



Grant Agreement no. 784988

Activity acronym: ECO2

Activity full name: Energy Conscious Consumers

Deliverable 1.2

Ethics and data management guidance protocols

Due date of deliverable: 30.06.2018

Actual submission date: 28.02.2019

Start date of Activity: 01-03-2018

Duration: 36 months

Authors: Nina Kahma, Jenny Rinkinen, Titiana Ertiö, Emil Sigbrand

Reviewers: Gy Larsen

Organisation name of lead beneficiary for this deliverable: University of Helsinki



Funded by the Horizon 2020
Framework Programme of the
European Union

Consortium partners

Fonden Teknologirådet – Danish Board of Technology Foundation (DBT)

Arnold Nielsens Boulevard 68E, 2650 Hvidovre – Denmark,

Contact: Emil Sigbrand

esi@tekno.dk

www.tekno.dk



Hebes Intelligence Single Member Private Company (HEBES)

Kreontos 130, Athens 104 43 –Greece

Contact: Sotiris Papadelis

spapadelis@hebes.io

www.hebes.io



Sinergie Società Consortile a Responsabilità Limitata (SINERGIE)

Martiri Di Cervarolo 74/10, Reggio Emilia, 42122 – Italy

Contact: Giovanni Pedè

innovazione@sinergie-italia.com

www.sinergie-italia.com



Helsingin Yliopisto – University of Helsinki (UH)

Fabianinkatu 33, 00014 Helsinki – Finland

Contact: Nina Kahma (on leave since December 2018)

nina.kahma@helsinki.fi

Jenny Rinkinen

jenny.rinkinen@helsinki.fi

www.helsinki.fi/fi



Deliverable 1.2 Ethics and data management guidance protocols

Associação Portuguesa para a Defesa do Consumidor (DECO)

Rua da Artilharia Um, 79 - 4º

1269-160 Lisbon - Portugal

Contact: Ferdanda Santos

fsantos@deco.pt

www.deco.proteste.pt



Strategic Design Scenarios (SDS)

Rue Dautzenberg, 36-38, BE-1050 Brussels - Belgium

Contact: François Jégou

francois.jegou@icloud.com

www.strategicdesignscenarios.net



Applied Research and Communications Fund (ARC Fund)

1113, Sofia 5, Alexander Zhendov St. Bulgaria

Contact: Zoya Damianova

Zoya.Damianova@online.bg

www.arcfund.net



Asociacija Žinių Ekonomikos Forumas (KEF)

J. Galvydžio g. 5, LT-08236, Vilnius – Lithuania

Contact: Arminas Varanauskas

arminas@zef.lt

www.zef.lt



University College Cork, National University of Ireland, Cork (UCC)

Western Road, Cork – Ireland

Contact: Stephen McCarthy

Stephen.mccarthy@ucc.ie

www.ucc.ie



Deliverable 1.2 Ethics and data management guidance protocols

Legal notice:

The information in this document is provided as is and no guarantee or warranty is given that the information is fit for any particular purpose. The user thereof uses the information at its sole risk and liability. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use that might be made of the following information.

© ECO2 2019. Reproduction is authorised provided the source is acknowledged.

Disclaimer:

ECO2 is a Horizon 2020 project funded by the European Commission. The views and opinions expressed in this publication are the sole responsibility of the author(s) and do not necessarily reflect the views of the European Commission.

Table of contents

1	Summary.....	6
2	Introduction.....	6
3	Data summary.....	7
3.1	The data collected under WP1.....	8
3.2	The data collected under WP2.....	8
3.3	The data collected under WP3.....	9
3.4	The data collected under WP4.....	10
3.5	The data collected under WP5.....	11
3.6	The data collected under WP6.....	12
3.7	The data collected under WP7.....	13
3.8	The data collected under WP8.....	13
4	FAIR data – Making data findable, including provision for metadata	14
4.1	Making data findable.....	14
4.2	Making data openly accessible.....	15
4.3	Making data interoperable.....	15
4.4	Increase data re-use (through clarifying licenses).....	16
5	Allocation of resources.....	16
6	Data security.....	17
7	Ethical aspects.....	17
7.1	Ethical protocol overview.....	17
7.2	Recognising and preventing scientific misconduct.....	19
7.3	Responses to suspected misconduct.....	20
8	The procedures to identify and recruit research participants	22
8.1	The informed consent procedures.....	23
8.2	Templates of the informed consent forms and information sheets.....	25

1 Summary

Energy Conscious Consumers (ECO2) will improve consumers' energy efficiency through e-learning processes and group learning supported by an e-learning system. The processes are based on blended engagement methods building on online and dialogue elements. Consumers will be recruited through consumer media, energy suppliers and other gatekeepers. Consumer segmentation will be used to increase the effectiveness of recruitment and to adapt the e-learning processes. ECO2 will build on quantitative and qualitative data on consumers and the use of the ECO2 platform called ACT4ECO. The Ethics and data management guidance protocols of ECO2 describes the data to be collected as well as the life cycle for all data that will be collected, processed and generated by the project. It also provides good practice guidelines for ECO2 consortium members concerning ethical standards.

2 Introduction

The Ethics and data management guidance protocols of ECO2 describe the data to be collected, the life cycle for all data that will be collected, processed and generated by the project; and it also outlines the ethical guidelines and information consent procedures for project partners, as well as how the data is being handled, stored and archived during the project and after it ends. This deliverable is a living document that will evolve and gain precision during the lifespan of the project.

This deliverable was drafted using the University of Helsinki DMPTuuli, the interactive data management platform that is based on DMPonline code, developed by the UK's Digital Curation Centre (<https://www.dmptuuli.fi>). The Ethics and data management guidance protocols are organised along FAIR data management guidelines following the Horizon 2020 project Data Management Plan (DMP) template. Drawing on well-established good practice guidelines and research manuals issued by the European Commission and the European Science Foundation, this document outlines procedures and criteria to guide data collection and ethical aspects of the ECO2 project.

Deliverable 1.2 Ethics and data management guidance protocols

ECO2 will build on quantitative and qualitative data on consumers' energy use and energy consciousness, as well as the use of the ECO2 platform (ACT4ECO). The research objectives of ECO2 require collecting qualitative data on national stakeholders in the energy market as well as on gatekeeper organisations promoting energy consciousness in the national frames, and both quantitative and qualitative information on consumers' background and housing, as well as quantitative and qualitative information on the consumers' use of the ACT4ECO platform. Apart from the previous publications on energy consciousness in national frames collected in each national frame, the data are not available from other sources.

The following section includes a description of data sets collected under each WP. This section is followed by information on the metadata being used, the extent to which the data is being shared, and the strategy for archiving and preservation.

3 Data summary

All ECO2 partners comply to Horizon2020 data management guidelines and protocols found at http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm. The Ethics and data management guidance protocols is a living document in the sense that it will be updated if substantial changes are made to the project that implies ethical and privacy considerations. All changes and additions to the deliverable will be checked and accepted by a data protection officer (at DBT).

All the data that is gathered and stored via EngageSuite/ACT4ECO will be general data protection regulation (GDPR) compliant. All information that will be collected on individuals will be collected on the basis of informed consent (see chapter 8). Confidentiality of data or findings should be respected by all ECO2 researchers when it is legitimately required by participants. Some of this data will be personal (for example the data collected in WP3), but not sensitive. The data will be handled according to standard ethical procedures and all results will be presented so that individual consumers cannot be identified.

Deliverable 1.2 Ethics and data management guidance protocols

The project data, including copies of consent forms and information sheets, will be stored on the ECO2 SharePoint drive and a copy is saved on the DBT's internal SharePoint drive. Once the project is over, the ECO2 SharePoint drive will be shut down, but DBT will continue to have the data stored safely indefinitely on its drive/servers – the data will be encrypted to ensure safety and that only a few authorized people can access the data if necessary.

All data collected under ECO2 will be available to consortium partners. We will use SharePoint as a file sharing facility where the data can be stored and accessed safely. The tool to be used for internal communication and file exchanges is SharePoint.

If partners decide that additional data will be gathered, or they propose to gather additional data, then it should be taken up at one of the web meetings or the physical CMs.

3.1 The data collected under WP1

- 1) Contact information on consortium partners and all other people that somehow partake in the project, e.g. advisory panel, organisations that will support the project after our networking efforts and potential new national nodes. The information collected will include names, email addresses, phone numbers, and in some cases home addresses (Task 1.1).
- 2) Data on the consumers participating in the early tests of the action formats, action content and the first version of the ACT4ECO platform. The information will include contact information (and probably even demographic data). (Task 1.1, and 6.2, and 7.2)

All this information is not to be made public but will be safely stored and available to all consortium partners on SharePoint.

3.2 The data collected under WP2

- 1) Data for communication such as names, affiliation and e-mails of stakeholders that will be included in our mailing list. For subscribing to the newsletter, names and email will be asked; the newsletter should contain an “unsubscribe” option. If they choose to unsubscribe, their contact information will be deleted.

Deliverable 1.2 Ethics and data management guidance protocols

- 2) Data to be used for other purposes during the ECO2 project such as names, affiliation and e-mails recorded in paper-based materials: e.g. register of attendance used to track the participation to dissemination events, registration to webinars/e-workshops. The files will be stored in ECO2 file sharing facilities (SharePoint).
- 3) Data to be used as documentation of ECO2 events such as photos or pictures taken at dissemination events. In these pictures individual participants will not be recognizable.

3.3 The data collected under WP3

- 1) Personal data: Based on the assumption that the platform should work more or less as a social network, users will have their profile that they use to show their performances and participate in discussions. We will collect only the kind of personal data that we consider relevant to segment users. Mandatory data asked at the moment of the subscription to the platform maybe will be: Username, Gender, Age, Education, Country/Region, e-mail. For other data, we can add space to leave users free to add other data they find useful for their profile, but they will not be obliged to complete them. Also, they will be able to connect their social media profiles to share results/articles and what they find useful in their channels and with their networks. However, we do not oblige anyone to provide us data apart from some generic information, and all information inserted will be provided by informed consent. (Task 3.1)
- 2) Other technical information and data may be collected is linked to the storyboard/action definition or contents presented under WP3 and/or WP5. Information that could be used includes:
 - Emission factors (e.g. Carbon footprint in kgCO₂eq). Some of this data are public and some come from commercial databases. In the case of data coming from commercial databases we will only show 'processed' results.
 - Embodied energy coefficients (similar to Emission factors)

Articles or videos produced by third parties and links to external websites (this will happen mainly for 'Exploration' actions)

- 3) Personal data for self-facilitation e-course that is entered the moment of user enrolment will be collected through a specific word/pdf form sent by email. Data collected here will allow

Deliverable 1.2 Ethics and data management guidance protocols

identification of the facilitator and include: Name, Age, Education, Gender, Motivation to become a facilitator, proof of identity (e.g. a link to a social profile, a publication showing their name). The facilitator candidates will also be asked to upload a written consent allowing processing and archiving their data.

- A hotline will be established to support the self-facilitating scale-up phase, so that ECO2 Groups can receive email or web-meeting support if needed
 - The emails will be stored on the servers owned by the task leader DECO. Input by facilitators will be stored in the local servers of partners involved in the current task. Answers to any hotline inquiries may be published in the ACT4ECO platform FAQ section. (Task 3.2). Based on the hotline feedback, training videos will be updated.
- 4) Data on the use of the ECO2 community will be collected during the process by the partners in their local communities. The task leader, HEBES, and the involved partner will store the data on its server (Task 3.3)

3.4 The data collected under WP4

- 1) The data that will be gathered and stored on the ACT4ECO platform will depend on what is decided in WP3, WP5 and WP6. For now, this section will give a brief account of what and how EngageSuite (the current platform that the ACT4ECO platform will be further developed on) gather and store data of persons that decide to become users on the platform:

If a user registers with email:

- Username
- Email address
- Password (Note: The password is hashed (one way encrypted) before it is stored in the database)

If a user registers with social media logins (e.g. Facebook, Google+, etc.):

- Social-id (The OAuth provider associates this id with their user)
- Social name for username, but the user can change their username (Just for convenience, this might change this later)

Deliverable 1.2 Ethics and data management guidance protocols

- Email address
- No password required (But optionally a user can add a password in setting)

After a research participant has created an account, they will be asked to fill out a survey with the demographic questions listed in the segmentation analysis (D6.1). This information is required in order to analyse the different segments of users, and their behaviour on the platform. The demographic survey questions are as follows:

After a user have completed the survey, the information from the survey is separated from the account and stored in a pseudonymized way.

- 2) In the training of stakeholder organisations (referred to as National Nodes) we will collect and archive personal data and possibly CVs to prove identity and minimum requirements to participate to training sessions. We are going to archive data SharePoint as well as the written consent to manage and archive trainees' personal data. (Task 4.2)

According to the privacy policy of EngageSuite (<https://engagesuite.org/en/privacy>), *“EngageSuite do not use cookies to profile or track users. EngageSuite uses cookies to store user’s session such that you they do not lose data or have to sign in again when they refresh the page, and they also store that the users have accepted and understand their cookie policy”* (see also chapter 8). The platform also stores the IP address of the users as a measure for preventing denial-of-service (DoS) attacks.

3.5 The data collected under WP5

During the thematic content production in WP5, no personal data will be collected from users as seen at the present moment. Nonetheless, for the action execution in WP7, the content developed in WP5 should support estimations of pre/post interventions for energy consumption. Peer-reviewed and grey literature data will be used to assess the significance of improved energy efficiency. The panel of experts reviewing each content draft will consist of members of the stakeholder organizations (See WP3 Task 3.2). If the data collected from users’ use of the ACT4ECO platform will include personal data, an informed consent form will be added to the first page of the specific action. It will be required that the user accepts the informed consent to take the action.

3.6 The data collected under WP6

- 1) Literature review on energy consciousness and the guidelines for consumer segmentation will be written on the basis of public data (articles, reports, grey literature). These data will not be stored or further distributed by the project, but the original references will be listed in the deliverable. (Task 6.1)
- 2) The results from the literature review will be validated through 4-6 semi-structured interviews of national stakeholders in each country using the sample frame of national stakeholders developed in country report drafts. The data will be collected, encrypted and stored using digital audio recording where interviewees permit (e.g. MP3) and transcribed to text. The data from the interviews will be securely stored on the servers of individual ECO2 partners and project SharePoint. (Task 6.1)
- 3) Personal data on consumers will be collected in the piloting phase and the ramp-up phase of the ECO2 project. As the consumers subscribe to the platform, they will be asked to provide information on their background (socio-demographic background, housing, energy attitudes, e-mail addresses of registered users). Tailoring of the content provided on the ACT4ECO platform will help better match the interests of different consumer segments and to make studies on consumer engagement possible. Further, feedback from the users may be collected through specific user surveys. (Task 6.2-6.3) Altogether, the expected size of the data equals 11 000 consumers (1000 per country).

In task 6.2, we need to find a way to voluntarily bring subscribers to our mailing list. In this way, we can extract from here users to be invited to ACT4ECO platform for testing purposes. Data collected and managed in this task are personal data. Data will be archived by the dissemination leader (DBT). The project data will be stored on the ECO2 SharePoint drive and a copy is saved on the DBT's internal SharePoint drive.

Deliverable 1.2 Ethics and data management guidance protocols

- 4) Data on the use of the platform (different contents, consumer grouping, and consumers' action plans). The data will be used for monitoring the use of the platform as well as in the strategic planning for engaging new users for the platform.
- 5) Data on collaborators will be collected in a separate project log and it will be accessible for the project partners. The collaborators are typically public organisations and networks operating as national nodes for tailored recruitment of consumers in the up-scaling phase of the project. Naming these stakeholders publicly as project collaborators will be based upon implicit consent. The information on the collaborators will be useful for the researchers of ECO2 project, but also other researchers, experts, and stakeholders with an interest in national contexts.

3.7 The data collected under WP7

Individuals will be recruited for the pilot actions (Task 7.2). Data will be collected in the form of a survey and be used to amend the content produced in WP5 and segmentation, specifically upscaling, in WP6 (Task 6.3) as well as WP3 and WP4.

3.8 The data collected under WP8

The content produced in WP8 draws on the information and data provided in WP 5, 6 and 7. Project results will be communicated, disseminated and exploited through both WP2 and WP8. Users of the platform will be asked about issues/challenges they want to be taken up in the action and communicated to relevant policy-makers both national and EU (Task 8.3 Policy Development Action). A questionnaire together with an information brief will be provided in the platform for the purposes of executing the PDA. 50 participants will be recruited in each country. Further, a national online session per thematic action will be held in each of the ECO2 partnering countries. For Task 8.4, around 30-40 stakeholders and policy makers will be mobilized by each partner; in addition, two EU-levels seminars will be organized. For identifying and inviting participants to take part in the policy outreach seminars in Task 8.4 name, email, title and organization will be gathered (see also WP2).

4 FAIR data – Making data findable, including provision for metadata

4.1 Making data findable

Making data findable and creating impact for the project results are important to the ECO2 Consortium. ECO2 will pursue an impact strategy, which emphasizes:

1. Targeted publication of research findings,
2. Broad and meaningful collaboration with stakeholders through National Nodes,
3. Tailoring the ACT4ECO platform to match different country contexts (WP4) through translating the platform for all involved languages, and
4. Dissemination of project activities and outcomes across the EU (WP8).

These objectives are reflected in the ECO2 project plan as well as the Project Handbook, featuring detailed descriptions of work packages. A detailed strategy for consumer engagement processes, platform development, training of National Nodes and recruitment of participants are presented in the descriptions of WP3, WP4 and WP 6. Furthermore, a detailed description on communication and exploitation of the results is presented in the description of WP2 including the description of communication tools such as communication and exploitation plans, project website, communication packages, social media and networks.

The data produced in ECO2 will be accompanied by appropriate metadata to facilitate storage and use during the project as well as re-use after the project. The metadata will be stored in interoperable formats compliant with open standards.

Each data file or set of interrelated data files will be documented by an associated metadata file. The metadata file will include a general description of the file or set of files, including the origin and creator(s) of, and contributors to, the data, the time and location of creation or collection, and a set of keywords. Where appropriate, the metadata will also include information on funders, intellectual property rights, language, and technical information on how the data was generated.

Deliverable 1.2 Ethics and data management guidance protocols

In the case of structured data, variables will be described in terms of data types, value ranges, relationships to other variables, and semantic meaning. Possible variable abbreviations or expansions used will be listed. In the case of unstructured data, a general description will be given.

The materials used while creating or collecting the data will accompany the data. This includes interview guides, questionnaire forms, and codebooks produced for qualitative analysis. Exceptions to this rule, which may arise due to copyright or other legal restrictions, are handled on a case-by-case basis by the ECO2 Management Committee and a suitable replacement description or reference will be used as documentation.

Sets including materials for data creation and collection, and the created or collected data itself, will be accompanied by a resource descriptor detailing the data collection, cleaning, and possible pre-processing routines. The descriptor will give an overview of the creation or collection process, and the research protocol used with appropriate methodological details, and facilitates understanding of the file set.

4.2 Making data openly accessible

ECO2 will seek opportunities to identify which data can be made openly accessible and where, e.g. by following the guidelines outlined by the Pilot on Open Research Data in Horizon 2020. Horizon 2020 mandates open access to all scientific publications. The ECO2 Consortium will comply with the agreed Programme Board rules on open access publication (Green or Gold).

To facilitate dissemination and engagement across Europe, a project website displaying the key project outputs will be produced by the ECO2 Consortium partners. During the research project, the data will be handled among the members in the project.

4.3 Making data interoperable

The data and metadata vocabularies, standards and methodologies will follow standard procedures. ECO2 project will be using standard vocabulary for all data types present in the data set to allow interdisciplinary interoperability.

The file formats that will be used for storing and sharing data will be easily accessible; Excel tables will be stored and shared as .csv, Word documents will be stored and shared as .rtf, videos will be stored and shared as .mp4, the literary sources where needed will be stored in .pdf files.

4.4 Increase data re-use (through clarifying licenses)

ECO2 partners will own the data during the project and can issue permissions to use it.

ECO2 intends on publicizing the results and deliverables widely via open access channels. All relevant deliverables will be freely available (at least electronically) to anyone who wants them. Furthermore, all user generated data created by the public will remain the copyright and intellectual property of the data providers (the organisations involved in the ECO2 project) or data creators (the users) in compliance with the data providers' own terms and conditions.

The data and information can be considered divided in two categories:

1) The project data

The project data will be stored on the ECO2 SharePoint drive and a copy is saved on the DBT's internal SharePoint drive. Once the project is over, the ECO2 SharePoint drive will be shut down, but DBT will continue to have the data stored safely indefinitely on its drive/servers – the data will be encrypted to ensure safety and that only a few authorized people can access the data if necessary. All deliverables will also be archived on EU's Cordis.

2) The platform data

The platform data will be stored in the database of the platform as long as the users have an active account. As a rule, the data will be deleted after 3 years unless the users are still active in the community and confirms that they don't want the data deleted (yet).

5 Allocation of resources

University of Helsinki will be responsible of drafting the initial Ethics and data management guidance protocols, as well as editing the DMP, should changes be needed. DBT will collaborate in the editing.

Project funds will facilitate Open Access publication, the aim being having at least 50% of all academic peer-reviewed articles published in a 'Gold' Open Access journal. All other manuscripts will be made available through the ECO2 website and/or repositories offering 'Green' Open Access.

6 Data security

All the participating organization are committed to high levels of safety standards in terms of data use, encryption and storing. The data will need to be backed up regularly in case problems with software and hardware will occur. Up-to-date versions of our data will be stored on SharePoint, which has a backup system, where all data can be accessed and recovered safely.

7 Ethical aspects

7.1 Ethical protocol overview

The following ethical guidelines will aim at safeguarding 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.

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.

Deliverable 1.2 Ethics and data management guidance protocols

All members of the ECO2 consortium agree to adhere to these principles of research integrity throughout the entire project. ECO2 partners commit to culturally sensitive research practices that adhere to the internationally recognised European Code of Conduct for Research Integrity (European Science Foundation, 2011) in ways that suit national contexts.

ECO2 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.

In the data collection through interviews, a written explanation on the purpose of the study will be provided (see chapter 8). Commitments to ensure confidentiality will be maintained by ensuring the subjects that recordings are not shared; that transcripts are anonymized and details that can be used to identify participants removed from transcripts or concealed in write-ups. The purpose, approach and dissemination strategy (including plans to share data) of the research and an accompanying consent form for the participants will be prepared and translated into the relevant languages.

The institutional partners will jointly own the data generated during the project. Online and archive sources will be cited and clearly acknowledged in the research outputs.

A subcontracting budget has been reserved for external Privacy Impact Assessment of the ACT4ECO Platform, where external experts assess if EngageSuite lives up to intended privacy standard and are GDPR-compliant. This will take place when DBT has developed the last function for the platform.

The task of providing ethics guidance also includes the facilitation of ethical reflection sessions coinciding with three feedback sessions. These are group sessions during the consortium meetings, where partners can discuss whether current or proposed changes to project decisions regarding recruitment strategies, data gathering, and data use implies potential ethical issues and considerations. The ethics and data management protocols are living documents in the sense that

Deliverable 1.2 Ethics and data management guidance protocols

they have to be updated if substantial changes are made to the project that implies ethical and privacy considerations.

All ECO2 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 ECO2 research plan and will serve to further minimise the risk of errors. Every care will be taken to treat all participants with respect and sensitivity and all possible efforts will be made to promote their autonomy.

One of the main justifications of scientific research is the benefit for society it seeks to create. The ECO2 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.

7.2 Recognising and preventing scientific misconduct

ECO2 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

Deliverable 1.2 Ethics and data management guidance protocols

- 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 ECO2 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 in the grant agreement.

7.3 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.

Deliverable 1.2 Ethics and data management guidance protocols

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.

ECO2 consortium members agree to fully cooperate in any such investigation.

8 The procedures to identify and recruit research participants

The identification of potential research participants needs to be conducted in compliance with ethical guidelines, respect for privacy and autonomy. In order to increase effectiveness in identifying and recruiting research participants, our preliminary strategy is to establish contact with existing communities and ask them help disseminate information about the ECO2 goals and platform. These include the consortium partners' own networks, advisory board members' networks, national stakeholders – public, private and grass-root organizations. Word-of-mouth referrals and snowballing will potentially contribute to identifying participants.

To accomplish the ECO2 goals, the target population will be diverse in terms of age range (over 18 years old), gender and educational background. For the testing of platforms functionalities, we will invite individuals with technical background and energy consumption experts. For the pilot and upscaling, the population should include a balanced sample and seek to prevent an overrepresentation of green consumers. We do not foresee that recruitment procedures result in discrimination.

Most likely, we will use several strategies to invite participants to take part in the project. This work will be carried out in collaboration with WP2 and can include for instance open invitations (e.g. posting on social media sites) or direct recruitment (e.g. handing out flyers at events). The

Deliverable 1.2 Ethics and data management guidance protocols

recruitment materials and advertisements will give information that can be easily understood and designed to include;

- Accurate description of the ECO2 purpose;
- Overview of the platform;
- ECO2 Contact information;

To facilitate responsible sampling, ECO2 will most likely involve national nodes who know the local terrain and can provide relevant information concerning potential participants and procedures to approach them in an appropriate manner. Participation in the platform will be entirely voluntary and free, and participants can discontinue their involvement with the platform at any stage, without having to provide reasons. If applicable, measures that will be taken include anonymisation of data to protect participants' privacy, informed consent and responsible sampling during recruitment.

Providing the hotline and contact information gives participants the means to contact the research team and discuss any questions they may have. In this way, they can make informed choices about joining, continuing or discontinuing use of the platform.

8.1 The informed consent procedures

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.

Informed consent will be required by all research participants in the ECO2 project before participation can commence. We define research participants as users on the ACT4ECO platform, from whom we need demographic information and information about which actions they choose to pursue.

We anticipate that there may be other circumstances of which we will include research participants, possibly a workshop or a similar organised activity. An informed consent form specifically for this type of event will be developed.

Copies of the information sheets and consent forms will be archived in DBT's internal SharePoint drive. The procedures for soliciting informed consent include the following steps:

Deliverable 1.2 Ethics and data management guidance protocols

Step 1: Background

- Inform the participant that they will participate in a research project
- Inform that participation in research is voluntary
- Inform that participation in research can be refused
- Inform that participants in research can withdraw at any time
- Inform that participation in research will be recorded on the ACT4ECO platform or on paper in writing if applicable
- Inform that only adults and those who have competence to give consent (not children or vulnerable adults) can participate in the research

Step 2: Information Provision

- The participant will read the information sheet and informed consent document
- The participant should ask any questions they might have previous to consenting. Contact information will be provided in the information sheet

Step 3: Consenting

- Once a participant has received answers to all their questions and agrees to participate in the research, they will sign and date the consent form. For the online platform, this means writing one's name and date.
- Provide a copy of the informed consent form to the participant or provide an option for the user to save an electronic copy of the consent form (in online context).

Step 4: Re-consent (optional)

- Should new information surface during the research process (e.g. changes to the research plan), a re-consent will be asked together with an explanation of the changes made since last consent was given

The informed consent will be sought and recorded on the ACT4ECO platform [DBT] to ensure that all participant consents are in one place. The research participants will receive information described on the information sheet below. To increase understanding, information will be delivered in a manner that is easily understandable using common language intelligible to the participants.

Deliverable 1.2 Ethics and data management guidance protocols

The ACT4ECO platform will be based on EngageSuite that has the following terms of use guidelines and cookie policy:

When subscribing to a Community

When a user subscribes to a Community, the Community has the option to request some personal information about the user such as age, gender and education. The only reason for a Community wanting that is for inviting the user to an exclusive event where the demographics of the user is important. The user can always revoke the Community rights to access the personal information of the user.

Actions that requests personal information

The user will always be notified and has to give consent before joining the Action.

Furthermore a reason for obtaining these data from the user should always be given.

In most use cases it is only for getting some demographic data for analysing the results of the Action

The requested data could also only be used during the event fx if the host of an event wants to know who is participating in his event, when the event is complete then the personal information is deleted.

Sometimes the event is not pseudonymized nor anonymous, it could fx be a survey or interview with multiple experts. Again, the respondent will always be notified and has to give consent.

Cookie Policy

We do not use cookies to profile or track users.

We use cookies to store your session such that you do not lose data or has to sign in again when you refresh the page, we also store that you have accepted and understand our cookie policy. (<https://engagesuite.org/en/privacy>)

8.2 Templates of the informed consent forms and information sheets

Templates of the informed consent/assent forms and information sheets must be used in language and terms intelligible to the participants, and they must be kept on file.

Information sheet template will include the following elements:

1. Title of the research
2. Invitation to participate
3. What is the purpose of the study?
4. Why have I been invited?
5. Do I have to take part? (Statement that it is voluntary to participate)
6. What will happen to me if I take part?
7. Expenses and payments
8. What will I have to do?
9. What are the possible disadvantages and risks of taking part?
10. What are the possible benefits of taking part?
11. What if there is a problem?
12. Will my taking part in the study be kept confidential?
13. What will happen if I don't carry on with the study?
14. What will happen to the results of the research study?
15. Who is organising or sponsoring the research?
16. Further information and contact details

The consent should include:

1. Statement of the purpose of research
2. Duration of individual participation
3. Description of procedures that are followed in the research
4. Statement that the participation in the ACT4ECO platform is voluntary
5. Statement that the individual can refuse to participate or withdraw the project at any time without consequences
6. Statements about the project
 - Funder
 - Organizer
 - Contact details of person for answers
7. Statements of the foreseeable risks

Deliverable 1.2 Ethics and data management guidance protocols

8. Benefits of participation
9. Statement on data protection, privacy, confidentiality including duration of storage of personal data
10. Statement on how incidental findings are handled
11. For research involving more than minimal risk, an explanation as to whether there are any treatments or compensation if injury occurs and, if so, what they consist of, or where further information may be obtained. Insurance coverage should be mentioned.
12. Statement of how data will be handled at the end of the project
13. Statement about what will happen with the results of the project
14. Date and signatures of the participant and organiser

Partners can find an informed consent template here:

http://ec.europa.eu/research/participants/data/ref/fp7/89807/informed-consent_en.pdf

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.

OECD Global Science Forum (2007). Best Practices for Ensuring Scientific Integrity and Preventing Misconduct. Available at: <http://www.oecd.org/science/inno/40188303.pdf> [Accessed 16.1.2019].

OECD Global Science Forum (2009). Investigating Research Misconduct Allegations in International Collaborative Research Projects: A Practical Guide. Available at: <http://www.oecd.org/science/sci-tech/42770261.pdf> [Accessed 16.1.2019].