

ANALYSIS OF EXISTING INNOVATIVE SUSTAINABLE FINANCE INSTRUMENTS AND SCHEMES ACROSS EU

**Task 5.1 Mapping innovative sustainable finance instruments
and schemes across the EU**



Document details	
Deliverable	D5.1: Analysis of existing innovative sustainable finance instruments and schemes across EU
Due date	M3
Dissemination	Public
Project partner	Sinloc S.p.a
Authors	Sinloc S.p.a, Comune di Padova, Forum per la Finanza Sostenibile



Project partners	Main contact person	E-mail
Città di Padova	Daniela Luise Giovanni Vicentini	luised@comune.padova.it vicentinig@comune.padova.it
Università Commerciale Luigi Bocconi	Edoardo Croci Tania Molteni	edoardo.croci@unibocconi.it tania.molteni@unibocconi.it
SINLOC	Andrea Martinez	andrea.martinez@sinloc.com
SOGESCA srl	Marco Devetta	m.devetta@sogesca.it
Forum per la Finanza Sostenibile	Alessandro Asmundo	asmundo@finanzasostenibile.it
Climate Alliance	Cassandra Silk	c.silk@climatealliance.org
Municipality of Timisoara	Iudit Bere–Semeredi	iudit.bere@primariatm.ro
Energy Agency of Plovdiv Association	Milena Agopyan	milena.agopyan@eap-save.eu



TABLE OF CONTENTS

List of Abbreviations	5
Introduction.....	6
1. General overview of the existing initiatives.....	8
1.1. Methodological approach	9
1.1.1. Step 1 - Matrix.....	9
1.1.1.1. Financial indicators for preliminary analysis	11
1.1.2. Step 2 – Questionnaire	15
1.2. Case studies selection	16
1.2.1. Criteria for choosing interesting initiatives.....	16
1.2.2. Oss' case studies selected.....	16
1.3. Analytical study	17
1.3.1. Methodological creation of questionnaire.....	20
1.3.2. Financial questionnaire	21
2. Mapping of existing incentives schemes	30
Conclusions and Further Steps	32



LIST OF ABBREVIATIONS

OSS	One Stop Shop
Consortium	Municipality of Padova, Università Commerciale Luigi Bocconi, SINLOC S.p.A., Sogesca S.r.l., Forum per la Finanza Sostenibile, Climate Alliance, Municipality of Timisoara, Energy Agency of Plovdiv
CPD	Municipality of Padova
Uni Bocconi	Università Commerciale Luigi Bocconi
FFS	Forum per la Finanza Sostenibile
JRC	Joint Research Center
EE	Energy Efficiency
CO₂	Carbon Dioxide



INTRODUCTION

Cities play an important role in addressing global climate change and mitigating risk of more frequent and extreme weather events and their impact on the cities' residents. The energy used in cities' buildings account for approximately 40% of the city's total emission of carbon dioxide in the atmosphere, addressing building energy performance becomes fundamental to encouraging the energy transition process and, in the same time, improve the comfort of the tenants.

PadovaFIT EXPANDED brings together a strong consortium of 8 partners coming from four EU member states. The consortium is coordinated by the Municipality of Padova supported by Università Commerciale Luigi Bocconi, SINLOC, Sogesca, Forum per la Finanza Sostenibile and Climate Alliance, a European network of local authorities for sustainability. PadovaFIT EXPANDED starts from the knowledge and experience produced in the Padova area and aims at creating and piloting a one-stop-shop dedicated not only for condominiums but for all private residential buildings.

Another goal for the project is to expand the business model to the city of Timisoara, who will benefit from the work done in Italy and will adapt it to the Romanian conditions, launching and managing an OSS itself. Finally, the Bulgarian Energy Agency of Plovdiv will support the metropolitan area of Burgas and Smolyan to take the example coming from Padova to prepare the conditions for the launching of sound one-stop-shop in Bulgaria.

The objective of this deliverables is to identify the enabling conditions and EU best practices of Project Promoters (Regional and Local Governments, Energy Agencies and private Businesses) that lead financially sustainable home renovation service schemes, based on public and/or private finance, supporting citizens to target ambitious energy savings.

The first part of the work regards the analysis of the JRC report "One-stop-shop for energy renovations of buildings", which represents a review of case studies of past and current OSS, with primary focus on EU Member States. In the report, the JRC has identified the working models and the framework conditions in which OSS are successful and the benefits they offer for the client and/or the economy, pursuing the objective to improve the energy efficiency of the buildings and, ultimately, take actions on climate mitigation.



DELIVERABLE 5.1

All of 23 OSS included in the report were evaluated and analysed, trying to identify the most interesting aspects that could be useful for future implementation in the PadovaFIT EXPANDED project. The study of the single case has been carried out in the following way: UB took care of the business model for the OSS, the Municipality of Padova of the engagement aspects, Sogesca of the technical engineering and, finally, SINLOC of the financial engineering. At the end of this first review, it was created a table in which have been reported the most interesting OSS initiative identified and each project's partner showed the most interesting findings for the respective area of interest. The analysis was focused on the key steps for the implementation process of an OSS for energy renovation: marketing, preliminary proposal, building inspections and energy analysis, quotation and financing plan, quality insurance, renovation works, financing, commissioning and follow-up. A great importance it has been given to the assessment of how different choices on each previous element affect the cost incurred and the success of the initiative.

A further step of the analysis of existing OSS initiatives consisted in the creation of questionnaire to be sent to the contacts of the selected OSS, which contains question useful to conduct an in-depth analysis both in technical and financial aspects and to assess the subject regarding the engagement of all the possible stakeholders (private sector, local businesses, financial institutions, building managers and tenants). Every partner agrees that is fundamental to collect more information about the financial viability of such structures, the various form of interaction between the supply side and the demand side and the legal aspect regarding the set-up, the operation and the quality assurance of the OSS.

The report is structured as follows:

- Chapter 1 identifies and describes some relevant case studies, in particular in respect of the adopted financing schemes;
- Chapter 2 presents the analysis on some selected case studies, carried out in collaboration and consistently with other partners;
- Chapter 3 introduces other existing financing schemes in Italy.



1. GENERAL OVERVIEW OF THE EXISTING INITIATIVES

This report aims at providing a map of existing financial instruments and schemes across Europe. This map represents a key tool for the set-up of an OSS for energy performance improvement in private buildings, orienting the decision considering also the lesson learnt in other similar experiences.

The mapping activity is mainly focused on the EU Member States and is mainly based on the report developed by the European Commission, Joint Research Center (JRC) in 2018¹.

At first, the Consortium decided to focus its analysis on the cases showcased in the JRC report, considering it as a good starting point embedding critical information and data.

The JRC's report considers in detail 5 Research and innovation projects and 23 Case studies of one-stop-shops, closed or on-going. For Research and innovation projects it means projects whose core objective is not the establishment of a OSS, but exploring and/or developing business models utilizing the OSS idea, or disseminating knowledge and information about them. In particular, these projects are:

- Eracobuild
- One Stop Shop project
- INNOVATE
- REFURB
- COHERENO

¹ Boza-Kiss Benigna, Bertoldi Paolo, One-stop-shops for energy renovations of buildings, European Commission, Ispra, 2018, JRC113301



As far as the case studies are concerned, the report clusters the reviewed examples in the following categories:

- Local-government supported or initiated OSSs;
- Independent consultant based OSSs;
- Industry-driven OSSs;
- Funds or financial credit lines with primary aim to support the financing of energy efficiency market while they boost their services with technical assistance and/or tool.

Later, the Consortium included in its mapping also other sources of data, namely

1.1. Methodological approach

The Consortium show-cased 28 initiatives related to OSS, planned or implemented.

The methodological approach adopted in the analysis consists in 2 steps.

1.1.1. STEP 1 - MATRIX

The first is the detailed analysis of the identified initiatives. In concrete terms, the Consortium created a matrix, in which each partner involved (SINLOC, Sogesca, FFS, CPD, Uni Bocconi) has defined the relevant dimensions for its analysis. In particular, the action has been divided as follows:

<i>Issue</i>	<i>Partner involved</i>
General information	All
Business Model for OSS	Uni Bocconi
Engagement and Confidence Building	CPD
Technical Engineering	Sogesca
Financial Engineering	SINLOC, FFS

Starting from the information available in the JRC's report, the Consortium filled the matrix looking for further information also on other sources of data, mainly on the web.

DELIVERABLE 5.1

The analysis of the case studies was run by the partners, considering 4 case studies each.

More in detail, SINLOC analysed:

1. *Tighean Innse Gall* | This organization, operating at a local/regional level in the Western Isles (UK), provides local citizens and businesses with full implementation as well as advisory services including financing arrangements.
2. *Stroomversnelling* | The OSS aims at fostering NZEBs in the Netherlands, operating both on refurbishments and new buildings. It provides 30 years guarantee and contributes to regulatory changes.
3. *Energy Savers* | The program was developed in Chicago, starting as a keystone initiative the Preservation Compact, aiming at saving potentially abandoned buildings through reducing operating costs for owner to carry out retrofits and energy efficiency programs.
4. *Elevate Energy* | This Programme is the continuation of the previous experience in Chicago. The main aim was to assist homeowners to implement energy efficiency solutions, reducing in particular utility and maintenance costs.

Forum per la Finanza Sostenibile was in charge of:

1. *KredEx* | The OSS, established in 2001, is focused on financing of multi-apartment condominium refurbishment, combined with assistance in grant preparation, technical support, and awareness raising. The non-for-profit organisation was founded under the jurisdiction of the Estonian Ministry of Economic Affairs and Communications.

The OSS programmes are based on a holistic approach. The financial support is combined with awareness raising campaigns, technical studies, best practice dissemination, and based on an established legal framework.

2. *EBRD credit lines* | The Programme was developed in Slovakia and Bulgaria. It was based on financing schemes, combined with support for audit, project selection, verification and awareness raising. EBRD was under the auspices of the European Bank for Reconstruction and Development (EBRD).
3. *Energy Efficiency and Renewable Sources Fund (EERSF)* | The Fund was developed in Sofia, Bulgaria, with a national coverage and under the auspices of 'Energy Efficiency and Renewable Sources Fund' (EERSF), formerly known as the 'Bulgarian Energy Efficiency Fund' (BEEF). It is an independent public-private partnership. The main aim is to encourage combination of Fund financing with local bank offers.
4. *PKA - Sustain Solutions* | The programme is a Spin-off of the Danish pension fund PKA, aimed at financing sustainable projects (wind-farms, energy renovations), required by members. The partnership is composed by PKA (providing capital), Smith Innovation (providing technical expertise for the renovations) and Dong Energy (the largest energy company in Denmark).

This report will focus on the financial analysis of the case studies.

1.1.1.1. Financial indicators for preliminary analysis

SINLOC, supported by Forum per la Finanza Sostenibile, defined some financial indicators useful to investigate the financial solution adopted. In fact, the aim of the analysis is to understand the schemes applicable in OSS initiatives, gaining insight on which is the most suitable to be replicated in Padova or at least which are the lesson learnt in similar experiences all over Europe.

Given this objective, SINLOC defined the following indicators to be analysed:

<i>Indicator</i>	<i>Description</i>
<i>Service provided by the OSS</i>	i.e. Support in structuring financial solutions, search for funding, arrangement, support in accessing financial solution
<i>Partnership</i>	With financial institutions - PAs - other
<i>Customized or standard solution</i>	Customized = specific scheme, based on each client's characteristics Standard = scheme with pre-determined conditions
<i>Financial resources activated</i>	Public or private
<i>Financing schemes</i>	i.e. equity/loan/grant/EPC/tax rebates
<i>Quantitative elements</i>	Interest rate, project payback period, reimbursement period, max. amount, etc.

The mapping concerning financial characteristics and instruments encountered some difficulties mainly related to the fact that this kind of information tend to be sensitive and, for this reason, a small number of elements are shared and public.

However, the case studies provide evidence of variegated methods to assist homeowners. Unless there are situations where the OSS does not support people during the financing phase, the majority support inhabitants providing financing services.

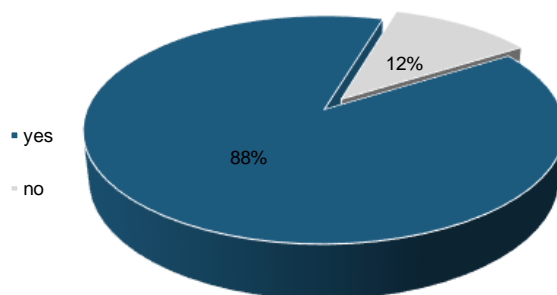


Figure 1 – Financing services

At initial stage the OSS could decide to set up a partnership, looking at different stakeholders, in order to cover multiple needs. This choice is the strongly recommend as the 90% of the OSS decide to do so.

The partnership is not only limited at the financial aspects of the action, even if the major criticality is often related to how to finance EE interventions. Indeed, several OSS reach an agreement with constructors, suppliers of raw materials, contractors or every kind of actor that could be involved in the project-realization process. Thus, for the big part of case studies, the partnership is opened to ample spectrum of players, as shown in the picture below.

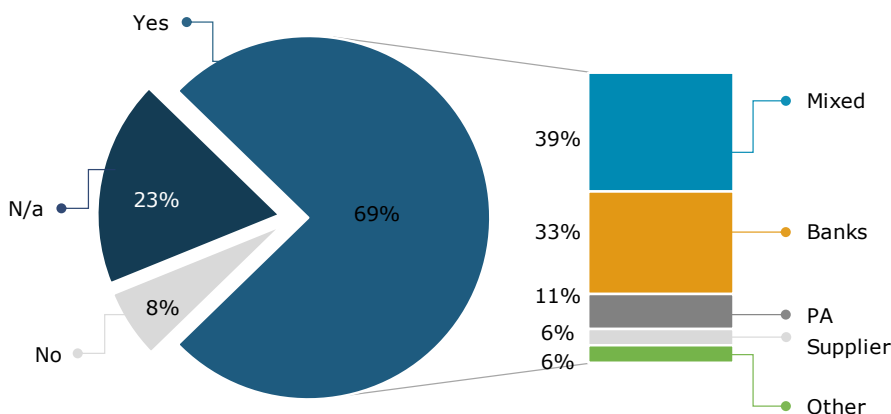


Figure 2 – Partnership structure

Therefore, it is also possible that the One-Stop-Shop reaches an initial agreement with a bank or more than one specific credit institutions that will guarantee the investment (CleanTech, Kredex), in some cases with even low interest rates than those usually offered. In other cases, the OSS assists residents to find and run the negotiations with banks (Småland-Blekinge). Alternatively, it may happen that OSS support homeowners in the first stage, but then leaving them free to look for the most suitable financial institutions according to their preferences and needs (BetterHome). In one case (Bolig Enøk), the OSS hired a Project Manager that would manage the entire process. More, it could be feasible for the OSS to lend money to customers, as for POSIT'IF.

Finally, CLEAR project implemented a complex scheme, foreseeing a cooperative action in order to exploit economies of scale. In their activities, they encountered difficulties to reach agreement between various actors.

Therefore, there is an ample spectrum of ways to support homeowners. The best choice will depend on households' financial capacity and the credit market of the area in question.

The most commonly used financing scheme is loan, however there are also viable alternative such as EPC contracts, credit guarantee, but also group purchasing to reduce cost and also the possibility to pay a fee without having to ask for money to third parties, as the OSS provide a structure that does not need this transaction. In some cases, even if seldom, it is asked equity as the source for the implementation.

However, the OSS could give house owners more than one option, thus also the mixed scheme is very used.

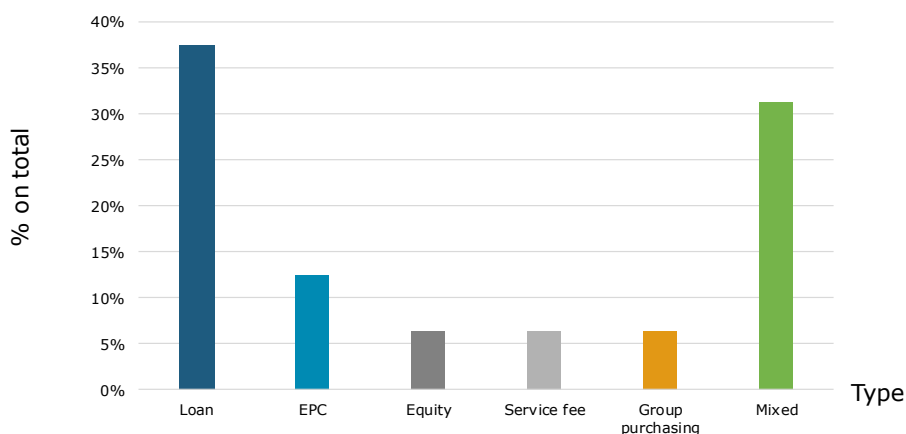


Figure 3 – Financing schemes

In the majority of analysed cases studies, source of payment derives from energy cost savings, thus homeowners' personal expenses would be minimized in the long run. In fact, in the short period they'll continue paying the same amount for energy expenditure, even if actual consumptions are lower. This is because savings are used to re-pay the investment. Only when the investment is been totally repaid, citizens could keep savings from EE intervention.

The investments necessary for the interventions could derive from both private and public sources, in some cases (Energies POSIT'IF) the financing resources activated are granted totally by public subsidies or European funds; in other cases there is a partial cover (KredEx). Moreover, it is possible to mix the sources of financing between private and public actors. Nevertheless, mostly private funding is the most used option.

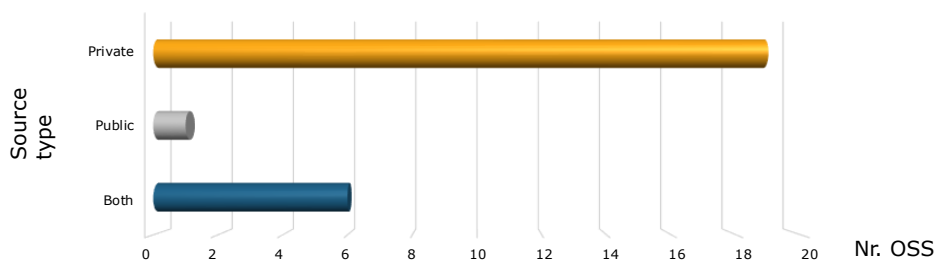


Figure 4 – Financial resources activated (source)

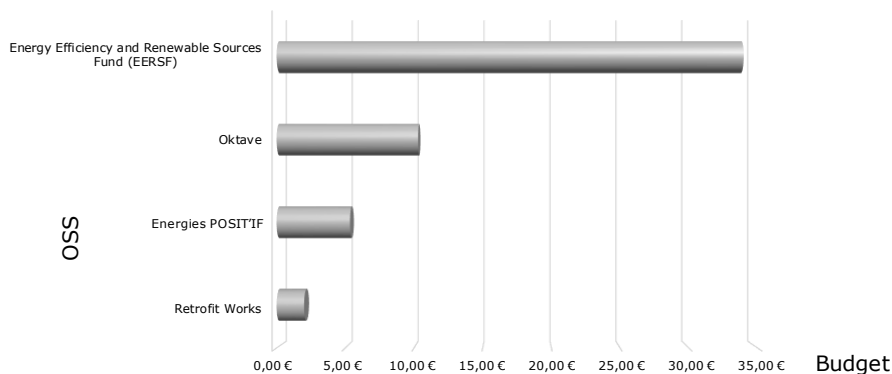
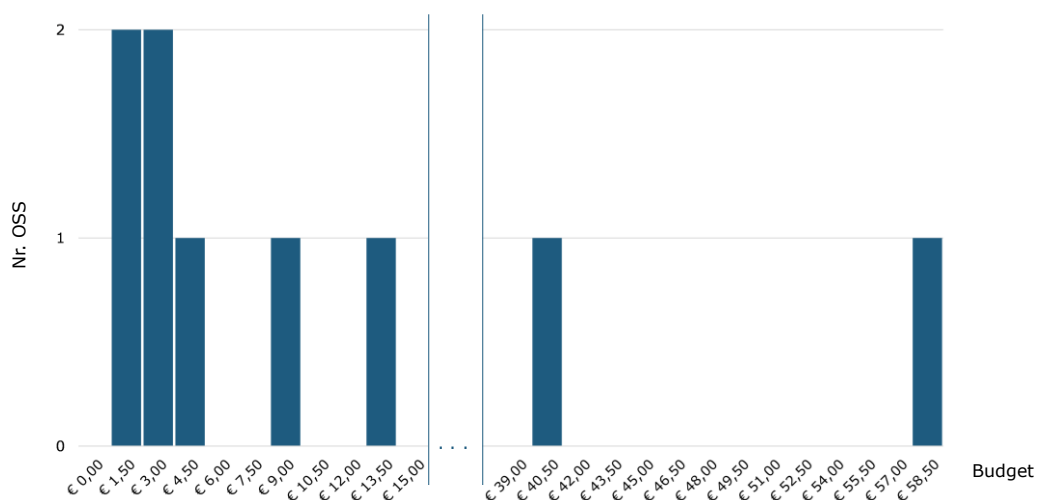


Figure 5 – Financial resources activated [M€]

From the economic features and business model point of view, it is interesting also to evaluate the financing resources activated to start the OSS. Unfortunately, this data is limited as for some cases it was not reported the value.



Budget [M€]	OSS
0 – 1,5	<ul style="list-style-type: none"> Rhodoshop Programme Development Unit (PDU) Oktave
1,5 - 3	<ul style="list-style-type: none"> RenoWatt Energies POSIT'IF
3 – 4,5	<ul style="list-style-type: none"> CLEAR project
7,5 - 9	<ul style="list-style-type: none"> Energy Efficiency and Renewable SourcesFund (EERSF)
12 – 13,5	<ul style="list-style-type: none"> BetterHome
39 – 40,5	<ul style="list-style-type: none"> PKA Sustain Solutions
57 – 58,5	<ul style="list-style-type: none"> Public Energy Efficiency Service/ SPEE Picardie

Figure 6 – Budget OSS [M€]

More than 90% of analysed OSS offer a tailored solution for customers. Costs for solutions could be fees determined as fixed amount for the project implementation, or they could be market based.

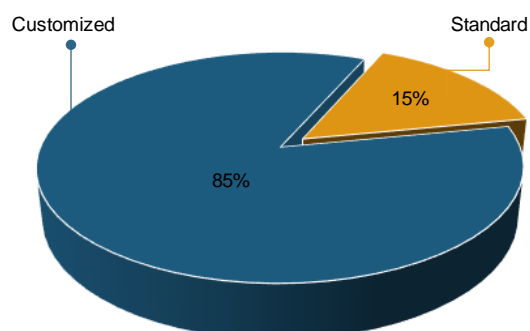


Figure 7 – Solutions for customers

1.1.2. STEP 2 – QUESTIONNAIRE

In order to collect additional information, the Consortium agreed on write a questionnaire to be submitted to the OSS.

After the mapping of Step 1, the Consortium decide to focus on a smaller set of initiatives to deepen the understanding of aspects of interest.

In particular, as happened for step 1, partners designed a set of questions in accordance to their competences. Questions have been shared among all the partners involved and a final version of the questionnaire was prepared.

In the following paragraphs the presented approach is described more in details.

1.2. Case studies selection

In order to choose which initiative will be further analysed, among the 28 composing the JRC's report, the Consortium proceeded voting. In particular, each partner presented to the others which were the most relevant case studies from its point of view.

Below the financial criteria adopted in the selection process.

1.2.1. CRITERIA FOR CHOOSING INTERESTING INITIATIVES

The selection process followed some simple criteria in order to identify the most interesting initiative from the financial point of view.

Starting from the results of Step 1, in particular given the presence of different schemes – both in terms of financial resources and actors involved – SINLOC's goal was to collect further data on all the existing financing models and solutions offered by OSSs. In this respect, the preferred case studies result the following:

- Energies POSIT'IF – it is considered interesting in respect to its dual operational business models, arranging financing and providing third-party financing (loan directly from OSS or a bank loan);
- SPEE Picardie – it results of interest since it successfully implemented an ESCO scheme, using the stream of income from the cost savings to repay the investment;
- BetterHome – it provides clients with assistance in order facilitate the process of financing between the individual and his/her bank;
- RenoWatt – it is a procurement agency, acting on behalf of public authorities, operating also through pooling of building in retrofitting works. This logic could be useful especially for Padova OSS.
- PKA – The OSS is a spin-off of the Danish pension fund PKA, market based and with no public subsidies. The direct involvement of an institutional investor in the management of the OSS could be a useful model for PadovaFIT Expanded;
- KredEx – It is a stand-alone non-for-profit organisation, offering a holistic approach composed by financing schemes combined with assistance in grant preparation, technical support, and awareness raising;
- DESEU (Home Performance with ENERGY STAR program) – As KredEx, DESEU offers a whole house approach in order to assess and improve house comfort, energy efficiency, durability, and safety. It could be useful to have an overseas comparison.

1.2.2. OSS' CASE STUDIES SELECTED

Gathering all the preferences expressed by the partners, the selected OSS' case studies are:

<i>OSS case study</i>		<i>N° preferences</i>
1	BetterHome	3
2	Energies POSIT'IF	3
3	RenoWatt	3
4	Oktave	2
5	Reimarkt	2
6	SPEE Picardie	2
7	Deseu	1
8	Retrofit Works	1
9	Småland	1
10	PKA	1
11	Kredex	1
12	CLEAR Project	1

1.3. Analytical study

From this point onwards, the analysis focuses on the selected case studies, which appear to be more relevant for the consortium.

In this report, Sinloc's and FFS's preferences are analysed more in detail.

- **Energies POSIT'IF**

Energies POSTIT'IF is a new public-private company whose aim is to support condominiums and social housing organizations in various phases of ambitious energy renovation projects and providing them with organizational, technical, legal and financial engineering services; thus, through the entire value chain. The starting capital for the ESCO is € 5,32 million shared by public partners 85% and private (two local institutions) 15%. The OSS aims at activating between € 60 and € 90 million worth of investments over three years, starting from a budget of slightly over € 2 million, of which 75% is financed through a grant from the IEE program. The cost per home, including VAT, is € 20.000 to € 30.000 in order to reduce energy consumption by 40% to 70%. Therefore, it becomes important how to assist homeowners to finance the project, in particular Energies POSIT'IF focuses on energy efficiency programs with condominiums. Indeed, it is possible for associations of homeowners to obtain joint grants, such as Energy Saving Certificates

(CEE) or subsidies provided by local authorities. For what concerns benefits at individual level, each person may take advantage from tax incentives, that are multiple, such as Energy Transition Tax Credit (CITE) in case of owner occupiers, while tax deduction on land income for landlords. Moreover, National Housing Agency (ANAH) provides a grant for owner with income lower than a certain threshold. After the deduction, what remains is the amount needed by homeowners that require a source of financing. At this stage the OSS, after the implementation of the operational plan of the project, could decide to stop and homeowners conduct the arranging phase, or it could develop also the financing phase through third-party financing in the form of grants and loans, either from the OSS itself or bank loans. Among the shareholders, we find two local financial institutions. The OSS is in contract with the bank, and the condominiums repay the debt as part of their monthly fee towards the OSS. For this latter, revenues come from a fee paid by the customers in order to get the service, which includes mainly measures targeted at renewable energy heating and green electricity production. Since the fee takes into account the energy savings, it is safe to assume that such investments are recorded on the citizens' balance sheet.

- **SPEE Picardie**

This OSS required an investment of € 58 million in order to be set up. Its goal is to realize interventions for a total amount of € 300 million over the next 5 years. Retrofitting a house costs about € 30.000, whereas the price gets halved for apartments. Depending on the scenario chosen by the client, there can be three different types of measures that are implemented: scenario 1 consists of insulation of walls, roofs, floors, double glazing, ventilation; scenario 2 encompasses all scenario 1 measures, but provides thicker insulation; lastly, scenario 3 entails triple glazing on North side, dual flow mechanical ventilation, and heat pump in addition to all the measures from scenario 2. The OSS also provides loans and helps obtain grants if need be. In that case, third party financing will be ensured by public financial institutions, namely the Hauts de France Region fully assumes the development of the activity and the financial risks inherent to third-party financing. Energy savings, the project should reduce 40% of consumptions, contribute of about 85% of the repayment of debt, therefore only 15% of total investment should be provided by customers, who could use also white certificates and grants to reduce the amount. Loans are low interest rate, about 2,5%. On average, the contribution percentage for the project is 70% third-party financing, 13% subsidies and 17% self-financing. Moreover, one object of the OSS is to create group of suppliers in order to reach economies of scale that may reduce the investment amount for homeowner.

- **BetterHome**

This OSS receives the whole budget from the four founders, who retrieve indirect sale revenues. Focused on lowering the energy consumption and improving indoor climate at the same time in single family houses built between 1950 and 1990, the OSS offers its clients 3 packages, namely, Energy Package, Comfort Package and Modernization Package. The assistance is focused on the technical part of the project, moreover the first inspection of the building, by an installer, is free of charge even if the project does not materialize. This enhances the interest for homeowners in the project, because of the free cost of the first technical advisory. However, it also offers assistance in financing by providing the bank with the project details through its BetterHome tool, so it is an indirect financing assistance. The associated banks – five - trust the BetterHome quality and financial characteristics. A single project usually entails investments of approximately € 70.000. The energy savings are estimated to go from 30% to 70%. The banks play an important role in making the renovation project a reality. The home-owner discusses the intention to renovate their house with their usual bank. The bank screens together with them their financial capabilities



and refers them to BetterHome, since they trust the quality and process of the model. The bank continues to follow the journey of the clients to assist them with additional financial guidance and support.

- **RenoWatt**

This case is different from the previous, as the object of the initiative is a public entity and not a private person. The OSS assist public authorities in the technical part of the project, but also it drafts the financial plan, focusing on the financial return. Moreover, the project is focused on pooling of buildings, so it is important to identify how to cluster them. The estimated savings are about 34% of energy consumptions. Moreover, it would create 322 direct jobs and 780 indirect ones. The process of the RenoWatt initiative is made of three steps: launching a tendering agency, Work according to Energy Performance Contracts and pooling of buildings.

The peculiarity of EPC contract is that the interventions is performed by the ESCO that bears all the cost of the intervention and requires revenues from the beneficiaries.

- **PKA Sustain Solutions**

The Danish Pension Fund PKA defined a strategy to merge profits and sustainability, with a particular focus on climate change. In order to pursue this long-term objective, in 2015 PKA decided to lunch a fund offering fully funded renovation in Denmark and create an OSS, which is still running.

The project of the OSS was launched through a direct €40 million worth investment of the pension fund, structuring a programme which is completely market-based and not depending on public subsidies. It is structured on a partnership compose by PKA, which provides the capital, Smith Innovation, which provides the experts for the renovations, and Dong Energy. The OSS is aimed to bridge the gap between home renovation and refurbishment opportunities and homeowners' lack of capital. The idea to offer a holistic approach, totally funded with private capital and starting by the direct engagement of an institutional investor, increase the potential replicability and scalability of the project. The objective is to recover the investments from the utility cost savings, since the OSS offers EPCs to its customers. Actual energy savings of interventions usually range between 30-60%.

- **KredEx**

The Estonian OSS KredEx was founded in 2001 under the jurisdiction of the Ministry of Economic Affairs and Communications, in order to assess a structural problem related to energy consumption in the Country. Indeed, Estonia uses two to three times more energy than the Nordic countries even though the average temperature is higher. The average annual heating energy used in the buildings is 200-400 kWh/m². KredEX Foundation created an insurance company (AS KredEx Krediidikindlustus) and a venture capital fund managed by AS SmartCap, a KredEx subsidiary.

The OSS was built as a stand-alone non-for-profit organization, offering a holistic approach composed by financing schemes combined with assistance in grant preparation, technical support, best practice dissemination and awareness raising campaigns. The core business is to offer renovation grants, loans schemes and loan guarantees, individuals and families, apartment associations, companies. A particular service is home support for families with many children: families can use the support to purchase, renovate or expand their home and modernize the systems within their home. Moreover, KredEx provides revolving

project finance, under the “Apartment building renovation loan programme” to multi-apartment building owners and housing associations. The OSS is in a financial partnership with Swedbank and SEB Bank, the second largest bank in the country. According to available data, the grant volume is €102 million.

The public nature of the OSS helps to widen the scope of the different services offered but entail specific requirements related to the grants such as: obligatory technical consultants; agreements for post-maintenance have to be established; the audit is required to be done through measurements

- **DESEU (Home Performance with ENERGY STAR program - HPwES)**

As KredEx, Delaware Sustainable Energy Utility (DESEU) is a stand-alone non-for-profit organization created in 2007 by the State of Delaware – through the Energize Delaware Initiative – to sustain residents and business in energy efficiency and cost saving through a OSS solution. DESEU model was the first in the United States. DESEU launched its in 2014, which is still running.

DESEU offers a whole house approach in order to assess and improve house comfort, energy efficiency, durability, and safety, providing cost effective opportunities for energy savings and creating new markets for customer-sited renewable energy. Through the HPwES Program, customers can receive an instant rebate covering 75% of the cost, up to \$300, of an HPwES audit. The Sustainable Energy Utility offers program rebates up to \$6,750 for the installation of recommended air sealing, insulation, and HVAC (heating, ventilation, and air conditioning) upgrades. DESEU offers low-interest loans up to \$25000.

In the DESEU framework, customer chooses an Energize Delaware energy advisor that makes the audit and recommended energy-saving home improvements; this energy advisor conducts also post-install diagnostic testing and estimate energy savings achieved. In the mean, customer may choose amongst several energy-savings home improvements recommended by an auditor. Then the customer hires a pre-approved contractor to install the energy saving improvements.

The public-shaped nature of DESEU widens its targets: to build jobs in the state, to support the local economy, to improve energy reliability and protect Delaware from the damaging effects of volatile energy prices. DESEU will accomplish this by utilizing both its authority granted by the State of Delaware and private sector entrepreneurial strategies.

In order to deepen the understanding and the mapping of the initiative, the Consortium developed a questionnaire to be deployed directly to the OSS selected in the previous phase.

1.3.1.METHODOLOGICAL CREATION OF QUESTIONNAIRE

The Consortium decide to develop a questionnaire to be deployed to the contact person of the selected OSS initiatives to gather further information in respect of that already included in the JRC report. As said before, each partner was in charge of developing few questions in respect of its field of expertise.

The questionnaire is composed by 3 sections:

1. Technical

DELIVERABLE 5.1

Developed by Sogesca

2. Financial & Business Model

Developed by SINLOC and FFS for the financial component, while Uni Bocconi focused on understanding Business model features and replicability

3. Engagement

Developed by CPD

The questionnaire will be deployed in editable form to selected OSS at early January. Answers will be collected and analysed and the output will be useful to carry out the activities foreseen in the next tasks.

1.3.2. FINANCIAL QUESTIONNAIRE

The financial questionnaire is reported below

QUESTIONNAIRE

FINANCIAL & BUSINESS MODEL ASPECTS

1. Which was the amount of investment needed to set up the OSS?

2. Did the set-up of the OSS benefit from public or private dedicated grants? Yes/No.

If yes, please indicate which ones and their share:

Grants type	Share (%)
National Grants	
Regional Grants	
Municipal Grants	
Other Public Grants	



Private Grants	
Other Contributions (please specify)	

3. Which was the target amount of investments to be activated by the OSS?

4. What are the main revenue streams of the OSS? (Please indicate them and provide an estimation of their economic dimension on an annual basis)

Revenues streams types	Average economic dimension on annual basis (€)
Fee paid by the customers	
Fee paid by the suppliers	
Kick-back fee from the suppliers	
Other (please specify)	

Please add detail if needed:

4. In case a fee to access the OSS services is foreseen, what is the amount?

Fee types	Fee amount (€)
Fee paid by the customers	
Fee paid by the suppliers	
Kick-back fee from the suppliers	



Other (please specify)	
------------------------	--

5. What are the main operational costs of the OSS? (please indicate them and provide an estimation of their economic dimension on an annual basis)

Operational cost types	Average economic dimension on annual basis (€)
Personnel	
Equipment	
Utilities	
Other (please specify)	

Please add detail if needed:

6. Considering energy efficiency investments directly or indirectly generated by the OSS, on which budget are they financed? Please indicate on which ones and their share on total budget:

Budget	Share on total budget (%)
OSS' own budget	
Financial institutions'	
Private actors' (citizens)	
Public entities'	
ESCOs	

Other subjects' (please specify)	
----------------------------------	--

7. Considering energy efficiency investments directly or indirectly generated by the OSS, what types of interventions do they regard? Please indicate which ones and their share on total investments:

Interventions	Share on total investments (%)
Building shell	
<ul style="list-style-type: none"> • Vertical cladding 	
<ul style="list-style-type: none"> • Horizontal cladding 	
<ul style="list-style-type: none"> • Window 	
Heating systems	
<ul style="list-style-type: none"> • Condensing boiler 	
<ul style="list-style-type: none"> • Heat pump 	
<ul style="list-style-type: none"> • Thermoregulation 	
<ul style="list-style-type: none"> • Air conditioning systems 	
Fixtures	
Lighting	
Appliances	
Building automation	

Renewable energy production	
<ul style="list-style-type: none"> PV system 	
<ul style="list-style-type: none"> Solar heating system 	
<ul style="list-style-type: none"> Geothermal 	
Integrated interventions (please specify which ones)	
Educational programmes/training	
Technical assistance	
Other (please specify)	

8. Considering energy efficiency investments directly or indirectly generated by the OSS, what types of financial instruments do they use? Please indicate which ones and their share on total investments:

Financial instruments	Share on total investments (%)
Private's own resources (e.g. households')	
Grants	
Loans	
Crowdfunding	
Bonds	

Other (please specify)	
------------------------	--

9. Which are the main characteristics of the financial instruments mentioned above?

Characteristic	
Beneficiaries	
Amount	
Selection criteria	
Financing conditions	
Rate	
Pay-back period	
Other (please specify)	

10. Which types of financial actors are involved in OSS activities? Please indicate which ones and their role in the OSS

Financial actors	Role in the OSS
Commercial banks	
Public financial institutions	
Credit unions	
Saving and loan associations	

Mutual savings banks	
Insurance companies	
Pension funds	
Finance companies	
Mutual funds	
Other (please specify)	

11. How is the relationship with financial actors mentioned above managed? (i.e. economic conditions, involvement, etc.)

.....

12. Are financial actors selected through calls for tenders? Is there a supplier list? Closed or Open? How frequently do you update this list? Can a supplier ask to be included in the list? And how?

.....

13. Does the OSS/project activate some guarantee scheme? Please indicate which ones and what share of investments they cover on average.

Guarantee forms	Share on investments (%)
Insurance	
OSS' own guarantee	
Third-party guarantee	
Other (please specify)	

14. Please express your opinion about the main advantages and the main limits of the different financial instruments and guarantee schemes adopted by your OSS:

.....

15. Which selection process does the OSS apply? Please describe the selection and evaluation criteria for investments used by the OSS.

.....

BUSINESS MODEL REPLICABILITY

1. Is the business model of your OSS scalable?

- No, it only works at a specific scale
- Yes, with some changes/adaptations
- Yes, it is completely scalable

Please motivate your answer:

2. Is the business model of your OSS linked to specific laws/incentives available in your country/region?

- No, it is not linked to any specific laws/incentives
- Yes, it is linked to specific laws/incentives

Please motivate your answer and list the related laws/incentives:

3. What is the average return of investment of interventions supported by your OSS?

- Short-term (1/5 years)
- Average-term (5/10 years)
- Long-term (10/20 years)

Please motivate your answer:

4. Is the business model of your OSS linked to a specific cultural habit or behaviour in your country/region?

- No, it is not linked to any specific cultural habit/behaviour
- Yes, it is linked to specific cultural habit/behaviour

Please motivate your answer and describe the related habits/behaviour:

DELIVERABLE 5.1

5. Are technologies adopted by your OSS easily available (e.g. audit tools)?

- They are open source and freely available
- They are open source and available based on a fee payment
- They are proprietary and available based on a fee payment
- They are not available for use by others.

Please list the technologies adopted by your OSS and their main functions:

6. Did you experience any obstacles (e.g. of technological, socio-cultural, political-institutional, economic-financial type) in launching the OSS? Which measures did you adopt to overcome these obstacles? (please describe).....

7. Which factors (e.g. of technological, socio-cultural, political-institutional, economic-financial type) facilitates/facilitated the OSS activities? (please describe).....



2. MAPPING OF EXISTING INCENTIVES SCHEMES

In Italy there are different existing schemes to foster energy efficiency interventions in the residential sector and attract private finance.

GSE – Gestore dei Servizi Energetici S.p.A. is the company appointed to promote sustainable development. It manages more than 10 incentives mechanisms aimed at promoting the development of energy efficiency and renewable sources. Among these, the most relevant incentives dedicate to energy efficiency are:

WHITE CERTIFICATES | Also known as “Energy Efficiency Certificates”, White Certificates give proof of end-use energy savings achieved through EE investments. One certificate corresponds to one tons of petrol saved, and can be traded on the platform managed by the Energy Market Manager² or through bilateral deals.

HIGH PERFORMANCE COGENERATION | As for EE interventions, also high-performance cogeneration units are allowed to access to the Energy Efficiency Certificates (EEC) or white certificates. Cogeneration is the single-process production of electricity and heat, useful both for heating and/or for production and industrial processes. Savings coming from cogeneration are evaluated by the GSE who recognised ECC accordingly.

RENEWABLE ENERGY FOR HEATING AND COOLING SUPPORT SCHEME | The scheme, so-called “Conto Termico”, aims at supporting the production of thermal energy from renewables, as well as small-scale EE interventions for private subjects and Public Administrations. In particular, GSE has € 700 million/year to dedicate to incentives that can vary from 40% to 65% of the overall investment.

Our intent is thus to give an important contribution in reducing the use of fossil fuels and in increasing efficiency through the use of energy resources in sectors that result to be critical from the viewpoint of energy consumption, such as civil-residential structures, schools, hospitals and Public Administration buildings.

² Gestore dei Mercati Energetici - GME



In addition to these incentive schemes, Italian Government foresees another useful fiscal bonus, recently introduced in the regulatory framework.

ECOBONUS and SISMABONUS | In the last two years, the Italian Government has worked on fiscal bonuses, in particular those dealing with interventions for energy and earthquake-proof recovery of buildings. Indeed, in the Budget Law of 2017, the Government extended these incentives until 31st December 2021 and it remodelled them. The important feature of these two measures is how works the deduction for private homeowners or for the entire condominium. For Ecobonus the amount of deductions goes from 50% to 75% of the costs, it depends on the type of interventions the money value for them and the type of buildings. Indeed, since 1st January 2018, this derogation is available also in case of single unit, e.g. a private flat, and not only on common part of the condominium

For what concerns Sismabonus, the bonus depends on two hypotheses:

- “Sismabonus condomini”, for condominium in zones 1, 2 or 3 for earthquake. The deduction is 75% of the interventions cost, for max expenditures of 96.000 euro each unit in case of risk reduction of one risk class; 85% in case of reduction of two classes.
- “Sismabonus acquisti”, in case of purchase, the deduction for the intervention cost is 75% or 85% for the acquirer with the maximum selling price of 96.000 euros. The percentage depends on the amount of class risk reduction, namely one class or two classes.

Moreover, it is possible from the Budget Law 2018 to combine Sismabonus and Ecobonus in case of seismic risk is collocated in risk zones 1, 2 and 3 (there are 4 classes of risk in decreasing order, from 4 the lowest to 1 the highest). The deduction would be 80% or 85% for a maximum amount of 136.000 euros for each apartment unit and it would be divided in ten annual rates.

The other important aspect is the choice that a private could pursue. In fact, the reimbursement is divided in 10 years for the intervention under Ecobonus; thus, the private person or the condominium will receive an equal part of the deduction each year for ten annuities. For Sismabonus the period is 5 year. However, Decreto Crescita 2019 gives the option to subtract the entire amount from the investment cost at the moment of payment, thus to have an immediate benefit of the bonus. Furthermore, it is also possible for beneficiaries of the projects (private people as homeowners or companies, for tax purposes, IRPEF or IRES persons³ respectively) to sell the deduction provided by the State to firms providing services or goods for the interventions, or private persons connected to the project, excluding financial institutions and intermediaries⁴. The way of this selling is tax credit, thus the buyer could use the amount bought by beneficiaries to reduce taxable income, while the latter would receive an immediate payment. Beneficiaries could replicate this transaction only two times in a year.

³ The deduction is applied even in cases for whom could not use it, because the gross tax is absorbed by other deductions or not due

⁴ There is a particular case when the deduction could be sold to banks or financial institutions. This is applicable for the so-called “incapienti”: retirees with annual income equal or lower than 7.500 euros; dependent workers with overall income equal or lower than 8.000 euros; persons receiving income similar to dependent jobs, lower than 4.800 euros per annum

CONCLUSIONS AND FURTHER STEPS

Implementing a One-Stop-Shop requires the setup of services which are respondent to the specific needs of the area in which it is operating. Thus, preparatory actions are needed aiming at creating the necessary knowledge base to address in particular the peculiarities of potential beneficiaries of the services. More in details, since the OSS is going to deploy financial assistance to households, it is necessary to adequately structure the financial services to be implemented.

The report analyses some of the most meaningful best practices of energy efficiency projects implemented in EU. In particular, it focuses on One-Stop-Shop experiences, both closed and on-going, in order to identify and examine the financing schemes mapping lessons learnt useful for the setup of OSSs in Padova and Timisoara, as well as the Action Plan for Burgas and Smolyan.

The analysis of previous experiences pointed out important results, even if the data collection process encountered some difficulties due to the fact that often financial information tends to be sensitive and thus remains private.

It is worth to notice that often households are offered financial services, among a comprehensive package of assistance since the first stages of structuring the energy efficiency interventions. Financial services can include support in the dialogue with financial operators selected by the householder himself, or support in arranging the financing with pre-determined schemes and/or operators. In fact, it is common among analysed OSS to establish partnership with players in the financial sector such as banks or credit institutions. In particular, in the majority of case studies financing scheme is loan, however there are also viable alternative such as EPC contracts, credit guarantee, but also group purchasing or mixed schemes.

Therefore, there is an ample spectrum of ways to support homeowners. The best choice will depend on households' financial capacity (*D5.2 Analysis of households' financial capacity in the four pilot areas*) and the credit market of the area in question.

DELIVERABLE 5.1

In order to deepen the analysis finding out detailed information, the Consortium selected twelve case studies among the most interesting and structured a questionnaire to be deployed. The results will be analyzed and taken into consideration when defining the services of specific OSS to be implemented in task 2.2 related to the strategic assessment.



ANNEX I – OSS MATRIX



GENERAL INFORMATIONS							WP5 - FINANCIAL ENGINEERING WP LEADER: SINLOC			
Name of the initiative	Target clients	Activities/Services provided by the OSS	Auspices	Host organization	Partnerships	Results (realized or planned)	Customized or standard solution	Financial resources activated	Financial resources available (OSS)	Financing schemes
Reimarkt	Owners and tenants of private housing	n/a	Market based public company	New company, self-standing start up	n/a	- Assisted 10.000 contacts, of which 1.750 invested in energy efficiency, and max. 5% uses financing (2014-2017)	Customized	Private	n/a	Loan/ own funds/ rent
Energies POSIT'IF	Condominiums (homeowners' associations, social housing companies)	n/a	Promote, Organize, Support, Imagine the energy Transition in Ile-de-France territory	A new public-private venture, a Semi-Public Company, to develop an Energy Service Company (ESCO), to offer a whole value chain Hosted by Cîté Régionale de l'Environnement	- 2 local financial institutions are shareholders (la Caisse des Dépôts et Consignations et la Caisse d'Épargne Ile-de-France) -The OSS is in contract with the bank	- Average cost of works per condominium is €3 million; - Number of contracts signed with condominiums per year: 10 to 15; - Total contracts value over 3 years: €60 to 90 million; - Contracts duration: 15-30 years; - Internal Rate of Return in multifamily buildings: 4-9% over 15-20 years	Standard (custom for condominium)	Private and public	€ 2,1 million	Third-party financing (loan directly from the OSS or a bank)/ the client pays a fee for the OSS service
Oktave	Homeowners, at present limited to single family homes	n/a	Municipalities-led OSS, which was also supported by the Intelligent Energy Europe programme. It is part of the Climaxion program, a joint initiative between the Region and ADEME	New organisation, founded by the Greater East Region and ADEME (At the moment works in collaboration with the Alsace Province, but in the future it will be transformed into a Company of Mixed Economy)	- Local authorities and local contractors	- Support 2,100 renovation projects over the first four years, and 1500 projects per year from the fifth year	Customized	Private and public	€ 1,5 million	Loans/ EPC
RenoWatt	Municipalities and their existing buildings	n/a	Stand-alone procurement agency	GRE Liège (Provincial Development Agency)	-Public-public cooperation between the agency and the municipalities - No information about partnerships with banks	- 5 EPC covering a total of 136 buildings; - Savings of 34% of energy consumption are guaranteed reducing of 7545 tonnes of CO2 equivalent.; - EUR 59 million investments generated in 3 years; - 322 direct jobs and 780 indirect jobs mobilized; - 12 public authorities involved in the project including a hospital	Standard (pooling of buildings)	Public	€ 2 million	EPC
KredEx	Multi-apartment building managers	Financing, which is combined with assistance in grant preparation, technical support, and awareness raising	Founded under the jurisdiction of the Ministry of Economic Affairs and Communications	Stand-alone organisation, non-for-profit	-Local banks, which are financial intermediaries: Swedbank and SEB	n/a	Customized	Private and public	€ 102 million	Loan and grant
EBRD credit lines	Municipalities, multi-apartment owners/managers	Financing, combined with support for audit, project selection, verification, awareness raising	European Bank for Reconstruction and Development (EBRD)	Depending on the market and the product, channelled directly (in case of large borrowers), or through an intermediary partner (such as a bank, leasing company, fund/ utility/ public company/ ESCO)	-Liaise with local bank when needed	- Annual electricity-equivalent savings of 237 GWh, 240,000 tonnes of CO2 estimated emission reductions equivalent to the annual footprint of 55,000 Sofia residents; -Emissions reductions over 15,000 tCO2/year; -Delivered energy savings (heat and electricity) of 58.1 GWh/year	Customized	Private	n/a	Debt/ equity / guarantees.
Energy Efficiency and Renewable Sources Fund (EERSF)	Municipalities, hospitals and universities, small and medium enterprises, citizens	Financing of energy efficiency and RES investments (renovation and new) with additional technical assistance	'Energy Efficiency and Renewable Sources Fund' (EERSF), formerly known as the 'Bulgarian Energy Efficiency Fund' (BEEF)	Independent public private partnership	The fund encourages combination of financing with local bank offers	- At 2014 funding or guaranteeing 170 energy efficiency projects for a total amount of €23,4 million, with a total investment value €34,6 million. -Projects were estimated to have achieved 95.4 thousand MWh/year energy savings and CO2 reductions of 75 kt/year. -17 active ESCOs and 4 financial institutions and agreements with 5 other financial institutions	Customized	Private	€ 9 million	Minimum equity contribution 10%/ 25% is required from project developers, depending on the proposed financing type.EERSF provides partial credit guarantees (PCGs) which can cover either 50%(first loss basis after the bank-creditor) or 80% (pari-passu basis) of a project's total credit value. Individual guarantees are normally capped at €400k
PKA Sustain Solutions	n/a	Holistic solution for renovations supported by Funds resources. Investments recovered by utility cost savings. Actual energy savings usually range between 30-60%	Danish pension fund PKA	Spin-off from PKA and partners	- Smith Innovation (experts for the renovations) - Dong Energy (largest energy company in Denmark)	- The first wind park investment in 2011 in Denmark - Today ca. €1.7 billion in four wind parks	Customized	Private	€ 40 million	EPC
ENRA concept	Primarily singlefamily houses	Holistic service, one point of contact, particularly assistance in financing	A product of a group of companies (joint venture of retailers with industries and contractors)	Core company: Rustholli	- Renovation company (service provider) - Different manufacturers: window and door, ventilation system, insulation, heat pump supplier - Energy auditor and certificate supplier	n/a	Customized	Private	n/a	n/a
Bolig Enøk	Owners of single family houses in selected areas, who are creditworthy to increase their mortgage loan	Homeowners employ a "Project Manager", who provides technical analysis, recommendations and project management of the full renovation process. The Project Manager takes care of contacts with all involved actors. The homeowner is invoiced for the complete project by Bolig Enøk, which thereby takes on the risk towards the customer	A daughter company of Glava AS (joint venture of retailers with industries and contractors)	Glava AS	- Building product supplier (service provider) - Contractors - Local retail stores - Various partners with expertise in building physics and energy and heating. (Sintef, Glava, KVT)	n/a	Customized	Private	n/a	Mortgages loan
BetterHome	Mainly single-family houses	A burden-free renovation process, focused on lowering the energy consumption and improving indoor climate at the same time, through the use of online tool to receive a report and recommendations on renovation measures and offers from local suppliers. The local representative comes to the home to discuss the details and fix the offer	Market-based, industry-driven company	Self-standing OSS, launched by supply-side actors Danfoss, Grundfos, the ROCKWOOL and VELUX Groups	Partnered with local banks	- More or less 200 projects in 2016, but demand is growing rapidly; - Mainly deep renovation projects, with investments of ~ €70 000 and energy savings of approximately 30-70%	Customized	Private	€ 13 million	Few subsidies exist but access to finance is rarely a problem. The homeowner discusses the intention to renovate their house with their usual bank. The bank screens together with them their financial capabilities and refers them to OSS, since they trust the quality and process of the model. The bank continues to follow the journey of the clients
Haarlemse Huizeaanpak	Private homeowners	The renovation can be built on other aspects than energy and the energy performance improvement will piggyback on it	A non-profit foundation with a revolving fund from the province of North Holland	Newly founded based on earlier initiatives on the sides of all partners, residents – who formed neighbourhood communities, locally active architects and construction businesses – who searched for local clients, municipality – adopted ambitious energy goals and acted as facilitator	n/a	n/a	Customized	Private	n/a	n/a
Tighean Innse Gall	Housing, community group and small business sectors	Assistance in all stages of a renovation project: full implementation, but also energy advice and consultation, assistance in financing arrangements, including adding own resources (e.g. for vulnerable citizens)	None	Stand-alone organisation	- Local authority, the NHS and their Integrated Joint Board - Community planning partnerships	n/a	Standard	Private and public	n/a	Equity Loan
Stroomversnelling	Single family houses, with multi-apartment houses	Assistance on energy efficiency regarding both refurbishments and new buildings improving building energy performance. A 30-year performance guarantee on both the indoor climate and the energy performance is complementing the service. New financing is organised for the renovation. The OSS also contributes to regulatory changes related to their field	The Stroomversnelling network consists of contractors, component suppliers, housing providers, local governments, financiers, DSOs (energy system manager) and other parties	n/a	Yes, but no detailed information	- 1.300 Net Zero Energy refurbishments have been realised so far and a further 500; -Net Zero Houses are being built	Customized	Private	n/a	n/a
Energy Savers	Homeowners in the multifamily buildings	Energy Analysis; cost-effective energy-saving: Low-cost financing through our partner, Community Investment Corporation; Align scope and assist Owner in accessing appropriate utility rebates and programs; Construction Management & Oversight; Track building performance to ensure savings	An energy efficiency services provider programme	Center for Neighborhood Technology (CNT)	n/a	Between 2008 and 2013: - Audited more than 20.000 units - Successfully completed retrofits of more than 7,500 units - Collective savings of over \$6 million	Customized	Private	n/a	n/a
Elevate Energy	Multifamily buildings, 1-4 unit buildings, Nonprofit buildings and childcare centers	Assistance on selection of local contractors: analyst helps to select cost-effective solutions, and solicit bids from qualified contractors; financing options are reviewed, the OSS helps to find and apply for rebates, grants, and incentives; ex post monitoring; free Energy Assessment	Market-based, stand-alone organisation	Elevate Energy	n/a	n/a	Customized	Private	n/a	n/a
Energieheld	Residential buildings	Energieheld offers advice on suitable renovation solutions and subsidies, as well as a network of regional specialist companies	Complementary business provided by utility company	New company, self-standing start up	n/a	200.000 customers and over 1.000 craftsmen	Customized	Private	n/a	Customer pays for the renovation while the service provider takes charge of the whole costs (salary of product manager, marketing, consultancy, administration and support) earning money from the partners of the value chain involved, paying a fee to become members of the cooperation cluster

GENERAL INFORMATIONS							WP5 - FINANCIAL ENGINEERING WP LEADER: SINLOC			
Name of the initiative	Target clients	Activities/Services provided by the OSS	Auspices	Host organization	Partnerships	Results (realized or planned)	Customized or standard solution	Financial resources activated	Financial resources available (OSS)	Financing schemes
DESEU (Home Performance with ENERGY STAR program)	Residential buildings	Whole house approach to assessing and improving your home's comfort, energy efficiency, durability, and safety	A non-profit organization	Created by the state of Delaware	- ICF International (global consulting and technology services company) - AFC First Financial Corp	n/a	Customized	Private	n/a	Low-interest loans up to 25000 \$
Public Energy Efficiency Service/SPEE Picardie	Residential buildings	Marketing, integration, financial advice, financing, assessment	Established by the Regional Council of Picardie	Regional Council of Picardie	- Local construction actors - Local financial services for third-party financing	- The ambition is to renovate 2000 residential homes over a 3 year period with 50 to 75% energy savings, the creation of 33 direct jobs and 650 indirect jobs in the construction sector ; - Over the next 5 years, 10,000 renovations per year, with €300 million investment and the creation of 3,500 jobs in the construction sector	Customized	Private	€58 million for 2000 projects, €50 million for the works and €8 million for the operations	Third party financing ensured by the OSS or by partner financial institutions (long term loan) in accordance with the debt capacity of the homeowner
CLEAR project	Citizens	Installation of RES, financing	CLEAR - enabling Consumers to Learn about, Engage with and Adopt Renewable energy technologies	Consumer associations	n/a	- 26 group purchases completed - more than 170 renewable energy systems tested	Customized	Private	€ 3,9 million	Group purchasing to enhance economies of scale
Rhodoshop Programme Development Unit (PDU)	Local public authorities, other stakeholders in small sized rural municipalities	Financing, tendering	Rhodoshop project: a pilot programme to facilitate investment in energy efficiency by creation of One-Stop-Shop in Rhodope Region of Bulgaria	Sofia Energy Center Ltd. (existing host)	- Project developers, Project contractors - ESCOs - Banks	- Mobilizing € 11.5 million investments for energy efficiency improvements in 42 public buildings and € 1.7 million investments for refurbishment in street lighting networks in 46 settlements of Rhodope Region ; - energy savings of 8,8 GWh/year ; - renewable energy production of more than 0,5 GWh/year	Standard	Public	€ 0,5 million	n/a
Småland-Blekinge pilot OSS	Homeowners of detached houses, Small-sized suppliers	The OSS compiles offers from all suppliers from all the parts of the value chain of a building renovation, as a construction. Since the business model is being developed currently, the further entry points are not yet fixed (e.g. financing, operation, etc.)	One-stop-shop business model for energy renovation of detached houses (a study)	The host is not yet known, the Linnaeus University is developing a business model for the future OSS	n/a	n/a	Customized	Private	n/a	n/a
Retrofit Works	Homeowners	Intermediation between SME suppliers and customers, participating only in the preparatory and follow-up works. The service is the following: Householders are assessed, 3 quotes are generated from the energy survey from local SME companies via the online tool; All installer Practitioner members are quality vetted, and referenced; A grant scheme assessment is made	A cooperative owned by community based organisations and local supply chains	Parity Projects (energy efficiency consultancy)	The structure of the OSS is a cooperative	n/a	Customized	Private and public	n/a	RetrofitWorks has access to a charity-based loan provider which offers competitive rates specifically for home improvement works
CleanTech	Owners of single family houses	Combines the base-offer of heat pump solution, insulation, windows, solar heating and building thermography with a full service solution in cooperation with partners. Dong Energy takes care of advice, sale and coordination	Subsidiary of Dong Energy	Ørsted (earlier Dong Energy)	- Energy utility (service provider) - Various contractors - Suppliers (Rockwool, Danfoss, Velfac) - Bank (Nordas) and mortgage credit institution (Totalcredit)	n/a	Customized	Private and public	Market based	n/a
Adsboll - Projekt Lavenergi	Owners of single family houses,	Offers and organises holistic energy efficient renovation in connection with execution of needed renovation. The holistic renovation is based on the concept of external air lightening and insulation of the house. The service includes advice, on-site audit, full project management and assistance in financing. Provided training and mentoring to local craftsmen	A product of the mother-company	Adsboll	- Local utility company - energy advice department (Trefor energy) - Producers - Bank and mortgage credit institutions - Green Business Growth partnership	n/a	Customized	Private	Market based	n/a
Be Reel!	4.1 million homes	n/a	Established by the Flemish Energy Agency	Vlaams Energieagentschap, Vlaamse Overheid (VEA) - Flemish Energy Agency	- Service Public Waalons (SPW) - Department of Environment - Flemish Energy Agency (VEA) - Belgium City of Ghent/Antwerp/Mechelen/Mouscron/La Louvière - The Scientific and Technical Center for The Construction Company (BBRI) - Knowledge Center for Flemish Cities (KUS)	- Increased number of innovative technologies, systems and instruments and/or best practice solution for reduction of GHG emissions;- Significant increase in the number target applying integrated approaches with support of the project or replicating the results of the project; - Strengthened climate change mitigation management and governance	Customized	Private	n/a	n/a