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In the framework of INNOVATE and ACE-Retrofitting



INNOVATE has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 754112.



Capacity building workshop - REPORT

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

19 June 2019, 9:00-17:30

Venue: [La Tricoterie](#) – Fabrique de liens- [158, rue Theodore Verhaegen, 1060 Bxl](#)

Target audiences:

- Local authorities
- Energy agencies
- Craft and trade federations cooperatives
- Trustee federations.
- One-stop-shops

The workshop topic

Over the past couple of years, increasingly not only towns, cities, regions but also private players have been developing and testing solutions aimed at motivating and supporting homeowners and co-owners in their renovation projects.

The workshop programme gave ample room for small group discussions and peer-to-peer exchange. Participants had opportunity to share ideas with experienced municipalities, energy agencies, craftsmen cooperatives and existing one-stop-shops.

Public and private sector experts from the ACE-Retrofitting and INNOVATE projects shared their expertise, case studies and practical tools for setting up **one-stop-shops providing integrated renovation services**:

- Motivating homeowners and co-owners to carry out energy retrofits in single houses or condominiums
- Developing an energy renovation 'master plan'
- Coordinating renovation works with suppliers and service providers
- Following up on renovation works (energy saving guarantees and work quality)
- Financing.


Background information

[INNOVATE website](#)

[ACE-Retrofitting website](#)

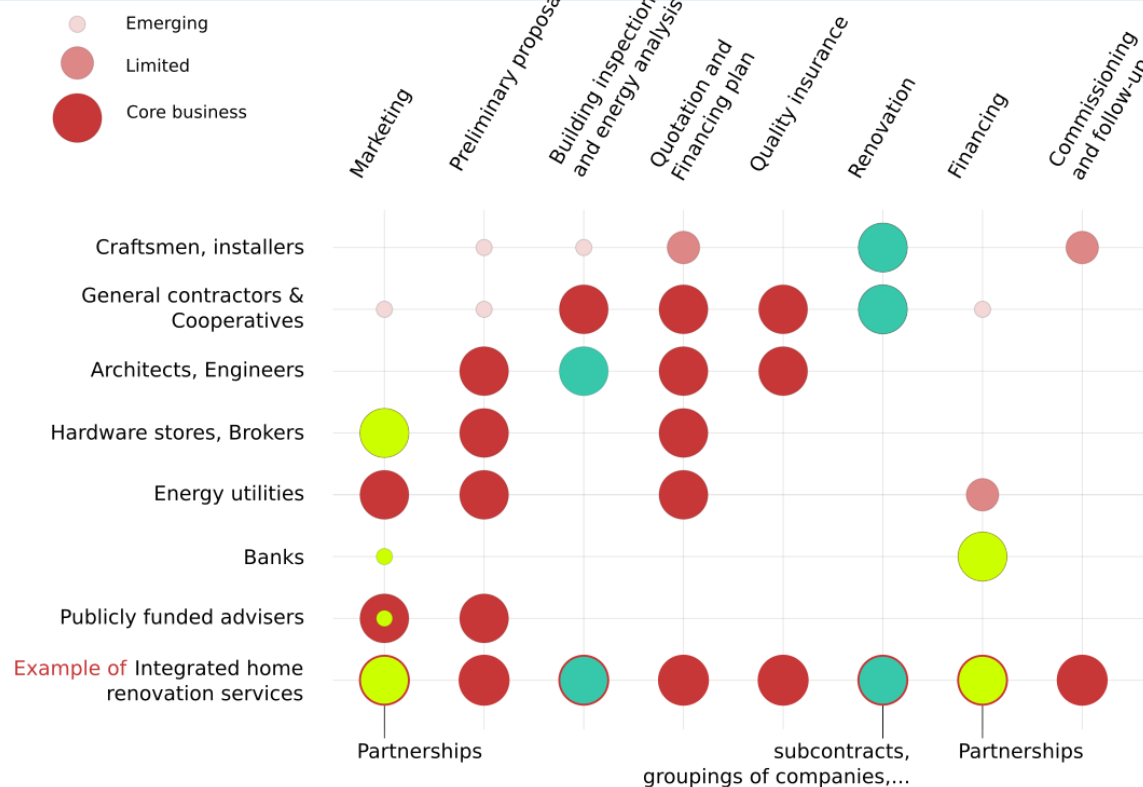
Photos of the event: [HERE](#)

Interviews with ACE ([Barbara](#), [Annemarie](#) and [Béatrice](#)) & [INNOVATE partners](#)

8:30-9:00	Registration
9:00-9:20	Icebreaker
9:20-9:30	<p>Welcome and introduction</p> <p>Jana Cicmanova and Ian Turner (Energy Cities) provided a quick introduction to the workshop and two European projects - INNOVATE and ACE Retrofitting.</p>
9:30 - 10:30	<p>SESSION 1: One-stop-shops providing integrated home renovation services: what are we talking about?</p> <p><i>Plenary session & fishbowl conversation</i></p> <p>This plenary session was launched with a short video explaining a one stop shop for integrated home renovation services developed in the framework of the INNOVATE project. After the video Marco van Dalfsen presented the Reimarkt example as one form of a one-stop-shop.</p> <p>The fishbowl conversation facilitation methodology was used to further discuss two specific questions linked to one-stop-shops. The first question was ‘What are we talking about when we speak about the OSS? Are there any alternative business models to the one presented by Marco?’</p>  <p>This question was discussed for 20 minutes with extra information contributed by numerous participants a number of them referring to the following visual prepared by the INNOVATE project:</p>



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A second question was then discussed with four new participants and the audience: **‘How can different actors work together and complement each other?’**. Again discussions were rich with different aspects such as the Master plan approach from Antwerp and the step-by-step tool prepared with the ACE Retrofitting project being introduced into the one-stop-shop debate. There was general agreement that there is not one OSS structure that has the best specifications i.e there is not a silver bullet.

10:30-11:00 Coffee break

11:00-13:00 **SESSION 2: Methods & strategies for making energy renovation programmes an easy task**
Parallel sessions: participants could choose between ‘Innovate session’ on how to set up a OSS or ‘ACE Retrofitting session’ focused on engagement of homeowners living in condominiums.

Setting up a one-stop-shop providing integrated home renovation services for homeowners (INNOVATE)
 The session started by collecting all questions about the OSS concept that participants wanted to be answered by the end of the workshop:

- How to set up a OSS if we are a ‘beginner’?
- Do OSS wait for customers or should they employ more ‘aggressive’ (pro-active) strategy?
- Should OSS be organised by local authorities or private businesses?
- How to make estimates of energy savings reliable?
- Can you give us examples of customer journey tools/implementation? Are there any online tools to manage customers available?

Session then continued with a brainstorming in three parallel groups on the following topics:

- 1- How to structure the customer journey?
 - How will clients learn about your service?
 - How will they get in touch with you once they know you?
 - What are the next steps in your customer relationship?



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➤ Why and how to manage all the customer information?

- 2- How to choose the right business model? How to do a business plan?
 - Coordination, Development or ESCO model? How to choose?
 - How to design a business plan?
 - How to finance a one-stop-shop?
 - What partners do you need to involve and how?
- 3- How to finance the renovation works?
 - What financing solutions exist already?
 - Who needs an extra financing support from your OSS?
 - How to set up a financing scheme the homeowners need?

The conclusions of the reflections were then presented by selected reporters, complemented by Innovate partners and other experienced participants who gave recommendations and shared their experience.

Key recommendations

1-How to structure the customer journey?

How to find customers:

- Through links to existing grants (self-generated)
- Think about who your clients are and test specific communication & marketing campaign for each target group.
- Social marketing: 'energy house parties'
- Target condominiums > focussed publicity > local community leaders > out of working hours (evening)
- Get clients' contact details and follow up
- Neighbourhood offices/community groups
- Targeted social media

How to keep in touch:

- Direct referral
- Assessment after home visit
- Subsidy request
- Physical address / advisor > appointments
- Online advice (higher income clients?)
- Phone line (lower income clients?)
- Do what is the best for the customer and not what is the best for you. Don't wait for people to come to you, go where they are and talk to them when they are available and not when you are available.
- Never ever give your messages/ services all at once! Find out where a customer is in his decision making process (customer journey) and give only the information necessary needed for the next step/ decision.
- Make sure you really give the information by email/download (like a brochure), so it feels more valuable and you are allowed to ask (reciprocity): "was it helpful? Can I help you further?".
- Store the information about your communication in a CRM and set automatic reminders.

2- How to choose the right business model? How to do a business plan?

- If you are starting in the field, choose the Coordination Model.
- If the global solution for deep housing renovation is not available on the market, organise local stakeholders so that they develop such a solution.
- If market actors are reluctant and you have some money to invest, develop your own OSS.
- Think about how many homeowners you have to contact and reach, how many you can convert to clients and clients to renovation works. How much staff/time will you need to do that?
- Find out whether homeowners & suppliers are ready to pay for your service and if yes, how much.

- Find out what financial resources could be available for your OSS.
- Examples of business models discussed:
 - Padova: options for OSS income are: 1-homeowners pay an upfront fee for advice (but are in general reluctant to do so) or 2- homeowners pay a fee within cost of renovation works (more acceptable for them).
 - Heerlen: a regional 'sustainability shop' was set up by local authorities and the Parkstad region, selling directly products and services to homeowners (IKEA-style)
- Different business model options are presented in the documents ['INNOVATE business models checklist'](#) and ['How to choose the right business model'](#)
- Do not wait for a long time for a 'perfect business model' to test your OSS > learn by doing as you will do many mistakes > many assumptions will be wrong

4-How to finance the renovation works?

- New solutions are needed for people who cannot access to bank loans
- OSS should provide financing because banks' offer is insufficient – duration of loans is too short
- OSS can provide long term loans and take into account generated energy/financial savings
- Find out what financing solutions your target groups already have.
- Find out whether you need to develop your own financing solution to help your target groups finance the renovation works.
- One target group = one solution

The renovation challenge in condominiums: Motivating and engaging co-owners from the idea to the realisation homeowners (ACE Retrofitting)

This session was designed to allow anybody wishing to boost energy efficiency in condominiums to tackle the challenge. A series of tools to help your energy retrofit project run smoothly were presented.

The ACE-retrofitting "Step by step toolkit" is addressed to co-owners of condominiums. It helps overcome the common hurdles: it connects those on the demand side (co-owners, condominium manager, in-house project team and retrofitting coach) with building professionals. We led participants through the 3 major steps of the toolkit: from the first assessment of required resources and a retrofitting roadmap to the specific project management on a daily basis.

The session started off with a quick online quiz using an online application called Mentimeter. Before the participants filled in the answers on their smart phones the facilitator asked by a show of hands the sector they presented with the large majority representing LAs and Energy Agencies with only one person from the private sector and one academic.



Quick interaction tool: Menti meter (www.menti.com)

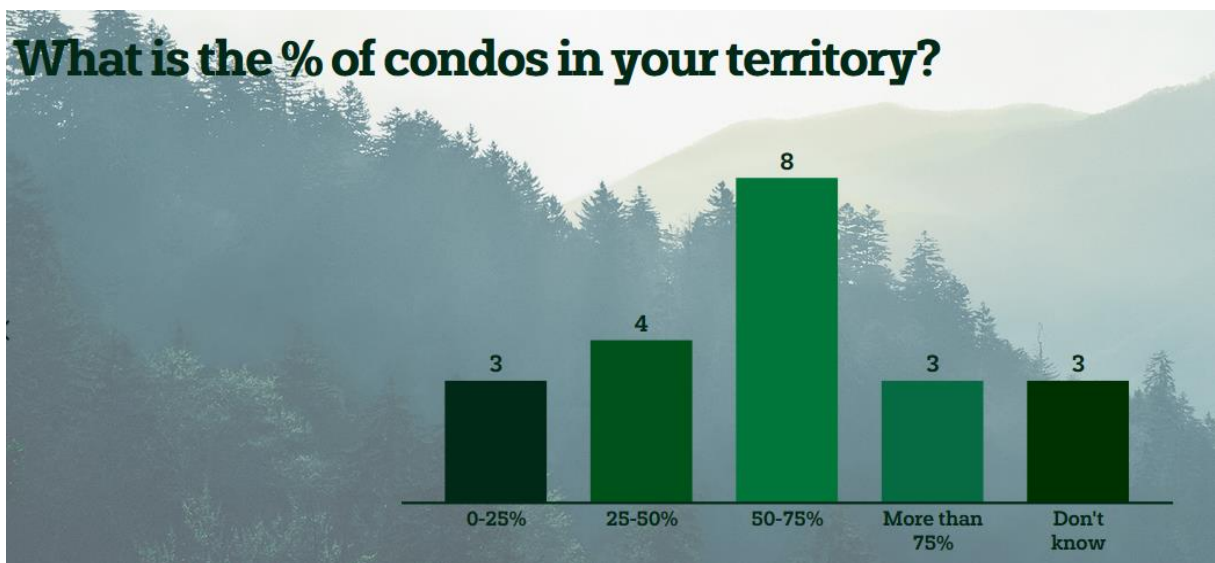
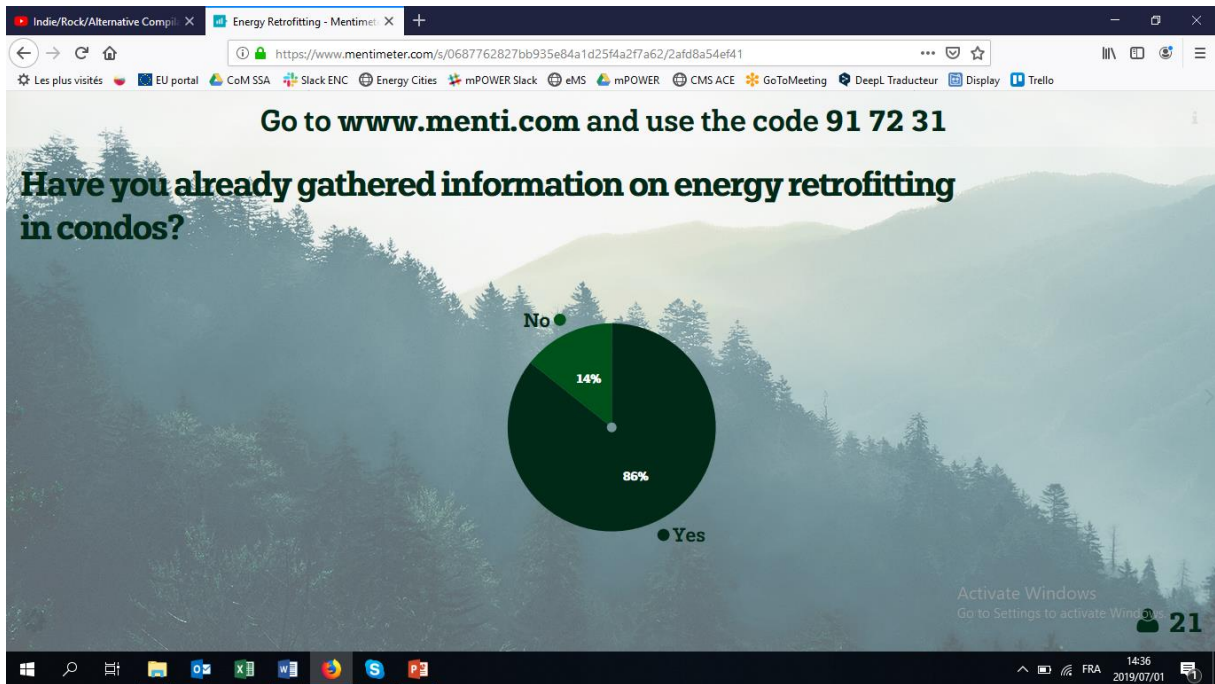
- Have you already gathered information on energy retrofitting in condo? Y/N - don't know



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- What is the % of condo on your territory? 0-25% -25/50 – 50/75 more than 75 - don't know
- How many condo (blocks tenement buildings) do you have on your territory? 0/2000 – 2000/5000 5000/7000 - plus que 10 000
- Do you have an information service for condo-owners? Y/N - don't know
- Do you communicate with condo-owners? Y/N - don't know
- Do you communicate with building pro? Y/N - don't know



The participants were then broken up into four groups to brainstorm the following question: What challenges are you facing when preparing your energy retrofit of condo? Main challenges identified were related to:



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a) Context

- Legal situation
- Political environment
- Existence of financial support mechanisms

b) Knowledge of target groups

- Knowing the target groups (co-owners, professionals, addresses, etc.)
- Low knowledge about the subject in the beginning

c) How to approach

- Adapt promotion and communication
- Low interest of co-owners
- Decision making process

The Step by step approach was then presented via Annemarie and Rianne with questions from Christiane. This presentation followed in a similar structure to a webinar presentation made on the 26th of March 2019. In order to view the webinar and presentation follow this link <http://bit.ly/step-by-step-tool>.

The session was concluded via an introduction to the ACE charter encouraging cities to join a movement that focusses on municipalities and regions playing a key role to launch a dynamic framework that encourages condominium energy retrofitting by raising the awareness of the demand side (co-owners, building manager, in-house project team, retrofitting coach), upgrading the skills of the supply side (building professionals) and facilitating the interaction between demand and supply sides.

To find out more about ACE retrofitting from three of the participants at the workshop we encourage you to take a look at the videos from Barbara [here](#), Annemarie [here](#) and Béatrice [here](#).

14:00-
15:00

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

In this session, three participants had an opportunity to discuss and work on their own challenges together with other workshop participants:

Challenge 1: Innovative financing for a deep retrofit of condominiums. What role public-regional authorities can play in finding adequate financing schemes? - Barbara de KEZEL, City of Antwerp (BE)

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?

During this challenge session the City of Antwerp were able to learn more about the possibilities of financing energy-renovations from the other participants (consultants) e.g. through a fund with the European Investment Bank and local, regional, or commercial funding, such as the Picardie Pass and the ARTEE examples. Having the right people at the table and having the possibility to discuss this with them and ask

them all the questions, really made this workshop a success. This way the City was able to not only learn how such things can be done, but also what are the necessary conditions, the prerequisites, the pitfalls, etc.

Challenge 2: Owners engagement - Is it the best and most efficient way to involve the “Property Managing Association” to engage homeowners in the energy retrofit?- Francisco MÁRQUEZ / Daniel ENCINAS, Extremadura Energy Agency (ES)

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?

The first question was how to attract homeowners in the energy rehabilitation of buildings.

Once the question was introduced and explained to the audience (consultants), they asked a number of questions with the aim to reformulate and to simplify the question.

The main problem to solve was that energy retrofitting results in benefits that are not visible but can be felt in different ways that can be communicated differently. However, the opposite happens in an aesthetic rehabilitation.

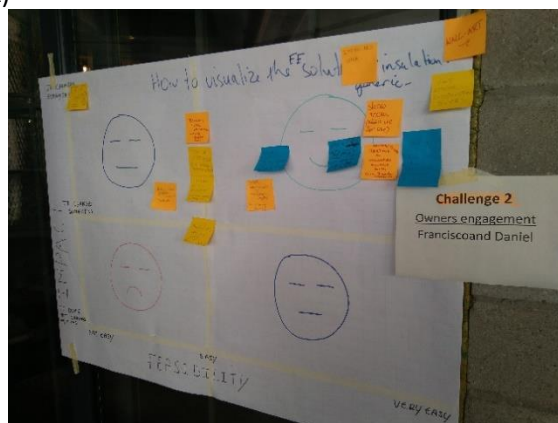
After this brainstorming, the group realised that the problem is how to show the “hidden benefits” to the homeowners.

All the group provided advice and examples on how to do that and all these ideas had a common argument: as the vision is not useful in order to show the energetic rehabilitation benefits, other senses should be used. It means the improvement of the thermal comfort should be the main reason to invest in energy rehabilitation of buildings.

Therefore, we must show to the homeowners the differences between a thermally comfortable home and another that is not. For example, through:

- Explanatory videos
- Visiting renovated homes
- Comparing houses (in terms of comfort and energy bills)
- Using high level tools such as thermal imaging cameras
- ICT and monitoring devices
- etc

Currently, AGENEX is thinking to integrate some of these examples in the marketing material of the One Stop Shop for Extremadura (OSS-Ex)



Challenge 3: Financial schemes for the energy transition. Discover new ways to solve the puzzle of energy transition around financing energy transition for homeowners. - Arno GROENENDIJK, Transform (NL)

Transform carried out 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.



15:30-
17:00

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

In the Session 4, participants could choose among the four topics and speakers of their interest. Each to an actual 'standing point' (beginner, intermediary, advanced) of each participant in in speaker presented his/her solution and received questions and comments from the participants. This approach allowed for deep discussions adapted OSS development and implementation.



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, Paris Climate Agency, Frederikshavn, Grand Est Region, City of Heerlen, KAW-Reimarkt, Linnaeus University, Maastricht University



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.



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



MAASTRITCH 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, ARTEE - Nouvelle Aquitaine Region, Brussels Capital Region, City of Aradippou, City of Padova



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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 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, home-owners' 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



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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.

Renovation works entitled to this credit are strictly related to the Brussels' energy grants (*Primes Energies*), with the exception of photovoltaic systems since 2017.

The attractiveness of the BGL is hampered by a heavy administrative process. To elaborate the credit file, the client has to gather a series of documents demonstrating technical and financial eligibility to the loans' access conditions. This includes obtaining offers from entrepreneurs detailing all eligible work. Homegrade, the brussels' energy info point, ensures all required documents are provided before transmitting the file to CREDAL. As of today, Brussels Environment also verify eligibility of the demand. Communicating about the BGL is a challenge given the numerous "green loans" offered by financial institutions.

The way the BGL targets low income families is unique. It offers energy renovation opportunities to low income citizens, usually unable to obtain credits. CREDAL provides in-depth analysis of their financial profile and personalised advice on budget management. Only one default has been registered over 10 years' experience and more than 1 000 loans granted.



CITY OF ARADIPPOU: A new financial scheme. Soft loan combined with subsidies

Dr. Panayiotis

Michael, EU Affairs Advisor

In order to accelerate investments by citizens in energy efficiency and photovoltaics, Aradippou Municipality has created an innovative financial tool which blends a municipal grant with a bank loan.

The grant is split into a part which rewards citizens for taking energy efficiency actions (regardless if financing of the project is with own funds or after receiving a loan) and a part which reduces the interest burden for citizens in case they decide to take up a loan. The grant is linked to the energy savings (kWh/year) or clean energy production (kWh/year) to be achieved by each project (each household) as certified by energy auditors.

The grant for each household is increased when a loan is received, encouraging larger investments in energy efficiency. This increase is compared to the overall interest to be paid by the loan, in an effort to achieve an equivalent of 0% interest rate (zeroing interest). By creating this structure, citizens do not feel that they are obliged to undertake a loan in order to receive the grant, but they are encouraged to do so, in order to increase the level of investments in energy efficiency.

Grants are given by the municipality while loans are provided by any bank operating in Cyprus. Catalytic for the successful development of such a financing scheme, is a political vision at the municipal level, a well operating banking industry and techno economic know-how internally within the municipality.

All citizens/homeowners are welcome to apply and their applications are evaluated based on the level of the positive impact their projects will have on the environment.

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.



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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. 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, unis, cooperatives, social services, real estate agencies...

With best practices from: Parity Projects, City of Liège, Picardie Pass Renovation, Frederikshavn



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 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



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

With best practices from: KAW-Reimarkt, Parity Projects, Picardie pass renovation, Paris Climate Agency



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!



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.

17:00-17:30

SESSION 5: What have we got out of today and what new challenges lie ahead?

Plenary discussion

In the last 'wrap up' session 4 questions were answered by the participants:

- What did you like most?
- What did you learn?
- What is the idea you got here and you will implement when you get back home?
- What would you improve in terms of content and format of the workshop?

A short video was made to summarise some of the participant's oral answers to these questions.

