PEACOX – Persuasive Advisor for CO2-reducing cross-modal trip planning

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D8.4.1 Recruiting Strategies

[TMX]

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Table of Contents

1. Introduction

1.1 Background and Scope of the Deliverable

The goal of this task is to define the strategy and the steps for motivating end-users for participating in field trials. As described in the Description of Work, the consortium aims to recruit at least 25 test-users in Vienna for field trial I in 2013 and 25 users in Vienna as well as 25 users in Dublin for field trial II in spring of 2014.

The main objective of this deliverable is to describe the PEACOX's consortium strategy for reaching reasonable number of suitable participants from different user groups. These participants have to be recruited for both test cities, Vienna and Dublin.

The first version of this deliverable (D8.4.1) will include the recruitment strategies for the first user trials to be held in Vienna. The second version (D8.4.2, due in Month 30) will include the strategies for the second user trials to be held in Vienna and in Dublin.

2. Ethical Issues, Legislation and Regulations

In PEACOX ethical issues play a major role since the project follows a user-centred design approach and involves the participation of many potential end-users. For assessing studies in the context of ICT usage directly, there exists no dedicated commission in Austria. Apart from following the laws and regulations listed in the following sections for the preparation and conduction of the PEACOX Field Trials, for the ethical approval of the PEACOX Field Trials the ethics advisor of the project, the experience and expertise of CURE in ethical issues, as well as the advisory board, will be consulted.

2.1 Laws and Regulations

2.1.1 European laws and regulations on data security, privacy and ethical issues

European Parliament and Council Directive 95/46/EC [4] on the protection of individuals with regard to the processing of personal data and on the free movement of such data will be taken into account for the main guidelines. This is a directive on European level and includes guidelines related to the:

- Quality of data and data processing,
- Legitimacy and categories of data processing,
- Right of access to the personal data,
- Subject's right of information and objection,
- Confidentiality and security of processing

Full text of this directive and a short summary can be found on the official website of the European Union [4].

2.1.2 Austrian laws and regulations on data security, privacy and ethical issues

In Austria, the following legislation will have to be taken into account:

- Datenschutzgesetz (DSG 2000), BGBl. I Nr. 165/1999 [1]: This act regulates the protection of personal data in Austria (i.e. the Austrian implementation of the European directive on data protection).
- Informationssicherheitsgesetz (InfoSiG 2002), BGBI. I Nr. 23/2002 [2]: This act regulates basic rights of data privacy and the duty to give information.

- Wiener Antidiskriminierungsgesetz (LBI 35/2004) [3]: This act regulates the abatement of discrimination referring to the access to social, health and education as well as public services. It focuses on the non-discrimination and equal treatment regarding sex, age, disability, ethnic group, religion, ideology and sexual orientation.

2.2 Handling of Ethical Issues in the PEACOX Field Trials

2.2.1 Data Protection Plan

Research in PEACOX Field Trials revolves around information about persons – their travel profiles, lifestyle, behaviours and other personal data – drawn from records, scientific studies, surveys and interviews. These types of information are private and sensitive, although attitudes and expectations vary widely.

The protection of the privacy of participants is a responsibility of all persons involved in research with human participants. Privacy means, that the participant can control the access to personal information and is able to decide who has access to the collected data in the future.

Due to the principle of autonomy the participants have to be asked for their agreement (see Appendix A Informed Consent) before private and personal information is collected. It shall be ensured that all persons involved in research studies understand and respect the requirement for confidentiality. The participants should be informed about the confidentiality policy that is used in this research project.

Privacy plays a major role in the PEACOX field trials and will be addressed as following:

- Publications: Hints to or specific personal information of any participant in (scientific) publications will be omitted. It should be prevented to reveal the identity of participants in research deliberately or inadvertently, without the expressed permission of the participants.
- Dissemination: Dissemination of data among partners. This relates to access to data, data formats, methods of archiving (electronic and paper), including data handling, data analyses, and research communications. Restricted access to private and sensitive information within the partner organization must be guaranteed.
- Protection: The organization is responsible for the protection of the participant's privacy within the organization (e.g. employers, etc.) throughout the whole PEACOX project process like, communications, data exchange, presentation of findings, etc.

- Control: Furthermore the participants have to be able to control the dissemination of the collected data. The investigator is not allowed to circulate information without anonymisation. This means that only relevant attributes, i.e. gender, age, etc. are retained. Another possibility is to keep the identity of the participants, but only with prior consent of them.
- Information: As already mentioned above, the protection of the confidentiality implies informing the participants about what may be done with their data (i.e. data sharing). Human individuals that participate in any study shall have the right to request and obtain free of charge information on his/her personal data subjected to processing, on the origin of such data and on their communication or intended communication.

During the field trials, participants will receive a generic user ID to identify them in the system and to anonymise their identities. Special care is given that the ID cannot be connected to real names. No full names will be stored anywhere electronically. The only personal data stored on the users' smart phones will be these login credentials. All other data will be stored at the PEACOX server database. All gathered personal data will be password protected and encrypted. Users' personal data have to be safeguarded from other people not involved in the project.

2.2.2 Ethical Principles and Documents

Informed Consent (See Appendix A) and Information Sheet (See Appendix B) are the two important documents provided to the potential field trial participants. In order to be able to participate in the PEACOX field trials all potential participants will have to read and sign an informed consent form before starting the participation. These documents aim to inform the participants fully about the PEACOX Field Trials and make all parts of the field trials clear.

Informed consent is the process by which a participant is fully informed about the research study in which s/he is going to participate. It originates from the legal and ethical right that the participant has to be informed what happens to his/her personal data and from the ethical duty of the researcher to involve the participant in the research. This means that the individual subject has the right to be informed about the research process and outcomes.

The aim of the information sheet is to provide basic information about the study and the project in order to guarantee that participants have basic information to make decision about whether to participate or not in the PEACOX field trials. It includes a summary and

schedule of the PEACOX field trials, the objectives and descriptions of the PEACOX system and its components.

CURE will use translated versions of both of these documents in order to provide basic information for potential study participants in German. All participants have the right to receive a copy of both of the documents. The users are also informed that they can abort their participation in the trial at any time.

For any question related to ethical issues that will arise during the PEACOX field trials the project partners can consult the ethics advisor of the project as well as CURE (as WP7 Lead).

3. Recruitment Strategies for Trial 1

Prior to the start of the field trials, CURE will conduct expert and user-based usability evaluations of the applications developed in PEACOX to ensure most usability problems can be avoided before users get a hand on the application for a longer period of time. About five users will perform given tasks and test the application, before they will be asked about their impressions and experiences. Interviews and questionnaires, such as the HED/UT-Scale (Van der Heijden & Sangstad Sorensen, 2002) and the System Usability Scale (SUS; Sauro, 2011) will be used.

For the first field trials, CURE is responsible for the recruitment of participants for the PEACOX Field Trial in Austria. Selected users will be invited to participate in the evaluation activities. All participants in Vienna will be recruited from CURE's internal database of study participants. This database contains about 2000 people with various demographical differences, backgrounds, level of education and more.

3.1 User Participation Criteria

The following specifications should be met for recruiting the participants:

Age	- 18 or older
Sex	- 50% male, 50% female
Education and Occupation	- *No constraints*
Residence	- Living and working/studying in Vienna or surrounding suburbs (within Vienna region, including Lower Austria and Burgenland)
Skills & props	- User of an Android smart phone for at least 3 months - Smart phone must at least be running Android OS 4.0 - User must have a data plan (min. 500 MB per month) - Mother tongue German
Impairments	- Without any difficulties in reading and writing
Availability	- During the 2 months of trial planned away (e.g. holiday) for not more than 1 week

There are 25 *primary users* planned, who will not only use the PEACOX app but also participate in lab sessions and telephone interviews and will fill in a diary (for one week). In addition, we will invite an open number of *secondary users* via e-mail to use the application to gather more real-world usage data. Secondary users will only receive online questionnaires but not take part in any lab sessions or telephone interviews.

3.2 Recruitment Procedure

The recruitment preparations and activities start in May 2013 and will follow several steps:

1. Screening Questionnaire. Potential users taken from CUREs test subjects database will receive an e-mail invitation to fill in a screening questionnaire. The screening questionnaires filters out those participants that do not meet the criteria above and also asks for demographic data (age, sex, education, place of residence, relationship status, family status, distance between work and home place), mobility behaviour, persuadability, personality traits, and environmental attitudes.

2. Selection of Users.

a. Based on the analysis of the screening questionnaire CURE will select suitable users (n=25) who will be invited to participate as primary users in the field trials.

b. All other interested participants will receive an invitation to use the app as secondary users. Secondary users will not participate in any lab sessions but are asked to fill in several online-questionnaires during the field trial period.

3. Introductory Workshop. Primary Users willing to participate will be invited to one of about 3 available introductory workshops. Up to 10 participants can join one workshop. During the workshop, we will explain the activities during the field trials, duration and goals of the participation and the PEACOX project. The users will be handed the information sheet detailing the study procedure and important contact details (see Appendix B). To participate primary users will sign two copies of the Informed Consent (see Appendix A). It is a precondition that this document is filled out and signed. However, as it is mentioned in the Informed Consent document, termination of the participation is possible at any time.

4. Buffer Strategy. For each workshop buffer participants will be invited to make sure that at the end of the activities the planned number of total participants will be reached.

3.3 User Reimbursement

Primary Users will be rewarded for their participation with 150€, if all required action has taken place (participation in introductory workshop, questionnaires, diaries, telephone interviews, and final workshops).

Secondary users will be given the opportunity to sign up for a lottery to win vouchers for an Internet mail-order trade. This serves as a motivation to install and use the application as well as to fill in a questionnaire at the end of the study period. Moreover, these users can serve as buffer users in case of drop-out among the primary users.

3.4 Support Strategy

During the field trial in Austria CURE will be first contact and responsible for solving problems that may occur and give support to the participants. Each participant will be able to call a helpline or write an e-mail to a dedicated e-mail address. The helpline is planned to be a dedicated mobile phone that can be handed over to different persons. Upon receiving, a CURE representative will try to solve the problem. Hardware or software problems that can't be resolved will be forwarded by CURE to Fluidtime who will try to solve the issue or forward it to the responsible technical partner. Each PEACOX consortium partner will name a contact person responsible for dealing with urgent technical problems (such as a system break downs) in the field trials, in order to guarantee a recovery as quickly as possible.

3.5 Drop-out Risk Avoidance

Concerning the long period of the trial the following drop-out avoidance strategy will be applied:

- **Balanced study workload:** The amount of workload required by the primary users during the field trials such as questionnaires or interviews will be arranged so that it will not cause frustrations and therefore dropouts.
- **Voluntariness of participation:** Participation in the PEACOX Field Trial is voluntary and participants can terminate their participation anytime without having to give a reason. Participants only sign up for the first trial, for the second trial a separate recruitment will take place, which may include users from the first trial.
- **Buffer Strategy:** Buffer participants will be contacted before the start of the PEACOX Field Trial.

- In case a participant terminates the participation during the trial phase (2 months) not later than the Week 4, a buffer participant will replace the participant dropped out. If the termination occurs later than the Week 4, this participant will not be replaced for the first trial.
- During the field trial participants are required to fulfil some tasks for the studies conducted. In case a participant rejects or neglects carrying out these tasks radically, a buffer participant will be recruited to replace that participant not later than the half of the trial phase.

4. Recruitment Strategies for Trial 2

This chapter will be updated and detailed for the second version of this deliverable.

4.1 Austria

For Austria, CURE will follow a similar approach as for the first trial that is, recruiting people from its participant database. Before that, CURE will however, contact participants from the first trial to ask them if they are willing to participate again. The goal is not to recruit all participants again, but to get a mix of “old” and “new” users. This allows us to gain insights into whether new users perceive the system different from existing users that have known the first prototype.

4.2 Ireland

As TCD cannot rely on a test participant database, other recruitment strategies will be explored. Following the completion of an on-line survey in late 2012, respondents were asked to indicate whether they would be willing to take part in a field trial of a PEACOX-like application. Currently TCD has a database of 70+ potential field trial participants. Further recruitment will be undertaken both within the student and staff population of Trinity College (population circa 20,000) and externally via existing relationships with public and private sector organisations. During all this activities the ethics advisor will be informed of the regarding activities in order to ensure a process in accordance with good practice.