



C·REAL

Creation of a
holistic methodology for
Renovation Advice with focus on
Lending solutions differentiated
by Target Group



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Acronym: C-REAL

Title: Creation of a holistic methodology for Renovation Advice with focus on Lending solutions differentiated by Target Group

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Report describing the developed methodology for all target groups

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Author's Note:

This report contains a description of the developed methodology so far for the target group of the single family home owners. In spite of what its title might suggest, this report is limited to the target groups of the single house owners. The developed methodologies and prototypes on the target group of the ACO's are elaborately described in deliverables 5.1 to 5.4 (all provided as downloadables on the C-REAL website).

Target Group(s):

Stakeholders in search for optimised methodologies for cooperation between a (mortgage) lender and a renovation advisor.

Table of content

General Introduction.....	3
Executive Summary.....	4
1 Methodology.....	5
2 The developed prototypes.....	5
2.1 The Customer Journeys.....	5
2.2 The barriers.....	6
2.2.1 The Target group of Buyers.....	6
2.2.2 The Target group of Existing Mortgage Clients.....	12
2.3 The surveys.....	17
2.3.1 The numbers.....	17
2.3.2 The findings.....	18
2.3.3 First conclusions and recommendations.....	19
2.4 The pre-pilots.....	20
2.4.1 The Target group of Buyers.....	20
2.4.2 The Target group of Existing Mortgage Clients.....	22
2.5 The optimised Customer Journeys.....	23
2.5.1 The Target group of Buyers.....	23
2.5.2 The Target group of Existing Mortgage Clients.....	24

General Introduction

The main objective of C-REAL is to establish a permanent, structural collaboration between a mortgage lender (Onesto) and a renovation adviser (Dubolimburg) to increase the degree of renovation and improve renovation quality in the province of Limburg.

In addition to this and to achieve full customer satisfaction, an effective cooperation between the renovation adviser and contractors will be set up. Actively involving lenders to encourage home owners and home buyers to renovate provides significant added value. Lenders play a crucial role in purchasing and are frequently in contact with purchasers.

Moreover, based on the existing customer relationship regarding the home, lenders can address owners directly. It is of great importance to lenders that homes that they finance are made optimally energy-efficient and are refurbished qualitatively, as it is believed to reduce their financing risk. A supply of financing options, combined with a range of services to provide advice and guidance for the renovation, and timely and qualitative execution, provides all parties with significant added value, which paves the way for a clear, solid and scalable business model.

In setting up these structural collaborations and offering integrated home renovation services, we will focus on 3 target groups, guiding them through the whole customer journey. We want to support new home owners, existing mortgage clients and ACO's.

Executive Summary

This report contains the deliverable *'D3.4 Report describing the developed methodology for all target groups'*. In this report we describe how we identified problem areas and opportunities in the customer journey. Furthermore we describe how we have generated input of the expert group and how and why we have organised workshops with credit advisers and energy advisers.

During the process mentioned above, we have identified where and how financial service can be improved to promote energy renovation. We will describe this in detail in the report concerning *'D3.5 Report containing the description of the adjusted financial services for all target groups'*.

During the first period of the project we have already tested some of these newly developed methods on the first pilots. In this report we describe the learning lessons and how we have converted these lessons in optimized methods.

In spite of what its title might suggest, this report is limited to the target groups of the single family home owners. The developed methodologies and prototypes on the target group of the ACO's are elaborately described in the following deliverables (all provided as downloadable on the C-REAL website):

- D5.1: Report on recruiting ACO's: developing tools and methodologies to successfully recruit ACOs to enter renovation processes.
- D5.3: Template presentation renovation advice: how to present the renovation advice in the best possible way to a group of co-owners.
- D5.4: Report containing results of the questioning of key actors in pilot projects phase I and conclusions/desired adaptations to methodology and prototypes

1 Methodology

One of the first goals of the project was to identify problem areas/thresholds and/or opportunities in the customer journey and to check where and how collaboration between adviser and financier/lender can generate added value. In this chapter we will describe how we worked this through.

We started by doing a Desk Research (D4.1). Furthermore, we brought people/stakeholders with a variety of expertise together in an expert group (D3.2 Setting up an expert group). With the input from the Desk Research and the Expert Group we further developed the Customer Journeys of all target groups (D3.1 Customer Journey of all target groups).

2 The developed prototypes

2.1 The Customer Journeys

To develop a prototype of the ideal Customer Journey, we engaged a professional process supervisor, Katrien Colson, from the Levuur Company. The so called process facilitator had to help us to use only the most useful and necessary from all our collective and individual experiences.

The process facilitator had to be someone from the outside, who could objectively and unknowingly translate our experiences into words/questions and goals that everyone would understand.

After a some group discussions and some individual meetings, Katrien Colson got a clear picture of what we wanted to achieve and how we wanted to do that. Via the platform, Miro, she created the first prototypes. After that, Katrien Colson provided us with some extra critical questions in order to arrive at the opportunities and threats in the prototype of the customer journey as we envisioned it.

The results of this processes are in *Figure 1* and *Figure 2*.

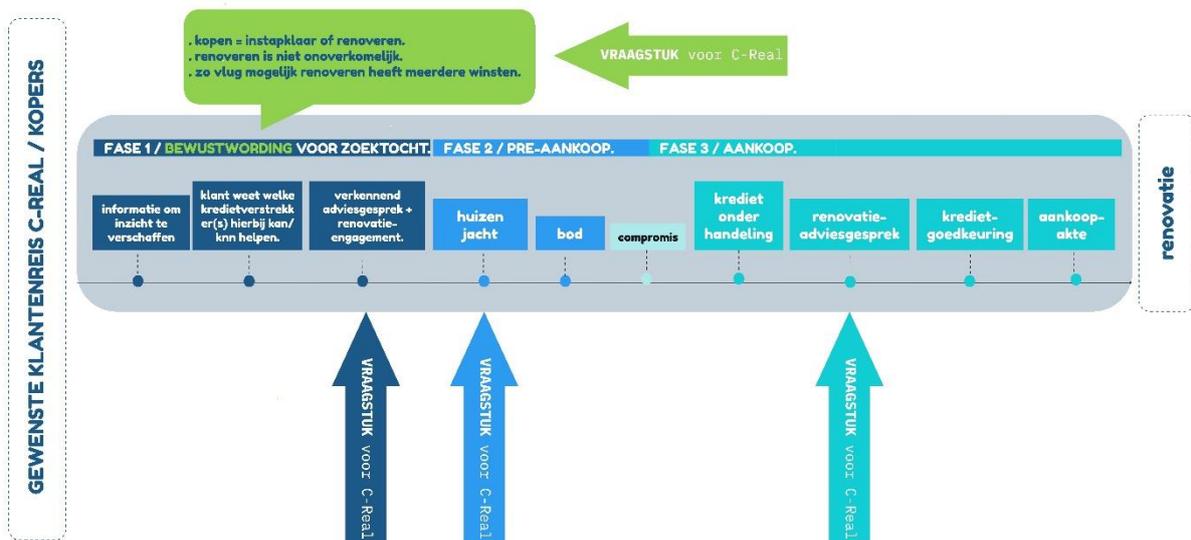


Figure 1 - Customer Journey Target group of Buyers

GEWENSTE AANPAK C-REAL / bestaande klanten



Figure 2 Customer Journey Target group of Existing Mortgage Clients

2.2 The barriers

2.2.1 The Target group of Buyers

In what follows we will describe the prototype of the Customer Journey for the Target group of Buyers which we created together with Katrien Colson. Thereafter we will discuss in depth the barriers we addressed during the workshops.

2.2.1.1 The role of the stakeholders

rol van de sector	EPC-VERSLAGGEVER KREDIETADVISEUR MAKELAAR (KREDIETGEVER)	KREDIETADVISEUR KREDIETGEVER	KREDIETADVISEUR	(online) MAKELAAR RENOVATIEADVISEUR	MAKELAAR (of particuliere verkooper)	MAKELAAR (of particuliere verkooper)	KREDIETADVISEUR KREDIETGEVER SCHATTER	RENOVATIE- ADVISEUR	KREDIETGEVER	NOTARIS	KREDIETGEVER RENOVATIE- ADVISEUR EPC-VERSLAGGEVER
	informatie verstrekken, het verschil maken	Klant binnenhalen via usp	budgetbepaling: hoeveel kan ik lenen maximale aankoopprijs bijkomende kosten renovatiemogelijkheden	ontzorgen en adviseren, ook mbt renovatienoden en -opties			financieel gezond en comfortabel krediet in zo vlot mogelijk proces ifv comfortabel en betaalbaar wonen	advies op maat			

Phase I: EPC-reporter | Credit Advisor | Real Estate Broker | Lender

During phase I of our developed Customer Journey the following stakeholders play a role: the EPC Reporter, the Credit Advisor, the Real Estate Broker and the Lender. For a customer, from the Target group of Buyers, it is crucial during this phase to gather as much information as possible about purchasing (and renovating) a house. Preferably, this information is also accurate and detailed.

It is the role of the stakeholders, as described above, to provide the customer with the information necessary to start the search for a suitable home in a well-founded way.

BARRIER 1: How can we be sure that the stakeholders, playing a role during phase I, provide the customer with all information needed to make a well-founded choice in buying a house?

We have to pay extra attention at educating these stakeholders concerning renovation, energy efficiency and how to determine an adequate budget.

Phase II: Real Estate Broker | Renovation Advisor

The Real Estate Broker or Agent and the Renovation Advisor play a role during phase II of our developed customer journey. The Real Estate Broker must unburden the customer as much as possible during the search for a suitable home.

BARRIER 2: The Real Estate Broker has few to win in providing the customer much and detailed information about the house or the potential renovation.

We therefore have to point out the long term gains for the broker: a happy buyer is a buyer that convinces other potential buyers to work with the same broker, for example. Aiming at the long term gains can be done by calling on the renovation consultant or advisor, who can point out the renovation needs of a building and the associated costs. The (potential) buyer will make his decision with more trust and comfort.

Phase III: Credit Advisor

During phase III, the role of the Credit Advisor can be called crucial. This stakeholder has to provide correct and detailed information to the customer: He or she must not only determine the global budget of the customer, he or she must also make the customer aware of the possibilities of renovating, the difference with a ready-to-move home and the impact on the total budget of both scenarios.

BARRIER 3: How can we be sure that the stakeholders, playing a role during phase III, provide the customer with all information needed to make a well-founded choice in buying a house?

We have to pay extra attention at educating these stakeholders concerning renovation, energy efficiency and how to determine an adequate budget.

Phase IV: Mortgage Lender | Credit Advisor | Estimator | Renovation Advisor

In Phase IV the following stakeholders come into play: the mortgage lender, the credit advisor, the estimator and the renovation advisor.

Once a suitable house is bought the mortgage lender or the credit advisor has to check whether the purchased house with all associated costs fits within the budget of the customer. This should lead to an affordable living comfort in the short and in the long term, taking into account renovation works.

BARRIER 4: From our experience we notice that in this phase many credit applications still are rejected. Even though, during phase III, the credit advisor should have done everything to make sure the customer buys a house that fits his budget.

Thus, again, we have to pay extra attention at educating these stakeholders concerning renovation, energy efficiency and how to determine an adequate budget which takes into account all costs, also the renovation costs.

Phase V: Notary

After the credit has been approved, the notary will officialise everything via the notarial deed. Once the deed has been signed, the money for the renovation can be withdrawn.

BARRIER 5: Since there only is foreseen 4 months between signing the sales contract and signing the actual deed, there is not much time left to draw up a qualitative and detailed renovation plan. That is why we often have to work with 2 credit offers and 2 deeds. This costs time and money.

The sooner we can get the renovation advisor involved, the sooner we have the renovation report, on which we can rely to make a credit decision including the renovation budget, ready and the more we can work with only 1 credit offer and 1 deed.

Phase VI: Mortgage Lender | Renovation Advisor | EPC-reporter

In the last phase it is up to the mortgage lender, the renovation advisor and the epc reporter to play a key role. After all the financial difficulties have been completed, it is up to the lender and to the renovation advisor to ensure that the renovation process can take a head start. From now on, the renovation advisor will guide the customer by comparing price offers, searching for contractors and applying for premiums and subsidies. After the works are finished, the EPC-reporter will prepare a new EPC-report.

2.2.1.2 *The barriers to take care off within C-REAL*

Before we got to work during the work sessions with the members of the Expert Group, we pointed out some points to be optimized to get an ideal customer journey. These points or questions were supposed to make it easier to focus on a few specific pain points during these work sessions.

Question 1 – Phase III – Credit Advisor (covers barriers 1, 2, 3 and 4)

What role can you, as a stakeholder, take to make customers more aware of renovation before they start looking for a home of their own? How can C-REAL support this role?

Question 3 – phase IV - Mortgage Lender | Credit Advisor | Estimator | Renovation Advisor (covers barrier 5)

How can we receive an accurate cost estimation in the shortest possible period? Is Software, like the Setle-software, a good supporting tool for this? Are there other ideas or tools which can be used for this matter?

We have connected questions 1 and 3 because question 3 is one of the ways in which C-REAL possibly can support the role we asked for in question 1.



Figure 3 Post-its concerning question 1



Figure 4 Post-its concerning question 3

We have collected all answers given during the work sessions, in the form of digital post-its and then processed them into a meeting report.

Findings and Ideas coming out of the work sessions

- 1) Real Estate brokers, renovation advisors, C-REAL Consortium members, lenders... all benefit from an accurate and fast cost estimation. A detailed EPC-report provides a better picture of the renovation needs and their cost price. If the data of the EPC-report would flow more smoothly the estimate report could be used more efficiently throughout the customer journey.

IDEA: Detailed measures from the EPC-reporter are shared and (possibly) put into software so that a very accurate renovation cost can be determined at a very early stage. The customer can then approach the lender with such renovation report, which will facilitate the demand for a mortgage.

Question 2 – Phase IV - Mortgage Lender | Credit Advisor | Estimator | Renovation Advisor (covers barrier 5)

How can the stakeholders in this phase work together so that the possibilities of the property and of the customer become clear to everyone as quickly as possible, so that time can be saved?



Figure 5 Post-its concerning question 2

We have collected all answers given during the work sessions, in the form of digital post-its and then processed them in a meeting report.

Findings and Ideas

- 1) Getting a quick overview of the feasibility of a project is interesting for every stakeholder. Especially for difficult-to-sell homes.

IDEA: Real Estate Broker and C-REAL develop a pre-approved logo of screened homes, preferably homes where there is a good view of the renovation need and its costs in addition to the purchase price.

IDEA: Promote the existing offer of Dubolimburg (the ‘Huisdokter’ accompanies the customer during the house hunt) and check if local government can support or subsidize this service.

2) It is important to stimulate the customer to carry out the proper works.

IDEA: The lender grants conditional interest rate discount if the second EPC-report (after works) demonstrates the upgrade of energy efficiency.

IDEA: Respond to the preferences of the customer, such as a new kitchen. Outline the overall picture of the renovation needs with prioritization of the measures but take also into account the budget of a new kitchen in this advice.

IDEA: Provide knowledge-enriching webinars in which simple tools, links and ideas are shared to adjust everyone’s knowledge in an accessible way.

IDEA: Recognize the emotional, even more: respond to it. Put the advantage of comfort before the energy-efficiency argument and calculate them together in the total cost of renovation.

We will test all this ideas during the pilots phase I of the C-REAL project. We will evaluate them and optimize them (if necessary) in function of the pilots phase II of the C-REAL project.

2.2.2 The Target group of Existing Mortgage Clients

In what follows we will describe the prototype of the Customer Journey for the Target group of Existing Mortgage Clients which we created together with Katrien Colson of Levuur. Thereafter we will discuss in depth the issues we addressed during the workshops.

2.2.2.1 The role of the Stakeholders



Phase 0: Awareness – Renovation Need | Renovation is not insurmountable

⇒ The Renovation Advisor

In this phase the customer first becomes aware of a (potential) problem in his or her home. Something is not practical or there is a direct or indirect imperfection. In short, the owner/customer wants to change something. Many house owners will react immediately in this phase and contact a few construction workers to get a closer look at the cost of the

things they want to change. Just as quickly they are scared off at this stage: The renovation or change seems insurmountable because the correct data is not obtained and there is a certain mistrust.

BARRIER 1: The customer has no or limited access to independent and trustworthy information.

In this phase it is crucial that the customer can draw on valuable information from the past or turn to an independent renovation advisor.

Phase I: Orientation – Credit Advisor | Renovation Advisor

In Phase I the credit advisor and the renovation advisor play their part. If the customer has a concrete idea about what to renovate or to change he/she must be able to contact his/her credit advisor and/or a renovation advisor.

BARRIER 2: this is not the best way to inform customers about the renovation needs of their homes. If there is already a concrete problem at stake, it is very difficult for a credit or renovation advisor to make the customer think about a long-term strategy regarding his/her renovation.

A good recommendation would be to plant the seeds of a long-term renovation earlier during the customer journey.

Phase II: Consideration – Credit Advisor | Lender

In this phase the customer has to become a clear idea about the global budget. The credit advisor and/or the lender have to help here. If the customer wants to renovate, what is the amount the customer can borrow/fits the budget (combination of mortgage, energy loans and others) and what amount is the customer able to invest himself (own means). This way, the global budget can be determined and with this in mind, the renovation advisor has a clear idea of what renovation works can be executed in the short, middle- and long term.

BARRIER 3: It often takes a while to exactly know what to renovate, which are the priorities and what will be the costs and the gains (including the premiums and subsidies).

Phase III: Decision – Customer | Renovation Advisor

Once the budget is known and the customer's wishes are matched with the renovation needs (described in the renovation report) the customer can decide on which works can be executed in what period of time. This decision has to be made, following the detailed and logical roadmap, written by the renovation advisor.

BARRIER 4: How to make sure the customer will take the steps in the logical way and not choose only for aesthetic kinds of renovation?

Phase IV: Credit decision – Customer | Lender

The budget is clear and detailed, the roadmap is written: the lender can now decide, together with the customer, on how to finance the renovation works. Which combination of

financing methods can provide an affordable, comfortable and energy-efficient housing solution?

Phase V: Renovation – Customer | Renovation Advisor

If each phase, as described above, was executed with enough focus, detail and long-term attention, then phase V should be a piece of cake. From now on, the renovation advisor will guide the customer by comparing price offers, searching for contractors and applying for premiums and subsidies. After the works are finished, the EPC-reporter will prepare a new EPC-report.

2.2.2.2 The barriers to take care off within C-REAL

Before we got to work during the work sessions with the members of the Expert Group, we pointed out some points to be optimized to get an ideal customer journey. These points or questions were supposed to make it easier to focus on a few specific pain points during these work sessions.

Question 1 - Phase 0: Awareness – Renovation Need | Renovation is not insurmountable (covers barriers 1 and 2)

With which concrete approach can we reach this customer (= channels) and approach this customer (= tone of voice, message) to let him/her discover the latent need for renovation of his/her home?



Figure 6 Post-its concerning question 1

Question 2 - Phase 0: Awareness – Renovation Need | Renovation is not insurmountable
 With which concrete actions can we trigger this customer to actually proceed with a qualitative renovation?

IDEA: Develop and present very concrete cases that can make the comfort gain almost tangible, in addition to the effect the renovation has on the increase in value and reduction of energy costs.

- 3) The customer has specific complaints, only sees the specific problems of his/her home.

IDEA: To use the renovation advice to respond to these specific questions plus other necessary interventions to look for the financial balance between energy-efficient measures and other interventions.

- 4) A lot can be set in motion by an EPC-report.

IDEA: Onesto will screen their database and will offer customers a free EPC-report. If necessary, Onesto will also include the response to this measure in the policy recommendations of C-REAL, as a suggestion for Flanders and other local authorities.

- 5) There are already many interesting initiatives that can lead to a request for renovation advice (think of: solar maps, thermo scans, succession planning, valuation of homes...).

IDEA: Linking the existing initiatives to Onesto existing customers (within GDPR legislation) or work with testimonials from both good and bad examples.

We will test all this ideas during the pilots phase I of the C-REAL project. We will evaluate them and optimize them (if necessary) in function of the pilots phase II of the C-REAL project.

2.3 The surveys

In D3.3 – Report of interviews with the clients for the Target group of Buyers and the Target group of Existing Mortgage Clients we already described why and how we carried out a survey. In this chapter we will briefly describe the most important outcomes of it and how we used them to optimise the Customer Journey or how we will use some of them in the future and how we will test the findings within the pilots phase I of C-REAL.

2.3.1 The numbers

In total we have sent no less than 1 387 mails with the link to the survey in it to our existing customers. Eventually, 1 283 e-mails reached their destination. Of these e-mails 445 were opened (35%), 193 receivers (15%) clicked on the link to the survey and no less than 142 receivers became respondents of our survey. We can therefore proudly say that we achieved a response rate of 11%. Regarding gender of the respondents, the figures show an over-representation of women in the respondents (77,7%).

Whether or not this survey is scientifically substantiated enough to draw far-reaching conclusions from it is not certain. All we can say is that the response rate turned out to be more than sufficient to recognize some clear patterns. These patterns can be useful to make some optimizations and formulate some policy recommendations.

2.3.2 The findings

In what follows we will discuss some key findings.

Construction Year of the homes

In 65,7% of the cases it was indicated that the house was built before 1970. This is a clear consequence of Onesto's strategy, which focuses mainly on modest homes (value-related). Older homes often suffer from high renovation needs and therefore can be purchased at modest prices.

Region

One third of the respondents originates from the Province of Antwerp. One fifth indicates living in the Province of Limburg, almost 18% says to live in the East of Flanders, 17% in the West of Flanders and only 8% originates from the Province of Flemish Brabant. This is not a surprise and is clearly a reflection of our customer database.

Condition of the homes

Most of the respondents indicate to have purchased a house to be renovated (82,7%). Of course, again, this is not a surprise because for most of our customers (our specific target group) it is a mission impossible to buy a ready-to-move-in and energy-efficient home.

For the few existing clients who did buy a ready-to-move-in home, the home turned out not to be ready-to-move-in at all in 1 in 4 cases. This is quite a pain point as an unplanned renovation certainly does not fit our customers and such purchases can lead to a financial hangover.

In the survey we also asked for the reason(s) why not to buy a house to be renovated. Over 40% of the respondents indicated the lack of knowledge about renovating as the main barrier, closely followed by the uncertainty of the cost of the renovation (35,9%).

The budget

Existing Clients, that purchased a house to renovate in 1 in 3 cases did not know the required renovation budget. In our opinion, that's a high number and definitely something to include in optimizing the customer journey. Especially when we see in the following questions that almost 1 in 2 respondents indicate that the budget turned out to be insufficient to complete the renovation qualitatively. In relation to the foregoing 1 in 2 respondents who purchased a house to be renovated indicated that they never again would buy a house to be renovated...

The motivations

Why do people buy a specific house? With 64,4% of the answers the region or location of the home is decisive. Striking: almost half of the respondents indicate to have purchased their home because it was the only house fitting their budget.

Energy Efficiency

One of the most important question series in our survey was the one regarding energy efficiency. First we asked whether the existing clients are aware of the energy efficiency of

their homes. In other words, do they know the current EPC-value? Not surprisingly, 58,1% of the respondents indicate not to know the current EPC-value of their home.

As main reasons to implement energy efficient measures respondents indicate that saving energy is the main reason (60,7%), followed by increasing comfort (49,6%) and only in 1 in 4 cases being in line with regulations is the main reason.

Do premiums and subsidies can convince customers to implement energy-efficient measures? One in 3 respondents indicate that they did not use premiums nor subsidies because they did not know they existed...

When we ask what can convince them to implement energy-efficient measures, respondents indicate saving energy (54,9%) as the main persuasion mechanism, followed by increasing the value of their home (48,9%) and premiums and subsidies (46,6%).

The search for a home

To find an appropriate home respondents indicate especially to count on real estate websites and real estate brokers. But in 1 in 3 cases respondents also indicate to count on their friends and family. The search for a home typically seems to last 1 to 6 months (49,2%), but sometimes it lasts for almost 2 years (8,5%).

Fortunately, most respondents indicate that they have determined their budget in advance. Only 2 respondents indicated that they did not. To determine their budget respondents indicate they almost always count on some kind of financial advisor (76,5%).

2.3.3 First conclusions and recommendations

Renovation and knowledge

To convince customers that buying a house to be renovated is not an insurmountable problem, we need to improve people's knowledge about renovation.

Test within C-REAL:

To educate all stakeholders enough in order to be able to convince the customer about renovating his/her house.

The budget

To enable a qualitative renovation, we must focus more on accurate cost estimations during and before the purchasing process starts. Nowadays it seems normal that during most renovations the planned budget turns out to be too low, but is it? Is there nothing to do about that issue? Can we use some tools to calculate renovation costs more accurately and to blank out unforeseen works?

Test within C-REAL:

To draw up the renovation report and cost estimation including the exact premiums and subsidies one receives after conducting the works. We search for the most accurate and detailed way to plan the renovation and the budget.

Energy Efficiency

- a) To convince customers to implement Energy Efficient measures we first have to make them aware about the energy efficiency (label) of their (future) homes.

Test within C-REAL:

Provide a free EPC report for all the existing customers of Onesto in order to trigger them into renovation.

- b) Since almost half of the respondents indicated they are encouraged to implement energy efficient measures by premiums and subsidies and 1 in 3 respondents indicated that they were not aware of these premiums and subsidies when they were renovating their homes, we need to increase the knowledge about premiums and subsidies drastically.

Test within C-REAL:

To draw up the renovation report and cost estimation including the exact premiums and subsidies one receives after conducting the works. We search for the most accurate and detailed way to plan the renovation and the budget.

Financial Experts

Since 3 out of 4 respondents indicated they determined their budget together with a financial expert, there is a crucial role for the group of financial experts in educating the customer about the renovation process, energy efficiency, the cost of implementing this kind of measures and of course about the existing premiums and subsidies.

Test within C-REAL:

To educate all stakeholders enough in order to be able to convince the customer about renovating his/her house.

2.4 The pre-pilots

While we were collecting all theoretical models, we immediately tested some of them in practice. The aim of this was to look at what the customer journey was like in practice. In our opinion, this was the best method to get a sufficient feel for the practice and to be able to intervene in a targeted manner. In what follows we will summarize the lessons learned from the pre-pilots to get a clear view on what their impact is on the rest of the project.

2.4.1 The Target group of Buyers

The timing

When someone purchases a house, they often sign a conditional agreement. For example, the purchase agreement only becomes official if the buyer receives approval for a (mortgage) loan from one or more lenders. Usually this conditional agreement is limited in time. For a lender, this period of time often is too restricted to get a clear view on the purchase as a whole (ability to finance the purchase including a renovation budget).

In order to cope with this problem and not to stand in the way of a qualitative renovation, we will split the financing in these cases: we first will finance the purchase and in the

notarial deed we already take out a higher mortgage so that afterwards there is sufficient space to borrow the renovation budget. By doing this the renovation advisor has sufficient time to visit the house and to write the report and make a cost estimation. As a lender, you are more sure that sufficient thought has been given to the steps to be followed in the renovation plan and that everything has been planned logically.

Barrier here is the extra cost for the customer/lender: once the finance is being divided into two parts there have to be two offers, an extra offer means an extra cost (in time and in administration). Also often there have to be two estimations: one of the situation before and one of the situation after works. This also means an extra cost. Who has to carry that cost: the lender or the customer?

⇒ Test within C-REAL, pilots phase I

Contacts

The fewer contacts during the customer journey, the better. When someone buys a house they come into contact with many different contacts. Just think of the real estate broker, the credit advisor, the lender, the renovation advisor, the various contractors... The more the variety in contacts, the greater the chance of confusion and despondency on the part of the customer.

We will therefore have to try to disseminate the same information to all stakeholders as much as possible or to limit the number of contacts as much as possible. The customer should feel that every person they meet during the customer journey belongs to the same team and that everyone has the same goal: to provide an affordable, comfortable and energy-efficient living solution.

⇒ Test within C-REAL, pilots phase I

The budget

One of the main barriers when purchasing a house to be renovated is determining the renovation budget. Why? This is because maximum account must be taken of the premiums and subsidies the customer will receive. What makes that so difficult? Firstly, finding grants and subsidies is really tailor-made, we already need a lot of financial information from the customer in order to know exactly which amounts will be paid out for which works. Secondly, these amounts are often only paid out very long after the renovation has been completed. The customer often is not able to pre-finance these amounts (limited budget).

So, the sooner we know which amounts of subsidies and premiums will be paid out, the better we can draw up the global available budget and the faster we can find a suitable tailor-made solution to finance it.

Barrier: the wide variety of premiums and subsidies and the various institutions that offer them.

Wishes versus needs

When people buy houses they experience difficulties to see through the current state of a house. Often they need guidance to see the opportunities a house has, sometimes even with the smallest interventions. But even more often, buyers only have an eye for the

aesthetic and choose to renovate, for example, the kitchen and the bathroom, rather than additionally insulating the walls or the roof.

For the renovation advisor and for the lender it is then important to link these wishes with the renovation needs in order to obtain the highest possible renovation quality.

- ⇒ Test within C-REAL: have attention for the wishes of the customer to higher the success ratio of the rest of the renovation works

2.4.2 The Target group of Existing Mortgage Clients

Knowledge about their Energy Efficiency

We already mentioned it above, one of the most important things we learned from our survey is that people's knowledge about the energy efficiency of their homes is very limited. A cautious lesson, of course subject to significance, could be that customers who report that they know their EPC are also more likely to ask for additional renovation advice. Customers who indicate that they do not know the EPC of their homes often indicate also that they are not interested in additional advice. Again, with all reservations of course.

But what we can say for sure is that if people don't know the energy efficiency score of their homes, they can't or won't take any action to improve it. For our existing customers we therefore suggest that we should first address their knowledge before taking all kinds of actions to stimulate them to quickly implement some energy measures.

- ⇒ Test within C-REAL: provide the existing customers of Onesto a free EPC Report

The budget

We deduce from figures and data from the past that, about 5 years after their purchase, customers have some more room to breathe in terms of their budget. Does that mean it's time to take the next steps towards more energy efficiency? Maybe it does. Do we have to force all steps towards energy efficiency of purchased homes and push it down the throat of the new customer? Or is it more worthwhile to work out a personal follow-up for each individual customer, whereby we can review the evolution of the budget every year? This is certainly something we have to investigate further in the following months of the project. What is already certain is that a logically constructed step-by-step plan is in any case a direct hit for any renovation.

Together with what we already mentioned above regarding the budget, refinancing the mortgage loan after a few years, with a reward for those who will use the released budget for taking further steps towards more energy efficiency, can also be a great idea to stimulate our existing mortgage clients to implement energy efficient measures.

- ⇒ Test within C-REAL: trigger the existing customer by offering them a discount on their current mortgage if the make their homes more energy efficient

Barrier: in a market of increasing interest rates it becomes more difficult to offer a discount. Investigate what other measures can help to trigger the customer.

2.5 The optimised Customer Journeys

After the work sessions, the pre-pilots and the surveys came to an end, it was time to evaluate the outcomes. It was now a matter of bringing all recommendations and optimizations together and test the optimized Customer Journey in practice.

2.5.1 The Target group of Buyers

The ideal Customer Journey, which we aspire to put into practice in the coming months, should, according to our findings and recommendations so far, look like described below.

EPC-REPORTER CREDIT ADVISOR REAL ESTATE BROKER RENOVATION ADVISOR (LENDER)	CREDIT ADVISOR LENDER	(online) REAL ESTATE BROKER RENOVATION ADVISOR	CREDIT ADVISOR LENDER RENOVATION ADVISOR	NOTARY	RENOVATION ADVISOR EPC-REPORTER
INFORMATION (about purchase & renovation) Share with each other Share with the customer Work together	BUDGET Maximum amount of purchase Maximum amount of price Budget for renovation Additional costs	INFORMATION During the house hunt UNBURDENING & ADVICE Renovation needs, costs and purchase price	FINANCING OFFER Financial healthy and comfortable loan Payable, comfortable and energy-efficient living	DEED	GUIDANCE Through the renovation process from A to Z
BEFORE future buyers visit the homes	BEFORE future buyers start their house hunt		INCLUDING RENOVATION NEEDS & COST		

Figure 8 The ideal customer journey to test during the pilots

Optimization:

EPC Reporter, Credit advisor, real estate broker, renovation advisor (and lender): More information sharing with the customer but also with each other.

Credit advisor, Lender: more detailed budget determination, before the house hunt starts.

Real estate broker, renovation advisor: providing information during the house hunt, unburdening the customer, give advice about renovation needs, costs and purchase price.

Credit advisor, lender, renovation advisor: the financing offer has to be a financial healthy and comfortable one so that a payable, comfortable and energy-efficient living is reached, including the renovation needs and costs.

Renovation advisor, EPC reporter: guidance throughout the renovation process from A to Z.

In order to obtain this model and to realize an impact, we must properly guide and inform all stakeholders who are discussed here. Especially the stakeholders in the first box are key figures. They can make a difference by immediately providing correct and detailed information to the future customer. Also collaboration is decisive here. For an efficient course of the customer journey, it will be extremely important to obtain all necessary data in record time and to share it with the customer.

If we can start in the right way, we can also save time at the other points during the customer journey and make it easier for the customer.

The role and recommendations of and towards each stakeholder

EPC-REPORTER: data sharing is crucial to prevent different stakeholders from having to repeat the same measurements over and over again. To provide the correct documents to the customer, before and after the renovation works.

CREDIT ADVISOR: providing correct and detailed information about purchasing and renovating a house, indicate the client’s budget, taking into account all relevant information regarding renovation.

REAL ESTATE BROKER: To show the opportunities, renovation needs and costs to the future customer, to show that renovating is not insurmountable, help the customer to see through this needs and costs. To provide correct and transparent information about a property.

RENOVATION ADVISOR: When collaboration has become a matter of course, the renovation advisor can immediately draw up a report with recommendations and a cost estimate before the sale of a property. To guide the buyer during the renovation process from A to Z.

LENDER: Preparing a tailor made financing offer for each customer that fits their need for a payable, comfortable and energy efficient house. Ensuring that the customer protects himself by renovating effectively to improve the quality and energy performance of the home.

NOTARY: To officialise the purchase through the notarial deed.

Conclusion

Buying a home is a key moment. Not only for the buyer, but also for the property itself. If the opportunity to raise a home to a higher quality and energy performance oriented level is not seized at the time of the purchase, then that is a missed opportunity and perhaps a tragedy for achieving the climate objectives. That is why it is super important that every stakeholder takes responsibility. We can only lift properties to a higher level through cooperation between all stakeholders and by providing and sharing transparent and complete information.

2.5.2 The Target group of Existing Mortgage Clients

The ideal Customer Journey, which we aspire to put into practice in the coming months, should, according to our findings and recommendations so far, look like described below.

(LOCAL) GOVERNMENT CREDIT ADVISOR RENOVATION ADVISOR EPC REPORTER (LENDER)	CREDIT ADVISOR LENDER RENOVATION ADVISOR	RENOVATION ADVISOR BUILDING PROFESSIONALS	LENDER	RENOVATION ADVISOR
AWARENESS My house is in need of renovation and renovation is not insurmountable	BUDGET Budget for renovation Additional costs	UNBURDENING & ADVICE Renovation needs, costs and price Detailed Budget	FINANCING OFFER Financial healthy and comfortable loan Payable, comfortable and energy-efficient living	GUIDANCE Through the renovation process from A to Z
EPC RENOVATION REPORT DIRECT NEEDS LATENT NEEDS	LOAN Options Monthly burden Premiums and subsidies	PLAN Short term Long term No lock-ins Structured & Logical	INCLUDING RENOVATION NEEDS & COST	

Figure 9 The ideal customer journey to test during the pilots

In order to obtain this model and to realize an impact, we must properly guide and inform all stakeholders who are discussed here.

Optimization:

Government, credit advisor, renovation advisor, epc reporter (and lender): Create as much as possible awareness about renovation and state that renovating is not insurmountable; use EPC Report, Renovation report and point out direct/latent needs.

Credit advisor, lender, renovation advisor: provide a detailed and accurate budget including renovation and additional costs; take into account all possible financing options, also the premiums and subsidies.

Renovation advisor, building professionals: the customer needs to be unburdened: give advice about the budget needed, the renovation needs and its costs and make a plan for the short term, for the long term, that makes sure the customer doesn't get locked-in.

Lender: create a financial offer that is healthy and comfortable and leads to a payable, comfortable and energy-efficient living for the customer.

Renovation Advisor: provide guidance throughout the renovation process from A to Z.

The role and recommendations of and towards each stakeholder

(LOCAL) GOVERNMENT: The role of the government remains crucial: campaigns and awareness-raising will have to continue to be addressed. But we believe the (local) government can also play a role in offering an EPC and/or a renovation report for each (or at least a well targeted group) member of the Target group of Existing Mortgage Clients. During the C-REAL project we will further investigate this possibilities.

CREDIT ADVISOR/LENDER: Providing correct and detailed information about renovating a house and the possible financing options, without cancelling out any options. No prejudice and always in favor of the future of the customer (keeping in mind affordable, comfortable and energy efficient housing solutions).

RENOVATION ADVISOR/EPC REPORTER: To sketch a picture as detailed as possible of the current state of the house and the future possibilities regarding a renovation to increase comfort and decrease energy use.

BUILDING PROFESSIONALS: Co-operating with the renovation advisors to ensure a qualitative and affordable renovation following the needs and possibilities of the customer.

Conclusion

Creating awareness about (the need for) renovation is key for the Target group of Existing Mortgage Clients. As our survey showed, homeowners are often not aware of the energy performance of their home. First and most important recommendation therefore is to increase the knowledge of homeowners. As soon as homeowners are aware of the renovation needs, it is important to provide them with the most appropriate financing to further convince them to execute (part of) the necessary renovations. Much will always depend on a realistic long-term plan that does not deter homeowners, but just arms them to carry out everything, even as it is in (small steps).