



Interreg North-West Europe  
ACE-Retrofitting



## Capacity building workshop

# Providing energy retrofit packages to private homeowners – business models and project implementation

19 June 2019

## Detailed agenda for session 3 and session 4

### SESSION 3. Lab sessions: Problem-solving around participants' challenges

*Work Groups: collaborative work around challenges brought up by participants. A4th challenge is still missing. If you want to bring one for this session, just tell us*

#### Challenge 1 proposed by - Barbara de KEZEL, City of Antwerp (BE): Innovative financing for a deep retrofit of condominium.

In Flanders, for privately owned condo's, the common part of the building is owned by a 'council of co-owners' (VME). Most of the old buildings do need big replacement investments. This means that we need huge financial means, not only for energy efficiency measures but also for replacement investments or repairs. These are not related and not in line with pay back times of ESCO's or short term financial products (payback time of 10 years). As an output of the first results of the Masterplan pilots in the City of Antwerp (ACE-Retrofitting) – we assess that we need an innovative financing solution for a deep retrofit as a whole. To find a solution which fits for all owners of the building, we do need a financial product which is not a personal loan but a long term 'object based loan' linked to the dwelling. This kind of object based loan (VME-krediet) already exists in Belgium as a product of several banks. But the current financial product is not sufficient to achieve big upfront investments for deep retrofit. We are convinced that public authorities or regions have a role to play in finding adequate financing schemes. What are the experiences of other local actors or financing institutions to deal with this problem?

#### Challenge 2 proposed by Francisco MÁRQUEZ / Daniel ENCINAS, Extremadura Energy Agency (ES): Owners engagement

Extremadura Energy Agency has always focused on technical issues to attract homeowners in the energy building retrofit (It is easy to explain the benefits of building renovations in terms of energy and savings). However, we realised that this is not the main priority for homeowners as they are worried about other issues such as aesthetic problems, housing value... Therefore, they now try to deal with this challenge by involving the "Property Managing Association". But Is it the best and most efficient way to engage homeowners in carrying out an energy retrofit?



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### Challenge 3 proposed by Arno GROENENDIJK, Transform (NL): Financial schemes for the energy transition.

Transform made a research on how to facilitate the financing of energy transition for homeowners. They have been collaborating with the EIB to provide homeowners with financial schemes for the energy transition. However, we still feel that financing is a challenging aspect and want to discover new ways to solve the puzzle of achieving the energy transition around financing.

### Challenge 4 proposed by: YOU?

## SESSION 4. Market place : Pick your topic and learn about tools and best practices from our experts

### ① Motivating and engaging homeowners and co-owners

Communication, marketing, engagement, psychological & social aspects, development of tailor made products, training, awareness raising

#### With best practices from:



#### **CITY OF MILANO: The co-design process**

#### **Mrs. Cecilia Hugony, entrepreneur CEO Teicos UE Srl**

The co-design process helps to overcome the cultural and social barriers for energy renovation. During the process, several meetings take place to inform co-owners about the benefits of energy efficiency and to encourage them to get involved in the energy retrofit works. In addition, they participate both in the

decision-making and financing of the project, and they have the opportunity to discuss with the professionals.

The starting point is a need of maintenance (safety issues, decay of facades, water infiltration, asbestos removal). After making an analysis of what is needed to upgrade, a plan of work for the energy efficiency renovation is proposed. They use specific graphic communication tools to explain the energy waste in buildings and its impact on the climate change and air quality. They also show data about the increase of internal comfort, wellbeing and flat value after the renovation works.

The methodology of this approach was developed and tested during the Sharing cities project – H2020 SCC1. In the last year, they renovated 6 buildings, saving 60% of energy consumption, and another 4 are now in contracting phase. 600 co-owners have been involved up to now in Milan.



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### **PARIS CLIMATE AGENCY: The CoachCopro approach**

#### **Mrs. Béatrice Bienenfeld, Project Manager**

Paris Climate Agency (PCA) is a non-for-profit organisation created with the support of the city of Paris, the Ile-de-France region and ADEME. With a neutral position, their mission is to establish more connections between owners and building professionals to support the development of successful renovation work plans. For this, they have developed a comprehensive approach which provides both target groups with advice and trainings. The approach is based on an online collaborative platform, called Coach Copro (<https://www.coachcopro.com/>), composed of a public website and a private back office which is the monitoring platform. The process is quite easy: as soon as a co-owner registers on the website, an adviser contacts him for an overview of the project. The advisor is fully dedicated to the condominium from the beginning of the project to the end of it.

PCA is able to give figures thanks to the observatory: on a metropolitan scale, since the platform has been launched, 3 000 condominiums have registered on CoachCopro® (148 000 dwellings), 650 masterplans have been voted (4 400 000€ of aggregated revenue), 230 condominiums have voted retrofitting works (123 000 000€ of aggregated revenue); there are 260 companies affiliated to CoachCopro® platform in the Paris metropole, in 2018 advice provided to 3 500 co-owners, landlords and occupants & finally, 6 000 participants at our events (1 300 pros among them).



### **FREDERIKSHVAN: The Living-Lab approach, getting closer to homeowners**

#### **Mr. Bahram Dehghan, Senior Project Manager & Chief Consultant**

Within the INNOVATE project, they have developed a Living-Lab approach, which is about practicing the intentions by performing few projects from the beginning to the end, and using them as show cases for different segments of homeowners, e.g. owners of single family houses or condominiums.

They consider establishing the One-Stop-Shop (OSS) business model as half of their efforts, and the second half deals with: Information for homeowners and motivation of the target group to make use of the OSS organization. "A business without customers, never becomes a successful business".

Their experiences from previous projects showed that in order to attract homeowners' interest in extensive renovation in their homes, they need to take alternative communication. They therefore chose to meet homeowners at their place of residence by rolling their information trolley to various living quarters in their municipality. Through this approach, homeowners (either as individuals or in



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clusters) could come and ask everything about energy renovation and interior decoration, with the presence of an energy advisor and an interior designer.

To establish partnerships with key players, they began with a survey of recognized (credible) contractors in the construction industry, as well as product and system suppliers and the financial sector. Then they arranged meetings with relevant partners, whereby they presented / promoted their OSS concept and encouraged collaboration. They have already several signed contracts with the OSS organization's contractors and more are on the way.



### **GRAND EAST REGION: OKTAVE web series, an innovative communication campaign**

#### **Mr. Olivier Longin, Project Manager for Energy Transition**

One of the key aspects of this project is to build relationships among all the stakeholders, including craftsmen, owners, OKTAVE staff and counsellors, city council elected officials and, in doing so, to build trust.

OKTAVE is involved in three stages: firstly, they build a brand image and notoriety. Secondly, they make all the stakeholders aware of the issue and foster their commitment. And finally, they sell OKTAVE's services.

Here is a link to show the innovative marketing & communication campaign, based (among others) on developing a web series to engage homeowners in the energy retrofit.  
<https://www.oktave.fr/videos/webserie>

Although the project started in Alsace in 2014, the company's ambition is also to develop throughout the Grand East, which is both a political objective of the main shareholder they represent and a necessity for the company to reach its breakeven point estimated at 1 000 renovations per year.



### **CITY OH HEERLEN: The IKEA One-Stop-Shop**

#### **Dr. Luc Peters, Project Manager**

#### **INNOVATE/WoonWijzerWinkel, Imstenrade, Flitspalen Heerlen**

Heerlen joined the INNOVATE project with the objective to expand their digital energy 'counter' into a physical One-Stop-Shop, which the city envisions as a Centre for Sustainability – 'Centrum voor Duurzaamheid' in Dutch. The city wanted to base such a centre on the model of the WoonWijzerWinkel in Rotterdam, which provides independent advice, cooperates with various companies, and evaluates quotations and offers different energy-related measures.

The *WoonWijzerWinkel* is a full service sustainability shop where supply and demand side meet in open market conditions. It drastically amplifies the refurbishment of houses, making them energy neutral.



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Furthermore, it offers huge opportunities for the job market and increases the economic potential of the region Parkstad (NL).

The *WoonWijzerWinkel Parkstad* will be located in the *Woonboulevard* (Heerlen), next to IKEA, already drawing a customer crowd of more than 4.5 million all from the Euregion including Aachen (DE) and in Liege (BE).



### **KAW-REIMARKT: Standardized products to accelerate energy retrofits**

**Mr. Marco van Dalfsen, Consultant 'social energy transition'**

KAW-Reimarkt is a forerunner thanks to its holistic approach to energy efficiency refurbishments and through its experience of setting up different innovative services across several Dutch cities and regions (Groningen, Enschede, Delft, Zoetermeer, Den Bosch, and Hoogeveen). They have joined the INNOVATE project in order to expand their Reimarkt concept to condominiums in the Netherlands.

They offer standardized products which consist of coordinated measures such as insulation and sustainable installations, whereby customers do not have to worry about material and dimensions. After all, so much is already known about houses and condominiums.

They focus their marketing on the most common types of houses and residents in apartments. They have a multi-channel marketing approach in which they convince consumers in their own store or in pop-up stores that they organize in newly renovated houses.



### **LINNAEUS UNIVERSITY: Is the Swedish market prepared for deep renovation of detached houses?**

**Dr. Brijesh Mainali, Researcher/Lecturer & Dr. Krushna Mahapatra, Professor**

The Linnaeus University (SE) has elaborated a market study for deep renovation in the Swedish context. They have analysed the market looking at both the demand and the supply side perspective. They have studied the attitude of homeowners in Sweden towards renovations and One-Stop-Shop (OSS) services for deep renovation of detached houses. Homeowner's decision-making journey for renovation along with personal and contextual variables have been analysed to identify those homeowners having renovation plans in the near future, what they are going to plan for renovation, and which needs led them to that decision. Furthermore, they have paid attention to the views of construction Swedish SMEs regarding the OSS business concept and its adoption for renovation of detached houses. They



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will share their key findings about the existing renovation practices and the challenges with OSS business models.



### **MAASTRICH UNIVERSITY: Key elements to motivate in the energy retrofit**

**Mrs. Annemarie Van Zeijl, Assistant Professor Sustainable Development**

In an energy retrofitting process the cooperation of various stakeholders is very important to come to a good and accepted solution. All stakeholders hold a piece of the puzzle to contribute to the solution. In order to make sure

that stakeholders are involved in a meaningful way, several key elements are important, such as salience, credibility, trust, time, etc. Annemarie will give an overview of these key elements to help you to move to better solutions.

## **② Developing an energy renovation and financial plan for homeowners. Finding financing for the energy renovation works.**

With best practices from:



### **CITY OF ANTWERP: A Master Plan audit, a full roadmap for the energy retrofit**

**Mrs. Barbara De Kezel | Energy Advisor ACE-Retrofitting Stad Antwerpen | AG Energiebesparingsfonds**

Besides financial planning, the biggest difficulty that homeowners and potential investors have to face is the shortage of knowledge about the approach taken: how to start, which measures to take first and all of this without taking into account the global approach.

The aim of the Master plan audit is to develop a coherent and transparent roadmap for the improvement of the energy performance of the buildings and to create a healthier and more comfortable living environment. By creating this individual renovation roadmap from the start, a technical lock-in effect is avoided by defining the relations and impact of different measures. This Master plan audit also aims at estimating the real cost of the use of the building. This real cost, the 'Total Cost of Ownership' (TCO) takes into account all costs made during the economic lifetime of a building being charted, not only the cost of the investments. The audit depicts a clear image of the structural and installation engineering aspects, safety aspects and housing quality of the building. It



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states which replacement investments and which investments required by law are necessary over the next 20 years.

Through this Master Plan, it is shown how a local government can collaborate with syndics, homeowners' associations and construction professionals and how tools can stimulate them towards ambitious renovations. They also receive the support of the City of Antwerp throughout the whole process thanks to a renovation coach who guides them.



### ARTEE-Nouvelle Aquitaine Region: a complete "key-in-hand" offer

**Mrs. Carine de Vitry, ARTEE CFO since November 2016**

ARTEE is a One-Stop-Shop for private owners of Nouvelle-Aquitaine providing technical and financial assistance. They offer a complete "key-in-hand" offer combining consulting, project design, financing and follow-up of energy consumption.

After an audit, they suggest three different solutions with a target of 40% of energy savings. They try to balance reducing invoices with a monthly loan payment. They offer a long term loan, until 25 years in order to preserve the homeowner budget.

To make sure that homeowners reimburse the amount of money advanced, they ask for guaranties for loans over €5 000: firstly, a death and disability insurance and secondly, a guarantee or a mortgage. They have found a French partner: the mutualiste de l'assurance emprunteur (MNCAP). However, those guaranties are expensive for the householder even if they offer to integrate their cost in our funding.

To develop their financial scheme, they take into account local and regional policies, and local relationships and authorities support.

### BRUSSELS CAPITAL REGION: The Brussels Green Loan



**Mr. Nathanaël Hance, Head of department in the Energy Direction of Brussels Environment**

The Brussels Green Loan (BGL) is a low interest rate credit facility for low and middle income families engaged in energy renovation works. The BGL started in 2008 as a partnership between Brussels Environment, the regional administration for energy and environment, and CREDAL, a financial cooperative. CREDAL lends the money and Brussels Environment pays (part of) the interest rate related to the credit. A guarantee fund has also been created

to cover potential payment defaults.





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### **CANCELLED EUROPEAN MORTGAGE FEDERATION: An Energy Efficient Mortgage Initiative (EEM)**

**Mrs. Jennifer Johnson, Deputy Secretary General**

In November last year, the EEM Initiative published a definition of an energy efficient mortgage and then benchmarked existing ‘green’ loan products against it. Currently, there are more than 30 such products available across the EU. Banks and other relevant stakeholders are still working together to deliver the first energy efficient mortgage product under the EEM Initiative umbrella. They anticipate the origination of the first product of this kind in the coming months.

To set up this mortgage, an understanding and cooperation between relevant market stakeholders, primarily banks, energy suppliers and auditors, property values, supported by local, national and European authorities where relevant is required. Another key enabling condition is robust and reliable data on building energy performance (delivered by the EPC), which should be incorporated in banks’ credit decision making processes and risk management procedures. This will also allow for the correlation between energy performance and credit risk (negative correlation), which drives the business case for lenders and subsequent benefits for all actors in the value chain.

Under the EEM Initiative, one of our partners, E.ON, an energy supplier, has signed a strategic partnership with BNP Paribas Personal Finance, one of the EEM Initiative pilot scheme banks, to develop a ‘green’ mortgage product, which will allow movers, first time buyers, and re-mortgagors to use their mortgage to further borrow via a linked ‘energy efficiency home improvement loan’ to improve the energy efficiency of their homes.

According to the lender, this mortgage might be characterised by preferential interest rates, higher loan amount at the time of origination, an integrated service offers in partnership with utilities, including advice on energy renovation, etc.



### **CITY OF PADOVA: H2020 PadovaFIT Expanded**

**Mrs. Daniela Luise, Head of Informambiente Office & Mr. Maurizio Minuci, Project Officer**

The municipality of Padova, within the project PadovaFIT!, has launched a Financing Investment Tool for the multi-property residential buildings of the city.

An Energy Service Company (ESCO), in partnership with an engineering company, has been appointed to perform the works in the subscribing buildings and has become the PadovaFIT! delivery partner.



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The ESCO manages integrated energy services that offers contracts with guaranteed performances, whose fees are directly connected to the achieved energy savings (energy performance contracting – EPC).

The project performed energy audits in 62 condominiums and identified energy efficiency measures and RES potential, deemed more appropriate in the context examined. The proposed measures were accompanied by a preliminary analysis of investments costs and energy benefits. A checklist was prepared for data collection on the basis of which the feasibility was conducted. Data have been catalogued and aggregated in a database.

Building upon the great deal of knowledge and experience produced in Padova, now H2020 PADOVAFIT Expanded aims at creating and piloting a dedicated One-stop-shop in Padova, expanding the business model to Timișoara (RO) - launching and piloting a One-Stop-Shop as well - and supporting the Bulgarian Energy Agency of Plovdiv to prepare the ground for the metropolitan areas of Burgas (BG) and Smolyan (BG) to take on the examples of Timișoara (RO) and Padova (IT).

### ③ Connecting the right people

Creating partnerships with service providers and key partners like banks, craftsmen, energy agency, NGOs, universities, cooperatives, social services, real estate agencies...

With best practices from:



#### PARITY PROJECTS: RetrofitWorks model to connect people

##### Mr. David Shewan, Technical Director

Parity Projects is now working with INNOVATE to develop an online One-Stop-Shop to bring practitioners, homeowners and municipalities together, and to develop an integrated energy efficiency service package for single family houses on the basis of its RetrofitWorks model in four boroughs of South London.

In their Retrofit Together scheme in London, they have focused in particular on the partnerships that have made this possible. For this project the key partnerships have been with installers and suppliers on the one hand, and with Local and Regional authorities on the other. They will present the RetrofitWorks co-operative which is their model for engaging local installers while remaining impartial, and they will describe the ways we work with Local Authorities focussing on shared benefits including the resources we are able to share, the way that Local Authorities help the scheme, and shared benefits.



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### **CITY OF LIEGE: Connecting the right people**

**Mrs. Véronique Biquet, ACE-Retrofitting project manager/ External Relations, Strategic Development Direction**

It is not always easy to identify “who is who” in the energy retrofit, and even more, how to connect all the actors involved.

The City of Liège decided to involve different sub-partners in order to cover the fields of knowledge necessary to achieve the job. These connections gave them a very strong and relevant ecosystem of actors allowing them to raise awareness, to develop the willingness to act, to accelerate the decision process and to carry out retrofitting projects.

To meet the co-owners target group, they got on board the Local Energy Agency and the National Association of Owners and Co-owners. In order to mobilize the professionals, they worked with two Walloon clusters of enterprises dedicated to the sustainable building and retrofitting, ‘Eco-Construction’ and ‘CAP-Construction’, which together make up about 500 members.

They had thus to develop a network of actors able to feed a consolidated database of their condominiums and to create an interactive web platform.

For the legal and financial aspects, they developed productive relations with the regional energy and housing administration and Ministers’ offices, with the Walloon Housing Fund for public loans and, thanks to their sub-partner (SNPC), with the federal Ministry of Justice for the update of the co-ownership law. Furthermore, they established successful contacts with the European Investment Bank and its ELENA facility in order to benefit from the technical assistance program for the auditing and preparation steps of condominium retrofitting projects. All this makes their project a fully integrated part of the Walloon Long Term Strategy for the Retrofitting of the Building Stock.



### **PICARDIE PASS RENOVATION: Full customer support throughout the energy renovation process**

**Mrs. Alice Morcrette, Head of the regional Public Service for Energy Efficiency (PSEE).**

The region of Picardie has launched a pilot project with the Public Service for Energy Efficiency (PSEE) and deployed the *Picardie Pass Rénovation service*.

Founded on an innovative economic model, through a dedicated public fund, the PSEE advances the amount allocated to renovation works and beneficiaries repay this advance by a long term loan at a low rate that could be reimbursed thanks to financial savings generated on their energy bill. Financial support is



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essential in a Region where energy poverty is important: more than one in five households is in a situation of energy vulnerability.

The PSEE focusses on a virtuous model to significantly help the reduction of energy consumption in residential buildings and bring about local economic expansion without relying on public subsidies. For that, it has been developed as an integrated service that supports technically and financially private homeowners' renovation. Partnerships with local authorities, institutions and building companies are essential.

Reaching the objectives in terms of energy savings is essential for the model for which energy savings are used to finance the works. So control of works quality and after works follow-up are key elements of our processes. They will share their experience and results on building companies up-skilling, technical and organization needs and tools & processes for the after work follow-up.

#### ④ Managing the refurbishment project

Coordination of renovation works, quality check, follow-up after the renovation and guarantee of results (energy savings)

With best practices from:



#### KAW-Reimarkt: Selling standardised renovation products

##### Mr. Kristian Maters, Project Leader

The coordination of renovation works starts with standardization and defining products. They defined products that homeowners can choose to make their homes more sustainable. These products are well defined and include all the work that is needed. The home owner knows what is included in the prices, the contractor knows what is expected of him when the product is bought.

For each product they defined a process. But the bottom line of each process is that Reimarkt does the marketing and selling, the contractor does the building or renovation and Reimarkt does the after sales. They have agreements with the contractors on how we deliver work to them and how they do their work. Being clear in who does what is very important.

They organise the renovation works according to three different customer segments: homeowners, tenants, apartment buildings and selling of ex-tenants homes. These four segment all require a slightly different approach. Thanks to Reimarkt 3 500 houses have already been renovated in the Netherlands!



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### PARIS CLIMATE AGENCY: A study showing real savings vs calculated savings

#### Mr. Benjamin Rougeyroles, Observatory Project officer

This specific study is being carried out by Paris Climate Agency from December 2017 to November 2019. Its purpose is to measure real energy consumption before and after retrofitting of 8 condominiums: 4 of the condominiums have finished their retrofitting works and their new energy performance will be assessed for 2 heating season and 4 condominiums will have finished their retrofitting works in 2018. This will allow a better comparison of their previous and new energy performance, by installing several energy meters during two consecutive heating periods.

In late 2018, they were able to highlight some key points, raised by the first analyses. At first, they now know how to be more efficient to measure a condominium's consumption with energy meters, and what points have to be checked before any installation. Concerning the energy consumption measured, they can say that on average that they reach half the energy consumption targeted in all of the 8 condos, due to: methods of calculation (TH-CE-Ex), on site hazards, non-global insulation package, and complexity of the regulation of the heating system. By November 2019, several recommendations will be highlighted at the end of the study which will be addressed to professionals, institutions and citizens.