	Deep renovation in Upper Austria
26	Solar thermal installation- ESCO model
27	Sustainable Campus- Green University
28	Financing and delivery of energy saving measures
29	Energy efficiency refurbishment in a multi-dwelling residential building in Sofia

GOOD PRACTICE FICHE		Region: Andalusia
Title of the good practice:	Closed Catalog of energy improvement measures for the Incentives Programme for Sustainable Construction in Andalusia	
Partner region:	Andalusia	
Location data	Andalusia	
Topic of the practice: Thematic coverage <ul style="list-style-type: none"> • Activation of demand and combating energy poverty • New financial instruments 		
Description of the practice: <p>A closed catalogue of 48 available energy improvement measures involving a wide range of thematic as renewable energies, energy saving and efficiency, smart mobility, etc., to choose from the Programme for Sustainable Construction in Andalusia</p> <p><i>This GP is part of the Sustainable Construction Programme in Andalusia – PICSA. Managed by the Andalusian Energy Agency, financed under the ERDF and totally online, the aim of the programme was to facilitate the rehabilitation of existing buildings through energy saving and efficiency and renewable energy measures and to promote a culture based on the sustainable energy rehabilitation of buildings.</i></p>  <p>To ease the investment decision of beneficiaries and collaborating companies, a closed catalogue of measures to receive the incentives is displayed once the user accesses the online tool.</p> <p>The user friendly catalogue is segmented into different categories and also guides and helps the beneficiary to navigate through the incentives call application. The upper menu gives access to the different tabs that orientate the user:</p> <ul style="list-style-type: none"> • Energy improvement measures guide • What should I know? <ul style="list-style-type: none"> ○ Recommendations ○ Step by step ○ Key concerns ○ Collaborating companies list ○ Funds aim 		

GOOD PRACTICE FICHE

Region: Andalusia



The resources needed are obvious hardware and software tools. The implementation process is easy

Strengths

- ✓ The catalog facilitates access to the incentives call, lowering documentary obligations and paper usage and animating the beneficiary to finish the application process.
- ✓ The application process and administrative complexity burden is much lower.

Weaknesses

- ✗ Some improvement measures shall not be covered. The action number 48 should solve this eventuality.

Areas of improvement and lessons learned:

The catalog needs to be updated due to the technological progress.

Performance indicators linked to the practice

Data come from the general performance of the Incentives Programme for Sustainable Construction in Andalusia.

- Number of households engaged in support programmes: 60.000. Benefited groups included 60.000 citizens, 600 neighbourhood communities and 2.500 companies, many of them SMEs.
- (kWh) Annual energy savings in households: **422 million kWh/year** (26.000 toe) primary energy saved or diversified through low-carbon energy sources.
- (%) Reduction of the use of fossil fuels in the building sector. No data available at the moment.

Indicators of success linked to the practice:

- Management model relied basically on the collaborating companies: up to 90% of developed actions.
- 86.000 tons/year CO₂ avoided.
- +36.000 energy improvement actions have been carried out.
- Total investment outcome: €258 million.
- Total energy economic saving: €320 million.
- Increased activity (+93%) and incidence in the creation and / or maintenance of employment in the companies (+60%). **20.000 direct jobs** have been created and/or maintained.
- Better strategic competitive positioning towards the creation of value and improvement of business development (+74%).

GOOD PRACTICE FICHE
Region: Andalusia

- +8.300 collaborating partner companies, most of them SMEs. 1.600 for first time, fuelled by this incentives programme.
- 22% of the companies stated that they worked in collaboration with other participating companies in the Programme.
- 43% of the collaborating companies carry out other economic activities types of actions that are different to the total of 48 included in the Programme (not covered by the programme).

Regarding the collaborating companies:

- More than 70% indicate that the most positive elements of the Programme are its contribution to the development and/or maintenance of the companies of the sector, as well as the creation/maintenance of employment.
- 75% say that the Programme had an “excellent, very good or good” impact on their company.

Regarding the beneficiaries:

- Almost 85% say that the Programme has contributed to raising their awareness of the energy consumption of their households/buildings, and the need to adopt energy improvement measures.
- 97% have recommended or would recommend to other users the need to undertake improvement measures in their households and/or buildings and admit that the action implemented has affected in the degree of comfort or quality of life.
- 91% of beneficiaries value overall the Programme as very satisfactory.
- 43% of the collaborating companies carry out other economic activities types of actions that are different to the total of 48 included in the Programme (not covered by the programme).
- +7.000 households affected by, or in risk of suffering energy poverty consequences, were targeted and benefited.

Evidence of success.

The incentives were allocated in a brief time. The collaborating companies stated that the online tool was friendly, easy to manage and worked normally.

Factors that might hamper the transfer:

The triangle of actors is formed by beneficiaries, collaborating companies and a donor entity, better if it is public or for non-profit organization. This organization, ideally an energy or development agency should exist in the receiving partner.

A correct server architecture, OS, and beta versions should be tested before.

Time required to complete the BP	3 months
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Contact details to obtain further information on the practice

Contact name	Joaquín Villar
e-mail	joaquin.villar@juntadeandalucia.es
Organization	Andalusian Energy Agency
Type of Organisation	Regional public government energy agency
Website	www.agenciaandaluzadelaenergia.es/know-the-agency

GOOD PRACTICE FICHE		Region: Lithuania
Title of the good practice:	Carrot-and-Stick Game in Multi-Apartment Building Modernization	
Partner region:	Lithuania	
Location data	Lithuania	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • Activation of demand and combating energy poverty • New financial instruments 		
Description of the practice:		
Lithuania decided to implement a carrot-and-stick policy to foster the renovation of multi-apartment buildings.		
Carrot part		
Initial Multi-Apartment Building Renovation (MABR) process was slow and insignificant without state support, due to following reasons:		
<ul style="list-style-type: none"> • long deep renovation payback period. • unwillingness of owners to change status quo. • commercial banks reluctance to provide financing. 		
Lithuanian State decided then to provide support to foster building modernization process by:		
<ul style="list-style-type: none"> • providing interest rate subsidies (result based). • providing additional grants to final beneficiaries (result based). • covering monthly installments for low income households. • providing technical support financing. • providing long term financing. 		
Lessons learned:		
<ul style="list-style-type: none"> • sensitivity analysis assessment is needed. • support should be higher in the beginning to encourage faster process. • step down plan on support is needed ones project pipeline is amplifying. • best case scenario - support funding sources are related to receivables from results e.g. carbon emission trading receivables. • support conditions should be embedded in the law and programs (stakeholders has to be certain about the support). 		
Stick part		
Initial MABR process was slow because:		
<ul style="list-style-type: none"> • large share of owners on fixed (low) income. • many low income people were eligible for heating bill compensations, and had no incentive to join the program. • chronic distrust of population in Government. 		
Lithuanian state decided then to discipline those who were not willing to join building modernization process by:		
<ul style="list-style-type: none"> • refusing to heating bill compensations to those who voted against their building modernization; • requiring to gradually accumulate funds for building renovation. 		
Lessons learned:		
<ul style="list-style-type: none"> • only "carrot" related stimulations are not working. • "stick related" requirements usually could follow by "carrot" related support. 		
Performance indicators linked to the practice:		

GOOD PRACTICE FICHE		Region: Lithuania
<ul style="list-style-type: none"> ▪ Estimated number of households with improved energy labeling: 37.000 ▪ Estimated number of households with improved energy consumption classification: 37.000 ▪ Estimated number of households engaged in support programmes: 120.000 ▪ Estimated annual energy savings in all households (kWh): 272 million <p>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</p>		
<p>Indicators of success linked to the practice:</p> <ul style="list-style-type: none"> ▪ estimated total energy savings (kWh) – ~500.000 kWh up to the date. ▪ reduction of (ton CO₂ equivalent) emissions – ~116 thousand. ▪ buildings affected: <ul style="list-style-type: none"> ○ buildings renovated (as of 9 September 2016) – 848 ○ estimated surface (m²) affected - ~ 1.5 million ○ buildings under renovation – 649 ○ Investment projects evaluated (waiting list) – 1411. ▪ circa €400 million investment materialized in multi-apartment buildings in Lithuania (ESI, commercial banks, state budget); <p>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</p>		
<p>Evidence of success.</p> <p>Introduced measures resulted in major increase in project pipeline. The GP helped to shape financial instruments in a way so they become attractive to final beneficiaries.</p>		
<p>Factors that might hamper the transfer: Please indicate problems or barriers that could appear when transferring the good practice to other partner.</p> <p>Major challenges:</p> <ul style="list-style-type: none"> - limited possibility to distribute “carrots”, especially when project pipeline is starting to build up. - dissatisfaction with “stick” approach among final beneficiaries. - moving away to far from usual market practice could result in problems to attract private investors. 		
Time required to complete the BP	to	It took about 1 year to set-up state support elements to the legislation, and other 2 years to make some amendments
Contact details to obtain further information on the practice		
Contact name	Justinas Bučys	
e-mail	justinas.bucys@vipa.lt	
Organization	Public Investment Development Agency	
Type of Organisation	Joint stock venture (publicly owned)	
Website	www.vipa.lt	

GOOD PRACTICE FICHE		Region: Lithuania
Title of the good practice:	Quality in Multi-Apartment Building Modernization	
Partner region:	Lithuania	
Location data	Lithuania	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • Activation of demand and combating energy poverty • Professionalization of the construction sector • New financial instruments 		
Description of the practice:		
<p>Quality of works regarding buildings modernization is one of the main issues to be tackled, because investments for the modernization are relatively high. Bad examples are usually more visible, save less energy, create important concerns among the citizens and are escalated in the media.</p> <p>While promoting financial instruments, extremely huge attention was contributed to ensure the quality of construction works, so the following measures were implemented:</p> <ul style="list-style-type: none"> ▪ technical projects are checked and approved by municipalities specialists. ▪ construction companies are required to provide insurance, that they can perform works in accordance to the contract. ▪ construction companies are pre-checked before public procurement process (companies are checked for their capacity, excluded companies in black list). ▪ construction works are supervised by independent and certified specialists. ▪ effective complaint system is developed in order to timely react to any resident complaint. ▪ BETA (technical support agency) performs on-site visits to check all requirements are met. ▪ state territorial planning and construction inspectorate (local construction supervisory authority) has to visit each construction site at least 2 times- ▪ good examples of implemented projects are promoted in the media. 		
Performance indicators linked to the practice		
<ul style="list-style-type: none"> • Estimated number of households with improved energy labeling: 37.000 • Estimated number of households with improved energy consumption classification: 37.000 • Estimated number of households engaged in support programmes: 120.000 • Estimated annual energy savings in all households (kWh): 272 million <p><u>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</u></p>		
Indicators of success linked to the practice:		
<ul style="list-style-type: none"> ▪ increase in value of renovated buildings 15-20%. ▪ all renovated buildings reached at least 40% savings and energy efficiency labeling C <p><u>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</u></p>		
Evidence of success.		
Introduced measures resulted in major increase in project pipeline. The GP helped to shape financial		

GOOD PRACTICE FICHE

Region: Lithuania

instruments in a way so they become attractive to final beneficiaries.

Supervision measures helped to increase quality of construction works and satisfaction among final beneficiaries.

Factors that might hamper the transfer:

- partners may need to adjust various legislation acts to implement provided measures.
- measures may vary depending on the region weather conditions.

Time required to complete the BP

2-3 years. Although when measures are known, it can take much faster

Contact details to obtain further information on the practice

Contact name	Justinas Bučys
e-mail	justinas.bucys@vipa.lt
Organization	Public Investment Development Agency
Type of Organisation	Joint stock venture (publicly owned)
Website	www.vipa.lt

GOOD PRACTICE FICHE		Region: Lithuania
Title of the good practice:	Municipalities involvement in Multi-Apartment Building Modernization	
Partner region:	Lithuania	
Location data	Lithuania	
Topic of the practice: Thematic coverage <ul style="list-style-type: none"> • Activation of demand and combating energy poverty • New financial instruments 		
Description of the practice: <p>In order to foster the modernization process Lithuanian government decided to stipulate and simplify MABR process at the level of the final beneficiaries by involving municipalities. At the beginning process of modernization was:</p> <ul style="list-style-type: none"> ▪ administratively intensive; ▪ challenging because required to conciliate many owners; ▪ home owners were averse (did not want to borrow) and poorly organized. <p>So the National Government set this plan:</p> <ul style="list-style-type: none"> ▪ municipalities instructed to draw lists of the worst energy performing buildings. ▪ municipalities appointed renovation administrators, which: <ul style="list-style-type: none"> ○ can borrow on behalf and in favor of apartment owners. ○ are providing all the process administration service. ○ keep loans on off the balance sheets. ○ expenses are covered by the budget funds. 		
Performance indicators linked to the practice <ul style="list-style-type: none"> • Estimated number of households with improved energy labeling: 37.000 • Estimated number of households with improved energy consumption classification: 37.000 • Estimated number of households engaged in support programmes: 120.000 • Estimated annual energy savings in all households (kWh): 272 million <p><u>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</u></p>		
Indicators of success linked to the practice: <ul style="list-style-type: none"> ▪ estimated total energy savings (kWh) – ~500.000 kWh up to the date. ▪ reduction of (ton CO₂ equivalent) emissions – ~116 thousand. ▪ buildings affected: <ul style="list-style-type: none"> ○ buildings renovated (as of 9 September 2016) – 848 ○ estimated surface (m²) affected - ~ 1.5 million ○ buildings under renovation – 649 ○ Investment projects evaluated (waiting list) – 1411 ▪ circa €400 million investment materialized in multi-apartment buildings in Lithuania (ESI, commercial banks, state budget); 		

GOOD PRACTICE FICHE		Region: Lithuania
<u>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</u>		
Evidence of success. Technical assistance measures helped to decrease administration workload to final beneficiaries resulting in increase in project pipeline.		
Factors that might hamper the transfer: <ul style="list-style-type: none"> ○ some changes may touch upon property related laws, which may be challenging to change. ○ enforcement measures must be created allowing modernization activities in the property of owners, who voted against and not willing to cooperate. 		
Time required to complete the BP	2-3 years. it should take shorter to introduce applied measures in other partners countries	
Contact details to obtain further information on the practice		
Contact name	Justinas Bučys	
e-mail	justinas.bucys@vipa.lt	
Organization	Public Investment Development Agency	
Type of Organisation	Joint stock venture (publicly owned)	
Website	www.vipa.lt	

GOOD PRACTICE FICHE		Region: Lithuania
Title of the good practice:	Standardization and Simplification in Multi-Apartment Building Modernization	
Partner region:	Lithuania	
Location data	Lithuania	
Topic of the practice: Thematic coverage <ul style="list-style-type: none"> ○ Activation of demand and combating energy poverty ○ Professionalization of the construction sector 		
Description of the practice: <p>When planning the MABR modernization programme, one of the immediate challenges was to standardize and simplify the documents and whole processes to enable a smooth and understandable implementation of financial instruments.</p> <p>The Lithuanian government decided to simplify the process for final beneficiaries by imposing some legal changes:</p> <ul style="list-style-type: none"> ● 50% +1 of apartment owners (absolute majority) needed to agree to join the program. ● joint liability for the building modernization investments. <p>Other financial institutions introduced process simplification measures:</p> <ul style="list-style-type: none"> ● Central public procurement organization introduced simplified and shorter procedures for building modernization procurement. ● BETA Agency [see GP titled "Technical Support and Promotion in Multi-Apartment Building Modernization (BETA Agency)"] created simplified application forms and reduced administration extent to minimum necessary. ● Special standardized templates prepared for public procurement, including standardized construction agreement. ● Improved and standardized documents for energy efficiency certification were prepared. 		
Performance indicators linked to the practice <ul style="list-style-type: none"> ● Estimated number of households with improved energy labeling: 37.000 ● Estimated number of households with improved energy consumption classification: 37.000 ● Estimated number of households engaged in support programmes: 120.000 ● Estimated annual energy savings in all households (kWh): 272.000 <p>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</p>		
Indicators of success linked to the practice: <ul style="list-style-type: none"> ● estimated total energy savings (kWh) – ~500.000 kWh up to the date. ● reduction of (ton CO₂ equivalent) emissions – ~116 thousand. ● buildings affected: <ul style="list-style-type: none"> ▪ buildings renovated (as of 9 September 2016) – 848 ▪ estimated surface (m²) affected - ~ 1.5 million ▪ buildings under renovation – 649 ▪ Investment projects evaluated (waiting list) – 1411 		

GOOD PRACTICE FICHE		Region: Lithuania
<ul style="list-style-type: none"> circa €400 million investment materialized in multi-apartment buildings in Lithuania (ESI, commercial banks, state budget); <p><u>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</u></p>		
<p>Evidence of success.</p> <p>Introduced measures helped to decrease administration workload, legal uncertainty and trust in the program (financial intermediaries and investors now trust in the program and are willing to participate with own funds).</p>		
<p>Factors that might hamper the transfer:</p> <ul style="list-style-type: none"> detailed local legislation analysis needed; high competencies of experts involved in standardization and simplification required; some measures may require to have more complex legal framework changes; market requirements must be considered and market should players consulted (responses should be treated cautiously) 		
Time required to complete the BP	2-3 years. it should take much shorter to introduce applied measures in other partners countries	
Contact details to obtain further information on the practice		
Contact name	Justinas Bučys	
e-mail	justinas.bucys@vipa.lt	
Organization	Public Investment Development Agency	
Type of Organisation	Joint stock venture (publicly owned)	
Website	www.vipa.lt	

GOOD PRACTICE FICHE		Region: Lithuania
Title of the good practice:	Standardization and Simplification in Public Buildings Modernization	
Partner region:	Lithuania	
Location data	Lithuania	
Topic of the practice: Thematic coverage <ul style="list-style-type: none"> ○ Activation of demand and combating energy poverty ○ Professionalization of the construction sector ○ New financial instruments 		
Description of the practice: <p>Lithuania has done much in recent years to reduce its energy intensity. However a market segment with considerable energy efficiency potential is the building sector. This includes public sector buildings such as schools, town halls, hospitals (and street lighting). Underinvestment and inefficient operations in these assets waste energy resources and create a significant burden on the public budgets and inadequate comfortable levels for its users, including civil servants, students, patients and normal citizens in poorly lit streets.</p> <p>Estimated potential energy savings range from 25% with few investments to as much as 60% provided there is a high standard of design and investments. It is well understood that many energy saving investments can be repaid through the savings on future energy bills, which means the net effect on the budget can be neutral, and once the investments have been repaid, strongly positive. Commercial arrangements to achieve this can be designed using energy performance contracting (EnPC). In EnPC energy efficiency works (capex) and services are paid mostly from resulting energy cost savings (i.e. budget neutral and not counted as public debt), while ESCOs may sell the resulting receivables (forfeiting) in order to refinance themselves.</p> <p>However, these approaches have not yet been well developed in Lithuania. There are a number of existing barriers that explain this:</p> <ol style="list-style-type: none"> 1. Lack of internal funding of beneficiaries and lack of adequate long term financing product for external financing through ESCOs <ol style="list-style-type: none"> a. Public and private building owners lack own funds for financing energy efficiency investments. b. Lack of an appropriate long term financing product for externally financing the energy efficiency investments through ESCOs. 2. Regulatory uncertainties <ol style="list-style-type: none"> a. The contractual and regulatory framework in Lithuania could needed to be still further clarified and simplified. b. A business model is only starting to be established. 3. Lack of resources amongst stakeholders <ol style="list-style-type: none"> a. Lack of expertise and resources among the building owners for preparing ESCO tenders, evaluating bids and monitoring performance. <p>VIPA Agency signed an ELENA (technical assistance facility managed by EBRD) agreement to create project pipeline and to involve a certain number of stakeholders (Lithuanian ESCOs, public authorities and building owners participating in actual EnPC activities) big enough that they can then build on this experience and replicate the ESCO concept further. Transparent and secure framework conditions and sufficient demand of ESCO projects would allow a national ESCO industry to develop.</p> <p>Because of the legal restrictions in Lithuania, most central government buildings users are not able to borrow capital on their behalf. In order to address this issue it was decided to apply the ESCO model and</p>		

GOOD PRACTICE FICHE
Region: Lithuania

start to develop ESCO market in Lithuania. It was soon realized that it was needed standardized documentation for the Public buildings program:

- standard ESCO procurement documentation.
- standard ESCO agreement.

The ESCO procurement is considered to be public-private partnership (PPP) type procurement in Lithuania. PPP project cycle was, accordingly, standardized, simplified and made shorter.

Performance indicators linked to the practice

- Estimated number of households with improved energy labeling: 37.000
- **Estimated number of households with improved energy consumption classification: 37.000**
- Estimated number of households engaged in support programmes: 120.000
- Estimated annual energy savings in all households (kWh): 272.000

Indicators above are related to other practices as well, specific allocation to this GP is not possible.

Indicators of success linked to the practice:

- 39 applications received to finance through ESCO.
- 13 ESCO type financing application approved.

Evidence of success.

High interest and involvement of possible ESCO's and public building owners are shaping project pipeline. Simplified process will help to reduce administration burden.

Factors that might hamper the transfer:

Major challenges:

- detailed local legislation analysis needed.
- some measures may require to have more complex legal framework changes.
- high competencies of experts involved in standardization and simplification is required.
- market requirements must be considered and market should players consulted (responses should be treated in unbiased way).

Time required to complete the BP
1 year
Contact details to obtain further information on the practice

Contact name	Justinas Bučys
e-mail	justinas.bucys@vipa.lt
Organization	Public Investment Development Agency
Type of Organisation	joint stock venture (publicly owned)
Website	www.vipa.lt

GOOD PRACTICE FICHE		Region: Lithuania
Title of the good practice:	Complex projects	
Partner region:	Lithuania	
Location data	Lithuania	
<p>Topic of the practice: Thematic coverage</p> <ul style="list-style-type: none"> • Activation of demand and combating energy poverty • Professionalization of the construction sector • New financial instruments 		
<p>During multi-apartment building modernization project implementation, new tendencies emerged:</p> <ul style="list-style-type: none"> • broader planning required due to behavior changes (e.g. some blocks required less energy, therefore smaller diameter heating pipes and smaller heat producing plants needed). • building owners willing to improve their neighborhood. <p>The Lithuanian Government has made the energy-efficient refurbishment of existing real estate one of their top priorities. In the new financial period of 2014-2020, the plans include renovations on entire city blocks at once, moving towards a more holistic practice of the integrating renovation of the entire block, rather than simple one-off projects. It means that not only would a single apartment building be affected, but that care would be given to the entire infrastructure in the immediate area, including street lighting, parking-lots, green spaces, playgrounds etc.</p> <p>At the end of 2014, the Ministry of Environment of the Republic of Lithuania and the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety signed a co-operation agreement, supporting Lithuania in developing and implementing the first pilot project of the block renovation initiative in three Lithuanian cities. In the first phase of the integrated block renovation implementation plan for three Lithuanian pilot cities was envisaged.</p> <p>Lithuania has been successfully engaged in modernizing multi-dwelling apartment buildings since 2013, after a new renovation model was introduced. But the overarching goal is to regenerate entire city blocks, rather than single buildings. Modernizing the existing infrastructure as a whole makes the city areas more attractive places to live overall. Therefore, within this pilot project, a complex renovation of the selected quarters in three different cities of Lithuania will be both a learning experience and an adaptable example for other Lithuanian municipalities. Close partnership between the Ministry of the Environment of the Republic of Lithuania and the Association of Local Authorities in Lithuania, throughout all stages of implementation of the pilot project, in later stages will help spread the good practice of block renovation across other Lithuanian municipalities. The aim is to encourage municipalities to include the renovation of residential and public buildings, as well as the regeneration of the surrounding environment and supporting infrastructure, a central facet of their on-going territorial development and improvements programs.</p> <p>Lithuania is looking for opportunities to achieve maximum cost-efficiency when it comes to investing in integrated regeneration projects for its cities, benefiting from the experience of other country's similar renovation projects (such as German experience).</p>		
<p>Performance indicators linked to the practice</p> <ul style="list-style-type: none"> • Estimated number of households with improved energy labeling: 37.000 • Estimated number of households with improved energy consumption classification: 37.000 • Estimated number of households engaged in support programmes: 120.000 		

- Estimated annual energy savings in all households (kWh): 272.000

Indicators above are related to other practices as well, specific allocation to this GP is not possible.

Indicators of success linked to the practice:

- ✓ new building block renovation program prepared and launched;
- ✓ 3 pilot project applications for block renovation received and financing plans prepared.

Indicators above are related to other practices as well, specific allocation to this GP is not possible.

Evidence of success.

The multi-apartment building renovation process fostered interest in complex buildings block (quartal) renovation program which envisage complex renovation of city areas. New programme is developed and 3 pilot projects are launched. Currently, potential financing sources to fund such programme are under analysis.

High interest of municipalities is expressed with possible project pipeline development is envisaged.

Factors that might hamper the transfer:

- Co-ordination of the different financing sources for the complex renovation is challenging.
- Need to find financing sources for non-profit generating investments (e.g. recreational and green areas).

Time required to complete the BP	1 year
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Contact details to obtain further information on the practice

Contact name	Justinas Bučys
e-mail	justinas.bucys@vipa.lt
Organization	Public Investment Development Agency
Type of Organisation	Joint stock venture (publicly owned)
Website	www.vipa.lt

GOOD PRACTICE FICHE		Region: Lithuania
Title of the good practice:	Innovation in Financial Instruments	
Partner region:	Lithuania	
Location data	Lithuania	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • Activation of demand and combating energy poverty • Innovation • New financial instruments 		
Description of the practice:		
<p>Usual financing sources like commercial banks, are risk averse and conservative in Lithuania. Financing periods proposed by banks are too short for the investments in the non-commercial infrastructure (including deep renovation of buildings). Therefore there is a need for non standard financial instruments.</p> <p>The VIPA Agency replied developing a non-standard guaranty product, based on a securitization model, to attract capital to the multi-apartment buildings renovation programme from international capital market which is:</p> <ul style="list-style-type: none"> ▪ i) fast ▪ ii) the percentage guaranteed is increasing over time ▪ iii) it does not affect NPL's indicators up to guaranty amount 		
Performance indicators linked to the practice		
<ul style="list-style-type: none"> • Estimated number of households with improved energy labeling: 37.000 • Estimated number of households with improved energy consumption classification: 37.000 • Estimated number of households engaged in support programmes: 120.000 • Estimated annual energy savings in all households (kWh): 272.000 <p>Indicators above are related to other practices as well, specific allocation to this GP is not possible.</p>		
Indicators of success linked to the practice:		
<ul style="list-style-type: none"> ▪ 1 innovative financial instrument was developed. ▪ 1 innovative public fund leveraging technique is under development. <ul style="list-style-type: none"> ○ 1 investor expressed wiliness to be anchor investor. ○ support for this project from Ministry of Finance, central bank of Lithuania and other key players received. ○ 80% of the modeling prepared. 		
Evidence of success.		
<p>Standard financial instruments do not meet expectations of final beneficiaries, financial intermediaries or investors. The development of innovative financial instruments resulted in high interest among all stakeholders, which is envisaged to develop in new project pipeline.</p>		

GOOD PRACTICE FICHE

Region: Lithuania

Factors that might hamper the transfer:

- market players are not familiar with new FI features (challenging promotion).
- the need of highly qualified employees to develop innovative instruments.
- some innovations generate high initial costs, (although relatively low compared to the attracted amounts).

Time required to complete the BP

6-24 month depending on novelty level

Contact details to obtain further information on the practice

Contact name	Justinas Bučys
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Organization	Public Investment Development Agency
Type of Organisation	Joint stock venture (publicly owned)
Website	www.vipa.lt

GOOD PRACTICE FICHE		Region: Lithuania
Title of the good practice:	Legal Framework Harmonisation	
Partner region:	Lithuania	
Location data	Lithuania	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • Activation of demand and combating energy poverty • New financial instruments 		
Description of the practice:		
<p>A major challenge regarding funding energy initiatives is to have possibility to implement financial instruments harmonizing legislation with EU regulations. Lithuanian government has addressed this question since establishment of the first financial instrument in 2007 by:</p> <ul style="list-style-type: none"> ▪ assessing and harmonizing legislation that conflicts with financial instruments established using public funds. ▪ developing special legislation or programs (with continuous adjustment) for new financial products which can be trusted by all stakeholders. Following special legislation for buildings renovation in Lithuania are developed: <ul style="list-style-type: none"> ○ multi-apartment building renovation programme (MABR). ○ special law governing MABR process. ○ Public building renovation programme. ▪ Stakeholders involved: ministries, funds and financial instruments managers, financial intermediaries, final beneficiaries. ▪ Implementation of this practice did not required substantial amounts of financial resources, but it was crucial to mobilize political support and competences to proceed with change in legislation. ▪ The major weakness of this practice is that there is no universal solution how to implement it. 		
Performance indicators linked to the practice		
<ul style="list-style-type: none"> • Number of financial instruments established in various sectors, including energy efficiency in buildings . • Currently, VIPA Agency is involved in the legislation changing process which we believe will have the positive effects on attractiveness of financial instruments and enlarge the possibility to attract private investors. 		
Indicators of success linked to the practice:		
<ul style="list-style-type: none"> • 4 financial instruments for building renovation established • 1 financial instruments for the building renovation is under development 		
Evidence of success.		
<p>We believe that legislation assessment is very important both for:</p> <ul style="list-style-type: none"> - enabling and setting-up financial instruments. 		

GOOD PRACTICE FICHE
Region: Lithuania

- creating any financial instrument using public funds.

This good practice and the involvement of the government helped to shape financial instruments in a way so they become attractive both for final beneficiaries and financial intermediaries. The change in legislation resulted in a major increase in project pipeline as well as in participation of financial intermediaries with own funds.

Factors that might hamper the transfer:

This GP is hard to transfer directly to other countries because of differences in legal systems. However, main principles, implementation process and motivational impact of measures could be replicated.

The best solution is to gather a team of top experts in different fields for improvement of the legislation: sector related, state aid public accounting, legal consultants (lawyers), state debt and fiscal, etc.

Another barrier is the limitations set by legislation at the EU level. This obstacle can be dealt with by communicating to EU officials.

When transferring this practice it is very important to have **top level political support** for the legislation changing process to foster energy efficiency.

Time required to complete the BP	Depending on the type of legislation and political support level decisions can take from 2 weeks up to 1 year
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Contact details to obtain further information on the practice

Contact name	Justinas Bučys
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Organization	Public Investment Development Agency
Type of Organisation	Joint stock venture (publicly owned)
Website	www.vipa.lt

GOOD PRACTICE FICHE		Region: Gloucestershire, UK
Title of the good practice:	Warm & Well - Energy Efficiency Advice and Installation Scheme	
Partner region:	Gloucestershire, U.K.	
Location data	Gloucestershire, U.K.	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • New financial instruments • Activation of demand and combating energy poverty 		
Description of the practice:		
<p>Warm & Well is delivered by Severn Wye on behalf of a consortium of seven local authorities covering the counties of Gloucestershire and South Gloucestershire. The consortium is currently chaired by Stroud District Council. The other local authority members are Cheltenham Borough Council, Cotswold District Council, Forest of Dean District Council, Gloucester City Council, South Gloucestershire Council and Tewkesbury Borough Council.</p> <p>Warm & Well was launched in October 2001 to install energy efficiency improvements in the homes of domestic householders. In 2012 the Warm and Well scheme opened the Warm and Well advice line, allowing clients in Gloucestershire and South Gloucestershire to access free energy efficiency advice and information on grants and funding available both nationally and locally. This advice line had been running in parallel to Warm & Well previously but then became integrated in order to ensure provision of a holistic programme.</p> <p>The Warm & Well scheme aims to improve energy efficiency in the home and reduce the risk of fuel poverty and associated health problems by:</p> <ul style="list-style-type: none"> • Raising public awareness • Providing specific and appropriate advice to all householders • Making referrals into grant and discount schemes • Addressing central links between energy efficiency, affordable warmth, cold living conditions and health risks, such as cardiovascular illness and condensation damp related respiratory illness <p>The target groups for the project are:</p> <ul style="list-style-type: none"> • Households vulnerable to health problems associated with, or exacerbated by, low indoor temperatures • Households likely to be living in fuel poverty, and unable to afford adequate heating • The general public, to promote awareness of energy efficiency and the related issues of ventilation and the avoidance of condensation damp <p>Grants are available through the Warm and Well scheme and over the years have covered a variety of measures from solid wall installation, first time central heating systems and cavity and loft insulation. The funding has come from different sources, including government departments, local authorities, fuel supplier obligations [see "Energy Company Obligation (ECO)" good practice] and client funding. The scheme has been required to quickly adapt to changes in funding opportunities and explains the current funding available to clients in a clear manner.</p> <p>More recently (since 2014) the scheme has also delivered home energy advice visits to customers, giving behavioural advice specific to their property to help clients lower their fuel bills and/or increase the comfort in the property. This includes supporting people in switching their energy suppliers in order to</p>		

achieve lower cost energy tariffs.

When the Warm & Well scheme was first established in 2001, it received pump-priming funds from the government sponsored HECAAction (Home Energy Conservation Act) programme. In subsequent years, the majority of funding has come from:

- ✓ Local Authority partners: Between 2001-2015 local authority grant funding for energy efficiency measures for privately owned homes has been delivered through Warm and Well. These funds were managed as a single grant scheme known as Gloucestershire Energy Efficiency Grants (GEEG). In 2015/16 Stroud and South Gloucestershire provided GEEG funding for clients.
- ✓ The National Health System (NHS): This support has aided the development of promotional materials and funded home visits to vulnerable households.
- ✓ The Department of Health: The consortium was successful in securing funding from the Department of Health's 'Warm Homes Healthy People Fund' to undertake work with partners to assist vulnerable people living in cold homes winter. The fund provided grants for energy efficiency measures and funding for marketing, events and home visits.
- ✓ Fuel suppliers: In April 2013 the new Energy Company Obligation was introduced - an obligation placed upon the energy companies to invest in energy saving measures and reduce domestic carbon emissions. The funding from suppliers under these obligations has provided a significant proportion of capital funding of works for Warm and Well over the years, and has been obtained either directly through bilateral agreements with the suppliers or via installers listed by the suppliers.
- ✓ The Department for Energy and Climate Change: has funded two projects, the Green Deal Pioneers and latterly the First Time Central Heating Fund, a project ongoing in 2016/17.

Local context

The presence of an independent, impartial not for profit organisation such as Severn Wye has enabled the Warm & Well programme to achieve significant results. With reducing Public Sector funding and resource to provide such services directly, Severn Wye has been in a strong position to be able to engage with eligible clients year on year and as a result of the impartiality, is seen by customers as a trusted organisation able to focus on their needs without prejudice.

With this in mind, Severn Wye has established hundreds of partnerships with other support organisations such as local Citizen Advice Bureaus, Age UK, and Social Care Groups where strong referral networks are in place to ensure customers are signposted as appropriate to support that is aligned to their requirements.

Whilst it takes time to establish a strong brand, the benefits of achieving a long term programme of support is clear – the results below demonstrate just this!

Strength

Utilising a strong relationship with the local Public Sector has enabled Warm & Well to continue to receive financial support year on year as it helps to meet a number of changing statutory requirements whilst simultaneously maintaining a simple and clear offering to householders in the participating region. As resources become increasingly stretched within the Public Sector, the strength of using a dedicated delivery partner such as Severn Wye is that it is possible to focus on specific delivery at the same time as integrate a range of disparate programmes in a uniformed way so as to ensure clarity of message for those in need of support.

Opportunity

There is an underlying strategic opportunity present in the approach of Warm & Well, which means that not only can local policy be influenced, but the region can also benefit from new opportunities that appear as a result of having a delivery mechanism already in place that is ready to take on new avenues of funding. This means that it is not necessary to set up new systems for new opportunities as they can be merged into existing frameworks, which not only offers the benefit of providing a holistic and cohesive

service provision, but that it can also achieve it at a lower cost than would be the case if all systems needed creating from nothing.

Threat

The main threat to Warm & Well comes from a combination of reduced funding availability from the Public Sector and a change of focus that has reduced statutory priorities away from Environmental issues.

Contracting budgets from the Public Sector means that they must focus their resources on current statutory requirements. These are largely focused around a) their own income generation and b) provision of Health support to their residents. As such Severn Wye has to integrate the Warm & Well programme with Local Authority priorities, which at the current time is possible as a result of the direct links between Health and warm and affordable housing. However, with changing priorities, it is possible that in the future it will become less possible to draw such links (subject to the direction that changing priorities take), and as such the need for independent delivery organisations such as Severn Wye to consider their own income diversification opportunities is paramount.

Lessons Learned

There are a number of key lessons we have learned in developing and delivery of Warm & Well, and the key lessons are:

- Partnerships with other local service delivery organisations are essential for the long term success of the programme and the need for a clear and simple message for the end users
- Maximisation of external funding streams enables a strong service to be maintained – it allows more external funding to be utilised, thus reducing the requirement on householders to spend money (they often don't have) on energy saving improvements
- Continued availability of a delivery mechanism (the infrastructure that enables such programmes to be delivered) is essential in enabling the region to attract further revenue from new initiatives on an ongoing basis.

Performance indicators linked to the practice

- Number of households with improved energy consumption classification
- **Number of households engaged in support programmes: 80,000**
- Annual energy savings in households

Indicators of success linked to the practice:

Since 2001 the scheme has given energy efficiency advice to more than 80,000 residents across the participating regions, installed over 65,000 measures in over 41,000 properties.

678,327 tonnes of CO₂ has been saved over the lifetime of measures that were installed through Warm and Well since 2001. 17,452 tonnes of CO₂ saved each year from measures installed through Warm and Well since 2001. More than £30 Million has been invested in home improvements, with as little as 11% of this coming from householder contributions.

Evidence of success:

The Warm and Well scheme has been highlighted as an example of good practice in several best practice guides and toolkits, and in June 2006, was awarded first prize for energy efficiency at the "Ashden Sustainable Energy Awards". In 2014 Warm & Well was nominated for the EU Managenergy Award for local action, and awarded joint second prize with Severn Wye's colleagues at the Andalusian Energy Agency.

Factors that might hamper the transfer:

There needs to be a commitment toward longer term improvement of housing stock within a region from the Public Sector that is closely linked to the understanding of all associated problems for people living in poor quality or unaffordable homes. In line with this is a need for capital funding to be available in order

that it can be accessed by those most in need without requiring a significant contribution from them towards the planned improvements. As the benefit of installed measures are often not realised until after they have been installed, it will be difficult for people to justify making significant contributions towards the cost of measures if they are required to do so.

Time required to complete the BP	Approximately 2 years
Contact details to obtain further information on the practice	
Contact name	Mike Brain
e-mail	mikeb@severnwye.org.uk
Organization	Severn Wye Energy Agency
Type of Organisation	Independent, not for profit sustainable energy education charity
Website	www.severnwye.org.uk or www.warmandwell.co.uk

GOOD PRACTICE FICHE		Region: Gloucestershire, UK
Title of the good practice:	Energy Company Obligation (ECO)	
Partner region:	U.K.	
Location data	U.K.	
<p>Topic of the practice: Thematic coverage</p> <ul style="list-style-type: none"> • New financial instruments • Activation of demand and combating energy poverty 		
<p>Description of the practice:</p> <p>The ECO is a financial obligation that is placed on energy suppliers that have either more than 250,000 domestic customers or provide 400 gigawatts of electricity or more than 2,000 gigawatts of gas. It is a government energy efficiency scheme to help reduce carbon emissions and tackle fuel poverty. It is administered by the industry regulator Ofgem (the office of gas and electricity markets) who impose sanctions on fuel suppliers who do not achieve their targets to reduce carbon emissions and tackle fuel poverty. They also report back the results to the Department of Business Energy and Industrial Strategy (BEIS) and the Secretary of State. The suppliers are given targets based on their share of the domestic gas and electricity market. The scheme focuses on installing heating and insulation measures and supports vulnerable consumer groups.</p> <p>The funding comes from a mixture of fuel supplier investment and a levy on all fuel bills which have been reduced significantly over the last 3 years reducing the pot from £1.3bn to £640m. We are currently in phase 2 of ECO which is due to end in March 2017.</p> <p>The key stakeholders are:</p> <ul style="list-style-type: none"> ▪ Department of Business, Energy and Industrial Strategy (national policy) ▪ Ofgem (regulation) ▪ Local Government (local policy and implementation) ▪ Energy Saving Trust (NGO) ▪ Energy Services Companies (industry) ▪ National Energy Action (fuel poverty charity) ▪ Energy Agencies (local implementation) <p>The obligation is split into 3 categories.</p> <p>1) Carbon Emissions Reduction Obligation (CERO)</p> <p>The key target group:</p> <ul style="list-style-type: none"> ▪ Able to pay (private and social housing) <p>2) Carbon Saving Community Obligation (CSCO)</p> <p>The key target groups:</p> <ul style="list-style-type: none"> ▪ Low income ▪ People receiving certain benefits and living in private domestic properties ▪ Vulnerable households in rural areas <p>3) Home Heating Cost Reduction Obligation (HHCRO)</p> <p>The key target group:</p> <ul style="list-style-type: none"> ▪ People receiving certain benefits and living in private domestic properties <p>Initially there was no client contribution but since the funding has been decimated in order to ensure high</p>		

GOOD PRACTICE FICHE

Region: Gloucestershire, UK

numbers there is often a client contribution required. This reduction of funding has impacted the delivery of the programme to the low income and vulnerable demographic. Phase 3 of ECO will commence in April 2017 for 5 years with the strategy focus being fuel poverty. Details have still to be released on the specific details.

Local context

As there is no regional apportionment of the funding, local government and devolved administrations (Scotland, Wales and Northern Ireland) have invested in local programmes to attract and maximize ECO investment into their area. Essentially, the more local, or matched funding (from the private sector) identified, the increased likelihood that ECO funding can be attracted to any given region.

Strength

Across Gloucestershire we have established two funds for insulation GEEG (local government provision of the 'Gloucestershire Energy Efficiency Grant') and GEEG+ (funding provided by the Clinical Commissioning Group (CCG)). This additional investment covers the client contribution and ensures that vulnerable and low income households can still access measures. Severn Wye currently provides the delivery mechanism for these funds.

Weakness

HHCRO is mainly focused on gas boiler replacement and this has negatively impacted investment in areas that are off the gas grid.

Opportunity

This market failure is being addressed via a separate £20m Central Heating Fund pilot to help install first time central heating and increase connectivity the mains gas pipeline where practical. It is likely that this will form part of the new obligation in ECO 3 to be launched in April 2017.

Threat

General budget cuts means that everyone is fighting to attract funding and those with the most local investment or the ability to scale up programmes with higher carbon yield will benefit to the detriment of those with less potential.

Lessons Learned

It is vital that local energy agencies are engaged with the key stakeholders and are planning ahead for the future. While local government funds are being cut, public health funding is widely available where it can be evidenced that the funding is reducing the impact of cold damp homes and keeping people safe and well at home as opposed to in hospital or social care. Our recent £200k investment from the CCG will hopefully be the start of further and wider investment that will supplement ECO 3 which will, as we know, focus on fuel poverty.

Utilizing an independent delivery mechanism (such as Severn Wye Energy Agency, or others) not only gives trust and credibility for the end user beneficiaries, but it also means that wider opportunities can be joined up enabling significantly more 'on the ground' impact to be achieved.

Performance indicators linked to the practice

- **Number of households engaged in support programmes: 1,169,521**
- Number of households with improved energy labeling
- Number of households with improved energy consumption classification
- Number of households engaged in support programmes
- (kWh) Annual energy savings in households

GOOD PRACTICE FICHE
Region: Gloucestershire, UK
Indicators of success linked to the practice:

Outcomes for ECO1: Jan 2013 - March 2015

1,169,521 households received ECO support between January 2013 and March 2015. This is 44.5 households from every 1000. The highest concentration was in North-West England at 71.8 per 1000 households.

CERO 18.33 MtCO₂ lifetime, measures - 593,042

CSCO 9.87 MtCO₂ lifetime, measures - 382,982

HHCRO total lifetime cost savings £5.16bn, measures - 433,657

For more info:

https://www.ofgem.gov.uk/sites/default/files/docs/2015/09/eco_final_report_0.pdf

Evidence of success.

All ECO1 programme indicators were achieved or surpassed. It was a catalyst for major investment and jobs growth in the energy services sector. This success of ECO1 has led to ECO2 being delivered, and from April 2017, it is expected that ECO3 will be launched.

Factors that might hamper the transfer:

An equivalent scheme would need national policy implementation and wider support in skills and growth for the energy services/construction sector.

Time required to complete the BP	12-24 months
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Contact details to obtain further information on the practice

Contact name	Brian Canning
e-mail	brianc@severnwye.org.uk
Organization	Severn Wye Energy Agency
Type of Organisation	Private SME and not for profit sustainable energy education charity.
Website	www.severnwye.org.uk

GOOD PRACTICE FICHE		Region: Rzeszów
Title of the good practice:	Rehabilitation of buildings and removal of asbestos	
Partner region:	Podkarpackie Region (Poland)	
Location data	Podkarpackie Region; 2011-2015	
<p>Topic of the practice: Thematic coverage</p> <p>Please mark the topic of the practice. A good practice could potentially match several fields at the same time.</p> <ul style="list-style-type: none"> • Activation of demand and combating energy poverty • New financial instruments 		
<p>Poland was one of the countries where carcinogenic asbestos was widely used for many years. It is estimated that from 1952 to 1997 1.75 million tonnes of raw asbestos were used in the manufacture of asbestos-containing products and in industrial installations. Some 90% of that quantity was chrysotile, imported mainly from the USSR, the remaining 10% was crocidolite and amosite imported from Africa. The largest share of asbestos (some 65%, mostly chrysotile) was used for asbestos-cement products assigned for the construction industry (such as flat and corrugated roofing sheets and wall linings). According to estimates, some 1.2 billion m² of these products still exist. Crocidolite was used mostly for the manufacture of pressure pipes, one of more than 1 500 asbestos-containing products. In 2002 there was 15 million tons of inventoried asbestos in Poland. In addition, only 30 percent of asbestos containing products in Poland are thought to have been inventoried, meaning that it is uncertain as to where the asbestos is located. Most of asbestos was used as roofing in private households. People do not always realise how serious the problem of asbestos is. On the other hand, even if they do they often do not have will funds to remove asbestos (as it requires special treatment and processing).</p> <p>Programme for Asbestos Abatement in Poland 2009-2032</p> <p>In 2010 the Council of Ministers adopted the Resolution No. 39/2010 of the Council of Ministers of 15 March 2010 on “Programme for Asbestos Abatement in Poland 2009-2032” targeting these aims:</p> <ol style="list-style-type: none"> 1) removal and disposal of products containing asbestos; 2) minimizing adverse health effects caused by the presence of asbestos on the territory of Poland; 3) eliminating negative effect of asbestos on the environment. <p><u>Main areas of implementation:</u></p> <ol style="list-style-type: none"> 1) legislative activities; 2) education and information activities addressed to children and youth, trainings for employees of government and self-government administrations, development of training materials, promotion of technologies for the destruction of asbestos fibres, organisation of national and international trainings, seminars, conferences, congresses and participation therein; 3) activities related to the removal of asbestos and products containing asbestos from the 		

GOOD PRACTICE FICHE

Region: Rzeszów

constructions, public amenities and sites of former asbestos products producers, cleaning the premises, building landfills and installations for the destruction of asbestos fibres;

- 4) monitoring of the Programme implementation by means of electronic spatial information system;
- 5) activities in the area of exposure assessment and health protection.

Costs:

- 14.5 million tonnes of asbestos products remain to be removed and the total cost of their dismantling and transport as well as disposal of produced waste containing asbestos is estimated to amount to approx. PLN 40 billion;
- cost of building 56 landfills and landfill sectors for asbestos-containing waste has been estimated to amount to approx. PLN 260 million;
- financial resources from the national budget, at the Minister of Economy's disposal, allocated to support: development of plans for asbestos-containing products removal, education and information activities and the Programme monitoring, amount to PLN 53.2 million (0.13%);
- financial resources of self-government units allocated to develop and update the plans for asbestos-containing products removal and education and information activities are estimated to amount to approx. PLN 40 million (0.10%)

Description of the practice

Programme partially financed from the sources of National Fund of Environmental Protection and Water Management

Beneficiaries: municipalities that have inventories of asbestos and local programmes of asbestos removal

Form of support: grants up to 85%

Supported actions: disassembly or gathering, transportation, neutralisation, and disposal of products containing asbestos

GOOD PRACTICE FICHE
Region: Rzeszów
Performance indicators linked to the practice

The project must be located in the municipality where the inventory of asbestos-containing products and the municipality carrying a program of asbestos removal.

Year	# of projects	Projects general value (thousand PLN)	Grant from Regional Fund (thousand PLN)	Grant from National Fund (thousand PLN)	Grant total (thousand PLN)	Weight of neutralised and disposed asbestos
2011	23	1 285,49	447,34	639,03	1 086,37	2 641,58
2012	71	2 431,24	931,36	1 330,68	2 302,27	6 454,76
2013	115	3 382,10	1 183,74	1 691,05	2 874,79	9 169,73
2014	131	2 928,24	919,97	1 314,24	2 234,21	7 643,00
2015	125	3 112,97	977,06	1 395,81	2 372,87	8 468,75
Sum:	465	13 140,04	4 459,47	6 370,81	10 870,51	34 377,82

Indicators of success linked to the practice:

- Weight of neutralised and disposed asbestos in the years 2011-2015: 34.377,82;
- Number of project in the years 2011-2015: 465

Evidence of success.

Greater awareness in the society of asbestos risks and the above figures showing changes in the Podkarpackie towns and villages.

The National programme of asbestos removal could be an opportunity to renovate buildings according to the European energy policies!

Factors that might hamper the transfer:

The main problem for program's beneficiaries is that they receive support for the removal of asbestos but do not receive support for new elements such as for example a new roof.

Time required to complete the BP
Contact details to obtain further information on the practice

Contact name	Andrzej Indycki
e-mail	andrzej.indycki@wfosigw.rzeszow.pl
Organization	Regional Fund of Environmental Protection and Water

GOOD PRACTICE FICHE		Region: Rzeszów
	Management in Rzeszów	
Type of Organisation	Public	
Website	www.wfosigw.rzeszow.pl Error! Referencia de hipervínculo no válida.	
Fiche completed on date:	07.03.2017	

GOOD PRACTICE FICHE		Region: Croatia
Title of the good practice:	Reconstructed public buildings in City of Zagreb under the ZagEE project	
Partner region:	Croatia	
Location data	City of Zagreb	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • New financial instruments • Innovation 		
Description of the practice:		
<p>Zagreb – Energy Efficient City (<u>ZagEE</u>) project aims to refurbish 87 public buildings and 3.000 public lighting luminaries but also to perform capacity building activities (technical, financial, managerial) of city office employees and building managers. The project is an answer to poor state and high energy consumption of public infrastructure (90% of buildings below F energy class). Project was initiated in 2012 and funded under the Intelligent Energy Europe programme - Mobilizing Local Energy Investment Project Development Assistance (MLEI PDA) which assists local and regional authorities to develop sustainable energy projects. It aims to bridge the gap between sustainable energy plans and real investment by funding activities necessary to prepare, and mobilize finance for public investment programmes. MLEI PDA proved to be the most adequate technical assistance programme for ZagEE due to:</p> <ul style="list-style-type: none"> ▪ Minimum project size (7 vs 50 mil. € in ELENA) ▪ Eligible internal staff costs (ELENA – only external expertise) ▪ Project not eligible for JASPERS (not part of the ESIF Operational Programme) ▪ Right to use funding sources of its own preference (EEEE – required PDA beneficiaries to take a loan from the EEEF) <p>One of the primary ideas behind ZagEE project was to assess and test different financing instruments/schemes that were available in Croatia since there was no relevant experience within the city with use of instruments such as soft loans, EPC and ESI Fund grants. From technical side, the project was used to assess various technical solutions for energy renovation of several types of public buildings (kindergartens, schools, retirement homes, municipal buildings). This way the city acquired valuable information regarding expected investment costs for refurbishment of buildings and financial structuring of future renovation plans. Total investment size was approximated at 29,3 million € (26,5 mil. € for refurbishment of public buildings and 2,8 mil. € for modernization of public lighting).</p> <p>Two partners formed a core team with members appointed by the Mayor of Zagreb: City of Zagreb - coordinator (with several offices in the team) and North-West Croatia Regional Energy Agency. Many different stakeholders (ministries, banks, SMEs) were engaged during the project in order to maximize the level of know-how and joint cooperation between partners.</p>		
Performance indicators linked to the practice		
<ul style="list-style-type: none"> • Number of households with improved energy labeling: 87 • Number of households with improved energy consumption classification: 87 • Number of households engaged in support programmes: 87 • (%) Reduction of annual primary energy consumption in public buildings: 49% • (kWh) Annual energy savings in households: 33.526 MWh/year • (%) Reduction of the use of fossil fuels in the building sector: 8.390 tCO₂/year • Other: Generation of renewable energy: 290 Mwh/year 		

GOOD PRACTICE FICHE
Region: Croatia
Indicators of success linked to the practice:

In total 87 buildings with 226.654 m² will undergo energy renovation with expected primary energy savings of 33.526 MWh/year, 8.390 tCO₂/year of avoided GHG emissions and average energy savings of 49% in public buildings and 72% in public lighting. The project will also contribute to generation of 290 MWh/year of energy from renewable energy sources. Considering the size of the project (almost 30 mil. €) ZagEE has also helped with development of the market for EE/RES contractors.

Evidence of success.

PDA for development of concrete energy renovation plans in cities and regions provides necessary financial spark to initiate large capital investments. Although financial structuring of the project should ideally be set before signing of the PDA contract, ZagEE proved that on underdeveloped markets where there are no tailor made financial instruments for energy renovation cities have to make the first step and create the demand for energy renovation instruments. A mandatory three-year period within which the investment has to be launched can be considered as a positive feature that creates an obligation and higher commitment level from local governments. PDA also offers very good opportunities for capacity building and training for public authorities so they can undertake similar capital investments in the future.

Factors that might hamper the transfer:

Replicability of PDA projects such as ZagEE is generally quite high, especially in other cities in the region. Biggest obstacle to transfer of good practices lies within specific local frameworks and available funding schemes in each country. Political consensus and commitment from all sides is a pre-condition that has to be met before the initiation of project in order to ensure execution of such long-term capital investment. Project implementation followed standard procedures for reconstruction of city infrastructure and therefore was quite straightforward to follow and replicate.

Time required to complete the BP	4 years
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Contact details to obtain further information on the practice

Contact name	Mrs Melita Boric
e-mail	melita.boric@zagreb.hr
Organization	City of Zagreb
Type of Organisation	local government (with status of region)
Website	http://zagee.hr/ http://www.zagreb.hr/

GOOD PRACTICE FICHE		Region: Croatia
Title of the good practice:	croenergy.eu	
Partner region:	Croatia	
Location data	online	
Topic of the practice: Thematic coverage <ul style="list-style-type: none"> • New financial instruments 		
Description of the practice: <p>croenergy.eu is a specialized crowdfunding platform for financing projects in the field of energy efficiency, renewable energy sources and environmental protection developed and launched by REGEA in 2016. The primary objective of the platform is to promote and maximize the use of this innovative financing mechanism in Croatia through mutual cooperation and dialogue with key market stakeholders (ministries, development agencies, NGOs, energy cooperatives). Currently, the platform provides donation and reward based funding models while crowdlending and crowdinvesting models would be added gradually, as the market becomes more mature and ready. The platform acts as a match-maker for raising funds to avoid potential financial risks and is open to public sector fundraisers due to legal issues with involvement of private companies and physical persons. Campaigns are pre-selected as fundraisers' background is checked, including feasibility of the investment.</p> <p>Development of the platform required significant investment costs, considering there were no "off the shelf" website solutions. A custom CMS web application was made with an online payment gateway. Not using the third party payment systems such as Paypal caused high financial transaction costs for platform managers but provided a much simpler interface for project backers.</p> <p>Main weaknesses of the platform and market as a whole arise from the low levels of awareness as both citizens and market regulators are not familiar with crowdfunding model (less than 2% of total population in Croatia). There is also a significant gap between crowdfunding awareness and actual participation, with only five percent of the crowdfunding-aware have ever participated as a</p> <p>Crucial obstacle for development of the crowdfunding market lies within the restrictive and unflexible legal framework. Crowdlending is under strict regulation of Law on capital market which makes the whole procedure complicated and expensive. Public authorities cannot use this model for any type of projects which is the official standpoint of the Ministry of finance. Crowdinvesting is possible in form of a silent partnership in start-ups while conventional start-ups are expensive to fund this way. An entrepreneur cannot publicly present its business idea and collect money for it unless he has already established a company – which goes against basic market testing logic of crowdfunding. Croenergy project will pursue the changes in this regard, as crowdfunding needs to be regulated but under its own legal framework that respects its specificities.</p> <p>Croenergy platform has had success with development and funding of one pilot project (another one is under way) with 121% of targeted funds raised. Success can mostly be attributed to a very solid marketing strategy, constant presence in the media and local community that recognized the project and was willing to back it up.</p>		

GOOD PRACTICE FICHE
Region: Croatia
Performance indicators linked to the practice
(only first campaign that raised 16.000€)

- Number of households with improved energy labelling: 1
- Number of households with improved energy consumption classification: 1
- Number of households engaged in support programmes: 1
- (%) Reduction of annual primary energy consumption in public buildings
- (kWh) Annual energy savings in households: 20.000 kWh
- (%) Reduction of the use of fossil fuels in the building sector

Indicators of success linked to the practice:

First (pilot) campaign on the Croenergy platform was a complete success, with targeted amount of funds (16.000 €) raised within the expected time period. Local government combined the funds from the crowdfunding campaign with its own resources in order to leverage additional funds needed for the renovation (65.000 € in total). Energy renovation of the kindergarden in the town of Pregrada resulted in energy savings of around 20.000 kWh/year and avoided emissions of 3.680 kg CO₂e/year. The renovation also significantly improved the quality of work and comfort of kindergarden users, considering that the building had serious issues with roof leaking.

Evidence of success

Crowdfunding is a viable and interesting model for financing sustainable energy projects since it enables citizens to become investors or contributors to its own community infrastructure or innovative projects. Crowdfunding campaigns also provide an opportunity for cities and municipalities to closely work with citizens and involve them in the planning phase of projects that have an added social dimension. Entrepreneurs, and especially start-ups have an opportunity to test their ideas before investing significant financial resources. Key advantages of crowdfunding campaigns lie in the small size of its donations and dispersion of potential risks for their backers. Crowdfunding also promotes the use of modern technology, social media and online payment options which helps with overall digitalization levels of the community.

Factors that might hamper the transfer:

Key barriers for transfer of good practice to other partners lie within different national legal framework regarding crowdfunding and low awareness levels of potential campaign backers. Support from the government, as well as a regulatory framework with more relaxed requirements than current securities regulations for certain forms of crowdfunding, are usually missing in the most EU countries. Also, building an ecosystem takes a lot of time and without a strong crowdfunding promotional campaign there is little opportunity for the general public to gain an understanding of the wide-ranging benefits crowdfunding can have on the economy and job creation. However, general pointers for starting a crowdfunding platform or campaign can be made and the level of replication can be considered very high.

Time required to complete the BP
1 year
Contact details to obtain further information on the practice

Contact name	Mr Hrvoje Maras
e-mail	hmaras@regea.org

GOOD PRACTICE FICHE		Region: Croatia
Organization	REGEA – North-West Croatia Regional Energy Agency	
Type of Organisation	sectoral agency	
Website	http://croenergy.eu/ http://www.regea.org/	

GOOD PRACTICE FICHE		Region: Region Jämtland Härjedalen
Title of the good practice:	The Climate Step	
Partner region:	Region Jämtland Härjedalen, Sweden	
Location data	Sweden	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • New financial instruments 		
Description of the practice:		
<p>The main purpose of the financial support “The Climate Step” is to reduce emissions that affect climate change.</p> <p>The financial support can be used in all areas that affect climate change for example; infrastructure, waste management, transport, information campaigns, energy efficiency, reduction of gas emissions, charging stations, energy conversion in buildings and production of biogas.</p> <p>The company or organization applying for the support provides the largest part of the investment. The Climate Step’s part of the funding is on average 42%.</p> <p>Every coin invested should provide the greatest possible benefit to the climate. That means that calculating the climate benefits are a decisive factor for the measures that can be supported. The calculation shall demonstrate how GHG emissions changed by the action. The Environmental Protection Agency has presented methods of calculation and guidance on life lengths of different measures.</p> <p>The county administrative boards support and guide those who wish to apply in each county. County Board will also contribute with their knowledge of the conditions, plans, programs and strategies that are relevant.</p> <p><u>Objective/challenge addressed</u></p> <p>Reduce the climate impact by providing investment support to measures that are not profitable without support.</p> <p><u>Main stakeholders/target groups</u></p> <p>All companies / organizations besides individuals can apply for support</p> <p><u>Financial resources required</u></p> <p>The support was introduced during 2015, about €12 million where distributed. An additional 60 million Euros will be granted per year during 2016, 2017 and 2018.</p> <p><u>Legal framework</u></p> <p>Aid for environmental protection may be granted in accordance with the so-called Block Exemption Regulation (Commission Regulation (EU) No 651/2014).</p> <p>Support to lesser extent can be given in accordance with the so-called minimum regulation Commission Regulation (EU) No 1407/2013).</p> <p><u>Regional context</u></p> <p>The initiative builds on the climate and energy strategies which worked out at local and regional level. The application must connect to regional objectives</p> <p><u>Strenghts/</u></p> <ul style="list-style-type: none"> ✓ Process from application to completion of measure can be relatively fast ✓ Simple application process <p><u>Weaknesses/Lessons learned</u></p>		

GOOD PRACTICE FICHE		Region: Region Jämtland Härjedalen
<p>A development proposal by the county administrative boards is an analysis of how The Climate Step to a larger extent can contribute to measures that support longer term energy change. The analyses can be a matter of social structures linked to resource efficiency, but also consumption and behaviour.</p>		
<p>Performance indicators linked to the practice</p> <ul style="list-style-type: none"> ▪ Number of households with improved energy labelling ▪ Number of households with improved energy consumption classification ▪ Number of households engaged in support programmes ▪ (%) Reduction of annual primary energy consumption in public buildings ▪ (kWh) Annual energy savings in households ▪ (%) Reduction of the use of fossil fuels in the building sector 		
<p>Indicators of success linked to the practice:</p> <p>The Climate Step is expected to reduce emissions that affect climate by approximately 600.000 tons per year. The Climate Step is estimated thereby achieving 10 percent of the gap that remains to achieve the Swedish climate targets in 2020.</p>		
<p>Evidence of success.</p> <p>So far estimated Climate The step of having contributed 403.000 ton CO₂ reduction equivalent greenhouse gas emissions from 48.000 petrol-driven cars that go a lap around Earth.</p>		
<p>Factors that might hamper the transfer:</p> <ul style="list-style-type: none"> - Organisational differences - Differences in energy prices and taxes which affects the payback time for action. Sweden has cheap renewable electricity and a high tax on carbon dioxide. 		
Time required to complete the BP	2-6 years	
Contact details to obtain further information on the practice		
Contact name	Nanna Wikholm	
e-mail	nanna.wikholm@naturvardsverket.se	
Organization	Environmental Protection Agency	
Type of Organisation	Public/private, regional/local government, etc	
Website	http://www.naturvardsverket.se/klimatklivet	

GOOD PRACTICE FICHE		Region: Jämtland Härjedalen
Title of the good practice:	Energy mapping grant	
Partner region:	Region Jämtland Härjedalen, Sweden	
Location data	Sweden	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • New financial instruments 		
Description of the practice:		
<p>SMEs with an energy consumption exceeding 300 megawatt hours (including transport) per year can get a grant for energy mapping. Farms with at least 100 animal units are also eligible to apply.</p> <p>The grant covers 50 percent of the cost, maximum 50.000 SEK (about 5.000 euro). An energy mapping report shows how the energy is distributed in different parts of the business (including transport) and what the annual costs for energy are. The energy mapping report must include suggestions of measures, it usually shows expected investment costs and payback time for each measure.</p> <p>Energy consultants can perform the energy audit and write the mapping report, but if the company has similar expertise in-house, they can get the grant and make the mapping themselves.</p> <p>Once the company has completed the energy mapping and decided on the measures to be implemented it is time to report to the Energy Agency; economy report, energy consumption, energy plan etc.</p> <p>The grant is provided on a national level, but is combined with information activities at a local level through the regional energy agencies. All figures and numbers in this description comes from the national level. The regional energy agencies spread information about the grant and helps/guides companies through the process of applying for the grant and moving on to action.</p> <p>An energy mapping grant was available during 2010-2014. Approximately 1.000 companies applied for the grant, of which about 780 completed an approved energy mapping report. The Swedish Energy Agency now provides this support for a second time.</p> <p><u>Objective/challenge addressed</u></p> <p>Contribute to efficient use of energy and reducing the use of fossil fuels. Helping companies find profitable energy efficiency measures. Raising the issue of energy at companies.</p> <p><u>Main stakeholders/target groups:</u> SMEs</p> <p><u>Financial resources required:</u> State cost: 3.000.000 – 4.000.000 Euro</p> <p><u>Legal framework</u></p> <p>Sweden has a law on energy audits for large companies. The law is a part of the efforts to meet the requirements of the EU energy efficiency directive. According to the law, large companies have an obligation to make quality assured energy audits at least every four years. However, this grant targets SMEs, a group that is not covered by that law.</p> <p><u>Regional context</u></p> <p>The project contributes to sustainable regional growth as companies become aware of measures leading to better energy efficiency with reduced energy consumption as a result.</p> <p>The project has established important contacts between companies and energy agencies in each region. Energy agencies have a continued dialogue with many of the companies that took part of the grant during 2010-2014.</p>		

GOOD PRACTICE FICHE

Region: Jämtland Härjedalen

Strengths/weaknesses

- ✓ It is necessary to inform companies about the grant, being challenging sometimes to convince management to apply for the grant.
- ✓ Companies receive a good overview of their energy consumption.
- ✓ The energy issues are raised.
- ✓ The companies are aware of any previously unknown “energy thieves”.
- ✓ With the support of the report, the company has better opportunities to work more systematically with energy issues and make a good priorities scale among measures.

Lessons learned

A number of areas for improvement were identified when the funding period of 2010-2014 were evaluated. These experiences have formed a basis for the work of the new grant period.

For example; efforts need to be made so that the application and reporting are perceived as simple to the businesses and to raise the quality of conducted energy mapping reports. There is also a clear intention that companies will eventually begin to work systematically and structured to reduce its energy consumption.

In addition there was a need for better marketing of the grant.

Various information and knowledge-related effects of the aid seems to be most significant for companies, such as improved basis for decision, increased knowledge and a more engaged leadership.

The companies have experienced a high administrative burden and in connection with the application and reporting. Competent consultants are important for a successful energy audit. Some companies wished that there was a list of approved consultants.

Performance indicators linked to the practice

- (kWh) Annual energy savings in households
- Other: Reduction on energy consumption by an average of 10 % among participating SMEs

Indicators of success linked to the practice:

Survey results indicate that most respondent companies experience that they have gained a greater knowledge. The vast majority of companies that responded to the evaluation surveys stated that they will carry out more measures in the future.

The support seems to have had a significant knowledge-enhancing effect on the companies, stated that they would not have conducted an energy mapping without the grant. The grant also appears to some extent contribute to greater systematic in work on energy efficiency.

The companies seem to be more willing to hire consultants. The support seems to have been important for the company that would have done the survey, even without aid. The support has accelerated and intensified the process.

Evidence of success.

The Energy Agency made an evaluation of the assistance. Estimated costs of measures and measure planned savings companies reported to the Swedish Energy Agency to obtain their energy survey check indicates a very high profitability for the planned measures.

Most of the companies that took part of the grant during 2010-2014 have annual energy consumption between 1500 and 5000 MWh. They reduced their energy consumption by an average of 10%.

The Swedish Energy Agency now offers this grant for the second time.

Factors that might hamper the transfer: Please indicate problems or barriers that could appear when transferring the good practice to other partner.

- If there are no energy agencies to support the businesses

GOOD PRACTICE FICHE		Region: Jämtland Härjedalen
- If businesses have obvious energy-saving measures and do not need help to choose between these		
Time required to complete the BP	4-6 years	
Contact details to obtain further information on the practice		
Contact name	(Swedish Energy Agency)	
e-mail	energikartlaggning@energimyndigheten.se	
Organization	Swedish Energy Agency	
Type of Organisation	Public energy agency	
Website	http://www.energimyndigheten.se/nrp/stod-for-energikartlaggning-i-sma-och-medelstora-foretag/	

GOOD PRACTICE FICHE		Region: Jämtland Härjedalen
Title of the good practice:	Grant for municipal Energy and Climate Advisors	
Partner region:	Region Jämtland Härjedalen, Sweden	
Location data	Sweden	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> • New financial instruments 		
Description of the practice:		
<p>All Swedish municipalities can apply for a grant for a municipal Energy and Climate Advisor. The grant has been existing for most of the past 40 years. The size of the grant and the assignments for the advisors has evolved over the years as energy issues in society have evolved.</p> <p>The advisors target group consists of: SMEs, organizations and individuals. The advisors provide information on relevant energy efficiency measures, technical solutions and relevant investment aids available. The advisors also provide information on renewable energy production and transport issues. The advisors have knowledge about regional conditions.</p> <p>The advisors consult those who seek help, but also actively contact energy intensive target groups offering advice. The service is free of charge and commercially independent. The regional energy agencies coordinate the advisors.</p> <p>The grant is provided by the Swedish Energy Agency. The size of the grant is 28.000 – 43.000 euro/year depending on the number of residents in each municipality. Many municipalities are small and it is common that the grant covers approximately a 40% service.</p> <p><u>Objective/challenge addressed</u></p> <p>Contribute to efficient use of energy, reducing the use of fossil fuels and increasing the production of renewable energy.</p> <p><u>Main stakeholders/target groups</u></p> <p>Municipalities can apply for the grant but target groups are households, SMEs and organizations.</p> <p><u>Financial resources required</u></p> <p>28.000 – 43.000 euro per municipality</p> <p><u>Regional context</u></p> <p>The advisers communicate regionally and locally adapted information to the target groups. It opens ways for improved energy efficiency in society when citizens act with greater knowledge, increasing awareness creates better conditions for other policy instruments to be accepted and work better.</p> <p><u>Strengths</u></p> <ul style="list-style-type: none"> ✓ The grant is available for all the municipalities. ✓ Local connection: the advisory service is managed by local authorities. ✓ The energy and climate advisors form several networks, on national, regional and local level for collaboration, exchange of experiences and expertise. ✓ The advisory is performed in form of a project, often a year or two at a time. This allows the Swedish Energy Agency to direct the advisory to priority issues. ✓ Broad expertise and broad mission. ✓ Contributes to energy and climate competence in each municipality. <p><u>Weaknesses /Lessons learned</u></p>		

GOOD PRACTICE FICHE		Region: Jämtland Härjedalen
<ul style="list-style-type: none"> ✓ It can take a long time from consultation to action, sometimes several years. This makes it difficult to monitor the effects of the advice. ✓ Since the aid will not cover a full-time service, the energy and climate advisors often have other duties as well. In some municipalities this has caused that the advisory is not done in a good way, other tasks have been given priority. The advisory is often more effective when it is coordinated by several municipalities. 		
Performance indicators linked to the practice		
<ul style="list-style-type: none"> ▪ Other: Increased knowledge about energy efficiency measures among the target group 		
Indicators of success linked to the practice:		
<p>There are difficulties in estimating the effect of the energy and climate advisory because it can take a long time from the moment of the advice until a measure is taken.</p> <p>The theoretically possible energy savings potential in residential houses is very high. Today the approximately 140 TWh per year in the residential and service sector, of which 70 TWh consists of electricity. Electricity is a high quality energy form that can be used for so many different purposes, therefore it is not considered optimal to heat buildings with electricity even if it is renewable.</p>		
Evidence of success.		
<p>The main success factors is the credibility of the independent advice, the national coverage with a local base that constitute a channel for the various efforts energy efficiency and reduced environmental impact, as well as the broad and good the skills of the advisers.</p> <p>A survey conducted by Statistics Sweden on behalf of the Swedish Energy Agency shows that public awareness on energy and climate advice is about 30% of single-family owners and about 18% have been in contact with the energy and climate advisors. Once the information arrives through the advisers, a third of the single-family owners say that it have affected in their investment decisions in fairly large degree. In the same survey by Statistics Sweden, it appears that almost 70% of single-family owners think that access to independent energy and climate advice is very important or rather important.</p>		
Factors that might hamper the transfer:		
<p>If there are no regional energy agencies, it can be difficult with regional coordination. Requires annual investments, and it's difficult to follow up the effect in quantitative ways.</p>		
Time required to complete the BP	2 or more years	
Contact details to obtain further information on the practice		
Contact name	Moa Breivik	
e-mail	Moa.breivik@regionjh.se	
Organization	Region Jämtland Härjedalen	
Type of Organisation	Public, region	
Website	www.energirad.se www.regionjh.se	

GOOD PRACTICE FICHE		Region: Jämtland Härjedalen
Title of the good practice:	Smart procurement	
Partner region:	Region Jämtland Härjedalen, Sweden	
Location data	Östersund, Region Jämtland Härjedalen	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> New financial instruments 		
Description of the practice:		
<p>The municipal housing company <i>Östersundshem</i> have used a new strategy for the procurement of new construction projects. Instead of demanding absolute energy demands for new buildings or requesting specific technical solutions, they place a maximum energy demand, for example max 70 kWh/m²/year.</p> <p>Östersundshem takes 50 years of energy consumption from each considered option taken into account when the best available option is evaluated.</p> <p>In this procurement, strategy entrepreneurs can give tenders based on their best practice. This model gives the entrepreneurs a chance to be innovative, and Östersundshem get a long-term view on energy consumption and costs. This method could be applied to renovations.</p> <p><u>Objective/challenge addressed</u></p> <p>Get the best possible energy alternatives in the procurement of new buildings. Stimulating innovation in the construction market.</p> <p><u>Main stakeholders/target groups</u></p> <p>Construction companies and the client, in this case a municipal housing company.</p> <p><u>Financial resources required:</u> Time to change the procurement strategy</p> <p><u>Regional context</u></p> <p>We believe that the model can be implemented in many regions. Perhaps it may drive the implementation of new technologies in rural areas, where it can sometimes take longer before the new technology is established.</p> <p><u>Strengths/weaknesses</u></p> <p>It may require a lot of knowledge and expertise to evaluate the various options and their technical solutions.</p>		
Performance indicators linked to the practice		
<p>Please tick at least any of the self-defined performance indicators in the Application Form (related to Policy Instruments) that may apply to the good practice.</p> <ul style="list-style-type: none"> (kWh) Annual energy savings in households (%) Reduction of the use of fossil fuels in the building sector 		
Indicators of success linked to the practice:		

GOOD PRACTICE FICHE

Region: Jämtland Härjedalen

Evidence of success.

Factors that might hamper the transfer:

Transferability depends on procurement legislation. Nevertheless, the Public Procurement European Directive harmonizes the different National approaches to public procurement and, this way is helpful for this GP transfer.

Time required to complete the BP	Less than 1 year
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Contact details to obtain further information on the practice

Contact name	Karin Österberg
e-mail	karin.osterberg@ostersundshem.se
Organization	Östersundshem
Type of Organisation	Municipal housing company
Website	http://www.ostersundshem.se/

GOOD PRACTICE FICHE		Region: Slovenia
Title of the good practice:	CHP Planina - Kranj	
Partner region:	Slovenia	
Location data	City Municipality Kranj	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> ○ Activation of demand and combating energy poverty ○ New financial instruments 		
Description of the practice:		
<p>Planina in Kranj has become in mid-March 2012 its intention to officially handed over completely renovated boiler room, modern way of producing energy, increasing the energy efficiency of existing energy sources and offering cheaper heating for residents of the neighbourhood. Project of complete renovation of the district heating neighbourhoods Planina also included the construction of combined heat and power (CHP) and represents one of the biggest energy projects in the area of Gorenjska and with this new chapter in efficient energy use and energy efficiency in the Gorenjska region.</p> <p>Investor of the project of construction of the CHP, the company was Soenergetika with the cooperation of the Municipality of Kranj and civil initiative, founded the company Elektro Gorenjska (later involved in the project Gorenjska power stations), HSE, Domplan and Petrol. The project was designed on the basis of concern for the protection of the environment, optimizing and increasing the efficiency of energy and the reduction of heating costs residents of the neighbourhood. Its objectives are to provide for more efficient use of energy and end-users boiler enable savings.</p> <p>The project brings environmental and financial benefits</p> <p>The entire renovation project, which included further modernization of thermal stations and optimization of district heating network and the replacement of two boilers, was completed in just over two years since the signing of the contract. This boiler Planina become a modern boiler is fitted with the latest technology from the standpoint of optimal, especially rational production and distribution of heat and its leadership and management. For the overall system of boiler Planina, it was in fact made common central monitoring system, through which guided production of heat and electricity.</p> <p>The value of the total investment amounted to more than 5.8 million €, of which four million earmarked for the construction of CHP. This project is a neighbourhood Planina acquired one of the most modern boiler district heating in the Slovenian area, allowing many operational reliability at significantly lower cost and minimal environmental impact. Renewed boiler residents of the neighbourhood Planina delivers 24 percent lower heating costs, which will be accounted as a discount on annual heating costs of EUR 250.000€ .</p> <p>Placement CHP plants was necessary to conduct a comprehensive renovation of the boiler room and a district heating network. Replacement and installation of boilers to the appropriate location was obtained with adequate space for the installation of CHP units and provided the corresponding parameters of the emissions of combustion on the basis of existing legislation. For the purposes of optimization of losses and placement CHP was also carried out rehabilitation of the district heating system, it was necessary to ensure proper temperature return water. It has also been replaced regulation equipment at the thermal stations for hot water at low and high pressure. A system of remote monitoring and control of implementation tools for the efficient conduct of the district heating system.</p> <p>CHP Planina has the boiler room with two gas engines that produce both electricity and heat. One of the engines has the power of 1 MW and is operating throughout the year and covers the need for hot water, another motor power of 3.3 MW covers peaks and operates only during the heating season.</p>		
Performance indicators linked to the practice		

GOOD PRACTICE FICHE		Region: Slovenia
<ul style="list-style-type: none"> ○ (%) Reduction of annual primary energy consumption in public buildings ○ (%) Reduction of the use of fossil fuels in the building sector 		
Indicators of success linked to the practice: <ul style="list-style-type: none"> ○ Project CHP also has a large environmental impact, as it will cut CO₂ emissions by 12.000 tons per year. ○ The investment in CHP will be repaid in six years (investment more than 5.8 million €, of which four million earmarked for the construction of CHP). ○ -24% heating costs 		
Evidence of success. Technological solutions based on better use of energy gas and the simultaneous production of electricity. The total indicative annual energy output is 21.7 million kWh, which is sufficient to supply 5.400 households own investment in CHP should be the investor repaid in six years.		
Factors that might hamper the transfer: <ul style="list-style-type: none"> ○ Consent of owners, ○ Building permit, ○ Finances. 		
Time required to complete the BP	3 years	
Contact details to obtain further information on the practice		
Contact name	Andrej Krč	
e-mail	andrej.krc@domplan.si	
Organization	Domplan d.d. Kranj Bleiweisova cesta 14, 4000 Kranj Slovenija	
Type of Organisation	Public/private, regional/local government, etc	
Website	http://www.domplan.si/files/dokumenti/energetika/brosure/spte_planina_kr.pdf	
Fiche completed on date:	30.09.2016	

GOOD PRACTICE FICHE		Region: Slovenia
Title of the good practice:	Contractual partnership in the building of Municipality of Kranj	
Partner region:	Slovenia	
Location data	City Municipality Kranj	
Topic of the practice: Thematic coverage <ul style="list-style-type: none"> o New financial instrument 		
Description of the practice: <p>Due to improvements in building of City Municipality of Kranj convenience of the users of the building in winter and summer is increased. Energy demand for heating and cooling was reduced with cogeneration of heat and electricity and also by 30 kWp photovoltaic power plant placed on the roof of the building. Average annual heat demand of previous years amounted to 826 MWh. A comparison was made for the heating season 2012/13 where was taken into account use of heat measured up to and including the month of February 2013. For the remaining months comparison has been based on calculated approximation of previous years. Expectation is that the use of heat at the end of the heating season is around 590 MWh, which represents approximately 29% reduced heat consumption. Installations were renovated and the central control system and soft measures as education of employees were also introduced. As result all of these measures the need for heating was reduced.</p>		
Type of measures	Concessions for the supply of heat and cooling on natural gas from coproduction of heat and electricity, cooling unit, and other use of renewable energy sources Heated area of 6,500 m ² Cooling surface 4,500 m ²	
Start date for the procurement procedure (publication of contract notice)	2011	
Date of contract signature	2011	
Year of installation measures	2012	
Contract duration	2027	
Period of provided guarantees for energy savings	15	
Investment volume (mill. EUR)	1.678.300,00 EUR	
EPC provider	Petrol d.d.	
Implemented measures	Gas boiler, power of 635 kW Central cooling, 250 kW CHP system - 80 kW, heat output - 50 kW Renovation of mechanical installations Air Conditioning meeting halls of power 55 kW Photovoltaic power plant of 30 kWp The central control system	
Financing	Petrol d.d.	
Performance indicators linked to the practice <ul style="list-style-type: none"> o (%) Reduction of annual primary energy consumption in public buildings o (%) Reduction of the use of fossil fuels in the building sector 		

GOOD PRACTICE FICHE		Region: Slovenia
Indicators of success linked to the practice:		
<ul style="list-style-type: none"> ○ Limited own resources for the investment, ○ Increased comfort, ○ Lower energy use, ○ Renewable energy sources. 		
Evidence of success.		
<ul style="list-style-type: none"> ○ 236 MWh reduction in heat consumption. ○ 29% reduced heat consumption. ○ CHP system. 		
Factors that might hamper the transfer:		
<ul style="list-style-type: none"> ○ Local legislation, ○ Investment does not have a positive ROI, ○ Technical complexity. 		
Time required to complete the BP	2 years (counting also the process of gathering energy data, preparing legal documents and tenders)	
Contact details to obtain further information on the practice		
Contact name	Blaža Perpar	
e-mail	blaza.perpar@petrol.si	
Organization	Petrol d.d. Pot na Lisice 7 4260 Bled Slovenia	
Type of Organisation	Public/private, regional/local government, etc	
Website	http://www.eltec-petrol.si/energetsko-upravljanje-objektov/	
Fiche completed on date:	30.09.2016	

GOOD PRACTICE FICHE		Region: Slovenia
Title of the good practice:	Eco Fund, Slovenian Environmental Public Fund	
Partner region:	Slovenia	
Location data	Slovenia	
Topic of the practice: Thematic coverage		
<ul style="list-style-type: none"> ○ Activation of demand and combating energy poverty ○ New financial instruments 		
Description of the practice:		
<p>Eco Fund is a public fund (owned by the state) specialized in providing financial incentives for environmental investments. Established in 1993, following the example of EU member states leading in sustainable development and green technologies, as one of public mechanisms for environmental policy enforcement. Employing ca. 35 people (public employees).</p> <p>Sources of funding:</p> <ul style="list-style-type: none"> • for Eco Fund's administrative costs and Eco Fund's loans: <ul style="list-style-type: none"> ○ Eco Fund's own funds (some funds provided by the state at the time of establishment and later funds as recapitalization; repayments from loans also become own funds of Eco Fund), ○ loans from domestic and international financial institutions. • for Eco Fund's grants: <ul style="list-style-type: none"> ○ the Decree on energy savings requirements (providing funds from energy efficiency contributions paid by end users of energy as part of bills), ○ contract providing budgetary sources from the Climate Change Fund administered by Ministry of Environment and Spatial Planning (funds from emission coupons) . • Earmarked assets fund: 111.8 million € • Reserve fund: 17.2 million € • Total Balance Sheet Assets on December 31, 2015: 246.2 million € 		
Key financial mechanisms		
<ul style="list-style-type: none"> • Soft loans with favourable interest rates (since 1994) • Non-repayable subsidies (grants) (since 2008) • Financing and coordination of Energy Advisory Network (ENSNET) free for households (offices all over Slovenia), • Financing of awareness-raising activities in the field of environmental protection (conferences, meetings, publications, projects of NGOs etc. 		
ECO FUND 2016		
Funds for public calls in 2016 (est.)		
<ul style="list-style-type: none"> • loans: 30 million € • grants: 52,6 million € 		
<p>Focus on: the building sector which has the biggest potential for delivering significant and cost-effective GHG emissions reductions (proven policies, technologies and knowledge already exist on the market); therefore, countries should prioritize the building sector as key to meet their national targets on energy efficiency.</p>		
SOFT LOANS WITH FAVOURABLE INTEREST RATE (3m euribor + 0-1.3 %)		
To households, legal entities and municipalities for various environmental investments:		
<ul style="list-style-type: none"> • air pollution reduction, 		

GOOD PRACTICE FICHE

Region: Slovenia

- efficient use of energy,
- use of renewable energy sources,
- waste management,
- waste water treatment,
- water supply.

NON-REPAYABLE SUBSIDIES (GRANTS)

- to households for energy efficiency and use of renewable sources of energy in residential buildings:
 - solar heating systems,
 - biomass boilers,
 - heat pumps,
 - connection to district heating on renewable energy sources,
 - energy efficient wooden windows,
 - facade insulations,
 - roof insulations,
 - heat recovery ventilations,
 - new nearly-zero-energy buildings (nZEBs),
 - full retrofits,
 - purchases of apartments in nZE multi-residential buildings (full retrofits),
- to households, legal entities and municipalities for electric cars and public transport (energy efficient buses),
- to municipalities for nearly-zero energy public buildings.

Performance indicators linked to the practice

- Number of households with improved energy labelling,
- Number of households with improved energy consumption classification,
- Number of households engaged in support programmes,
- (%) Reduction of annual primary energy consumption in public buildings,
- (kWh) Annual energy savings in households,
- Number of households with improved energy consumption classification,
- (%) Reduction of the use of fossil fuels in the building sector.

Indicators of success linked to the practice

- number of public calls ,
- number of granted loans,
- number of granted non-repayable subsidies,
- Energy savings in GWh per year due to the implementation of energy advices for citizens GWh per year,
- Reduction of greenhouse gas emissions due to the implementation of energy advices for citizens in tCO₂.

Evidence of success

1995 – 2015:

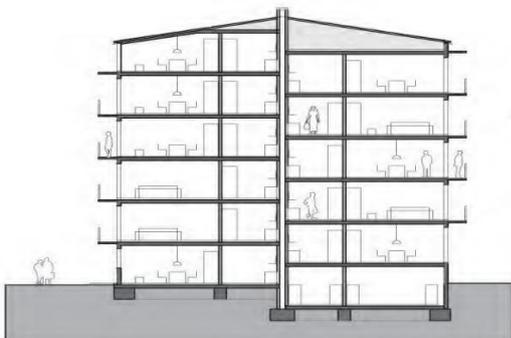
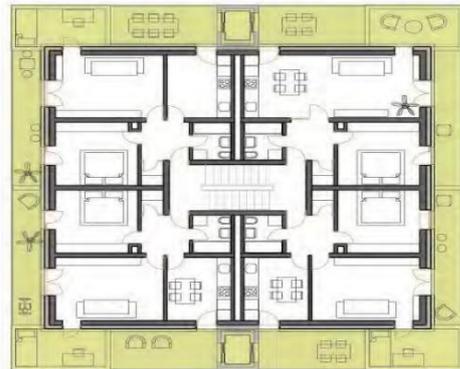
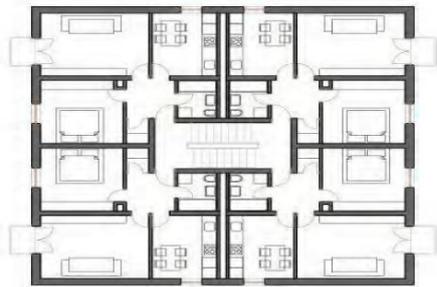
- total of 56 published public calls,
- 17,300 granted loans in the amount of over 451 million EUR,
- 78,400 granted non-repayable subsidies in the amount of over 141 million EUR,
- The majority of applications is from households (which, in Slovenia, are relatively under-indebted and keen investors, especially in buildings).

GOOD PRACTICE FICHE		Region: Slovenia
Factors that might hamper the transfer: <ul style="list-style-type: none"> ○ Energy legislative is different in each country, ○ way of taxation of energy usage is deferent in each country. 		
Time required to complete the BP	2 years (from the start of the process to having employees and office)	
Contact details to obtain further information on the practice		
Contact name	/	
e-mail	ekosklad@ekosklad.si	
Organization	Eko sklad, Slovenski okoljski javni sklad Slovenski okoljski javni sklad Bleiweisova cesta 30 1000 Ljubljana	
Type of Organisation	Public	
Website	www.ekosklad.si/fizicne-osebe/en-svet	
Fiche completed on date:	30.09.2016	

GOOD PRACTICE FICHE		Region: Slovenia																					
Title of the good practice:	ENSVET - Energy Advices for Citizens																						
Partner region:	Slovenia																						
Location data	Slovenia																						
Topic of the practice: Thematic coverage																							
<ul style="list-style-type: none"> ○ Activation of demand and combating energy poverty ○ New financial instruments 																							
Description of the practice:																							
<p>Program for the free energy advice for citizens - Network ENSVET offers individual, free, independent energy consulting and information education and awareness activities for the promotion of energy efficiency measures and renewable energy sources for citizens in the local environment.</p> <p>In offices spread across Slovenia network ENSVET, are employed qualified independent energy advisors. With free tips and interviews assist in the selection, design and implementation of investment measures of energy efficiency and use of renewable energy sources in residential buildings. Advices are increasing energy awareness of citizens, energy savings and reduction of greenhouse gas emissions and thereby are facilitating the implementation of certain measures and programs related to energy policy.</p> <p>ENSVET network is based on the first and third paragraph of Article 352 EA-1, organized by the Eco Fund, together with interested local communities - municipalities. Eco Fund is also the coordinator of the network and manages the operation of the municipal advisory offices network and into the integrated energy consultants.</p> <p>The project ENSVET is systematically combating pollution of the environment, energy poverty and dependency on energy imports. It also increases the quality of life and green jobs. ENSVET is giving advices to the citizens, final customers of energy in the residential sector, and is offering free and commercially independent advices with training services in the field of RES and RUE.</p>																							
Performance indicators linked to the practice																							
<ul style="list-style-type: none"> ○ Number of energy advices: 5003 per year on an average basis. ○ Energy savings in GWh per year due to the implementation of energy advices for citizens: 18.58 million kWh per year on an average basis. ○ Reduction of greenhouse gas emissions due to the implementation of energy advices for citizens in ton CO₂: 4846 per year on an average basis. 																							
Indicators of success linked to the practice:																							
<table border="1"> <thead> <tr> <th>Year</th> <th>Number of advices*</th> <th>Savings (GWh/year)*</th> <th>Emission reduction* (t CO₂/year)</th> </tr> </thead> <tbody> <tr> <td>2012</td> <td>5.867</td> <td>20,16</td> <td>5.257</td> </tr> <tr> <td>2013</td> <td>5.483</td> <td>18,32</td> <td>4.776</td> </tr> <tr> <td>2014</td> <td>4.344</td> <td>18,54</td> <td>4.834</td> </tr> <tr> <td>2015</td> <td>4.321</td> <td>17,33</td> <td>4.517</td> </tr> </tbody> </table>				Year	Number of advices*	Savings (GWh/year)*	Emission reduction* (t CO ₂ /year)	2012	5.867	20,16	5.257	2013	5.483	18,32	4.776	2014	4.344	18,54	4.834	2015	4.321	17,33	4.517
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* Data provided by Eko sklad.																							
Evidence of success.																							
Network ENSVET only in 2015 advised for renovation or new construction of more than 6,000 objects. In the last ten years helped to consult in renovation of 61,000 dwellings in the media published over 2,000																							

GOOD PRACTICE FICHE		Region: Slovenia
articles and radio and TV broadcasts. During this time it also carried about 900 lectures for residents.		
Factors that might hamper the transfer:		
<ul style="list-style-type: none"> ○ Energy legislative is different in each country, ○ Way of taxation of energy usage is deferent in each country. 		
Time required to complete the BP	1 year	
Contact details to obtain further information on the practice		
Contact name	/	
e-mail	ekosklad@ekosklad.si	
Organization	Eko sklad, Slovenski okoljski javni sklad Bleiweisova cesta 30 1000 Ljubljana	
Type of Organisation	Public	
Website	www.ekosklad.si/fizicne-osebe/en-svet	
Fiche completed on date:	30.09.2016	

GOOD PRACTICE FICHE		Region: Slovenia
Title of the good practice:	Complete renovation of apartment buildings - System Dominum	
Partner region:	Slovenia	
Location data	City Municipality Ljubljana	
<p>Topic of the practice: Thematic coverage</p> <ul style="list-style-type: none"> ○ Activation of demand and combating energy poverty, ○ Professionalization of the construction sector, ○ Innovation, ○ New financial instruments. 		
<p>Description of the practice:</p> <p>The idea is to solve problems with of apartment buildings from the 50s and 60s of last century:</p> <ol style="list-style-type: none"> 1. undersized housing, 2. nonperforming housing, 3. seismic (in)security, 4. energy (in)efficient. <p>250,000 people in Slovenia live in apartment blocks built before 1963, when there were no rules to ensure seismic safety of buildings.</p> <p>A little stronger ground tremors would cause social bomb (according to a study in 2009 only in Ljubljana would be damaged about 28,000 buildings), a serious earthquake could cause even a humanitarian disaster.</p> <p>Solution of these problems could be:</p> <ol style="list-style-type: none"> 1. extending the block: an increase in existing housing, 2. increasing the block: the addition of new dwellings. <p>Multi apartment building before renovation:</p> <ul style="list-style-type: none"> • small housing, • without elevator, • earthquake unsecured, • non-insulated façade. <p>Multi apartment building after complete renovation:</p> <ul style="list-style-type: none"> • housings are increased, • flexibility in housing, • elevator, • new installations, • earthquake rehabilitation, • energy rehabilitation. 		



GOOD PRACTICE FICHE		Region: Slovenia
Performance indicators linked to the practice		
<ul style="list-style-type: none"> ○ Number of households with improved energy labelling, ○ Number of households with improved energy consumption classification, ○ (kWh) Annual energy savings in households, ○ Number of households with improved energy consumption classification, ○ (%) Reduction of the use of fossil fuels in the building sector. 		
Indicators of success linked to the practice:		
<ul style="list-style-type: none"> ○ Residential area will increase, ○ Value of housing will increase, ○ Living conditions will improve, ○ Improved energy efficiency. 		
Evidence of success.		
The project is in the process of obtaining permits and approvals residents.		
Factors that might hamper the transfer:		
<ul style="list-style-type: none"> ○ Consent of neighbours, ○ Building permit, ○ Financing. 		
Time required to complete the BP	In progress (2 years by now)	
Contact details to obtain further information on the practice		
Contact name	Tomaž Krištof	
e-mail	office@studiokristof.com	
Organization	Studio Krištof arhitekti d.o.o. Rimska 20 1000 Ljubljana Slovenia	
Type of Organisation	Private	
Website	www.studiokristof.com	
Fiche completed on date:	30.09.2016	

GOOD PRACTICE FICHE		Region: Slovenia
<ul style="list-style-type: none"> total investment 2,5 mio €, Eco fund 420.000 € grants. 		
Performance indicators linked to the practice		
<ul style="list-style-type: none"> (%) Reduction of annual primary energy consumption in public buildings, (%) Reduction of the use of fossil fuels in the building sector. 		
Indicators of success linked to the practice:		
<ul style="list-style-type: none"> Positive net energy production, Achieved energy class. 		
Evidence of success.		
Kindergarten is:		
<ul style="list-style-type: none"> a power plant, energy class B1, what means the use of energy in the range 15 – 25 kWh/m2, 		
Factors that might hamper the transfer:		
<ul style="list-style-type: none"> Ways of financing investment, Energy legislation. 		
Time required to complete the BP	3 years	
Contact details to obtain further information on the practice		
Contact name	Miran Zadnikar (Mayor), Franko Nemac (Consultant on project)	
e-mail	miran.zadnikar@preddvor.si, franko.nemac@ape.si	
Organization	Občina Preddvor Dvorski trg 10 4205 Preddvor	
Type of Organisation	Public, local government	
Website	http://www.jelovica.si/otvoritev-pasivnega-vrtca-v-preddvoru.html https://www.youtube.com/watch?v=C7MsiaDrHAI&feature=youtu.be	
Fiche completed on date:	30.09.2016	

GOOD PRACTICE FICHE	
Title of the good practice:	Deep renovation in Upper Austria
Region:	Upper Austria
Location data	
Topic of the practice: Thematic coverage	
<ul style="list-style-type: none"> o New financial instruments 	
Description of the practice:	
<p>One of the nine federal states in Austria, the state of Upper Austria which borders Germany and the Czech Republic, announced that by 2030 all electricity and space heating will be met by renewable energy sources. It was recognised that in order to achieve this target extensive improvements in energy efficiency were essential. The region passed an Energy Efficiency Strategy in 2004 with the aim to increase energy efficiency by 1% each year, and 1.5% in the public sector until 2010.</p> <p>The O.Oe. Energiesparverband is an energy agency in Upper Austria that promotes energy efficiency, renewable energy and innovative energy technologies. The agency manages a soft loan programme targeted at homeowners. The homeowners receive information on the energy savings potential of their home in an advice session, and an energy performance indicator is then calculated and identified on an energy performance certificate. A soft loan is then given, the size of which is dependent on the energy savings potential of the building.</p> <p>From 1993 to 2007 more than 74,000 homes met the programme requirements and received financial assistance.</p>	
Performance indicators linked to the practice	
<ul style="list-style-type: none"> o Number of households with improved energy labelling o Number of households with improved energy consumption classification o Number of households engaged in support programmes o (kWh) Annual energy savings in households: 350 million kWh/year o Number of households with improved energy consumption classification o (%) Reduction of the use of fossil fuels in the building sector: -19% oil and -3% gas 	
Indicators of success linked to the practice:	
<p>The 74,000 households achieved 350 million kWh / year in energy savings. In 2007 alone this amounted to a CO2 reduction of 147,000 tonnes</p>	
Evidence of success.	
<p>The consumption of fossil oil (-19% between 2005 to 2014) and gas (-3% from the previous year) are decreasing.</p> <p>The specific energy demand (final energy consumption per GDP) has decreased by 26% and the gross inland energy consumption per GRP has dropped by 25%.</p> <p>The energy intensity has decreased by about 25%.</p>	

GOOD PRACTICE FICHE

Factors that might hamper the transfer:

- Poor energy awareness of homeowners
- Lack of public funds to implement the loan
- Lack of policy instrument in place to implement the good practice
- Lack of professionals to give energy advice in the households

Time required to complete the BP

Contact details to obtain further information on the practice

Contact name	
e-mail	office@esv.or.at
Organisation	O.Oe. Energiesparverband
Type of Organisation	Regional government
Website	http://www.energiesparverband.at/startseite.html

GOOD PRACTICE FICHE	
Title of the good practice:	Solar thermal installation- ESCO model
Region:	Catalonia (Spain)
Location data	Catalonia (Spain)
Topic of the practice: Thematic coverage	
<ul style="list-style-type: none"> ✓ Innovation ✓ New financial instruments 	
Description of the practice:	
<p>The project, which has been executed using the Energy Service Company ESCO model, consists of a Solar Thermal Installation in a building with 32 housing units.</p> <p>The ESCO company is in charge of the investment and maintenance of the solar installation, and in exchange, neighbours pay during the following six years the savings this installation will produce.</p> <p>Once the six years have passed, the installation and its savings will be returned to the neighbour community.</p> <p>With this action we can prove that this Community, paying in concept of energy the exact amount as the would pay if the solar thermal installation hadn't been made, will be able to amortise it in six years time with the economical savings generated by the reduction of the fuel consumption (natural gas).</p>	
Performance indicators linked to the practice	
<ul style="list-style-type: none"> ✓ Number of households with improved energy labelling ✓ Number of households with improved energy consumption classification: 32 ✓ Number of households engaged in support programmes: 32 ✓ (kWh) Annual energy savings in households ✓ Number of households with improved energy consumption classification ✓ (%) Reduction of the use of fossil fuels in the building sector: -40% gas 	
Indicators of success linked to the practice:	
<p>During the first year working with the Solar Thermal Installation, gas consumption has been reduced in 40%, comparing with the previous historical consumption, due to the energy production of the solar thermal installation.</p>	
Evidence of success.	
<p>A number of 32 houses are using solar energy to heat water, instead of natural gas. This leads to a CO₂ emissions reduction of 15.236 tons on a yearly basis.</p> <p>This best practice shows how the Energy Service Company (ESCO) models work. It is an evidence of success for commercial or non-profit businesses providing a broad range of energy solutions including designs and implementation of <u>energy savings projects</u>, <u>retrofitting energy conservation</u>, energy infrastructure outsourcing, <u>power generation</u> and <u>energy supply</u>.</p>	
Factors that might hamper the transfer:	

GOOD PRACTICE FICHE	
<ul style="list-style-type: none"> ✓ Poor energy awareness of homeowners ✓ Lack of ESCOs companies 	
Time required to complete the BP	
Contact details to obtain further information on the practice	
Contact name	Xavier Boguña (Gerente)
e-mail	info@solsolar.cat
Organisation	Energía Renovable Solsolar s.l.
Type of Organisation	private
Website	www.solsolar.cat

GOOD PRACTICE FICHE

Title of the good practice: Sustainable Campus- Green University

Region: (Lisbon) Portugal

Location data Universidade de Lisboa

Topic of the practice: Thematic coverage

- ✓ Professionalization of the construction sector
- ✓ New financial instruments

Description of the practice:

This is the largest project of decentralised energy production in the city of Lisbon, and it will allow this institution to attain patterns of energy efficiency and renewable energy use in line with the best practices of reference educational institutions around the world.

This decentralised production of renewable energy is assured by four photovoltaic plants. The installation of the photovoltaic plants also promoted the energetic certification of some of the building in campus.

With this, the University of Lisbon proceeded to energy audits where some improvement measures were identified, that would reduce the energy consumption.

The plants were installed on the roofs of some buildings and also in parking and recreational areas, where they also function as shading structures.

The energy produced will be sold and injected into the grid in its entirety, and the part of the revenue belonging to the University of Lisbon will be applied directly in the implementation of the energy efficiency measures identified in the audits.

These plants only correspond to the first phase of the project. At the end it is expected to have an installed capacity of 2MW. In a next phase of this project it is intended to constitute a laboratory of energy efficiency knowledge, which will become a workspace and idea centre, taking advantage of this privileged location within the University.

The project also includes the construction of a roof garden, populated by various botanical species, which connects two building at the University.

Performance indicators linked to the practice

- ✓ (%) Reduction of annual primary energy consumption in public buildings
- ✓ (%) Reduction of the use of fossil fuels in the building sector
- ✓ (kWh) Annual energy savings in households: +1 million kWh

Indicators of success linked to the practice:

644 kW of Installed power which results in the production of 1.028.480 kWh/year.

Reduction in emissions: 11.662 tons CO₂ during the lifetime of the panels.

The roof garden has benefits ranging from the protection of the buildings, rainwater collection, carbon capture in the plants biomass.

GOOD PRACTICE FICHE

Evidence of success.

The construction of these plants involved the installation of 2.627 photovoltaic panels with an individual unit capacity of 245W, resulting in an installed potency of 644 kW and a connection potency of 556 kW.

Factors that might hamper the transfer:

- ✓ Lack of policy instruments that guarantee the purchase of photovoltaic energy
- ✓ Lack of trained professionals in energy audits
- ✓ Poor awareness on energy issues by University managers

Time required to complete the BP

Contact details to obtain further information on the practice

Contact name	Márcia Vila
e-mail	mvila@ul.pt
Organisation	Universidade de Lisboa
Type of Organisation	Public/private, regional/local government, etc
Website	www.ul.pt

GOOD PRACTICE FICHE

Title of the good practice:	Financing and delivery of energy saving measures
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Region:	Germany
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Location data	Germany
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Topic of the practice: Thematic coverage

- ✓ New financial instruments

Description of the practice:

KfW, Kreditanstalt für Wiederaufbau (Credit Institution for Rehabilitation) is a promotional bank in the Federal Republic of Germany which supports change and encourages forward-looking ideas in Germany, Europe and throughout the world.

The KfW Financing Programmes for energy efficiency support a financial framework for investments targeted especially at residential buildings. The investors are given long term, low interest loans supported with professional, independent advice.

The loans have fixed interest rates ranging over 10 years with repayment starting after two years. The loans can amount up to €75,000. Once successful, the loan applicant has to inform KfW about the use of the funds according to the programme conditions.

This programme has contributed significantly to help meet the climate goals of Germany.

Performance indicators linked to the practice

- ✓ Number of households with improved energy labelling
- ✓ Number of households with improved energy consumption classification
- ✓ Number of households engaged in support programmes
- ✓ (kWh) Annual energy savings in households
- ✓ Number of households with improved energy consumption classification
- ✓ (%) Reduction of the use of fossil fuels in the building sector

Indicators of success linked to the practice:

The loans granted by KfW in 2008 to German entities for the financing of energy efficiency investments in residential buildings added up to 6.343 million Euro. This initiated an annual reduction of greenhouse gas emissions amounting to 837,000 tonnes of CO₂ emissions.

In 2009 the loans given to finance energy efficiency investments in residential buildings amounted to €8,864 million and resulted in annual greenhouse gas emission savings of 1.175.000 ton CO₂ emissions.

In 2010 the loans amounted to 8.746 million Euro and resulted in annual greenhouse gas emission savings of 1.049.000 tonnes of CO₂ emissions.

Further effects were achieved by KfW financing measures for energy efficiency investments in firms and municipalities.

GOOD PRACTICE FICHE

Evidence of success.

In addition to the reduction in CO2 emissions, KfW's financing schemes provides thousands of jobs, mainly in the construction industry.

Factors that might hamper the transfer:

- ✓ Lack of bank credits or policy instruments to finance the energy efficiency measures
- ✓ Lack of trained professionals in the construction sector
- ✓ Poor awareness on energy issues

Time required to complete the BP

Contact details to obtain further information on the practice

Contact name	
e-mail	info@kfw.de
Organisation	KfW (Kreditanstalt für Wiederaufbau)
Type of Organisation	private
Website	https://www.kfw.de/kfw.de.html

GOOD PRACTICE FICHE

Title of the good practice:	Energy efficiency refurbishment in a multi-dwelling residential building in Sofia
Region:	Sofia (Bulgaria)
Location data	Block 10 in the Zakharna Fabrika housing estate in Sofia

Topic of the practice: Thematic coverage

- ✓ Activation of demand and combating energy poverty
- ✓ New financial instruments

Description of the practice:

This practice is based in a project to renovate and carry out maintenance of a multi-dwelling residential building: Block 10 in the Zakharna Fabrika housing estate in Sofia, Bulgaria, for low income families (who cannot afford to pay for renovation). The renovation aimed at reducing the consumption of energy by the residents of the block and to help target the fuel poor in particular.

The project was started and managed by the Bulgarian Housing Association in partnership with the Housing Association De Nieuwe Unie, Rotterdam and the housing Association Woondrecht, Dordrecht (both from the Netherlands) in the framework of the "Sustainable Housing Management in Bulgaria; improving the capacity of homeowners associations of multi-family apartment buildings".

Key target groups in this project are homeowners, homeowner associations of multi-apartment building as well as their associations.

The multi-residential building's roof, basement, windows and external brick walls were in poor condition. The building, dating from 1947 had 13 flats, all of them privately owned.

The residents of the whole housing estate were approached with the idea for the project in September 2003 and were invited to participate in the pilot project. The owners of Block 10 were registered as a legal entity.

An energy audit was carried out before the works started and some monitoring also took place after the works were done. The external walls were insulated, the roof was water proofed and thermally insulated. The basement was also thermally insulated and the heating system was improved by the balancing and insulation of pipes.

The two attic rooms were transformed into small flats. The rent paid by the tenants for these two small flats helped pay for the loan needed for renovation. The renovation was completed by the end of 2004. The project costs were about € 60,000, and it was financed by a loan from a Dutch bank.

The 20 year, monthly payment of the loan totalled €420 - 40% of it is paid for by the rent from the two new flats.

Performance indicators linked to the practice

- ✓ Number of households with improved energy labelling
- ✓ Number of households with improved energy consumption classification
- ✓ Number of households engaged in support programmes
- ✓ (kWh) Annual energy savings in households
- ✓ Number of households with improved energy consumption classification

GOOD PRACTICE FICHE

- ✓ (%) Reduction of the use of fossil fuels in the building sector

Indicators of success linked to the practice:

- The renovation has increased the lifetime of the building and led to energy savings above 50%.
- The residents also have increased comfort.
- The building received a certificate A according to the Bulgarian certification. This certification exempts the residents from paying a building tax for ten years.

Evidence of success.

A range of trainings of homeowners and homeowners associations have been already carried out. New approaches in organising and financing renovation projects have been developed, also contributing to improving the energy efficiency of the buildings.

In November 2005 an International Seminar on sustainable housing management, maintenance and renovation has been held sharing experiences among countries in Central- and Eastern Europe.

In February 2006 a National Round Table with public discussion on the new Draft Condominium Law has been initialised within the framework of the project. One of the major project results is the establishment of the Union of Homeowners Associations in Bulgaria (CAC). CAC has been presented as mission and main objectives on the conclusive dissemination seminar that has been organised in close cooperation with the municipality of Varna.

Factors that might hamper the transfer:

- ✓ Poor energy awareness of homeowners
- ✓ Difficulty to make that all homeowners agree
- ✓ Lack of bank credits or policy instruments to finance the rehabilitation

Time required to complete the BP

Contact details to obtain further information on the practice

Contact name	
e-mail	cac.unionbg@gmail.com
Organisation	Union of Homeowners Associations in Bulgaria (CAC)
Type of Organisation	private
Website	http://www.cac-bg.org/index.php?p=23261

6 Benchmarking Fiches

Benchmarking Fiches are provided by BUILD2LC partners as a consequence of the learning and exchange of common experiences. Based on the effective exchange of Good Practices, partners were asked to identify which practices they are willing to adopt in their region.

A Benchmarking Fiche has been designed in the frame of the project to show the interest of the partner in adopting a specific Good Practice. Hence, partners are required to complete questions about main needs in their region (related to the topic) that the good practice will address, issues that could be improved in the region by adopting the good practice, problems that could arise when adopting or once adopted the good practice or policy instruments in place that could implement the good practice.

AEA from Andalusia region is interested in two good practices:

- On one hand is interested in adopting the extensive experience on renovating public buildings from the the croatian Good Practice *“Reconstructed public buildings in City of Zagreb under the ZagEE project”*, particularly in the Specific parts: Buildings stock database, financial instruments and capacity building. The AEA states that the convergence of dedicated public funding, experience in managing funds, the alignment with the Andalusian policies and Operational Programme outlines and the existence of a Energy Management Network of the Andalusian Regional Government (REDEJA) as the tool designed to promote the principles of energy saving and diversification in the Andalusian Administration would make the adoption process a likely success.
- On the other hand, Andalusia needs to leverage their current public funding sources by the adoption of new financial instruments. Combined with the use of existing incentives program managed by the AAE, they would give an extraordinary boost to the investment amount in sustainable energy initiatives and would very likely encourage the participation of private financing actors. The lithuanian GP called: Innovations in Financial Instruments would fit the Andalusian needs.

As VIPA partner concerns, Lithuania may use:

- Part of *“Warm & Well – Energy Efficiency Advice and Installation Scheme”* experience from UK partner. This practice would be incorporated to respond to the huge pipeline of projects in multi-apartment buildings which needs implementation, but counting with limited funding possibilities.
- Also, Lithuania shows interest for the Croatian Good Practice *“Reconstructed public buildings in City of Zagreb under the ZagEE project”*, although currently there are no local policy instruments which might help to transfer such good practice to Lithuanian public buildings sector.

UK partner, SWEA, has shown interest in adopting four Good Practices:

- In first place, they are also willing to incorporate the Croatian Good Practice “*Reconstructed public buildings in City of Zagreb under the ZagEE project*” as Lithuanians are. UK partner claims that in order to incorporate this Good Practice, some finance could come from local authorities but additional funding will also need to be sought through other avenues.
- Secondly, SWEA partner is interested in another Croatian GP: “*croenergy.eu*” as they see this experience as an interesting opportunity to give greater ownership to local communities.
- In third place, SWEA is willing to adopt the Lithuanian GP called: “*Innovations in Financial Instruments*” and they would like to learn more about how VIPA worked with government on a local and national scale.
- For last, UK also wants to embrace the German GP being proposed by the BUILD2LC Advisory Partner IAT titled: “*Financing and delivery of energy saving measures*”. With this GP, UK partner wants to provide a funding option for households with appropriate payback times and a low payback rate.

The Polish partner, from Podkarpackie region (South Carpaths), shows interest to:

- Adopt the Slovenian GP called “*ENSVET*”, responding among others to the needs for independent energy consulting.
- Also, they would be willing to incorporate the “*Smart Procurement*” GP from Sweden, as a new strategy and approach to the procurement of new construction projects in their region.

The Croatian partner RGEA, highlights two Lithuanian practices:

- On the one hand, the GP entitled “*Innovations in Financial Instruments*”, due to the fact that currently in Croatia there are no revolving financial mechanisms for energy renovation of either private or public buildings causing the ESI funds to be depleted in short time and not used in a sustainable way.
- RGEA is interested as well in the “*Carrot & Stick Game in Multiapartment Building Modernisation*” to respond to the fact that existing renovation schemes in Croatia are turning the apartment owners into borrowers (possibly) against their will, which is a huge issue at the moment.

The Swedish partner, RJH, would like to incorporate in the Jämtland Härjedalen region:

- The “*croenergy.eu*” practice, focused on a specialized crowdfunding platform for financing projects in the field of energy efficiency, renewable energy sources and environmental protection.
- As well, RJH needs a new financial instrument where the money from the Operational Programme for investments for jobs and growth is levered with EIB funds and commercial banks to respond to the need of stimulating energy savings investments due to the rural nature of the region. This is likely to be addressed by a capitalization activity from another on-going Interreg project: FINERPOL¹² from which AEA is interested as well.

¹² FINERPOL fiches are not provided yet since the interchange is pending in more advanced project stages

Partner from Slovenia, LGEAG, is interested in:

- *Quality in multi-apartment building modernization*, practice in place in Lithuania, responding to the need of restoration of private multi apartment buildings in Slovenian municipalities that are of wider public interest.
- Also, the “*croenergy.eu*” practice is highlighted by Slovenian LEAG, stating that this model is very suitable to implement in Slovenia, because Slovenia and Croatia have similar laws.

Hence we present the compilation of Benchmarking Fiches showing the interest of partners to embody the already identified Good Practices for the topic ‘New Financial Instrument’.

BENCHMARKING FICHES FOR ‘NEW FINANCIAL INSTRUMENTS’										
	Warm & Well (SWEA)	ZagEE (RGEA)	croenergy (RGEA)	Innovation FIs (VIPA)	Carrot & Stick (VIPA)	Quality MARB (VIPA)	Finance & Delivery (IAT)	ENSJET (LEAG)	Smart Procurement (RJH)	Capitalization (FINERPOL)
SPAIN		X		X						X
LITHUANIA	X	X								
UK		X	X	X			X			
POLAND								X	X	
CROATIA				X	X					
SWEDEN			X							X
SLOVENIA			X			X				

BENCHMARKING FICHE Region: Andalusia	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Reconstructed public buildings in City of Zagreb under the ZagEE project	
Specific parts: Buildings stock database, financial instruments, capacity building	
Main needs to respond to:	
<p>The existing public building stock of the Regional Administration of Andalusia (Junta de Andalucía) consists of around 4.800 buildings including hospitals, primary and secondary education schools, universities, retirement homes, sport facilities, general office buildings, etc. Only a tiny fraction of them are considered to be energy-efficient. It is noticeable the high potential for energy and economic savings that could be obtained in different public centres, in many cases over 40%.</p> <p>The exemplary role of the public sector towards the development of future energy sustainable buildings is fundamental. In the context of transforming the public sector, public buildings renovation plays an important role. Most Andalusian public buildings are +30 years-older and, therefore, they are not harmonized with recent energy directives. They possess a high energy-saving potential which can be achieved through the implementation of technical solutions. Also, the efficiency of public services depends on workers' productivity which is directly affected by indoor comfort and air quality conditions.</p> <p>For this reason, in 2007 was created <i>The Energy Management Network of the Andalusian Regional Government (REDEJA)</i>¹³ as the tool designed to promote the principles of energy saving and diversification in the Andalusian Administration, as well as implement renewable energies in their buildings. REDEJA, integrated into the Andalusian Energy Agency (AAE), manages the energy consumption of up to 62 regional public bodies, including the regional ministries and other 49 public entities. As a result, REDEJA conducted and accomplished several energy optimisation programs. However, and after ten years, the retrofitting and energy rehabilitation rate in Andalusian public buildings is still very low due to several existing barriers and, therefore, needs to be accelerated.</p> <p>One of these barriers is the low collaboration power between public bodies, a key requirement that was fulfilled successfully by ZagEE and from which we can learn how. In addition, it is clear that the REDEJA optimisation and retrofitting projects are extremely dependant on public financing and lump sums subsidies. Most of them reach at least 80% ERDF co-financing, coming the rest of the investment budget from regional or national public sources. The private financing rate in these initiatives is simply zero, and there are nor ESCos involved neither a similar formula of energy securitization to manage the potential energy savings profits. No mention the use of financial vehicles to leverage the available public funds, totally absent. ZagEE tortuous financial path along the project life will help us to identify the different available choices. More innovative methods need to be explored. Therefore, we need to:</p> <ul style="list-style-type: none"> • To set a rigorous regional plan of public buildings rehabilitation and retrofitting that involves all the needed public bodies collaboration and estimates the financial requirements and needs to boost our current rehabilitation rate. • To provide funding mechanisms which target the public sector. If we follow a similar project to ZagEE then any saving made could be directly managed by a third party and the financial burden could be securitized. • To increase the leverage of the existing public financing, either European either regional or national using financial vehicles. Up to now the leverage level is null. 	
Main objective to transfer the good practice to your region:	

¹³ More info: <https://www.agenciaandaluzadelaenergia.es/en/redeja>

BENCHMARKING FICHE Region: Andalusia

TOPIC: NEW FINANCIAL INSTRUMENTS

The ZagEE initiative was explained by our Croatian colleagues during the good practices exchange meeting in Zagreb, September 2016, where it raised a high interest on us. Andalusia, as the lead partner, detected among the rest of the partnership that ZagEE is very popular too, so we expect to have multi-lateral meeting in this case.

We would like to find out more about:

- Their experience with different and innovative financial mechanisms and how these worked alongside existing structures and mechanisms for the retrofitting of public buildings
- The application process to ELENA programme to cover technical spending.
- How the project was planned and developed.
- The development of the buildings stock register and the update of the energy audits.
- How the stakeholders were engaged, particularly how the public bodies were animated, enrolled or enforced to collaborate with each other.
- What were the challenges and how were these overcome?
- The capacity building for facility managers to develop and apply management and learning tools in order to improve energy management of newly renovated buildings.

Factors that might hamper the transfer:

- Funding sources and availability
- Engagement of stakeholders, particularly public bodies
- Complexity of technical preparation

Policy instrument:

The sustainable construction sector is one of the priorities of Smart Specialization Strategy (S3) of Andalusia. Its strategy in this field passes through the redefinition of sustainable construction in terms of energy rehabilitation of buildings, the physical, social, economical and environmental recovery of urban environments, the reuse of consolidated urban lands and the rehabilitation of cities. The opportunities are based on the development of new designs and materials for construction and the sustainable processes.

AAE has managed the public incentive programme of the Regional Government, *Andalucía A+*. Specifically, in the buildings sector, AAE launched in 2014 a *Programme to Promote Sustainable Construction*, an initiative which is a finalist in the Regio Stars Award 2015, and also has also coordinated a *Plan for Sustainable Construction, Horizon 2020 for the Regional Government*.

*** REDEJA is perfectly suitable to adopt this good practice**

First REDEJA's tasks were related to the specific, coordinated and effective management of the energy billing of the Andalusian Regional Government, which was highly fragmented and in many cases unknown. The optimisation of energy supply contracts¹⁴ and the unified management of the energy service allow for economies of larger scale and a greater efficiency in the coordination of the management of the supplies lowering this way the billing costs, though it does not help to save energy.

In addition, REDEJA works on public buildings energy audits¹⁵ in order to identify energy saving and efficiency measures and the possibility of implementing the use of renewable energy

¹⁴ More info <https://www.agenciaandaluzadelaenergia.es/en/redeja/services-offered-redeja/optimisation-energy-supply-contracts>

¹⁵ More info: <https://www.agenciaandaluzadelaenergia.es/en/redeja/services-offered-redeja/realisation-sectorial-studies-and-energy-audits>

BENCHMARKING FICHE Region: Andalusia

TOPIC: NEW FINANCIAL INSTRUMENTS

technologies. It offers advising¹⁶ to the adhered public entities in the contracting of energy supplies and the investments to be undertaken as a result of the audits, as well as in new construction projects to obtain the highest energy rating. For this reason, REDEJA also has a training line¹⁷ targeted to the public buildings energy and maintenance managers, aimed to reducing energy demand, the search for a greater rationality in the contracts and in the applicability and use of renewable energy technologies.

Regarding specific REDEJA retrofitting projects, we highlight:

* **Agreement between the Budget and Public Administration Regional Ministry and the Economy, Innovation, Science and Employment Regional Ministry** (holding the Andalusian Energy Agency as Technical Secretariat) to conduct the energy rehabilitation of three different administrative buildings⁶. Based on a 6,2 million Euros budget, coming totally from public authorities and with a +80% ERDF contribution, +428 toe and 357k€ are saved per year.

* **Agreement between the Andalusian Energy Agency and the Andalusian Health Service (Regional Public Health System)**¹⁸

Energy consumption to maintain the quality requirements in a hospital is very high, both to achieve the thermal levels that are needed in each area, as well as to guarantee the electricity supply necessary for the development of the different activities carried out 24 hours a day, 365 days a year. It is for this reason a few well-designed systems, with efficient technologies and a correct maintenance, are essential to ensure the service without increasing the energy bill of the centre.

It carries out energy saving and efficiency actions and the deployment of renewable energy sources in 14 public hospitals as:

- **Fuel shift from diesel to natural gas** in the boilers to produce hot water more efficiently and with lesser emissions, as well as the replacement of heating and air conditioning equipment of low performance by other more efficient systems.
- **Generation of power and heat of high performance**, covering up to 60% of the hot water, heating and cooling needs.
- **Renewable energy** for the production of hot water through solar thermal installations and use of biomass.

From 20.1 million Euros invested, 17.9 million comes from the Andalusian Energy Agency, most of them ERDF funding, and the remaining 2.2 million Euros were allocated by the Andalusian Health Service. 20 energy audits were previously conducted and estimated a total energy demand of 45.000 toe. The initiative saves 700 toe per year (1.570 ton CO₂) and 3.2 million Euros (simple pay-back period less than 7 years).

Existing financing funds:

The main finance policy instrument addressed is the **Andalusian Operational Programme for investments for jobs and growth, 2014 – 2020**, a Structural Funds operational programme (Objective T.O. 4. Priority Line 4.c: Support the Energy efficiency and use of renewable Energy in public infrastructure, including public buildings and housing to improve energy efficiency and increase the use of renewable energy for electricity production and thermal uses in buildings) whose objective is to improve energy efficiency and increase the use of renewable energy for electricity production and thermal uses in buildings. Regarding the public field, this programme is allowed to

¹⁶ More info: <https://www.agenciaandaluzadelaenergia.es/en/redeja/services-offered-redeja/advice-entities>

¹⁷ <https://www.agenciaandaluzadelaenergia.es/en/redeja/services-offered-redeja/training>

¹⁸ <https://www.agenciaandaluzadelaenergia.es/en/redeja/specific-projects/agreement-andalusian-health-service>

BENCHMARKING FICHE Region: Andalusia

TOPIC: NEW FINANCIAL INSTRUMENTS

fund:

- a) investments in public buildings of the Andalusian Regional Government and municipalities, prior audit and subsequent monitorization;
- b) high quality energy audits.

In full collaboration with the managing authority of the Operational Programme, AEA will be responsible for the management of funds for energy in the new framework 2014-2020, including among its activities the definition of the regulatory bases of the support programmes, the selection of the projects, and the verification and follow-up. Equally, AEA is also actively involved in national ERDF monitoring committees, contributing to the adaptation and monitoring of the ERDF OP Andalusia for AEA.

AAE has managed the public incentive programme of the Regional Government, *Andalucía A+*. Specifically, in the buildings sector, AAE launched in 2014 a *Programme to Promote Sustainable Construction*. The incentive model used at present in Andalusia has been based on incentives aimed at stimulating the demand of energy projects. However, the new framework requires a reorientation of the previous model that together with energy saving and the reduction of emissions, allows better exploiting the opportunities of employment generation associated with energy rehabilitation and, this way, to obtain a greater leverage of public funding. This might be achieved by introducing new financing instrument that facilitate the development of energy efficiency projects, besides other additional measures.

Relevant stakeholders:

- **Andalusian Energy Agency** – to plan and coordinate and promote the objectives established. Collaboration with public administration in the design of planes and programmes and management of energy incentives.
- **The Energy Management Network of the Andalusian Regional Government (REDEJA)**
- **Directorate General of European Funds** - Operational Programme managing authority.
- **Andalusian Regional Government** – decision-making body.
- **The General Administration of Andalusia and other public bodies** – holding the potentially target public buildings.

Main beneficiaries:

- **Communities and taxpayers** – Savings made by the public sector are direct benefits for them.
- **The General Administration of Andalusia and other public bodies**– Improved building stock; financial savings which can be redirected into communities.
- **Public workers and citizen users** - will enjoy the benefits of an increased comfort and better cooling and heating conditions.
- **Businesses** – Dinamization of the sustainable building sector.

Further information:

We are interested to work with REGEA for a bi-lateral meeting to get more information.

BENCHMARKING FICHE Region: Andalusia	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Innovation in Financial Instruments	
Main needs to respond to:	
<p>The Andalusian Energy Agency (AAE) has been long managed public incentives schemes based largely on subsidies and lump sums incentives to support sustainable energy initiatives as thermal renewable energy, renewable energies at buildings, energy saving and efficiency, smart mobility, etc. Specifically, in the buildings sector, AAE launched in 2014 a <i>Programme to Promote Sustainable Construction</i> which has been really successful, granted in 2015 with the Regio Star award.</p> <p>The incentive models used so far in Andalusia has been based on lump sums incentives aimed at stimulating the demand of energy projects, with zero leverage. However, the new framework requires a reorientation of the previous model that together with energy saving and the reduction of emissions, allows better exploiting the opportunities of employment generation associated with energy rehabilitation and, this way, to obtain a greater leverage of public funding. This might be achieved by introducing new financing instrument that facilitate the development of energy efficiency projects based on leasing entities, besides other additional measures.</p> <p>We need sustainable funding mechanisms, easy to understand by citizens, the installation industry and the financial entities. A new financial instrument, combined with the use of existing incentives program managed by the AAE to support and “refresh” the financial burden of these innovative financial vehicles, would give an extraordinary boost to the investment amount in sustainable energy initiatives and would very likely encourage the participation of private financing actors.</p>	
Main objective to transfer the good practice to your region:	
<p>We learnt a lot from our Lithuanian partners during the meeting in Vilnius in January. We are interested in learning more from our Lithuanian partners about:</p> <ul style="list-style-type: none"> • How they engaged the financial institutions. • What preparations were made in advance to establish the financial vehicles. • How the financial instrument could work alongside other incentives or policies. • How VIPA and Lithuania overcame challenges. • To increase the leverage of the existing public financing, either European either regional or national using financial vehicles. Up to now the leverage level is null. • To study the adoption of non-standard and ad-hoc financial instruments. • To know better how the securitization model to attract financing is being developed in Lithuania to renovate multi-apartment buildings. If we follow a similar model then any saving made could be directly managed by a third party, as ESCos or financial institutions, mutual funds, etc, and the financial burden could be securitized. 	
Factors that might hamper the transfer:	
<ul style="list-style-type: none"> • Difficult behavioural citizens transition from lump-sum and subsidy culture to financial vehicles usage. Small market players are not familiar with. • Little trust from citizens to get indebted through innovative financial instruments to renovate the buildings. • The need of highly qualified employees to develop innovative instruments. • Some innovations generate high initial costs, (although relatively low compared to the attracted amounts). 	
Policy instrument:	
<p>The sustainable construction sector is one of the priorities of Smart Specialization Strategy (S3) of Andalusia. Its strategy in this field passes through the redefinition of sustainable construction in</p>	

BENCHMARKING FICHE Region: Andalusia

TOPIC: NEW FINANCIAL INSTRUMENTS

terms of energy rehabilitation of buildings, the physical, social, economical and environmental recovery of urban environments, the reuse of consolidated urban lands and the rehabilitation of cities. The opportunities are based on the development of new designs and materials for construction and the sustainable processes.

AAE has managed the public incentive programme of the Regional Government, *Andalucía A+*. Specifically, in the buildings sector, AAE launched in 2014 a *Programme to Promote Sustainable Construction*, an initiative which is a finalist in the Regio Stars Award 2015, and also has also coordinated a *Plan for Sustainable Construction, Horizon 2020 for the Regional Government*.

Existing financing funds:

The main finance policy instrument addressed is the **Andalusian Operational Programme for investments for jobs and growth, 2014 – 2020**, a Structural Funds operational programme (Objective T.O. 4. Priority Line 4.c: Support the Energy efficiency and use of renewable Energy in public infrastructure, including public buildings and housing to improve energy efficiency and increase the use of renewable energy for electricity production and thermal uses in buildings) whose objective is to improve energy efficiency and increase the use of renewable energy for electricity production and thermal uses in buildings. In the private field:

- a) incentives for the energy rehabilitation of buildings (residential and tertiary), prior energy audit and subsequent monitorisation;
- b) support for initiatives of business development associated to energy services.

In the public field:

- a) investments in public buildings of the Andalusian Regional Government and municipalities, prior audit and subsequent monitorisation;
- b) high quality energy audits.

In full collaboration with the managing authority of the Operational Programme, AEA will be responsible for the management of funds for energy in the new framework 2014-2020, including among its activities the definition of the regulatory bases of the support programmes, the selection of the projects, and the verification and follow-up. Equally, AEA is also actively involved in national ERDF monitoring committees, contributing to the adaptation and monitoring of the ERDF OP Andalusia for AEA.

AAE has managed the public incentive programme of the Regional Government, *Andalucía A+*. Specifically, in the buildings sector, AAE launched in 2014 a ***Programme to Promote Sustainable Construction***. The incentive model used at present in Andalusia has been based on incentives aimed at stimulating the demand of energy projects. However, the new framework requires a reorientation of the previous model that together with energy saving and the reduction of emissions, allows better exploiting the opportunities of employment generation associated with energy rehabilitation and, this way, to obtain a greater leverage of public funding. This might be achieved by introducing innovating financing instruments.

Relevant stakeholders:

- **Andalusian Energy Agency (AAE)** – public entity that manages the public incentives and subsidies for sustainable energy programmes. Also to engage stakeholders and provide some additional funding.
- **Andalusian Innovation and Development Agency (IDEA)** – public agency with extensive expertise in designing and managing financial instruments to boost investment in Andalusia, would provide advice about financial mechanisms or even supporting a scheme.
- **Business associations, professional clusters and ESCos** – targeted to collaborate in the definition and design of the financial vehicles
- **Private banking** – open to discussing proposals for financial mechanisms.
-

BENCHMARKING FICHE Region: Andalusia

TOPIC: NEW FINANCIAL INSTRUMENTS

Main beneficiaries:

- **Regional government** – Boost to the sustainable construction and energy policies and targets.
- **Landlords, either citizens, companies, civil society** – Able to renovate their buildings with little upfront costs and enjoying long term financial gains.
- **Businesses** – Dinamization of the sustainable building sector.
- **Financial sector** – entering a virgin and promising sector counting on public sector co-funding

Further information:

We would be interested to work with VIPA for a bi-lateral meeting to get some more information before planning.

BENCHMARKING FICHE Region: Lithuania	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Warm & Well	
Lithuania may use part of experience in adopting Energy Efficiency Advice and Installation Scheme.	
Main needs to respond to:	
In Lithuania there is a huge pipeline of projects in multi-apartment buildings which needs implementation, but there are limited funding possibilities. The funding obligated parties might provide a significant proportion of capital funding.	
Main objective to transfer the good practice to your region:	
The new financing sources and financial instruments schemes are needed to target this challenge. This experience might be further expanded to other sectors (public buildings modernisation, street lighting modernisation, etc.). With experience of Energy Company Obligation scheme there is possibility to cover part of the funding gap.	
Factors that might hamper the transfer:	
Resistance from obligated parties Mistakes in financial instruments schemes design and process implementation Some amendments to the legal system might be needed	
Policy instrument:	
Recently, in the of 2016 Lithuanian parliament adopted the law on energy efficiency which included targeted obligations for energy companies.	
Existing financing funds:	
Public Investment Development Agency (VIPA) is managing Apartment building modernisation fund, which is providing loans to buildings modernisation projects. VIPA might be interesting in developing scheme and expanding current activities and implementing good practice in the region.	
Relevant stakeholders:	
Ministry of energy – initiator of Obligation system in Lithuania, responsible for energy efficiency results. Ministry might be helpful in facilitating legal changes required for FI scheme implementation. Ministry of environment – project pipeline development facilitator. Obligated parties - capital funding of works Lending parties – financial institutions or other parties willing to lend for the scheme	
Main beneficiaries:	
The final beneficiaries are parties implementing energy efficiency projects. It is planned, that in the first phase it will be multi-apartment buildings owners.	
Further information:	
Lithuania needs more information about experience in adopting Energy Company Obligation scheme from UK partners as well as other countries representatives in EU which adopted similar law. Bilateral meeting might be the best option of sharing such experience.	

BENCHMARKING FICHE Region: Lithuania	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Reconstructed public buildings in City of Zagreb under the ZagEE project	
Main needs to respond to:	
In last programming period of 2007-2013 public building were renovating using subsidies schemes. Current programming period it was decided to use FI's. Project owners are not active in developing projects and usually lack of funding for technical documentation development.	
Main objective to transfer the good practice to your region:	
The new PDA facility for development of concrete energy renovation plans for public buildings might spark necessary developments in this area. Technical assistance might foster project pipeline development and energy efficiency project in public sector.	
Factors that might hamper the transfer:	
Project owners are still willing to receive subsidies, therefore its necessary to educate and help them with project development. There is no funding sources foreseen for PDA facility The quality problems might jeopardise PDA facility	
Policy instrument:	
Currently there are no local policy instruments which might help to transfer such good practice to Lithuanian public buildings sector.	
Existing financing funds:	
Currently no funds are foreseen for PDA facility for public buildings sector.	
Relevant stakeholders:	
Ministry of energy – responsible for central government owned public buildings renovation. Ministry of environment – responsible for municipalities public buildings renovation. BETA – technical assistance facility targeting multi-apartment buildings, owned my ministry of environment. Technical and financial consultants - willing to provide technical advises and help to prepare technical and financial documentation	
Main beneficiaries:	
Central government and municipalities buildings owners and users.	
Further information:	
Lithuania need more information about experience in adopting such good practice. Bilateral meeting might be the best option of sharing such experience.	

BENCHMARKING FICHE Region: Gloucestershire	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Reconstructed public buildings in City of Zagreb under the ZagEE project	
Main needs to respond to:	
<p>The UK had a national financial support scheme for retrofit known as the 'Green Deal'. This offered a loan for people to be able to retrofit appropriate installations. The rate of interest attached to this loan was in the order of 7%. At a time where it is possible to secure mortgages against properties at a far lower rate, the level of take up of Green Deal was exceptionally low. As such the scheme never became truly established.</p> <p>The Green Deal loan scheme was a good idea in principle but was poorly planned hence the government stopped supporting the finance company in July 2015 and no new Green Deal loans are currently granted. According to Which? (2017) 'the scheme saved only negligible amounts of CO₂ and households did not see these loans as an attractive proposition.' Therefore its success was very limited. Some areas have tried to arrange their own localised schemes but again with relatively high interest rates required to facilitate administration, the uptake is relatively low.</p> <p>The Green Deal, combined with the national use of financial incentives to support those in fuel poverty to pay their bills (reducing the desire to retrofit properties), high interest rates for locally offered retrofit loans compared to low mortgage rates, alongside uncertainty regarding grant funding, means that more innovative methods need to be explored.</p> <p>We need to provide funding mechanisms which either target the domestic sector or the public sector. If we follow a similar project to ZagEE with the public sector then any saving made could be directed back into supporting the population.</p>	
Main objective to transfer the good practice to your region:	
<p>We learnt a lot from our Croatian partners when they presented at the meeting in Lithuania. However, we would like to find out more about:</p> <p>We would like to find out more about:</p> <ul style="list-style-type: none"> ○ Their experience with different financial mechanisms and how these worked alongside existing structures and mechanisms ○ How the project was planned and developed ○ How stakeholders were engaged, successes and learning points ○ What were the challenges and how were these overcome? 	
Factors that might hamper the transfer:	
<ul style="list-style-type: none"> ○ Funding ○ Engagement of stakeholders ○ Political uncertainty ○ Managing any retrofit alongside daily work 	
Policy instrument:	
<ul style="list-style-type: none"> ○ Work has already been completed with some public buildings including the Save@Work scheme which focuses on behavioural change. ○ Existing and previous projects have worked with businesses hence skills and experience could be applied to public buildings. 	
Existing financing funds:	
<p>Some finance could come from local authorities but additional funding will also need to be sought through other avenues.</p>	

BENCHMARKING FICHE Region: Gloucestershire	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Relevant stakeholders:	
<ul style="list-style-type: none"> ○ Severn Wye Energy Agency – working with other stakeholders to plan, implement and oversee any mechanisms introduced. ○ County Council and Local Authorities – Potential focus for building retrofit ○ NHS – Potential focus for building retrofit 	
Main beneficiaries:	
<ul style="list-style-type: none"> ○ Communities – Savings made by the public sector could be diverted into communities to improve health and well-being ○ Local authorities and the County Council or NHS – Improved building stock; financial savings which can be redirected into communities. ○ Businesses – provides work for local construction and installation businesses. 	
Further information:	
<p>We would be interested to work with REGEA for a bi-lateral meeting to get more information. We would also be interested in their CROENERGY.EU project.</p>	

BENCHMARKING FICHE Region: Gloucestershire	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
croenergy.eu	
Main needs to respond to:	
<p>The UK had a national financial support scheme for retrofit known as the 'Green Deal'. This offered a loan for people to be able to retrofit appropriate installations. The rate of interest attached to this loan was in the order of 7%. At a time where it is possible to secure mortgages against properties at a far lower rate, the level of take up of Green Deal was exceptionally low. As such, the scheme never became truly established.</p> <p>The Green Deal loan scheme was a good idea in principle but was poorly planned hence the government stopped supporting the finance company in July 2015 and no new Green Deal loans are currently granted. According to Which? (2017) 'the scheme saved only negligible amounts of CO₂ and households did not see these loans as an attractive proposition.' Therefore its success was very limited. Some local authorities have tried to arrange their own localised schemes but again, with relatively high interest rates required to facilitate administration, the uptake is relatively low.</p> <p>The Green Deal, combined with the national use of financial incentives to support those in fuel poverty to pay their bills (reducing the desire to retrofit properties), high interest rates for locally offered retrofit loans compared to low mortgage rates, alongside uncertainty regarding grant funding, means that more innovative methods need to be explored.</p> <p>We need to provide funding mechanisms which are innovative, sustainable, engender the trust of residents, the installation industry, and lenders. New mechanisms need to be able to work independently of central government and work within the region; the crowd-funding idea may work alongside other mechanisms.</p>	
Main objective to transfer the good practice to your region:	
<p>We are exploring different financial mechanisms and may use more than one mechanism, aiming to target each one appropriately. We would like any financial mechanism developed to eventually be self-sustaining and low cost. The mechanism needs to engender trust, ideally enable fuel poor homes to get cost-free retrofit, and the mechanism needs to work alongside other national programmes. CROENERGY.EU is an interesting opportunity as it has the potential to give greater ownership to local communities.</p> <p>We would like to find out more about:</p> <ul style="list-style-type: none"> • The scale of the CROENERGY.EU project • The engagement of stakeholders and marketing campaign • Types of projects engaging with the website • Costs and income • Differences to other crowdfunding platforms • Strengths, weaknesses and lessons learnt • Ongoing management • Ability to operate on a regional scale • Legal issues which should be checked in the UK • Time scales 	
Factors that might hamper the transfer:	
<ul style="list-style-type: none"> ○ Any mechanism needs to work on a regional scale and work alongside central government activities ○ Potential legal issues with crowd-funding ○ Cost to establish and maintain the site ○ Engagement of stakeholders (members of the community and those supporting the site) 	

BENCHMARKING FICHE Region: Gloucestershire	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
<ul style="list-style-type: none"> ○ Ability to raise sufficient funds for projects 	
Policy instrument:	
<ul style="list-style-type: none"> ○ A range of crowd-funding sites already exist. We would need to explore whether a project in this field could connect with an existing platform. ○ The Cynefin project in Wales is community based and could be an avenue for this project. ○ One or more local authorities may be interested in supporting a specific project in their area. 	
Existing financing funds:	
<p>There is potential funding from the Clinical Commissioning Group to support work if it links closely with their priorities, however this project may not be sufficiently linked. Local Authorities may make a contribution, particularly to match funding or run the site. It is expected that grant money would need to be sought to establish the site, possibly funds such as the Lloyds Bank Community Fund, depending on start-up costs. We would also explore grants available for technological developments. It is crucial that the financial instrument created becomes self-sustaining.</p>	
Relevant stakeholders:	
<ul style="list-style-type: none"> ○ Severn Wye Energy Agency – working with other stakeholders to plan, implement and oversee and financial mechanisms introduced. ○ SWIG Finance – providing advice about financial mechanisms on the Steering Group and potentially supporting a scheme. ○ Lloyds Bank – runs a Community Fund and open to discussing proposals for financial mechanisms targeted at social housing providers, larger landlords or manufacturers. ○ Welsh government – a potential funding stream if the project was established within Wales. ○ County Council and Local Authorities – potential to engage stakeholders, manage financial instruments; develop mechanisms and providing some additional funding. ○ NHS Clinical Commissioning Group – Much of the drive to improve housing quality and associated well-being is coming through the need for preventative care. The CCG is a potential source of some funding to establish mechanisms and their influence in far-reaching. There is investment in ‘culture’ as a way to support well-being. 	
Main beneficiaries:	
<ul style="list-style-type: none"> ○ Communities – either via lower bills, better quality of life, less illness or through improved performance of local buildings and greater social and community engagement. ○ Local authorities and the County Council – Improvement in health and well-being; improved standard of buildings with the area. ○ Businesses – provides work for local construction and installation businesses. 	
Further information:	
<p>We would be interested to work with REGEA for a bi-lateral meeting to get more information. We would also be interested in their ZagEE project.</p>	

BENCHMARKING FICHE Region: Gloucestershire	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Innovation in Financial Instruments	
Main needs to respond to:	
<p>The UK had a national financial support scheme for retrofit known as the ‘Green Deal’. This offered a loan for people to be able to retrofit appropriate installations. The rate of interest attached to this loan was in the order of 7%. At a time where it is possible to secure mortgages against properties at a far lower rate, the level of take up of Green Deal was exceptionally low. As such the scheme never became truly established.</p> <p>The Green Deal loan scheme was a good idea in principle but was poorly planned hence the government stopped supporting the finance company in July 2015 and no new Green Deal loans are currently granted. According to Which? (2017) ‘the scheme saved only negligible amounts of CO₂ and households did not see these loans as an attractive proposition.’ Therefore its success was very limited. Some areas have tried to arrange their own localised schemes but again with relatively high interest rates required to facilitate administration, the uptake is relatively low.</p> <p>The Green Deal, combined with the national use of financial incentives to support those in fuel poverty to pay their bills (reducing the desire to retrofit properties), high interest rates for locally offered retrofit loans compared to low mortgage rates, alongside uncertainty regarding grant funding, means that more innovative methods need to be explored.</p> <p>We need to provide funding mechanisms which are sustainable, engender the trust of residents, the installation industry and lenders. These mechanisms need to be able to work independently of central government and work within the region.</p>	
Main objective to transfer the good practice to your region:	
<p>We learnt a lot from our Lithuanian partners during the meeting in Vilnius in January. We are interested in learning more from our Lithuanian partners about:</p> <ul style="list-style-type: none"> ○ How they engaged stakeholders and financial institutions ○ What preparations were made in advance to establish the mechanism ○ How VIPA worked with government on a local and national scale ○ How the financial instrument works alongside other mechanisms and policies ○ How VIPA and Lithuania overcame challenges 	
Factors that might hamper the transfer:	
<ul style="list-style-type: none"> ○ Any mechanism needs to work on a regional scale and work alongside central government activities. ○ We are undergoing a period of political change and we are currently unsure what government will choose to do regarding energy policy in light of the UK’s withdrawal from the EU. ○ Mortgage rates are very low hence any mechanism needs to account for other loan options. ○ Many of the homes in fuel poverty are isolated and ‘hard-to-treat’ so adaptations will need to be made to account for this. ○ There is little trust in the incentives already offered so stakeholder engagement will be important. ○ Financial institutions are not keen to lend directly to householders and so alternative avenues need to be explored. For example, providing mechanisms to help manufacturers or installers to reduce costs, brokering deals between financial organisations and social or private landlords. ○ The accountability of landlords is gradually increasing but will take time. Landlords will need to be positively encouraged to adopt options and be able to see the longer term benefits. 	
Policy instrument:	
Other financial policy instruments exist, for example, the national Energy Company Obligation	

BENCHMARKING FICHE Region: Gloucestershire	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
(ECO); this could potentially link with any new policy. Severn Wye Energy Agency also runs the Warm & Well programme which could support any mechanisms introduced.	
Existing financing funds:	
There is potential funding from the Clinical Commissioning Group or local authorities to support work if it links closely with their priorities. Energy Companies may be able to focus ECO funding on Build2LC targeted areas/groups. It is crucial that the financial instrument created becomes self-sustaining.	
Relevant stakeholders:	
<ul style="list-style-type: none"> ○ Severn Wye Energy Agency – working with other stakeholders to plan, implement and oversee and financial mechanisms introduced. ○ Energy companies – potentially directing ECO funding to support specific areas or stakeholders ○ SWIG Finance – providing advice about financial mechanisms on the Steering Group and potentially supporting a scheme. ○ Lloyds Bank – open to discussing proposals for financial mechanisms targeted at social housing providers, larger landlords or manufacturers. ○ County Council and Local Authorities – potential to engage stakeholders, manage financial instruments, develop mechanisms and provide some additional funding. ○ National Landlords Association and Social Housing Providers (e.g. Two Rivers Housing) – possible targets for large scale retrofit and associated financial mechanisms. ○ Manufacturers (e.g. insulation) – possible targets for large scale retrofit and associated financial mechanisms. ○ NHS Clinical Commissioning Group – Much of the drive to improve housing quality and associated well-being is coming through the need for preventative care. The CCG is a potential source of some funding to establish mechanisms and their influence in far-reaching. 	
Main beneficiaries:	
<ul style="list-style-type: none"> ○ Residents experiencing fuel poverty, particularly in the rental sector – lower bills, better quality of life, less illness. ○ The action plan may focus more efforts on some targeted locations, hence impact on these locations is expected to be high — lower bills, better quality of life, less illness. ○ Social and private landlords-long term financial gains, meeting demands to improve EPC ratings and avoid fines for Category 1 hazard homes. ○ Manufacturers and installers – higher demand for installations supports business and training. ○ The National Health Service – reduced fuel poverty should reduce the number of visits to General Practitioners and hospital admissions; this saves both time and money. ○ Local authorities and the County Council – Levels of poverty should reduce, the quality of existing housing stock should increase putting less demand on new housing. 	
Further information:	
We would be interested to work with VIPA for a bi-lateral meeting to get a little more advice before planning in detail and then to review plans once drafted.	
Contact details to obtain further information on the adoption of the good practice	

BENCHMARKING FICHE Region: Gloucestershire	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Financing and delivery of energy saving measures	
Main needs to respond to:	
<p>The UK had a national financial support scheme for retrofit known as the 'Green Deal'. This offered a loan for people to be able to retrofit appropriate installations. The rate of interest attached to this loan was in the order of 7%. At a time where it is possible to secure mortgages against properties at a far lower rate, the level of take up of Green Deal was exceptionally low. As such the scheme never became truly established.</p> <p>The Green Deal loan scheme was a good idea in principle but was poorly planned hence the government stopped supporting the finance company in July 2015 and no new Green Deal loans are currently granted. According to Which? (2017) 'the scheme saved only negligible amounts of CO₂ and households did not see these loans as an attractive proposition.' Therefore its success was very limited. Some areas have tried to arrange their own localised schemes but again with relatively high interest rates required to facilitate administration, the uptake is relatively low.</p> <p>The Green Deal, combined with the national use of financial incentives to support those in fuel poverty to pay their bills (reducing the desire to retrofit properties), high interest rates for locally offered retrofit loans compared to low mortgage rates, alongside uncertainty regarding grant funding, means that more innovative methods need to be explored.</p> <p>We need to provide funding mechanisms which are sustainable, engender the trust of residents, the installation industry and lenders. These mechanisms need to be able to work independently of central government and work within the region. We are interested in the mechanism provided by kW and how this has become effective.</p>	
Main objective to transfer the good practice to your region:	
<p>We need to provide a funding option for households in the UK which has appropriate payback times and a low payback rate. How any loan is managed during transfer of home ownership is also of interest. Any existing option has had a low uptake so we would be interested to see how this issue can be overcome. We would also be interested in offering a scheme to social and private landlords and it would be interesting to see if kW has considered this.</p> <p>We would like to find out more about:</p> <ul style="list-style-type: none"> ○ How stakeholders were engaged ○ The details of the financial mechanism ○ The patterns of uptake and the nature and success of marketing strategies ○ How the financial instrument works alongside other mechanisms and policies ○ How challenges were overcome 	
Factors that might hamper the transfer:	
<ul style="list-style-type: none"> ○ Any mechanism needs to work on a regional scale and work alongside central government activities. ○ We are undergoing a period of political change and we are currently unsure what government will choose to do regarding energy policy in light of the UK's withdrawal from the EU. ○ Mortgage rates are very low hence any mechanism needs to account for other loan options. ○ Many of the homes in fuel poverty are isolated and 'hard-to-treat' so adaptations will need to be made to account for this. ○ There is little trust in the incentives already offered so stakeholder engagement will be important. ○ Financial institutions are not keen to lend directly to householders and so alternative avenues need to be explored. For example, providing mechanisms to help manufacturers or installers to reduce costs, brokering deals between financial organisations and social or private landlords. 	

BENCHMARKING FICHE Region: Gloucestershire	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
<ul style="list-style-type: none"> ○ The accountability of landlords is gradually increasing but will take time. Landlords will need to be positively encouraged to adopt options and be able to see the longer term benefits. 	
Policy instrument:	
Other financial policy instruments exist, for example, the national Energy Company Obligation (ECO); this could potentially link with any new policy. Severn Wye Energy Agency also runs the Warm & Well programme which could support any mechanisms introduced.	
Existing financing funds:	
There is potential funding from the Clinical Commissioning Group or local authorities to support work if it links closely with their priorities. Energy Companies may be able to focus ECO funding on Build2LC targeted areas/groups. It is crucial that the financial instrument created becomes self-sustaining.	
Relevant stakeholders:	
<ul style="list-style-type: none"> ○ Severn Wye Energy Agency – working with other stakeholders to plan, implement and oversee and financial mechanisms introduced. ○ Energy companies – potentially directing ECO funding to support specific areas or stakeholders ○ SWIG Finance – providing advice about financial mechanisms on the Steering Group and potentially supporting a scheme. ○ Lloyds Bank – open to discussing proposals for financial mechanisms targeted at social housing providers, larger landlords or manufacturers. ○ County Council and Local Authorities – potential to engage stakeholders, manage financial instruments, develop mechanisms and provide some additional funding. ○ National Landlords Association and Social Housing Providers (e.g. Two Rivers Housing) – possible targets for large scale retrofit and associated financial mechanisms. ○ Manufacturers (e.g. insulation) – possible targets for large scale retrofit and associated financial mechanisms. ○ NHS Clinical Commissioning Group – Much of the drive to improve housing quality and associated well-being is coming through the need for preventative care. The CCG is a potential source of some funding to establish mechanisms and their influence in far-reaching. 	
Main beneficiaries:	
<ul style="list-style-type: none"> ○ Residents experiencing fuel poverty, particularly in the rental sector – lower bills, better quality of life, less illness. ○ The action plan may focus more efforts on some targeted locations, hence impact on these locations is expected to be high — lower bills, better quality of life, less illness. ○ Social and private landlords-long term financial gains, meeting demands to improve EPC ratings and avoid fines for Category 1 hazard homes. ○ Manufacturers and installers – higher demand for installations supports business and training. ○ The National Health Service – reduced fuel poverty should reduce the number of visits to General Practitioners and hospital admissions; this saves both time and money. ○ Local authorities and the County Council – Levels of poverty should reduce, the quality of existing housing stock should increase putting less demand on new housing. 	
Further information:	
We would be interested to communicate with IAT to find out more details. We would also be interested in having our plans reviewed once drafted.	

BENCHMARKING FICHE Region: Podkarpackie	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
ENSVET - Energy Advices for Citizens (Slovenia)	
Main needs to respond to:	
<ul style="list-style-type: none"> • Needs of free energy advice for citizens - individual, independent energy consulting and information education and awareness activities for the promotion of energy efficiency measures and renewable energy sources for citizens in the local environment • Needs of free tips and interviews assist in the selection, design and implementation of investment measures of energy efficiency and use of renewable energy sources in residential buildings. • Giving advices to the citizens, final customers of energy in the residential sector and offering free and commercially independent advices connected with training services in the field of RES and RUE. • Needs of free helping in planning and implementation environmentally friendly investments in the region, helping in identification available sources of funding, organizing training and information and education activities to help prepare, verify and implement low carbon economy plans. • Needs of training of municipal energy auditors. • Needs of different forms of support tailored to specific needs of different groups: the form of informational meetings, consultations in the office and outside of the office, answers by email inquiries, phone counseling, training and information and promotion activities, individual counseling as well as conferences or webinars. 	
Main objective to transfer the good practice to your region:	
<ul style="list-style-type: none"> • Environmental benefits such as reducing pollutant emissions, improving air quality and reducing the use of non-renewable natural resources, • Increasing energy awareness of citizens, energy savings and reduction of greenhouse gas emissions and RES through providing local and regional information exchange and good practices on the implementation of Directive 2010/31 / EU, 2012/27 / EC and 2009/28 / EC and Directive 2008/50 / EC • Facilitating the implementation of certain measures and programs related to energy policy, • Systematically combating pollution of the environment, energy poverty and dependency on energy imports, • Preparation of well-qualified independent energy advisors, • Promotion of low carbon economy, • Generating of new jobs in the economy - increasing the number of municipal energy auditors, • Facilitating access to EU and national funds for increasing energy efficiency and using of RES, • Citizens - lower energy costs, energy efficient investments can become a potential source of revenue, • Business: lower energy consumption, positive image, increased competitiveness, • Support in the planning and implementation of environmentally friendly investments in the region, • Increasing the quality of life and green jobs. 	
Factors that might hamper the transfer:	

BENCHMARKING FICHE Region: Podkarpackie	
TOPIC: NEW FINANCIAL INSTRUMENTS	
<ul style="list-style-type: none"> • Problems with financing various activities for the comprehensive implementation of the model of Energy Advices for Citizens. • Problems with financing by municipalities municipal energy auditors. • Cooperation with interested local communities/municipalities/NGOs – lack of agreement or lack of willingness to participate in the project. • Shortage of qualified independent energy advisors. 	
Policy instrument:	
Infrastructure and Environment Operational Program for the years 2014-2020 within the Priority Axis "Reduction of emissivity of the economy".	
Existing financing funds:	
<ul style="list-style-type: none"> • Regional Operational Program of the Podkarpackie Region for the years 2014-2020. • Infrastructure and Environment Operational Program for the years 2014-2020 within the Priority Axis "Reduction of emissivity of the economy". 	
Relevant stakeholders:	
<ul style="list-style-type: none"> • National Fund for Environmental Protection and Water Management • Regional Fund for Environmental Protection and Water Management in Rzeszow • Marshall Office of Podkarpackie Region • Podkarpackie Energy Agency 	
Main beneficiaries:	
<ul style="list-style-type: none"> • public institutions, • entrepreneurs planning to increase energy efficiency or the use of renewable energy sources in their facilities, especially those representing small and medium-sized enterprises, • community and housing co-operatives, • universities, • civil society. 	
Further information:	
Too little information at this moment.	

BENCHMARKING FICHE Region: Podkarpackie	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Smart procurement	
Main needs to respond to:	
<ul style="list-style-type: none"> • Needs of a new strategy for the procurement of new construction projects and renovation projects; • Too low knowledge and experience among public administration especially from small municipalities and villages about energy consumption in public buildings when they have to choose the best option/solution during new construction projects; • Lack of public procurement based on their best practices without imposing a solution; • Low innovativeness of enterprises due to the imposed solutions in the tender documents; • Lack of time or skills/knowledge to change the procurement strategy; • Needs a lot of knowledge and expertise to evaluate the various options and their technical solutions. 	
Main objective to transfer the good practice to your region:	
<ul style="list-style-type: none"> • Stimulating, developing and implementing innovations especially in rural and remote areas; • New strategy and approach to the procurement of new construction projects; • Procurements which let entrepreneurs choose their best practice in construction buildings - stimulating innovation in the construction market; • This model allows the entrepreneurs a chance to be innovative; • Receive the best possible energy solutions in the procurement of new and renovated buildings; • Environmental benefits such as reducing pollutant emissions, improving air quality and reducing the use of non-renewable natural resources; • Promotion of low carbon economy, • Support in the planning and implementation of environmentally friendly investments in the region; • Increasing the quality of life and green jobs. 	
Factors that might hamper the transfer:	
<ul style="list-style-type: none"> • Lack of time or skills/knowledge to change the procurement strategy; • Needs a lot of knowledge and expertise to evaluate the various options and their technical solutions in the institutions announcing the tenders; • Habits to demanding absolute energy demands for new or renovated buildings or requesting specific technical solutions; • Insufficient financial resources for promotion and dissemination of the model. • 	
Policy instrument:	
<ul style="list-style-type: none"> • Regional Operational Program of the Podkarpackie Region for the years 2014-2020; • Tender documentations for various building and renovation activities in public buildings. 	
Existing financing funds:	

BENCHMARKING FICHE Region: Podkarpackie	
TOPIC: NEW FINANCIAL INSTRUMENTS	
<ul style="list-style-type: none"> Regional Operational Program of the Podkarpackie Region for the years 2014-2020. Tender documentations for various building and renovation activities in public buildings. 	
Relevant stakeholders:	
<ul style="list-style-type: none"> Marshall Office of Podkarpackie Region Podkarpackie Energy Agency Public sector entities 	
Main beneficiaries:	
<ul style="list-style-type: none"> public institutions, construction companies, housing co-operatives, universities, entrepreneurs planning to increase energy efficiency or the use of renewable energy sources in their facilities, especially these which received support from EU funds. 	
Further information:	
Not enough information at this moment.	

BENCHMARKING FICHE Region: Croatia	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Innovations in Financial Instruments	
Specific points of interests include: techniques and schemes for involvement of commercial banks and development of a securitization model.	
Main needs to respond to:	
ESI Funds used in form of grants are not sustainable and sufficient to satisfy current demand for renovation of private buildings. FI's could leverage additional public and private sector finance to address this market gap.	
Main objective to transfer the good practice to your region:	
Currently in Croatia there are no revolving financial mechanisms for energy renovation of either private or public buildings causing the ESI funds to be depleted in short time and not used in a sustainable way. Citizens and administrators of multi-apartment buildings have trouble securing their share of funding for energy renovation since bank loans are not automatically issued. Also, there are no special renovation loans on the market with favourable conditions (lower interest rates, grace period and longer repayment periods) which nullifies the benefit from grants due to high cost of capital.	
Factors that might hamper the transfer:	
Introduction of financial instruments is a complex process which largely depends on willingness and qualifications of key public and private stakeholders (managing authorities and financial institutions) to actively participate in its market development. Also, citizens might be hesitant to take on a loan instead of grant funding.	
Policy instrument:	
A study in support of the ex-ante assessment for the deployment of EU resources for energy efficiency during the 2014-2020 programming period has already been made. Ex-ante Assessment Report for Financial Instruments, Business Competitiveness, Employment and Social Enterprise has also been made and Financial Instruments for SMEs have been introduced.	
Existing financing funds:	
Funds for development of Financial instruments could be used from TA (Technical Assistance) component of the Operational programme Competitiveness and Cohesion 2014 – 2020.	
Relevant stakeholders:	
Public administration designated by the Croatian government to manage ESI Funds in Croatia (Managing Authority) is the Ministry of Regional Development and EU Funds which is the key stakeholder for introduction of Financial instruments. The supply of finance could be by ensured through Croatian Bank for Reconstruction and Development (HBOR) while commercial banks could be involved in disbursement of renovation loans for citizens.	
Main beneficiaries:	
Managing authority (wider uptake/impact of public funding), building administrators, home owners, financial intermediaries.	
Further information:	
Bilateral meeting would be beneficial in order to help Croatian Managing Authority to learn on how to get the renovation programme “off the ground” and avoid mistakes made by the Lithuanian Managing Authorities during implementation of Financial Instruments.	

BENCHMARKING FICHE Region: Croatia	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Carrot-and-stick game in multi-apartment building modernization	
Specific points of interests include: Activation of demand for energy renovation of multi-apartment buildings using financial instruments and combating energy poverty.	
Main needs to respond to:	
Home owners are mostly reluctant to undertake new long-term loans as they reduce their credit rating and require extra collaterals which they are not willing to provide. A large part of residents does not possess enough financial capacity to repay new loans since they fall in the category of energy poor citizens. Existing renovation schemes in Croatia are turning the apartment owners into borrowers (possibly) against their will, which is a huge issue at the moment.	
Main objective to transfer the good practice to your region:	
Currently in Croatia there are no financial mechanisms for financing of technical support (awareness raising among vulnerable citizens) or for covering monthly instalments of long term renovation loans of low income households which fall into the category of energy poor citizens. Both aspects of energy renovation have to be tackled and experience from other project partners could be very useful and applicable.	
Factors that might hamper the transfer:	
Most countries used their national budgets for introduction of such social measures and the biggest issue with such policy is its consistency. Social transfers have often been inconsistent, inadequate or even cancelled in times of budget crisis.	
Policy instrument:	
Although energy poverty has not been legally defined, Ministry of Demographics, Family, Youth and Social Policy provides financial compensations to those vulnerable citizens who cannot pay their electricity bills to maintain the minimum level of living comfort.	
Existing financing funds:	
Funds for financial support and awareness raising of vulnerable groups of people could be used either from state/regional budgets or from T04 component of the Operational programme Competitiveness and Cohesion 2014 – 2020.	
Relevant stakeholders:	
Public administration designated by the Croatian government to manage ESI Funds in Croatia (Managing Authority) is the Ministry of Regional Development and EU Funds while Ministry of Demographics, Family, Youth and Social Policy is in charge of introduction of social measures. Both ministries could assist with development of awareness campaigns (with specialized NGOs) for vulnerable groups of citizens and technical assistance for creation of project pipeline.	
Main beneficiaries:	
Managing authorities, building administrators, low income home owners, financial intermediaries.	
Further information:	
Bilateral meeting would be beneficial in order to help Croatian Managing Authority to learn how to address vulnerable groups of citizens that fall in the energy poverty category in regard to implementation of renovation programme and to avoid mistakes made by the Lithuanian Managing Authorities during implementation of Financial Instruments for energy renovation.	

BENCHMARKING FICHE Region: Sweden	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
croenergy.eu	
Main needs to respond to:	
<ul style="list-style-type: none"> - Jämtland Härjedalen is lagging in energy savings investments due to the rural nature of the region. - Many existing building are located where markets mechanisms fail, since rural areas typically are not profitable to invest in. Thus there is low interest from the market to provide loans here. <p>This calls for financial services that are complementary to market mechanisms</p>	
Main objective to transfer the good practice to your region:	
<ul style="list-style-type: none"> - The main objective is to improve the energy performance of existing structures to in the end lower emissions CO2. - Make funding more accessible for energy rehabilitation in rural areas and in particular common buildings not prioritized by public organizations. - - Increasing the general public's awareness of crowdfunding as a way to finance energy rehabilitation projects and to contribute to their civil society 	
Factors that might hamper the transfer:	
<ul style="list-style-type: none"> - Lack of financial resources. Development of a platform would require significant investment costs, and there is also need for a strong promotional campaign. - The Swedish legal framework regarding crowdfunding is possibly a barrier. Crowdfunding is a small but rapidly growing part of the financial markets. The Swedish laws are not adapted to this type of funding. - Generally low awareness levels of crowd funding 	
Policy instrument:	
Crowd funding is mentioned in the Regional Innovation Strategy as an interesting tool for financing new investments. Although there is no direct policy addressing this opportunity.	
Existing financing funds:	
Operational programme for investments for jobs and growth (TO4) Interreg V-A Sweden-Norway	
Relevant stakeholders:	
<ul style="list-style-type: none"> - Swedish Agency for Economic and Regional Growth - County Administration Board of Jämtland - Mid Sweden university - Public real estate companies: They are to a large extent the “problem owners” and are thus essential stakeholders to understand the needs and frameworks. - Private real estate companies 	
Main beneficiaries:	

BENCHMARKING FICHE Region: Sweden	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
-	Public and private real estate owners, but also village communities and similar types of associations.
Further information:	
-	At the moment we are figuring out potential stakeholders' roles in this endeavour, and need more time to work around the organizational matters before we need implementation assistance.

BENCHMARKING FICHE Region: Slovenia	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Quality in multi-apartment building modernization	
Main needs to respond to:	
<p>Restoration of private multi apartment buildings in Municipalities that are in wider public interest.</p> <p>Financial gap for Slovenian RES and RUE projection for the period 2015-2020 (mil EUR) is:</p> <ul style="list-style-type: none"> Restoration of private buildings 645 - 783 	
Main objective to transfer the good practice to your region:	
<p>In Slovenia these kinds of projects are supported by Eco Fund, Slovenian Environmental Public Fund, but there is space to improve investments into private multi apartment buildings, promotion of good practices and consequently quality of work.</p> <p>Possibility to gain additional know how that would help Slovenian Eco Fund:</p> <ul style="list-style-type: none"> construction companies could be required to provide insurance, that they can perform works in accordance to the contract, construction companies could be pre-checked before public procurement process, construction works could be supervised by independent and certified specialists, complaint system (there is no complaint system in place in Slovenia), state territorial planning and construction inspectorate, good examples of implemented projects could be promoted in the media. 	
Factors that might hamper the transfer:	
<p>Eco Fund is overloaded with ongoing work, reviewing applications for subsidies, and therefore is not interested into having additional tasks.</p>	
Policy instrument:	
<p>Policy system is already in place but with possibility to implement even better quality improvement cycle.</p>	
Existing financing funds:	

BENCHMARKING FICHE Region: Slovenia	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
croenergy.eu – (with crowdlending and crowdfunding models)	
Model is very suitable to implement in Slovenia, because Slovenia and Croatia have similar laws. Therefore the knowhow and experiences from implementing it in Croatia would be very useful in Slovenia.	
Main needs to respond to:	
Renovations of public buildings in Municipalities that are in wider public interest. Financial gap for Slovenian RES and RUE projection for the period 2015-2020 (mil EUR) is: Renovation of public buildings 65 - 132	
Main objective to transfer the good practice to your region:	
Main objective would be to improve involvement of citizens and promotion of good practices on field of renovation of public buildings.	
Factors that might hamper the transfer:	
Main problem will be Slovenian legislation. Crowdfunding is something new in Slovenia and therefore we will have to resolve some legal issues before implementing GP.	
Policy instrument:	
There is no similar policy instrument on this topic in Slovenia.	
Existing financing funds:	
Currently there are no funds available. But municipalities could be stimulated to gain support for this project if the idea would be proposed in document Local energy concepts that each Municipality has to have and is required by law.	
Relevant stakeholders:	
Municipalities (with help of Association of Municipalities and Towns of Slovenia for promotion of idea and gaining support), Government (with help of Ministry of Infrastructure to properly implement actions with accordance of Slovenian law), City Municipality of Kranj (proposed as a municipality to test implementation of GP).	
Main beneficiaries:	
Municipalities and interested public.	

BENCHMARKING FICHE Region: Slovenia	
TOPIC: NEW FINANCIAL INSTRUMENTS	
Good practice to be adopted:	
Further information:	
Additional information's about implementation of GP would be helpful. For implementation of GP in City Municipality of Kranj we propose to organise bilateral meeting.	

7 Conclusions

The BUILD2LC interregional seminar held in Vilnius was dedicated to the topic “New financial instruments”. Partners of the BUILD2LC project stimulated successful exchange of experience in the partner regions which can be easily seen in the benchmarking fiches. During the sessions, valuable presentations were introduced and some good practices were explained which led to fruitful debates and discussions on new policy developments and possibilities in setting up new financial instruments and best practices or ideas shared among partners.

The switch from grants to financial products will be a significant change and is still a huge challenge in the management of public funds. The role of the BUILD2LC project in the process is to exchange experiences and practical knowledge among themselves to increase the adoption of useful new approaches in their own policies. BUILD2LC Project also will significantly facilitate the adoption of lessons learned from each other and to use identified good practices of the different project partners.

8 Annexes

Seminar Agenda attached.

All the Seminar presentations are available at the BUILD2LC project and VIPA websites:

<https://www.interregeurope.eu/build2lc/library/>

<http://vipa.lt/naujienos/232>

Challenges in setting up new financing and supporting instruments with EU funds for energy rehabilitation of buildings: feedback for successful projects

Interregional Seminar at Vilnius, Lithuania

10-11 January 2017

- AGENDA -

DAY 1 – 10 JANUARY 2017

Venue: ARTIS Centrum Hotels, Totorių str. 23, Vilnius 01120

8:30 – 9:00 **Registration & Welcome Coffee**

9:00 – 9:30 **Welcome opening and keynote speech**

Tsvyatko Velikov, DG Regional and Urban Policy of the European Commission

Gvidas Dargužas, VIPA CEO (Lithuania)

Cristóbal Sánchez, Andalusian Energy Agency General Manager (Andalusia)

SESSION 1 – New strategies to allocate EU funding to energy renovation of buildings

9:30 – 10:00 **ESIF support for sustainable energy efficiency financing at European Level.**
Tsvyatko Velikov from DG Regional and Urban Policy of the European Commission.

10:00 – 10:30 **European Fund for Strategic Investment (EFSI), opportunities in Lithuania, presentation of feasibility study.** *Marius Vaščega, Economic Governance Officer of the European Commission in Lithuania.*

10:30 – 11:00 **Financial instruments in Lithuania: lessons learned.** *Rūta Dapkutė-Stankevičienė, Deputy Director of the EU Investment Department, Ministry of Finance (Lithuania).*

11:00 – 11:30 *Coffee break*

11:30 – 12:50 **Good practices in innovative financing of projects for energy efficiency.**
Round table.

- **ZagEE project: Reconstructed public buildings in Zagreb.** *Hrvoje Maras, North-West Croatia Energy Agency (REGEA).*

- **Renovation of Multi-Apartment Buildings in Lithuania.** *Inesis Kiškis, Director of European Union Assistance management department. Ministry of Environment (Lithuania).*
- **Programme for Sustainable Construction in Andalusia.** *Joaquín Villar, Head of Internationalisation and Prospective Dept. Energy Agency (Andalusia).*
- **European Commission, Directorate – General for Regional and Urban Policy Fund.** *Mr. Gregor Čufer, Ekoslad (tbc).*

12:50 – 13:15 Q&A and discussion

13:15 – 14:30 Lunch & networking

SESSION 2 - Challenge for Managing Authorities in financing energy renovation of buildings

14:30 – 15:00 **State of play of Energy Efficiency in the Operational Programmes.** *Isabelle Seigneur. Joint Research Centre, European Commission.*

15:00 – 15:30 **Supporting instruments for managing authorities at national and regional level in the implementation of the Operational Programmes and Smart Specialisation Strategies.**

- **The Energy and Managing Authorities Network,** *Inmaculada Perriáñez, Joint Research Centre, European Commission.*
- **Smart Specialisation Platform on Energy.** *Inmaculada Perriáñez, Joint Research Centre, European Commission.*
- **REBECA: the Spanish Network on Low Carbon Economy.** *Francisco Tovar, Ministry of Finance(Spain).*

15:30 – 17:00 **Challenges in implementing programmes with ESI Funds. Round table with the managing authorities of the BUILD2LC partners (Policy Board).**

Moderated by Isabelle Seigneur. Joint Research Centre, European Commission.

- **Rzeszów (Poland) – Norbert Tomkiewicz,** *Director from Department for Regional Development, Marshal's Office of Podkarpackie Region.*
- **Gorenjska (Slovenia) – Tilen Smolnikar,** *Energy Directorate, Ministry of Infrastructures.*
- **Lithuania – Rūta Dapkutė-Stankevičienė,** *Deputy Director of the EU Investment Department, Ministry of Finance.*

- Croatia - *Damir Gubić, Head of Department for the Implementation of Financial Instruments, Ministry of Regional Development and EU Funds.*
- Andalusia (Spain) – *Joaquín Villar. Andalusian Energy Agency.*
- Jämtland Härjedalen (Sweden) - *Dr. Erik-Widar Andersson Senior Advisor, Financial issues within regional development, Region Jämtland Härjedalen.*
- Gloucester (United Kingdom) - *Barry Wyatt, Strategic Head of Development Services, Stroud District Council.*

17:00 – 17:30 **Conclusions**

DAY 2 – 11 JANUARY 2017

Venue: ARTIS Centrum Hotels, Totorių str. 23, Vilnius 01120

9:00 – 9:15 **Registration & Welcome Coffee**

SESSION 3 – Innovative financing tackling by end-users in energy efficiency projects

9:15 – 9:45 **Public awareness of the multi-apartment building renovation process in Lithuania: technical assistance, promotion, construction works.** *Gintarė Burbienė, Head of project implementation division, Housing Energy Saving Agency (HESA).*

9:45 – 11:00 **Good practices in informing citizens on the use of innovative financing instruments.** Round table.

- **Warm & Well – Energy Efficiency Advice and Installation Scheme,** *Barry Wyatt Strategic Head of Development Services at Stroud District Council. Gloucestershire, United Kingdom.*
- **Grant for municipal energy and climate advisors,** *Anneli Kamb and Moa Breivik. Municipal energy and climate advisors, Jämtland-Härjedalen Region, Sweden.*
- **Rehabilitation of building and removal of asbestos,** *Piotr Pawelec – President and freelance consultant & trainer at the Institute of Good Eco-solutions "Alternative".*

11:00 – 11:30 *Coffee break*

SESSION 4 – Other Interregional experiences to boost innovative financing in energy efficiency projects

11:30 – 12:00 **Boosting innovative financing in energy efficiency projects in public buildings**, Violeta Greičiuvienė, *Head of EU Assistance Division, Ministry of Energy (Lithuania)*.

12:00 – 13:20 **Interregional experiences to boost innovative financing in energy efficiency projects**. Round table.

- **Financial Instruments for Energy Renovation Policies (FINERPOL)**. *FINERPOL project representative*.
- **Innovative financial experiences in interregional projects to foster energy rehabilitation**. *Ignacio Contreras, The Spanish Institute of Financial Analysts*.
- **European Partnership of regions to promote investment on energy efficiency in buildings**. *Joaquín Villar, Head of Internationalisation and Prospective Dept. Energy Agency (Andalusia)*.

13:20 – 13:30 Q&A and discussion.

Study Visit 1

14:30- 14:45 Trip by bus to **the Study Visit 1 premises - Museum of Energy and technology**

Address – Rinktinės str. 2, Vilnius. *(Museum of Energy and technology is located in a unique object of heritage – the first Vilnius central power plant. The spaces of the former power plant have been adapted for visitors. It displays various objects of technical heritage and tells the story of the old power plant).*

15:00 – 16:00 **Study Visit 1.**

- Experience of Šiauliai Bank in implementing financial instruments – sharing their experience in the application of procedures, adaptation of IT systems, staff training etc...). Representative of Šiauliai Bank - Credit Risk Department analyst Gedas Janenas.

DAY 3 – 12 JANUARY 2017

Study Visit 2

Venue: Jonava municipality

9:00 – 13:00 **Study Visit 2 (Travelling by bus to Municipality of Jonava premises)**

13:00 – 14:00 *Lunch*

End of the interregional seminar

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