

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 837498.



SONNET – SOCIAL INNOVATION IN ENERGY TRANSITIONS

Co-creating a rich understanding of the diversity, processes, contributions, success and future potentials of social innovation in the energy sector

D5.2 (D21): Report on key descriptive findings from SONNET citizen survey on individuals' perceptions and acceptance of SIE and EU energy transitions

Project Coordinator: Fraunhofer ISI

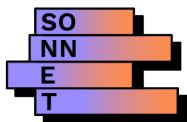
Work Package: WP5

Leader Organisation: GEM

Author/s: Abigail Alexander-Haw, Elisabeth Dütschke, Marie-Charlotte Guetlein, Joachim Schleich

Version: 1.0

September 2021



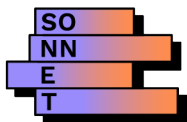
SOCIAL INNOVATION IN ENERGY TRANSITIONS

Co-creating a rich understanding of the diversity, processes, contributions, success and future potentials of social innovation in the energy sector

GA#: 837498

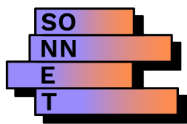
Funding type: RIA

Deliverable number (relative in WP)	D5.2 (D21)
Deliverable name:	Report on key descriptive findings from SONNET citizen survey on individuals' perceptions and acceptance of SIE and EU energy transitions
WP / WP number:	WP5 Citizen surveys: National representative citizen surveys with choice experiments on individuals' perceptions and acceptance of SIE
Delivery due date:	31/07/2021 (30/09/2021 with approved extension by 2 months)
Actual date of submission:	30/09/2021
Dissemination level:	Public
Lead beneficiary:	Grenoble Ecole de Management (GEM)
Responsible scientist/administrator:	Marie-Charlotte Guetlein, Joachim Schleich
Contributor(s):	Abigail Alexander-Haw, Elisabeth Dütschke
Internal reviewer(s):	Marta Strumińska-Kutra, Karoline Rogge



PROJECT PARTNERS

No	Participant name	Short Name	Country code	Partners' logos
1	Fraunhofer Society, with its Fraunhofer Institute of Systems and Innovation Research (Fraunhofer ISI)	ISI	DE	Fraunhofer ISI
2	Dutch Research Institute for Transitions	DRIFT	NL	drift for transition
3	University of Sussex, with its Science Policy Research Unit (SPRU)	UoS	UK	US UNIVERSITY OF SUSSEX
4	Grenoble Ecole de Management	GEM	FR	G GRENOBLE ECOLE DE MANAGEMENT
5	Akademia Leona Kozminkiego	ALK	PL	KOZMINSKI UNIVERSITY
6	Zuercher Hochschule for Applied Research	ZHAW	CH	zhaw
7	ICLEI European Secretariat	ICLEI	DE	ICLEI Local Governments for Sustainability
8	City of Mannheim	MANN	GER	STADT MANNHEIM
9	City of Antwerp	ANTW	BE	A City of Antwerp
10	City of Bristol	BRIS	UK	BRISTOL CITY COUNCIL
11	City of Grenoble	GRENOBLE	FR	GRENOBLE
12	City of Warsaw	WARS	PL	CITY OF WARSAW
13	City of Basel (Associated Partner)	BASE	CH	Kanton Basel-Stadt



Executive Summary

SONNET aims to create an inter- and transdisciplinary understanding of the diversity and processes of social innovations in the energy sector (SIE) using an innovative mixed-method research design. As part of work package 5 of the SONNET project, large sample, demographically representative online surveys were carried out in three European Union (EU) member states: France (FR) (2,096 respondents), Germany (DE) (1,997 respondents) and Poland (PL) (2,048 respondents).

The surveys consist of a general part and a specific part focussing on selected SIE. The general part of these surveys investigates socio-economic characteristics, citizens' values and attitudes, socio-cultural characteristics (incl. gender) and socio-political opinions. This report provides an overview of the main descriptive results of this general part with a focus on those questions that were asked to all participants. Additionally, the survey included experiments, namely stated preference discrete choice experiments, to elicit preferences on specific SIE and SIE characteristics.

The results presented in this deliverable reveal differences in behaviours and attitudes (e.g. past and planned participation in different types of SIE initiatives, acceptance of energy technologies, environmental behaviours, trust in different institutions) within and across countries.

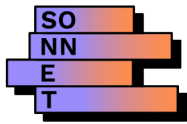
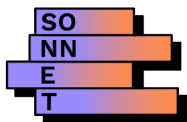


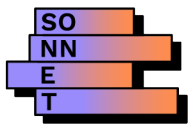
Table of Contents

1	Introduction	3
2	Methodology	4
	2.1 Data collection.....	4
	2.2 Survey	4
3	Descriptive Results.....	7
	3.1 Screening Questions and Socio-Demographics.....	7
	3.2 Participation in Social Innovation in Energy	11
	3.3 Opinion on Policies and Policy-Making Processes.....	13
	3.4 Trust, Local Identity and Perception of the EU.....	15
	3.5 Energy and Sustainability Behaviours	17
	3.6 Environmental Identity and Social Preferences.....	19
4	Outlook	21



Figures

Figure 1 Survey Outline	6
Figure 2 Gender Distribution (Q. B01)	7
Figure 3 Age Distribution (Q. B02)	7
Figure 4 Distribution of Household's Monthly Net Income (Q. B04_DE, B04_PL, B04_FR)	8
Figure 5 Distribution of Participants Across Regions of France (Q. B03_FR)	8
Figure 6 Distribution of Participants Across Regions of Germany (Q. B03_DE)	9
Figure 7 Distribution of Participants Across Regions of Poland (Q. B03_PL)	9
Figure 8 Employment Status (Q. E6_06)	10
Figure 9 Investment, Participation and Volunteering in SIE, Energy and Sustainability Activities (Q. E1_02)	11
Figure 10 Opposition and Support for Various Electricity Sources (Q. E2_03)	13
Figure 11 Perceived Participation Possibility in Certain Policy (Q. E3_05, E3_03a, E3_05b)	14
Figure 12 Perception of Climate change as a Serious Problem (Q. E2_01)	14
Figure 13 Trust in Various Institutions and Actors (Q. E3_07)	15
Figure 14 Identification with the EU, the Country, and the Locality (Q. E5_07)	16
Figure 15 Perception of the Country's Membership of the EU as Good or Bad (Q. E3_02)	16
Figure 16 Energy and Sustainability Behaviours (Q. E4_04)	17
Figure 17 Experience with Green and Local Electricity (Q. E4_07, E4_08)	18
Figure 18 Environmental Preferences (Q. E5_03)	19
Figure 19 Positive Reciprocity, Negative Reciprocity, and Trust in Others (Q. E5_05_2, E5_05_3, E5_05_1)	20



1 INTRODUCTION

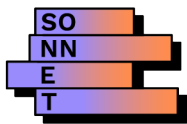
Social innovations in the energy sector (SIE) have gained increasing interest from both academics and civil society actors both by enabling sustainable energy transitions and as a relevant field of experience and learning (Fressoli et al., 2014). SONNET aims to contribute to the comprehension of these processes by generating novel understandings of the diversity, processes and contributions of social innovation in the energy sector, and critically evaluating and assessing their success and future potential towards supporting sustainable transitions of energy systems.

WP5 aims to quantitatively examine citizen's individual perceptions of socio-economic, socio-cultural and socio-political enabling and impeding conditions of SIE and their acceptance to develop a better understanding of the potential scope and diffusion of SIE necessary for sustainable energy transitions. The objective of this report is to provide an overview of citizen survey findings collected during task 5.3 using descriptive statistics. It builds on the research design as described in Deliverable D5.1. A more comprehensive analysis of the data including econometric methods as well as extensive country comparisons is foreseen for the next deliverable of this WP (in D5.3).

The SONNET citizen survey gathers responses from approximately 6,000 participants in three countries: France, Germany, and Poland. Input for the survey design is derived from WP1-4 and 6 and translated into a survey questionnaire, which was discussed in an online project meeting in January 2021. The survey comprises of a general part, which includes screening questions and further questions on household and individual characteristics of citizens (income, gender, environmental identity, etc.), acceptance of different types of SIE, and attitudes and behaviours regarding clean energy, energy technologies, policy mixes, etc. The survey also includes experiments, namely stated preference discrete choice experiments, to elicit preferences on specific SIE and SIE characteristics. The survey and experimental designs are described in more detail in D5.1.

This report pertains to the key descriptive findings of the survey on household and individual characteristics, attitudes and perceptions and the relation between SIE and support for the energy transitions. It provides an overview of the main descriptive results, thereby focussing on differences across countries. To this end, this deliverable reports findings on questions that were shown to all participants in all countries. Findings on questions related to the specific experiments will be presented in D5.3 as part of the econometric analysis of the experiments.

All survey questions analysed in this report (in English) are included in the Appendix. The survey data were only available as anonymized data to the researchers. Personal information about the respondents such as name, address, IP address, or any other personal identifiers were not included in the database.



2 METHODOLOGY

2.1 Data collection

The questionnaire was implemented via the Qualtrics software. Prior to fielding the survey, extensive pre-tests were carried out with the English version and the responses obtained were used to test the length of the questionnaire and participants' understanding of the different tasks and questions. Necessary adjustments were made before the final questionnaire was translated from English into national languages by professional translators. Translations were cross-checked by scientists from the project team (for quality control). The actual survey was then administered in Germany, France and Poland through existing household panels of Norstat, a professional market research institute, via subcontracting. To allow for meaningful statistical results, a minimum sample size of approximately 2,000 observations per country was used. In each country, participants were selected via quota sampling using quotas for gender, age, region and income based on official EU or national statistics. In this sense, the surveys are demographically representative. To incentivize participation in the survey each participant who completed the survey received a small reward through Norstat's point system. Interviews were carried out in July and August 2021. The median response time across all three countries was about 20 minutes.

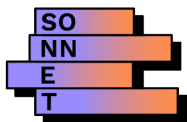
In order to ensure that quota requirements were met, participants answered screening questions on age (4-5 splits), gender, region (NUTS 2 or similar) and income (3 splits). Questions were formulated according to the quotas provided by GEM and based on official EU or national statistics. Participants who did not fulfil the quota requirements received a message informing them that they were not eligible to participate and were automatically directed back to the survey institute's website.

The survey contained two quality control questions. In both questions, respondents were asked to check a particular option among all options available. Respondents who failed to check the indicated option in both control questions were excluded from the survey and informed that their answers did not fulfil the quality standards. 192 respondents in France, 64 respondents in Germany, and 222 respondents in Poland were excluded from the survey for this reason.

Participants were considered to be speeders when the duration to complete the survey was quicker than 1/3 median. Speeders were excluded from the analysis. The final number of participants considered in this deliverable was 2,096 in France (excluding 62 speeders), 1,997 in Germany (excluding 52 speeders), and 2,048 in Poland (excluding 54 speeders).

2.2 Survey

The survey starts with an introduction informing participants about survey procedures, anonymity, privacy and data protection, as well as their right to withdraw at any time. The introduction is followed by the screening questions related to the age, gender, region, and



income of participants to ensure that quota requirements are met and that only qualified participants take part.

The screening questions are followed by the specific survey part on selected SIE types. This specific part involves either one of three stated preference discrete choice experiments (CEs) or – in Poland – one alternative experimental design. Thus, attitudes towards four different SIE types are investigated in depth. The four SIE types were identified in milestone MS7 based on SONNET's SIE typology (T1.2, D1.1) and the conceptual framework (T1.3, D1.2) developed in WP1. These are:

- (1) Investment in decentralised renewable electricity generation projects
(investigated in Germany, France and Poland)
- (2) Participation in renewable energy cooperatives
(investigated in France only)
- (3) Energy gamification through mobile apps
(investigated in Germany only)
- (4) Campaigns against specific energy pathways
(investigated in Poland only)

The overall survey design was presented in D5.1. Findings from the experiments and questions related to the specific experiments will be presented in D5.3 as part of the econometric analysis of the experiments.

The subsequent general part of the survey includes questions related to citizens' willingness to participate in SIE. These questions are then followed by questions on attitudes towards policies and policy objectives, including, for example, questions on general acceptance of energy transitions, questions on attitudes towards specific policies, as well as questions on support of policy objectives. Participants are further asked about their general political orientation and trust in government or other actors or institutions. Participants then answer questions on individual behaviours (including environmental behaviours), attitudes, and preferences (including social preferences such as preferences for fairness or reciprocity).

Survey questions are drawn from findings from the literature review (T1.1) and preliminary findings from work on the crosscutting issues (in WP1-4) as well as SIE-initiatives' goals and the role of policies and policy making for them (derived from T3.2 & T3.3). The questions complement the experiments that are designed to elicit preferences for specific SIE and SIE characteristics. Survey questions can for instance be used to explain differences in choice behaviours observed in the experiments - and thus in preferences for SIE and SIE characteristics. Thereby, they allow to better understand and predict individual decisions regarding participation in SIE. Ultimately, the findings from the experiments, combined with survey questions, allow assessing the potential scope and diffusion of SIE and the likelihood to engage in SIE (T5.6).

The survey outline is depicted in Figure 1. A more detailed description of the survey design is provided in D5.1.

Part	Description	Participation
A	General Part: Introduction	Full sample
B	General Part: Screening questions	
C	Specific Part: Experiments	
C1	Choice experiment on Investment in decentralized renewable electricity generation projects	Half of sample in France, Poland and Germany
C2	Choice experiment on participation in renewable energy cooperatives	Half of sample in France
C3	Choice experiment on energy gamification through mobile apps.	Half of sample in Germany
C4	Experiment on campaigns against specific energy pathways using information treatments - treatment 1	Half of sample in Poland
C5	Experiment on specific energy pathways - treatment 2	Half of sample in Poland (from C1)
D	Specific Part: Survey Questions on Experiments	
D1	Questions on investment portfolio and decisions, items on financial literacy, loss and debt aversion	Participants in C1 and C2
D2	Questions on renewable energy cooperatives	Participants in C2
D3	Questions on mobile app usage and motivational factors	Participants in C3
D5	Questions related to experiment on campaigns against specific energy pathways	Participants in C4
E	General Part: Additional Survey Questions	
E1	Questions on participation in SIEs	Full sample
E2	Questions on policies and policy-making processes	
E3	Questions on political orientation and trust	
E4	Questions on financial and energy literacy, energy consumption and behaviours	
E5	Questions on personality and preferences	
E6	Questions on socio-demographics	

Figure 1 Survey Outline

3 DESCRIPTIVE RESULTS

This section presents selected results from the general survey part (see Figure 1). Results are presented graphically and described briefly. Identifiers are included in brackets in the figure titles. The corresponding original survey questions (in English) are shown in the Appendix.

3.1 Screening Questions and Socio-Demographics

To provide a general overview on the demographic and socio-economic characteristics of respondents, Figures 2-8 below show results from the screening questions on gender, age, income and region and from a question on employment status.

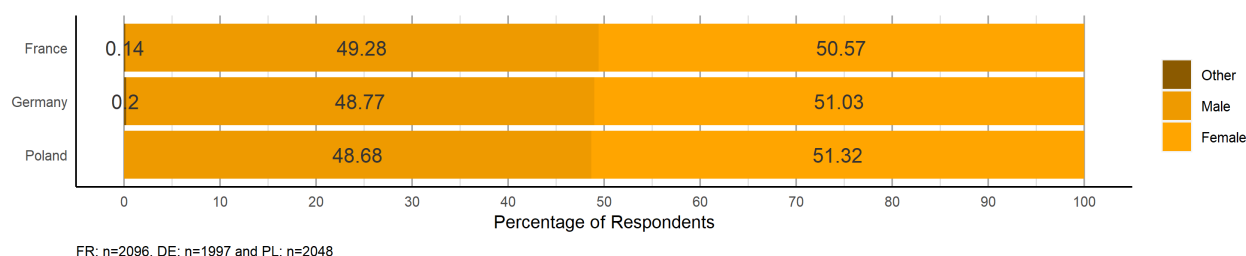


Figure 2 Gender Distribution (Q. B01)

Figure 2 shows that the gender of participants was relatively equally distributed between all countries with a slightly higher proportion of women than men in each country.

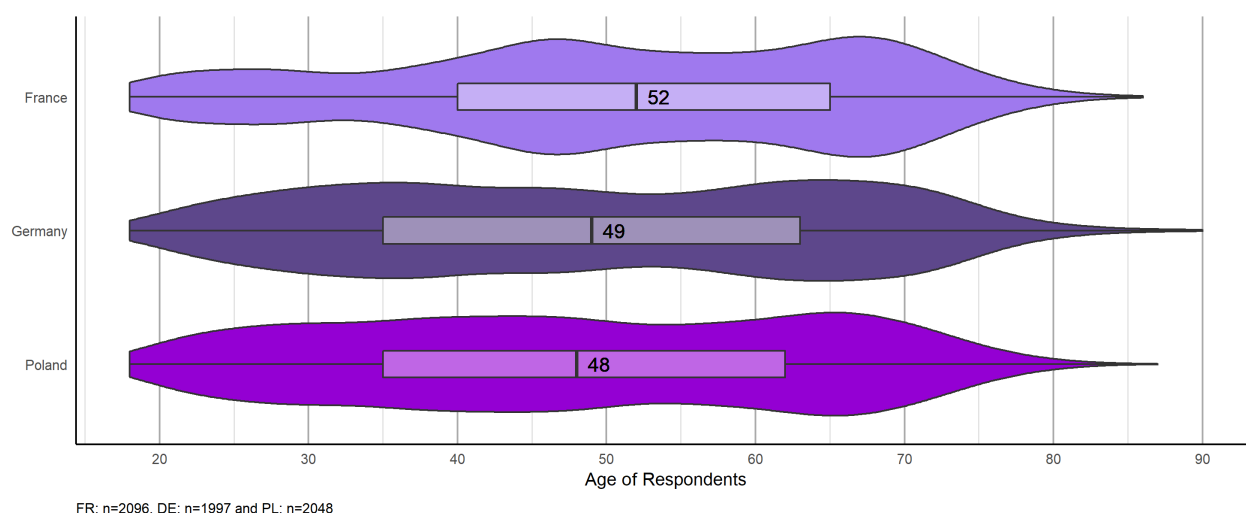


Figure 3 Age Distribution (Q. B02)

As illustrated by Figure 3, the age distribution of participants between countries was similar with a median age of 52 in France, 49 in Germany and 48 in Poland.

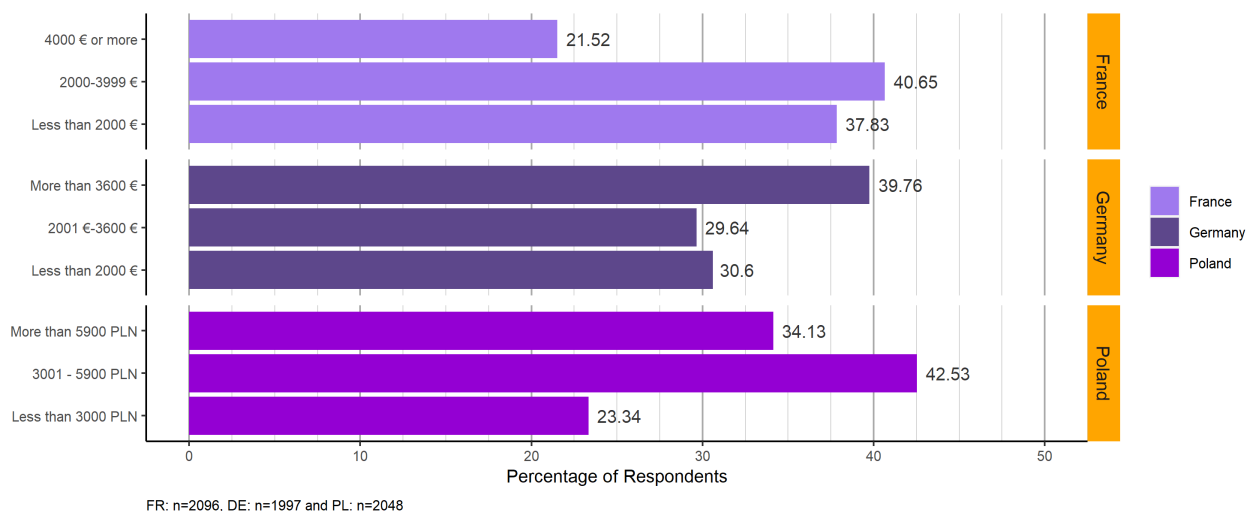


Figure 4 Distribution of Household's Monthly Net Income (Q. B04_DE, B04_PL, B04_FR)

Figure 4 presents the distribution of the participant's household's income. Categories vary across the three countries because different income quotas were used based on official national statistics.

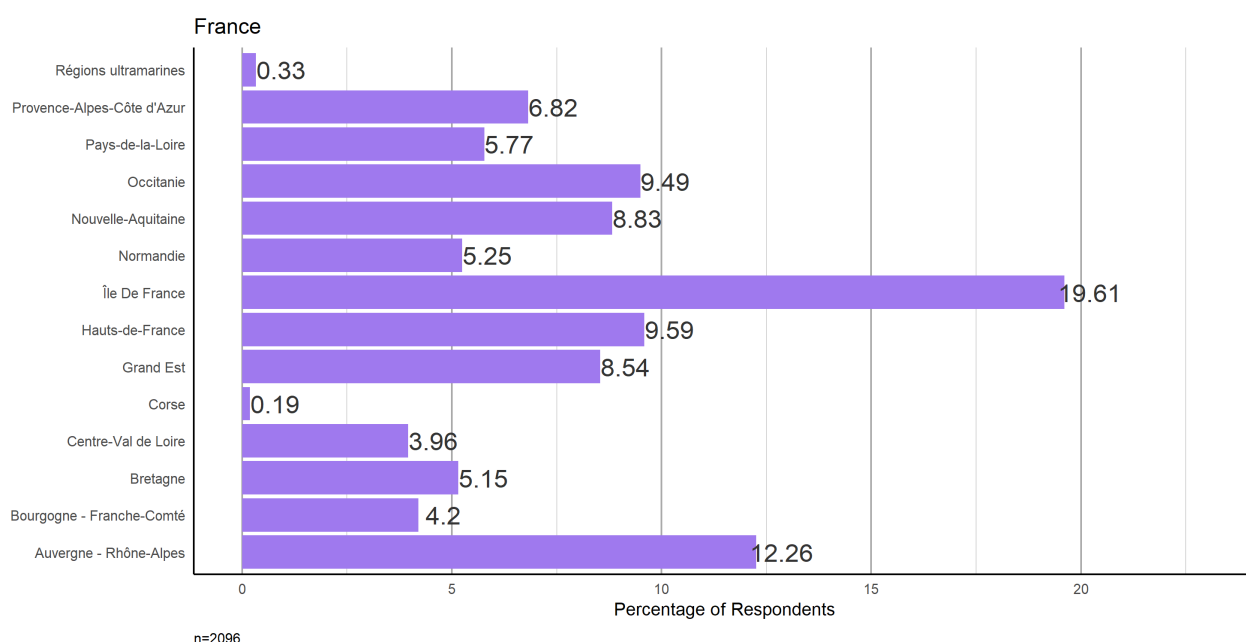


Figure 5 Distribution of Participants Across Regions of France (Q. B03_FR)

Figure 5 displays the distribution of participants across 13 French regions in Europe and overseas regions ("Régions ultramarines"). The largest share of participants from France come from the region Île-de-France followed by Auvergne - Rhône-Alpes. The smallest shares are from Corse and overseas regions.

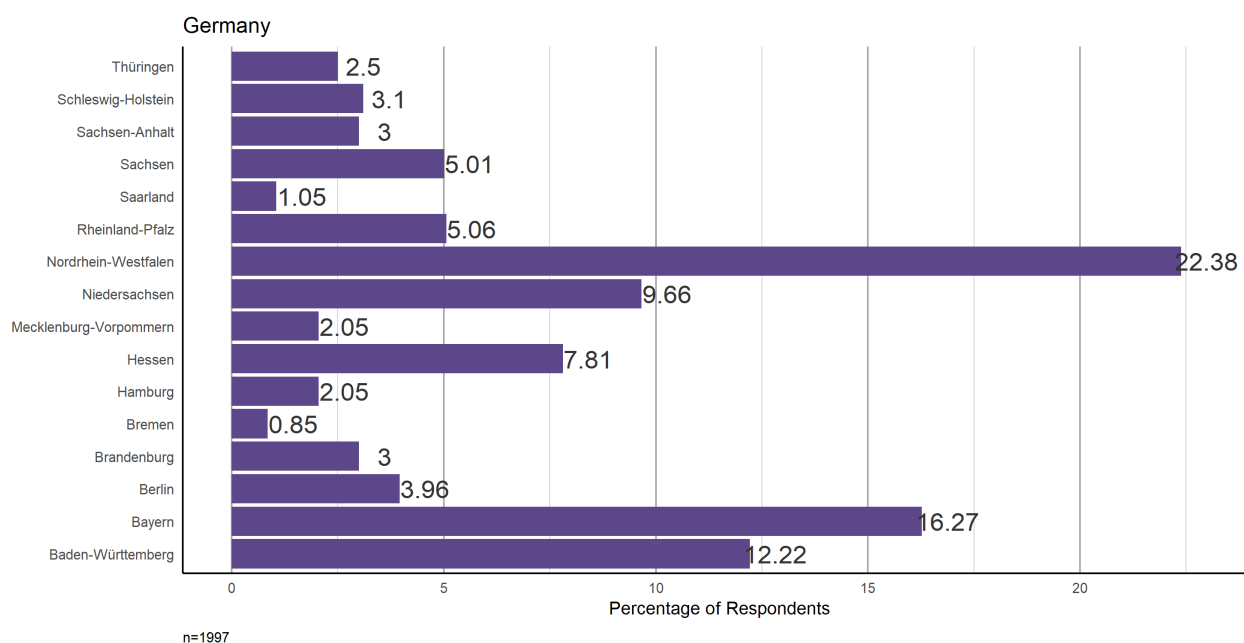
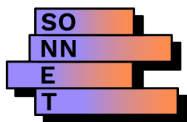


Figure 6 Distribution of Participants Across Regions of Germany (Q. B03_DE)

Figure 6 displays the distribution of participants across the 16 German federal states (Bundesländer). The largest share of respondents was from Nordrhein-Westfalen and the smallest share was from Bremen.

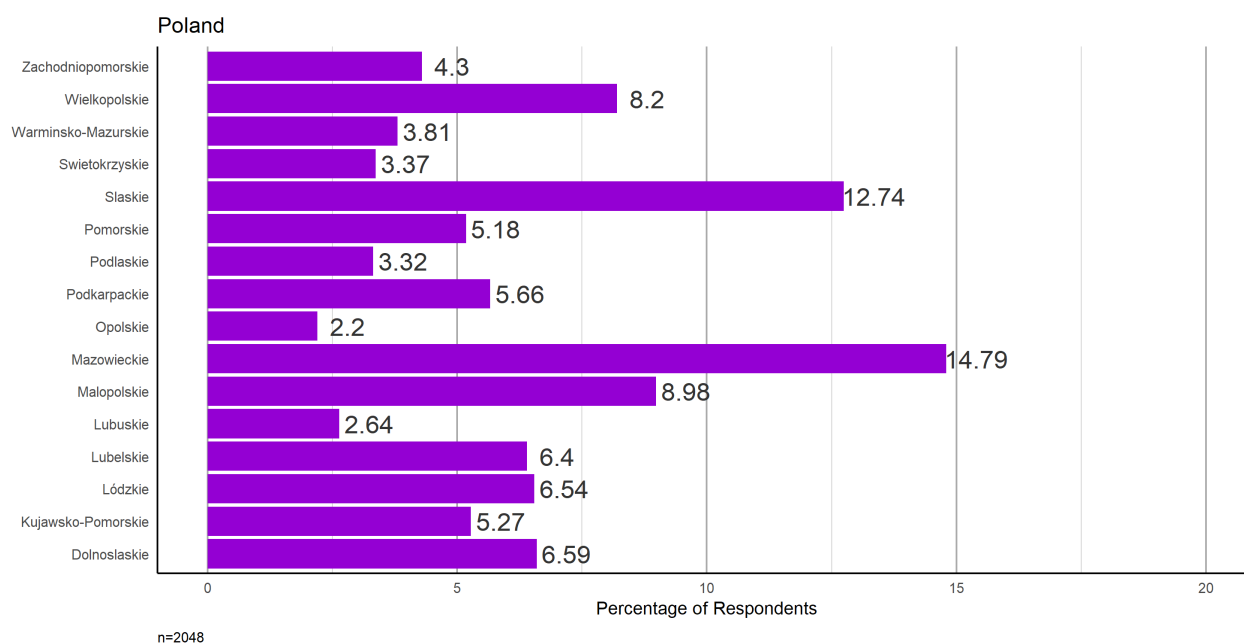


Figure 7 Distribution of Participants Across Regions of Poland (Q. B03_PL)

Figure 7 documents the distribution of participants from Poland across the 16 Voivodeships. Mazowieckie and Śląskie had the greatest share of participants and Opolskie and Lubuskie had the smallest share of participants.

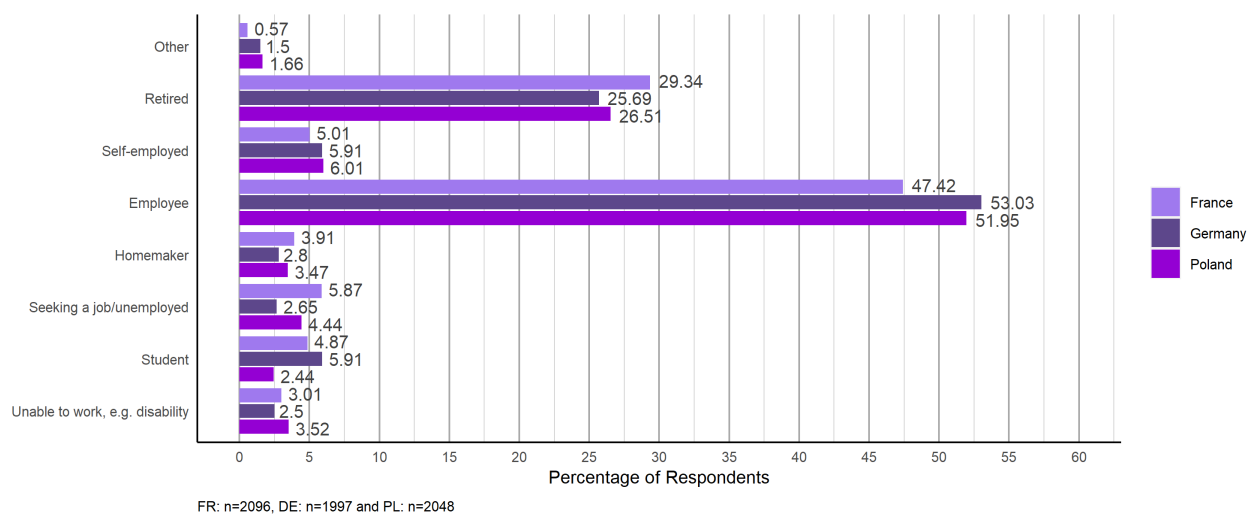
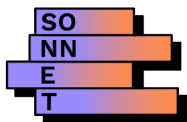


Figure 8 Employment Status (Q. E6_06)

Figure 8 indicates that around half of the respondents were employees and over a quarter retired in each country.

3.2 Participation in Social Innovation in Energy

Figure 9 shows respondents' stated past investment, participation or volunteering in different types of SIE as well as their willingness to engage in different types of SIE in the future.

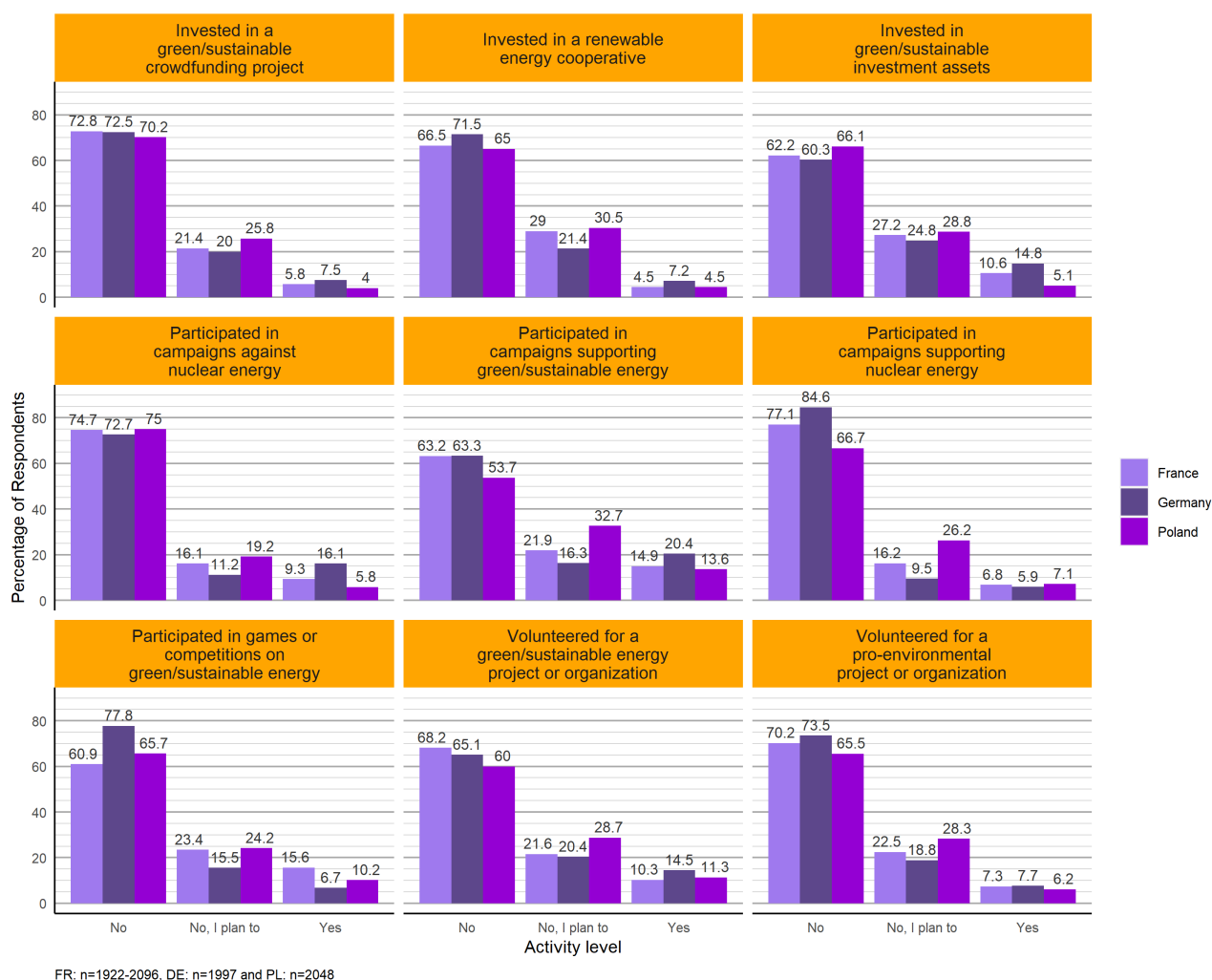
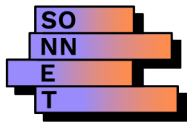


Figure 9 Investment, Participation and Volunteering in SIE, Energy and Sustainability Activities (Q. E1_02)¹

According to Figure 9, the majority of respondents stated that they have not been engaged in any of the SIE-forms mentioned and also do not intend to change this in the foreseeable future - with shares of this lack in participation ranging between 65 and 85% of respondents. Thus, so far only a minority has invested in any form of green or sustainable assets including renewable energy cooperatives and crowdfunding projects (ranging between 4 and 20%), but a slightly

¹ Due to an error in the survey flow, 174 French participants were not asked if they had invested or were planning to invest in renewable energy cooperatives. These participants were excluded from the analysis for that question.



greater share indicating that they plan to get involved in these in the future (ranging between 9 and 33%). This is also the case for participating in campaigns or competitions relating to nuclear or sustainable energy and for volunteering in pro-environmental and sustainable energy projects and organisations.

In France, the largest share of "Yes" answers (i.e. citizens who are socially innovative when it comes to energy) is observed for the item "Participated in games or competition on green/sustainable energy" (23.4%) followed by the item "Participated in campaigns supporting green/sustainable energy" (21.9%). In both Germany and Poland, the share of "Yes" answers is the highest for the item "Participated in campaigns supporting green/sustainable energy" (20.4 and 13.6%, respectively). The item is followed by the "Participated in campaigns against nuclear energy" in Germany (16.1%) and the "Volunteered for a green/sustainable energy project organization" in Poland (11.3%).

Looking at participants' plans, French participants indicate most frequently that they are planning to invest in renewable energy cooperatives (29%). Among German participants, investing in green/sustainable investment assets is the most frequently checked option (24.8%). In Poland, participants indicate most frequently that they are planning to participate in campaigns supporting green/sustainable energy (32.7%).

3.3 Opinion on Policies and Policy-Making Processes

Figures 10-12 show respondents' opposition or support for various electricity sources, to what extent respondents feel that they have a say in what the national and municipal government does, and to what extent respondents consider climate change to be a serious problem.



Figure 10 Opposition and Support for Various Electricity Sources (Q. E2_03)

Figure 10 suggests that out of the electricity sources mentioned renewable energy sources share a similar pattern of strong support by citizens, though with some differences across sources and countries. Hydro and solar receive the least opposition with less than 6% of respondents either opposed or extremely opposed in all countries. This is followed by wind and biomass, although the share of opposition to wind is higher among respondents from France and biomass is having the highest share of citizen across all countries neither opposing nor favouring it. Regarding fossil fuels we find that a larger share of respondents oppose coal than support it in all countries. Natural gas received the highest share of indecisive respondents for all countries with 34 to 43% of respondents neither opposed nor in favour. With regards to nuclear, the largest share of opposition came from respondents from Germany with 41% who responded extremely opposed and an additional 19% opposed. In contrast, approximately a third of the respondents from France and Poland were in favour of nuclear, another third opposed to nuclear, and the remaining third undecided.

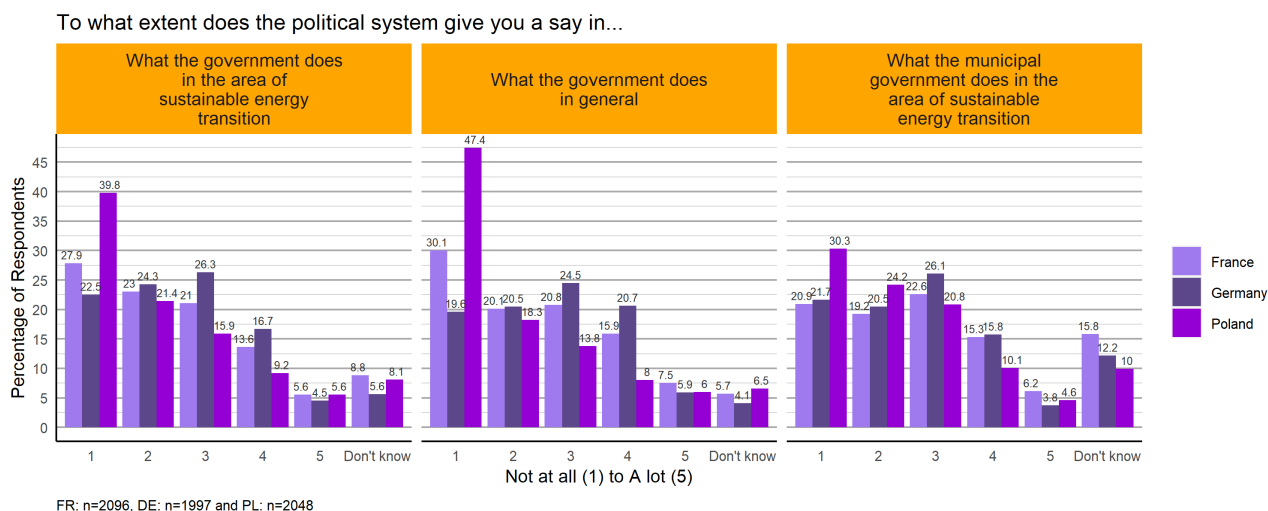


Figure 11 Perceived Participation Possibility in Certain Policy (Q. E3_05, E3_03a, E3_05b)

Figure 11 indicates that less than 8% of respondents in all countries felt that the political system gives them a lot of say in what the government does in general and in what the government and municipal government do in the area of sustainable energy transition. The share that felt that the political system gave them no say at all is largest among respondents from Poland for all questions.

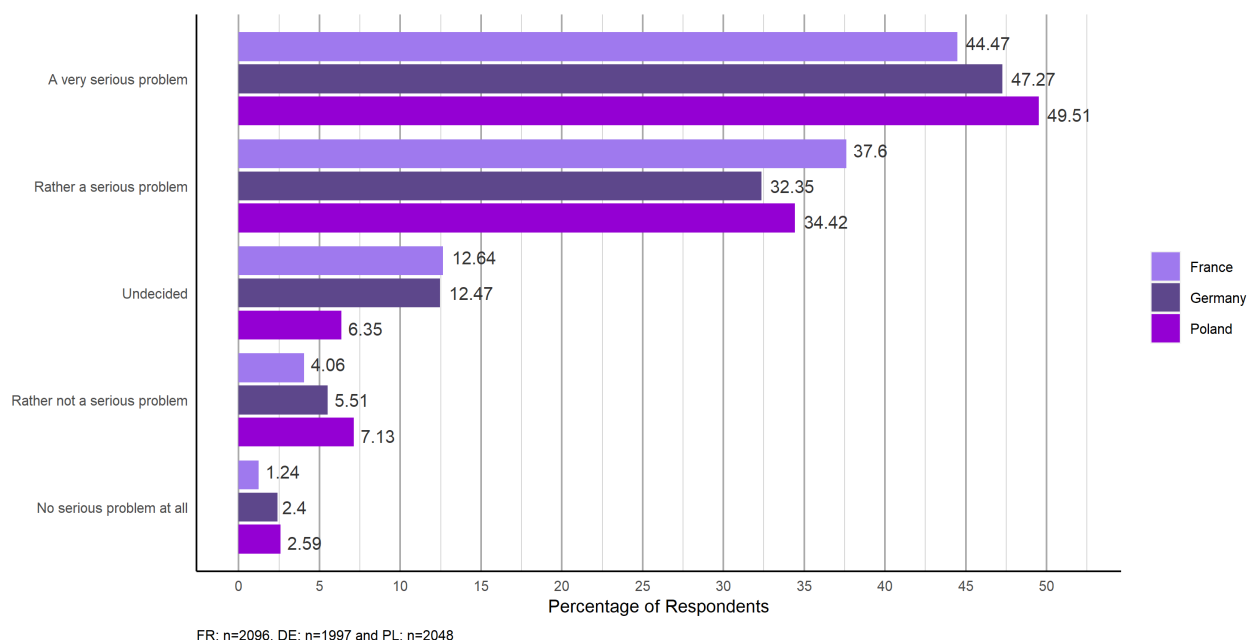


Figure 12 Perception of Climate change as a Serious Problem (Q. E2_01)

Figure 12 illustrates that roughly 45% of respondents consider climate change to be a very serious problem and around another 35% consider it to be rather a serious problem. The share of

respondents who are unconcerned with climate change ("Rather not a serious problem" and "No serious problem at all") is highest in Poland, but still very low (10%).

3.4 Trust, Local Identity and Perception of the EU

Figures 13-15 show to what extent respondents trust in various institutions and actors, to what extent they identify with their region, country or the EU, and if they perceive their country's membership of the EU as good or bad.

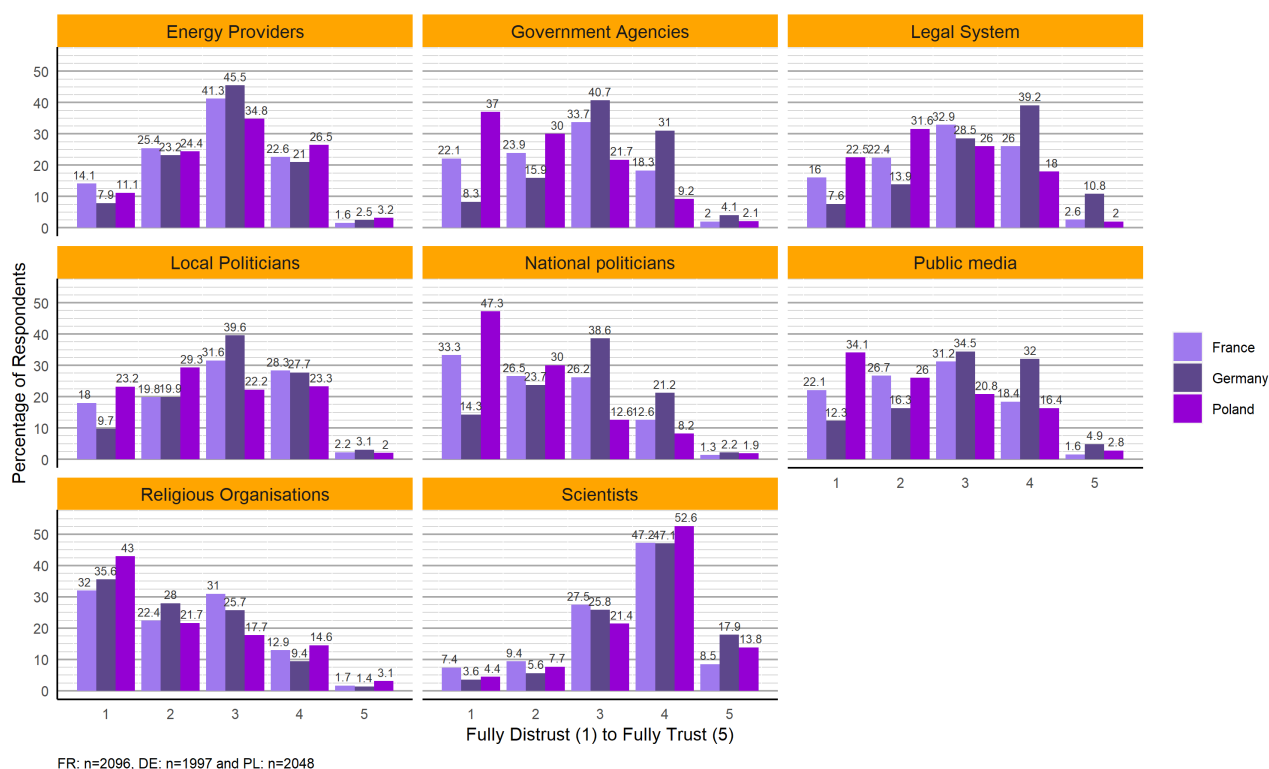


Figure 13 Trust in Various Institutions and Actors (Q. E3_07)

According to Figure 13, less than 5% of respondents from all three countries reported that they fully trust energy providers, government agencies, local and national politicians, public media, and religious organisations, with the only actor receiving higher shares across all countries being scientists (ranging from 8 to 18%). Indeed, in all countries the share of respondents distrusting scientists appears lower than for the other actors, with less than 20% distrusting or fully distrusting them. Apart from religious organisations, the share of respondents who answer that they fully distrust the actor or institution in question is smaller in Germany compared to France and Poland. What also stands out is the high trust placed by German citizens on their legal system as well as the relatively high trust in government agencies when compared to the other two countries,

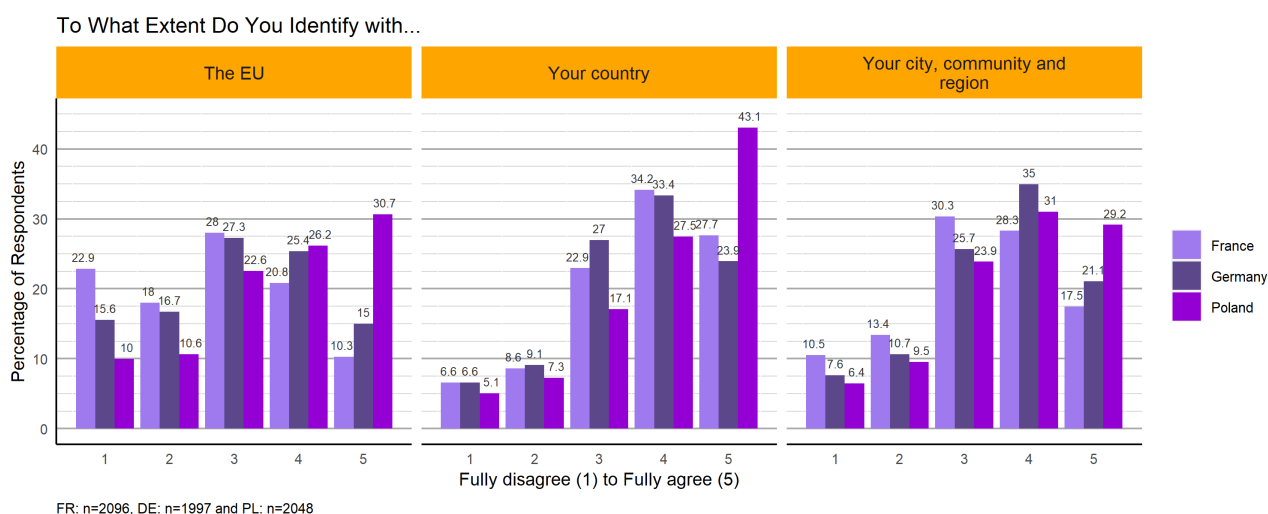


Figure 14 Identification with the EU, the Country, and the Locality (Q. E5_07)²

Figure 14 indicates that the majority of respondents in Germany and Poland identify with their city, community and region, and the majority of respondents of each country identify with their country. The highest share of respondents who identify with the EU are from Poland (57%) and the lowest share are respondents from France (31%).

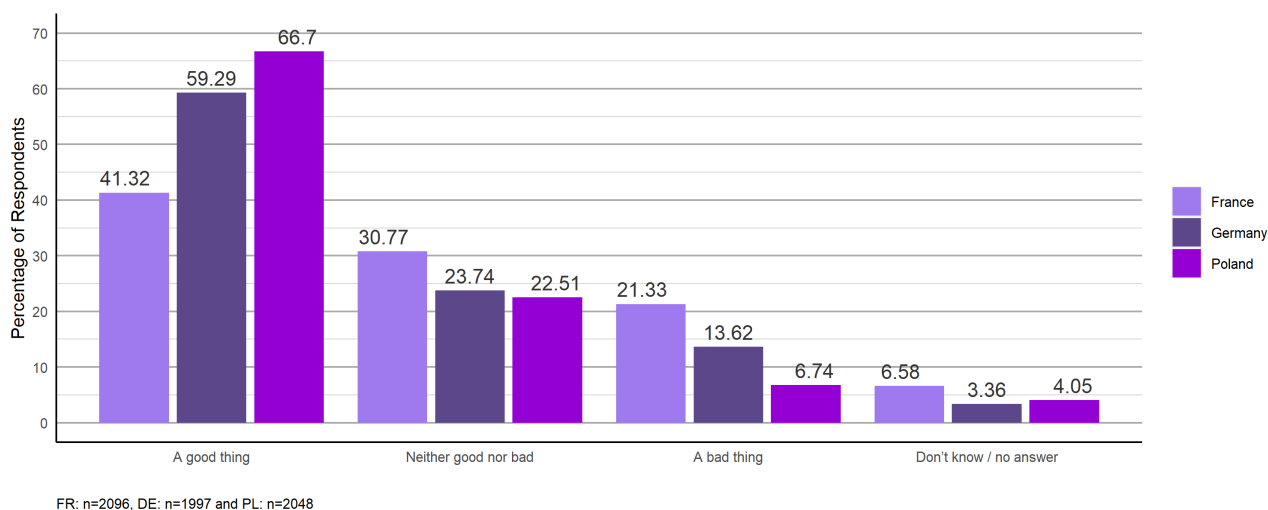
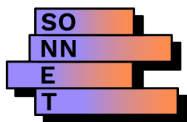


Figure 15 Perception of the Country's Membership of the EU as Good or Bad (Q. E3_02)

² Respondents were asked to which extent they agree or disagree with the following statements: I identify with... a) the EU, b) home country, and c) city, community and region.



As reported in Figure 15, the highest share of respondents who consider the membership of their country to be a good thing are from Poland (67%), followed by Germany (59%), with the smallest share in France (41%).

3.5 Energy and Sustainability Behaviours

Figures 16 and 17 show results on respondents' energy and sustainability behaviours.

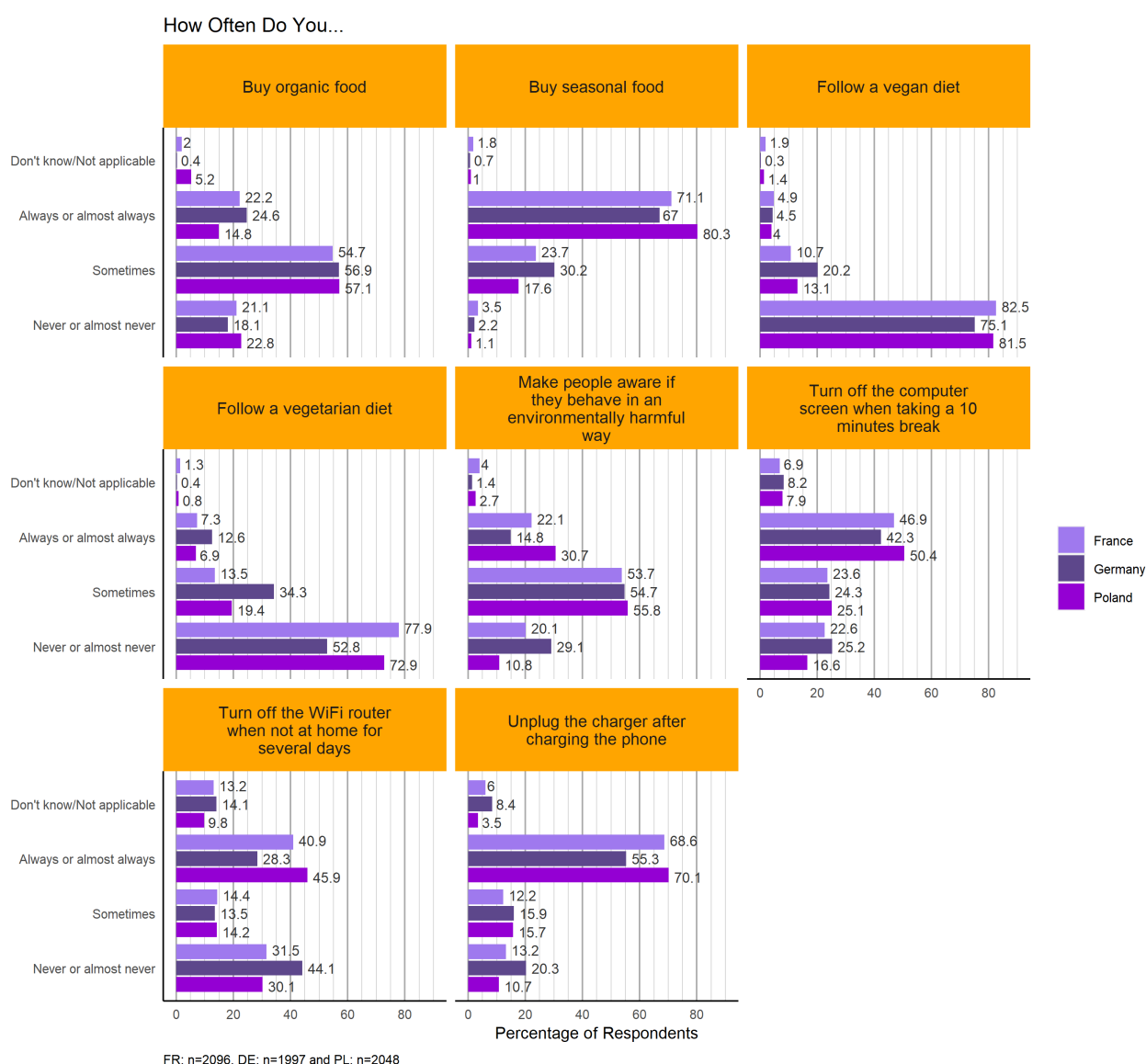


Figure 16 Energy and Sustainability Behaviours (Q. E4_04)

Figure 16 indicates that across the three countries, around 55% of respondents sometimes buy organic food and roughly 70% buy seasonal food. Approximately 80% of respondents across all countries never follow a vegan diet. Around 75% of respondents from France and Poland never follow a vegetarian diet, whereas 52% of respondents from Germany never follow a vegetarian

diet. Just over 50% of respondents in all countries would sometimes make people aware if they behave in an environmentally harmful way. Roughly 45% of respondents across all countries always (or almost always) turn of the computer screen when taking a 10 minutes break and 60% unplug their phone charger, while between 30 and 45% of respondents almost never turn of the WiFi router when not at home for several days.

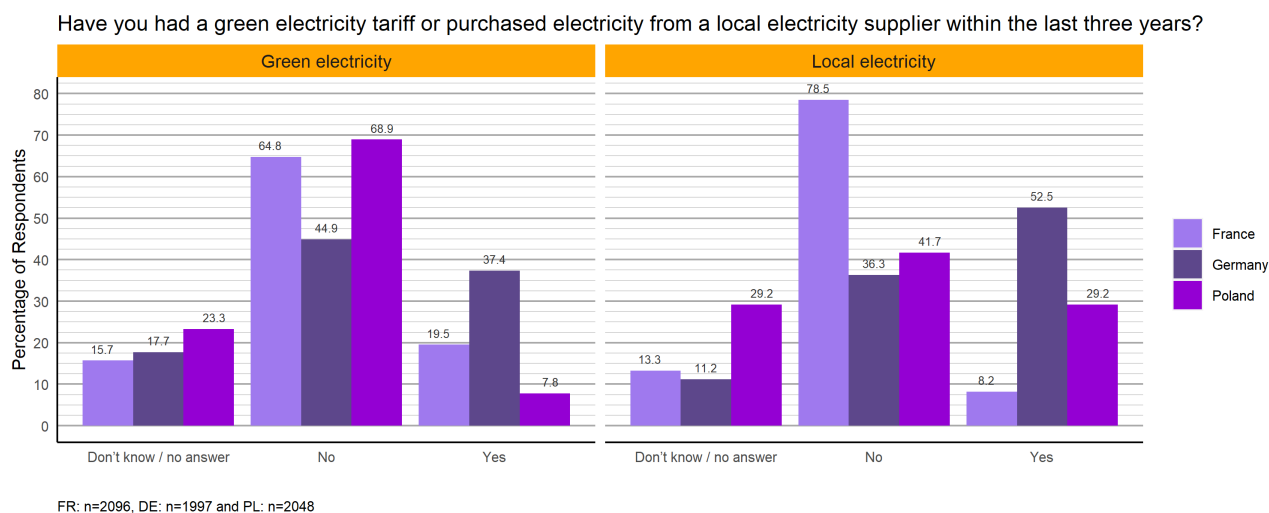


Figure 17 Experience with Green and Local Electricity (Q. E4_07, E4_08)

According to Figure 17, more respondents from Germany indicated that they had a green electricity tariff (37.4%) and purchased electricity from a local electricity supplier (52.5%) than the respondents from the other countries.

3.6 Environmental Identity and Social Preferences

Figure 18 shows results on respondents' environmental identity and warm-glow from contributing to lowering global greenhouse gas emissions. Figure 19 shows results on respondents' social preferences (positive and negative reciprocity and trust in others).

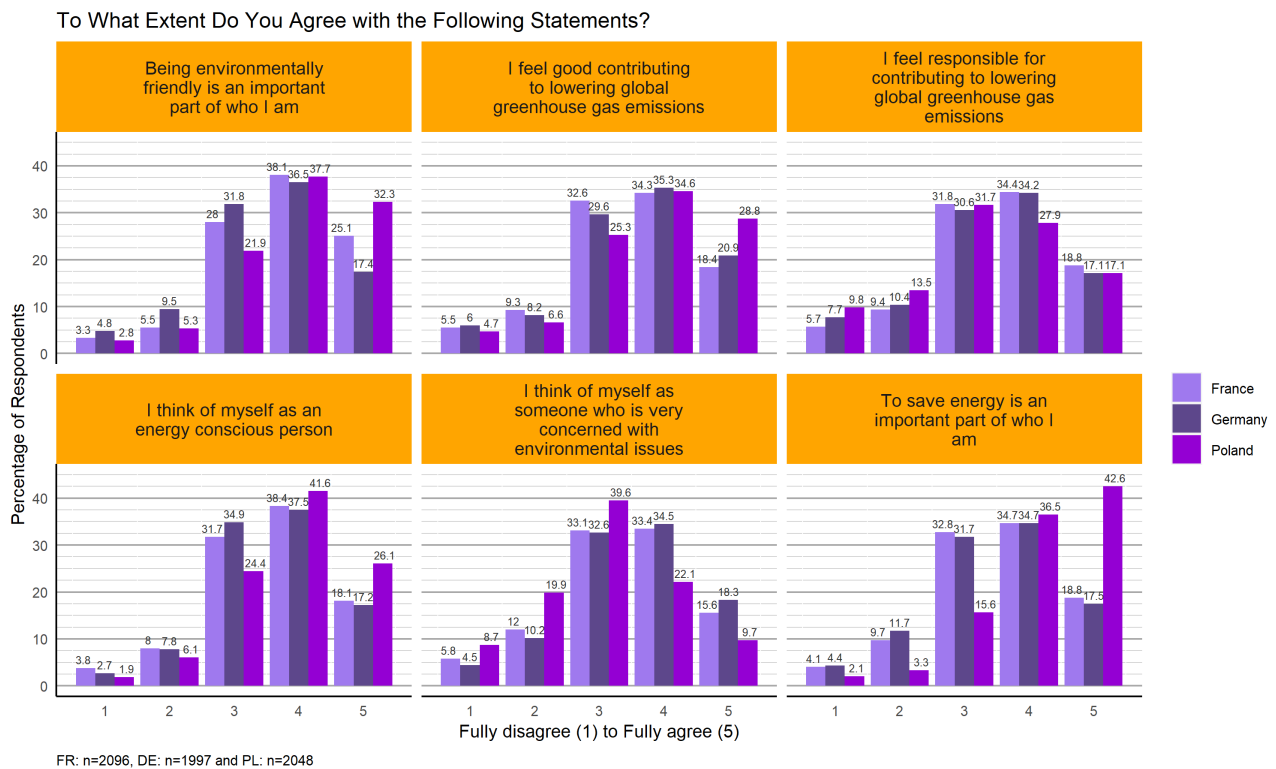


Figure 18 Environmental Preferences (Q. E5_03)

Figure 18 suggests that the majority of respondents in each country at least partly agree that being environmentally friendly and saving energy is an important part of who they are, feel good about contributing to lowering global greenhouse gas emissions, and think of themselves as an energy conscious person (in particular in Poland with 79% of respondents).

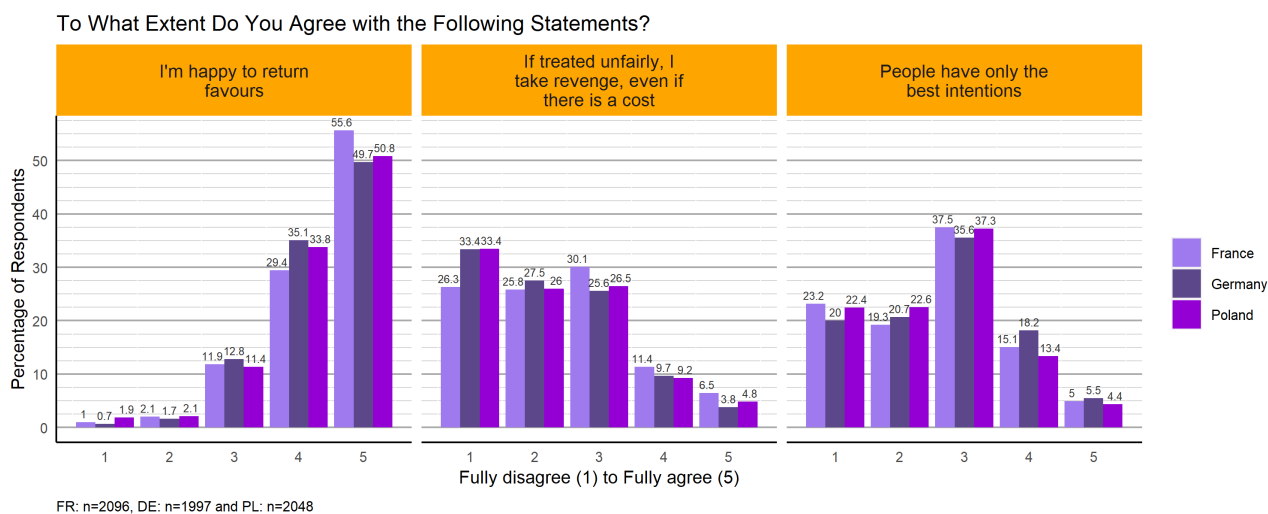
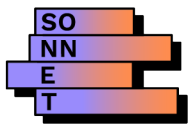


Figure 19 Positive Reciprocity, Negative Reciprocity, and Trust in Others (Q. E5_05_2, E5_05_3, E5_05_1)

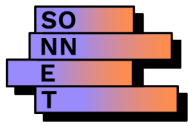
Figure 19 implies that roughly 85% of participants in each country agree or fully agree that they are happy to return favours. Around 15% agree or fully agree that they will take revenge, even if there is a cost. Around 20% of respondents agree or fully agree that people have only the best intentions.



4 OUTLOOK

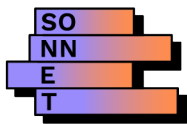
The descriptive results presented in this report provide an overview of key demographic and socio-economic characteristics of respondents in the WP5 citizen surveys, as well as their opinions, attitudes and behaviours pertaining to the acceptance of SIE.

Descriptive findings presented in this report will be used to identify individual or household characteristics relevant for the multivariate analysis of the four experiments on different SIE types in deliverable D5.3. Survey questions can for instance be used to explain the observed differences in preferences for SIE and SIE characteristics in the experiments. They thus allow to better understand and predict individual decisions regarding participation in SIE. Ultimately, results from deliverables D5.2 and D5.3 will also feed into deliverable D5.4 which assesses the future potential of SIE in Europe.



References

Fressoli, M., Around, E., Abrol, D., Smith, A., Ely, A and Dias, R. (2014) 'When grassroots innovation movements encounter mainstream institutions: implications for models of inclusive innovation', *Innovation and Development*, 4, pp. 277–292.



Appendix 1: EC summary requirements

Changes with respect to the DoA

The design and pretesting of the surveys took longer than expected which led to a delay of two months for deliverable D5.2. Slower progress was due to a variety of reasons, including i) less efficient meetings due to relying on online meetings only, (ii) several rounds of refinement needed for the survey in Poland that took some time, (iii) engagement of some researcher supporting the survey preparation in the delayed work on the case studies. None of these delays were significant but over time they added up.

We do not foresee negative repercussions for subsequent WP5 deliverables.

Dissemination and uptake

Descriptive findings presented in this report will be used to identify socio-demographic or personal characteristic, behaviours or attitudes that are relevant for the econometric analysis of the four experiments on different SIE types in deliverable D5.3. Results from deliverables D5.2 and D5.3 will also feed into deliverable D5.4, assessing the future potential of SIE in Europe.

Deliverable D5.2, the full survey, and the data sets (that do not contain any identifying information) will be made publicly available on the SONNET website and/or Zenodo.

Selected results will also be presented at the Energy Talks Disentis in January 2022, together with results from the econometric analysis of the experiments.

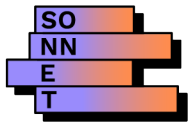
Short Summary of results (<250 words)

This deliverable presents descriptive statistics of selected variables from the general part of the SONNET citizen surveys created and carried out during WP5. The citizen surveys in WP5 are large-scale online surveys which include discrete choice experiments. They are conducted among a total of approximately 6,000 citizens in Germany, France and Poland. The general part of these surveys includes socio-economic questions and standard items eliciting citizens' values and attitudes, socio-cultural characteristics (incl. gender) and socio-political opinions. Questions listed in this deliverable are developed from existing scales and experiments. All survey parts rely heavily on insights from SONNET's work packages WPs 1-4 and 6.

Evidence of accomplishment

This Deliverable and associated documents.

.



Appendix 2: Questions from the SONNET citizen survey analysed in this report

[Intro]

Welcome to our survey and thank you for your participation!

Please read each question carefully before answering. The instructions will help guide your responses.

Procedures

You will be asked to complete an online questionnaire. After answering a question, please press the "Next" button. In order to move on, a question (or question block) must be answered in its entirety. Once you advance to the next section, returning to a prior question will not be possible.

Confidentiality

All information provided will only be used in an anonymized way and will only be reported as group data with no identifying information.

Participation

Participation in this research study is voluntary. You have the right to withdraw at any time or refuse to participate.

By clicking on the "Next" button below, you acknowledge that you have read and understood the above consent and desire of your own free will to participate in this study.

Thank you for participating in this survey.

[Screening]

B01

Please indicate your gender

1. Male
2. Female
3. Other

B02

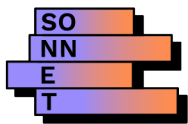
How old are you? (in years)

B03_PL

In which region do you live?



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



1. Łódzkie
2. Mazowieckie
3. Małopolskie
4. Śląskie
5. Lubelskie
6. Podkarpackie
7. Świętokrzyskie
8. Podlaskie
9. Wielkopolskie
10. Zachodniopomorskie
11. Lubuskie
12. Dolnośląskie
13. Opolskie
14. Kujawsko-Pomorskie
15. Warmińsko-Mazurskie
16. Pomorskie

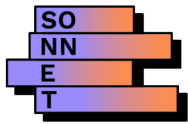
B03_DE

In which region do you live?

1. Baden-Württemberg
2. Bayern
3. Berlin
4. Brandenburg
5. Bremen
6. Hamburg
7. Hessen
8. Mecklenburg-Vorpommern
9. Niedersachsen
10. Nordrhein-Westfalen
11. Rheinland-Pfalz
12. Saarland
13. Sachsen



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



14. Sachsen-Anhalt
15. Schleswig-Holstein
16. Thüringen

B03_FR

In which region do you live?

1. Île De France
2. Centre-Val de Loire
3. Bourgogne - Franche-Comté
4. Normandie
5. Hauts-de-France
6. Bretagne
7. Grand Est
8. Pays-de-la-Loire
9. Nouvelle-Aquitaine
10. Occitanie
11. Auvergne - Rhône-Alpes
12. Provence-Alpes-Côte d'Azur
13. Corse
14. Régions ultramarines

B04_PL

What is your household's approximate monthly income, after tax? (Please include income from everyone in your household from all sources, including wages, government and company pensions and benefits, and investments dividends, rents)

1. Less than 3000 PLN
2. 3001 - 5900 PLN
3. More than 5900 PLN

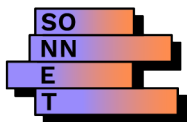
B04_FR

What is your household's approximate monthly income, after tax? (Please include income from everyone in your household from all sources, including wages, government and company pensions and benefits, and investments dividends, rents)

1. Less than 2 000 €
2. 2 000 - 3 999 €



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



3. More than 4 000 €

B04_DE

What is your household's approximate monthly income, after tax? (Please include income from everyone in your household from all sources, including wages, government and company pensions and benefits, and investments dividends, rents)

1. Less than 2.000 €

2. 2.001€ - 3.600 €

3. More than 3.600 €

[D1 follow-up to CE on investments]

[Intro]

The subsequent block of questions refers to sustainable financial investments, that is financial investments which explicitly consider environmental, social and/or ethical criteria in addition to financial criteria. Buying shares in a renewable power plant would be an example for such an investment. In contrast, conventional financial investments do not explicitly consider environmental, social and/or ethical criteria in addition to financial criteria.

D1_07

Have you heard about sustainable financial investments prior to taking this survey?

1. Yes

2. No

3. Don't know / no answer

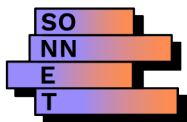
E1_02

Have you ever ...

	Yes	No, but I am planning to	No, and I am not planning to
Participated in campaigns supporting green/sustainable energy (e.g. by signing a petition, or by participating in a demonstration)	0	0	0
Participated in campaigns supporting nuclear energy (e.g. by signing a petition, or by participating in a demonstration)	0	0	0
Participated in campaigns against nuclear energy (e.g.	0	0	0



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



by signing a petition, or by participating in a demonstration)			
Participated in games or competitions on green/sustainable energy topics	0	0	0
Engaged in volunteer work for a green/sustainable energy project or organization	0	0	0
Engaged in volunteer work for a pro-environmental project or organization	0	0	0

[E2 energy pathways]

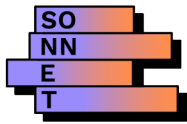
E2_01

In how far do you think that climate change is a serious problem?

1. No serious problem at all
2. Rather not a serious problem
3. Undecided
4. Rather a serious problem
5. A very serious problem



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



E2_03

Please indicate to what extent you are for or against the production of electricity from ...

	Extremely opposed 1	2	3	4	Extremely in favour 5
Solar energy	0	0	0	0	0
Wind energy	0	0	0	0	0
Hydro energy	0	0	0	0	0
Energy from biomass	0	0	0	0	0
Energy from hard coal and lignite	0	0	0	0	0
Energy from natural gas	0	0	0	0	0
Nuclear energy	0	0	0	0	0

[E3 political orientation and trust]

E3_02

Generally speaking, do you think that [France/Germany/Poland]'s membership of the EU is...?

1. A good thing
2. Neither a good thing nor a bad thing
3. A bad thing
4. Don't know / no answer

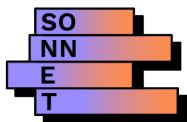
E3_03a

From your point of view: In general, to what extent does the political system in [France/Germany/Poland] give people like you **a say in what the government does?**

1. Not at all 1
2. 2
3. 3
4. 4
5. A lot 5
6. Don't know



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



E3_05

From your point of view: **In the area of sustainable energy transition**, to what extent does the political system in [France/Germany/Poland] give people like you **a say in what the government does?**

1. Not at all 1
2. 2
3. 3
4. 4
5. A lot 5
6. Don't know

E3_05b

From your point of view: **In the area of sustainable energy transition**, to what extent does your municipality give people like you **a say in what the municipal government does?**

1. Not at all 1
2. 2
3. 3
4. 4
5. A lot 5
6. Don't know

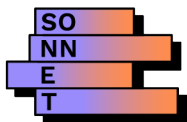
E3_07

In how far do you trust the following groups and institutions in [France/Germany/Poland]?

	Fully distrust	Tend not to trust	Undecided	Tend to trust	Fully trust
National politicians (members of parliament, ministers, etc.)	0	0	0	0	0
Local politicians (members of city council, mayors, etc.)	0	0	0	0	0
National government agencies	0	0	0	0	0
Religious organisations	0	0	0	0	0



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



Scientists	0	0	0	0	0
Legal system	0	0	0	0	0
Public media (TV, radio, newspapers, etc.)	0	0	0	0	0
Energy providers	0	0	0	0	0

[E4 Financial and energy literacy and behaviours]

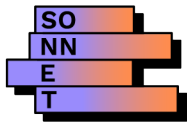
E4_04

Please answer the following questions regarding your own habits.

	Never or almost never	Sometimes	Always or almost always	Don't know
I follow a vegetarian diet.	0	0	0	0
I follow a vegan diet.	0	0	0	0
I buy food from controlled organic cultivation.	0	0	0	0
I buy fruit and vegetables according to the season.	0	0	0	0
If people behave in an environmentally harmful way, I make them aware of their behaviour.	0	0	0	0
I follow a vegetarian diet.	0	0	0	0
I follow a vegan diet.	0	0	0	0
I buy fruit and vegetables according to the season.	0	0	0	0
If people behave in an environmentally harmful way, I make them aware of their behaviour.	0	0	0	0



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



E4_05

Please answer the following questions regarding your own habits.

(If you do not use the appliance, please tick "Not applicable")

	Never or almost never	Sometimes	Always or almost always	Not applicable	Don't know
I turn off the screen of my computer when I take a break for more than 10 minutes.	0	0	0	0	0
I unplug the charger after charging the phone.	0	0	0	0	0
I turn off my WiFi router when I am not at home for several days.	0	0	0	0	0

E4_07

Have you had a green electricity tariff at any time within the last three years?

1. No
2. Yes
3. Don't know / no answer

E4_08

Have you purchased electricity from a local electricity supplier at any time within the last three years?

4. No
5. Yes
6. Don't know / no answer

[E5 Personality and Preferences]

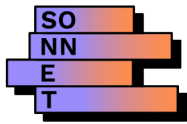
E5_03

To what extent do you agree or disagree with the following statements?

Fully disagree 1	2	3	4	Fully agree 5
---------------------	---	---	---	------------------



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



To save energy is an important part of who I am.	0	0	0	0	0
I think of myself as an energy conscious person.	0	0	0	0	0
I think of myself as someone who is very concerned with environmental issues.	0	0	0	0	0
Being environmentally friendly is an important part of who I am.	0	0	0	0	0
It makes me feel good to contribute to lowering global greenhouse gas emissions.	0	0	0	0	0
I feel responsible for making a contribution to lowering global greenhouse gas emissions.	0	0	0	0	0

E5_07

To what extent do you agree or disagree with the following statements?

	Fully disagree 1	2	3	4	Fully agree 5
I identify with the city, community and region in which I live.	0	0	0	0	0
I identify with Poland.	0	0	0	0	0
I identify with the European Union.	0	0	0	0	0

[E6 Socio-demographics]

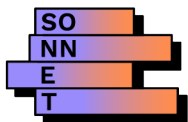
E6_06

What is your current employment status?

1. Self-employed
2. Employee (full time, part time or on temporary leave)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.



3. Retired
4. Homemaker – househusband/wife
5. Seeking a job/unemployed
6. Student
7. Unable to work, e.g. disability
8. Other



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.