



(Project Number: 785057)

Deliverable 4.6 - Periodic Impact and KPI Report

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1. Deliverable Description

This report describes the KPI's that were selected to measure the impact achieved by the HolaDomus pilot program throughout the life of the EuroPACE project. The objective of doing this is to make sure that the correct tracking processes have been implemented to facilitate data collection, and give an oversight of the data collected. This process is crucial to identify and improve EuroPACE practices for future replication efforts, and to have a better understanding of failing and successful strategies for spin-off integrated home renovation service programs.

This report includes graphs on data/metrics collected from the project in Olot with regards to the different types of households that came into contact with the program. The selected data is explained, and the objective of this analysis during the project has been to constantly monitor the performance of the program.

Having such proper reporting tools in place is crucial for accurately measuring the impact of the program. This helps to convey the program results in a clear and concise way, enabling stakeholders to know actual results of the project and thus promoting transparency.

2. Metrics selection process

Metrics are information regarding the process which help in coming up with possible improvements, and this is why accurate measurements are so important. Throughout the whole project certain metrics were recorded to verify that the project is on the right track, and that the adequate data was being collected regarding HolaDomus. Selecting the right metrics enables better information gathering for the decision-making processes that follow.

To ensure proper metric selection, when the program was developed the first step was to reflect on the key objectives that the program aimed to achieve. Following this, the metrics that help achieve those objectives were set. Finally, out of those metrics selected, the most important ones were used as KPIs.

After considering and evaluating several possible metrics, the following are the ones that were finally selected for HolaDomus, and divided into three main categories: project metrics, investment metrics, and impact metrics.

- **Project metrics** are the ones used to measure the success of the HolaDomus program in terms of renovations completed, outreach, and actual involvement with the community.

- The second category was **Investment metrics** which are used to assess the investment triggered by the HolaDomus program. Some renovations are self-financed, while others may have opted to request external financing (loans).
- **Impact metrics** help to track and measure how the project is able to foster change, whether this is environmental or social improvements.

The metrics selected are described below, also mentioning how they will be tracked, and the importance of considering these metrics.

2.1 Project Metrics

Project leads

- It is necessary to know how many people are aware of the program in the community, and thus this metric aims to track how many people know or hear about the program. This is needed to make better decisions on marketing strategies.
 - Method: information collected by Olot via Smartsheet

Type of households that show interest in the program

- This aims to know and categorize the households that might be interested in renovations.
 - Method: tracked by Olot via Smartsheet

Households interested in the program

- Relevant to know the ratio between the households that start a renovation out of the ones that are interested.
 - Method: tracked by Olot via Smartsheet

Executed projects

- To know how many of the initial leads end up using HolaDomus services, and the contribution of the program to their home renovation process.
 - Method: information collected by Olot via Smartsheet

Number of projects finished within expected timeframe

- One priority for homeowners is that their projects are completed on time. This will identify any delays of project completion.
 - Method: information collected by Olot via Smartsheet

Household satisfaction with the program

- To know the general satisfaction with the program. This is crucial to maintain and to grow the project. Finding out what homeowners valued, and what needs to change is vital.
 - Method: information collected by Olot via questionnaires sent out to homeowners after completion.

Household satisfaction with professionals

- This metric measures how satisfied the homeowners were with the contractor(s) who carried out the work.
 - Method: information collected by Olot via questionnaires sent out to homeowners after completion.

2.2 Investment Metrics

Total investment triggered

- The total investment that HolaDomus mobilized, being self-financed or financed with external finance.
 - Method: GNE uses their own platform and Olot registers data via Smartsheet

Average investment per project

- This is relevant for improving financial planning.
 - Method: tracked by Olot using Smartsheet

Total number of loans funded

- To know the number of projects that requested financing, and analyze their status to see if there is any relation between households characteristic and request for funding.
 - Method: tracked by GNE

Interest rates

- Method: tracked by GNE

Number of persons that apply for a loan

- To find out whether there is a relation between applying for a loan with other variables.
 - Method: tracked by GNE

2.3 Impact Metrics

Jobs created

- HolaDomus also aims to increase the business of contractors, thus completing more renovations and thus additional jobs.
 - Method: calculated by GNE based on the investment in energy renovation, and considering an average of 18 jobs created for every million euros invested.

Energy savings (MWh/year)

- The energy saved reduces energy bills for the homeowners and also has a positive environmental impact.
 - Method: tracked by Olot via Smartsheet

Annual reduction of Greenhouse gases emissions

- Reducing GHG emissions could even help to scale the business up, as it can attract more investors into this project.
 - Method: tracked by Olot via Smartsheet

GHG Emissions over the project life

- Total GHG emissions saved over the life of the renovation projects.
 - Method: tracked by Olot via Smartsheet

Number of local contractors joining the program

- Method: tracked by Olot via Smartsheet

Number of local validated contractors

- This aims at measuring the social impact of the project, in terms of the number of workers trained during the program.
 - Method: tracked by Olot via Smartsheet

Preliminary set of KPIs used

- All households reached
- Number of ongoing renovations
- Number of finalized renovations
- Households that are categorized as “opportunity project”
- Type of household interested in the program
- Households not interested in the program

- Household satisfaction with the program
- Household satisfaction with contractors
- Total investment triggered
- Average investment per renovation
- New loans per month
- Number of households that apply for a loan
- Number of households that get a loan
- Savings in monetary terms
- Total number of loans
- Jobs created
- Energy saved
- Avoided GHG emissions
- Number of local contractors applying to join the program
- Number of local contractors trained

3. Smartsheet Overview

For the data collection process, a software tool called Smartsheet has been used which is a highly customizable platform that enables the interaction between the organizations participating in the project. It helps to follow developments, document sharing, and work management. This platform works with live data being collected from HolaDomus, throughout its pipeline development. Pipelines are the main place in which data is collected, stored and analyzed.

The reporting tool works through various formulas embedded within the platform which calculate the output based on information provided by the pipelines. After these formulas have collected and analyzed all the data, the dashboard is created. From the information retrieved in the previous steps, graphs are produced. These charts are put together in the dashboard of Smartsheet for clear visualization. For more information about the selection process that led to selecting Smartsheet, as well as how the tool works, please refer to Deliverable 4.4 "Evaluation and Pipeline Report".

All the information from the project was recorded on the software Smartsheet. With this information, a table was created to have a better understanding and visualization of the data that was collected: This information is the following:

Year	Date	Project status				
		Completed	Ongoing	Not interested	Interested	Opportunity
2019	May 19	1	0	0	0	0
2019	June 19	1	0	0	0	0
2019	July 19	0	3	6	0	0
2019	August 19	0	0	0	0	0
2019	September 19	0	2	7	0	0
2019	October 19	1	1	13	0	0
2019	November 19	1	1	9	0	0
2019	December 19	1	0	5	0	0
2020	January 20	2	2	13	1	2
2020	February 20	2	1	5	0	0
2020	March 20	1	0	9	0	0
2020	April 20	3	3	75	0	6
2020	May 20	0	0	12	0	0
2020	June 20	0	3	9	0	0
2020	July 20	1	4	6	0	1
2020	August 20	2	2	2	0	2
2020	September 20	0	2	4	1	2
2020	October 20	0	2	2	1	6
2020	November 20	0	3	3	0	4
2020	December 20	1	5	1	4	4
2021	January 21	0	3	2	3	1
2021	February 21	0	0	3	5	5
2021	March 21	0	0	1	3	6
2021	April 21	0	2	5	8	3
2021	May 21	0	4	0	7	2
2021	June 21	0	0	0	7	2
2021	July 21	0	0	0	1	0
Total		17	43	192	41	46

Table 1. Aggregation of the collected data by category

The definition of each category is the following:

- A completed project is one that has been finished already.
- An ongoing project is one that has started but has not yet been finished.
- Not interested households refers to those that were not interested from the beginning and didn't ask for a visit or information regarding the project.

- Interested households refers to households that contacted HolaDomus to get more information, and maybe scheduled a visit to their house to get suggestions on possible retrofits.
- Opportunity household refers to those that after a visit and an energy diagnosis, show an interest in starting a renovation project. At this stage, Hola Domus looks for professionals and contractors that can carry out the project.

Smartsheet was mainly used by Olot to track the data related to the project metrics. However, GNE Finance has their own platform to follow up the financing and investment of metrics, in which they gather all the relevant data and information.

4. Key Performance Indicators Tracking

The previous section focuses specifically on mentioning the metrics to be measured as part of the project. In this section, the priority will be given to the Key Performance Indicators (KPI's) as they are the most important metrics for HolaDomus. These are the ones that will reflect how the program has developed. This section will enable us to answer how the project is performing, in comparison to the long-term objectives.

4.1 Project indicators

Project leads are the total number of households that the project reached. This includes houses categorized as *interested*, *completed*, *ongoing*, and *not interested*. Tracked by Olot via Smartsheet, and the data was obtained from the same software.

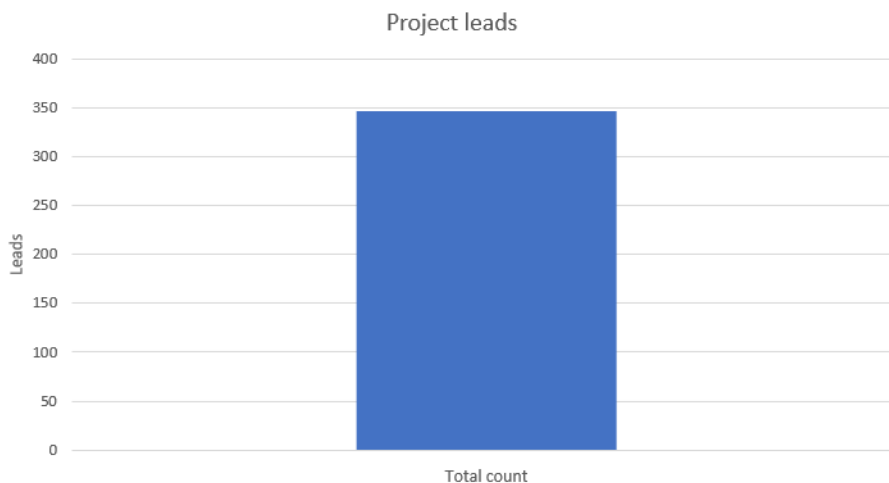


Figure 1.0 Total number of leads generated by HolaDomus

Types of households interested are the type of houses that are involved with the project. There are four different types, and are classified as neighboring single-family houses, blocks of apartments, apartment in a block of apartments, and detached single-family houses.

The neighboring single-family houses are those that share walls with other apartments constructed next to them. The detached single-family houses are those houses that stand on their own and don't share any wall with other houses. A block of apartments includes all the apartments, and this happens when there is a single owner for the entire block, or when all the community wants to renovate the building. An apartment in a block of apartments means that only one homeowner of the building wants to implement a renovation project.

The data was retrieved from Smartsheet and collected by Olot.

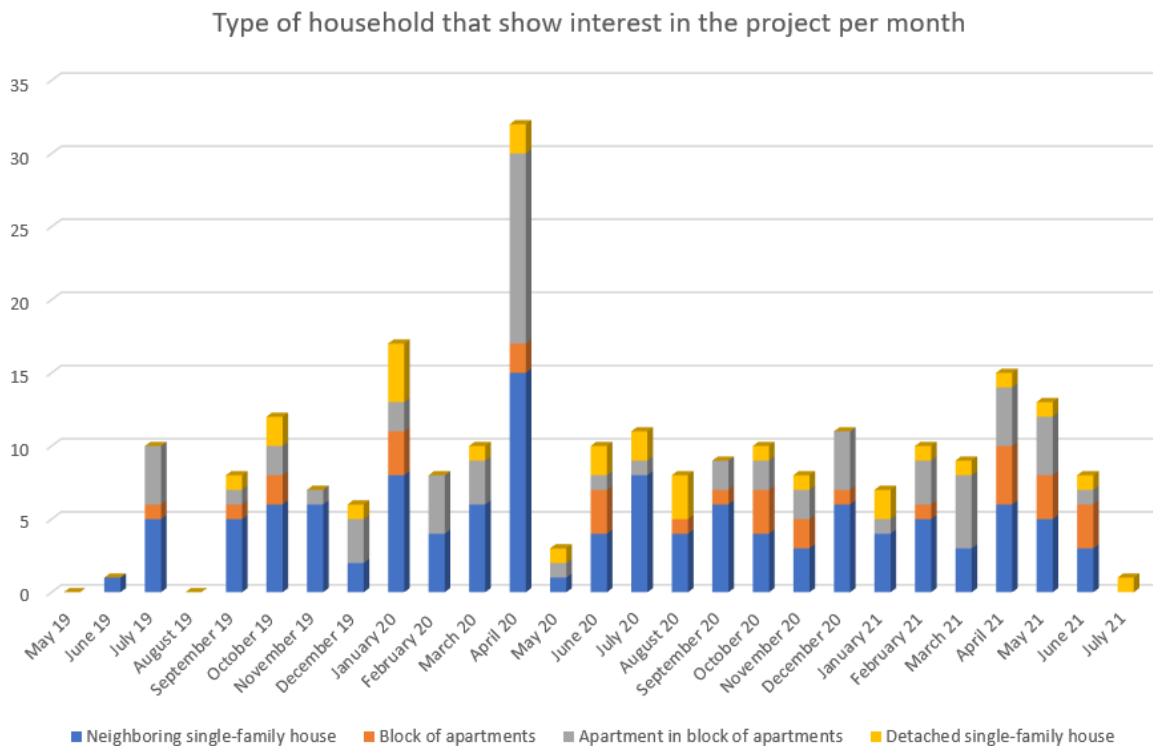


Figure 1.1: Type of household that was categorized at least as “interested” on joining the project.

Figure 1.1 shows the different types of households that were interested in the HolaDomus pilot project. These include the households or owners that requested information on the project, and the ones that drop out. The main types of houses involved are: individual households with neighboring walls to another household,

apartments in blocks of flats, block of houses, and individual households without neighboring walls.

Finalized projects are the projects that were completed more than 6 months ago. If they are completed, but less than 6 months have elapsed since completion, then they are still considered as ongoing projects. This is due to the fact that there is a follow up process after completion. The information was tracked and retrieved from Smartsheet.

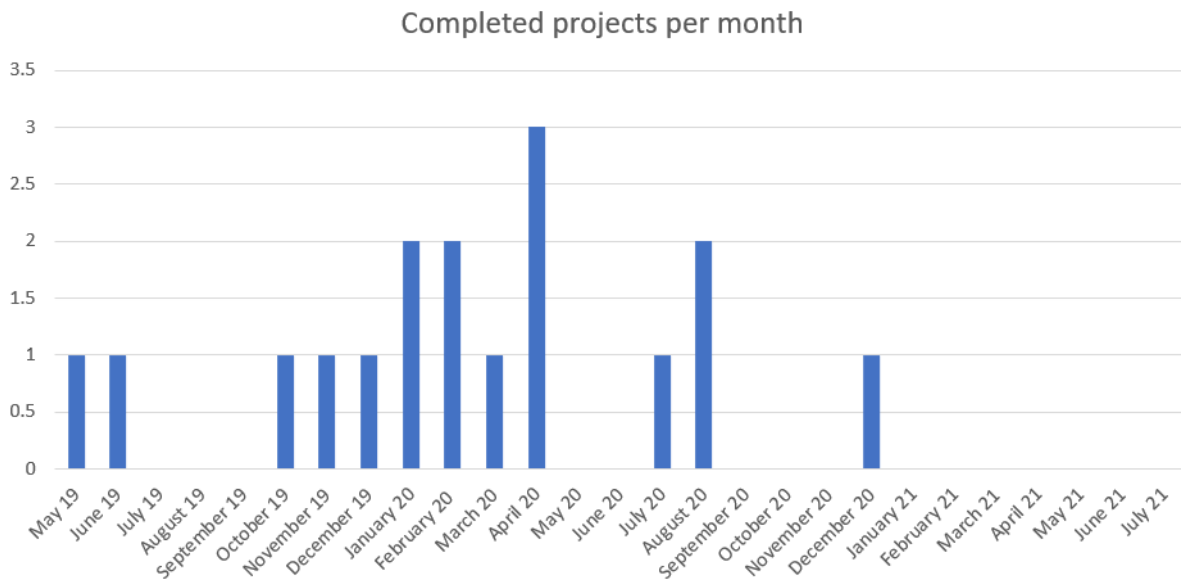


Figure 2. Completed projects per month

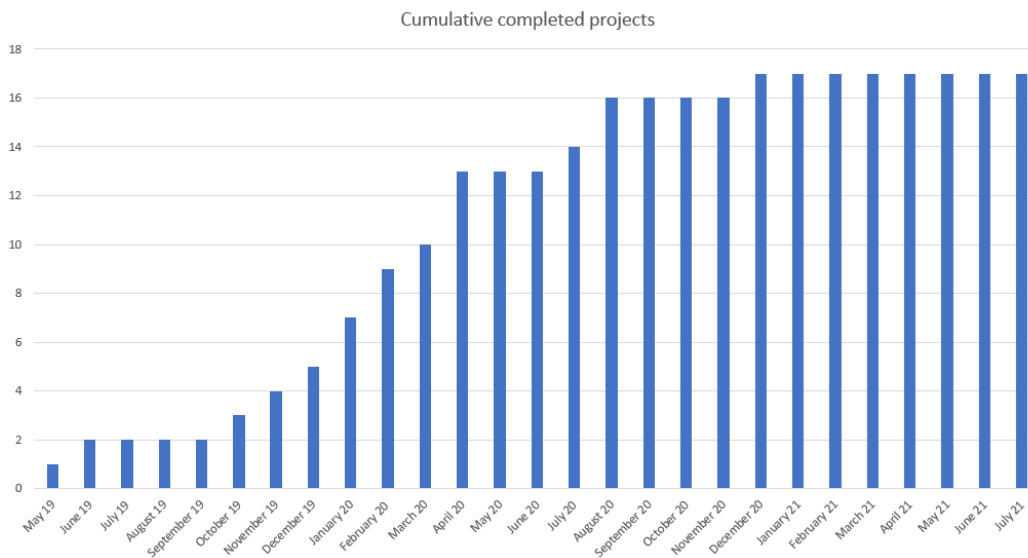


Figure 3. Cumulative of completed projects

Figure 2 shows the amount of completed projects per month. At the beginning of the project they were clearly more completed projects than at the end of the project.

Households interested in the program are the households that at least showed interest in the program and completed the first phase of the program. This phase corresponds to scheduling a visit to the house and receiving a report of possible retrofits. The information shown was tracked by Olot and retrieved from Smartsheet.

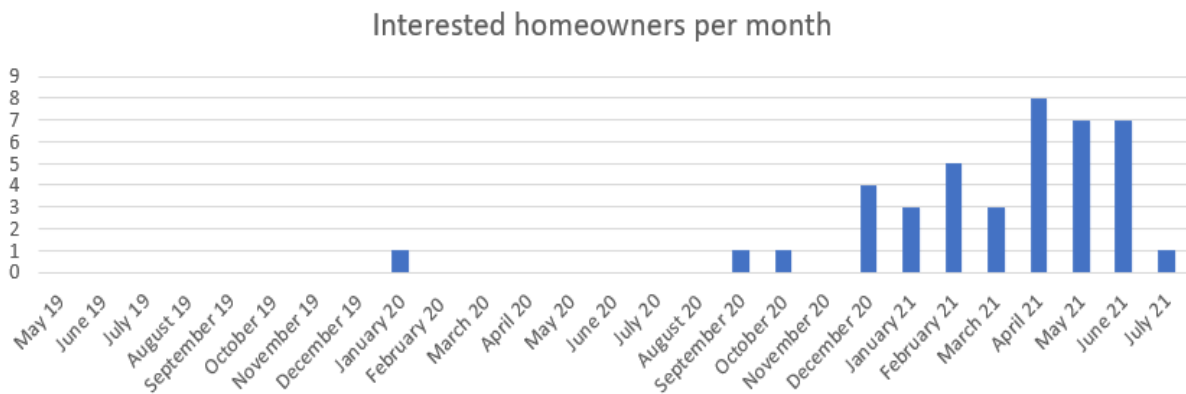


Figure 4. Interested Households per month

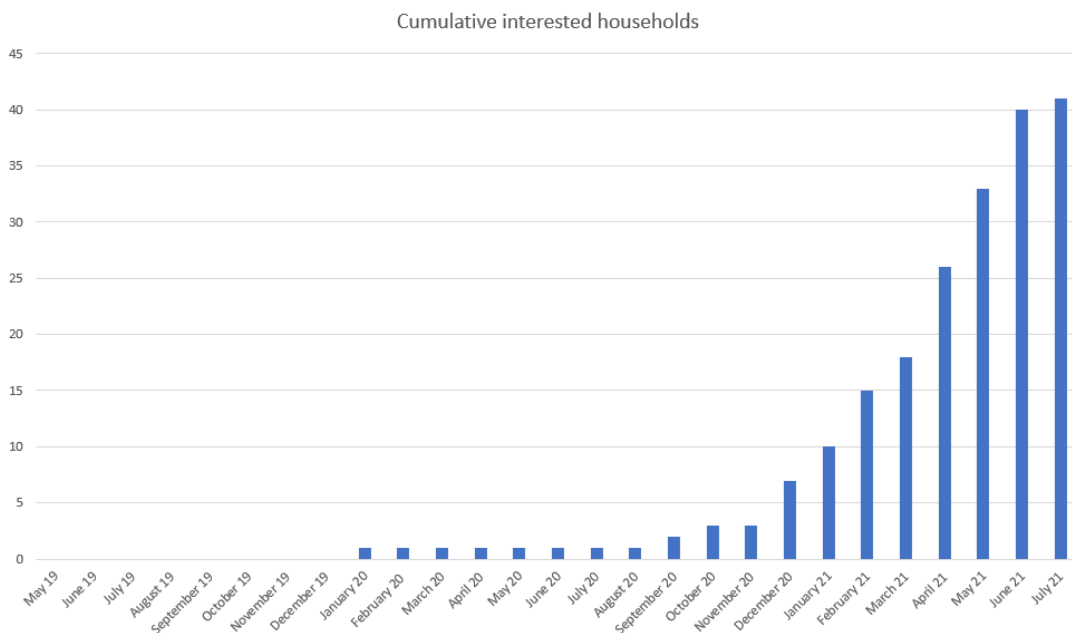


Figure 5. Cumulative of households interested in the project

Once a household is interested in the project, it is important to know which ones would be interested in being part of the Hola Domus project. Figure 4 shows the increase in interest from household owners from September 2020 till June 2021. Before that there were few households interested in HolaDomus.

Households classified as “opportunity” include the households that went a step further than those classified as *interested*. These households showed an interest to start a renovation project, based on the results provided to them after the study of their household was made. The information on this type of households was tracked by Olot and retrieved from Smartsheet.

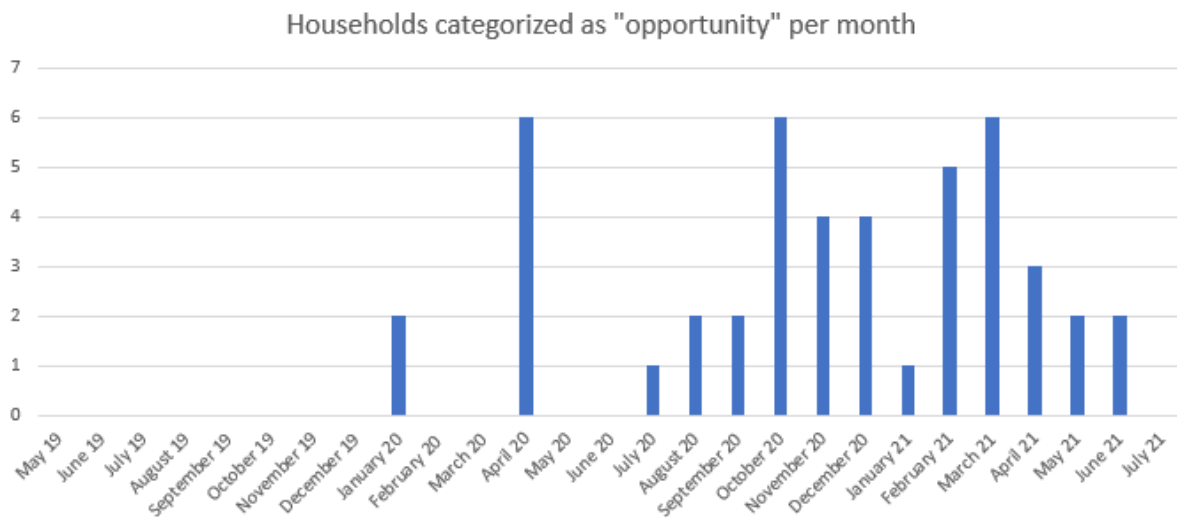


Figure 6. Households that are classified as “opportunity” per month

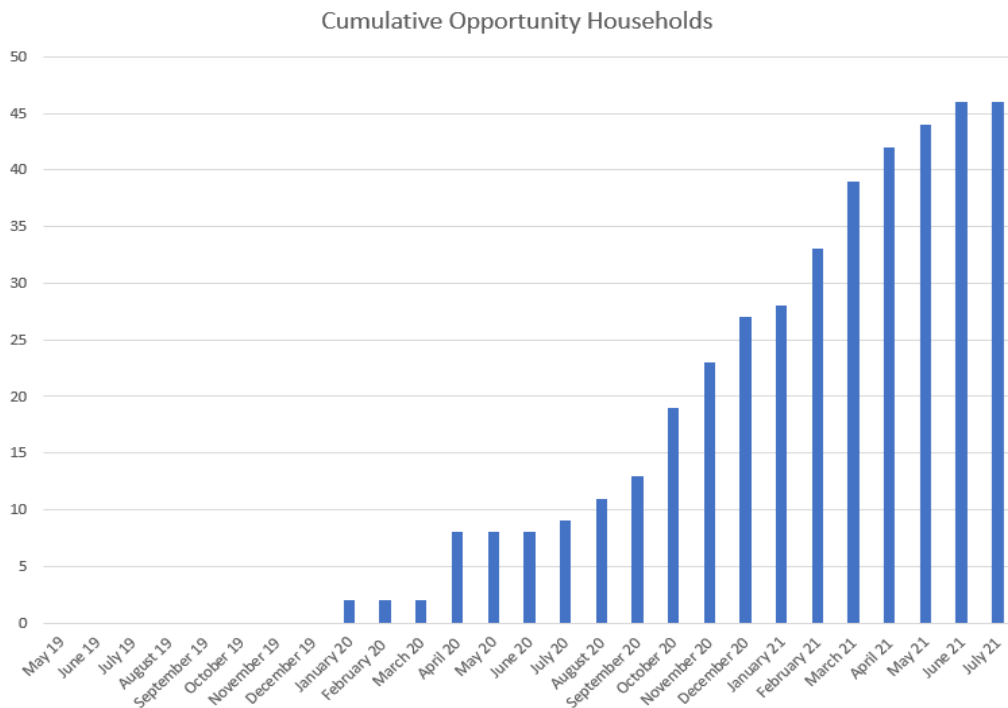


Figure 7. Cumulative of households categorized as “opportunity”

The “opportunity” households per month are featured in *Figure 6*. Similar to the interested household’s graph, the numbers rise since mid-2020, but before that there seems to be a lack of interest in Olot, as there were few or none households considered as a viable opportunity. One explanation to this lack of interest is that promotion of the program officially started in late August 2019.

Households not interested in the program are the household owners that have been in some sort of contact with the program, but at the end decide not to carry out any renovation project. The information was tracked by Olot and retrieved from Smartsheet.

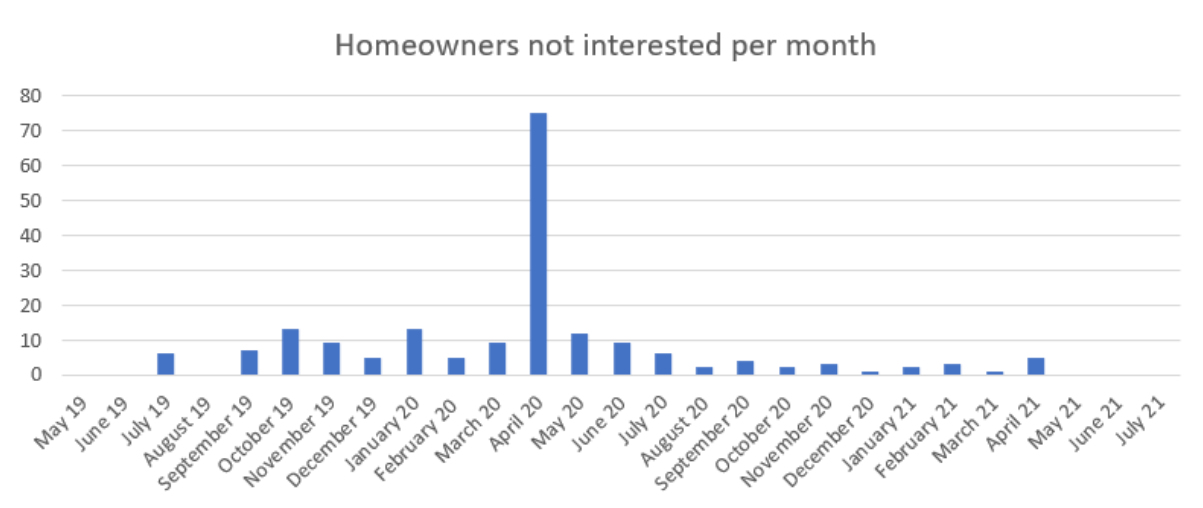


Figure 8. Not interested households per month

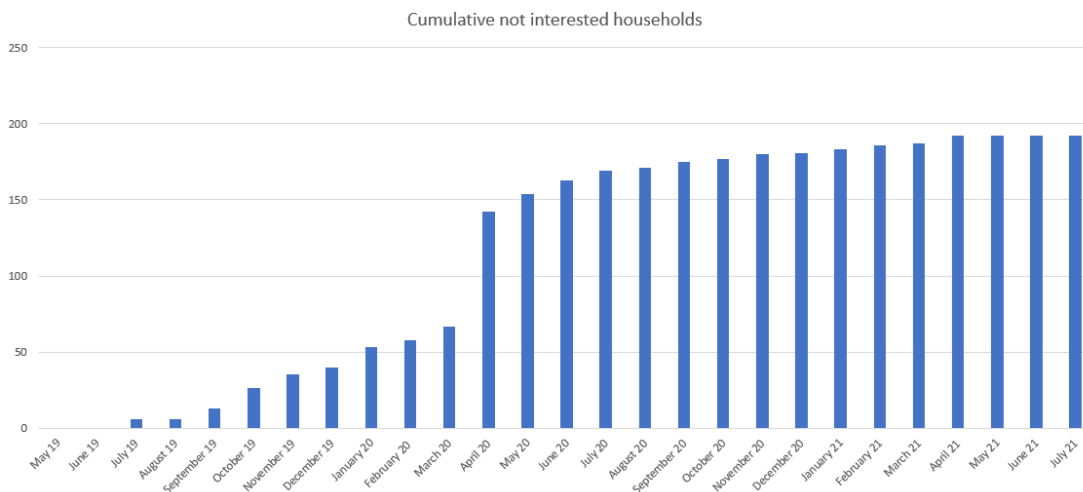


Figure 9. Cumulative number of households not interested in the project

It is useful to know the number of households that are not interested in the project to estimate the project’s retention rate. When looking at *Figure 8*, there is a big spike in April 2020 that might be related to people that wanted to renovate their house before summer but at the end decided not to do it. Gathering this KPI was quite relevant because it shows how many possible renovation projects are lost from the beginning of the customer journey.

Started projects refers to the households that have already gone through the interest and opportunity phase, and have decided to move forward with a renovation project. They are also described as ongoing in some sections of the report. This information was tracked by Olot and retrieved from Smartsheet.

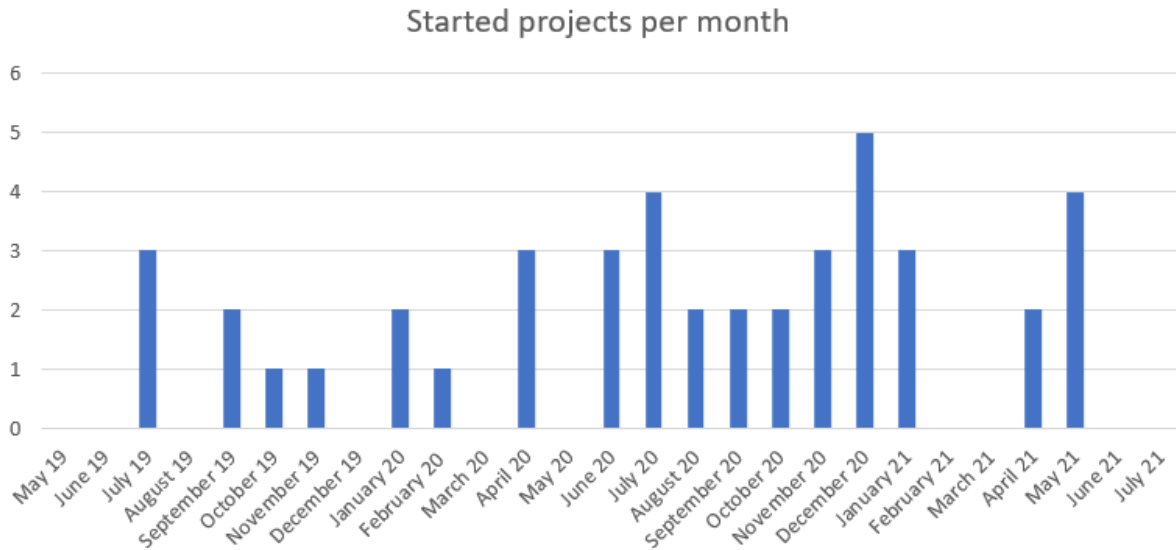


Figure 10. Number of projects started per month

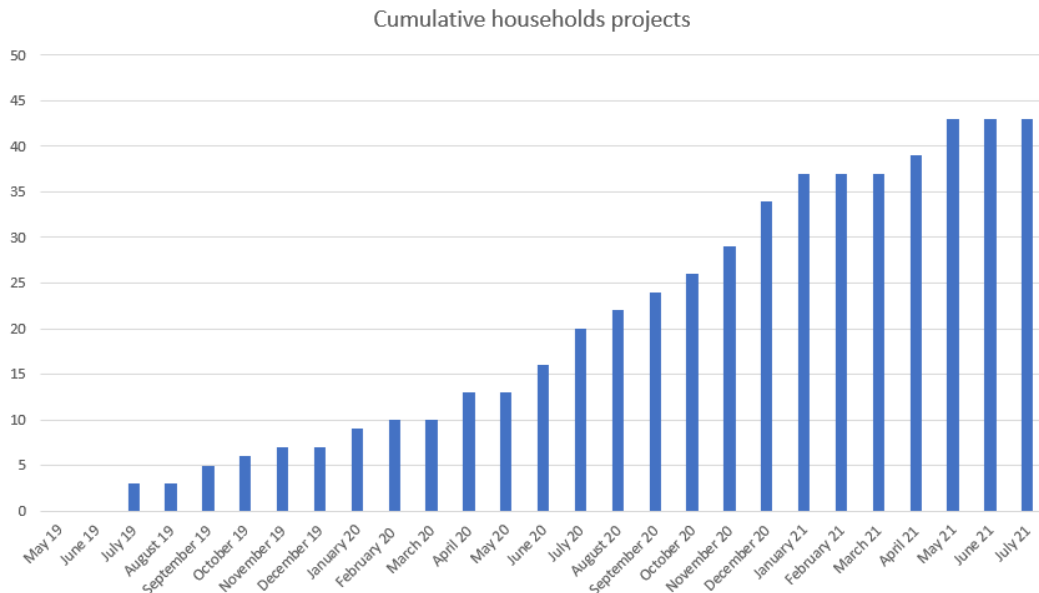


Figure 11. Cumulative started projects per month

Another important KPI is the amount of projects started per month. These are the projects that actually followed all the customer journey, being interested at first, then scheduled a visit and are now undergoing the process of asking contractors to renovate their house.

Household satisfaction with the program; finally, after the completion of the renovation project, it has been collected information on level of satisfaction with the program, including areas to improve. The satisfaction questionnaires were sent to the house owners that the renovation has been categorized as “completed”. The information was collected by Olot and retrieved from Smartsheet.

Since the project only has 17 projects with this category at this stage, the number of replies to the surveys is small. As a positive aspect, it is worth mentioning that response rates are high, there are 16 replies (94.11%).



Figure 12 Satisfaction score for completed projects.

The level of satisfaction with the program is high, as 80% of the responses are located in the upper quartile in terms of satisfaction. The average score given to the program was 8.68 out of 10. This is a very good result as it shows that most owners were satisfied with HolaDomus.

Household satisfaction with professionals. It has been measured the satisfaction of house owners regarding professionals, to know which areas to improve when training them. The satisfaction questionnaires have been sent to the house owners that their renovation project has been categorized as “completed”. The information was collected by Olot and retrieved from Smartsheet.



Figure 13. Satisfaction score given by house owners regarding the professionals

4.2 Investment indicators

Total investment triggered was calculated considering self-financed projects, and the ones that received loans.

Financing method	Total investment triggered (euros)
Self-financed	1,874,157.20
Loans granted	0

Table 2. Total investment triggered by the program

For the total investment triggered, 68% was targeted to energy related renovations. This amounts to a total of 1,274,426.76 euros dedicated to this type of renovation.

Total number of loans funded measures, out of the people that applied for funding, how many actually received it. It is tracked by GNE and recorded on their platform.

Currently there were no house owners that requested a loan, but GNE has a platform ready to track this information whenever loans are granted.

Interest rates were tracked by GNE and recorded on their platform.

The projects have been self-financed so far, so there is no information regarding interest rates. GNE is ready to track the interest rates whenever loans are granted.

Number of people that apply for funding were tracked by GNE and recorded on their platform.

The projects so far have been self-financed, and currently there are no applications for funding.

Number of projects depending on total cost incurred considers ongoing and finalized projects. They were assigned to a particular investment range, according to the investment needed. The information was tracked by Olot and retrieved from Smartsheet.



Figure 14. Number of projects per total cost associated with it.

Figure 14 features the investment cost associated with all started and finalized projects. The majority of them are within the 0-40,000 euros range, and the vast majority of those are within 0 to 20,000 euros. There were some projects involving substantial investment, one of 400,000 euros and 2 around 270,000 euros.

Cost of ongoing and finalized projects represent the previous KPI, but separated into the two different categories.

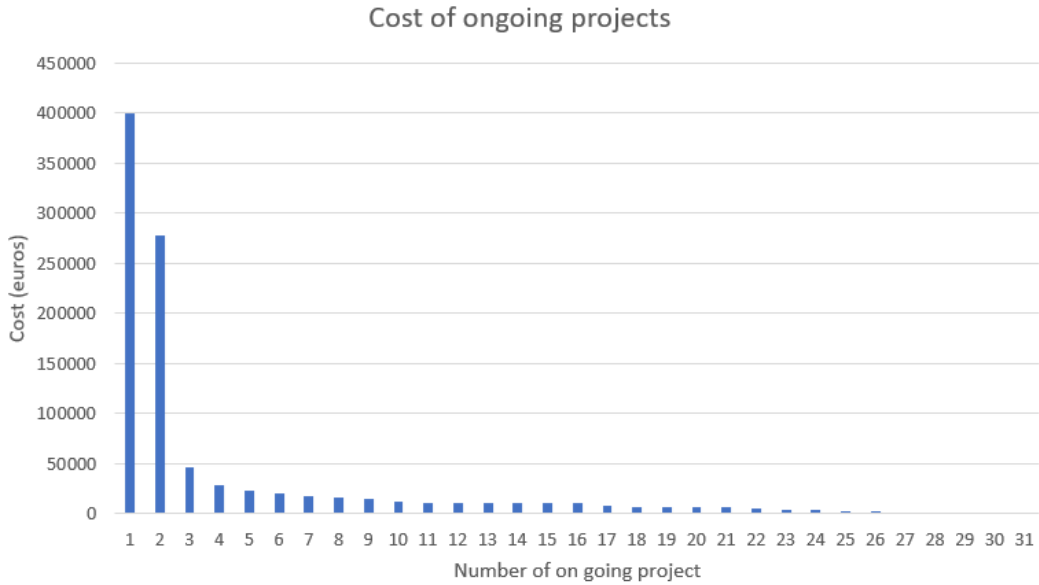


Figure 15. Cost range of ongoing projects

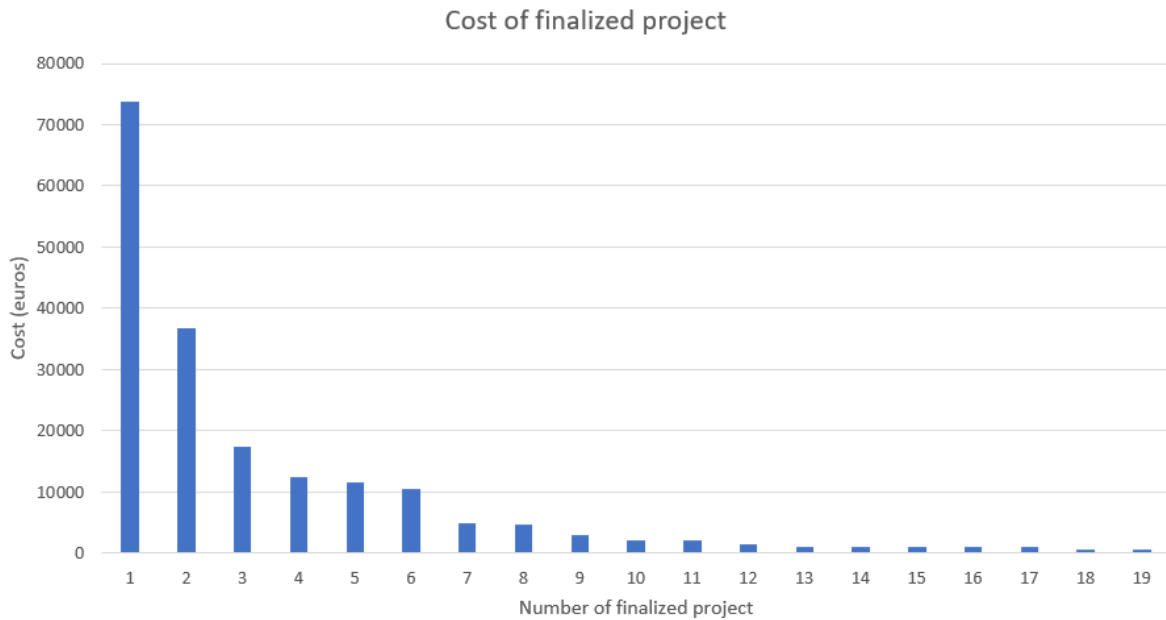


Figure 16. Cost range of finalized projects

Figure 15 shows the cost range of ongoing projects, and Figure 16 shows the cost range of finalized projects. The total costs of projects are much higher in the first category than for completed projects. It can also be seen that the costs of a large number of initiated projects are between 50,000 and 20,000 while the cost of completed projects are between 20,000 and 5,000. This means that the average cost of ongoing projects is much higher than those of the finalized projects. The finalized ones had an average cost of 9866.5 eur, whereas the ongoing ones had an average cost of 31,220.2 euros.

The average investment per project was calculated using the costs associated with ongoing projects and finalized ones in Smartsheet. This data was tracked by Olot.

Project status	Maximum cost of project	Minimum cost of project	Average cost of project	Total average cost
Ongoing	400000	491.7	31220.2	23105.7
Finalized	73740	600	9866.5	

Table 3. Financial information about ongoing and finalized projects

All the information previously described has been summarized in the table above. The average cost per project is 23,105.7 euros.

As mentioned in the previous section, the KPIs were divided into three main groups: Project, Investment, and Impact. Using the data that was collected in Smartsheets, the team aggregated the information in the following table to sum up the KPIs related to project impacts.

4.3 Impact indicators

Date	Final energy savings (kWh/any)	Economic savings (€/any)	Emissions savings CO2 (TnCO2/any)
May 19	0	0	0
June 19	15746	439.3	4.863
July 19	137771	9975.8	35.7
August 19	0	0	0
September 19	28700	427	6.3
October 19	68868	646.4	20.46
November 19	29470	1391.26	6.25
December 19	28165	1633.57	7.06
January 20	24758	1769.135	14.391
February 20	14656	483	4.343
March 20	5883	230	1.4
April 20	56617	3277.916	14.767
May 20	0	0	0
June 20	61150	4250	15.8
July 20	57405	1675.75	16.82
August 20	15011	1390.648	6.407
September 20	0	0	0
October 20	0	0	0
November 20	0	0	0
December 20	0	0	0
January 21	0	0	0
February 21	0	0	0
March 21	0	0	0
April 21	0	0	0
May 21	0	0	0
June 21	0	0	0
July 21	0	0	0
Total	544200	27589.779	154.561

Table 4. Aggregation of the data related to different types of savings.

The previous table shows that at the beginning of the project there was more savings generated than at the end of the project. This is related to the fact that after September 2020 there have not been many finalized projects.

Jobs created are the jobs that were created based on the investment triggered by the program. This was calculated based on the assumption that 1 million euros of investment in Spain creates 18 jobs.

The total investment triggered was tracked by Olot via Smartsheet and it was 1,874,157.2 euros. This would translate to 34 jobs created, due to the investment that the program mobilized.

Emissions reductions correspond to the ongoing and finalized projects. The data was tracked by Olot and retrieved from Smartsheet.

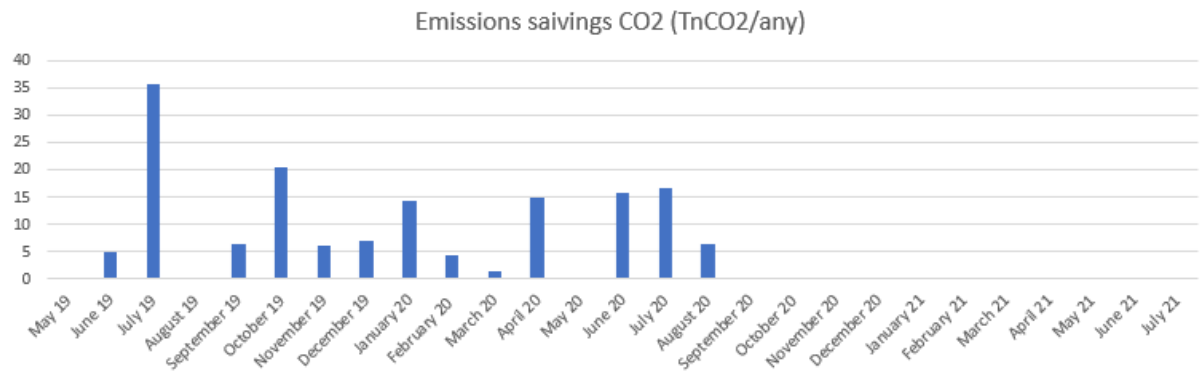


Figure 17. CO2 reduction per month

The CO2 emission reduction given in *Figure 17* does not reflect the expected results. Ideally the amount of emissions avoided should be increasing month by month.

Energy savings measures the energy that house owners are expected to save after the retrofits are completed. The data is quite similar to what was reported for the emissions savings section. The information was tracked by Olot and retrieved from Smartsheet.

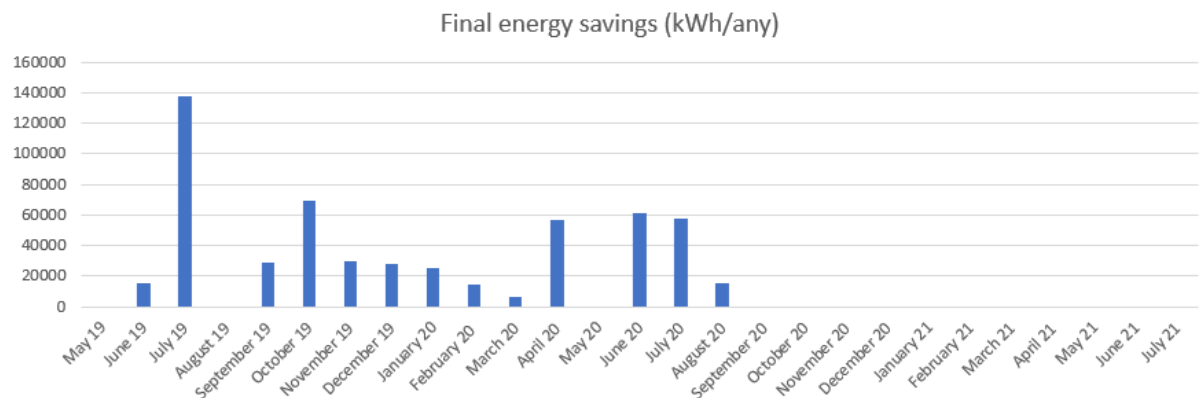


Figure 18. kWh saved per month

Energy savings were bigger at the beginning of the project, than those at the end. This is the same trend that can be seen when referring to the saving in monetary terms and CO2 savings.

Number of contractors that joined the program, and validated ones. This is useful to measure the social impact of the program. This was tracked by Olot and retrieved from Smartsheet.

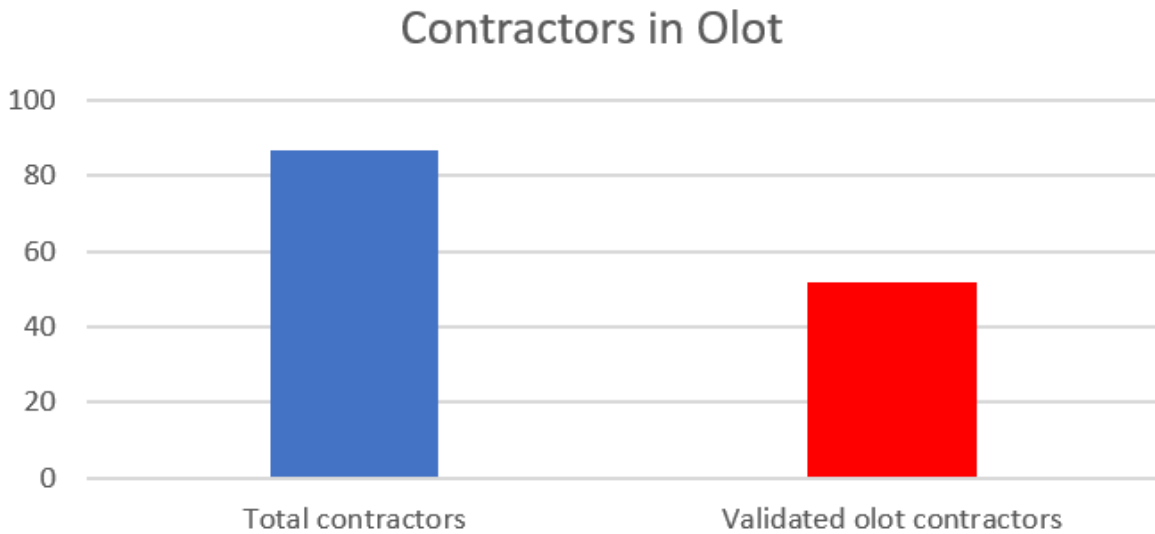


Figure 19. Contractors (total) and validated contractors

One KPI that has been reported was the number of professionals that were trained and validated during the duration of the project. This KPI is very important, because it portrays the development of trained professionals. One key goal of the project is not just to foster economic or environmental wellbeing, but also social improvement and development. *Figure 19* portrays that 52 out of 87 contractors have been validated. There is indeed room for improvement, and the project will keep on promoting the training of professionals.

5. Challenges and shortcomings

Every project has some challenges that prevent them from running smoothly, and this was not the exception. One of the most challenging aspects to get a good reporting of a project's impacts is the lack of relevant data. Good communication with all the stakeholders is key to ensure all the parties involved are making an effort to acquire the relevant information for this purpose.

In this case, there was clearly a shortage of relevant data. This might have to do with the fact that promotion of the event began in September 2019, after the project had several months since the kick-off.

One of the problems was the lack of monthly or periodic reporting. There was data being collected, but it was not recorded in the shared platform until months later, or maybe until someone needed that data, and started asking for it. This lack of consistency in terms of reporting dates, can be a risk of losing information that could be important to measure the KPIs.

The data collecting software started to be used in September 2019, almost 6 months since it started. This meant that some of the data was lost in the process, due to lack of reporting.

One big short-coming was the lack of demand for loans. This was a big surprise, since GNE Finance was ready to record all the relevant KPIs related to financing, such as: interest rates, amount of loan, number of loans given, homeowners that applied to get loans, homeowners that got loans, and reimbursements. The problem was that homeowners generally don't want to apply for small loans, and prefer to use their savings, borrow the needed amount from a relative or go to their local bank. Even though there were no loans given so far, GNE Finance is ready to track the necessary information regarding this financial aspect.

6. Conclusion

For a project like this, which covers several areas, and not only the financial aspects, it is vital to have different metrics to adequately measure the results generated. This is why the main groups of indicators, project, investment, and impact, were selected. These integrate all the data collected, and the database facilitated the analysis and visualization of the results.

All of this quantitative data was obtained using different methods. The main one being used was Smarthseet, which is a software that enables collaboration between the different stakeholders involved. Excel was also used to prepare tables and graphs to help visualize the gathered data. The last method of data gathering was questionnaires that were sent out after the projects were completed. The purpose of obtaining all this data was to have a better understanding of the project development, and more importantly to measure the impact generated. Data tracking is extremely relevant for a project whose purpose is to generate change in the future. Initial conditions need to be compared to those at the end of the project, and there is never too much data being gathered. It is necessary to see the big picture and even gather data that might not be useful today, but could be useful for upcoming projects.

Despite the difficulties encountered throughout the project, it has managed to generate an impact on Olot. This is why the selection and measurement of key performance indicators at the beginning of the project is so important. Having them well defined allows us to properly manage the project and offer the best renovation service to the owners.