



European market survey on consumer's needs, expectations and interests

USmartConsumer Project
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1 Introduction

This document includes a representative market survey on customer's needs, expectation and interests developed the partners' countries (Spain, Finland, Germany, Austria, Italy, UK and Poland), in order to exactly understand their wishes and how they will behave if correct tools and information are given to them, therefore increasing energy efficiency. Background from previous national market surveys information was considered to prepare this totally new survey.

The complete market survey was split up into two parts. Firstly, in-depth interviews were conducted with a relatively small group of 3 to 6 individuals per partner country. Secondly, based on the results of the in-depth interviews, the representative market survey was conducted to an overall number of 1.387 EU citizens, on a group of approximately 200 individuals per partner country. The precise number was defined on the specific partner region/country relevant enough for the study.

The market survey encompassed closed questions, the same in all countries, based on the results of the in-depth interviews and the previous experiences of project partners on market surveys. These questions were focused on consumer values and beliefs and expectations and interests related to smart meters as well as innovative services and aiming to reach a change in consumption behaviour.

The "European market survey on consumer's needs, expectations and interests" report shows the main conclusions for the overall result as well as one section per country. The outputs from the survey will be used by partners to tailor the information to be provided in the National campaigns for consumers' engagement exactly to the specific knowledge levels, interests and expectations of the consumers in their country.

2 Overall conclusions

Conclusions for the partner countries, that represent a wide number of consumers in the EU, can be extended to other European countries. This extension should consider the specific conditions on the smart metering roll-out in each specific country as well as other social and socioeconomic conditions. Nevertheless, this information can be useful to have a first feedback on the consumers' interest and wishes.

- a) Smartphones or Tablet Apps are considered as one of the main ways to receive the information from the smart meters in most countries. Websites for PCs/laptops are also desired by many consumers in all countries. In-home displays is an interesting option for several countries while very little for others, so strong differences among countries that need a specific analysis.
- b) The greatest benefits of smart metering are that they help to overview the energy consumption and then take informed decisions, and also that it helps to reduce the electricity (energy) bill. These two issues are the most important for 70-80% of the overall. Approximately 10% cannot see any benefit of using a smart meter.
- c) There are concerns on the energy suppliers or third parties collecting too much information from the smart meters, and that it should be clear who, how, when and for what reason the information is collected. This concern is higher for third parties than for the energy company.
- d) The willingness to pay for smart meter services that help to reduce the energy bill is quite low in most countries. There is a concern on what is the real potential for energy savings and bill reduction and which services will provide such savings.
- e) There is an important number of consumers that don't know how much energy they consume (up to 30% in some countries), and that don't have information about the smart meters (almost half of the overall in several countries)

In the following sections several main conclusions for each partner country are presented, including more detailed information.

3 Spain

3.1 Survey method

The sample used for the survey consists of 173 persons. Electricity energy consumers from all around Spain were interviewed. The sample consists of customers from different social levels, regions, ages and energy consumption levels, in order to have a wider variety of samples which could be extrapolated with certain reliability.

In order to reach a large amount of persons the interviewers decided to conduct an online and face to face survey, between October and November 2014.

3.2 Preferences regarding smart meters

This section includes the knowledge, concerns and interest of the consumers related to the use of the smart meters, both as electronic equipment and also as a enabling technology to provide services based on the information that is registered or stored.

Level of knowledge about smart meters:

- Approximately 40% of the consumers feel well informed regarding smart meters, while 55% feel they are not sufficiently informed about what they involve. This can be related to the need of further information campaigns about what are this devices and which changes will happen when you install them substituting the traditional meters.

Favourite way of receiving the information from the smart meter:

- Electronic systems are preferred by 95% as the best option to provide the information from the smart meters. 35% selected the smartphone or tablet as the best solution, while 30% selected a Website and 29% an In-home display. Only 4,6 selected a post letter and 1,2 in any kind of text.

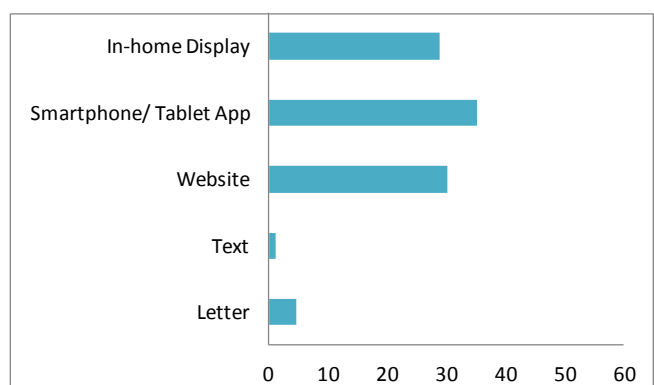


Fig. 1: Preference way to receive the information as percentage of the sample

My consumption data to be displayed based on tables and numbers and my consumption data to be displayed through charts:

- Almost 80% of the total agrees on having the information described by means of tables and numbers and 88% agree on having the information showed in charts. This means that most of the consumers prefer to have information presented in several ways for a better comprehension.

Benefit from the smart meters for the consumers:

- Up to 44% indicate that the main benefit for them is that it helps to have an overview of the energy consumption, probably related to the fact that with this information they can take informed decisions to change their behaviour. 31% estate that it helps to reduce the energy consumption and 10% find them useful to reduce the environmental pollution. Almost 15% can't find any benefit

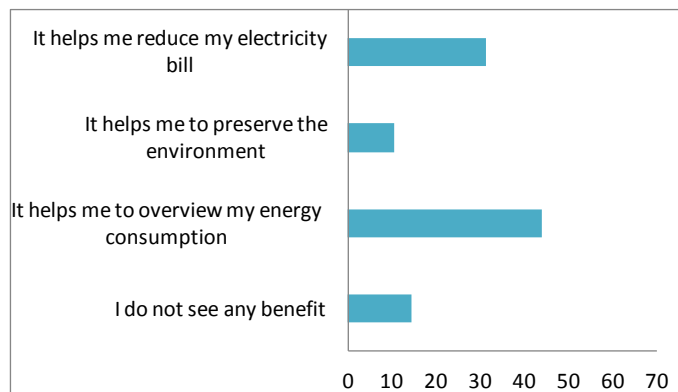


Fig.2: Perception of the benefit as percentage of the

Willingness to pay for smart meter services to reduce the electricity bill and to reduce CO2 emissions:

- More than one third of the interviewed would pay for smart meter related services if they help them to reduce the electricity bill, while over 50% wouldn't pay for these services. The same situation happens when asked about the willingness to pay for these services if they reduce the CO2 emissions from their homes.

Concerns about the Energy Company or third parties collecting too much information through the smart meter:

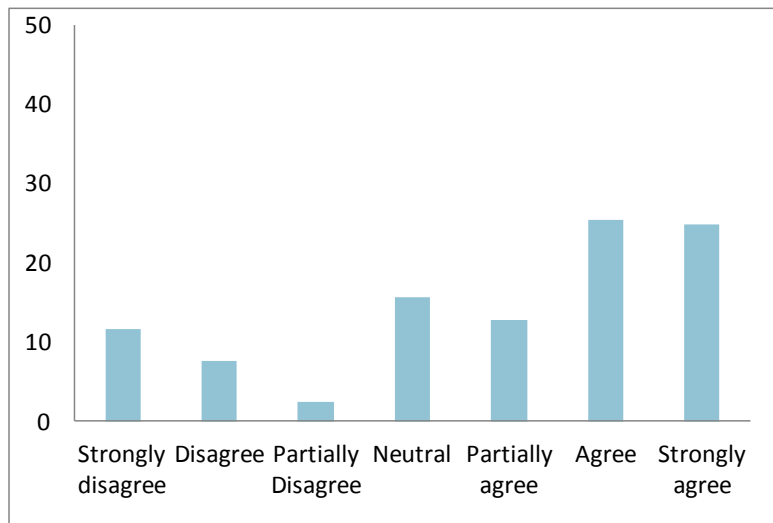


Fig. 3: Concern about third parties using the information as percentage of the sample

- There is equilibrium in the answer related to the concerns on the information collected by utilities from the smart meters. There is 31% which have confidence in them, 45% worried about how the utility manages the information and 24% have not a clear opinion on this matter. When it comes to third parties using this information, 21% inform that they are not worried, 16% are neutral and 63% are worried, being this last group a relevant fig..

4 Finland

4.1 Survey method

The sample from Finland consists of 138 consumers, and geographical area of the sample is the whole country. The interviewed consumers are electricity consumers with smart meters as ~98 % of electricity consumers now have smart meters in Finland. The method of survey was on-line survey.

The survey was marketed through Motiva (the national energy agency) and their national consumer energy advice www-pages, the Consumer Association of Finland, the network of energy agencies and other actors offering consumer energy advice in Finland, as well as through Central Finland Energy Agency's www- and Facebook-pages and mailing lists. The survey took place between 3rd September and 19th October.

4.2 Preferences regarding smart meters

Of the interviewees, 66,2 % at least partially agrees that they are well informed regarding smart meters. Yet, altogether ca. 23,7 % disagrees (from partially to strongly) with this statement, and 10,1 % were neutral. This points out the fact that while many of the interviewees seem to be well aware of smart meters, there is still more to do in communication and advice to consumers. As almost all households (98 %) in Finland now have smart meters, the level of knowledge could be higher.

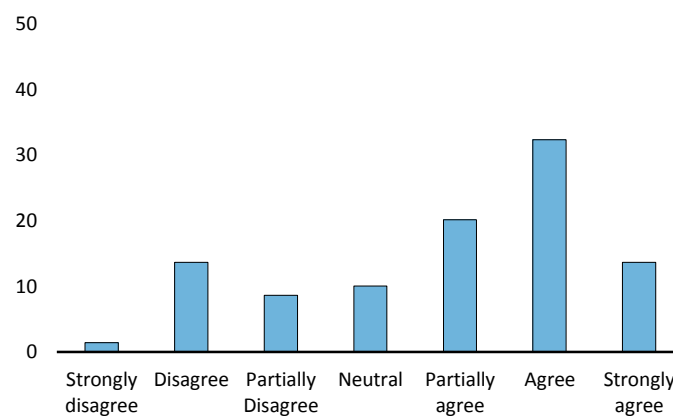


Fig. 4. Answers on the question "I feel well informed regarding smart meters"

As for the options to receive smart metering information, website is a strongly preferred option (50,4 %), followed by smart phone/tablet app (20,1 %) and In-Home display (19,4 %). Letter and text were clearly less preferred options (5,0 % each).

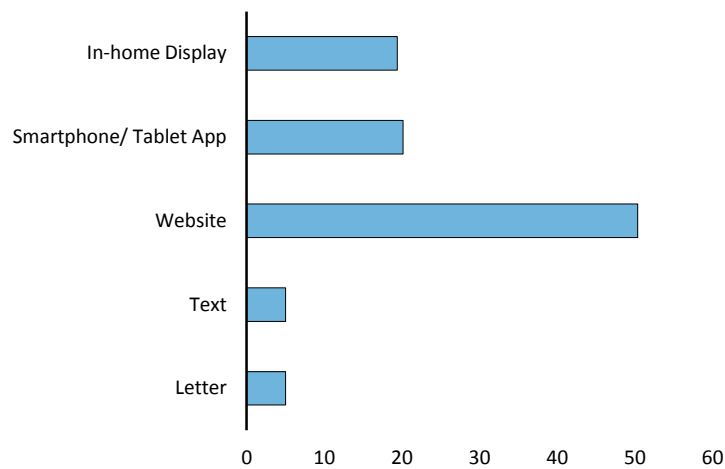


Fig. 5. Preferences on the options to receive smart metering information

On the format of displaying consumption data, the majority (77,7 %) at least partially agrees to have the data in tables and numbers, whereas also the majority (71,2 %) at least partially agrees to have the data in charts. The share of neutral answers were 11,5 % and 13,7 % respectively. Thus, the majority of interviewees clearly want to have the both. This can be interpreted as a preference to have the opportunity to choose the format they receive the data.

For the question “For me the greatest benefit of smart meters is that...”, the clear majority (64,7 %) prefers the option “It helps me to overview my energy consumption”. The second most preferred answer is “It helps me reduce my electricity bill” (23,0 %), while preserving the environment is clearly less popular benefit (6,5 %) and only few see no benefits at all (5,8 %). The answers clearly indicate that the interviewees expect smart meters to offer tangible benefits through better understanding of their energy consumption and reduction of electricity bills, rather than seeing no benefit at all or having clear benefits through preserving the environment.

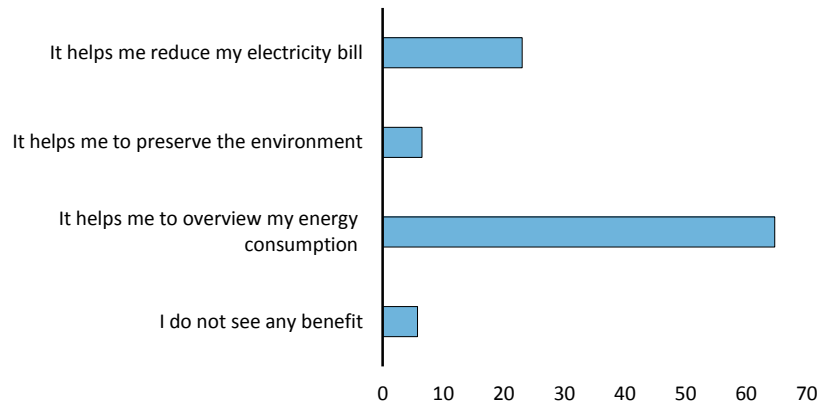


Fig. 6. Answers on the greatest benefit of smart metering

On the statement “I am willing to pay for smart meter services that help to reduce my electricity bill”, 50,1 percent of the interviewees at least partially agrees, while 33,3 % disagrees from partially to strongly and 16,7 % are neutral. When considering the rather large number of interviewees whose answer is neutral, or even who partially disagree (10,1 %), one can argue that by properly designing services and communication to offer tangible benefits (for reasonable price) that transform the opinions of these two “not so certain” groups towards more favorable, the share of consumers willing to pay could be increased up to 76,7 %.

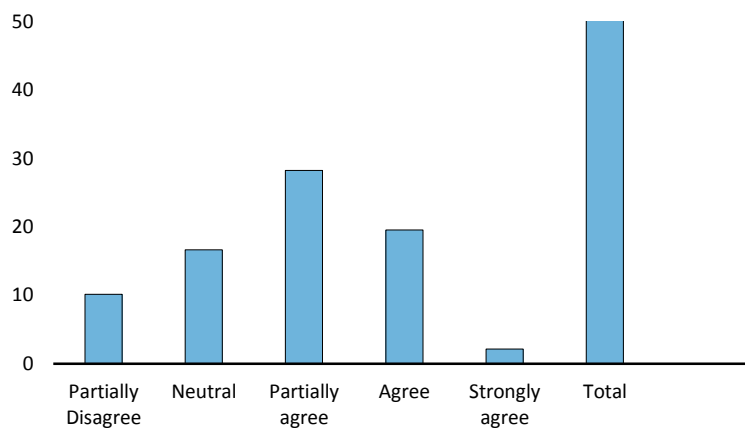


Fig. 7. The willingness to pay for smart metering services that help to reduce electricity bill

On the statement “I am willing to pay for smart meter services that help to reduce my CO₂ emissions”, the interviewees are (quite surprisingly) a little more positive: 53,6 % at least

partially agreed with this, 27,5 % disagreed from partially to strongly and 18,8 % were neutral. Again, large groups of neutral and partially disagreeing (14,5 %) interviewees can be found that, with properly designed services and communication, could be possibly turned more favorable and the share of ones willing to pay could be increased up to 86,9 %.

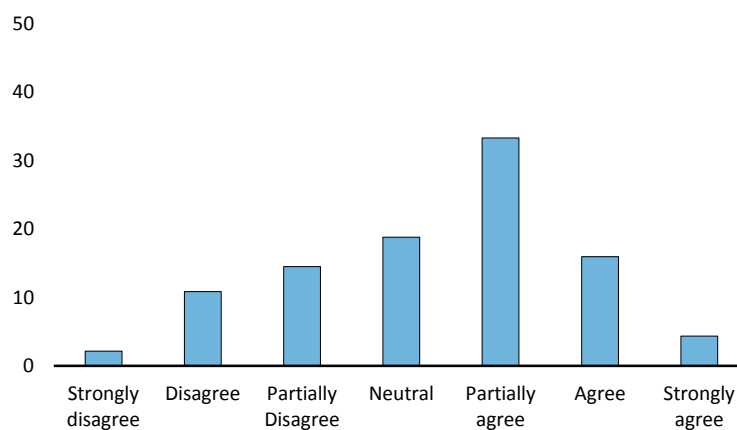


Fig. 8. The willingness to pay for smart metering services that help to reduce CO2 emissions

As for the statements “I am worried about my energy company collecting too much information through the smart meter” and “I am concerned about third parties intercepting my smart meter data and abusing the information”, respectively 65,2 % and 66,7 % of interviewees disagree from partially to strongly or are neutral. These answers indicate that the interviewees are quite confident on smart metering related privacy and security matters, but still a rather large group remains skeptical about the above mentioned questions (respectively 34,8 and 33,3 % at least partially agree). Also, the share of neutral answers is particularly large (21,0 and 23,2 % respectively), indicating that more communication should be done to address these questions.

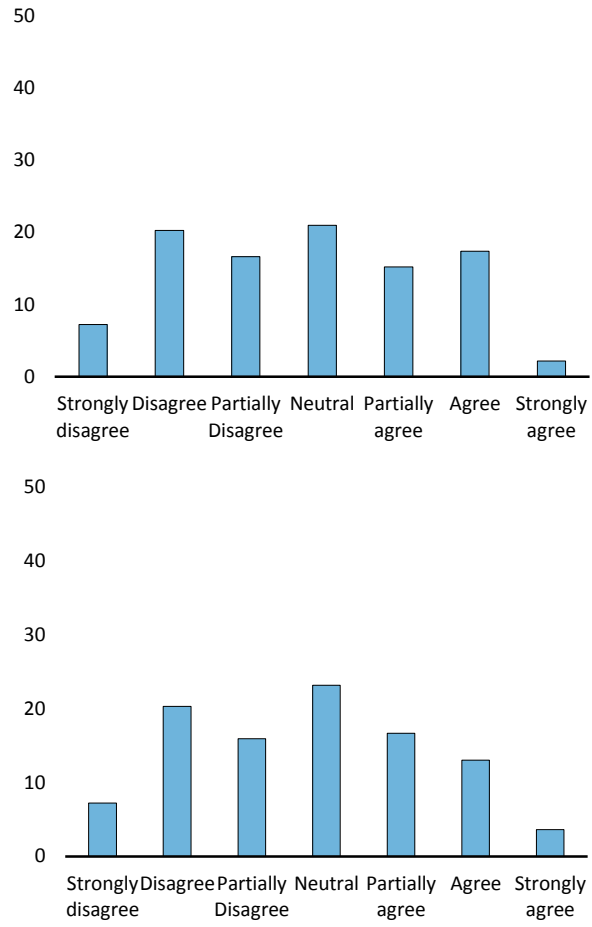


Fig. 9. Answers on the statements "I am worried about my energy company collecting too much information through the smart meter" and "I am concerned about third parties intercepting my smart meter data and abusing the information".

5 Germany

5.1 Survey method

The sample used for the survey consists of 496 persons. Only energy consumers from the north eastern region of Germany (Mecklenburg-Vorpommern, Schleswig-Holstein and Hamburg) were interviewed. The sample solely consists of customers from the Schwerin-based utility WEMAG AG. Additionally, all the interviewees are consumers of green electricity. In order to reach a large amount of persons the interviewers decided to conduct an online survey, which took place between August 10th and August 30th.

5.2 Preferences regarding smart meters

This part of the survey focuses on different aspects of smart metering. The aim is to analyse knowledge, preferences and concerns of customers. The focus lies on technologies that enable the customers to overview and control their energy consumption.

Level of knowledge about Smart Metering:

In total, approximately 47% of the interviewed consumers do not feel well informed when it comes to smart metering. Since a large part of the flats are not equipped with Smart Meters yet, this is not a surprising fact. The lack of products and services that are interesting to the customer, and therefore the lack of marketing campaigns that create awareness, could be an explanation for this fig..

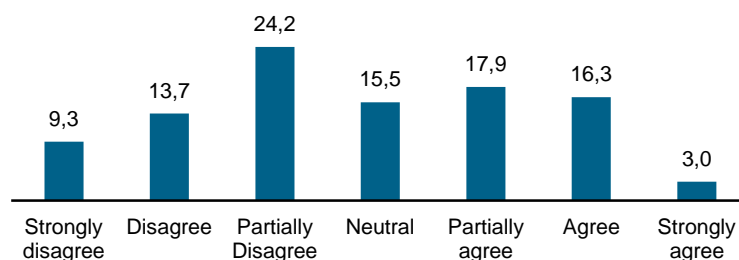


Fig. 10. Knowledge about Smart Metering

Favourite way of retrieving Smart Metering information:

Interestingly, 11% of the customers still prefer to retrieve their Smart Metering information via text message or letter. This may be due to the fact that the age average in this sample

is relatively high and older persons do not adapt the latest technologies so easily as the younger generation does. On the other hand, there is still a large group of people that wish to retrieve their smart metering information via digital systems (89%).

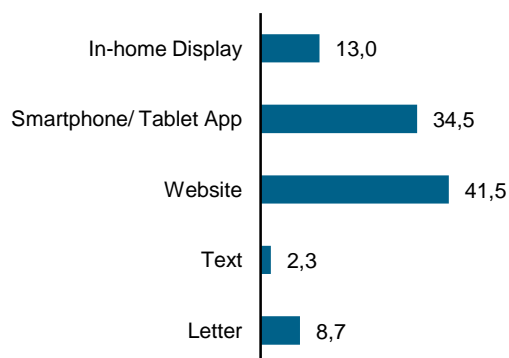


Fig. 11. Favourite ways of retrieving Smart Metering information

Preference regarding Smart Metering data to be displayed based on tables and numbers, and through charts:

Almost 85% of the energy consumers prefer their data to be displayed based on tables and numbers, and approximately 74% prefer their data visualised through charts. This leads to the conclusion that a combination between both is the most beneficial. Also, these results can be interpreted as a customers need for accuracy and understood through graphical visualisations.

Greatest benefit of Smart Metering:

The German customers seem to think very economically when it comes to Smart Meters. Approximately 52% see the greatest benefit in overviewing their energy consumption and therefore identify savings potentials. Another 27,9% aims on reducing their energy bill with smart metering products and services. Only 11% say that preserving the environment is the greatest benefit. This is interesting, considering that the survey was conducted among green energy customers. One could assume that they would be keener on saving the environment but the findings are contrary.

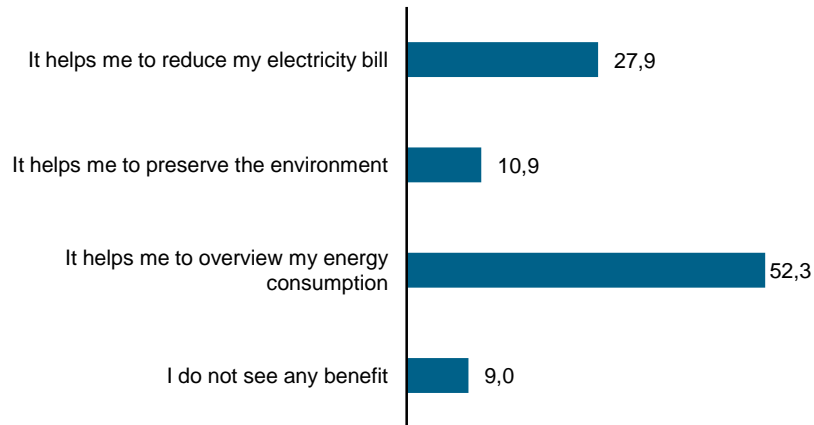


Fig. 12: Greatest Benefit of Smart Metering

Willingness to pay for Smart Metering Services:

The economic approach can also be found in the willingness to pay for Smart Metering benefits. Approximately 42 per cent of the German customers indicate that they would pay for Smart Metering services that help them to reduce their energy bill in the long term, whereas only 39,5 per cent state that they would pay for Smart Meter services that help them to reduce their CO2 emissions. Slightly more than one third would not pay for an increased reduction of their CO2 emissions and approximately 24 per cent are neutral.

Concerns about the energy supplier or third parties collecting too much data through the Smart Meter:

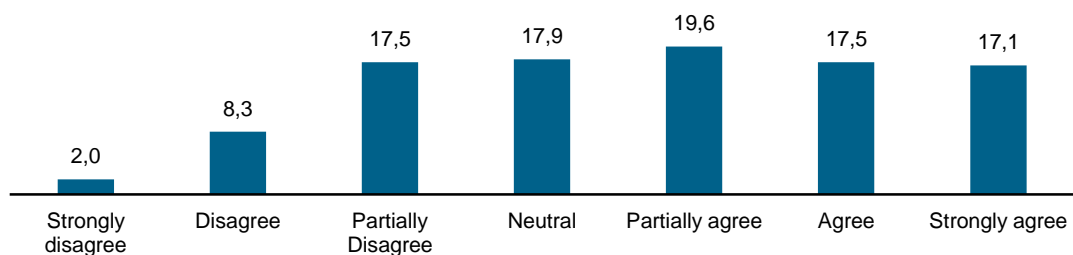


Fig. 13: Concerns regarding the energy company collecting too much information

For German customers data security is a crucial issue. 54,2 per cent state that they are afraid that their energy company collects too much data. Even more (54,8 per cent) are afraid that third parties might abuse their data. On the other hand, there is still a relatively large group that is not worried about data abuse: almost 29 per cent do not think that the energy supplier will collect too much private data and 27 per cent think that third parties abusing the smart metering data are not a real threat.

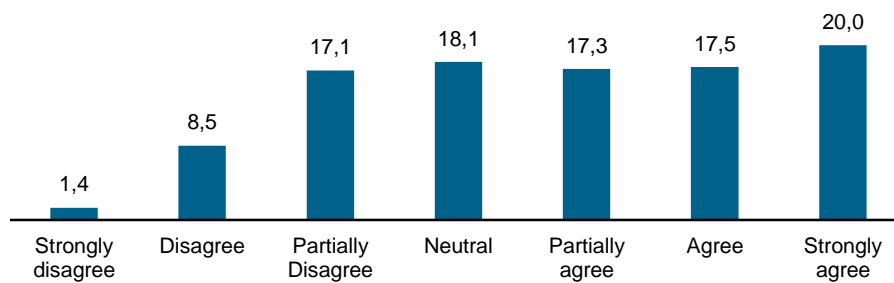


Fig. 14: Concerns regarding third parties abusing the Smart Meter information

6 Austria

6.1 Survey method

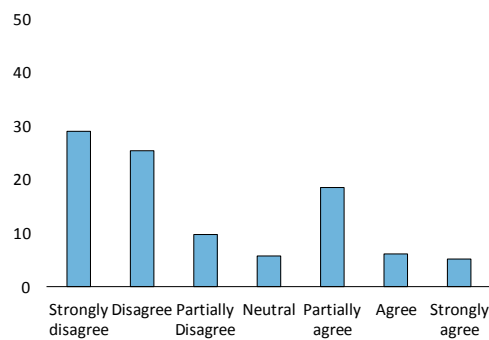
The sample used for the survey consists of 303 persons. Energy consumers from all over Austria were interviewed. An online survey took place between September and October 2014.

The interviewed people were part of an address pool of an Austrian market research institute..

6.2 Preferences regarding smart meters

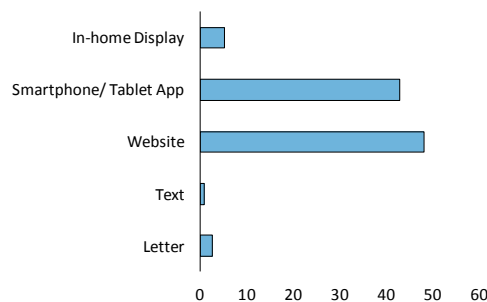
Statement „*I feel well informed regarding smart meters*“

One of the striking results was that the people feel not being well informed about smart metering. This can be a major obstacle when bringing new services into the market.



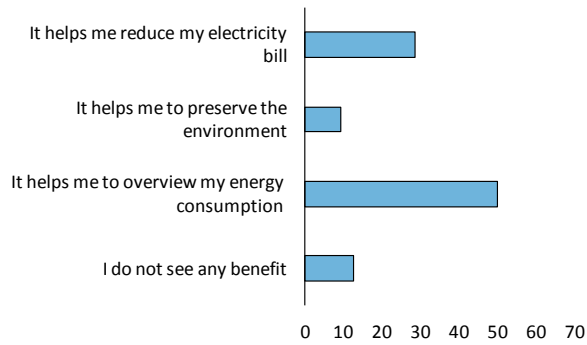
Question „*Smart metering information can be retrieved in various ways. Which of the following options would you prefer?*“

The people prefer to receive information via website (48,2% of the interviewed people). On the contrary only 5,3 % would prefer an in-home display (IHD). This means that the market potential for IHD related services seems to be relatively modest.



Statement „*For me the greatest benefit of smart meters is that*“

The main benefit is seen in the increased possibility to overview the energy consumption (49,8%).



Statement „I am willing to pay for smart meter services, that help me to reduce my electricity bill.“

Only 6,5% expressed explicitly their willingness to pay when services would help them to reduce their electricity bill.

The willingness to pay when the service helps to reduce the CO2 emissions is more or less identical (6,6%).

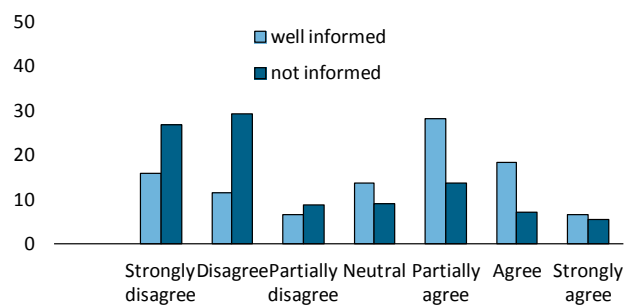
Statement „I am worried about my energy company collecting too much information through the smart meter.“

There is a remarkable worry that the energy company is collecting too much data about the customer. 24,4 % strongly agree or agree to the statement.

Statement „I am concerned about third parties intercepting my smart meter data and abusing the information.“

The worry that third parties could abuse the data is alarming high. 26,4 % strongly agree or agree.

One of the striking results was that the acceptance of smart meters depends on the variable „well informed“. People who feel well informed about smart meters are more sceptical about the benefits of them, have less willingness to pay for services and feel more worry about data abuse and about potential loss of privacy.



Females feel more often that they are not well informed about smart meters. On the other hand they see more potential benefits in smart metering and worry less about data abuse and loss of privacy.

Younger people (20 till 39 years old) feel more often that they are not well informed. But there is a remarkable stronger willingness to pay for services which help them to reduce the electricity bill. In addition, they have a significant stronger interest in Smartphone and Tablet Applications.

People with high electricity consumption feel better informed than the average and see a stronger benefit in the reduction of the electricity bill.

7 Italy

7.1 Survey method

The questionnaire was distributed mainly via the online tool – survey monkey, in order to reach a wide population over the entire national territory. The survey was widely disseminated throughout various channels, further to the mailing list and social accounts of AISFOR also, thanks to a collaboration with a consumer association (UNC – Unione Nazionale dei Consumatori), the questionnaire was disseminated through the UNC website, newsletter and Facebook.

The wide dissemination enabled to reach a large target, in total 315 questionnaires were collected, over a relatively short period (September – October). According to the filled in data, the survey sample is composed mainly of male (70%), aged between 40 – 59 (47%) with an high school education level (42%). Due to submission method used for the survey (online tool), the sample represents only internet-users consumers and is not significantly complete.

However it can be said that the sample represents the average active user of smart meters and according to the statistical data, sample consists of customers from different social levels, regions, ages and energy consumption levels, in order to have a wider variety of samples which could be extrapolated with certain reliability.

7.2 Preferences regarding smart meters

This section includes the knowledge, concerns and interest of the consumers related to the use of the smart meters, both as electronic equipment and also as a enabling technology to provide services based on the information that is registered or stored.

Level of knowledge about smart meters:

Italian consumers consider themselves well informed on smart meters, in fact as shown in the following graph, 46% of the survey agrees or partially agrees (respectively 23% and 23%) reckons that he / she is well informed on smart meters.

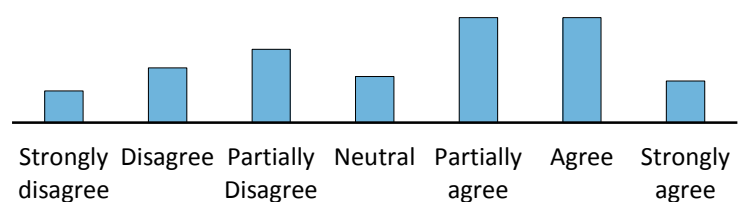


Fig. 15 - Histograms on the level of knowledge on smart meters

For what concerns the preferred way of receiving the information from the smart meter on his / hers energy consumption, Italian consumers have clearly opted for smart - internet tools (such as IHD, app on Smartphone and website).

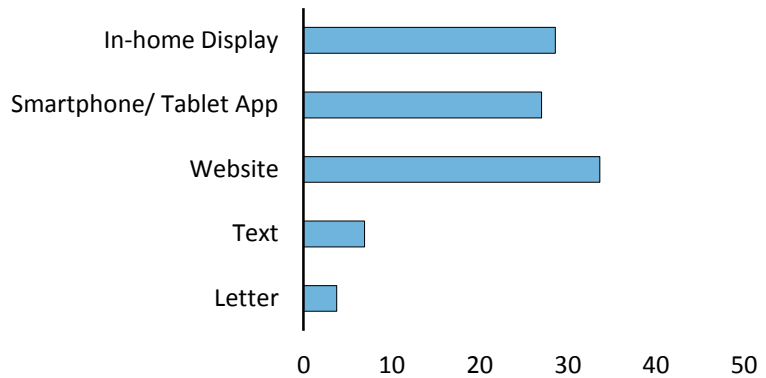


Fig. 16. Preference way to receive the information as percentage of the sample

This high percentage data may be justified also considering the survey methodology which targeted smart-internet consumers.

Benefit from the smart meters for the consumers:

A very interesting data is also referred to how Italians consider the benefits from smart meter: 59, 7% of the survey sample consider smart meter as a useful

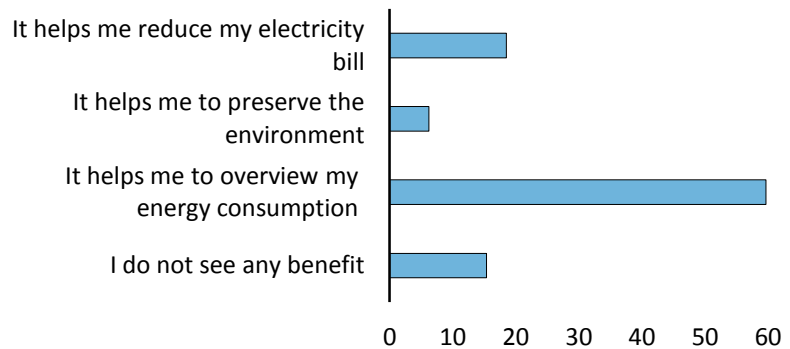


Fig. 17. Distribution on the benefits of smart meters

tool to overview the household energy consumption.

Only a very small percentage (6.%) considers it useful for the environment. However the most significant data is that 15% of the survey sample still sees no benefits from smart meters which could be justified by the fact that in Italy the smart meters have been installed in the basement and nowadays offer small advantages to the consumer.

Willingness to pay for smart meters related services

Another very significant data is the expressed willingness to pay for smart meter services to reduce the electricity bill and to reduce CO2 emissions. As shown in the following graph, 50.3% of Italian consumers is willing to pay for smart meter services to assist them in their household energy monitoring and reduction.

An interesting follow-up of this question would be to verify also the amount that consumers are willing to pay for which services (either in terms of overall amount in euro or also as a percentage of their expenses for the energy bill).



Fig. 18. Distribution on the willingness to pay for smart meter services

Energy company or third parties collecting too much information through the smart meter:

As shown in the following graph, there is an overall general equilibrium around 20% for the various answers (from disagree to agree, excluding the two extreme answers “strongly disagree” and “strongly agree”). These results highlight that the Italian average consumers does not fear that his / hers data may be available to third parties through smart meters and they do not consider smart meters either as a threat to their privacy or as a tool for people to steel the personal data on the energy consumption.

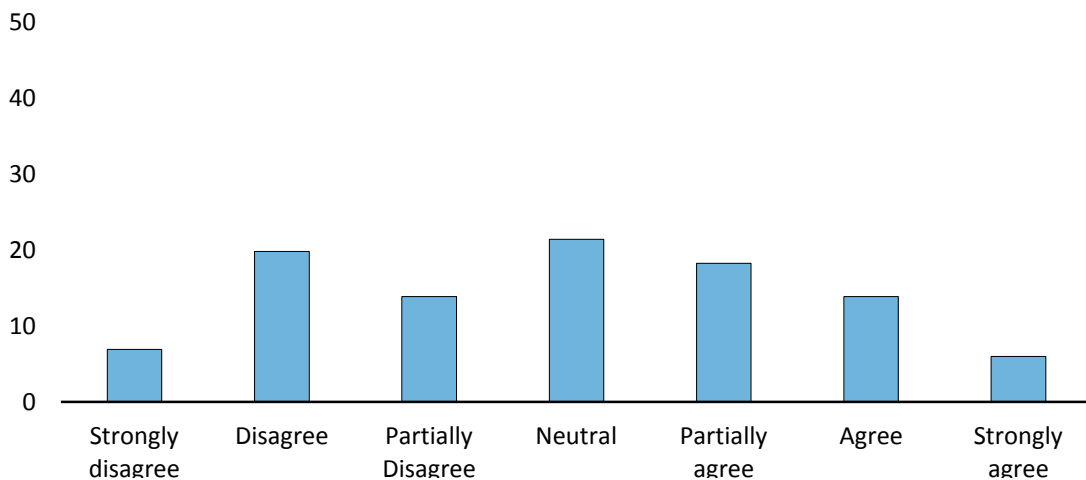


Fig. 19.- Distribution of the fear about third parties collecting too much information through smart meters

8 UK

8.1 Survey method

An online survey was conducted 17 September – 10 October 2014. Invites to participate were sent to:

- 1) our existing contact lists- predominantly clients who had an interest in looking for good energy tariffs- mainly Bristol and surrounding area.- predominantly not smart meter users
- 2) Via advice organisations across the west of England- predominantly not smart meter users
- 3) Our e-zine subscriber list- these will be people interested in energy and climate issues- nationwide
- 4) 'Utilita', energy supplier invited their customers to participate. All of these will be using a smart prepayment meter (A high proportion of these would be low earners and/or in rented accommodation as this is the demographic that opt for pay as you go in the UK)- nationwide

The survey sample was 276 people who live predominantly in the South West of England.

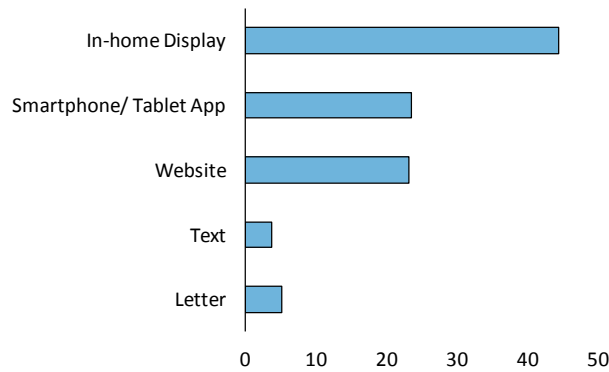
8.2 Preferences regarding smart meters

In the UK the mass roll out of smart metering will commence in late 2015 and to be finished by 2020.

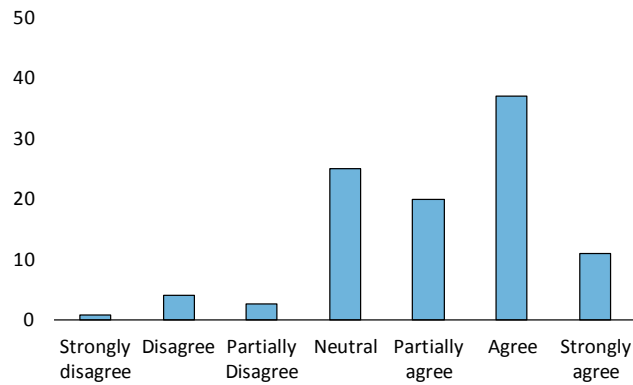
Energy suppliers, rather than distribution networks, are responsible for the rollout. The technology and communications are in place to ensure that all meters will work consistently regardless of energy supplier. There is an emphasis on smart meters as enablers of energy efficiency with a requirement that free In home displays (IHD) that monitor both electricity and gas usage are available to every householder. The choice of IHD is up to the energy supplier provided that it meets the minimum requirements. Early indications are that suppliers will also offer their customers more sophisticated on-line monitoring and analysis systems free of charge. Consumers will be able to choose whether to share their smart meter data with licensed third parties for additional smart meter services.

It is, then, of little surprise that respondents favoured IHDs (44%) as the mode to retrieve smart meter information, followed by smart phone/app (24%) and online (23%) methods. Text and letter scored less than 10% between them as useful modes for retrieving smart meter data.

Slightly more than half of respondents agreed that they felt well informed about smart meters.

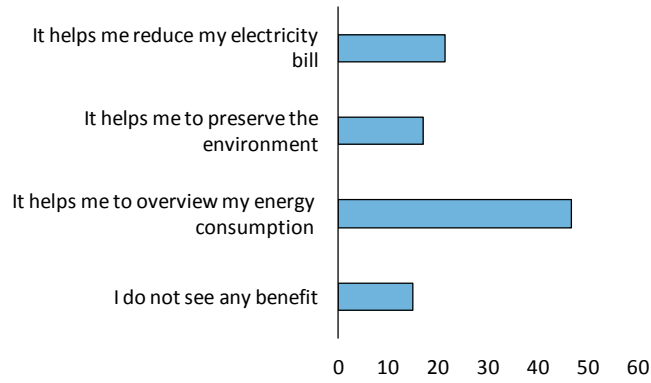


60% of respondents were happy to receive smart meter information in tables in a numerical format, and 68% as charts. There was a stronger preference for charts also in terms of respondents agreeing or strongly agreeing to them, rather than expressing partial agreement.

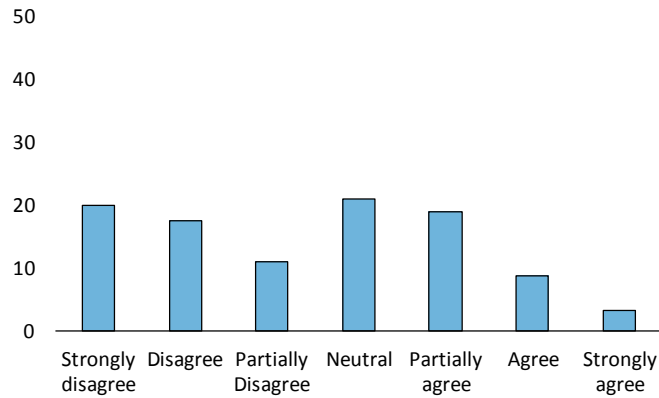


Overall people were mostly interested in using smart meter information to get an overview of their energy consumption (47%), with less than half that number of respondents (21%) stating that its primary usefulness would be in helping to reduce energy consumption. This may be due to the common belief that “I’m already using as little energy as I can” (Fell and King 2012¹), or that this sample of respondents are highly motivated around reducing fuel use. The lower than the UK average on electricity usage previously indicated would tend to support this. 15% of people couldn’t think of a benefit from having smart meter information, and only 17% stated the environment as being the greatest advantage derived.

¹ Fell D., King G. (2012). *Domestic energy use study: to understand why comparable households use different amounts of energy* A report to the Department for Energy and Climate Change. Brook Lyndhurst. DECC, London.



Given that smart meter services like IHDs and online data analysis will be offered by UK suppliers for free (or more accurately with no direct payment), respondents were predominantly unmotivated to pay for those services either to reduce energy bills or carbon emissions. That roughly a third of respondents mainly partially agreed with the idea of paying for smart meter services to reduce bills or carbon emissions was somewhat unexpected. The majority of respondents were not concerned about their energy supplier collecting too much information from their smart meter (43%), nor about third party organisations intercepting data and abusing it (59%).



9 Poland

9.1 Survey method

The sample used for the survey in Poland, consists of 153 persons. These are mainly the electricity consumers all-around of the country territory. The reason for the smart metering implementation in the electricity sector in Poland is the requirements of EU law. This sample consists of customers/electricity end users from different social target groups, regions, ages at **the different energy consumption levels in order to have a wider variety of results which** could be extrapolated with certain reliability.

In order to reach a large amount of persons the interviewers decided to conduct an online way survey only, with the period of the end of October and beginning of November 2014.

9.2 Preferences regarding smart meters

This section includes the knowledge, concerns and interest of the consumers related to the use of the smart meters, both as electronic equipment and also as a enabling technology to provide services based on the information that is registered or stored.

Level of knowledge about smart meters:

- More than 50% of the consumers feel well informed regarding smart meters, while 44% feel they are not sufficiently informed about what kind of possibilities and advantages may deliver these new technology regarding smart metering . This situation require of preparation a further information campaigns about what are this devices and what kind of changes should happen after the installation them substituting the traditional energy metering system..

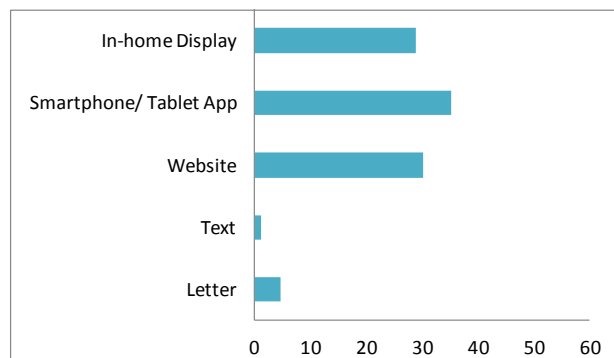


Fig. 20. Preference way to receive the information as percentage of the sample

Favourite way of receiving the information from the smart meter:

- Almost 90% of responders have chosen electronic systems as the best option to provide the information from the smart meters. 18,8% selected the Smartphone or

tablet as the best solution, while more than 40% has selected a Website and 28,6 % an In-home display. Only 12,3 % has selected a post letter or any other kind of text.

My consumption data to be displayed based on tables and numbers and my consumption data to be displayed through charts:

- More than 80% (88,3) of the total number of consumers would like to have the information described by means of tables and numbers and up to 88% agrees to have it shown as in charts. This means that most of the consumers prefer to have this information presented in the visual way for a better comprehension.

Benefit from the smart meters for the consumers:

- According to the research conducted by GfK Polonia for the Polish Society of Transmission and Distribution of Electricity, knowledge about the term "smart meter" is only 21 % in a selected social group, while 53% in the group of Internet users which has also been tested. The

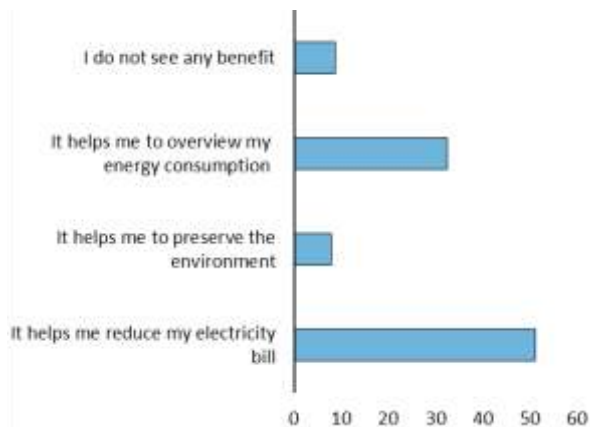


Fig.21: Perception of the benefit as percentage of the sample

most (37%) of Internet users recognize that the main feature of smart meters is remote reading. Respondents from social attempts who had exchanged the counter have considered the following advantages as benefits: billed for actually consumed energy (31 %), no needs for the collector visits (35%), better control of energy costs at home (25%). This official survey results indicate that the primary consideration of the average Pole are the aspects of cost for electricity, high of energy bills (54 %). Much less frequently cited as a priority are security issues - stability of supply, no failure (21 %), comfort - maintenance-free system (12 %) and ecology (6 %).

Compared to the results of our USmartConsumer project survey assessment of the benefits from smart meter installation is quite similar. More than 50% (51,1%) of respondents indicate that the main benefit for them is that it helps to have an overview of the energy consumption at home. Probably it is related to the fact that with this information they can take informed decisions to change their behaviour. Around 32,4% of clients consider that it helps to reduce the energy con-

sumption and near by 10% of them find them useful to reduce the environmental pollution. Almost 8,6% can't find any benefit

Willingness to pay for smart meter services to reduce the electricity bill and to reduce CO2 emissions:

- More than 60% of the interviewed would like to pay for smart meter related services if this help them to reduce the electricity bill, while only one third part of whole group wouldn't like to pay for these kind of services. The same situation happens when we asked about the willingness to pay for these services if they reduce the CO2 emissions from their homes.

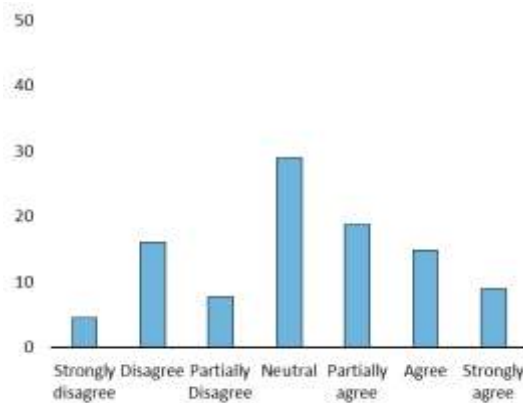


Fig. 22: Concern about third parties using the information as percentage of the sample

Concerns about the energy company or third parties collecting too much information through the smart meter:

According to this new situation in Poland where the problem of smart meters installation is not so well known yet, the answers related to the questions regarding the information collect by utilities from the smart meters are based on a very small experience. There is more than 60% who have confidence in them, 28,3% worried about how the utility manages the information.

Annex: Questionnaire

USmart Consumer: public preferences on household energy information

Introduction

Introduction

We really appreciate your support in participating in this USmart Consumer survey!

USmart Consumer is an EU research project that explores useful services to help people reduce their fuel bills, linked with the roll out of new metering technology. By completing this survey and telling us what is most important to you, better services can be designed to meet your needs around managing your energy use. Any information will only be used anonymously by the USmart Consumer project partners for research purposes; it will not be used for sales or marketing.

This survey should take a maximum of 14 minutes.....probably less. There are 28 questions - 6 of which are about you and your household - so it should be quick to answer! Thank you again for participating.

A: General Values and Beliefs

This section is about your values and beliefs – what is important to you. Please choose the option that indicates how much you agree or disagree with each statement.

*1. I do not find it difficult adapting to change

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

*2. I am very interested in new technology and innovation

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

*3. I like to keep all my options open

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

*4. I think our society is too consumer-orientated and wasteful

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

*5. Being successful at work is central to my life

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

*6. Family is the most important thing in my life

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

A: General Values and Beliefs continued...

*7. I want to have as much fun in life as possible

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

USmart Consumer: public preferences on household energy information

* 8. In my opinion everyone should do their best to protect our environment

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

* 9. Living in a multi-cultural society is a positive thing

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

* 10. Everyone is responsible for their own actions

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

* 11. I need my life to be safe and secure without lots of changes

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

* 12. I am convinced that things will get better in the future

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

* 13. I always want to retain control

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

B: Smart meter related questions

All UK households will receive a smart meter by 2020 provided free of charge by your energy supplier.

A smart meter will automatically tell your supplier how much electricity you have used so they always send you an accurate bill. The smart meter can also send information on your energy use to other devices. You can have a monitor in your home an 'In-home display'. Your energy supplier or another organisation that you authorise may provide the information in a range of different ways. If you want you can use this information to review your energy consumption and to help reduce your bills and/or carbon emissions.

We'd like to find out what you think about smart meters, your preferences around energy information, and any concerns you might have about them.

* 14. I feel well informed regarding smart meters.

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

USmart Consumer: public preferences on household energy information

***15. Smart metering information can be retrieved in various ways. Which of the following options would you prefer?**

- In-home Display
- Smartphone/ Tablet App
- Website
- Text
- Letter

***16. I want my consumption data to be displayed based on tables and numbers.**

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

. ○ ○ ○ ○ ○ ○ ○

***17. I want my consumption data to be displayed through charts.**

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

. ○ ○ ○ ○ ○ ○ ○

***18. For me the greatest benefit of smart meters is that..**

- It helps me reduce my electricity bill
- It helps me to preserve the environment
- It helps me to overview my energy consumption
- I do not see any benefit

***19. I am willing to pay for smart meter services, that help me to reduce my electricity bill.**

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

. ○ ○ ○ ○ ○ ○ ○

***20. I am willing to pay for smart meter services, that help me to reduce my CO2 emission.**

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

. ○ ○ ○ ○ ○ ○ ○

***21. I am worried about my energy company collecting too much information through the smart meter.**

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

. ○ ○ ○ ○ ○ ○ ○

***22. I am concerned about third parties intercepting my smart meter data and abusing the information.**

Strongly disagree Disagree Partially disagree Neutral Partially agree Agree Strongly agree

. ○ ○ ○ ○ ○ ○ ○

C: Social demographics

USmart Consumer: public preferences on household energy information

The final 6 questions are about you. The information you give will only for used in USmart Consumer research it will be anonymous and treated confidentially.

For question 27 you will find the information about your energy usage on your electricity bill or annual statement – we just need a rough idea.

23. What is your gender?

- Female
- Male
- Not applicable

24. In which year were you born? (for example 1950)

25. What is the highest level of education you have completed?

- No qualifications
- GCSE , O Level, NVQ2
- A and AS Levels, NVQ Levels 3, HNC, Advanced or Higher Apprenticeship,
- Degree (BA/BSc with or without Honours), Graduate diploma, NVQ4
- Postgraduate qualification, NVQ Level 5, professional qualification

26. How many people are currently living in your household, including yourself?

- 1
- 2
- 3
- 4
- 5
- More than 5

27. How high is your electricity usage per year?

- less than 1999 kWh
- 2000-3499 kWh
- 3500-4249 kWh
- 4250-5000 kWh
- more than 5000 kWh
- unknown

USmart Consumer: public preferences on household energy information

28. What is your current household income after taxes and deductions? That is your total combined family income per year from all sources (wages, benefits, maintenance payments, pensions, bank interest etc).

- Less than £11,999
- £12,000 - £19,999
- £20,000 - £27,999
- £28,000 - £35,999
- £36,000 - £43,999
- £44,000 - £51,999
- £52,000 - £59,999
- £60,000 - £67,999
- More than £68,000

Thank you!

Thank you again for taking the time to indicate your preferences on the kinds of information and services that will be most useful to you in managing your energy use.

If you'd like more information on USmart Consumer we can send you the survey results by email. Just to reassure you, your email address would only be used by the USmart Consumer project.

29. Yes I would like further information. Please add your email address below.



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