



ETHICS ADVISOR REPORT

D11.5: Ethics Advisor Report

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Abstract

This report provides the result of the ethical assessment of the previous actions addressed in WP11: Tasks 11.1, 11.2, 11.3 and 11.4, as well as other specific research actions undertaken in WP1 of USER-CHI, with the goal to collect research data. The relevant research tasks of WP1 are: netnography, field diaries, delphie survey, user survey, co-creation workshops and a big data analysis. As a basis for the assessment the report provides a theoretical framework, which includes the definition and tasks of the Ethics Advisor. Thereby, the report defines the criteria of appropriate participation, procedural justice, responsible stewardship, accountability, transparency, effectiveness and coherence as basis for the assessment of research tasks of WP 11. The research tasks undertaken in WP1 are assessed in regard of their potential to breach personal data protection requirements.

Prior to the assessment the report includes a descriptive summary of the relevant research actions. In addition, the tasks of the Ethics Advisor in H2020 research projects are explained. Moreover, the report includes an overview of the ethical issues, which were addressed by members of the consortium during formal meetings.

Keywords

Ethics assessment; ethics advisor; protection of personal data, gender and e-mobility.

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Executive summary

This report provides the result of the ethical assessment of the previous actions addressed in WP11: T1.1, T1.2, T1.3 and T1.4., as well as other relevant research activities undertaken in WP1, with the goal to collect and analyse research data. The definitions of the Ethics Advisor is included, who serves as an independent expert and provides advise to the consortium. Thus, the Ethics Advisor's tasks includes checking the compliance of the research activities of the project with ethical standards.

Furthermore, the report describes the theoretical framework for the assessment of the management of ethical issues. Thereby, the report defines the criteria of appropriate participation, procedural justice, responsible stewardship, accountability, transparency, effectiveness and coherence as basis for the assessment of research tasks of WP11.

Prior to the assessment of the research activities undertaken in WP11, the report provides a descriptive summary of the research tasks. Subsequently, the assessment addresses potential strengths and weaknesses of the tasks included in WP11.

Moreover, the report assesses the ethical dimension of research activities undertaken in WP1, such as netnography, field diaries, delphie survey, user survey, co-creation workshops and a big data analysis. In a first step the goals and approaches of these research tasks are described. Secondly, these tasks are assessed in regard to their potential of breaches of data protection regulation.

In addition, ethical issues, which were addressed in formal meetings of USER-CHI by project partners are presented. In this basis the report explains why a gender-sensitive lense is important for research activities in the transport sector, but also acknowledges the risks that come with a gender-sensitive approach.



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1. Introduction

1.1 Purpose of the document

This document reports on the ethics advisor assessment of the previous research activities undertaken in WP11 “Privacy, data management, and ethics requirements.” Therefore, it provides a theoretical framework, which describes the criteria on how to assess the handling of ethical issues of previous actions. Moreover, the report summarises all the activities, which have been undertaken in WP11 to provide an overview of the different activities linking them to the focus topics of data protection, the gender dimension of USER-CHI, public engagement, and the participation of vulnerable humans, which are addressed in D11.1, D11.2 and D11.4.

In doing so, the assessment will highlight strengths and weaknesses of the previous handling with ethical issues.

1.2 Scope of the document

The scope of the document is to summarise the former research activities of USER-CHI, as well as to provide their assessment based on criteria for best practise ethical issue management. This will show the strengths and weaknesses of the ethical issues’ management undertaken in WP11.

1.3 Structure of the document

After providing an introduction in chapter 1, chapter 2 describes the dependencies of D11.5 with other USER-CHI tasks. Moreover, the framework for the assessment of the ethical issues’ management is described in chapter 3. Therefore, chapter 3 provides a description of the goal of the ethics issues management, as well as the applicable criteria on how to assess it.

The assessment of the ethical issues’ management follows in chapter 4. Therefore, the different activities undertaken in Task 11.1 “Ethics monitoring and Responsible Research & Innovation”, 11.2 “Ethics analysis on the involvement of research participants”, as well as 11.3 “Data Management and Protection & IPR strategy” are summarized in a first step and assessed in a second step. Moreover, subsection describes ethical issues, which have been addressed in formal meetings of USER-CHI. In addition, chapter 4 summarises and assesses the relevant research activities undertaken in WP1.

Following to which, Chapter 5 provides the conclusions of the report.



2. Dependencies with other USER-CHI tasks

This chapter addresses the dependencies of Task 11.4 “Ethics Advisor assessment”, as well as D11.5 “Ethics Advisor Report”, with other research tasks and deliverables.

Firstly, T11.4 is linked with T1.1 “User requirements”. T1.1 collects and analyses EV user data with quantitative and qualitative research methods. The outcome of the research activities of T1.1 will provide an overview of EV user’s needs in regard to charging infrastructure. Since T1.1 collects and analyses user research data in order to achieve the goals of T1.1, the ethical dimension of “protection of personal data” is of relevance for the research activities, as well as publications of generated research results.

Furthermore, WP 6 “Demonstration Concept and Implementation Plan” includes the demonstration activities, which will be implemented in the pilot sites. The Ethics Advisor activities, as well as the ethics committee activities, are closely linked to the implementation of the demo site activities, because ethical issues may arise during the implementation phase (e.g. data protection issues, the involvement of vulnerable groups as research participants).

Moreover, Task 11.4 “Ethics Advisor assessment”, as well as D11.5 “Ethics Advisor Report”, feature a cross-connection with the other research activities, as the research tasks, which are undertaken in T11.1 “Ethics monitoring and Responsible Research & Innovation”, T11.2 “Ethics analysis on the involvement of research participants”, and T11.3 are assessed within the Ethics Advisor Report (chapter 12).

Subsequently, WP 12 “Ethics requirements” is linked to Task 11.4, since the ethics committee is addressed in D12.1 “D12.1H – Requirement No. 1”.



3. Theoretical framework for the assessment of ethics compliance

This chapter addresses the theoretical framework for the assessment of the compliance with ethics in research requirements during the USER-CHI project. The assessment aims at evaluating whether actions undertaken within USER-CHI research activities and activities in the context of WP11, in particular, comply with legal/regulatory as well as ethical requirements (e.g., the protection of personal data of research participants, participation of vulnerable groups/humans).

One main role contributing to an assessment of research activities is the Ethics Advisor and an Ethics Committee whereas both the Ethics Advisor and the Ethics Committee shall act as independent experts. The Ethics Advisor contributes to the assessment to avoid “public uneasiness towards science and to mitigate concerns where they exist”.¹ The European Commission (EC) aims to build a relationship between ethics and the research of H2020 projects, that is “collaborative and constructive.”²

3.1 Definition of the Ethics Advisor

The Ethics Advisor shall act as an independent expert and provides advice (ethics expertise) to the project consortium by checking/auditing the project implementation. The involvement of an Ethics Advisor can be established through the following two main approaches:³

- The Ethics Advisor is involved as a project partner in the project e.g., as part of/ through a WP
- The Ethics Advisor can be nominated

The involvement of an Ethics Advisor can be either voluntary or mandatory. Whether the involvement is voluntary or mandatory may depend on the following factors: 1) Anticipated

¹ EC, Roles and Functions of Ethics Advisors/ Ethics Advisory Boards in EC-funded projects, 2012, p.1.

² EC, Roles and Functions of Ethics Advisors/ Ethics Advisory Boards in EC-funded projects, 2012, p.2.

³ EC, Roles and Functions of Ethics Advisors/ Ethics Advisory Boards in EC-funded projects, 2012, p.3.

seriousness of potential risks; 2) The project size and respective issues that may be raised; 3) Existing legal and ethical oversight structures; and 4) Maturity of the proposal.

The involvement of an Ethics Advisor within the USER-CHI project is mandatory on the basis of the Grant Agreement.⁴ Moreover, the Ethics Advisor is involved as a project partner on the basis of WP11.

3.2 Tasks of the Ethics Advisor

The Ethics Advisor's main task is to overview the operations throughout a research project whereas the Ethics Advisor provides guidance when ethical issues and/or risks arise during the implementation of the project for research participants. Accordingly, the Ethics Advisor's tasks mainly comprise of checking the compliance of the research activities of the project with ethical standards. The corresponding ethical standards are based on the legal grounds and ethical principles. These are described in-depth in D11.1 (Ethics Monitoring Report).

In accordance with the goal of the Ethics Advisor, the management of ethical issues, the measures undertaken in WP11 should apply the following principles:

Table 1 Principles for ethical issues management. Source: Own elaboration based on EC, Roles and Functions of Ethics Advisors / Ethics Advisory Boards in EC-funded projects, 2012.

Principle	Description
Appropriate participation	Ensuring that members of the USER-CHI consortium are actively engaged in the measures related to the management of ethical issues, whenever needed
Procedural justice	Necessary procedures to ensuring the quality of being just or fair
Responsible stewardship	Is closely tied to the concept of integrity and focused on properly developing and using resources, such as expertise
Accountability	Liability to be called on to render an account.
Transparency	Being clear and open about decisions, actions to take and rationales behind them
Effectiveness	Being able to produce the intended results with the appropriate amount of resources
Coherence	Logical, orderly, and consistent relation to project results

⁴ USER-CHI, Grant Agreement, p.45 – Description WP11.

4. Ethical Issues - Assessment of previous tasks

Chapter 4 describes a summary of the actions, which were undertaken in the previous tasks of WP11 with the goal to manage ethical issues. Moreover, chapter 4 describes a summary of relevant research tasks undertaken in WP 1 with the goal of research data collection and the ethical dimension of protection of personal data.

Additionally, this chapter provides the assessment of the actions based on the framework presented in chapter 3. The assessment highlights the strengths and weaknesses in terms of appropriate participation, procedural justice, responsible stewardship, accountability, transparency, effectiveness, as well as coherence.⁵

Furthermore, this chapter includes an assessment of the ethical issues, which have been addressed in formal meetings by USER-CHI project partners.


4.1 Task 11.1: Ethics monitoring and Responsible Research & Innovation

This subchapter describes the actions that were implemented in Task 11.1, which covers the ethics analysis on the involvement of research participants.

4.1.1 Summary of the actions of Task 11.1

The actions undertaken in T11.1 “Ethics monitoring and Responsible Research & Innovation” are described in D11.1 “Ethics Monitoring Report”. D11.1 provides an **overview of the legal**

⁵ EC, Roles and Functions of Ethics Advisors/ Ethics Advisory Boards in EC-funded projects, 2012, p.11.



foundation of ethical principles for the research and innovation activities carried out under Horizon 2020 projects⁶ and includes the **“Twelve Golden Rules for Ethical Research Conduct”**.⁷

Furthermore, D11.1 describes the **guidelines for ethics monitoring for research activities** undertaken in USER-CHI, which consist of two components:

- The “Ethics issue – self-assessment” and
- The “Ethics issue – Memo Template”.

The concept of **“Ethics issue – self assessment”** requires the project partners of the USER-CHI consortium to be aware of the ethical dimension of their research task.

The Figure 1 below shows an overview of the ethical dimensions of USER-CHI, which need to be handled with care by the consortium: 1) Privacy of research subjects: Data Protection and Informed Consent; 2) Dignity of research participants e.g., during demo site actions; and 3) Societal relevance of technical development: USER-CHI technical products.

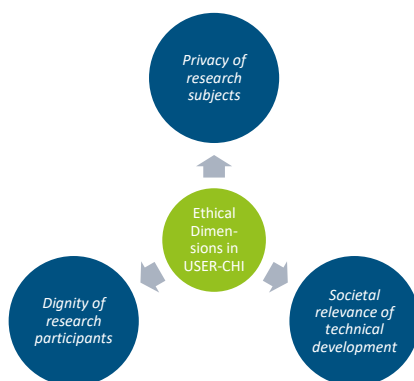


Figure 1 Ethical Dimensions. Source: Own elaboration based on EC, Ethics for researchers – Facilitating Research Excellence in FP7, 2013.

Project partners of the USER-CHI consortium are further asked to communicate ethical issues they detect during the implementation of their research activities. To formalise the communication-process the **“Ethics Issue - Memo Template”** is further included in D11.1.

⁶ Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC; Charter of Fundamental Rights of The European Union - 2012/C 326/02; Convention for the Protection of Human Rights and Fundamental Freedoms as amended by Protocols No. 11 and No. 14 – ETS No.005.

⁷ EC, Ethics for researchers – Facilitating Research Excellence in FP7, 2013, p.24.

D11.1 also provides an overview of the approach of Responsible Research & Innovation (RRI). RRI can be subcategorized in different elements, such as public engagement, open access, gender, ethics, as well as science education.⁸

D11.1 summarises the concept of the Stakeholder Advisory Group (SAG) Meetings, which has been established involving different experts from the electric mobility sector. SAG meetings will be consulted in a total number of four meetings on the results generated in USER-CHI at the current stage. These actions form activities under the category of public engagement, which is another aspect of RRI.

Moreover, T11.1 focuses on the topic of the gender dimension of USER-CHI. Therefore, D11.1 includes a description of the gender dimension of USER-CHI itself.

With respect to the gender dimension of USER-CHI, which is defined as a dynamic concept that ensures that researchers question gender norms and stereotypes and address the evolving needs and social roles of women and men⁹, the Webinar “Diversity in Transport” has been held during an online session in May 2020 (M4 of USER-CHI). The Webinar was collaboratively held and organized by IBV, EUR and IKEM. The Webinar addresses topics such as gendered-mobility patterns and factors, as well as women’s approaches towards new transport technologies. Moreover, EU activities on gender and transport have been presented. In addition, the concept of human-centred design was presented in an expert’s interview. Furthermore, best practises and gaps for gender-neutral planning and managing of e-mobility has been discussed.

D11.1 presents the topic of the gender balance of research teams participating in USER-CHI. Therefore, it provides an overview of the objectives of gender equality in research teams, which are summarized as 1) gender equality in scientific careers, 2) gender balance in decision-making, 3) integration of gender dimension in research content.¹⁰

Moreover, the description of the toolkit “Gender Equality Plan” is included in D11.1. The toolkit functions as an example for the USER-CHI consortium to illustrate what kind of measures the project partners could implement in order to improve gender-equality within their research teams.

⁸ European Commission, H2020 – Responsible Research and Innovation <<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation>>, last accessed 22 December 2020.

⁹ Advisory Group for Gender, For a better integration of the gender dimension in the Horizon 2020 Work Program 2018-2020, Position paper, 2016.

¹⁰ European Commission, EN Horizon 2020 Work Programme 2018-2020, 16. Science with and for Society, (Decision C (2020)6320 of 17 September 2020) p.25.

4.1.2 Assessment of the actions of Task 11.1

This subchapter provides the assessment of the actions of Task 11.1 Ethics monitoring and Responsible Research & Innovation.

Tasks 11.1 includes several activities, which foster the principle of appropriate participation of the project partners of USER-CHI in regard to the management of ethical issues. The “Ethics issue-self assessment” in D11.1 is addressed at the project partners in order to raise their awareness of the potential ethical dimensions of their research activities. Therefore, it also fosters the responsible stewardship of the project partners.

Moreover, the “Ethics issue – Memo Template” requires the appropriate participation of the project partners, who are asked to use the template to document ethical issues they come across. In addition, the “Ethics issue – Memo Template” fosters coherence of the documentation of ethical issues by making sure that the project partners provide information on the same questions. The use of the “Ethics issue – Memo Template” also raises transparency and accountability on the management of ethical issues, by ensuring that the Ethics Advisor is included in decisions with an ethical dimension.

The Stakeholder Advisory Group Meetings ensure that the research activities undertaken in USER-CHI are made available to stakeholders in the electric-mobility sector from an early stage of the project. The meetings provide an effective tool to engage the public by presenting research results and discussing further steps.

The webinar “Diversity in Transport” invited the USER-CHI consortium to collaboratively discuss the gender dimension of the project thereby fostering their participation in addressing the concept. The effectiveness of the goals of the webinar was improved as the webinar was offered at an early stage of the project (M4). The offering of the webinar at an early stage of the project secures, that the consortium is aware of gender dimension of USER-CHI from the beginning of the research activities.

The described toolkit in D11.1, the “Gender Equality Plan”, could make an effective difference compared to the gender-equality policies implemented internally by the USER-CHI project partners. A potential weakness of the tool is, that its implementation is merely voluntary, as long as its implementation is not explicitly required by national legal frameworks. However, the competences of the USER-CHI project partners for their internal organisation must be respected, which renders the voluntary implementation of such a tool indispensable.

4.2 Task 11.2: Ethics analysis on the involvement of research participants

This subchapter describes the actions that were implemented in Task 11.2, which covers the ethics analysis on the involvement of research participants. Moreover, it offers an assessment of the actions on the grounds of the theoretical framework presented in chapter 3.

4.2.1 Summary of the actions of Task 11.2

The actions undertaken in Task 11.2 “Ethics analysis on the involvement of research participants” are described in D11.2 “Research participants involvement report.” Personal data has been collected during WP1 “Analysis of user’s needs and patterns for requirements definition”. Moreover, personal data from research participants is expected to be collected during WP6, the “Demonstration in Demo Sites and TEN-T nodes.”

In this regard, D11.2 offers an overview of the ethical guidelines as well as relevant legislation on the topic of ethics in research. Thereby, D11.2 refers to the Charter of Fundamental Rights of the European Union (CFR), the European Convention on Human Rights (ECHR), as well as the General Data Protection Regulation (GDPR). Moreover, D11.2 includes an overview of the national legislation on the topic of data protection in Germany, Finland, Hungary, Italy, and Spain.

Furthermore, D11.2 expands on the criteria for the involvement of research participants. Thereby, D11.2 states that the most important principle in research ethics is the principle of informed consent, as requirements for research participants to participate. The foundation of informed consent are adequate information, voluntariness, and competence.¹¹

Moreover, D11.2 describes the two-step procedure for involving research participants in USER-CHI, which is (1.) to inform eligible research participants about the project, which then provide (2.) informed consent. In order to assist the USER-CHI project partners in implementing the two-step procedure D11.2 offers two templates. These document templates are divided into the “Information Sheets” (Template I) and “Informed Consent Forms” (Template II).

Template I offers a description of the information about the project goals, the procedure of research activities, as well as the duration of the project. In addition, it emphasizes, that the potential research participants are free to ask questions about issues that remain unclear within the information process. The template offers a description of types of data, which will be collected in case the research participants participate in the USER-CHI demo sites. These data types range from e.g., the use of electro-mobility services, energy consumption, booking and billing processes.

Template II is used to collect informed consent of the research participants of USER-CHI in accordance to Art. 6 I a GDPR. Furthermore, Template II informs the research participants of their right to withdraw their consent at any point of the project. Moreover, Template II provides contact details of responsible researchers in case any questions arise throughout the project.

IKEM has pointed out, that they do not offer legal advice. IKEM is a research institute, which offers research activities for legal matters. Therefore, Template I and Template II function as a basis for the work of the project partners, which are collecting personal data from USER-CHI research

¹¹ EC, Directorate-General for Research and Innovation, Directorate B – European Research Area Unit B.6 – Ethics and gender, “Ethics for researchers – Facilitating Research Excellence in FP7”, 2013, p.14.

participants. However, the project partners who intend to use Template I and Template II have been asked to consult their legal departments in matters of personal data protection. Moreover, the USER-CHI project partners who will use the Template I as well as the Template II have been asked to translate the forms into the intelligible language for their local research participants.

Moreover, D11.2 addresses the participation of vulnerable research participants. Vulnerable groups include children, as well as vulnerable adults. Even though children might be involved as research participants as light electric vehicle (LEV) users, IKEM has advised against the involvement of children throughout USER-CHI.

The involvement of vulnerable adults might include the involvement of elderly people, as well as intellectually disabled. Therefore, chapter 6 of D11.2 offers an overview of measures of protection for the involvement of vulnerable groups. The most important measure of protection of vulnerable groups as research participants is that additional requirements need to be implemented in order to gain valid consent, e.g., the offer of additional information in order to help understanding the research project's goals.

4.2.2 Assessment of the actions of Task 11.2

This subchapter provides the assessment of the actions of Task 11.2 “Ethics monitoring and Responsible Research & Innovation”.

The overview of the ethical guidelines for H2020 projects, as well the relevant legislation on the topic of ethics in research by providing the relevant human rights legislation ensures that the reasoning behind the ethics monitoring of USER-CHI is transparent. Moreover, it explains that the ethical issues of “protection of personal data”, as well as the “participation of vulnerable humans” have a legal basis. However, the risk of this theoretical knowledge is that the project partners have difficulties in implementing practical measures in this regard.

In order to guarantee coherence in regard to the collection of personal data D11.2 describes the two-step procedure for involving research participants in USER-CHI.

By providing the Template I and Template II, which should be used for step 1 and step 2 of the informed consent procedure, D11.2 ensures the necessary participation of the project partners in protecting the rights of privacy of the research participants of USER-CHI. Moreover, Template I and Template II guarantee, that the USER-CHI project partners have access to a practical tool for the informed consent procedures. However, the disclaimer of IKEM stating that this is not legal advice provides transparency in terms of accountability.

Moreover, D11.2 describes measures, which should be implemented in regard to the possible participation of vulnerable research participants. By advising against the involvement of children as research participants in USER-CHI the risks arising out of the involvement of children is excluded. However, elderly or intellectually disabled people could still be included in USER-CHI as vulnerable participants. Therefore, the USER-CHI project partners need to follow the advice on what to additional actions are required, included in D11.2

4.3 Task 11.3: Data Management and Protection & IPR strategy

This subchapter describes the actions that were implemented in Task 11.3, which covers the data management and protection, as well as the intellectual property rights (IPR) strategy. Moreover, it offers an assessment of the actions on the grounds of the theoretical framework presented in Chapter 2.

4.3.1 Summary of the actions of Task 11.3

Task 11.3 “Data Management and Protection and IPR strategy” has the goal of data management and protection, as well as the establishment of an IPR strategy. Therefore, D11.3 “Data Management Plan” (DMP), as well as D11.4 “Protection of personal data report” have been submitted.

D11.3 describes the procedure implemented to manage the data, which will be collected, processed and analysed within USER-CHI. The DMP includes information on the topic of data management laid out in the applicable H2020 regulation. Therefore, it provides an overview of the different data categories of USER-CHI as well as their definition.

The Figure 2 below presents the four data categories of USER-CHI.

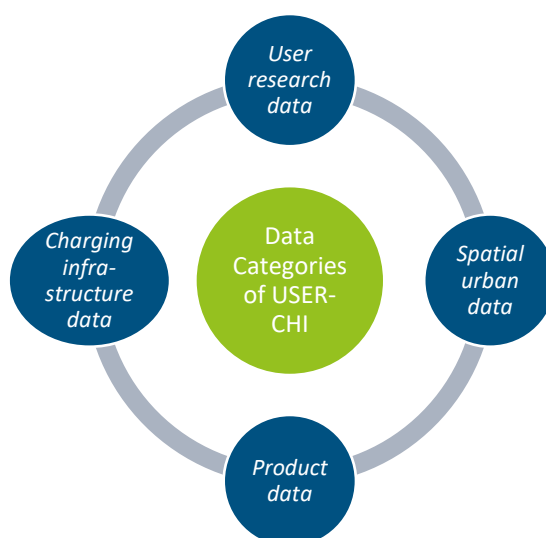


Figure 2 Data categories of USER-CHI

In addition, the DMP includes the allocation of responsibilities for data flows and management requirements.

Furthermore, templates with questionnaires for the USER-CHI project partners are included. The template deals with questions regarding research data generated by the project partners, which they have to fill out once their research tasks have progressed. The aim of the questionnaire is to create an overview of the research data generated within USER-CHI in order to manage them coherently in regard to the principle of “FAIR data”. The principle of “FAIR data” states, that research data within H2020 projects should be findable, accessible, interoperable, and re-usable. Therefore, the project partner will get feedback and assistance to implement the goal of FAIR data.

An important element of the data management of USER-CHI is the submission of public deliverables throughout the project’s lifetime. Moreover, the Zenodo repository is intended to be used to publish USER-CHI research data sets and publications.

Finally, the DMP describes reasons, which might hinder the publication of research data, such as the one presented below in the Figure 3.



Figure 3 Reasons not to publish Research Data

Moreover, the D11.4 “Protection of personal data report” describes the actions conducted to protect personal data of research participants from an ethical point of view. Therefore, D11.4 offers an overview of ethics in research as well as the relevant human rights foundation. Moreover, D11.4 provides a description of the material scope of the GDPR, which is applicable to the research activities within USER-CHI in regard of the involvement of human research participants and the collection of their personal data. Furthermore, D11.4 explains the concept of controllers of processing procedures of personal data.

In addition, D11.4 provides an overview of the relevant GDPR principles for personal data collection and processing, such as informed consent, the principle of data minimization, the principle of storage limitation, the principle of integrity and confidentiality.

Furthermore, D11.4 summarizes the technical and organizational measures that controllers of personal data need to implement in accordance the 1) USER-CHI Grant Agreement, 2) Art. 24 GDPR, as well as 3) Recital 78 GDPR.

Moreover, D11.4 offers a “Checklist for the proceeding of personal data”, which assists the project partners in implementing the requirements deriving out of the GDPR in regard to their research activities concerning the collection or analysis of personal data.

4.3.2 Assessment of the actions of Task 11.3

This subchapter provides the assessment of the actions of Task 11.3, which covers the data management and protection, as well as the intellectual property rights (IPR) strategy.

D11.3 deals with the requirement of open access to research data by describing measures like the public deliverables and using Zenodo repository.

However, the “Open Research Europe – The European Commission (EC) open access publishing platform”¹² has been newly introduced. This provides a possibility to publish research results in compliance with open access policies for H2020 beneficiaries. Submission of research results are possible from 2021 onwards. Information on “Open Research Europe” will therefore be introduced in the update of the DMP in M14.

Furthermore, by providing an overview of the research categories of USER-CHI D11.3 ensures that the project partners can categorize the data they are collecting, generating and analysing. D11.3 points out that the category of “user research data” might imply personal data in the scope of Art. 4 (1) GDPR. In accordance, the research partners who are working with “user research data” are aware of the ethical and legal relevance of their work.

Moreover, D11.3 explicitly includes the protection of personal data as one of the reasons not to publish research data, which provides an effective and coherent overview for the project partners. However, the publishing of personal data might be in line with the applicable ethical and legal guidelines as long as the requirements by the GDPR and national data protection legislation is met. The most prominent requirement in this regard is the procedure of informed consent.

In addition, D11.4 “Protection of personal data report” summarizes the most important principles deriving out of the GDPR in a coherent way. The risk of this presentation of theoretical knowledge is, that it seems to be difficult to implement for the project partners. However, the “Checklist for the proceeding of personal data” provides an appropriate guideline for the project partners in order to ensure an adequate protection of the personal data, which is collected in USER-CHI. Since D11.2 includes the advice against the involvement of children as research participants of USER-CHI special procedures on their right to privacy do not need to be regarded in D11.4. However, in case this advice is not followed, the special requirement would be the requirement of consent of a parent or legal representative, as well as the assent of the child, where needed.¹³ Moreover, it the language used to communicate with children as research participants needs to be age-appropriate.¹⁴

¹² EC, Open Research Europe.

¹³ EC, Ethics and data protection, 2018, p. 12.

¹⁴ EC, Ethics and data protection, 2018, p. 12.

4.4 Data collection research activities of WP 1

This subchapter describes the actions that were implemented in WP1 “Analysis of user needs and patterns for requirement definitions”, which includes qualitative and quantitative user research, which produces comprehensive information about needs, demands and requirements for the future charging systems of EVs. Moreover, this subsection offers an assessment of the actions in regard to the ethical dimension of protection of personal data.

4.4.1 Summary of the actions of WP 1

This subsection summarises the relevant research activities, which were undertaken in WP 1 “Analysis of user needs and patterns for requirement definitions”.

Firstly, T 1.1.2 “User-driven innovation approach” includes the application of netnography. Netnography is a methodology in which online observation is used. In this regard netnography includes research practices of data collection and analysis, which are rooted in participant observation.¹⁵ Therefore, opinions, that EV users shared in social media platforms on the topic of EVSE, were collected. The results of the netnography undertaken with EV users from Germany, Spain and Norway addresses their opinions in regard to low-range vs. long-range usage of EVs, as well as comments on charging infrastructure for EVs. The results of the analysis have been included in D1.1 “User requirements for USER-CHI solutions” in an anonymised form.

Secondly, T 1.1.2 “User-driven innovation approach” uses the method of field diaries. Field diaries are open questionnaires that participants can either access through an online platform, or answer the question in an interview format with the support of a third person. The research participants, who matched the intended USER profile, were identified by using the city data bases. Accordingly, the users were contacted and asked to provide information in regard to the field diary in anonymised form.¹⁶ The results of the field diaries are presented anonymous in D1.1 “User requirements for USER-CHI solutions”.

Moreover, T 1.1.2 “User-driven innovation approach” includes delphi questionnaires, which were used to describe the features of EVSEs and supporting applications, identifying their weaknesses and improvement suggestions.¹⁷ This methodology collects the opinion of professionals and experts through the online tool Survey Monkey. The delphi questionnaire provided four blocks, whereas each block was addressed at different profiles of experts: Urban Mobility Planner (UMP), Electro Mobility Service Provider (EMSP), Charging Point Operator (CPO), and Distribution System Operator (DSO).¹⁸ The results of the field diaries are presented in D1.1 “User

¹⁵ D1.1, User requirements for USER-CHI solutions, p.150.

¹⁶ D1.1, User requirements for USER-CHI solutions, p.17.

¹⁷ D1.1, User requirements for USER-CHI solutions, p. 115.

¹⁸ D1.1, User requirements for USER-CHI solutions, p.16.

requirements for USER-CHI solutions” in an anonymised format and have been collected anonymous.

Furthermore, T 1.1.2 “User-driven innovation approach” includes the hosting of co-creation workshops with EV users, which assessed the USER-CHI products in an interactive format.

Introductionary documents are provided for the participants of the co-creation workshop a couple of days before the workshop in order to introduce them to the topic.¹⁹ The co-creation workshops were both held in person at the IBV offices, as well as digitally through an online tool.²⁰ The results of the co-creation workshop are included in an anonymised format in D1.1 “User requirements for USER-CHI solutions”, with the exception, that pictures of some of the co-creation participants at IBV’s office are included.²¹

In addition, a survey has been undertaken in six relevant countries as data collection methodology in T 1.1.2 “User-driven innovation approach”. In order to enroll the required participants in the six countries the SurveyMonkey database was used. This database includes the option to select users, that fit into the profile needed to undertake the research tasks.

Furthermore, the big data analysis undertaken in Task 1.1.1 “Big data analysis” aims at providing a quantitative data analysis, which uses back-end-data of charging infrastructure within the five pilot sites.²² The goal is to understand the effect that different types of charging technologies (e.g. AC, DC, street-lighting), different tariff systems, on-road and off-road charging and different sites impose on EV users charging behavior.²³ A first stage of the analysis is included in D1.1, whereas a second version will be provided as update.²⁴ The end-users data is presented in an anonymous format in D1.1.

4.4.2 Assessment of the research activities of WP1

The assessment of the described research activities undertaken in WP1 derives from their relevance for the ethical dimension of protection of personal data. The data from users of EVs and experts could be categorised as personal data under some conditions.

The basis for the ethical assessment of the research activities of WP1 is the European and national legislation on the topic of personal data protection. This legislation is described in detail

¹⁹ D1.1, User requirements for USER-CHI solutions, p.98, p.20.

²⁰ D1.1, User requirements for USER-CHI solutions, p.98, p.102.

²¹ D1.1, User requirements for USER-CHI solutions, p.98, p.21, 22.

²² D1.1, User requirements for USER-CHI solutions, p.98, p.22.

²³ D1.1, User requirements for USER-CHI solutions, p.98, p.22.

²⁴ D1.1, User requirements for USER-CHI solutions, p.98, p.23.

in D11.2. Thus, the GDPR provides the main legal source for matters of personal data protection in Europe. Therefore, the basis principles deriving out of the GDPR are laid out in D11.2.

Art. 4 (1) GDPR defines personal data as “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.”

This is a broad definition, which also includes information of EV users and experts on their habits or opinions of EVSE and USER-CHI products, which were collected in different extents in the research activities described above, as long as the information could be linked to a natural person. However, in cases that anonymised user or expert’s data is proceeded, the GDPR is not applicable. This is explicitly stated in Recital 26 of the GDPR, where it says “the principles of data protection should therefore not apply to anonymous information, namely information which does not relate to an identified or identifiable natural person or to personal data rendered anonymous in such a manner that the data subject is not or no longer identifiable.”

The description of the outcome of the research activities in WP1 shows that they were included in an anonymous format in D1.1 “User requirements for USER-CHI solutions”, with the exception of the pictures of the participants at the co-creation workshop, which are categorised as personal data within the meaning of Art. 4 (1) GDPR. In case that personal data is analysed the use of the informed consent approach was advised in D11.2, which also provided the Templates for the two-step procedure of Informed Consent. As long as the procedure was complied with in case of the usage of the picture of the co-creation participants no breach of the relevant European legislation on the protection of personal data does arise. In addition, the requirement of informed consent is needed in case the personal data of users and experts was anonymised at a later stage on the servers of the USER-CHI project partners, after they have been received as personal data.

4.5 Ethical issues addressed in formal meetings

This subchapter provides a summary of the ethical issues, which were addressed in formal meetings of the USER-CHI consortium. The summary of discussions and issues, which arise in formal meetings, is one of the tasks of the Ethics Advisor and should be addressed in regular reports.²⁵ The summary of the general USER-CHI meetings is included in the repository Alfresco, which is used as internal communication platform through the consortium.

²⁵ EC, Roles and Functions of Ethics Advisors/ Ethics Advisory Boards in EC-funded projects, 2012, p.8.

A question concerning the gender dimension of USER-CHI, which is an ethical issue (see section 0) came up during the 2nd General Consortium Meeting of USER-CHI in M10. It was asked whether applying the “gender-sensitive lens”, which means using gender-differentiated data for research activities, would reinforce gender stereotypes by differentiating circumstances based on gender. This is a valid concern, which shows the contradiction of gender mainstreaming by asking for gender-based differentiation in formal actions, like research activities in this case.

However, applying the gender-based lens in research activities should consider the different societal roles and physical characteristics, without reinforcing negative stereotypes. The need for gender-differentiated data in the research of transport sector is a major concern. The different mobility patterns, different perspective of hierarchies in urban spaces as well as the awareness of environmental impacts of their mobility behaviour is something that needs to be addressed further to create inclusive transport policies, as well as technologies.

Therefore, the USER-CHI consortium is asked to balance these two goals, while considering the gender-dimension of USER-CHI.

Moreover, IKEM as Ethics Advisor has taken part in the telephone conferences addressing the demo site plans regarding WP6. The plans, which were presented, did not raised any ethical issues, other than the need for the protection of personal data and the possibility of the involvement of vulnerable people. However, the involvement of research participants in the demo sites has not yet been discussed in detail. The planning of the different demo sites is still a work in progress at the current stage of USER-CHI (M12).

5. Conclusions

The findings and action suggested in WP 11 address the goal of aligning all USER-CHI's project actions with the European and national regulations on ethics requirements.

A special focus needs to be put on the issues of participation of vulnerable humans, as well as personal data protection. These ethical issues are addressed throughout the reports D11.2 "Research participants involvement report", as well as D11.4 "Protection of personal data report".

Tasks 11.1 "Ethics monitoring and Responsible Research & Innovation", 11.2 "Ethics analysis on the involvement of research participants", 11.3 "Data Management and Protection & IPR strategy" and the actions undertaken within them have been summarized in a first step and assessed in a second. The assessment based on criteria, such as appropriate participation, procedural justice, responsible stewardship, accountability, transparency, effectiveness, as well as coherence has illustrated strengths and weaknesses of the previous research activities of WP11.

Concerning the research activities of Task 11.1 the "Ethics issue – Memo Template", as well as the "Ethics issue - Self Assessment" they ensure the appropriate participation of USER-CHI project partners in detecting ethical issues of their research activities. Moreover, the use of the "Ethics issue – Memo Template" raises transparency and accountability on the management of ethical issues, by ensuring that the Ethics Advisor is included in decisions relevant for ethical compliance. In addition, the assessment has shown that appropriate participation to include the gender dimension into USER-CHI was provided through the Webinar "Diversity in Transport" in M4. In addition, the presented tool "Gender Equality Plan" could make a difference regarding the implementation of gender-equality policies internally by the USER-CHI project partners. The implementation of the gender-equality tools, such as the GEP, is merely undertaken by project partners on a voluntary basis, which leads to a certain degree of ineffectiveness, in case measures are not undertaken in this regard. However, the implementation on a merely voluntary basis is a necessary result of the respect for the competence of internal organisation of the project partners.

Subsequently, the assessment of the research activities of Task 11.2 shows that the necessary involvement of project partners, who are dealing with user research data, in terms of personal data protection requirements is fostered through the provision of Template I and Template II. Both templates are practical tools for illustrating the two-step-procedure of informed consent.

The assessment of the research activities of Task 11.3 has shown that, D11.3 raises awareness about protection of personal data by referencing the issue of protection as one of the reasons, which might hinder the publication of certain results. Moreover, D11.3 points out that the category of "user research data" might imply personal data in the scope of Art. 4 (1) GDPR. In accordance, the research partners who are working with "user research data" are aware of the ethical and legal relevance of their research activities. However, if the requirements of the personal data protection regulation are met, results including user research data could be published.

Regarding D11.4 the assessment shows that the risk of the theoretical knowledge presented in the report is minimised by providing a practical “checklist” on personal data protection for the consortium partners.

In addition, the analysis of the ethical issue addressed in the 2nd General Consortium Meeting in November 2020 has shown that the USER-CHI consortium needs to find a balance between taking into account the gender dimension of the project, and not fostering stereotypes of the women as EV users.



Acronyms

Acronym	Meaning
CFR	Charter of Fundamental Rights of the European Union
DMP	Data Management Plan
EC	European Commission
ECHR	the European Convention on Human Rights
ETRA	ETRA I+D (USER-CHI project partner)
EUR	Eurocities (USER-CHI project partner)
EV	Electric vehicle
FAIR	findable, accessible, interoperable, and re-usable
GA	Grant Agreement
GDPR	General Data Protection Regulation GDPR
IKEM	Institut für Klimaschutz, Energie und Mobilität (USER-CHI project partner)
IPR	Intellectual Property Rights
LEV	Light Electric Vehicle
RRI	Responsible Research & Innovation
SAG	Stakeholder Advisory Group
TEN-T	Trans European Transport Network
USER-CHI	Project Title: innovative solution for USER centric CHarging Infrastructure
WP	Work Package



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