Deliverable 2.1. Methodology for user involvement

Deliverable D2.1

Work Package 2: End-user input and validation

DOCUMENT HISTORY

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EXECUTIVE SUMMARY

In the Methodology for user involvement we present the methodology developed to guarantee the involvement of the end users based on the user centered design protocol.

TABLE OF CONTENTS

1. INTRODUCTION

The general objective of the project 3rD-LIFE is to improve the quality of life of ageing people by providing them with a virtual tool for interacting with other users and other functionalities. This will be addressed through the development of a tool consisting in a 3D virtual environment (based on existing 3D platforms) especially adapted to be used by ageing people. With only a computer and an Internet connection, the users will be able to, from their own homes and through their own voices, communicate with other users, make audio and video calls to real world terminals and have a more joyful and active life thanks to the e-learning tools, cognitive games and other applications that will be implemented.

The operative objectives of the project are:

1. To define the specifications of the system by the end-users and have a continuous feedback from them during the development phases.

2. To develop a reliable and safe collaboration environment to improve the cooperation work needed.

3. To develop a fully functional 3-dimensional computer simulation platform based on existing basic platforms.

4. To design and create the content of the platform on 3D environment that will constitute the functionalities, visual aspect and interaction possibilities that the users will have within the platform.

5. To include existing tools and applications (interoperability), through new adaptations to be used in the 3D virtual environment.

6. To validate the final solution in pilot testing in two EU countries to ensure the reliability, usability and adaptability to the final users' needs.

7. To develop a detailed exploitation plan for the results of the project based on market analysis and potential evolution.

8. To disseminate the project results to final users, public administrations and research community.

9. To adequately monitor the progress of the achievements of the project and coordination of the tasks and contributions of the different partners.

2. SCOPE OF DELIVERABLE

Deliverable 2.1 "Methodology for users' involvement" presents the elaboration of the user requirement data collection. This is the initial design phase (idea generation & design input) which aim is to get to know and collect information about the end users that will be the base for further development of the project. In this deliverable the methodology of user requirements data collection is presented, with a focus of elderly needs regarding to social support. The method is specifically chosen to fit the target group and to apply an User Centered Design with: (i) questionnaires, (ii) interviews, (iii) working groups; as instruments.

Based on the results from the user requirements that are described in this first phase of the project, a platform will be developed that match with the needs and interests from elderly users. The platform will in a later stage be tested by end users. These last steps will be described in more detail in future deliverables since the exact procedure is not yet planned.

The deliverable is structured as follows: Section 3 gives a description of the methodology used to involve end users to the project, a short description of User Centered Design that is planned to be executed through the whole project and the procedure. Participants and the first contact with the participants is then described in section 4. Section 5 and 6 include descriptions of the methods to be applied for activities with user involvement and section 7 introduces some ethical considerations related to the scope of specific part of the project with user involvement.

3. METHODOLOGY

3.1 USER CENTERED DESIGN

Within the 3rD-LIFE project the consortium has chosen to apply User Centered Design (UCD), which means a development approach that focuses on the end users that will become to use the product or service created (Courage & Baxter, 2005). The aim of UCD is that the product/service developed should suit the user, rather than making the user suit the product/service. This is accomplished by employing techniques, processes, and methods throughout the life cycle of the product/service, that maintain the focus on the user from the very beginning until the end. There are three key principles of UCD regarding Courage & Baxter, 2005 that we apply throughout the project:

An Early focus on Users and Tasks

The first principle focuses on the systematic and structured collection of users´ requirements. By letting the user be involved from the beginning in the development, the usability of a product and the usefulness of a service is maximized. It is also an effective procedure since as earlier the end user is involved in the process, the earlier useful input is known and that way it is possible to avoid developing in a direction that after the user testing has to be changed or repaired. The first step realized in 3rD-LIFE was to gather this user requirements to get an understanding of such things as what the user really wants and needs, which activities they participate in or would like to perform. This information will later on be invaluable when creating a superior product.

Empirical Measurement of Product/Service Usage

The focus of this principle is of ease of learning and effective, error-free use. This can be assessed early in the life cycle via usability testing of prototypes/models. A usability test is planned to be administered in a later phase of the project where the user interacts and is asked to complete a session of tasks with a prototype or the final product. Different metrics such as errors, assists, and task completion rates predicts the usability and are analyzed so that changes are made to improve the product/service before the final version is developed.

Iterative Design

This is the final principle, that recommends that requirements are collected and the product/service is designed, modified, and tested repeatedly. The development cycle is not something to go through, it is continuously iterated and fine-tuned with each cycle until it becomes right. It is impossible to get all the information the first time, no matter how expertly the usability activity is executed. This means that there will be many repetitions of the methodology throughout the projects life-time.

3.2. PROCEDURE

The requirements, needs and wishes of end users, who will serve as the backbone of the 3rD-LIFE project is collected and the objective is as mentioned above to have a bottom-up approach where end-users are involved in the design process already from the very beginning. Participants will then be required to participate in another two phases which means three occasions within the whole project: Initial design phase (ideas generation & design input), first and final trials.

The first step in the user requirement data collection is to develop the questionnaire, together with the input of both user-related partners, INGEMA and CURE. The first draft of the methodology was discussed during the kick-off meeting and later teleconferences (Skype) were placed specially assigned to discuss the questionnaire between the two centers and some important issues were raised and discussed. The results agreed at the calls were implemented and after some refinements from both centers the final version was reached. (see appendix 1). A data matrix for further analysis of the results was designed and shared between INGEMA and CURE so that the analysis of the results will be easy to prepare. The overall results from the user requirement data collection is thought to guide the developers on how best to design and adapt the 3rD-LIFE platform for the target group. Based on the questionnaires and interviews results, the same participants will attend groups where, using participatory design methods, will give their input for specific aspects of the system, as appearance, navigation, etc.

Although the methodology for gathering user requirements has been discussed and agreed by both user-related partners, INGEMA and CURE, there are some specific aspects that vary in each center process that is an important part of the project. Both partners are in charge of involving users in the project but with two slightly different and complementary points of view, which give the project a wider and more comprehensive analysis of the user needs. While INGEMA bases its expertise in analyzing and studying the psychological and social needs of the elderly, CURE is more centered in the usability and user experience with technologies. Therefore, some common input will be available from both countries, and some specific differences that highlight the richness of the process having two different perspectives.

Throughout the project development, an iterative design will be followed so the users will be contacted to test some of the technological developments separately to ensure that these meet their needs. During this second phase, the first implementations, based on the data collected in the first phase (needs collection), will be evaluated with low-fi prototypes with the participation of target user groups and necessary amendments will be carried out, depending on the results.

In the last phase of the project trials will be conducted. The trials, both the initial and the final trials, will be conducted in San Sebastian, Spain and in Vienna, Austria. The procedure, as for the requirement phase, will be slightly different in the different countries due to local preferences and possibilities. The final evaluations of the 3rD-LIFE platform will mainly observe how the users interact with the final prototype and technology acceptance will be studied. Users' opinions on aspects that may be improved will be gathered.

The detailed procedure and plans of the both user evaluations will be prepared specific for each phase based on the results obtained in the previous phase, and is therefore not included in the scope of the actual deliverable.

Specificities of both countries are described in the next paragraphs.

INGEMA

A structured interview will be carried out with the questionnaire as a guide, to collect information regarding socio-demographic data, life situation, social support, skills, interests and interactions with new technologies. The interview will be conducted in the presence of the participant, that will attend to INGEMA´s Lab. The interviews are planned to be done to two groups of participants: the main target group of the project (people 60-75 years old), and a younger group of participants that have relationship with people from the main target group that live in the distance. Through these two groups, we expect to obtain complementary points of view of potential uses of the system. The different inclusion criteria of both groups of participants are described in section 4 of the actual document.

Additionally, working groups are planned to be held after the interviews and partially based on the results obtained in those. In the groups, the participants will get the opportunity to express and discuss their interests and opinions of their daily life activities, and activities they can imagine being useful in a virtual world. They will be confronted with simulated situations, following a participatory design, in order to get feedback from their specific needs related to the 3rD-LIFE development ideas. Both groups of participants will be included in the working groups.

CURE

The whole procedure consists of two phases:

PHASE 1: The aim is to gain an overview of the target users daily life and social activities.

PHASE 2: The aim is to focus on the characteristics of the 3D Desktop Environment and to investigate the general attitudes, preferences, wishes and abilities of the target user groups

Both phases will be described with more detail in section 5.5 of this deliverable.

4. PARTICIPANTS

In both countries, there will be a total of 50 participants recruited at different occasions and divided into working groups. Due to the risk of drop-outs there will be initially an over recruitment. At INGEMA (Spain) an initial sample of 30 users is expected for the first phase (user needs), and 4-5 groups (7 people each) for the trials are expected to be recruited. CURE (Austria) will recruit a total of 2-3 groups with a minimum of 7 people in each. Already at the initial contact the participants will be informed that they will be asked to participate in various phases throughout the project.

Primary users (aka "Elderly")

The main target group in 3rD-LIFE is elderly people between 60 to 75 years old, without specific cognitive and/or physical problems, living independently and being active. The project is directed to end users with some previous computer experience, since they are those who can take profit of a 3D virtual environment.

The inclusion criteria in both countries are:

- Men and woman between 60 and 75 years old.
- Subjects without specific cognitive deficits or physical impairments.
- Subjects with previous experience of computers and/or Internet.
- Subjects available to participate during the different trial phases, through the whole project.

The exclusion criteria are:

- Subjects outside the selected range of age, less than 60 or older than 75 years old.
- Subjects diagnosed with cognitive decline associated with a dementia or any other pathology that affects the cognitive functions.

Secondary users (aka "Family & Friends")

Apart from the target group there will also be secondary users, the aim is to collect requirements and needs from a group of people that has more contact with technologies and that could be one of the groups that will interact with the primary users group in the use of the 3rD-LIFE system. This group will be composed of those younger users that on a regular basis have remote contact with friends and relatives belonging to the primary users group, because they live in distance.

The inclusion criteria for secondary users are:

- Age between 20-50 years old
- Having friends and/or relatives from the primary user group that live in distance (at least in another city).
- Experience in using computers and/or Internet
- The same inclusion criteria as for the target group will be considered (see above).

Tertiary users (aka "Service Providers")

This project will involve and interest some external services industries like home help services (cleaning, catering, etc.), curses providers, administrations, travel agencies, and other service providers that meet the requirements specified by the users in the requirements phase. The tertiary users will be involved in the dissemination process in the very end of the project.

4.1. ESTABLISHING CONTACT WITH THE PARTICIPANTS

SPAIN

15 elderly people participated in the initial interview. This number was considered enough for the first phase due to previous experience, that tells us that the user requirements does not differ so much as long as the user inclusions are respected. The number will then be amplified for the trials to the total numbers of participants (40-50).

15 users from the Secondary users group.

Participants were recruited from a list of people who previously signed up as interested in participating in research studies conducted by INGEMA.

The participants on the list that seemed to fit the user inclusion criteria, were contacted by phone where they received a short introduction to the project including the aim and the main objectives of 3rD-LIFE.

Interested people were invited to participate in an individual interview at INGEMA´s Lab. Once there they received more information about the project: Project proposal, voluntary participation, participation conditions, eventual risks, benefits, privacy (in line with the Organic Law 15/199 from December 13th, about the Protection of Personal Data), and study procedure. All details were given written in the participant's information sheet (see ethical related documents) and also explained by the researcher.

The potential participants first received the written consent form (see annex 2), which explains the study and conditions of participation. If the participant agreed on the conditions, the written consent form was signed by both the participant and the researcher administering the interview, so that the participation could start.

5. MATERIAL INGEMA

5.1 COGNITIVE ASSESSMENT

A cognitive assessment will also be conducted with INGEMA´s participant. The aim of the assessment is to control for some cognitive capacities like reaction time, visual memory, working memory and learning capacity. The test is carried out with the CANTABeclipse version 3 (Cambridge Cognition Limited) which is a tool that detects early cognitive changes in over 30 Central Nervous System disorders such as Alzheimer's disease, Parkinson's disease, ADHD, schizophrenia and depression. In this project, the capabilities mentioned earlier will be assessed with the application of these CANTABeclipse subtests:

Reaction Time (RTI). This task measures the reaction time after visual stimuli. The participants must do a specific task, in response of stimuli, as fast as she/he can.

Pairs Associated Learning (PAL), this task measures the visual memory and learning capacity. There are a number of boxes that randomly open and close y and some of them have some figures inside. After all boxes are opened, the participant must respond in which box which figure was. This task is important in our study because the visual memory and learning capacity are crucial while working with virtual environments for the remembering and posterior recognition of objects of the virtual environments.

Spatial Span (SSP), this task measures the working memory. There are a number of white boxes that sequentially change their colour. The participant must remember the sequence in which the boxes changed their colour and touch the boxes in that order. Working memory is essential for planning and execution action sequences, so will have a mayor influence in the use of 3rD-LIFE.

For more information regarding the software, please visit: www.cantab.com

5.2 INTERVIEWS

Interviews are one of the most frequently used user requirements gathering techniques and has frequently been successfully used in previously projects at INGEMA (for example,

BEDMOND (AAL), HERMES (ICT), GUIDE (ICT)). An interview is a guided conversation in which one person seeks information from another and has some advantages over other methods. There is a variety of different type of interviews to be conducted, depending on the constraints and needs, and for the actual 3rD-LIFE project the structured interview with already closed questions was considered the most appropriate one in the first phase to gather user requirements. Structured interviews have some positive features like: quick to analyse, questions asked are consistent across participants, and also generally more questions can be asked than in an unstructured interview.

Methodology of interviews

A structured individual based questionnaire (see annex 1) interview will be carried out which in information about participants as formal information, their social network, activity preferences and previous experience with technology was collected. The interviews will take place at INGEMA´s laboratory where each participant will meet one researcher who will explain the study, hand over the informed consent, administer the questionnaire and conduct the cognitive assessment. The whole visit will last approximately 1.5 hours where half of the time will be designated to the interview/questionnaire and half to the cognitive assessment. To facilitate for the elderly users and to get a good interaction between researcher and user to avoid eventual misunderstandings, the questionnaire will be read aloud by the researcher and the participant also will answer orally. In that way eventual doubts could be solved in the moment.

5.3 WORKING GROUPS

The second phase of user requirements will consist in organizing a working/focus group. Both primary and secondary users will participate in the groups.

The working group is thought to complement the data collected in the interview to gain a deeper and holistic view of the users' interests and needs. A group of individuals will be brought together to discuss their experiences or opinions around the topics introduced by a moderator. These encounters will be practical sessions where the moderator will show the

participants some examples of the platform so to generate an active participation and response of the participants, about the new system. This method is known to be good for quickly understanding user perception about a particular topic or concept. One of the key benefits is that the group dynamic bring up topics you may never have thought to ask about, it can stimulate new ideas (Courage & Baxter, 2005). Also problems, challenges, frustrations, likes, and dislikes among users can be discovered in a working group. They are a good help for the researcher to understand the users' opinions, attitudes, preferences and initial reactions.

The final working groups will provide the information needed to prepare for other usability activities in the first trial and final trials. The detailed procedure and plans of the working groups will be prepared specific for this phase, and based on the results obtained in the interviews together with the first input questions from the technical partners, and is therefore not included in the actual deliverable.

6. MATERIAL CURE

Phase 1 will focus on the social life and communication habits of the elderly & younger family members, for this it will be done an Initial Questionnaire as online Survey. In Phase 2 focus on the abilities and preferences of the elderly for controls, UI Elements, Avatars, etc. of the 3D Environment, for these Semi-structured interviews will be carried out.

PHASE 1: The questionnaire will be carried out with at least 30 participants from the primary target user group and 30 participants from the target user group secondary participants from primary target users and secondary target users A (younger family members and friends, aged between 20-45). Since both user groups are defined as experienced internet users, the questionnaire is applied as online survey, using EFS Survey System. The questionnaire for the younger participants concentrates on the relationship of the younger participants with their older family members such as grandparents and parents. Therefore, the attitude and preferences of different age groups and their common points will be explored regarding activities and communication. As a result more participants are contacted. Moreover, depending on their answers, participants will be invited for the Phase 2.

PHASE 2: The focus of the second phase is on the user interface and the characteristics of the 3D Environment. 3D Interfaces are common in games or online social platforms; however, there are very few examples of 3D virtual environments designed especially for elderly. Related research is mostly done in the field of rehabilitation and physical therapy and computer game design. (Grammenos, 2009; Pinkwart 2009; Chodos, 2010) Therefore, for the target user group, the planned interface concept is quite new and unfamiliar, even though the 2-Dimensional interfaces are a part of their daily life. One of the challenges for the requirements analysis phase is to explain the concept of the project to the target user group. The focus will be on the user interface elements and control methods, therefore individual semi-structured interviews will be carried out.

In the CURE Experience Labs existing online social Platforms will be evaluated individually with the participation of 10 primary and 10 secondary users. Based on the existing 3D online

platforms such as Second Life, Active Worlds and Twinity, the participants will be asked on their opinion and preferences about issues like viewpoint (perspective), characteristics of the environment and the avatars, 3D environment interaction elements (info-points, objects, etc.), navigation elements (maps, doors, etc.) and social interaction elements (chat board, speech, gestural animations, etc.). After the concept of 3D desktop environment is clear for the participants, their preferences and ideas about the possible activities on the 3D platform will be collected. Each participant will be asked to use the platform with different control methods (only keyboard, keyboard and mouse, etc.) The results will deliver input about the abilities & requirements of elderly using and navigating in the 3D environments. This input will be considered in the WP3 and WP4 during the design and development of the 3D environment, activities and features.

7. ETHICAL CONSIDERATIONS

General international ethical guidelines for scientific investigation have and will be followed during the development of the project. The idea is that the research is conducted in a correct way and that the experience will be as pleasant as possible for the users involved.

As within the WP 2 of 3rD-LIFE project, Deliverable 2.2 is totally dedicated to ethical and data protection, only some relevant points for the current deliverable are highlighted here.

Data protection

To guarantee the users' anonymity, all the individuals will be assigned an alphanumeric code at the beginning of their participation. In this way personal information will be disassociated from project related data in a different database that will not be used for further analysis. In Spain, only one of the INGEMA researchers; and in Austria only one of the CURE researchers will manage the database, in which the personal data are listed.

Time limit

The design of the user requirement data collection has been done with the end users in mind. The questionnaire is elaborated to collect both the data the researchers are interested in but also to maintain the time the users has to spend in the laboratories as short as possible. A role-play was conducted at INGEMA, where the time it took to fill the questionnaire in was estimated to 45 minutes. The cognitive assessment was estimated to last more or less 45 minutes as well so that the total first visit lasts 1.5 hours approximately. Between the interview and the cognitive assessment the users were offered a coffee break to avoid fatigue that could affect the results.

Information

The users will receive thorough information about the project already in the initial contact with the project. They receive all information written in the consent form and also a separate information sheet with more details specified to take home.

8. CONCLUSION

It has been decided that in both countries, there will be a total of 50 participants recruited at different occasions and divided into working groups. As there is a risk of drop-outs there will be initially an over recruitment as follows:

- At INGEMA (Spain) an initial sample of 30 users.
- At CURE (Austria) will recruit a total of 2-3 groups with a minimum of 7 people in each.

Two users groups will be taken into account in this project:

- Primary users.
- Secondary users.

It has been decided to work following a User Centered Design philosophy. Because of that a specific questionnaire was developed.

Ethical issues will be taken into account during the whole project. This point has been further developed in D2.2.

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10. APPENDIX

10.1. INITIAL SURVEY FOR PRIMARY USERS OF 3rD-LIFE PROJECT

(Participant code #:)

A.1. Are you male or female:	❍ female ❍ male
A.2. Age:	
A.3. What is your marital status?	❍ married/ with partner ❍ single ❍ widow ❍ divorced
A.4. How do you live?	❍ alone ❍ with spouse / partner ❍ with children ❍ both with children & spouse/ partner ❍ with other family ❍ with friends ❍ others:_____
A.5. What is the highest level of education you completed?	❍ Less than primary education ❍ Primary education ❍ secondary education ❍ Higher Education
A.6. Are you attending evening courses, adult education programs or similar?	❍ yes: what courses do you attend? _____ ❍ no
A.7. Have you retired or still working?	☐ retired as _____ ☐ working as _____
A.8 Which languages can you speak?	1._____ 2._____ 3._____
A.9. Which language do you normally use?	

B.10 With which persons do you consider yourself having a close relation?

Siblings:_____
Children:_____
Grandchildren:_____
Friends:_____
Others (Please define):_____

B.11. How far is your home from their?

❍ Same street? Who_____
❍ Same city? Who_____
❍ Another city/town but in the same province? Who_____
❍ Another country. Who & where?_____

B.12 With which frequency do you meet them?

Freq. / Who	1. Home (H) X. Both 2. Outside	Every day	Once or twice a week	Once or twice a month	Once or twice every year	Never

B. 13 With which frequency do you communicate with your close social relationship (people you listed above) through/with/via

Freq.	Every day	Once or twice a week	Once or twice a month	Once or twice every year	Never
Telephone(landline)					
Mobile phone					
sms					
mms					
e-mail					
Social network sites (face, etc.)					

mail					
tele-conference					
chat					

C.14. Please list the activities you rather do.

Sports:

Games:

Cultural:

Social:

Travel:

Charity/ Voluntary:

Religious:

Others:

C.15. What are the favorite activities that you do together with your family & relatives? Please name three.

C.16. What are the favorite activities that you do together with your friends? Please name three?

C.17. Are there any activities you enjoyed having done but don't/can't do anymore because of limitations or restrictions (time, financial, health, etc.)?

❍ yes – what are they?

❍ no

C.18. Are there any daily life routines (shopping, banking,etc) you can't do anymore because of limitations or restrictions (time, financial, health, etc.)?

❍ yes – what are they?

❍ no

C.19. Are there any activities that you have never done, but wish/dream of doing ?

❍ yes – what are they?

❍ no

D.20 How frequent do you use the following technological devices?	Daily	Weekly	Several times a month	Several times a year	never
Television	❍	❍	❍	❍	❍
Radio	❍	❍	❍	❍	❍
Desktop computer	❍	❍	❍	❍	❍
Laptop	❍	❍	❍	❍	❍
Tablet computer (iPad, etc)	❍	❍	❍	❍	❍
Smartphone (over which you can use internet and various applications)	❍	❍	❍	❍	❍
mp3 player (mobile music player)	❍	❍	❍	❍	❍
e-book reader	❍	❍	❍	❍	❍
other_____	❍	❍	❍	❍	❍

D.21 How frequent do you use the following technological devices and services?	Daily	Weekly	Several times a month	Several times a year	never
Internet (general, information)	❍	❍	❍	❍	❍
Internet (internet-banking, governmental forms, etc.)	❍	❍	❍	❍	❍
Internet (social network sites like senior clubs, facebook, etc.)	❍	❍	❍	❍	❍
Internet (online games)	❍	❍	❍	❍	❍
Video game consoles (wii, kinect, etc.)	❍	❍	❍	❍	❍
3D Video games (e.g. Sims, Warcraft)	❍	❍	❍	❍	❍

D. 22 Please state how much you agree to the following statements.	Strongly agree	Agree	neutral	Disagree	Strongly disagree
I enjoy shopping online	❍	❍	❍	❍	❍
I enjoy browsing (surfing) websites without any specific purpose	❍	❍	❍	❍	❍
I feel anxious that online communications can potentially be seen, heard, or otherwise accessed by other people	❍	❍	❍	❍	❍
I feel that the Internet has allowed me to keep in touch with many	❍	❍	❍	❍	❍

people					
I feel anxious that my personal information may be available over the Internet	❍	❍	❍	❍	❍
I like to look up information about businesses, services, and/or products on the Internet	❍	❍	❍	❍	❍
I have had more good experiences than bad experiences using the Internet	❍	❍	❍	❍	❍
I would prefer to communicate through writing a letter or a memo rather than an email	❍	❍	❍	❍	❍
I feel uncomfortable using my credit card online.	❍	❍	❍	❍	❍
I enjoy using the Internet to pass time and/ or to have fun	❍	❍	❍	❍	❍
I would prefer to go online to conduct most of my banking	❍	❍	❍	❍	❍
When searching for information, I would rather read books, magazines, and newspapers than browse the Internet	❍	❍	❍	❍	❍
I only feel comfortable using online stores to browse or compare prices	❍	❍	❍	❍	❍
I avoid using the Internet whenever possible	❍	❍	❍	❍	❍
I enjoy using the Internet for instant messaging or other types of real-time communication	❍	❍	❍	❍	❍
Overall, I enjoy using the Internet	❍	❍	❍	❍	❍

10.2. INFORMED CONSENT USED IN SPAIN.

Informed Consent Form

Partner	Name	Acronym	Country

1 (Project leader)	Fundación Instituto Gerontológico Matia	Ingema	Spain
2	University of Ljubljana	UL	Slovenia
3	One 2 Tribe	O2T	Poland
4	Information & Image Management Systems	IIMS	Spain
5	Centre for Usability Research and Engineering	CURE	Austria

Title of the project:	3rD-LIFE3rD-LIFE: 3D VIRTUAL ENVIRONMENT FOR SOCIAL INTERACTION OF ELDERLY PEOPLE
Coordinator:	Cristina Buiza (INGEMA)
Principal investigator at local level:	Cristina Buiza (INGEMA)
Institution	INGEMA
Financed by	EU, bmvit
Programme & Call	AAL Joint Programme - Call 2
Project Number	AAL-2009-2-XXX
Project Duration	18 Months
Project Start & End	July 2011 – December 2012

The study described in this text is a part of the research project 3rD-LIFE3rD-LIFE: 3D VIRTUAL ENVIRONMENT FOR SOCIAL INTERACTION OF ELDERLY PEOPLE, funded by European Union (EU) and [National funding Organization] under the AAL Joint Program.

I. INTRODUCTION:

You have been invited to participate in a research study. Before you decide to participate, please read this consent report carefully. Please ask all the questions that may come to your mind. In this way, we will be sure that you understand all procedures of the study, including the risks and the benefits.

This consent sheet may include words that you do not understand. If so, please ask the contact researcher or any person included in the study to explain to you any word or information you do not clearly understand. You can take a copy of this consent to think about it or to discuss it with your family before making any decision.

II. AIM OF THE STUDY:

The main aim of the 3rD-LIFE3rD-LIFE project is to develop a 3D virtual desktop environment providing a tool for entertainment, education, communication and other functionalities to improve the quality of life of ageing people (aged 60-75 years) without specific cognitive impairments exceeding the expected level due to the healthy ageing process. With only a computer and an internet connection, it will be possible for the ageing target group to communicate, make audio and video calls to external telecommunication devices from their own homes and through their own voices, and live a more joyful and active life through the 3D environment (based on existing 3D platforms). The 3D environment will help the users to communicate in the "natural way" (the project will concentrate on user interface usability), through the well designed virtual world and spacial navigation. This will differentiate the solution from the typical, portal like 2D, text-based tools.

III. PARTICIPANTS AND POSSIBLE PARTICIPATION IN THE STUDY:

You are being kindly asked to volunteer in this research study. This consent/information form includes information about this study. We want to make sure that you are informed on the purpose of this study and what it means for you to participate in this study.

Please ask us for clarification on any point in the following information sheet. If you do not understand certain contents, please do not sign this form before you feel confident that you are aware of the study and its goals.

The participation in the study is totally voluntary. You can quit at any moment without being penalized or losing your benefits. However, we kindly ask you to participate in all of the requirements analysis and end-user input studies throughout the project.

The primary participants will be elderly people aged between 60-75 with no cognitive impairment or age associated memory impairment. None of the participants in this study, primary participants as well as other participants, like family members, friends or health professionals should have strong symptoms of cognitive diseases (e.g. Dementia, Alzheimer) or visual impairments resulting problems in depth perception.

IV. PROCEDURES:

In the initial phase, your participation will consist of an interview/ questionnaire. The goal will be to gather information about: demographic data, quality of life, social activities, communication habits (friends & family), physical, psychological and social health, skills and interests about new technologies. Also a brief cognitive assessment will be carried out. In this working memory, learning and reaction times will be measured. A report with your results in this assessment will be send to your home.

As a next step, a working group will be organized to gather preferences, needs and requirements of the participants regarding the 3D environment (design, functionalities, controls, etc.).

After this step, trials will be carried out using low- & high-fidelity prototypes with participation of the target users.

V. RISK OR INCONVENIENCES:
No risks or damages are foreseen during the assessment.

VI. BENEFITS:
It is likely that you will receive any personal benefit for your participation in this study. In any case, the data collected in this study might result in a better knowledge of elderly people's needs.

VII. PRIVACY AND CONFIDENTIALITY:
We will record your responses, however no personal identification will be included. In other words, when you agree to participate in the research, your results will receive a code-number, and the data will be saved under that code anonymously. The information will be processed during the analysis of the data obtained and will appear in the project deliverables but only in the way that it will not be possible to identify from whom we received the information observing at all times:

> The Spanish Data Protection Organic Law 15/1999, at December the 13th:
> "In that law performance we inform you that all personal data that you will provide us by the filling out of the present questionnaire or by the documentation that you will give us to Ingema Foundation will be part of an automated file property of the Foundation, and they will only be used for the management steps and the turnover of the provision of services. Likewise you expressly give us your consent of the data use for the research aims"

The results of this research can be published in scientific magazines or be presented in clinical sessions, always guaranteeing the complete anonymity.

The authorization for the use and access of the information for the aim of research is totally voluntary. This authorization will apply to the end of the study unless you cancel it before. In this case we will stop the use of your data.

If you decide to withdraw your consent later on, we ask you contact principal investigator of this study and let him know that you are withdrawing from the study.

The Principal Investigator can be contacted under the following address:

Cristina Buiza Bueno
Fundación Ingema
Parque Tecnológico de San Sebastián. Paseo Mikeletegi 1-3
20009 San Sebastián
Telf. 943 224643

Since the moment of your withdrawal, your data will not be processed again in any further phases of the research project. However, it will not be possible to alter already existing published documents or completed project deliverables.

VIII. CONTACT PERSON

For further information about your rights as a research participant, or if you are not satisfied with the manner in which this study is being conducted or if you have any questions or suffer any injury during the course of the research or experience any adverse reaction to a study drug or procedure, please contact the principal Investigator:

Cristina Buiza Bueno
Fundación Ingema
Parque Tecnológico de San Sebastián. Paseo Mikeletegi 1-3
20009 San Sebastián
Telf. 943 224643

IX. CONFIRMATION:

Your participation in the study is possible only if you sign a stand-alone consent form that will authorize us to use your personal and health information and the information on your health status. If you do not wish to do so, please do not take part in this study.

I have read the information written in this consent report or has been adequately read to me. All my questions about this study and about my participation on it have been met.

Tick one of the following:
O I read all the information in this form.....
O The information in this form was read to me by: .....

All questions I had were answered by: .....

I authorize the use and dissemination of my answers to the aforementioned entities and for the above mentioned purposes. The signing of this consent report does not imply the renunciation to any legal right. I voluntarily agree to participate in this research study carried out by Ingema Foundation and other members of the 3rD-LIFE3rD-LIFE project.

I understand that I am entitled to and will be given a copy of this signed Consent Form.

Name and Surname of participant:.....

Date:.....

Signature of participant:.....

Name and Surname of the researcher:.....

Date:.....

Signature of the researcher:.....

X. PHOTO, VIDEO AND AUDIO RECORDING

The study is led by:

Cristina Buiza Bueno

Fundación Ingema

Parque Tecnológico de San Sebastián. Paseo Mikeletegi 1-3

20009 San Sebastián

Telf. 943 224643

As part of this research project, photograph and audiotape recording during the participation in the study will take place.

I have received a thorough description of the purpose and procedures for these recordings and I give my consent to allow INGEMA record during my participation; process, use the recordings or parts of the recordings in analysis, related studies and project results and presentations, as well as for marketing and PR purposes of the research project 3rD-LIFE3rD-LIFE*:* 3D VIRTUAL ENVIRONMENT FOR SOCIAL INTERACTION OF ELDERLY PEOPLE. I understand that all information will be kept confidential and will be reported in an anonymous way.

Name and surname of participant:

……

Date:……

Signature of participant……

Name and surname of the researcher:

……

Date: ……

Signature of the researcher.....