



D 4.3 – User analysis report WP4 – Strategies for stakeholder engagement

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REPORT, VERSION 2

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EXECUTIVE SUMMARY

The post installation survey was created to improve the understanding of existing motivations and barriers relating to sustainable energy behaviour, and to identify factors that may be linked with individual interest and ability to save energy. The questionnaire gathered information about the participants' demographics, homes, lifestyles, attitudes, values and worldviews, to help in the development of policy recommendations. There were eighteen questions, broken into four categories: (1) general information, (2) sociodemographic characteristics, (3) ICT usage, and (4) environmental views.

An initial review of the participants in Brussels revealed a relatively high ratio of homeowners, of which most were unaware of the energy class or heating system in their home. More than half of the survey participants were under the age of 45, suggesting that younger people may be more inclined to take action to reduce their energy consumption. The PARENT Project had a highly educated group as participants: all of the survey participants had earned a Bachelor's degree, and more than half held a Master's. Almost every household had at least one laptop and one smart phone and used their appliances a few hours a day, showing a deep embeddedness of technology use in everyday life.

The vast majority of participants agreed that climate change is a critical global challenge, sharing similar worries about the threats of increased energy demand. Most agreed that personal actions can make a difference, and that a sustainable lifestyle can be for the majority of people. The majority of participants claim they adopt environmentally conscious behaviours, and wish to make additional lifestyle changes to do their part in protecting the environment. Prior to the start of the project, most participants had already completed small energy efficiency transitions, particularly by substituting their previously owned appliances with newer more energy efficient ones. Generally, the survey showed that the majority of the participants share the same views, habits, and general backgrounds. Further, the results provided a positive outlook for the future of energy consumption, as the majority of participants want to get more involved in reducing their energy needs and in developing sustainable futures.

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LIST OF ABBREVIATIONS

Abbreviation	Description
WP	Work Package
Partner Abb.	Description
VUB-IES	Vrije Universiteit Brussel – Institute for European Studies
BLP	Blue Planet AC
UU	Universiteit Utrecht
RES	Resourcefully
SVT	University of Bergen, Centre for the Study of the Sciences and the Humanities

1 Introduction

1.1 Aims of the deliverable

This deliverable, 4.3 - User analysis report builds on D4.2 User questionnaire and both deliverables fit under task 4.2. User Clustering. The questionnaire developed in D4.2 was shared with all of the PARENT pilot participants and D4.3 aims to analyse these results in relation to the pilot implementation. The questionnaire responses aimed to allow us to define the pilot participant group for two key purposes. The first part of the questionnaire, which was given to participants upon subscription to the project was used for clustering participants and to provide them with a relatively fair comparison for their own electricity consumption. Four clustering questions, all relating to *Housing characteristics*, were given to help group the participants in a way to be able to provide them with meaningful comparison with other participants in similar situations. This led to the PARENT online platform comparison options and personalised graphs sent in newsletters to participants.

The second questionnaire was sent to participants after they had subscribed to participate and was an optional online survey. It focused on three main characteristics grouping: *Housing characteristics*, *sociodemographic characteristics* and *attitudes and beliefs*. The online questionnaire went deeper into understanding a person's household, lifestyle, attitudes and values. The aim of the questions was to see where she/he places themselves with regards to technology, environmental consciousness and social engagement with the intention to explore whether it was feasible to identify key characteristics of engaged participation in the project- and hence receptiveness to similar approaches.

This current deliverable (D4.3) reports only on the second questionnaire: the optional online survey sent to participants after their subscription. It provides an overview of the participants, analyses their common and different characteristics and attempts to explain how these results fed into the design of the pilots, and may explain the PARENT project target group - or moreover, the characteristics of people likely to participate in a project such as PARENT.

One goal of the online survey as set out originally was to compare, at the end of the pilots and following a final survey, the actual behaviour of the participants (e.g. level of engagement) during the pilot phase with the various sociodemographic factors, attitude and beliefs in order to analyse whether we can identify common characteristics of the most active participants (and the least active ones). The sample size of participants answering both questionnaires and the high number of questions asked in both surveys made any such actual comparison of previous attitude versus actual savings and behaviour change unfeasible and was abandoned.

1.2 The survey

The post installation survey was employed to gain further comprehension of existing motivations and barriers regarding sustainable energy behaviour, and to understand factors that may be linked with individual interest and willingness to reduce energy usage.

The questionnaire collected data about the participants' demographics, houses, lifestyles, and worldviews, to help in the development of beneficial policy advice. There were eighteen questions, broken into four categories: (1) general information, (2) sociodemographic characteristics, (3) ICT usage, and (4) environmental views. The survey questions aimed to see where a participant places themselves with regards to technology, environmental consciousness and social engagement. The questions are in line with several other behavioural surveys such as Defra's 2009 Public attitudes and

behaviours towards the environment, Sütterlin, Brunner, and Siegrist’s 2011 “Who Puts the Most Energy into Energy Conservation? A Segmentation of Energy Consumers Based on Energy-Related Behavioural Characteristics” and other research project surveys such as the FP7 CIVIS project (2013-2016).

The survey was completed online at home, preferably after installing the energy monitor. However as the installation procedure proved quite cumbersome for the majority of participants, they were encouraged to complete the survey while waiting for their appointment with the project electrician.

For more information on the set-up of the two questionnaires, please consult D4.2. The full questionnaire is found in Annex 1. This deliverable reports on the results of the second clustering questionnaire in Brussels.

2 Post Installation Survey

2.1 Overview of Survey Participants

The post installation survey yielded a response rate of 71,5% (63/88) from the pool of participants with installed Smappees. In total, there were 136 participants, including ones who either returned Smappees or never installed them. Out of the responses, 36 were from Watermael-Boitsfort, and 27 from Forest; there were 52 French speakers, 7 Dutch, and 4 English. The majority of participants are either couples (25,4%) or families with 3-5 people (63,5%). The total amount of participants within these 63 households amounted to 214 individuals, including children.

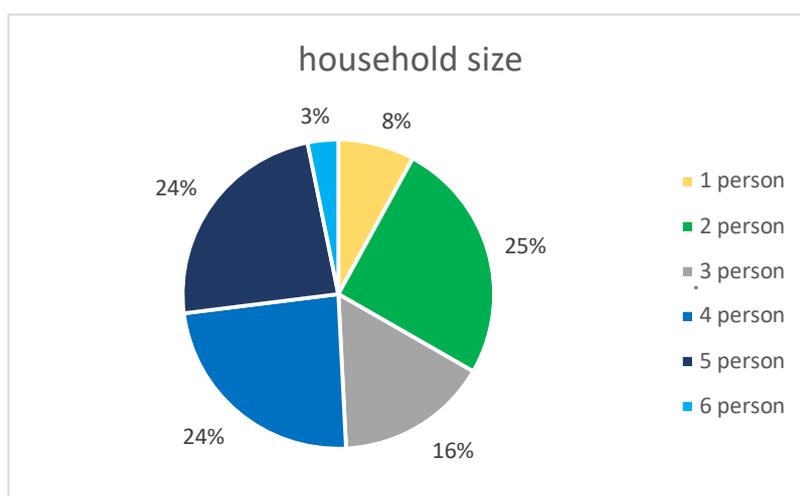


Figure 2.1-1 Household Size

2.2 General Questions

The general questions section looked at the homes in which the participants lived, including their energy class, usage, and heating system. At 87,3%, most of the survey participants own the home they live in. One home owner mentioned that they live in a classified architectural heritage building, which prevents many renovations, and therefore hinders the installation of new sustainable energy sources. Apart from this family’s case, home ownership allows for greater potential for making energy efficiency changes. For instance, although installation of solar panels and local energy systems is possible as a

tenant in Brussels, it is practically more feasible as a home owner. According to Brussels Express,¹ the rate of home ownership in Brussels is relatively high compared to its neighbouring countries in western Europe; in 2015, it was at 71,4%, making our sample group significantly above average.

What is your housing situation?

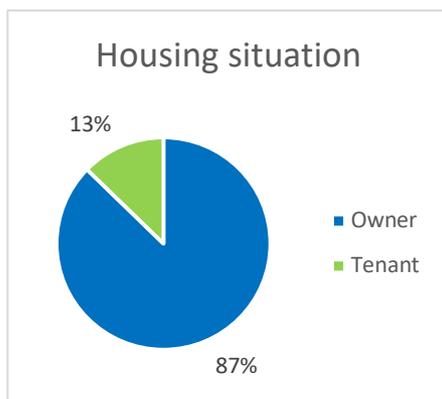


Figure 2.2-1 Housing Situation

Most (68,3%) of the survey participants do not know the energy class of their home. Out of those who did know, the majority fell between a home with classification D (12,7%) and G (9,5%). Only one home was rated above a C classification, and it is classified as A+.

Does your home have an energy classification?

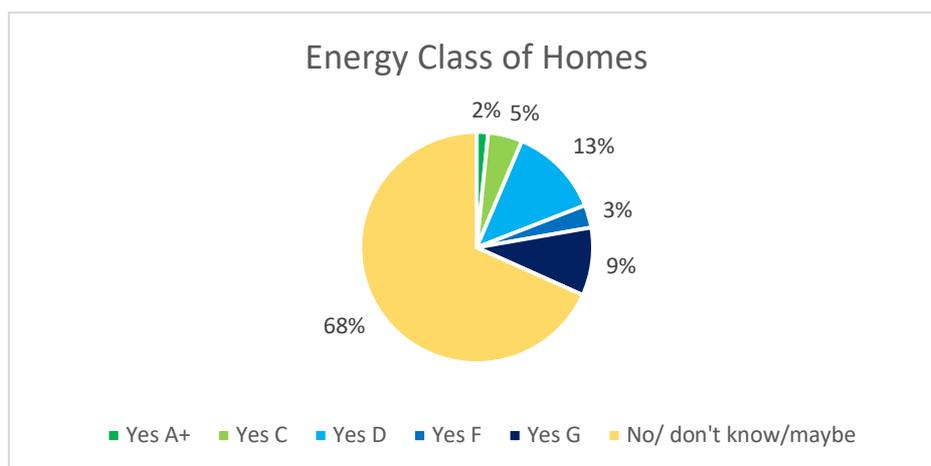


Figure 2.2-2 Energy Classification of Homes

When asked about the type of heating system in their homes, the majority of respondents did not answer or did not know the system. The second largest group, at 19%, indicated gas heating, which the Smappee energy monitor does not account for. Two participants, 3%, have electric heating, which

¹ Brussels Express. Most People in Belgium Still Prefer to Own Their Home. <https://brussels-express.eu/people-belgium-still-prefer-home/>

should be expected to have higher energy consumption than average. Based on the consumption data gathered through the PARENT platform, when compared to other houses in the same commune, living space size, and household size, the two participants indeed scored poorly, mostly in the bottom 20%.

Indicate the type of heating system in your home.

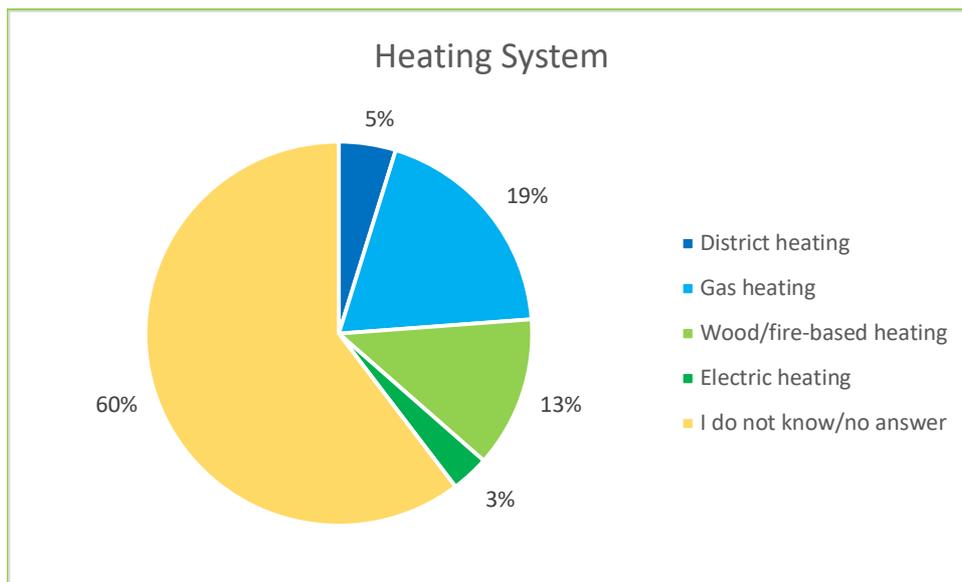


Figure 2.2-3 Heating System of Homes

More than half of the survey participants, 60,3%, knew their electricity consumption of the previous year, and shared this information with us. However, as a result of participants having varying periods of data, the figures were not comparable. The historical consumption figures had a huge range from 563 kWh – 7046 kWh during the previous period. Within the participant group, there is quite a variation in household sizes, types of housing and heating systems, which provides a basis for the large range.

Do you know how much electricity you consumed last year?

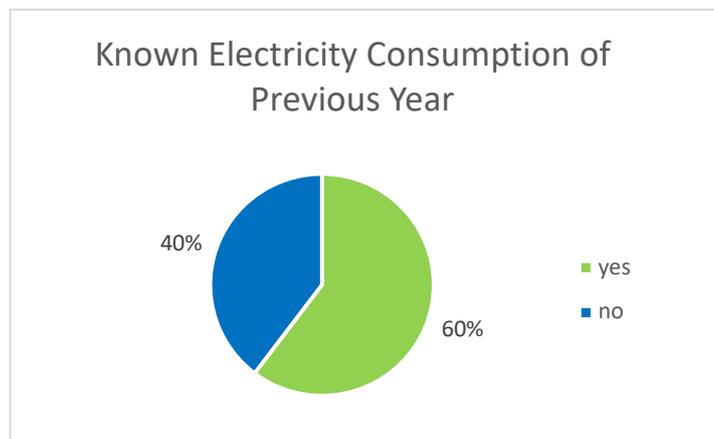


Figure 2.2-4 Known Energy Consumption of Previous Year

This information of general differences of households (in particular with regards to the type of heating system) was communicated during the first PARENT project workshops held in December 2018. As it was impractical to create sub clusters for all the variations, only household size, home size, and commune in which a participant lived in were separated for comparison. This means that within each group, there were variations out of participants' control that would interfere with their performance. This information was important for managing expectations and to explain to participants that even though they were clustered according to certain criteria in any comparison, there would be outliers and some parts of their housing system could skew their performance in comparison with others. The sub groups were too small to gather any significant information on variation in performance in the project.

2.3 Sociodemographic Characteristics of Households

The sociodemographic questions regarded the age, gender, and education level of the participants. Nearly 60% of the participants were 45 years or younger. The youngest group of adults under the age of 36, at 29%, could be considered the target group for adapting new technologies. Nevertheless, 15,8% of the participants were over the age of 55, resulting in a diverse age group.

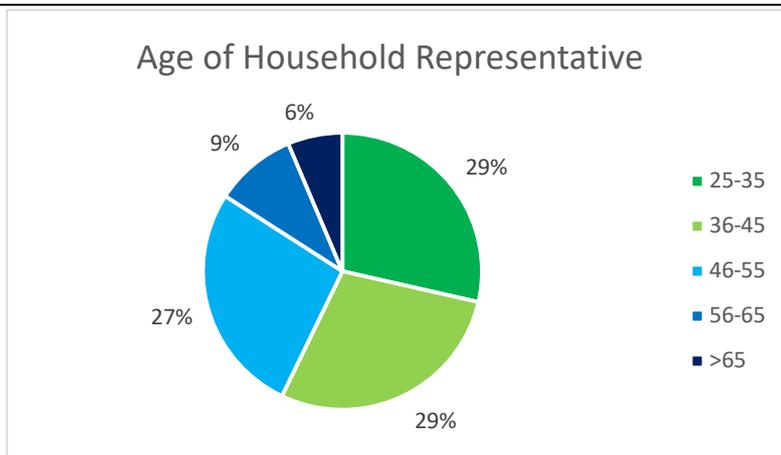


Figure 2.3-1 Age of Household Representative

Only one person per household was asked to take the lead in representing the household for survey purposes. The distribution of gender of the household representatives was fairly even and well balanced.

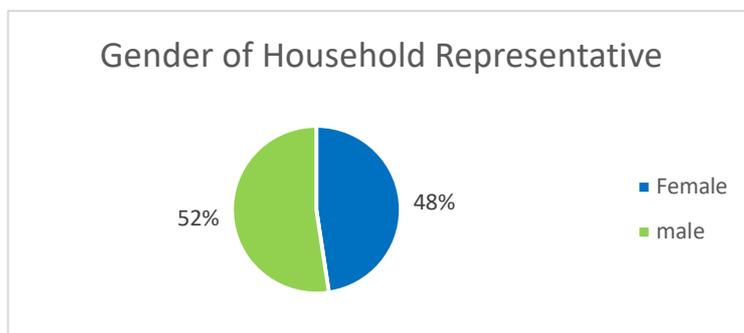


Figure 2.3-2 Gender of Household Representative

All of the participants had a Bachelor level education or higher, as 62% of respondents hold a Master’s degree, and 21% a doctorate. When compared with the overall Brussels population,² of which approximately 40% of the city’s population over the age of 25 has a university degree, the survey participants are a very highly educated group.

² Brussels Insitute for Statistics and analysis. February 2018 - The Brussels population, the most highly educated of Belgium. http://statistics.brussels/publications/headings/in-the-spotlight/february-2018-the-brussels-population-the-most-highly-educated-of-belgium#.XMGt_JMzbEY

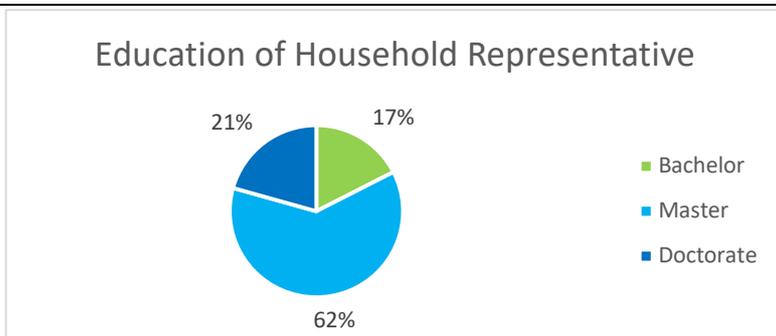


Figure 2.3-3 Level of Education of Household Representative

2.4 ICT Usage in Household

Almost every household had at least one smart phone and one laptop, which is reasonable given the context of increased spread of technology usage in recent years. There were not many other appliances declared in addition to the main technologies.

Which of the following ICT appliances are present in your household?

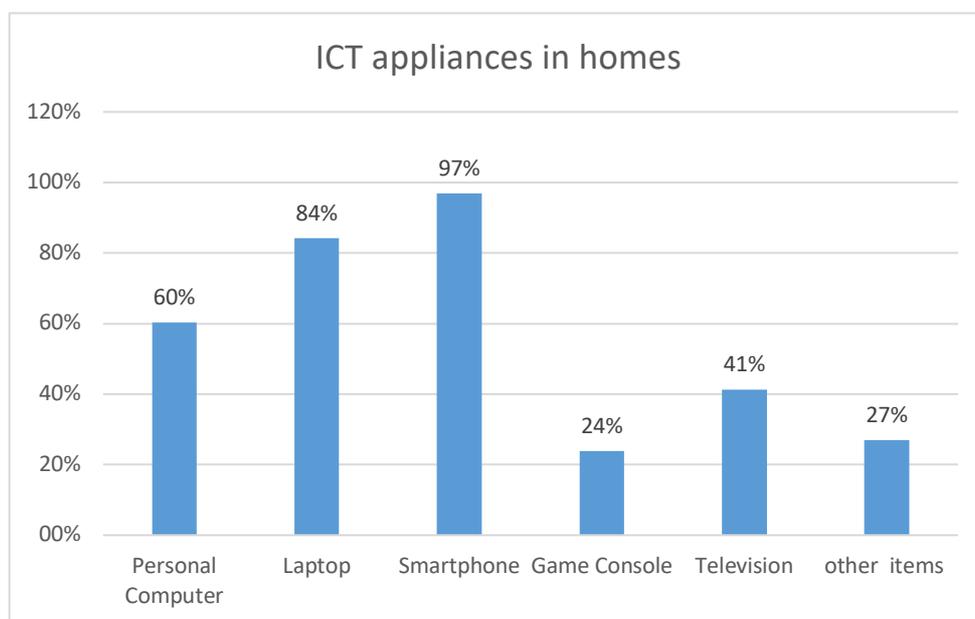


Figure 2.4-1 ICT Appliances in Homes

Almost 97% of the respondents use their appliances a few hours per day, with 45% using their appliances more than 5 hours per day. This high usage could partly be explained by people using their devices for work.

If you consider the ICT appliance that you use the most in your home, what is an approximate average use per adult in household for the week?

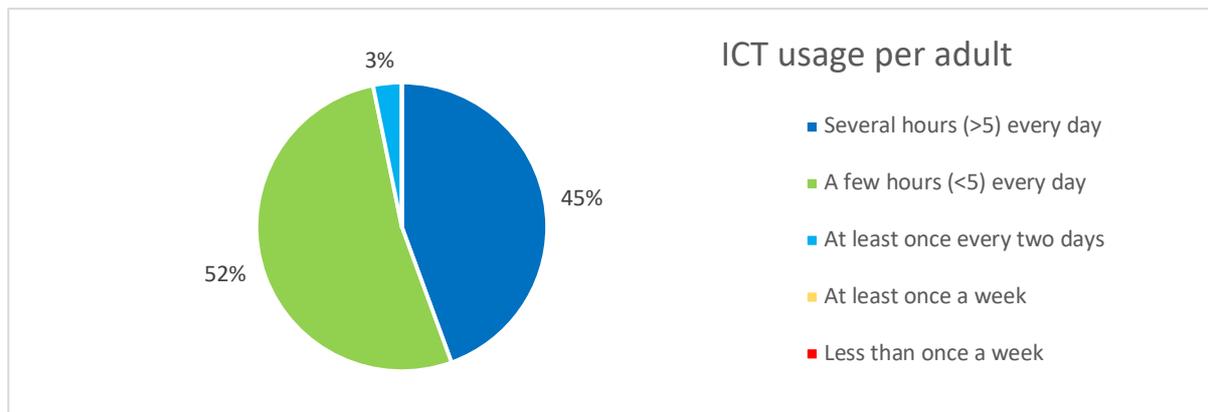


Figure 2.4-2 ICT Usage per Adult

Overall, the respondents’ ownership of electronic devices and ICT usage was average and following expectations. With a laptop and /or a smart phone in almost every home, the Smappee application and PARENT online platform was not deemed a barrier to participate by the project team. Thus, pilots’ focus on the app and platform were continued as well as development work for improving features of the online platform.

2.5 Attitudes and Beliefs on Energy and Environment

This series of questions provided some understanding of general attitudes and values towards the environment, responsibility sharing, barriers and motivators. Additionally, it allowed for a better understanding of the participants’ general attitudes and activities towards energy saving and towards community engagement. With this information, the PARENT Project gained some insight into potential needs and wants of the group and aimed to provide more specific methods for reaching out to the participants, or to provide customised support for people who have diverse views and face different barriers towards acting more sustainably.

There was an overwhelming consensus on the seriousness of climate change, participants either strongly agree (almost 86%) or tend to agree (almost 13%) that global warming is a serious problem and participants share a sense of urgency to act to tackle the issue. The majority (87%) believe the increasing energy demand is a serious problem, whereas shortage of energy sources is contested and receives a wide spread of responses. Generally, this group of survey participants worries about the climate crisis and recognizes that immediate action must be taken.

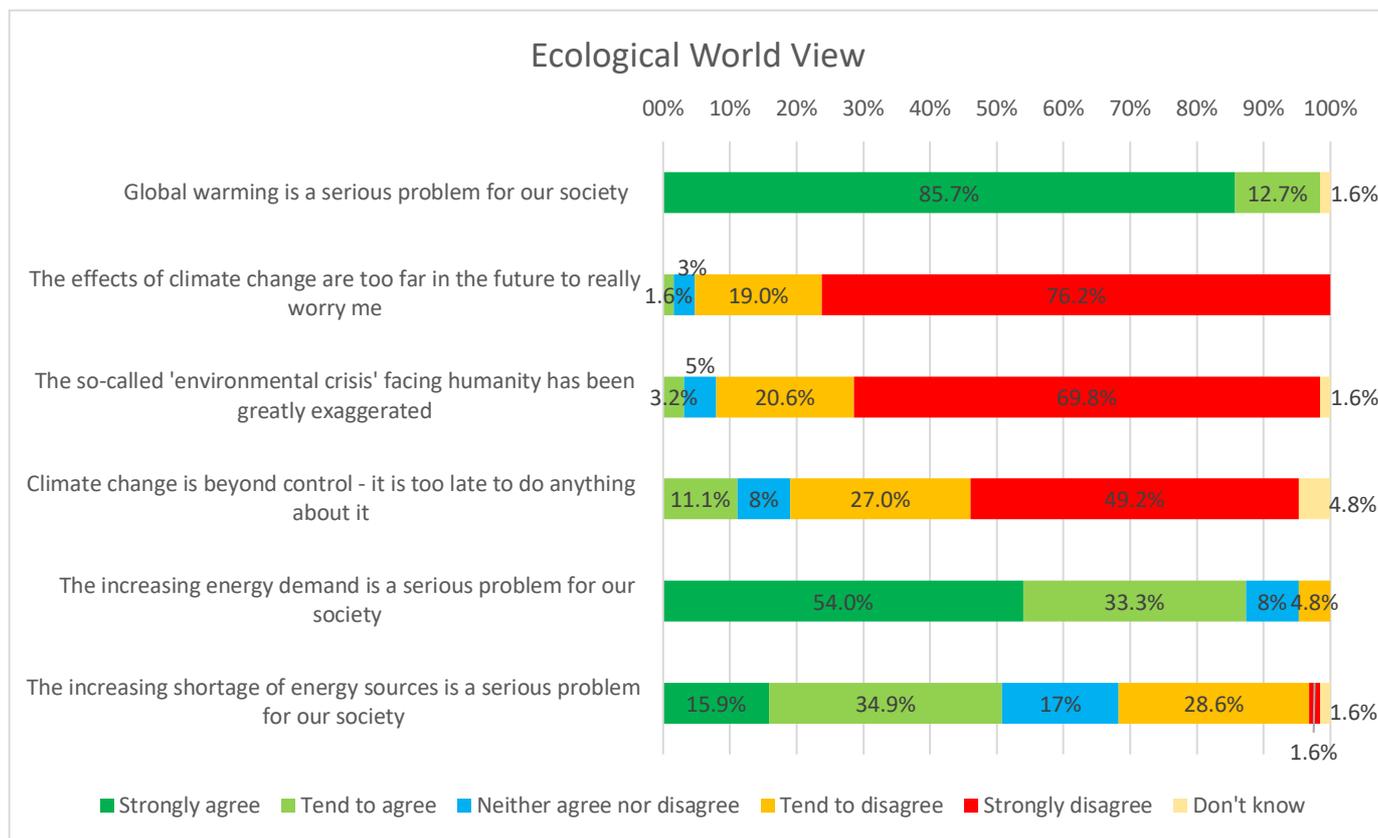


Figure 2.5-1 Ecological World View

With regard to barriers and motives, the majority (88%) of the participants believe that personal action and behaviours makes a difference on a broader scale. Further, 70% of the survey participants believe that adopting a “green” lifestyle is possible for the majority of the population, disagreeing that eco-friendly behaviours cater towards a specific socioeconomic status. There was a very diverse response on whether people want more guidance or not on how to become more environmentally friendly. The participants were also divided on the idea that if either governments or businesses took more responsibility, they would be inclined to do more themselves. The vast majority of participants (83%) agree that personal actions are valuable and worthwhile regardless of others’ actions, recognizing the power of small efforts.

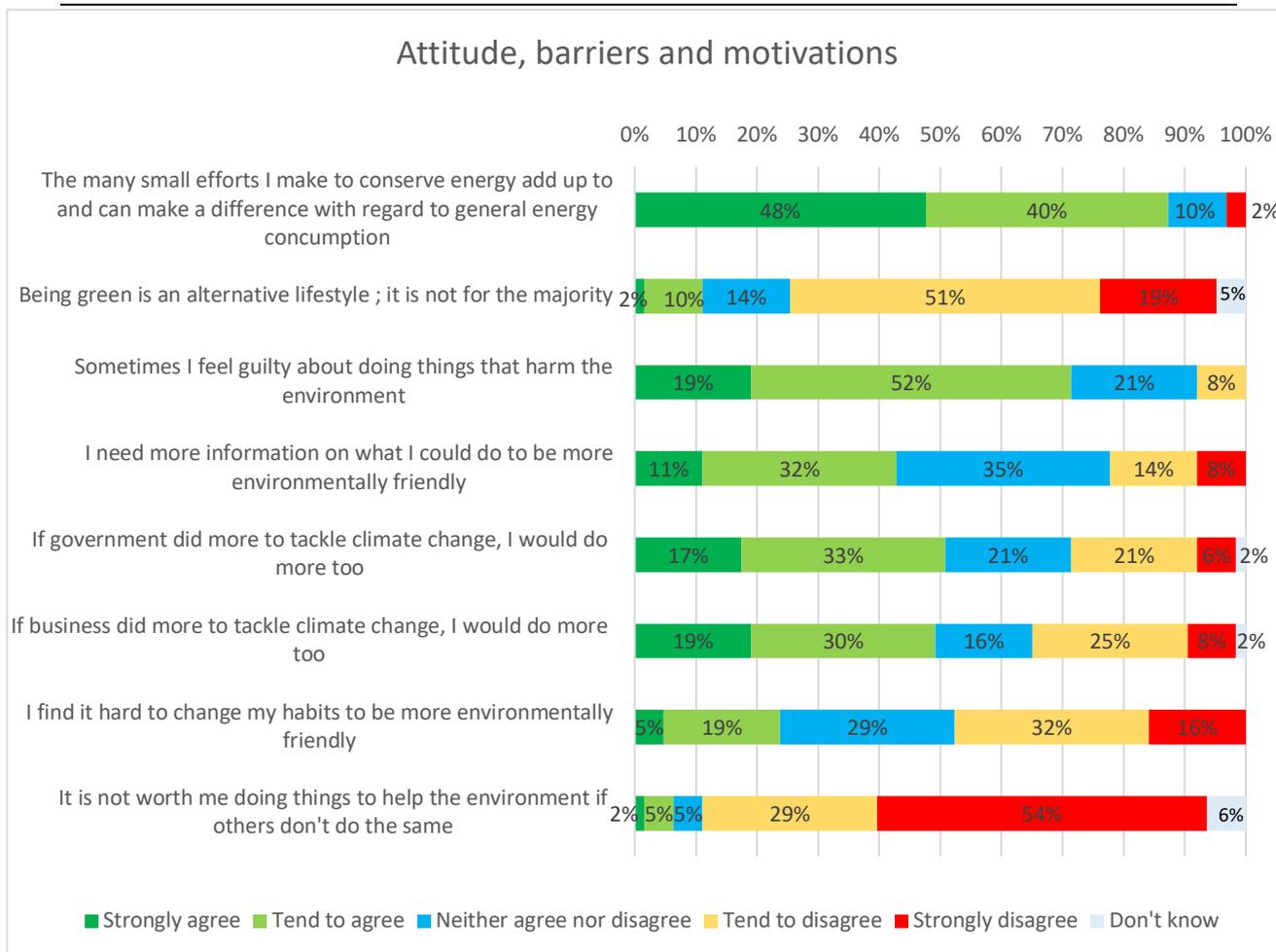


Figure 2.5-2 Attitude, barriers, and motivations

These two questions provided important input into the design of the newsletters and any type of nudging, awareness raising and behaviour shifting approaches taken by the PARENT project. As the overwhelming majority already believed change is partly up to the individual, urgent and possible, there was less need to focus information on those aspects. Rather, it was possible to focus directly on giving advice on specific actions that people could take, providing solutions and tackling the barriers of guilt, and helping them overcoming obstacles by making it easier for them to make changes in their own homes and lives.

In considering sustainable lifestyles, 85% of participants would like to take more environmental actions, 60% are ready to make incremental and ‘comfortable’ changes, while 25% are ready to make drastic changes to support the environment.

Which of the following statements describes how you feel about your lifestyle and the environment?

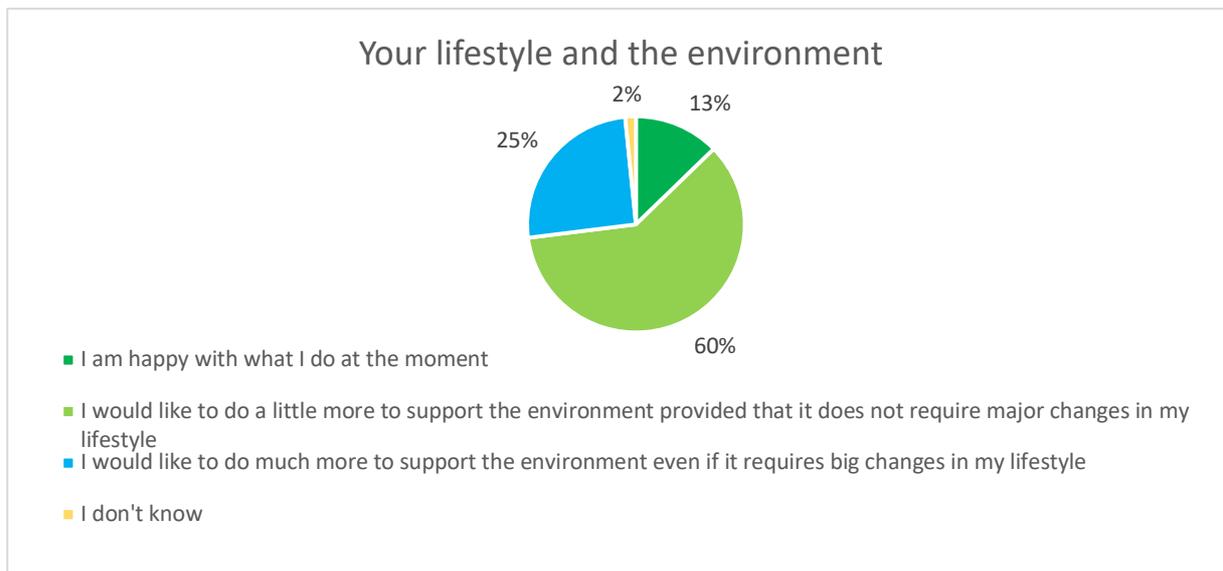


Figure 2.5-3 Attitudes Regarding Lifestyle as it Relates to the Environment

Again, this influenced the type of communication within the PARENT project. Whereas giving positive feedback to any good news of energy savings or community participation (reconfirming that people were indeed doing well and, in that way, encouraging them to continue that path) was a part of the message given, most efforts aimed at giving practical advice for easy changes that required mainly a behaviour change or a minor investment. Nonetheless, catering to the 25% there was space given for a few large-scale change suggestions (e.g. advise on how to insulate, install renewable energy sources to the home, how to stop flying).

Regarding current lifestyles, the majority (70%) of participants claim to act environmentally friendly in their daily life, either in quite a few ways, or in everything that they do. Only one participant stated they do not act environmentally friendly, although it can be argued that participation in this project is an environmentally aware action. This was taken into consideration during the pilot, understanding that the scope for improvement and reduction of electricity use was to some degree limited, as the majority are already taking measures to reduce their consumption.

Which of these would you say best describes your current lifestyle?

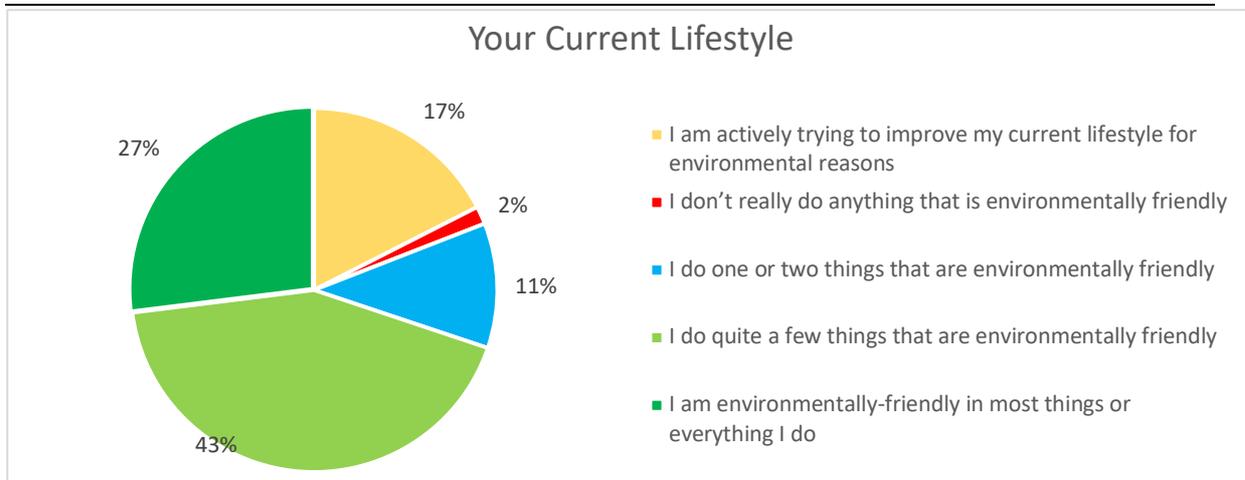


Figure 2.5-4 Current Lifestyle as it Relates to the Environment

The vast majority (99%) of survey participants are interested in reducing the environmental impact of the energy used, compared with 81% who are interested in reducing energy bills. Most participants stated they are interested in participating in renewable energy projects, as well as receiving energy from renewable sources. Only 40% of participants are interested in owning less electrical appliances, demonstrating a reluctance in changing their existing electricity dependent lifestyle. A majority of 54% do not know the areas of their household which have the largest potential for saving energy usage, although 90% claim they look for energy efficiency when purchasing new appliances.

What are your energy concerns?

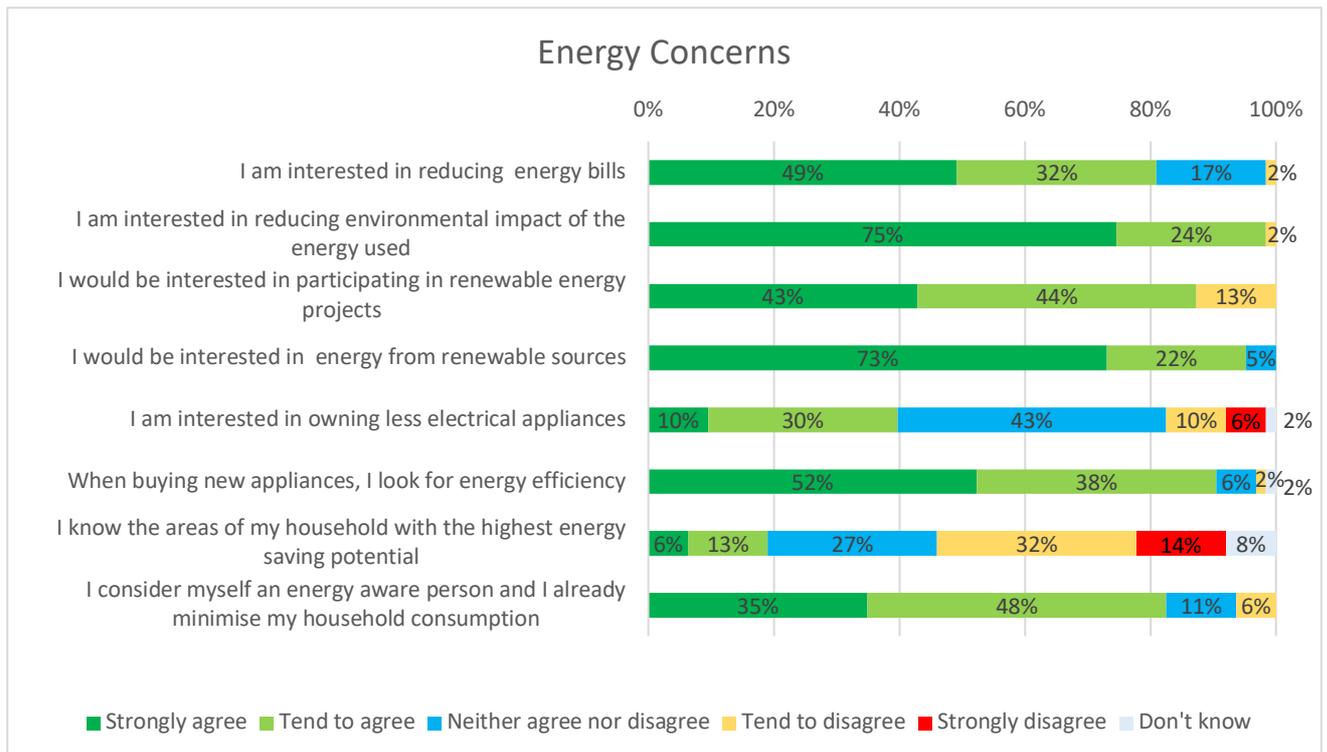


Figure 2.5-5 Energy Concerns

Most participants have made, or plan to make, the smaller energy efficiency changes proposed, such as installation of thermostatic valves (79,4%), replacement of old lightbulb lamps with LED (88,9%), and replacement of old appliances with energy efficient ones (90,5%). However, when it comes to more transformative changes, such as installation of solar panels (31,7%) and wall insulation (33,3%), less participants plan to make the switch. This may be caused by the high cost and effort of such interventions, which prevent people from modifying their current living situations. Additionally, one participant stated that green adaptations are prevented at their home, a protected heritage site, which raises the issue of retrofitting traditional, culturally valuable homes in order to promote environmental benefits.

In your home, have any of the following energy efficiency interventions been planned or made?

	Yes, already done	No, but it is planned for the future	I don't know	No, & it is not planned for the future
Installation of high-efficiency water boiler	47,6%	11,1%	17,5%	23,8%
Installation of thermostatic valves	77,8%	1,6%	9,5%	11,1%
Installation of high efficiency windows	42,9%	11,1%	15,9%	30,2%
Roof insulation	54,0%	12,7%	19,0%	14,3%
Wall insulation	25,4%	7,9%	22,2%	44,4%
Replacing old light bulb lamps with LED	58,7%	30,2%	3,2%	7,9%
Replacement of old appliances with high-efficiency ones (A+)	50,8%	39,7%	3,2%	6,3%
Solar panels installed	20,6%	11,1%	11,1%	57,1%
Green electricity provider/ contract	63,5%	12,7%	9,5%	14,3%

Table 2.5-1 Energy Efficiency Changes in Home

Most participants have a positive attitude regarding their community. 73% agree that they feel a sense of belonging in their neighbourhood, and 79% keep up with the local news and stay aware of what is going on in their area.

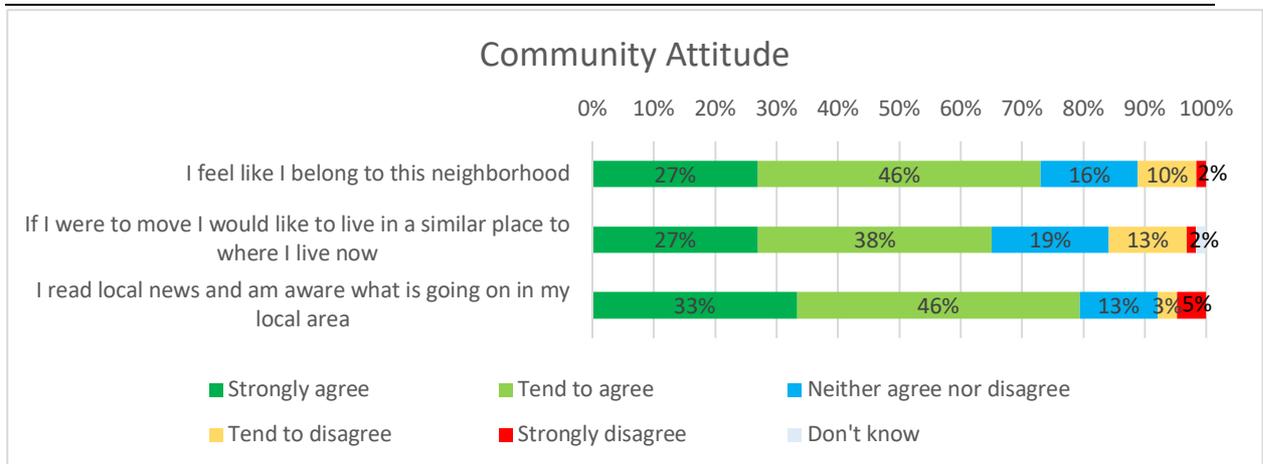


Figure 2.5-6 Community Attitude

3 Conclusion

In this post installation survey, participants disclosed their living situations, sociodemographic information, electricity usage, and broad environmental views.

An initial review of the participants revealed that the group consisted of a relatively high ratio of homeowners, of which most did not know the energy class or heating system of their home. More than half of the survey participants were under the age of 45, suggesting the target age for reducing energy consumption through technology/awareness/community building approach such as the one taken by the PARENT project could be younger people. The PARENT Project had a highly educated group, as all of the survey participants earned a Bachelor’s degree, and more than half held a Master’s, which may point to a positive correlation between higher education levels and willingness/ability to reduce energy consumption through technology oriented project participation. Almost every household had at least one laptop and one smart phone and used their appliances a few hours a day, showing widespread technology use, both for work and personal purposes.

Referring to the worldviews and attitudes of the participants, the vast majority agreed that climate change is a serious problem, sharing similar worries about increased energy demand and shortages. Most agreed that personal actions can make a difference, and that maintaining a sustainable lifestyle is not only for the elite few, but the common majority. Further, the majority of participants claim to act environmentally friendly in some part of their life and want to make more changes to benefit the environment. Before the project began, most had made small energy efficiency changes, particularly with appliance substitutions. However, less had made the drastic, transformative changes relating to the structure of their homes and installation of sustainable energy sources. Overall, the survey emphasized that the majority of the participants shared similar views, habits, and general backgrounds, further indicating the ideal focus group for energy reduction programs such as PARENT, and the potential for expanding similar programs to different demographics.

The information gathered proved useful in designing all information material, gamification elements, enabling tools and motivation approaches. With an aware and already engaged participants group, many first steps of explaining the problem, setting the scene or raising awareness could be skipped and efforts focussed on solutions, on fostering the sense of community embeddedness that already existed within the group and to develop nudges that would be more likely to move the group.

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Although the original goal of the survey to compare sub-clusters with the final survey results of the project was abandoned, we are in a position to claim that this target group as a whole responded to the project and the PARENT approach with an above average enthusiasm.

According to the final survey (see Deliverable D6.4 Pilot Report), the average energy savings for the Brussels pilot participants was 13.9% which is a very promising finding. Moreover, the final survey shows an overwhelming positive reaction to the project, partly positive response to the technology used and most participants claimed to have made both behavioural and concrete changes and saved energy during the period. In a sense, the participants of the PARENT project, due to their relative similarities, could be considered as a whole a key target group for the PARENT approach to engagement, behaviour change and energy saving projects.

Annex 1 The full survey text:

Post installation survey

Dear PARENT project participant

We are very happy that you have joined our project and hope that you are excited about installing your Smappee, and to get started with saving energy and developing solutions with us - working towards a more sustainable future together.

Before we go further, we would like to ask you a few questions regarding your household, your lifestyle and your attitudes and values. The questionnaire will be used for the PARENT project research and policy advise purposes only. The data will be kept safe and will not be used by third party or for any sort of commercial activity.

The reason for this questionnaire is to help us better to understand motivations and barriers for sustainable energy behaviour, and to identify factors that may be linked with individuals' interest and ability to act towards energy saving. We will be using this information to create clusters, and we will link these anonymised clusters with the participation and level of engagement of participants at the end of the year. The result of this research will be anonymous.

The questionnaire consists of 18 sections and should take around 15 minutes to complete. It is a very important part of the PARENT project and towards sustainable behaviour research, so we ask you please to complete the whole questionnaire.

General Questions

1. What is your housing situation?

(This question will help in explaining potential limitations and possibilities for energy saving action based on whether a person is a homeowner or renter)

Owner

Tenant

Other _____

2. Does your home have an energy class certification?

(This question helps to establish what the starting point is- which both explains level of current engagement and also potential for further energy savings)

Yes, class A +

Yes, class A

Yes, class B

Yes, class C

Yes, class D

Yes, class E

3. Indicate the type of heating system in your home:

(The different types of heating systems require very different amounts of energy and are an important factor in energy usage that is not linked with changing behaviour)

District heating

Gas heating

Wood/Fire-based heating

Electric heating

I do not have a heating system

I don't know

Other (specify) _____

4. Do you know how much electricity you consumed last year?

(This answer may help us in defining a baseline to compare this year's consumption and changes between years)

Yes

No

4.1.1 If yes- How much? _____ kwh

4.1.2 please indicate the period from _____ to _____.

Sociodemographic characteristics of primary household participant

(These answers help us to verify based on previous assumptions about age, gender and education linked with pro environmental behaviour. These factors are being challenged as being indicators and we want to follow up on that research)

5 Age

Under 25

26-35

36-45

46-55

56-65

Over 65

6 Gender

Male

Female

Other

7 Education

Primary

Secondary

Vocational

Bachelor

Master

Doctorate

Other

Sociodemographic characteristics of entire household

8 Employment

(This will also explain high or low level of energy use (number of people in the house more often or less often depending on where they spend their days)

Of the adult household members (over 18yo), how many work

- Full time from home (including stay at home parent/home maker)
- Part time out of home
- Full time out of home
- Student
- Unemployed or retired
- Other _____

9 ICT Usage

(This question aims to see if there is a link between high level of ICT appliance use /high level of tech savviness and participation in the PARENT platform and use of the Smappee application)

9.1.1 Which of the following ICT appliances are present in your household?
(tick all boxes that apply)

- Personal Computer/Laptop
- Tablet
- Smartphone
- Game Console
- Television
- Other (specify) _____
- Other (specify) _____
- There are no appliances in my household

9.1.2 If you consider the ICT appliance that you use the most in your home, what is an approximate average use per adult in household for the week? (Only one answer)

- Several hours (> 5h) every day
- A few hours (<5h) every day
- At least once every two days
- At least once a week
- Less than once a week

Attitudes and beliefs on Energy and Environment

Personal Values and views on sustainability

(This series of questions (10-18) help us in understanding general attitudes and values towards the environment, responsibility sharing, barriers and motivators.

It also helps us in understanding general attitudes and activities towards energy saving and towards community engagement. It will help us in developing solutions and advise on how to reach out to and assist the different types of people, or how to provide customised support for people who have diverse views and face different barriers towards acting more sustainably

We might for example discover that for some clusters of people economic incentives might motivate them whereas other cluster might respond more to community-based actions)

10 Ecological world view

Please respond to these statements (Strongly agree, tend to agree, neither agree nor disagree, tend to disagree, strongly disagree, don't know)

- Global warming is a serious problem for our society
- The effects of climate change are too far in the future to really worry me
- The so-called 'environmental crisis' facing humanity has been greatly exaggerated
- Climate change is beyond control – it's too late to do anything about it
- The increasing energy demand is a serious problem for our society
- The increasing shortage of energy sources is a serious problem for our society

11 Attitude, barriers and motivations

Please respond to the statements (Strongly agree, tend to agree, neither agree nor disagree, tend to disagree, strongly disagree, don't know)

- The many small efforts I make to conserve energy add up to and can make a difference with regard to general energy consumption.
- Being green is an alternative lifestyle; it's not for the majority
- I sometimes feel guilty about doing things that harm the environment
- I need more information on what I could do to be more environmentally friendly
- If government did more to tackle climate change, I'd do more too
- If business did more to tackle climate change, I would too
- I find it hard to change my habits to be more environmentally friendly
- It's not worth me doing things to help the environment if others don't do the same

Current behaviour and efficacy

12 Which of the following statements describes how you feel about your lifestyle and the environment? (Only one answer)

- I'm happy with what I do at the moment
- I would like to do a little more to support the environment provided that it does not require major changes in my lifestyle
- I would like to do much more to support the environment even if it requires big changes in my lifestyle
- I don't know

- 13 Which of these would you say best describes your current lifestyle?
- I am actively trying to improve my current lifestyle for environmental reasons
 - I don't really do anything that is environmentally friendly
 - I do one or two things that are environmentally friendly
 - I do quite a few things that are environmentally friendly
 - I'm environmentally-friendly in most things or everything I do
 - I Don't know

Examples of environmentally friendly activities: buy regularly organic food, buy locally produced products, avoid food waste, buy regularly second-hand products, borrow instead of buying, buy energy efficient products, pay attention to turning off lights and electrical appliances, recycle, compost, use non-toxic cleaning products, use public transport/bike/walk

Attitudes towards energy savings

- 14 What are your energy concerns?
Please respond to the statements (Strongly agree, tend to agree, neither agree nor disagree, tend to disagree, strongly disagree, don't know)
- I am interested in reducing the cost of energy bills
 - I am interested in reducing the environmental impact of the energy we use
 - I would be interested in participating in renewable energy projects/schemes, owned either privately or collectively
 - I would be interested in receiving energy from renewable sources
 - I am interested in owning less electrical appliances
 - When buying new appliances, I look for energy efficiency
 - I know the areas of my household with the highest energy saving potential and, accordingly, I can/could optimize my consumption without any problems
 - I consider myself an energy aware person and I already try to minimise my household consumption

15 Energy Efficiency

In your home, has any of the following energy efficiency intervention planned or been made?

	I do know	not	No, and it is not planned for the future	No, but it is planned for the future	Yes, already done
Installation of high-efficiency water boiler (e.g. condensation based)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installation of thermostatic valves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installation of high efficiency windows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roof insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wall insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Replacing old light bulb lamps with LED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Replacement of old appliances with high-efficiency ones (A+)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solar panels installed					
Green electricity provider/contract					
Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Attitudes to community and place

16 Community attitude

Please respond to the statements (Strongly agree, tend to agree, neither agree nor disagree, tend to disagree, strongly disagree, don't know)

- I feel like I belong to this neighbourhood
- If I were to move I would like to live in a similar place to where I live now
- I read local news and am aware what is going on in my local area

Societal engagement

17 Are you any involved in local citizen group (taking part in, organising, giving time to)? Tick those that apply

- Climate group
- Food group (CSA, local food production, vegetarian/vegan, organic...)
- Energy action group
- Local political group
- Family/youth/children group
- Faith based group
- Minority support group
- Human rights group
- Animal rights group
- Local projects/events/festivals
- Hobby group
- Sport group
- Art group
- Study/education group
- other _____

18 Are you currently part of at least one association, group, or non-governmental organization that operate in the energy and environmental sector at national or international level?

- Yes, I pay a subscription fee or support them otherwise economically
- Yes, I provide my support in form of volunteer work
- Yes, I am co-organiser/ active member in meetings, activities, events
- Yes, all of the above
- No, I am not part of any national or international energy or environmental organization
- Other: _____