Project acronym: **Go-myLife**

Project full title: **Going on line: my social Life**

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D6.1 Methodology of pilot testing and evaluation

Authors:

Teresa Holocher-Ertl / ZSI

Maria Schwarz-Woelzl / ZSI

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Author(s):	Teresa Holocher-Ertl and Maria Schwarz-Woelzl (ZSI)
Participant(s):	Klaus Schuch (ZSI) Michael Mulquin (ISComm) Artur Kolesinski (SSW) Fabio Tumiatti (ATOS) Vishal Jain (451G)

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Abstract

This document presents the analytic, conceptual and methodological framework for the pilot testing and evaluation of the Go-myLife platform in UK and Poland within workpackage (WP) 6.

Based on a literature review, it contains a description and discussion of the start of the art of end user involvement and evaluation methodologies especially with older people in research projects.

It defines the methodology of user involvement and evaluation for the Go-myLife platform during two testing periods: A first pilot testing for a period of 2 months, including 30 to 36 persons in UK and Poland from December 2011 until January 2012. A second testing of the optimised pilots for a period of 1 month, including the same 30 to 36 persons in UK and Poland in July 2012.

The document also includes a list of key indicators that were derived from the expected benefits of the DoW and D7.1 Social impact and Economic benefits. These key indicators define which data will be collected, measured and analyse to investigate the user acceptance of the Go-myLife platform and the perceived impact of its usage for the lives of older people.

Finally the deliverable describes the involved pilot sites in UK and Poland, number and profiles of test users, as well as the introduction and facilitation processes for the acquisition, training and support of end-users during the pilot tests.

Keywords

Older people, online social network platforms, user involvement, evaluation, methodology, measurement, benefits

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List of Abbreviations

SN	Social Network
ICT	Information Communication Technology
AAL	Ambient Assisting Living Programme
WP	Work Package
UX	User Experience
HCI	Human Computer Interaction
CSCW	Computer Supported Cooperative Work

1 Introduction

This document presents the analytic, conceptual and methodological framework that has been developed as a start-up input to the Go-myLife project and serves as a methodology of testing and evaluation within workpackage (WP) 6.

1.1 About the Go-myLife project

Go-myLife (full title: "Going on line: my social life") is an AAL2 project aiming to improve the quality of life for older people through the use of online social networks combined with mobile technologies. Go-myLife is developing a mobile social networking platform customised to the needs of older people, supporting interactions with their peers and families, as well as easy access to information.

Start date: 1 July, 2010 End date: 31 December, 2012

Website: www.gomylife-project.eu

1.2 About this deliverable

This deliverable is prepared within the sixth WP of the Go-myLife project, namely WP6: "Evaluation and validation through scenarios" aiming to define the methodology for pilot testing and evaluation of the Go-myLife platform.

Target audience of the deliverable

This document is a public deliverable. However, given that it is mainly intended for the project partners and the European Commission services, the document will be made public, but not specifically disseminated on a wider scale.

Research approach in WP6

The main aim of WP6 is to ensure that the Go-myLife services are consistent with the planned objectives set out by the project and according to real end-users' needs as explored and defined in WP2. The objectives of testing and evaluation approaches are twofold:

- to ensure that the generated platform is designed and implemented in a way as to satisfy the requirements and needs of the end-users. Therefore, we need to detect any non-conformances that may occur during the lifetime of Go-myLife and lead to unexpected consequences. This will be accomplished through verifying and validating the results during two stages with the participatory involvement of the end-users.
- to evaluate the research results in relation to the general objectives set up by the project, i.e. the design of identity management and privacy friendly community services' platform. This task deals with the evaluation from a legal and socio-economic perspective and will result in conclusions and policy recommendations.

Therefore, evaluation will be completed on two levels:

- first by providing the end-user input when the platform design documents, the

platform itself and the prototypes are being created, and

- second by performing a general, legal, technical and economic evaluation after the first platforms and community prototypes have been designed, built and put to trial.

Both activities aim to identify the strengths and the weakness according to the goals set up by the project and to learn from these evaluations of pilot phase 1 for the second iteration. A second, final, iteration of both activities is planned: first by providing legal input into the second iteration of the platform design process and the platform and the community prototypes implementations, and second by a general, legal, technical and economical evaluation after the second version has been built and put to trial.

The interim findings from both pilot testings (phase 1 and phase 2) will be described in the interim reports (D6.3 V1 and V2). The summary of results will be documented in a synthesis report (D6.4). The user-involvement activities and data collection in the two pilot sites will also feed the legal, economic and technical evaluation of the platform (D6.2).

The structure of this deliverable

The information in this deliverable is covered in three chapters:

Chapter 2 provides a literature review of state of the art on evaluation methods in the interlinking area of mobile technology, ICT and older people.

Chapter 3 presents the evaluation objectives and applied user-involvement methodology for the assessment of the Go-myLife platform in two pilot phases in two pilot sites, namely UK and Poland, as described as task T6.3 in the Go-myLife's DoW.

Chapter 4 introduces the setting of the two pilot sites, including a description of the participants and the framework for facilitation and training.

2 Evaluation of mobile technology with older people – state-of-the-art

When developing new ICT products it is essential to investigate the needs and requirements for new services and solutions and elaborate appropriate concepts that relate to these specified needs.

It is also essential to test the new ICT products with the target group in a context which is as close as possible to real life settings, to investigate the usability and user experience of the new technology as well as possible impacts of the new technology to the target-groups' lives.

But conducting field tests and usability studies with older people with limited experience in ICTs usage for innovative products is a challenging process. Already in D2.1 we defined several challenges when involving older people in research:

- Older people feel often reluctant to talk about their individual problems, thus care needs to be taken to choose topics carefully and to collect information on sensitive topics appropriately.
- Older people tend to have limited experiences of new technology, often approaching it with fear and a perception of complexity and thus, when they fail to deal with new technology, tend to blame this on their own lack of knowledge and ability instead of blaming poor design.
- Older people might have decreasing cognitive and physical abilities, and these have to be taken into consideration when setting up an evaluation design and data collection instruments.
- Older people sometimes find it difficult to communicate clearly and designers, if not very well trained, therefore tend to miss the messages they are trying to convey.

These challenges, once defined for the user requirement elicitation of Go-myLife, have also to be addressed for the user-involvement and evaluation of the Go-myLife pilots. In addition further challenges arise, which are related specifically to the usability evaluation with older people.

But the involvement of older people is not the only issue that poses challenges to the testing of the Go-myLife prototypes. Mobile technology itself requires researchers from HCI (Human Computer Interaction) and CSCW (Computer Supported Collaborative Work) to re-think, adapt and recombine existing methodologies for data collections. It's the complexity that physical movement and changing variables present for data collection and research design (Kjeldskov and Stage 2004), as well as the small scale and ubiquitous nature of mobile devices.

Go-myLife investigated and analysed these challenges and elaborated an evaluation and user-involvement concept that addresses them in an appropriate and innovative

way.

Chapter 2.1 will outline the main challenges that mobile devices present for HCI. Chapter 2.2 will present state-of-the art of involvement of older people in usability evaluations. In Chapter 3 the project's user-involvement and evaluation approach will be presented.

2.1 Evaluation of mobile technology – challenges and good practice

The literature on state-of-the art of mobile technology evaluation revealed the following challenges that mobile devices and applications pose to traditional HCI instruments. These challenges have also to be addressed in the Go-myLife evaluation methodology, described in chapter 3.

- Mobile devices allow a variety of new communication and coordination behaviours. Thus it's not enough to just investigate how people access information or use mobile devices for physical relocation. Research needs to better understand how people organise and define their social networks using mobile devices and these insights must be more complex than just assuming that using mobile phones is "using a computer while moving". (Hagen, Robertson et al. 2005) This is because mobile systems are typically used in highly dynamic contexts. Moreover, their use often involves several people distributed around the user's physical surroundings (Danesh, Inkpen et al. 2001). Therefore, field-based evaluations provide an appealing, and even an indispensable, approach for evaluating the usability of a mobile system (Kjeldskov and Stage 2004).
- When assessing mobile applications and devices, data is no longer collected in a static office environment, but researchers have to consider potential physical movements and changing geographical locations of users. But it is far from trivial to apply established evaluation techniques such as observation and think-aloud when an evaluation is conducted in a field setting (Sawhney and Schmandt 2000). This also includes the need to negotiate access to private space, as mobile devices are used both for professional and private reasons. Thus research environments have to balance the privacy concerns of participants with the need of researchers to gain access to the data (Hagen, Robertson et al. 2005).
- Mobile devices are designed on a personal scale for relatively discrete use within our personal body space. Therefore, capturing interface actions of the user can be physically impossible or perceived as very intruding (Hagen, Robertson et al. 2005).

To address these challenges, Hagen et al. (2005) found that traditional approaches in ethnography and field studies are being rethought – not in terms of their approach, motivation or theoretical commitment – but in terms of the methods used to achieve data collection. The authors identified three trends:

First, both participants themselves, as well as mobile technologies can be used to mediate data collection about use in natural settings to address the challenge of increased mobility and protection of privacy. Either participants could use techniques

such as diaries and cultural probes (Gaver, Dunne et al. 1999) to self-report about their mobile technology usage and experiences. Or the devices themselves could be used as tools for self-reporting, such as mobile probes, SMS probes or experience clips. Another option is for data collection to occur automatically, as a side-effect of technology usage, as is the case with log-files.

Second, stimulation and enactment are used as methods to allow prototypes to be tested and increase our understanding about the use context and user experiences. These methods enable a shared understanding between participants and researchers. Examples include expending traditional usability testing methods in the field (Goodman, Brewster et al. 2004) or conducting mobile heuristic walkthroughs (Kjeldskov, Graham et al. 2005). The importance of simulation and enactment requires the researcher to find techniques that "reflect or recreate a mobile use situation" (Beck, Christiansen et al. 2003), p. 107). Thus it is important to avoid isolating technology in labs, away from the context in which it will be used.

Third, researchers start to combine existing methods and/or mediated data collection and/or simulations and enactments to allow access to complementary data.

2.2 Evaluation of technology with older people – challenges and good practice

The literature review on HCI and the involvement of older people revealed that the need to integrate older people in a field study poses specific requirements to the design of user-involvement and evaluation activities, especially with regard to self-reporting of experiences.

Hagen et al.'s (2005) suggest that self-reporting of experiences is an appropriate and more and more widely-used approach to address the challenges of mobile HCI. But Dickinson et al. (2007) gathered some interesting experiences with self-reporting of older people. They found out that the combination of inexperience with new technologies and the use of experimental techniques can put considerable stress on test-participants and negatively influence self-reporting capacities. The quality of the reported data is affected by processing capacity, education, physical impairments and memory and this can reduce the technique's effectiveness with older participants.
Participants with little technical experience find it difficult to describe their experiences in detail so they tend to express their impressions in generalities, such as "I'm finding this difficult today". Confusion amongst older participants and especially beginners is often general, non-specific and poorly articulated.
Time is an extremely important factor, as especially at the beginning, problems and their descriptions might focus on such simple things as keyboards, touchpads etc. which older people may not be used to. So they would tend to say "Today I feel better, I can handle the touchpad better" rather than, for instance, commenting on the interface.

User-diaries
To facilitate the self-reporting of user experiences with new technology, user-diaries are often applied in HCI research. In order to record aspects such as successfully

completed tasks and perceived task difficulty a worksheet approach is often adopted for older people, based on the standard usability methodology of user-diaries (e.g. (Colbert 2001), (Czerwinski, Horvitz et al. 2004).
The problem with user-diaries for older people is that they have to recall the precise sequence of events after completing a task. If task and diary are completed at the same time, they interfere with each other. As Czerwinski et al. stated "journaling tends to add to the interruption of the flow of daily events" (Czerwinski et al. 2004, p 176).
A second problem occurred when older participants had physical problems with writing. Then they tended to write as little as possible.
Talking one-to-one to participants was the most effective way of eliciting information, and even then the process of discussing the procedure tended to interfere with the procedure itself. Following Dickinson et al. (2007) it seems unlikely that there is a complete solution to this phenomenon.

Thinking aloud
Another methodology of self-reporting which is often used in simulations is **Thinking aloud.** Due to the diversity of older people some older people produce excellent think aloud protocols and others not.
For those participants who struggle with the technique of thinking aloud, the main limitation comes from the way that struggling with unfamiliar user-interfaces to complete an experimental task can interfere with the thinking aloud process, which is especially difficult for participants with cognitive impairments (Dickinson 2005). But when separating the task-completion from the participant's thought processes, older people have often difficulties in recalling what they had done, and in which order, to complete a task. It turns out that older people rarely remember processes accurately unless they had repeated them several times.

Questionnaires:
In relation to the use of questionnaires as part of the self-reporting, Eisma et al. (2004) found out that older people use the "don't know" response more often than younger respondents, and are also likely to use the "don't know" option to questions that have complex syntax or are semantically complex and thus difficult to understand. Even when questionnaires don't have a "don't know" response item, older respondents tended to add the "don't know" column manually. Eisma et al. also referred to insights from Park et al. that older respondents are generally more "cautious" in their behaviour, and need to "have higher threshold levels of certainty" before responding to questions (Park and Schwarz 2000). Older people tend also to avoid the extreme ends of ranges in questionnaires.

General challenges to the methodological design

In general, inexperience with experimental situations can lead to uncertainty about the appropriate behaviour and sometimes reactions that researchers find difficult to understand. One example of this reaction would be older people who take friends with them for companionship and support. To react to this sort of unforeseen behaviour, more informal studies, which would in our example allow accepting those

companions and involving them as additional participants, are more suited to the requirements of older people.

In addition both the role of the researchers, and also the times at which conversation is permitted, have to be clear, as older people tend to involve researchers in the activities, often for reasons of politeness.

3 Go-myLife user-involvement and evaluation methodology

3.1 Criteria for the pilot testing and evaluation

The pilot testing and evaluation of the Go-myLife platform in two pilot sites has two main objectives:

1. The main objective of the testing activities in WP6 is to investigate the user experience (UX) with the Go-myLife platform, to gain insights on how older people in two different geographic European regions feel about using Go-myLife during and after the testing period. The UX evaluation will investigate and measure utility, usability, aesthetics and value of the Go-myLife system. Thus it will allow conclusions to be drawn on the user acceptance of Go-myLife by analysing the main determinants of technology acceptance (Davis 1989) – the perceived usefulness (=value in UX measurement), and ease of use (=usability in UX measurement).
2. The second objective of the project is to validate the strengths and weakness of the Go-myLife platform according to the initial goals set by the project. The pilot testing will provide insights in how far using the Go-myLife platform will impact the communication patterns of older peoples' social networks.

3.1.1 Goals of the Go-myLife project (user view)

The starting point for the impact analysis is the list of defined goals in the Go-myLife's DoW, which described the goals Go-myLife aims to reach for older people and are further elaborated and specified here:

Goal 1: My relationships with family and friends will be enhanced

- It will be easy to update everyone with my news and to find out what is happening to everyone else in my circle
- I will get to share in many more activities of friends and family because it will be easy for me and others in my circle to organise them
- It will be much easier to meet up with friends and family while out and about – particularly to capitalise on chance opportunities.

Goal 2: My circle of friends and other relevant persons and/ or groups will grow, both locally, elsewhere in my own country and in other countries within Europe, and I will be able to gain new perspectives and support in tacking challenges I

face

- It will be easy to discover people in my locality, in my country, and other countries within Europe who share similar interests to myself
- This will make it easy to make new friends, to learn from others and to discuss with them how best to overcome common challenges

Goal 3: I will be more interested to get out of my house because:

- It will be easy to find out useful or interesting facts about buildings and other features of the places where I can find myself and specifically to access the comments of other members of the public. This will make me getting out of the house more interesting and useful
- It will be easier to track down services near where I am – pharmacies, community centres, advice centres etc

Goal 4: I will be more stimulated to keep my mind fit, to learn customised to my interests and to enhance my knowledge

- It will be easier to track down cultural, political and social events near where I live – such as dancing clubs, concerts, theatres, political events, information events, chess clubs etc.
- It will be easier to track down learning opportunities near where I live – such as languages or computer courses for older people, third age universities, travel lectures, other interesting lectures etc.
- It will be easier to get and exchange knowledge, such as gardening, cooking, healthy life style, mental fitness exercises, coping with illnesses etc.

Goal 5: I will feel more secure and safe to get out of my house because:

- If I have any problems while out and about, it will be easy for me to call on someone nearby to help me
- If I need a toilet or a space where I can have a short rest, it will be easy to find one nearby

Goal 6: It will be easy for me to play an active role in my community and to be valued for the contribution I make

- I can easily find out what is happening in my neighbourhood and feed in my ideas
- I can easily find out which volunteering opportunities are provided and were I can make a meaningful contribution according to my preferences
- Because it will be easy to organise meetings quickly and to discuss issues on line it will be easy to collaborate with others to make my neighbourhood a better place
- The trust and reliability system will help my positive and helpful role in the community to be quickly and visibly acknowledged

3.1.2 Prioritisation of goals (user view)

For the elaboration of the evaluation concept this list of goals from the DoW was compared to the results from the user requirements workshops in WP2 and the list of technical Go-myLife features of pilot phase 1 and 2. This analysis aimed to

support the prioritization of project goals according to user requirements and technical developments.

As a result of this analysis the project decided to focus on two main aspects during the pilot phases. The first aspect is related to the objective to **enhance and deepen the participants' relationships with friends and family, especially in the local community**. The second aspect is related to the objective of **supporting older people in getting out of their houses**, providing better information about locations around them and giving them the feeling of a higher security when being out and about. Table 1 shows the project's prioritization of goals which we aim to reach during the two trial phases in the two pilot sites (more details can be found in the Annex):

Goal	Goal description	Priority
1	*My interactions with family and friends will be facilitated*	*1*
1.1	Easier to update friends/family with my news, share in activities etc	1
1.2	Easier to meet up with friends and family while out and about	2
2	*My circle of relevant persons and groups will grow/deepen, I will be able to gain new perspectives and support*	*1 (local)*
2.1	Growing or deepening relationships with local friends/family, easier to find people sharing the same interest locally	1
2.2	Growing or deepening relationships with country-/European-wide circle of friends/family, easier to find people sharing the same interest country-/European-wide	3
3	*I will be more interested to get out of my house*	*1*
3.1	Easier to find out useful facts about locations, buildings and services in my region	1
4	*I will feel more secure and safe to get out of my house*	*2*
4.1	Being able to call on help and find nearby toilets and places to rest	2
5	*It will be easy for me to play an active role in my community and to be valued for the contribution I make*	*2*
5.1	Easier to find out what is happening in my neighbourhood (via friends)	1
5.2	Easier to collaborate, organise meetings and make neighbourhood a better place	1
5.3	Being acknowledged in the community via a trust and reliability system	2
5.4	Easier to find out which volunteering opportunities are nearby	3
6	*I will be more stimulated to keep my mind fit, to learn customised to my interests and to enhance my knowledge*	*3*
6.1	Easier to get and exchange knowledge, such as gardening, cooking, healthy life style between individuals	2
6.2	Easier to find out about cultural, political and social events and learning opportunities	3

Table 1 Prioritization of project goals

3.2 Go-myLife methodology for the pilot testing

The testing activities in WP6 will involve a minimum of 30, but ideally 36, older people from the UK and Poland, and will be structured into two phases, where a mixed evaluation approach using both quantitative and qualitative data from different sources and at different points of time will be applied:

1. In pilot phase 1 the end-users will be provided with training and access to a first version of the Go-myLife Internet and mobile platform during two months. The focus of this evaluation will be on the collection of formative data via Walkthroughs for the refinement and adaption of the prototypes for the pilot phase 2. In addition pilot phase 1 will serve to introduce specific Go-myLife features, like location-based functionalities, to the end-user community and collect insights on motivations and barriers of using these features in bi-weekly jour-fixes and usage focus group at the end of Pilot phase 1. Continuous information about usage patterns of Go-myLife will be collected via self-reporting in user-diaries and via logging interaction data of users with the platforms, as well as logging data acquired from the GSM operators.
2. In pilot phase 2 the end-users will evaluate the adapted and finalized Go-myLife technical platform for another month. The continuous collection of self-reported and logging data will continue in this pilot phase. The experiences and impact from using the adapted prototype will be discussed in focus groups at the end of the second pilot phase, where a questionnaire will augment the qualitative data with quantitative input on perceived ease of use and usefulness from the two pilot sites. In addition a pre- and post-intervention analysis of the ego-centric social networks of end-users will provide insights into any changes of older peoples' interaction patterns in social networks due to their use of Go-myLife.

3.3 Evaluation instruments – overview

The summative evaluation of Go-myLife will therefore be conducted via a triangulation of data, which combines the quantitative data from log-files, questionnaires and social network analysis with qualitative data from focus group discussions and user diaries.

Table 1 provides an overview of the evaluation measures, applied methods and time of data collection. The different collection instruments will be described in more detail in chapters 3.4 to 3.6.

Measures	Analysis methods	Time
Validation of project objectives		
Enhance and facilitate relationship with friends/family	Egocentric network analysis	End pilot 2
Growing circle of friends, locally (and elsewhere in the world)	Egocentric network analysis	End pilot 2
New perspectives and support in tackling challenges I face	Focus group discussion, diaries	During pilot 1 and 2, End pilot 1 and 2
More interest to get out of my house, more safe and secure when getting out of the house	Focus group discussion, diaries	During pilot 1 and 2, End pilot 1 and 2
Play an active, positive and helpful role in the community	Focus group discussion, diaries	During pilot 1 and 2, End pilot 1 and 2
Stimulated to keep the mind fit	Focus group discussion, diaries	During pilot 1 and 2, End pilot 1 and 2
User experience (UX) analysis		
Ease of use/Usability	Walkthrough Questionnaire, Diaries, Focus group discussion	Start pilot 1, During pilot 1 and 2 End pilot 1 and 2
Utility	Walkthrough, Questionnaire, Diaries, Focus group discussion	Start pilot 1, During pilot 1 and 2 End pilot 1 and 2
Aesthetics	Walkthrough, Questionnaire, Diaries, Focus group discussion	Start pilot 1, During pilot 1 and 2 End pilot 1 and 2

Value/perceived usefulness	Walkthrough, Questionnaire, Diaries, Focus group discussion, Logging	Start pilot 1, During pilot 1 and 2 End pilot 1 and 2
Impact on business model from		
Peer-to-peer network effect (viral): Understand the network effect on delivery of services such that they get quickly propagated to others in the community (e.g. Emergence and frequency of interesting suggestions or recommendations related to nearby places, news items, food, etc...)	Questionnaires, Diaries, Focus group discussion	During pilot 1 and 2 End pilot 1 and 2
Traffic pattern on the network: Frequency of platform usage, access to content, perception and relevance of fresh content for returning users.	Logging, Questionnaires, Diaries, Focus group discussions	During pilot 1 and 2 End pilot 1 and 2

Table 2 Overview of data collection and analysis methods applied in Go-myLife

An overview of the timing of the two pilot phases and applied methodologies provides figure 1. The details concerning each methodology will be described in the following chapters.

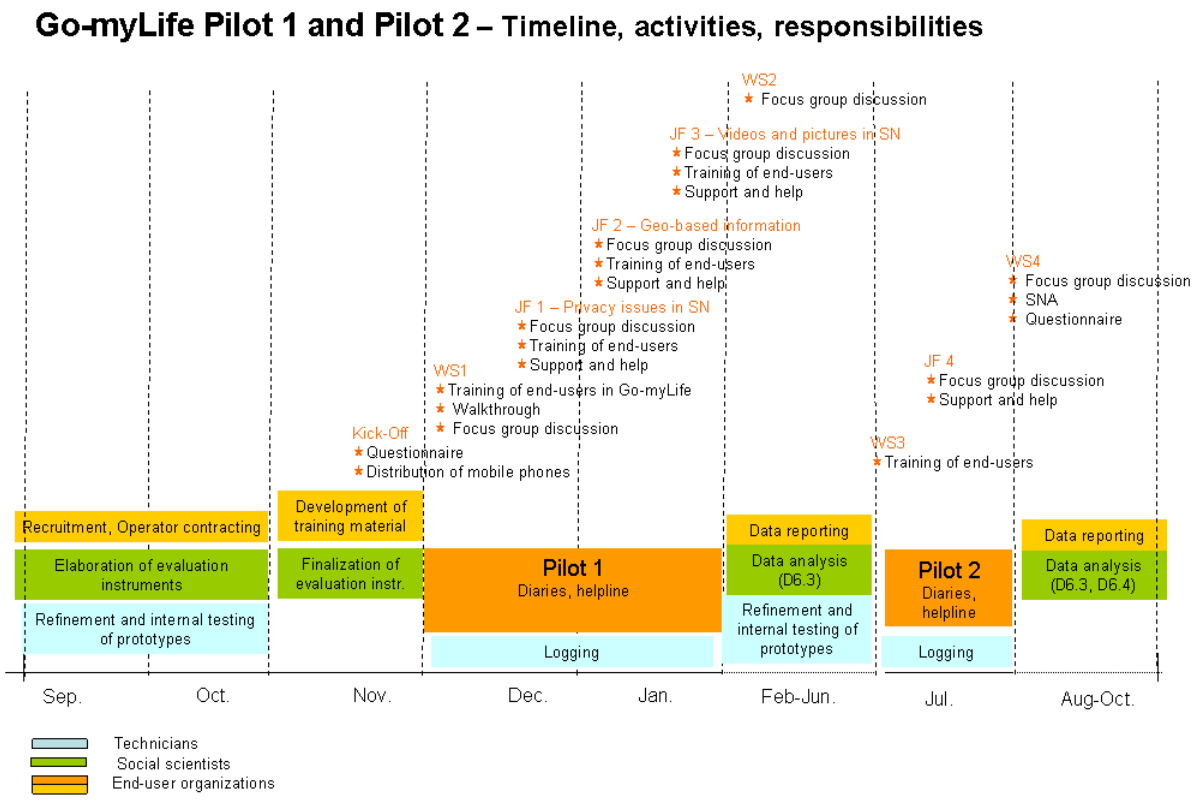

Figure 1User-involvement timeline, activities and responsibilities

3.4 Initial evaluation of Go-myLife (pilot phase 1)

3.4.1 Walkthroughs

At the beginning of the pilot phase 1, the project will organise walkthroughs to collect insights on usability and user experience of the Go-myLife Internet and mobile platform.

Walkthroughs (Wharton, Rieman et al. 1994) are a widely used usability method related to the group of simulations and enactment (Hagen, Robertson et al. 2005). We already used this method to test existing online social network platforms during the user requirement elicitation of Go-myLife and had good experiences with this data collection instrument (see Deliverable 2.2).

For the pilot testing, the walkthroughs will not only be used as the methodology to collect important data on the usability of Go-myLife; but will also be a method to introduce participants to the Go-myLife platform via "learning by doing". This additional use of walkthroughs was experienced, and its value highlighted, by the participants of the requirements-elicitation workshops (see Deliverable 2.2) and will now be applied in pilot phase 1.

In walkthroughs, the test-participants will be given scenarios and tasks which guide

them through the Go-myLife internet and mobile application. To collect insights about the users' experiences while undertaking these tasks, participants will be asked to "think aloud" and fill in questionnaires following each of the tasks. As we are aware of the problems that the thinking aloud technique poses for older people (Dickinson, Arnott et al. 2007) we will organise group-based walkthroughs. In our group-based walkthroughs pairs of participants will complete the tasks together, where one person is responsible to fulfil the task but is encouraged to discuss the process with her/his partner. Thus "thinking aloud" takes place in a very natural context as a dialog between two participants. We discovered that this possibility not only decreases the feeling of being helpless (see Deliverable 2.2.), it also allows observers to take notes from these conversations, which will reveal important usability problems. While testing the internet application the observer will position her/himself behind the PC. While testing the mobile application the observer will follow the pairs of test-users, providing help and preventing stress of participants (Goodman, Brewster et al. 2004).

Observers will note all errors, requests for help and facilitator interventions and autonomous usability (Colbert 2001).

3.4.2 Focus group discussions

Following the walkthrough, participants will be involved in focus group discussions to enable them to share their first impressions of the system. Focus group discussions are moderated group discussions, with approximately 10 participants, about a certain topic (Mayring, 2002). The method is used for an explorative approach to reveal opinions, needs and interests of the different interviewed groups. The discussion with Go-myLife participants will take approximately an hour and will collect information about end-users' first experiences with the Go-myLife Internet and mobile platform, as well as expectations and possible barriers and problems that older people might face when using Go-myLife.

3.5 Ongoing collection of feedback and experiences (pilot phase 1 and 2)

The continuous collection of user experience factors during both pilot phases will be guaranteed through regular jour-fixes, analysis of user diaries and the collection of logging data.

3.5.1 Jour fixes and focus group interviews

As a part of the evaluation and user-involvement concept, bi-weekly jour-fixes will be held with pilot participants. From the view-point of maximizing the user-learning more regular jour-fixes would be the optimum, but in reality most participants don't have enough free time for this approach (Dickinson, Arnott et al. 2007).

These jour-fixes have several objectives. They will serve to:

- Conduct focus group interviews with participants about their experiences with the Go-myLife platform
- Provide help and support to participants
- Introduce alternating, new functionalities and observe participants when interacting with these functionalities
- Give tasks related to the new functionalities to do until the next jour-fixe
- Increase the feeling of giving and taking between researchers and participants, as the learning of new technology can be an important motivator to participate at the pilot tests (Dickinson, Arnott et al. 2007)

Following the approach of bi-weekly jour-fixes the researchers participate in the intervention being studied while at the same time evaluating the results, aiming to "contribute both to the practical concerns of people in an immediate challenging situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework." (Rapoport 1970; Kjeldskov and Graham 2003). Thus we apply the principles of Action Research, which was recommended as methodology to learn about the context of use of mobile devices by (Kjeldskov and Graham 2003) as well as having the advantage of the close relationship between researchers and the phenomena of interest. This facilitates first-hand insights, limits researcher influence on subjects being studied and supports an effective way of applying theory to practice and evaluating its outcome.

In pilot phase 1 the topics of these jour-fixes will be:

1. Security and privacy with new communication media: How to increase the media-supported communication with my social networks, while keeping my privacy?
2. Navigation with mobile phones: How to use mobile phones as useful guided in my city?
3. Pictures and videos: How to edit and share pictures and videos with my friends and family?
4. Usefulness of the Internet: What and how I could find interesting things?

3.5.1.1 The jour-fixes will be organized as follows:

1. Introduction of a new feature and collection of hands-on experiences

The jour fixes are seen as an opportunity to introduce special Go-myLife features to test participants. Using this approach we will consciously highlight certain functionalities, thus use the first evaluation months also as a "training period" for our end-users and collect detailed feedback on their experiences.

An example: Navigation with mobile phones: How to use mobile phones as a useful guide in your city?

The objective of this jour-fixe is to introduce the Go-myLife features of geolocation to

the participants. As navigation and geolocation is still a very new topic for older people (see Deliverable 2.3) we suggest introducing this functionality in an appealing, more playful way, and allow participants to gain first-hand experiences throughout the jour fixe. The suggested approach would be to learn navigation and geolocation through GeoCaching (Kenton 2008), which is like a treasure hunt with mobile phones and GPS navigation. Participants use the maps/navigation facility of mobile phones to go to a certain place, find a clue at this place which could tell him/her on how to continue or require them to fulfil a specific task at this place, such as leaving a comment or uploading a picture with geo-coordinates.

Facilitators will not only introduce participants to the needed functionalities, they will also observe participants' behaviour and any problems encountered and collect feedback from the first hand experiences.

2. Homework

During each jour-fixe participants are given some smaller tasks to fulfil at home to recapitulate what they learned during the jour-fixe. In our example this task could be to recommend a meeting place (like taking a picture of one's favourite coffee shop and recommend it by sending it to your grandchild/son/daughter/spouse) or report about places in the local region that are difficult for older people to use (Berg, Göllner et al. 2008).

3. Feedback collection

The next jour-fixe, 15 days later, will then start with a focus group discussion to collect feedback on the highlighted feature and the given homework. End-users will be questioned on their experiences, likes and dislikes.

Group discussion will be tape recorded, transcript and analysed along defined criteria as described in more detail in Chapter 3.6.4.

3.5.2 User-diaries

To foster the self-reporting of participants about their activities and experiences with Go-myLife every end-user will get a specially prepared notepad (form), in which he/she will have to write down comments, suggestions and ideas. The participants will be asked to fill in the diaries on a daily basis otherwise we fear that they might forget all difficulties or problematic issues. The problems with project diaries experienced by end-users (Dickinson, Arnott et al. 2007) will be addressed by including a number of multiple-choice questions and predefined fields to the forms to facilitate handling and filling-in of the required information for older people. In addition the forms will not need to exactly recall the precise sequence of events after completing a task, but rather to let researchers understand how and why older people use certain functionalities on the Go-myLife internet and mobile platform and what are the problems and also benefits from it.

The contributions in the user-diaries will be codified and analysed following Mayring (Mayring 2000). A detailed description of this methodology can be found in Chapter 3.6.4. A first draft of the user diaries can be found in the Annex.

3.5.3 Logging entries

In addition to the self-reporting by test-participants, the systems itself will track end-users activities on the Go-myLife platforms. All access and error information coming from the web application will be logged. This information will contain:

- Response time: page to be displayed and requests (when a user presses a button and the action/function is finalized). With this information we can know if everything is working and if the time response is reasonable.
- Evaluate any problems experienced while using the portal. With this information we can track and fix any problems. All abnormal/errors situations will be logged in the application to display a proper message
- Errors in forms: empty fields, mandatory information missing
- Data transfer: with this information we can evaluate if the requests/responses have the format required
- Calls to third-party services: with this information we can evaluate the integration with third-party services

In addition we will also acquire data transmission statistics from the GSM operators, which will provide insights into who logged on to the system, time and frequency of using the internet, time and frequency of sending SMS etc. Data transmission statistics will be anonymous due to regulations on personal data protection.

3.6 Final evaluation of user acceptance and experience (pilot phase 2)

Next to the continuous collection of end-users' feedback and experiences, WP6 will conduct an ex-ante and an ex-post evaluation of older peoples' social networks. In addition we will collect overall feedback and investigate the impact of Go-myLife from the two pilot phases using focus group interviews and a questionnaire.

3.6.1 Analysis of ego-centric social networks

To investigate how far the social networks of older people are influenced by the usage of the Go-myLife platform, the project will undertake an ex-post evaluation of the participants' ego-centric social networks.

Ego-centric networks are "individual-oriented" (Pfennig 1995) meaning that they look at one protagonist (Ego) and those players (Alter) with whom Ego maintains relations. From this perspective each person has his/her own social network, in which several groups overlap and influence the behaviour and attitudes of Ego. The strength of the ego-centric network analysis lays, first in the recognition of the network structure itself, and second in its ability to capture the diversity of the social environments of Ego (Hennig 2006).

The visualization of networks via network-maps or hand-drawn illustrations is next to

the usage of name generators the most frequently used instrument in qualitative network studies (Franke and Wald 2006). In Go-myLife we will use the visualization of social networks together with open questions that help the participants to describe their social networks more accurately (Scheibelhofer 2006).

Participants will be invited to participate in individual interviews at the end of pilot two. The interviews will start with the visualization of the participant's social networks, which will then in a next step be discussed in more detail with the interviewee. Question guidelines with open questions will set stimuli during the interview and focus on the investigation of the Go-myLife objectives. Questions will concern the network structure (weak/strong ties, distance of alteri to ego, communication patterns), as well as network effects (e.g. exchange of social support., effects for subjective well-being) with special regard to the role of Go-myLife.

The whole interview will be recorded, transcribed and codified using MAXQDA[1]. The codification will be conducted separately by two researchers. The definition of categories and abstract constructs will be set after intensive discussions between the two researchers. The investigation of the ego-centric social networks will reveal the network size, the multiplicity (e.g. what is the content exchanged between Ego and his Alteri, what are the roles involved), reciprocity, frequency of contact, demographic characteristics etc and the role of Go-myLife in all of these constructs.

Thus this analysis will allow the drawing of conclusions regarding if, and to what extent, Go-myLife increases the size of older peoples' social networks and the frequency and type of contact within the social networks.

[1] MAXQDA is a piece of software used to support the analysis of qualitative data

3.6.2 Focus group discussions

At the end of pilot phase 1 and pilot phase 2 two focus group discussions with test participants will be organized in each pilot site. Focus group discussions are moderated group discussions with approximately 10 participants about a certain topic (Mayring, 2002). The method is used for an explorative approach to reveal opinions, needs and interests of the different interviewed groups. The discussion with Go-myLife participants will take approximately an hour and will be held in rooms, which the participants already know from the jour-fixes. To support older people in their provision of feedback, the moderators will prepare prompters and memory reminders. These prompters will integrate feedback from the hotline, specific functions of the platform, and pictures from the jour-fixes when older people were interacting with Go-myLife features. The moderators of each focus group will prepare protocols of the focus group discussions and forward them to ZSI for an aggregated analysis. A description of the methodology for analysing the focus-group interviews is described in more detail in Chapter 3.6.4.

3.6.3 Questionnaires

Questionnaires will be used at different time points of the evaluation. At the very beginning of pilot phase 1, participants will be required to fill in questionnaires to collect socio-demographic data and first insights on the current social environment and support as complement to the analysis of ego-centric social networks. For this questionnaire the format of the Social Support Questionnaire (SSQSR) (Sarason, Leving et al. 1983) will be amended by items which are specific for companionship and small services find on online social networks. The questionnaire can be found in Annex 1.

The main usability problems and aspects like efficiency, effectiveness, satisfaction (Nielsen 1993), perceived effort and usefulness, will be collected in the form of questionnaires: once immediately after each task of the Walkthroughs and a second time at the end of pilot phase 2. The results of the questionnaire will not only help to test the quality of the platform from the viewpoint of easy navigation and handling, but will also come up with the most important affective impressions of end-users and perceived benefits. The results will allow the drawing of conclusions regarding the extent of technology acceptance, as it investigates perceived ease of use and perceived usefulness as main determinants for behavioural intention to use new technology (Davis 1989).

The questionnaires will be paper-based otherwise participants would need to handle another technical tool which might be again perceived as very challenging and overburdening. To cope with potential uncertainties about the meaning of questions and the tendency of older people to choose the “don’t know” category, the facilitators will/could provide assistance during the filling out of the questionnaire.

In addition the questionnaires will be pre-tested by representatives of the target group to determine the effectiveness, the strengths and weaknesses of the questionnaire. The aim is to have a reliable question format and a good wording and order.

Pre-testing will be performed in two steps:

First, cognitive pre-tests (comprehension probing) (Prüfer and Rexroth 2000) with three participants will be performed: Cognitive pre-testing is a well-known method to collect verbal information regarding survey responses and to evaluate whether the question is measuring the construct the researcher intends to measure. The results from pre-testing are then used to adjust problematic questions in the questionnaire before fielding the survey instrument to the full sample.

This method includes the following techniques:

- Probing
- Confidence Rating
- Paraphrasing
- Thinking aloud

Based on the results of the first round of pre-testing, questions will be optimised accordingly.
Next, revised questionnaires will be distributed to five potential respondents (with similar characteristics to the target group) applying the so-called "undeclared pre-testing" method. Respondents are not told that the questionnaire they received is a pre-test. In this way respondents feel as if this is a real questionnaire and act accordingly.

In doing so, the choice of analysis and the standardization of the survey can be checked efficiently.

The sample of 36 participants will allow descriptive analysis, correlation analysis and inferential statistics (ANOVA, t-tests…) to provide a description of the data gathered and to evaluate the quality and user acceptance of Go-myLife.

3.6.4 Analysis of focus groups and user-diaries

The focus group discussions will be audio recorded and transcribed. For the analysis of the focus group discussions, the research team will conduct qualitative content analysis of the transcripts as proposed by Mayring (2000, 2003). The applied method is a technique of summarization, whereby categories are created in an inductive procedure by reducing, paraphrasing and generalizing relevant text passages with MAXQDA. The central aspect of the employed technique is to develop categories as resembling as closely as possible the original data without formulating theories or concepts in advance. The analysed data is understood in the pure meaning of the data and not according to the expectations of the researchers.

The analysis will be conducted in three steps (Mayring 2003): 1) Summarisation, 2) Explication and 3) Structuring.

At least two researchers will be involved in the analysis of every transcript. Only those codes and respective sub codes which everyone agrees with will be introduced or retained. This method of co-analysis guarantees improved objectivity: The results do not depend on one specific person and are reproducible independently of the

individual researcher. As anonymity is guaranteed to the participants, each person is given a unique code instead of revealing their names. The findings consist of a systematization of the relevance of codes, a generalization and an interpretative framework.

The derived main categories identified by the research team will give more insights about the motivators and barriers of Go-myLife pilot tests and investigate the potential benefits of the usage of Go-myLife for the social lives of older people. Besides this, additional aspects and improvements of the Go-myLife platform for further development and future research projects are expected.

The focus group interviews will be conducted by representatives of the end-user organisations, who will prepare the transcripts, translate them into English (in the case of Polish participants) and deliver them to ZSI for the analysis.

4 Setting of the Pilot sites

4.1 Overview of the setting of the two pilot sites

The Go-myLife pilot testing will be conducted in two pilot sites, one in Poland and one in UK. In each of the pilot sites at least 18 participants will be involved in the testing of the Go-myLife system during two pilot phases. Pilot phase 1 lasts from November 2011 to January 2012 and will evaluate the first version of the Go-myLife platform for the mobile phone and the desktop PC. Testing phase 2 in July 2012 will conduct a final assessment of the revised Go-myLife platform.

The testing in UK will take place in Derby, a city of around 250.000 inhabitants, where IS Comm will recruit participants via local associations and retirement houses. The testing in Poland will take place in Warsaw, Poland's capital with 2.6 million inhabitants, where SSW will recruit participants via local non-governmental associations and amongst participants of SSW's Silver Internet trainings. In both pilot sites the project aims to involve retired test participants, who are between 60 and 70 years old, involving 50% male and 50% female participants.

All 36 test participants will show the same target group characteristics with regard to age, gender and ICT-skills and experience (computer and mobile phone). The value added difference between the two pilot sites is related to the different European countries involved and the different education level.

All participants will be introduced to the same range of Go-myLife features for desktop PCs as well as mobile phones. Also the evaluation instruments and facilitation activities will be the same in both pilot sites. The Smartphones will be distributed to the participants two weeks prior to the testing to allow them to get used to the new phones before being introduced to the Go-myLife system. The facilitation and training framework for participants foresees in both pilot sites an initial training for the Go-myLife platform at the beginning of pilot phase 1, as well as bi-weekly jour fixes where participants get trained regarding the specific features of Go-myLife and receive support regarding the challenges and barriers faced during the testing. In

addition a telephone hotline will be available for the participants for fixed 2-3 hours per day on 4-5 days a week.

4.2 Recruitment criteria - socio-demographic profile of participants

Minimum number of participants per pilot site: 18 participants

The minimum number of participants per pilot site is 18. However, due to our user-involvement experiences in WP2 we conclude that a higher number of participants has to be recruited; family responsibilities, health problems (either of themselves, or within the kinship), surgeries and others, may limit the availability of the participants at the end of the day.

Further, such delays are part of the life experience of the older people and have to be considered in test design respectively in the recruitment number of participants. To allow for withdrawals, 20 participants per pilot site will be recruited.

Working status:

We focus on potentially isolated people therefore the participants should be already **retired**:

1st choice: People, retired from work

2nd choice: People retired from work but volunteering

3rd choice: People retired but with a small part-time job

Minimum age of the participants: 60 years

People should be ideally between 60 and 70 years old. But age is the second selection criteria. So people from 55 years old who are already retired can be integrated into the sample.

Gender balance: ideally 50% female and 50% male participants

ICT capacities: balanced mix of participants including those with good ICT knowledge and those with poor ICT skills.

Further, it is important to recruit groups of older people with pre-existing social relationships and who are part of the same communities. Otherwise participants would first need to establish relationships with each other before testing Go-myLife.

4.2.1 Participants in Poland

The recruitment of pilot participants will be conducted in Poland in October. Based on our database of former participants of Silver Internet trainings we are going to select about 22 people from:

- members of local non-governmental associations

- participants of SSW's Silver Internet trainings
- other individual persons.

In October we will organize the first recruitment meeting with candidates for pilot testing. We will also contact local non-governmental associations to find the right candidates. We will close the recruitment process when we will have 22 candidates meeting the inclusion criteria (age, gender balance, ICT skills, work status) but certainly by the end of October 2011. The pilot of the Go-myLife application will take place in Warsaw and we assume that our test participants will be Warsaw's residents. They could live in different districts of Warsaw or live in suburbs of the city.

The population of the city is mostly Polish but we have also small diasporas (Vietnamese, Chinese). The broad population age structure in Warsaw is similar to the others major cities in Poland with about 17% of people at pension age. According to Government projections the population for all age groups in both the city and country is expected to decrease between 2011 and 2030, with over 2 200 000 people less, but with the exception of those in pensionable age. Specifically the 65 and over population is projected to increase from 293 883 in 2009 to 314 455 in 2031 in Warsaw.

The group will consist of seniors, both men and women, at least 60 years old who will be able to use mobile phones and computers with access to the Internet. It will not be a requirement that they have experience in using Smartphones and of using the Internet via mobile devices.

4.2.2 Participants in UK

4.2.2.1 Geographical location

The pilots in the UK will be run in and around the city of Derby. Derby is a city of around 250,000 inhabitants and is situated in the East Midlands area of England. Rolls-Royce has been headquartered in Derby for over 100 years and Derby has also been historically a major train engineering centre, so there is a long history of high-tech engineering. It still is the location of a very large Rolls-Royce Aerospace plant and facilities, employing in the region of 12,000 people, as well as a Toyota car manufacturing plant and a Bombardier train manufacturing plant.

The population of the city is ethnically mixed, with an estimated 22% of the population not being "White British". Records show that there are in the region of 182 nationalities represented in the city.

The broad population age structure in Derby is similar to that of the UK, with about 18% of state pension age. According to Government projections the population for all age groups in the city is expected to increase between 2006 and 2030, but this is particularly true for those of pensionable age. Specifically the 85 and over population is projected to increase from 4,900 in 2006 to 10,700 in 2031.

4.2.2.2 Recruitment of users

There are a number of associations for older people in Derby and the surrounding area – in particular there are a number of branches of Age UK, the main NGO for older people in the UK.

Go-myLife will work with these local associations to encourage as many as possible of their members to sign up to the Go-myLife service as soon as the first version becomes available. It will also work with the staff of those associations to develop useful information and content that will provide the foundations for a strong local online community network, oriented to the needs of older people. This will also open up the opportunity to get user feedback from individuals who will not have had any special support or training in using Go-myLife as to how easy the service is to use and how easy it is to post content onto it.

The detailed feedback however will be provided by members of two groups that meet to socialise on a regular basis and who therefore already have strong relationships in place.

The decision regarding which groups will be chosen to take part in the intensive aspect of the pilot will be made by taking account of the level of interest shown by both the group leaders and the group members, as well as ensuring that the groups will have a good gender mix and a range of levels of ICT experience.

4.3 Technical environment of the Go-myLife platform

When testing a web application is important to define the architecture and device that will be used for testing.

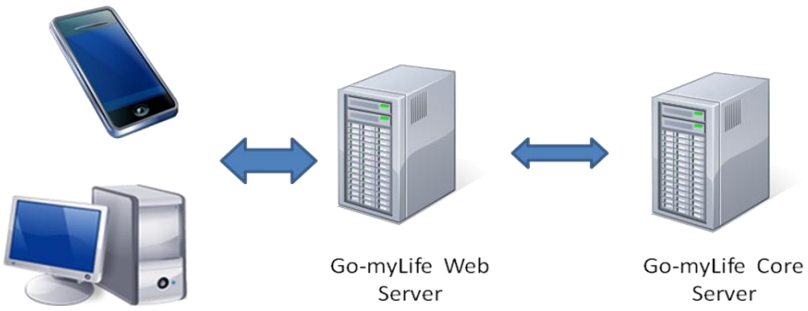

Figure 2 Go-myLife hardware architecture

Go-myLife architecture follows a client-server approach with the core of Go-myLife residing in one server and the web page residing in another one:

- Go-myLife's webpage resides in a JBoss server with a PostgreSQL database.
- The core of Go-myLife will reside in a Linux server with a spatial database PostgreSQL + PostGIS
- The client application will be accessed through PCs or mobile phones.

Figure 2 shows the hardware system scheme required for Go-myLife.

Concerning the mobile phone for the pilots the project chose between three different models: Samsung Galaxy S II, Samsung Galaxy S I and Samsung Galaxy S I plus.

The mobile phone chosen for the testing and validation is the Samsung Galaxy S II (Figure 3).

The main selection criteria for this mobile phone were:

- Big display for easy handling: 4.3'' display and TouchWiz 4.0 UI
- Platform Android 2.3 Gingerbread OS
- 8MP camera and LED flash, 1080p video recording
- 1.2GHz dual-core chipset, 1GB of RAM, 16 or 32GB of internal storage, microSD-support
- GPS for location information[2]

Figure 3 Samsung Galaxy S II

4.3.1 Software

For accessing the Go-myLife Social Network, the test participants will only need to have a browser installed on their desktop and mobile device. The workshops and evaluation of the Go-myLife platform will be carried out using Firefox browser version 5.0 or higher. These versions of Firefox contain support for a high number of features of HTML5 in which Go-myLife bases some of its functionalities.

[2] http://www.samsung.com/global/microsite/galaxys2/html/

4.4 Framework for training, support and further facilitating conditions

4.4.1 Kickoff and initial training of mobile device and Go-myLife

The Go-myLife pilot will start with a kickoff event, where the objectives and events of the Go-myLife evaluation framework will be introduced to participants. The conditions – as defined in the "informed consent" form will be discussed and then signed by the participants. Along with this, an initial training for the Smartphones will be provided. Two weeks before end-users will be introduced to the Go-myLife platform, they will have already been provided with the Smartphones and practical training on their functionalities, to enable them to first get acquainted with the phones. Training will be practically oriented, to help people get used to the most needed functionalities of the phones.

After the initial period of getting acquainted with the smart phones, the real pilot testing will start with an introduction of the Go-myLife system. During this introduction the main functionalities of Go-myLife will be explained to the participants. Participants will also collect first-hand experiences with Go-myLife via walkthroughs and provide feedback on their experiences, as described in more detail in Chapter 3.4.1

4.4.2 Bi-weekly jour-fixes

Bi-weekly jour-fixes will facilitate users meeting the researchers, getting help and advice and also sharing their experiences of Go-myLife with researchers and the Go-myLife testing community. Each jour-fixe will also provide an occasion for the older people to learn to handle the technology better and alternately try out new features with the support and guidance of the researchers. Thus the bi-weekly jour-fixes are not only an occasion to collect evaluation data, but also a support activity for participants. The agenda of the jour-fixes is described in more detail in Chapter 3.5.1.

4.4.3 Support hotline

From the very beginning a helpline in both countries will be set up to give participants the opportunity of direct communication with someone to help with any issues via telephone for fixed 2-3 hours per day on 4-5 days a week. The helpline person can also be reached via e-mail. The helpline person will writes notes on issues and difficulties brought up by users, which will feed into the evaluation of the platform.

4.5 Timeframe – 6 steps assessment process

Steps	What	Responsibilities	When
STEP1 – PREPARATION (informed consent form, Evaluation instruments, Go-myLife prototype 1, Recruiting)	• Adapting the informed consent form used in WP2 to the requirements of WP6 • Finalizing the evaluation instruments (interview-guidelines, questionnaires, user-diaries) • Pre-testing of questionnaires • Testing of Go-myLife platforms for the implementation in the pilot sites • Organisation, contracting and preparation of mobile phones • Elaboration of recruiting material and recruitment of participants	ZSI ZSI ZSI Technical partners End-user organisations End-user organisations	Sept 2011 – Oct 2011
STEP 2 – USE CASE SCENARIOS, MATERIAL (testing scenarios, training material)	• Working out the use case scenarios for the Walkthroughs • Development of the training material for end-users • Initial workshop to distribute smart phones	ZSI, end-user organisations End-user organisations End-user organisations	October/ November 2011
STEP 3 – INITIAL MEASUREMENT	• Presentation of the Go-myLife prototype in the pilot sites • Questionnaire, Walkthrough	End-user organisations End-user organisations	December 2011

STEP 4 – INTERMEDIATE MEASUREMENT	• Logging data • Diaries • Jour-fixes (including focus group discussions)	Technical partners End-user organisations End-user organisations	December 2011 /January 2012 July 2012
STEP 5 – FINAL ASSESSMENT	• Questionnaire • SNA • Focus group discussion	End-user organisations	February 2012 August 2012
STEP 6 – DATA ANALYSIS	• Data reporting • Analysis of logging data • Synthesis of results and suggestions • Feedback to the Consortium	End-user organisations Technical partners ZSI ZSI	March 2012 September 2012

Table 3 The 6-steps assessment process

4.6 Possible risks and corrective actions

Number of participants:

Risk: The pilot sites do not acquire the agreed number of test-participants.

Action: In the DoW we agreed on a number of 18 participants per pilot site. As previous research and experiences with older people show how much their commitment to participate in such a project could be limited due to sickness and family obligations we have foreseen a margin in our planning, in case any participants drop out. Therefore every pilot site will recruit at least 20 participants

Time and effort for involvement of test-users:

Risk: Participants do not have enough time to participate in testing due to their challenging day-to-day activities.

Action: We tried to set up a methodology that not only requires efforts from the participants but also lets them benefit from their involvement in the Go-myLife project. The regular jour fixes aim to introduce older people, step-by-step into new technology, which is a relevant motivator for participation (Dickinson 2007). Also the

social contacts with others during these jour-fixes aim to increase motivation for participation. The mobile phones, which are distributed for the evaluation of the Go-myLife platform, can also be used for private purposes. Thus maintaining contacts with friends and family using Go-myLife and the traditional phone calls should intertwine. To reduce the efforts for test participants, special attention will be paid to the ease of use of the Go-myLife platform. The filling-out of diaries will be requested on a daily basis but facilitated with templates that integrate also integrate closed question formats.

Risk: The pilot phase 1 is organised over the period of Christmas and New Year's Eve, as the planning and time constraints of the project don't allow another timing of phase 1. This fact risks reducing the availability of participants due to social events.

Action: The project will take an advantage of this fact and use Christmas/New Year's Eve not only as an opportunity for increased communication on the Go-myLife platform, but also as topic for the jour-fixes (e.g. the Christmas GeoCache).

Technical problems:

Risk: Participants are frustrated when technical problems occure with the prototypes.

Action: The services will be tested in detail before being tested by older people in the pilot sites. We will provide end-users with a bug tracking system where they can report about problems with the system – the services' developers will stand by ready to try to resolve the identified problems as quick as possible. Furthermore we will have some trained facilitators who are responsible for providing support whenever needed.

Protection of personal data:

Risk: Leaks of personal data from tests organizers

Action: Acquired data transmission statistics and logging data will be anonymised by end-users organizations and technical partners. Due to regulations of personal data protection Act end-users organizations will employ data protection specialist or personal database administrator.

4.7 Ethical considerations

In order to achieve the goals defined within our research task in WP 6 we need to collect personal data from Go-myLife users, such as interaction data with the system, basic demographic data and responses to questionnaires. This data is essential for validating the project's impact and to improve the development of the technology.

During the data collection the data protection issues involved with handling of personal data will be addressed by the following strategies:

Volunteers to be enrolled will be given comprehensive information, so that they are able to autonomously decide whether they consent to participate or not. In an informed consent process (see Annex 1), the purposes of the research, the procedures, potential inconvenience or benefits as well as the handling of their data (protection,

storage) will be explained. In order to make the research transparent, potential participants will need to sign this consent form before taking part in the pilots.

The data exploitation will be in line with the respective national data protection acts.

The data gathered through logging, questionnaires, interviews and focus groups during this work package will be anonymised and therefore the data would not be able to be traced back to the individual. Data will be stored only in anonymous form so the identities of the participants will only be known by the partners involved and will not even be communicated to the whole consortium. Reports based on the interviews and focus group will be use aggregated information and comprise anonymous quotations respectively.

5 Conclusions

This deliverable describes the Go-myLife methodology of pilot testing and evaluation in WP6. The Go-myLife pilots will involve at least 36 people (18 from UK and 18 from Poland) in the testing of the Go-myLife platform, which will be conducted in two phases. Phase 1 lasts from November 2011 to January 2011 and will assess a first version of the Go-myLife platform over a two months period. The refined technical platform will be subject to a second evaluation during one month in July 2012. The 36 test participants from the UK and Poland will show the same defined target group characteristics with regard to age, gender and ICT-skills and experience (computer and mobile phone). The value added difference between the two pilot sites is related to the different European countries involved and the different educational level. All participants will be introduced to the same range of Go-myLife features for desktop PCs as well as mobile phones. The applied evaluation instruments as well as facilitation activities will be the same in both pilot sites.

The main objective of the testing activities in WP6 is to investigate the user experience (UX) with the Go-myLife platform, to gain insights on how older people in two different geographic European regions feel about using Go-myLife during and after the testing period. The second objective of the project is to validate the strengths and weakness of the Go-myLife platform according to the initial goals set by the project. In Chapter 3.1. these initial project goals were analysed with regard to the results of the user requirement elicitation process in WP2 and concerning the prioritisation of technical features developed. The result of this analysis is a list of prioritized goals that are aimed at in the Go-myLife project and will be evaluated in WP6.

The starting point of the methodology elaboration in this deliverable was desktop research on current challenges in HCI. These challenges are, on the one hand related to the use of mobile phones, and on the other hand to the peculiarities that need to be considered when involving the target group of older people in the evaluation of innovative technologies. Thus, this state-of-the-art analysis is a continuation of the research work conducted for D2.1. “Methodology of research in WP2”. The general challenges about involving older people in research, which were addressed in WP2, have been added to by challenges specifically relevant for the evaluation of

technologies in this deliverable. The results from this analysis were used in the selection and adaption of data collection instruments applied in the two pilots.

The user involvement methodology in WP6 involves a mix of qualitative and quantitative data collection methods at different time points of the pilots to allow the comparison of pre-and post-evaluation data. The data collection instruments are partly applied in real face-to-face meetings in the form of focus-group discussions, interviews or social network analysis conducted with older people. In this case well-trained moderators facilitate the collection of experiences and feedback from the older people. Additionally, user diaries and logging data aim to collect information about usage patterns of Go-myLife via self-reported or automatically generated data.

In pilot phase 1 (November 2011 – January 2012) the test participants will be provided with training and access to a first version of the Go-myLife Internet and mobile platform over a period of two months. The focus of this evaluation is on the collection of formative data via Walkthroughs and Think Aloud Protocols for the refinement and adaption of the prototypes for the pilot phase 2. In addition pilot phase 1 will serve to introduce specific Go-myLife features, such as location-based functionalities, to the end-user community and collect insights on motivations and barriers of using these features in bi-weekly jour-fixes and focus group at the end of pilot phase 1.

In pilot phase 2 (July 2012) the participants will evaluate the adapted and finalized Go-myLife technical platform for a further month. The experiences and impact from using the adapted prototype will be discussed in focus groups at the end of the second pilot phase, where a questionnaire will augment the qualitative data with quantitative input on perceived ease of use and usefulness from the two pilot sites. In addition a post-intervention analysis of the ego-centric social networks of end-users will provide insights into the influence of Go-myLife on older peoples' interaction patterns in social networks.

A detailed timeline of WP6 activities in the pilot sites together with defined responsibilities, was elaborated and agreed on with all involved partners and can be found in Figure 1 and Chapter **Error! Reference source not found.**.

6 Bibliography

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Annex 1

Goal nr.	Goal description	Requirements re choice of participants	Requirements on Go-myLife technology	Requirements regarding content	Priority
1	*My interactions with family and friends will be facilitated*				***1***
1.1 **1.2**	The need to update friends and family with my news, share in activities etc	Pilot participants need to have existent relationships	Go-myLife has an easy way to link to Facebook and other OSN		1
1.3	Easier to meet up with friends and family while out and about	Pilot participants need to have existent relationships and live in same region	Go-myLife has the ability to show when friends and family are nearby.		2
2	*My circle of relevant persons and groups will grow, I will be able to gain new perspectives and support*				*1 (local)*
2.1 2.2	My **local** circle of friends will grow or deepen, easier to find people sharing the same interest locally	Participants need to be interested in making new friends, need to live in the same region	Go-myLife shows possible new friends locally		1
2.1 2.2	My circle of friends will grow or deepen **country-wide/within Europe**, easier to find people sharing the same interest country-wide/within Europe	Participants need to be interested in making new friends	Go-myLife provides a way of linking people across Europe, discuss issues related to specific interests like in "Forums"		3
3	*I will be more interested to get out of my house*				*1*

3.1 3.2	Finding out useful facts about buildings and other features of the places I find myself and about services	Pilot participants need to live in same region	Go-myLife link photos and text with locations and make them discoverable to other people	An initial content is added to the system by end-user organizations to avoid "cold start"	1
4	*I will feel more secure and safe to get out of my house*				*2*
4.1 4.2	Being able to call on help and find nearby toilets and places to rest	Pilot participants need to live in same region	Go-myLife interface facilitates the local aspect of the social network.	An initial content is added to the system by end-user organizations to avoid "cold start"	2
5	*I will be more stimulated to keep my mind fit, to learn customised to my interests and to enhance my knowledge*				*3*
5.1 5.2	Finding out about cultural, political and social events and learning opportunities	Pilot participants need to live in same region	Go-myLife interface facilitates the local aspect of the social network.	Requires local content providers such as local newspapers, political partners, clubs for seniors, ...	3
5.3	Get and exchange knowledge, such as gardening, cooking, healthy life style between individuals		Go-myLife facilitates the discussion of topics in groups/forums		2
6	*It will be easy for me to play an active role in my community and to be valued for the contribution I make*				*2*

6.1	Finding out what is happening in my neighbourhood (via friends)	Pilot participants need to live in same region	This implies the Go-myLife interface must facilitate the local aspect of the social network		1
6.2	Finding out which volunteering opportunities are nearby	Pilot participants need to live in same region	Go-myLife interface facilitates the local aspect of the social network.	Requires volunteering associations as partners	3
6.3	Collaborate more easily, organise meetings and make neighbourhood a better place		Go-myLife interface facilitates the local aspect of the social network.		1
6.4	Trust and reliability system support acknowledgment in the community		Needs a Trust and reliability system to enable people's contributions to be assessed and acknowledged		2

DIARY - DRAFT

Please document your daily experiences with Go-myLife in this diary.

By documenting your activities while using Go-myLife on your computer or smart phone, and letting us know the barriers and motivators you encounter, you will contribute considerably to the success of this research project. Learning from your experiences will help us to make Go-myLife more user-friendly and valuable.

All data from this dairy will be made anonymous and treated strictly confidentially!

User-Code:

Your mother's maiden name		Your Year of birth	
1st letter	2nd letter	3rd digit	4th digit

For any questions or remarks, please don't hesitate to contact:

NAME of IS COMM, SWW facilitator

E-MAIL

TEL

THANK YOU FOR YOUR PARTICIPATION! ☺

DIARY

Date:

MOBILE PHONE 

Today I used the **Go-myLife mobile phone** to ….

☐ look at friends' news
☐ share my own news

☐ manage my contacts and groups

☐ look at friends' media
☐ share my own media

☐ look for local services / associations
☐ look for local places / locations
☐ add information about local places / locations

☐ look for events
☐ create an event

☐ edit my profile

☐ Other activities: _____

Description: Please, tell us briefly what you did with Go-myLife today?

Overall, how would you assess your experience with Go-myLife **on the mobile phone** today? *Please, use the word pairs and consider the most appropriate description for Go-myLife.*

Complicated	O	O	O	O	O	O	O	Simple
Ineffective	O	O	O	O	O	O	O	Effective
Discouraging	O	O	O	O	O	O	O	Motivating
Boring	O	O	O	O	O	O	O	Interesting

Problems: Please, tell us any problems or negative experiences you encountered with Go-myLife today. These problems might explain your assessment above.

Benefits: Please tell us about any benefits you gained, or things that went well, with Go-myLife today. These experiences might explain your assessment above.

THANK YOU FOR YOUR PARTICIPATION! ☺

DIARY

Date:

Today I used **my computer** to ….

COMPUTER 

☐ look at friends' news
☐ share my own news

☐ look at friends' media
☐ share my own media

☐ look for events
☐ create an event

☐ manage my contacts and groups

☐ look for local services / associations
☐ look for local places / locations
☐ add information about local places / locations

☐ edit my profile

☐ Other activities: _____

Description: Please, tell us briefly what you did with Go-myLife today?

Overall, how would you assess your experience with Go-myLife **on the computer** today? *Please, use the word pairs and consider the most appropriate description for Go-myLife.*

Complicated	O	O	O	O	O	O	O	Simple
Ineffective	O	O	O	O	O	O	O	Effective
Discouraging	O	O	O	O	O	O	O	Motivating
Boring	O	O	O	O	O	O	O	Interesting

Problems: Please, tell us any problems or negative experiences you encountered with Go-myLife today. These problems might explain your assessment above.

Benefits: Please tell us about any benefits you gained, or things that went well, with Go-myLife today. These experiences might explain your assessment above.

THANK YOU FOR YOUR PARTICIPATION! ☺

Here is some space for you to let us have any further comments and descriptions, drawings, pictures or whatever you think can help us to understand your experiences with Go-myLife better (optional)**.**

Questionnaire 1

This initial questionnaire is distributed to all participants to better describe who is involved in the testing of Go-myLife. This information helps the researchers to better understand the participants' feedback and identify potential, future benefits of the Go-myLife technologies.

1. The first set of questions concerns socio-demograhic data about the participants.

Please fill in your personal data which will be anonymized and treated as strictly confidential!

1. **Age:** _____years	2. **Sex:** ☐ Male ☐ Female
3. **You are:** ☐ Single ☐ Married ☐ Divorced ☐ Cohabitated ☐ Widowed	4. You have **children:** ☐ No ☐ Yes 5. I have **grandchildren:** ☐ No ☐ Yes
6.You are **retired since:** ___ years	7. Your **last professional position** was: _____
8.You have a **part-time job** or **freelance activity(ies):** ☐ No ☐ Yes 9. I **volunteer:** ☐ No ☐ Yes	10. If you have a part-time job, freelance activity(ies) or volunteering, for how many hours per week in average? _____ hours/week

<table>
<tr>
<td>11. Your highest educational degree is:

☐ Completed university/college

☐ Completed vocational school, secondary commercial college

☐ Completed secondary modern school

☐ Completed primary school</td>
<td>12. Compared to your friends, how would you rate your computer skills:

1 2 3 4 5

very low excellent

13. Compared to your friends, how would you rate your openness towards new technologies:

1 2 3 4 5

very low very open</td>
</tr>
<tr>
<td>14. Compared to your friends, how would you rate your experience with mobile phones:

1 2 3 4 5

very low very experienced</td>
<td>15. Compared to your friends, how would you rate your experiences with the Internet:

1 2 3 4 5

very low very experienced</td>
</tr>
<tr>
<td>16. Over THE LAST 4 WEEKS, has your physical health made doing work more difficult?

☐ No

☐ Yes

☐ I prefer not to answer</td>
<td>17. Over THE LAST 4 WEEKS, has your physical health made getting out of the house more difficult?

☐ No

☐ Yes

☐ I prefer not to answer</td>
</tr>
<tr>
<td>18. On average, how frequently do you participate in organised group events (e.g. learning, cultural, sportive, political)?
☐ Never
☐ Less than once a month
☐ 1 to 4 times a month
☐ 1 to 2 times a week
☐ 3 to 5 times a week
☐ Almost every day.</td>
<td>19. On average, how frequently do you get out of the house to meet friends, family members and/or neighbours?
☐ Never
☐ Less than once a month
☐ 1 to 4 times a month
☐ 1 to 2 times a week
☐ 3 to 5 times a week
☐ Almost every day
☐ More than one time per day</td>
</tr>
</table>

20. Are there any issues that make **being out and about difficult** for you? ☐ No ☐ Yes	21. If yes, could you shortly describe them? _____ _____
22. In which **distance** does the majority of your friends and family members live from your place? A large majority of my friends/family lives ☐ in 2 km distance to my place. ☐ in 10 km distance to my place. ☐ in 50 km distance to my place. ☐ in 100 km distance to my place. ☐ spread around all over the country. ☐ spread around all over the world	**23.** How well do you feel **integrated in the local community** around you? *Please rate on a scale, where 0 = "not integrated at all" and 5 = "very well integrated".* 0 1 2 3 4 5 not integrated at all very well integrated

2. Next are some questions about the support that is available to you.

The following questions ask about people in your environment who provide you with help and companionship. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or companionship in the manner described. Give the persons' intitials and their relationship to you (see example). Do not list more than one person next to each of the numbers beneath the question. Do not list more than nine persons per question

For the second part, circle how satisfied you are with the **overall** support you have.

If you have had no support for a question, check the words "No one", but still rate your level of satisfaction..

Example:

Who do you know whom you can really count on to care about you?			
☐ No one	*1) T.N. (brother)*	*4) T.N. (father)*	*7)*
	2) L.M. (friend)	*5) L.M. (ex colleague)*	*8)*
	3) R.S. (friend)	*6)*	*9)*
Overall, how satisfied are you? 1 2 3 4 5 6 very dissatisfied very satisfied			

1. Who gives you comfort in difficult situations (e.g. death of a family member, times of transition)?

☐ No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

2. Whom can you turn to for advice about personal problems (e.g. family problems)?

☐ No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

3. Who can take care of you in the case of serious health problems?

☐ No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

4. Whom could you rely on to give you major services (eg. help in the household and/or garden, major repair services)?

☐ No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

5. Whom do you know to lend/give some small household items (e.g. salt if you forgot to buy one)?

☐ No one

1)	4)	7)
2)	5)	8)
3)	6)	9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

6. Who is helping you out with small services in the household or garden (e.g. watering the flowers or feeding the cat when you are on holidays)?

☐ No one

1)	4)	7)
2)	5)	8)
3)	6)	9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

7. With whom do you participate together in associations and/or groups of interest?

☐ No one

1)	4)	7)
2)	5)	8)
3)	6)	9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

8. Who is there to diverte you (e.g. have a small chat, exchange latest news and gossip)?

☐ No one

1)	4)	7)
2)	5)	8)
3)	6)	9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

9. Whom do you count on to discuss ideas?			
☐ No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

10. Whom can you get together with for relaxation and fun?			
☐ No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Overall, how satisfied are you with this type of social support?

1	2	3	4	5	6
very dissatisfied					very satisfied

3. User Code

At the end of the Go-myLife testing period we will distribute another questionnaire to all participants to investigate the satisfaction with Go-myLife. To better analyse the data of both questionnaires we would ask you for your user-code, which consists of the first two letters of your mother's maiden name and the last two digits of your year of birth.

For example:

*If your mother's name would be "**Mi**ller" and your year of birth "19**46**" then the user code would be: MI46.*

Your User-Code:

Your mother's maiden name		Your Year of birth	
1st letter	2nd letter	3rd digit	4th digit

THANK YOUR FOR YOUR EFFORTS AND PARTICIPATION! ☺