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Project Summary

ENERGISe is an innovative pan-European research initiative to achieve a greater scientific understanding of the social and cultural influences on energy consumption. Funded under the EU Horizon 2020 programme for three years (2016-2019), ENERGISe develops, tests and assesses options for a bottom-up transformation of energy use in households and communities across Europe. ENERGISe adopts a Living Labs approach to directly observe existing energy cultures in a real-world setting and to test both household and community-level initiatives to reduce energy consumption. A comprehensive review and classification of household and community energy initiatives from 30 European countries provides the foundation for the development of two prototype 'ENERGISe Living Labs' designed to capture influences on individual and collective energy consumption. Data collection before, during and after the roll-out of 16 living labs to eight partner countries will be instrumental in contributing to the design and assessment of future energy consumption initiatives across Europe.

Summary of Objectives

ENERGISe's primary objectives are to:

1. Move beyond existing sustainable consumption research by developing an innovative theoretical framework that fuses social practice and energy cultures approaches,
2. Assess and compare the impact of European energy consumption reduction initiatives,
3. Advance the use of Living Lab approaches for researching and transforming energy cultures,
4. Produce new research-led insights into the role of routines and ruptures in shifting energy use towards greater sustainability,
5. Enhance multi-way engagement with actors from society, politics and industry and effectively transfer ENERGISe's outputs to further the implementation of the European Energy Union.

The ENERGISe consortium includes ten research partners (universities, research institutes, enterprises and NGOs) from Bulgaria, Denmark, Finland, Germany, Hungary, Ireland, Slovenia, Switzerland, the Netherlands and the United Kingdom.

EXECUTIVE SUMMARY

This document provides good practice guidelines for ENERGISE consortium members concerning research design and implementation, ethical standards and key aspects of data collection, including sampling, participant recruitment and community involvement. It details key steps and procedures in relation to carrying out ENERGISE empirical research work to a high standard and in accordance with European and internal guidelines for ethical conduct in research practice. Drawing on well-established good practice guidelines and research manuals issued by the European Commission, the European Science Foundation and the OECD Global Science Forum, this document outlines in detail procedures and criteria to guide data collection aspects of the ENERGISE project.

1. Introduction

Integrity, rigour and ethical conduct are central pillars of good research practice. The following guidelines are intended to offer assistance to all ENERGISe team members during the project and promote a shared understanding of the importance of high standards in research and adherence to guidelines concerning ethical conduct in social research. They complement the rules for participation and dissemination outlined in the ENERGISe consortium agreement (29/09/2016), especially Sections 5.1.1 and 5.1.2. Throughout this document references are made to three key international good practice guides for researchers.

1. The European Commission's comprehensive guidelines ***Ethics for Researchers: Facilitating Research Excellence in FP7*** (2013);
2. ***The European Code of Conduct for Research Integrity*** (2011), issued by the European Science Foundation (ESF); and
3. ***Best Practices for Ensuring Scientific Integrity and Preventing Misconduct***, a set of guidelines issued by the OECD's Global Science Forum (2007).

All guidelines in this document have been formulated to closely match the aims and objectives, structure and content of the ENERGISe project. Following the adoption of this document in February 2017, full ethical clearance will be sought for the ENERGISe research by the Research Ethics Committee at the ENERGISe coordinating partner, the National University of Ireland, Galway. Ethical clearance will safeguard the health, welfare and rights of participants and researchers in research studies and afford security and protection to the handling and treatment of collected data, taking into account the scientific procedures and concerns of the relevant individuals and communities of individuals. All researchers and workshop facilitators involved in ENERGISe will take full responsibility for using these guidelines and procedures in their delivery of the project.

2. Good research practice guidelines

The ENERGISe consortium brings together experienced researchers from across Europe who are committed to integrity, quality and good practice in research. The European Code of Conduct for Research Integrity, issued in 2011 by the European Science Foundation (ESF), provides eight guiding principles of integrity in scientific and scholarly research:

- honesty in communication;
- reliability in performing research;
- objectivity;
- impartiality and independence;
- openness and accessibility;
- duty of care;

- fairness in providing references and giving credit; and
- responsibility for the scientists and researchers of the future.

All members of the ENERGISe consortium agree to adhere to these principles of research integrity throughout the entire project.

2.1. Proper and responsible research procedures

All ENERGISe research will be carried out in a careful and well considered manner. Great care will be taken throughout the lifespan of the project to reduce the risk of oversights and human error arising from negligence, carelessness, or inattention to important details of the study. Regular online and face-to-face exchanges between team members are an integral part of the ENERGISe research plan and will serve to further minimise the risk of errors.

Cross-national comparative research involving teams of researchers from different cultural backgrounds can present particular challenges regarding the maintenance of high standards of integrity, responsibility and accountability. ENERGISe team members commit to culturally sensitive research practices that adhere to the internationally recognised European Code of Conduct for Research Integrity (ESF 2011) in ways that suit national contexts.

The ENERGISe consortium commits to sustainably managing resources and to minimise any harmful impact on the environment arising from the research. The efficient deployment of (financial and other) resources, and minimisation of waste are central principles of the project. Efforts will be made at all stages of the project to minimise the ecological footprint of the research, for example through regular monitoring of the impact of ENERGISe events on the environment and the implementation of guidelines for green events developed by ENERGISe partner GreenDependent.

2.2. Good data practices: availability and access

Safe and secure data collection and processing of all data is a central tenet of the ENERGISe project. As outlined in the Grant Agreement, full ethical clearance will be sought for the ENERGISe project. To do so will safeguard the health, welfare and rights of participants and researchers in research studies and afford security and protection to the handling and treatment of collected data, taking into account the scientific procedures and concerns of the relevant individuals and communities of individuals. All original data collected during the ENERGISe project will be securely stored for a minimum period of 5 years. After the successful conclusion of the ENERGISe project, research data will be made available to colleagues who wish to replicate the research or elaborate on its results.

Data entered through ENERGISe online tools will be secured beyond freely available standards. The Let's Encrypt initiative of the Internet Security Research Group (ISRG)

provides newest TLS (Transport Layer Security) encryption for free since the end of 2015. The project budget allocated to web-programming includes funds to acquire an additional security package ensuring even higher security standards using end-to-end encoding to ensure the highest protection from man-in-the-middle attacks.

ENERGISe researchers will collect primary data only in WP4. Raw analogue data, including interview recordings or “practice diaries”, will be stored securely (e.g. in a locked cabinet) on the premises of the partner responsible for the ENERGISe Living Labs upon which these data are based on. In the next step, analogue data will be digitalised, e.g. by processing raw data into (translated) interview transcripts or (translated) diary excerpts. These will be shared among all partners for evaluation and analysis in WP5. For a smooth workflow between WP4 and WP5, the consortium will collaborate and share digital ELL data through the secure online platform EMDESK. This allows everyone to access all files securely from anywhere, including from mobile devices and ensures that raw data as well as draft and final deliverables, publications or reports are transparent and accessible for the entire team at any point in time.

Confidentiality of data or findings should be respected by all ENERGISe researchers when it is legitimately required by participants. All data files, especially records connecting Living Lab participants’ identities to the data they provided, will be password protected where possible and saved to an external drive that will remain the property of the project. Personal details and consent forms will be retained for three years following the study.

3. ENERGISe ethical guidelines

ENERGISe consortium members are fully aware of the ethical issues involved in their work with human participants and commit to taking the utmost care to follow the general ethical principles of the scientific code of conduct: avoidance of exploitation, just distribution of benefits and burden, beneficence, respect for persons, respect for human dignity, scientific validity, social value and the rights and interests of research participants. The ethical standards and guidelines of Horizon 2020 will be rigorously applied, regardless of the country in which the research is carried out.

3.1 Recognising and preventing scientific misconduct

ENERGISe consortium members condemn all forms of scientific misconduct.

What is scientific misconduct?

According to the European Commission (2013), scientific misconduct includes (negligent or intended) fabrication of results, improper manipulation of research data and plagiarism. These forms of scientific malpractice can cause harm and undermine scientific progress. The European Commission condemns all forms of scientific misconduct.

According to the OECD Global Science Forum (2007), misconduct in research damages science, but its consequences also extend into the broader societal sphere. These include

- harm to individuals and to society arising from fraudulent research results
- direct damage to science itself, by creating false leads for other scientists to follow,
- degradation of relations among scientists, between senior researchers and students, and between researchers and agency programme managers,
- damage to science through the undermining of the public's trust in science, and of the government's ability to foster and promote research in a competent and responsible manner.

A possible consequence of misconduct is a decline in the credibility of scientific analysis and advice on issues that have important implications for society and that require evidence-based laws and regulations to address them.

The ENERGISe grant agreement outlines a series of steps to prevent scientific misconduct. Article 34 of the agreement includes an obligation to comply with ethical principles and highest standards of research integrity, and applicable national, EU and international law. Moreover, research actions raising ethical issues must comply with the ethics requirements set out in Annex 1 of the grant agreement. Non-compliance with the obligations outlined in Article 34 may incur a grant reduction, a termination of the agreement or participation of the beneficiary who is in breach of the ethical principles or any of the measures outlined in Chapter 6 of the grant agreement.

Full ethical clearance will be sought for the ENERGISe project by the Research Ethics Committee at the ENERGISe coordinating partner, the National University of Ireland, Galway. Ethical requirements are further addressed in *Deliverable 9.1*, which provides details on the procedures and criteria that are used to identify/recruit participants and in *Deliverable 9.2*, which confirms that a competent Institutional Data Protection Officer has been established in each partner organisation and that all data collection and processing will be carried out according to EU and national legislation.

3.2. Responses to suspected misconduct

Suspected deviation from the principles of research integrity will be subject to an independent investigation that follows best practice guidelines provided by the OECD's Global Science Forum in *Investigating Research Misconduct Allegations in International Collaborative Research Projects: A Practical Guide* (2009). According to the OECD Global Science Forum (2009), investigations into possible non-compliance and misconduct must be conducted with appropriate transparency and in accordance with the highest standards of:

Integrity

- Investigations into research misconduct allegations must be fair, comprehensive and conducted expediently but without compromising accuracy, objectivity, and thoroughness.
- Those parties involved in the procedure must ensure that any interests they have which might constitute a conflict of interest are disclosed and managed.
- Detailed and confidential records will be maintained on all aspects of the procedure.

Fairness

- Investigation of research misconduct allegations should be conducted in a manner that is fair to all parties and in accordance with relevant laws.
- Persons accused of research misconduct must be given full details of the allegation(s) in writing and allowed a fair process for responding to allegations, asking questions, presenting evidence, calling witnesses, and providing responses to information presented.
- Allow witnesses to be accompanied by or seek advice and assistance from anyone of their choosing.

Confidentiality

- The procedure should be conducted as confidentially as possible, in order to protect those involved in the investigation. Such confidentiality should be maintained provided this does not compromise the investigation of the allegation, health and safety, or the safety of participants in research.
- Where possible any disclosure to third parties should be made on a confidential basis. If the organisation and/or its staff have legal obligations to inform third parties of research misconduct allegations, those obligations must be fulfilled at the appropriate time through the correct mechanisms.

No Detriment

- Anyone accused of research misconduct is presumed innocent.
- No person should suffer any unnecessary penalty when accused of research misconduct before the allegation is proven.
- No person should suffer any penalty for making an allegation of research misconduct *in good faith*, but action should be taken against persons found to have made allegations in bad faith.
- Any action(s) taken should be subject to appeal.

Balance

- Occasionally the investigators may need to strike a balance between disclosure of identities

and confidentiality. Such decisions should be made keeping in mind that the primary goal of this procedure is to determine the truth of the allegation.

- Consideration should be given to reasonably and appropriately restore reputations.
- Proportionate action should be taken against persons found to have committed research misconduct.

ENERGISe consortium members agree to fully cooperate in any such investigation.

3.3. Other ethical considerations

One of the main justifications of scientific research is the benefit for society it seeks to create. The ENERGISe consortium is committed to minimise risks and maximise benefits for immediate participants as well as for society at large. This includes the widespread dissemination of research findings for free, also through social media and newspapers. Further, 'gold' open access journal publications will be the norm and not the exception in this project. Finally, ENERGISe researchers are committed to creating lasting links with the households and communities they will engage with during the ELL. Ideally, spin-off initiatives will emerge.

4. Criteria and procedures for data collection

The empirical parts of ENERGISe deploy a Living Labs approach that combines two change initiatives developed specifically for the project with extensive scientific fieldwork (ENERGISe Living Labs or ELL). The roll-out and monitoring of 16 ELL across eight European countries with 320 households involves the collection of large amounts of quantitative and qualitative data.

4.1. Selection and recruitment of ELL target communities

All ENERGISe researchers are qualified and experienced in working with people in various settings (e.g. interviews, observations, workshops, Living Labs) and will provide a safe and easily accessible environment for data collection. Formal consent procedures will be developed and implemented prior to data collection in each of the countries participating in the ELL.

The selection of target communities for the rollout of the Living Laboratories will be planned and carried out in WP 3 and 4.

A template for a cooperation agreement (in addition to consent forms for individual participants) will be issued to all ENERGISe partners participating in the ELL. This is to facilitate a more formal agreement process between ENERGISe partners and representatives of ELL target communities. However, ENERGISe partners are encouraged to translate (as

necessary) and adapt the template to suit national and regional cultural, social and political conditions.

4.2. Participant selection and recruitment for ENERGISe Living Labs

Concerning the selection of households, a core activity in WP3 will be the development of a sampling strategy. Specific efforts will be made to ensure that different household types are included in the research and to select participants from key demographic groups. The main goal is to generate a sample of households that is reflective of the wider population in each participating country. The conceptual parameters of the empirical part of ENERGISe will be outlined in D1.2. All other key aspects of participant selection and recruitment will be developed in WP 3 and 4.

Every care will be taken to treat all participants, particularly those from vulnerable groups with respect and sensitivity and all possible efforts will be made to promote their autonomy. Special efforts will be made to ensure that all participants receive adequate and accessible information about the project prior to their involvement in the research. Informed consent will be requested in a way that is suitable for participants' cultural, linguistic and cognitive capabilities.

To facilitate responsible sampling, ENERGISe will involve community-based groups who know the local terrain and can provide relevant information concerning potential participants and procedures to approach them in an appropriate manner. Community-based groups will thus act as intermediaries who ensure that utmost care will be taken when recruiting vulnerable households. Ideally, ELL can function as a platform to reach out to and support vulnerable groups in alleviating some of their struggles regarding energy consumption.

Participation in an ELL will be entirely voluntary and participants can discontinue their involvement with the project at any stage, without having to provide reasons. A detailed strategy has been devised to reduce risks to participants, following international ethical guidelines for social research (e.g. European Commission, 2013; International Sociological Association, 2001). Measures that will be taken include anonymisation of data to protect participants' privacy, informed consent and responsible sampling during recruitment.

4.3. Transdisciplinary cooperation with non-academic partners

To ensure a smooth roll-out of their ELL, some project partners may choose to cooperate with businesses (e.g. energy companies), civil society organisations (e.g. community-based organisations involved with vulnerable groups), non-governmental organisations (e.g. environmental groups), or policy makers, authorities and agencies at local, regional or national levels. From an ethical standpoint, the involvement of non-academic partners is desirable as it broadens and diversifies scope and perspective. At the same time, such cooperation bears challenges, including ethical issues regarding integrity, responsibility and

accountability, that ENERGISe partners are well aware of based on previous projects of similar kind.

The involvement of non-academic partners in the implementation of the ELL implies agreement on (shared) goals, approaches and methods. To ensure that neither party's standards nor requirements are unduly compromised, the reaching out to potential partners to support Living Lab implementation will commence early in the project (Year 1). Research partners' experiences and requirements will inform the development of Living Lab design and assessment tools (WP3). Further, the roll-out phase in WP4 starts with an orientation period at the end of which, ENERGISe partners responsible for Living Lab implementation submit *ENERGISe Living Labs Implementation and Monitoring Plans* as contributions to Deliverable 4.1 (WP4). These plans are developed in cooperation with potential implementing partners and specify the individual tasks and responsibilities of all participating parties, thereby increasing accountability.

Involvement of non-academic partners should not come at the cost of compromising the aims and approach of the ENERGISe project. The project's integrity is safeguarded by Deliverables 3.4 and 3.5, *ENERGISe Living Lab intervention and engagement guidebook for consortium partners* and the *Living Lab evaluation and Assessment Manual*, respectively. To ensure case-comparability, all implementing teams are required to follow these guidelines as closely as possible. Frequent exchange during the preparation and conduction of ELL roll-out will further reduce the risk of being overly accommodating to additional or alternative goals or intervention methods. WP3, 4 and 5 coordinators will collaborate to ensure that *ENERGISe Living Labs Implementation and Monitoring Plans*, as well as actual implementation, adhere to project guidelines and requirements. As mentioned above, prior to implementation, clearance of the detailed Living Lab plans will be sought by a relevant Ethics Committee in each of the eight countries where Living Labs are implemented.

4.4. Communication with research partners

Regular communication with partner communities and research participants will be a central feature of the ENERGISe data collection, analysis and dissemination processes. All ENERGISe team members are committed to open and honest communication with other team members, non-academic partners as well as the public, including all research participants.

5. Bibliography

European Commission (2013) *Ethics for Researchers: Facilitating Research Excellence in FP7*. Brussels: EC.

European Science Foundation (2011) *The European Code of Conduct for Research Integrity*. Strasbourg: ESF.

International Sociological Association (2001) Code of Ethics. <http://www.isa-sociology.org/en/about-isa/code-of-ethics/>

OECD Global Science Forum (2007) *Best Practices for Ensuring Scientific Integrity and Preventing Misconduct*. <http://www.oecd.org/sti/sci-tech/globalscienceforumreports.htm>

OECD Global Science Forum (2009) *Investigating Research Misconduct Allegations in International Collaborative Research Projects: A Practical Guide*. <http://www.oecd.org/sti/sci-tech/globalscienceforumreports.htm>