



## D1.2 | Data Management Plan

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# Table of contents

- The project in brief..... 3
- 1. Introduction..... 4
- 2. Data to be collected and generated ..... 5
- 3. Policies for data access, sharing and protection ..... 9
  - 3.1 The Open Access Policy ..... 9
  - 3.2 Data sharing and storage..... 10
  - 3.3 Ethics requirements..... 10
- Annex I..... 13



# The project in brief

The Energy Union Framework Strategy laid out on 25 February 2015 aims at fostering a cost-efficient energy transition able to deliver secure, sustainable and affordable energy to all European consumers. It has embraced a citizen-oriented energy transition based on a low-carbon transformation of the energy system. At the end of the day, the successful implementation of the Energy Union will materialize in a change in energy production and energy consumption choices. Such choices are heavily shaped by particular economic prerequisites, value systems, gender-based preferences, efficiency of governance and the maturity of civil society.

The ENABLE.EU project attempts to understand the key drivers of individual and collective energy choices, including in the shift to prosumption (when energy consumers start to become also energy producers). The project will develop participatory-driven scenarios for the development of energy choices until 2050 by including the findings from the comparative sociological research. As differences between European countries remain salient, ENABLE.EU will have a strong comparative component. The final aim of this project is to contribute to more enlightened, evidence-based policy decisions, to make it easier to find the right incentives to reach the twin goals of successful implementation of the Energy Union and Europe's transition towards a decarbonised energy system. To reach this final aim, ENABLE.EU will seek to provide an excellent understanding of the social and economic drivers of individual and collective energy choices with a focus on understanding changes in energy choice patterns. Results will be disseminated to relevant national and EU-level actors as well as to the research community and a wider public.

# 1. Introduction

The purposes of this document is to present a general outline of the ENABLE.EU project policy for data management, in particular:

- define the data management strategy;
- establish clear accountability for data collection, storage and management, including removal of personal information;
- define strategy for ensuring compliance with the Data Management Plan (DMP) and addressing possible breaches of the DMP.

The document is divided in two sections:

- Data to be collected and generated (primary data, as surveys, interviews, on-line surveys, interviews, workshops; secondary data/desk research, and use of standards and metadata);
- Policies for data access and sharing (open access policy, data sharing, ethics requirements).



# 2.Data to be collected and generated

The ENABLE.EU team will proceed by collecting both primary and secondary research data. All data collected might also be used as a part of a scientific publication in the future.

'Research data' refers to information, in particular facts or numbers, collected to be examined and considered as a basis for reasoning, discussion or calculation. In a research context, examples of data include statistics, results of experiments, measurements, observations resulting from fieldwork, survey results, interview recordings and images. The focus is on research data that is available in digital form<sup>1</sup>.

As for primary data, the project will collect data from people about their attitudes, perceptions and expectations (Surveys and interviews in the case studies in WP4; Transition Workshops in WP6). Only strictly necessary personal data<sup>2</sup> in the scope of the study and to achieve the planned objectives will be collected.

Other data will come from experts' assessment and analysis (on-line surveys and interviews in WP3, WP4, WP5; workshops in WP5 and WP8) and may involve confidential information (draft designs or data) that can only be reported in a generic way.

As for secondary data/desk research, and use of standards and metadata, ENABLE.EU partners will use a whole variety of data from secondary sources.

### WP2 Setting the scene: mapping drivers of individual and collective energy choices

In **WP2**, the project will provide a **state-of-the-art** of the existing scientific literature on the social and economic drivers of individual and collective energy choices. This will consist on screening and identifying the relevant scientific articles and books studying energy choices in all participating countries and in international academic databases, published in one of the languages of the partner countries. It will incorporate material from different disciplines, in particular sociology, gender studies, behavioural economics, social psychology and political science. The **bibliography** will mention both theoretical and empirical studies, taking into particular consideration studies made on an EU territory or population, while also looking at studies made on a non-EU territory or population when relevant (esp. studies made in other developed regions).

The information collected will be published in **D2.1** "Comprehensive bibliography of relevant

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<sup>1</sup> European Commission: 'Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020', Version 3.1 25 August 2016. Page 4.

<sup>2</sup> 'personal data' means any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person; (REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation))

scientific articles and books on energy choices organised by relevance for each WP” and in **D2.2** “Final comprehensive literature review setting the scene for the entire study”.

### WP3 Technological and Economic Factors

In **WP3** in order to analyse electricity consumption of households, **Randomized Control Trials (RCTs)** will be conducted in which different treatments are applied to randomly assigned participants and compared to a control group.

Moreover, to gather information on households’ longer-term energy demand elasticity, **household surveys** will be conducted including questions on energy stock portfolios or investment behaviour. In addition, households in the RCTs will be surveyed after the treatment. The information collected will be published in **D3.4** “Report on economic factors impacting individual short-term energy choices” and in **D3.5** “Report on economic factors impacting individual long-term energy choices”.

**WP3** partners will also analyse household adoption of energy-efficiency technologies in the UK based on data from the English Housing Survey (2008-2012), previously known as the Survey of English Housing (1993-2008) and the English house condition survey (2002-2008). The information collected will be published in **D3.2** “Report on the drivers of household adoption of energy-saving technologies using the English Housing Survey”.

**WP3** will also accommodate the international online **survey** of business enterprises, focused on SMEs, which will serve the goals, set up by WP3-WP6 and will support WP7. The survey will be conducted online among the business enterprises in each of the partner countries and will benefit from the use of Amadeus database (available at CSD): it will be used for sampling the pool of companies to be contacted, while the CSD own online survey tool, based on the open source survey tool LimeSurvey, will be used for programming the questionnaire and conducting the survey. The information collected will be published in **D3.1** “Final report on comparative sociological analysis of the business enterprises’ survey results”.

In **WP3**, the impact of costs and prices on collective energy choices shall be analysed using the Amadeus database on EU firm data. Moreover, partners will use high-quality firm-level data from French statistical agencies to assess the impact of energy prices on energy use and on investments in energy efficiency technologies made to reduce it. We plan to use the following data: (1) Energy consumption and expenditure data from the Annual Survey on Energy Consumption in the Industry (EACEI) produced by Insee. In general, all firms having at least 250 employees are included while firms having between 20 and 249 employees are randomly surveyed. (2) Innovation data from the Community Innovative Survey (CIS). The CIS asks around 10,000 French manufacturing firms about their activity in terms of product and process innovation, R&D expenditures, cooperative behaviour in research and innovation alliances. The 6 waves covering years 1994 to 2008 include a set of questions on innovations to reduce energy consumption per unit of output, which provides a self-reported measure of energy efficiency innovation. (3) Patent data coming from the international PATSTAT database, maintained by the European Patent Office (EPO). The new Y02P patent classification category developed by the EPO covers energy-efficiency innovations in the manufacturing sector. (4) Financial data from the Unified Corporate Statistics

System (SUSE), which covers the population of French firms. (5) International trade data are collected by the French customs authorities, which also which covers the population of French firms. The information collected will be published in **D3.3** "Report on the impact of energy prices and other policies on energy-saving innovation and technology adoption in the manufacturing sector based on French company data".

### WP4 Social and cultural factors driving individual energy choices and behaviors

In **WP4**, partners will design a common **household survey** in all participating countries in order to collect data on energy related behaviours, opinions and attitudes of citizens on individual and collective level. The survey will be representative on national level for each of the countries and will be conducted through face-to-face interviewing (approximately 800 to 1,500 households in each of the partner countries), covering social, cultural, technological, economic, and governance factors, thus producing results that will feed the research tasks in WP3 and WP5-7. The information collected will be published in **D4.1** "Final report on comparative sociological analysis of the household survey results".

In **WP4**, case studies will be conducted on mobility, heating and cooling and transition from consumers to prosumers.

They will include:

- Mobility case study: **Background research, review** of EU and international mobility and transport policy reports **surveys**; between 4 and 8 **in-depth interviews** per country with emblematic households; between 4 and 8 **interviews** per country with stakeholders and policy experts;
- Prosumers case study: between 8 and 12 **semi-structured in-depth interviews** per household group in each case country; collection of data from household **diaries**, related to the energy practices of the interviewed household;
- Heating and cooling case study: **desktop research and participatory systems mapping** with, at least, 2-3 **focus groups** per country, drafting a block of questions to be included into the comparative cross-country **household survey**.

The information collected will be published in **D4.2** "Synthesis report on the "low carbon mobility" case study", **D4.3** "Synthesis report on the case study "from consumer to prosumer" and **D4.4** "Synthesis report on the "heating & cooling: case study".

### WP5 Assessing Governance Bottlenecks and their Impact on Collective Energy Choices

In **WP5**, partners will prepare a detailed panel of governance-related questions in the common online survey to be distributed to households and businesses in the eight participating countries.

Partners will perform therefore a comparative qualitative research among the selected countries, indulging between 8 and 12 **semi-structured in-depth interviews** per country with representatives of the target groups. The information collected will be published in **D5.2** "Nine national case study reports on governance barriers to the energy transition".

Moreover, in order to engage stakeholders in reviewing research findings and drafting policy recommendations, three policy **workshops** will be organized, bringing together up to 15

representatives of the target groups.

### **WP6 Participatory foresight for understanding social acceptability and support to enable the energy transition**

In **WP6**, partners will organise a Transition Visioning **Workshop** involving key representatives of the five actor categories mentioned in WP5 from the 9 countries involved, plus EU level experts. The information collected will be published in **D6.1** "Transition Visioning Workshop Report".

Moreover, it will organise Transition Practice Backcasting **Workshops** (TPBW) with identification of households to be involved in the process, from those interviewed in the context of WP4 case studies (with energy journaling exercises and gaming interviews engaging invited households individually, before they meet together in the TPBWs). The information collected will be published in **D6.2** "Transitions Practice Backcasting Workshops' reports".

Finally, it will organise a Transition Practice Framework **Workshop**: the results of the household's engagement and debate in the TPBWs will be reported back to the participants of the Transition Vision Workshop, inviting again these stakeholders to convene together in a second Transition Practice Framework Workshop. The information collected will be published in **D6.3** "Transition Practice Framework Workshop Report".

### **WP8 - Dissemination and exploitation of ENABLE.EU findings and policy recommendations for the Energy Union and its R&I pillar**

The project will organise **workshops** throughout Europe with policy makers to disseminate the policy-relevant findings and policy recommendations. The information collected will be published in **D8.5** "Written synthesis of ENABLE.EU's findings".



# 3. Policies for data access, sharing and protection

## 3.1 The Open Access Policy

The ENABLE.EU project volunteered to participate in the Commission's Pilot Action on Open Research Data launched by the EC under H2020. In this way, the project can ensure that the full strength of the knowledge base of ENABLE.EU is exploitable by other innovative actions.

Openly accessible research data can typically be accessed, mined, exploited, reproduced and disseminated, free of charge for the user<sup>3</sup>.

Partners will ensure full access to end users free of charge to all deliverables (except the internal management documents such as the D1.2, D8.1), as well as all survey microdata collected in the project and all methodological tools developed except the already copyrighted ones such as the E3ME model used in WP7. The project will also opt for "green" open access process for published articles or peer-reviewed manuscripts using the Social Science Research Network (SSRN). The ENABLE.EU project is committed to the principle of open access, ensuring that the qualitative and quantitative data generated by the project is publicly and freely available for stakeholders to access and use. For high confidential data, such as those used and generated in WP3 for RCT data (e.g., electricity consumption, meter number), only summary and final reports will be publicly and freely available for stakeholders to access and use.

In the ENABLE.EU project partners freely bring their experience and intelligence to the project to capitalise on the European critical mass of their multi-disciplinary skills.

Data from a multitude of sources will be collected, analysed, stored and reported. It is a primary responsibility of the project to ensure that the ethics of personal privacy and dignity, and data protection are not compromised in any way.

Material provided to the project will be of mixed status:

- Some of these data regards information provided by people about their lives and their attitudes, perceptions and expectations (Focus groups). Other data come from experts' assessment and analysis (Workshops; Surveys) and may involve confidential information (draft designs or data) that can only be reported in a generic way (for example relating to new commercial mobility product ideas). In all these cases, the project will conclude a standard agreement with the stakeholder that protects the information, while providing a level of intelligence that can be openly disseminated.
- Partners will also use a whole variety of data from secondary sources. A majority of the material collected during the project will be for public access (e.g. deliverables and reports from other initiatives, videos and PowerPoint presentations). In case data require permission for wider use,

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<sup>3</sup> European Commission: 'Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020', Version 3.1. 25 August 2016. Page 3.

it will be important to ensure that all of this data has the correct, documented approval for use in analysis.

In general, there are two key rules in ENABLE.EU in terms of analysis, data storage and dissemination:

- 1) that it is well documented and approved who has access to use and receive the information;
- 2) there will be no dissemination of personal information without written consent.

The analysis of data will not reveal or publish the intelligence from specific respondents to questionnaires or interviews/discussions. The respondents will be anonymous codes and the addresses coded by broad areas to prevent tracking.

### 3.2 Data sharing and storage

Personal data will be kept for the duration of the project. After that period, personal data will be kept in an anonymous way for statistical purposes, unless they need to be kept for a longer period. The knowledge coordinated in the different workpackages will be retained within an internal project management tool (<https://trello.com/b/BVD3aumP/enable-eu>) that will build up and provide links to open data sources and relevant reports through its activities. Access to the repository will be limited to consortium partners (secured by id and password). If personal data must be shared with someone who does not have access to the dedicated web interface, the file will be encrypted.

The project will also have a dedicated ENABLE.EU **website**, which will be one of the major channels of communication used in the project (where personal data will be securely hosted, updated and stored). This will offer the information about the project, its ambition, goals and results, partners etc. The ENABLE.EU website will be dedicated entirely to the project's purposes. No special difficulties in data sharing are envisaged. All deliverables will be written in English, which will ease the accessibility of the data.

### 3.3 Ethics requirements

The ENABLE.EU project might have ethical issues raised, in particular related to human involvement and personal data protection. To address these, the management proposal does have a contingency for any partners or external party, to raise an ethical issue to the coordinator, who will be obliged to urgently discuss it with the **Project Management Committee**, as responsible to ensure compliance with the DMP; and to consult the **EC Ethics advisory facility**.

Following EC guidance, the project will work in compliance with Directive 95/46/EC, Regulation 2016/679 and 'Article 29 working group 8/2010 opinion' and the conditions of Decision 2013/743/EU. In addition, in some countries, ethical guidelines exist for market research and data privacy (for example the UK Department of Transport's Magenta book). Where this is not available, the International Market Research Association and ISO 20252 will provide the ENABLE.EU ethical guidance. The Market Research Society guidelines (those on ethics in data collection and processing matters are the accepted professional practice in over 70 countries worldwide) will be the basis for the conduct of the ENABLE.EU project regarding information collection, processing and storage and will be circulated to partners at the outset of the project. ISO 20252 provides the quality and ethical standards for the end-to-end process as:

- Research process management;
- Managing the executive elements of research;
- Data collection;
- Data management and processing;
- Reporting on research projects.

In addition, the project will ensure full compliance with the Charter of Fundamental Rights of the EU (legally binding since 2009) stating the fundamental rights of humans protected in the EU: Dignity, Freedoms, Equality, Solidarity, Citizens' Rights and Justice. The Charter includes also "Third generation" fundamental rights, as data protection. This right to data protection builds on Article 8 of the Convention for the protection of rights defining respect for privacy and Article 2 of the respective Protocol defining the rights to freedom of movement.

### **Details on the procedures and criteria that will be used to identify/recruit research participants**

In general, the identification and recruitment of technical experts, policy makers and practitioners necessary for the implementation of the ENABLE.EU activities will be done through the partners' own network of contacts. Recruitment will then be done through (e-)mail contact, marketing campaigns, recruitment software (e.g. Orsee), internet links and follow-up informal telephone conversation.

### **Detailed information on the informed consent procedures that will be implemented for the participation of humans**

"Informed consent" within ENABLE.EU means that external experts, practitioners, stakeholders, citizens or any person outside the project who is asked to participate in project activities (surveys, interviews, questionnaires, workshops, etc.) have a clear appreciation and understanding of the facts, implications and future consequences of any input and information they provide to the consortium. Therefore, whenever external people will be involved in ENABLE.EU, the following procedure will be taken:

- Participants will be informed about the purposes of the research and what use will be made of the information they provide; this information disclosure does not necessarily hold for the RCT participants (WP3), as such a disclosure induces an "experimenter effect" which minimizes the scientific value of the RCT;
- They will be formally asked to respond on a voluntary basis;
- They will be able to choose whether they want to provide their personal data or not;
- They will be asked to sign a 'informed consent form'.

All information in public reports will be presented in an anonymized way ensuring that none of the inputs/views can be traced directly to a person or entity.

### **Templates of the informed consent forms and information sheet**

ENABLE.EU will produce standard templates and statements for customised translation for recruitment and selection approvals and for informed consent. It will state clearly the information collected:

- will be handled in a confidential manner
- will only be used for exploratory research purposes
- will not be disclosed to any external partners.

An example of template (in Italian) is provided in annex 1. The template has been recently used at the occasion of a focus group organised in Italy by the ENABLE.EU project manager (ISINNOVA) in the framework of the running H2020 project MIND-SETS.



# Annex I

## MIND-sets Focus Group

Roma 20 Ottobre 2015

### Informativa sulla privacy

Ai sensi dell'articolo 13 del Codice in materia di protezione dei dati personali (D.Lgs 196/03) la informiamo di quanto segue:

1. I dati personali saranno trattati da ISIS – l'Istituto di Studi per L'Integrazione dei Sistemi soltanto nell'ambito delle attività di Focus Group del Progetto MIND-sets e non saranno comunicati a terzi.
2. Il trattamento dei dati può essere effettuato sia con mezzi automatizzati sia non.
3. La partecipazione è facoltativa e l'eventuale rifiuto non ha conseguenze.
4. In relazione ai dati conferiti potrà esercitare i diritti di cui all'art. 7 del D.Lgs. 196/2003: conferma dell'esistenza dei dati, origine, finalità, aggiornamento, cancellazione, diritto di opposizione. Per esercitare tali diritti dovrà rivolgersi al Responsabile del trattamento dei Dati personali, Margaret Pesuit, ISIS – l'Istituto di Studi per L'Integrazione dei Sistemi, Largo dei Lombardi 4, 00186 Roma, tel: +39.06.3212655, email: [mpesuit@isis-it.com](mailto:mpesuit@isis-it.com).
5. I dati della ricerca potranno essere diffusi soltanto in forma aggregata e in modo che non possa essere in alcun modo identificata l'identità personale.
6. La registrazione verrà utilizzata esclusivamente per gli scopi della ricerca e non verrà diffusa in alcun modo.

Il/La sottoscritto/a \_\_\_\_\_ nato/a il \_\_\_\_\_

### DICHIARA

di aver ricevuto l'informativa di cui all'articolo 13 del Codice in materia di protezione dei dati personali (D.Lgs 196/03) della Legge stessa

- di essere stato/a informato/a dallo sperimentatore \_\_\_\_\_ sia sugli obiettivi, sia sui contenuti del progetto che sta conducendo
- di essere stato/a informato/a che i dati raccolti verranno gestiti in forma anonima e che sarà garantito il rispetto della sua privacy

### ACCONSENTE

al trattamento e all'utilizzo dei dati raccolti in forma anonima e aggregata, ad opera dell' ISIS – l'Istituto di Studi per L'Integrazione dei Sistemi, Largo dei Lombardi 4, 00186 Roma, tel: +39.06.3212655.

Rimane fermo che tale consenso è condizionato al rispetto delle disposizioni della vigente normativa.

Data \_\_\_\_\_

Firma : \_\_\_\_\_

