

D1.2 Results of the Co-design sessions

Document identification Deliverable 1.2
Edition 1.0
Date March 1th 2013

Prepared by Johan van der Leeuw, Vilans (first responsible)
José Sanchez, Linkcare
Lluís Solanell, Linkcare
Laurence Alpay, TNO
Anita Cremers, TNO
Esther Felix, TNO
Jacomien de Jong, TNO
Rosie Paulissen, TNO
Jelle van Dijk, Utrecht University of Applied Sciences
Ilza Keeman, Utrecht University of Applied Sciences
Mirjam van Blanken, Zorgpalet Baarn-Soest
Heidi Evers, Vilans
Nienke Blijham, Vilans

Prepared for AAL-association

Document History Log

Version	Date	Description
0.1	01-02-2013	J. van der Leeuw, Initial version
0.2	20-02-2013	Review of the initial version by Laurence Alpay, TNO Integration and adding of the Spanish co-design trajectory.
0.3	27-2-2013	Incorporating the reactions on version 0.2 from Laurence Alpay (TNO), Heidi Evers (Vilans), Nienke Blijham (Vilans). Adding further incoming materials
0.4	27-2-2013	Incorporating storyboards Dutch trajectory
1.0	1 -3-2013	Incorporating the review by Laurence Alpay, TNO Anita Cremers, TNO

The Happy Walker Consortium consists of the following partners:



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1. Introduction

1.1 General introduction

This deliverable gives the results of the user needs analysis. More specifically it describes the results of the co-design sessions with and the questionnaires answered by the target group in The Netherlands and in Spain. It gives rich descriptions of older adults' needs, wishes and capacities, their ideas for new mobility services and initial user requirements for the services including a technology assessment scan.

To come to the initial requirements of the products and the services the partners in the Happy Walker project choose to use the specific method of co-design. We have done this because of the following reasons:

Product development is increasingly complex, due to the technology used, the worldwide competition and the interweaving of products, services and infrastructure. In this light, product innovation entails much more than the application of new technology. The main issue is creating a new fit between people and technology. This means that, on the one hand, new products need to fit the context of people, their needs, usage, thoughts, desires and experiences. On the other hand, people need to adapt to new ways of interacting with technology. The process of innovation is a co-evolution of the technological and social environment, by means of a dialogue between the actors in these environments. A successful approach for supporting this dialogue is co-design: the effort to combine the views, input and skills of people with many different perspectives to address a specific problem. Co-design is different from for example participatory design in that it does not assume that any stakeholder is more important than any other. It also differs from user-centered design in that it acknowledges that the client or beneficiary of the design may not be using the product or service itself. Key in the co-design process is to enable the various stakeholders to act as professionals, shoulder-to-shoulder with designers and experts. The challenge with involving people in design activity is that we need to enable them to engage in fruitful dialogue with the design team, while they lack the skills, motivation and methodological knowledge of the professional designer. Co-design provides a variety of tools and techniques with which all stakeholders can communicate, particularly about experiences of use, unhampered by the limitations due to disciplinary jargon..

In general: The participants in the co-design sessions become partners in the design process of the service and help to shape the 'look and feel' of the services they would like to have and use. Visual and drawing materials and storytelling will be used to elicit their needs and preferences of services.

In the project co-design trajectories were executed in The Netherlands, organized by the end-user organisation Zorgpalet Baarn-Soest, and in Spain, organized by the partner Linkcare. Linkcare used a contact with an organisation of elderly to organize its co-design trajectory. In total four co-design sessions took place: The first two in the Netherlands, the third in Spain and the fourth and last session again in the Netherlands. Remark: in Spain there was

one session, but the participants in this trajectory also used an online, web based application to provide information .

The aim of the co-design sessions in two different countries in the northern and southern part of Europe was to identify cultural differences and preferences regarding the services but also to specify the common needs.

1.2 Link with Deliverable 1.1 Literature Review

The Deliverable 1.1 ‘‘Literature Review of the Elder Adults Mobility Needs and Services for Mobility’’ consists of three reviews:

- Profiles of the target groups to specific the needs and preferences with regards to their mobility. The target groups are in general elderly with no or mild functional and cognitive mobility limitations (see further 1.3).
- An inventory of mobility services that the target groups are currently using
- Current technologies available on the market for the mobility of elderly

The results of these reviews were used for the preparation of the co-design sessions and to determine which sub-target groups should be invited to the sessions.

1.3 Contents

Chapter two ‘‘Method’’ describes who participated in the co-design sessions in The Netherlands and Spain, how in each country the co-design sessions were executed and when the activities took place with how many participants,

Chapter three ‘‘Analysis of the data collected’’ describes the profiles of the participants, the activities identified, the locations visited and other factors affecting the activities of the participants. The chapter ends with a description of the similarities and differences that were found between data in the Netherlands and in Spain.

Chapter four ‘‘Results’’ describes the initial user requirements and ideas for services. Those results will be used as valuable input for the next deliverables in Workpackage 1 (D 1.3 and D 1.4) and for Workpackage 2 System Architecture Design.

2. Method

2.1 Participants

The Happy Walker project aims at the following target groups of elderly:

1. Older adults mildly affected by age (physical and/or cognitive)
2. Older adults that are more severely affected by physical problems
3. Older adults with mild cognitive problems that limit their mobility.

The trajectory in the Netherlands consists of three sessions and several activities in the time between the sessions. In the initial phase Happy Walker partner Zorgpalet Baarn-Soest sent an invitation to 500 addresses to recruit participants for the first two sessions and the in between activities. Target group: a mix of elderly living in sheltered housing and elderly voluntary workers who are visitors to other elderly people. The original target was the participation of 10 to 20 elderly people, with the aim that these elderly participate during the whole trajectory of two sessions and in the in between activities (diary study/cultural probe). In the first session in total 21 persons participated (see further 2.3). In the second session not everybody from the first session was available, 7 people were present, but in fact that provided the team with a very good opportunity to speak intensively with each person and gather in-depth information about their activities and mobility problems.

The third session in the Dutch trajectory was aimed especially at the targetgroup of people with mild dementia. For this group, we decided to elicit information by conducting one-to-one in-depth interviews with the elderly and his/her caregiver who also helped them if necessary. Zorgpalet Baarn-Soest invited the persons via personal contacts. These interviews will be executed in March 2013. The results of these interviews will be incorporated in an updated version of this deliverable 1.2.

In the Spanish trajectory the Happy Walker partner LinkCare used a network of elderly active on the internet to recruit the participants. This resulted in 12 participants with more or less the same social-cultural level:

- Some knowledge about the use of internet
- Same activities and same needs of mobility

During the trajectories in both countries there was a regular interchange of information.

The described different approach in The Netherlands and in Spain results in a major difference between the participating elderly in The Netherlands and in Spain. In The Netherlands the majority lives in specific housing facilities for the elderly that provide a more or less sheltered environment. On the contrary, in Spain the participants are younger (65 – max 75 years) and more active with almost no physical disabilities or mild memory loss. The reason for this difference is in the invited sub target groups in the Netherlands and also the different approaches in recruiting the participants. In The Netherlands most reactions

to the invitations to participate came from the inhabitants of several sheltered housing facilities where the care organization Zorgpalet is active. In Spain the partner Linkcare used a contact with an organization of elderly people active on the internet to recruit their participants.

By using these different approaches, we made sure that we covered the initial target group description of the Happy Walker project. This description differentiates three target groups:

1. Older adults mildly affected by age: mainly in the Spanish trajectory
2. Older adults that are more severely affected by physical problems: mainly in the Dutch trajectory :
3. Older adults with mild cognitive problems that limit their mobility: mainly in the Dutch trajectory

However, this approach was less suited to identify cultural differences and preferences between the two countries, because the target groups were less easier to compare.

2.2 Planning of the co-design sessions and online questionnaires

Table 1: A summarizing overview of the activities:

	The Netherlands	Spain
November 2012	Introduction session 1: 21 participants Morning group: 15 people Afternoon group: 6 people	Introduction session: 13 participants
December 2012	In between activity: fill in of diary study and cultural probes, 7 participants	First online questionnaire, 13 participants
January 2013	Session 2: One afternoon group: 7 participants (one couple)	Second online questionnaire, 13 participants
February 2013	Session 3: one to one interviewing for specific sub-target group, 2 participants (people with mild dementia)	

2.2.1. The Netherlands

In the Netherlands the whole trajectory consisted of:

1. Session 1 for two groups
2. In between activity: diary study (cultural probes)
3. Session 2: one to one interviewing with the group of the first two activities
4. Session 3: separate interviews with people with mild dementia or mild cognitive impairment.

Ad 1 First session

Goals:

- Informing the participants about the project
- Asking the participants to contribute to the project
- Gathering information on transportation means and aids of the participants

Set-up of the 1,5 hour session:

- Short introduction to the project
- Goal of the project:
- Introduction of the Happy Walker team
- Explanation of the co-creation sessions
- Gathering information of the participants
 - Personal introduction: name, living situation
 - Which transportation means and aids do you use?
 - What are the problems?
 - Which transportation means/aids do(n't) you generally use?
- Explanation of diary study (cultural probes)
- Invitation to participate

Ad 2 In between activity: diary study (cultural probes)

Goals: Gathering information on out-door activities, what the people do, how they do it and what the challenges are, are, using a diary study (cultural probes¹). Cultural probes provide a way of gathering information about people and their activities. Unlike direct observation (like usability testing or traditional field studies), the technique allows users to self-report. Information gathered from cultural probes is particularly useful early in the design process. Cultural probes are appropriate when you need to gather information from users with minimal influence on their actions, or when the process or event you are exploring takes place intermittently or over a long period.

¹ The 'official' name for it is "cultural probes"

<http://dl.acm.org/citation.cfm?id=291235> (original paper from Gaver)

<http://www.ddux.org/artikelen/archive/2007/07/05/cultural-probes-onderzoek-met-dingen> (dutch explanation)

Set-up:

At the end of session 1 the participants got a booklet and a disposable photo camera: a cultural probe kit. They were asked to fill in the booklet and make pictures to go with it. They had two weeks to do so. The booklet consisted of the following content:

- One page for the personal information (name, sex, age, living situation, transportation aids)
- Nine activity cards:
 - “Today I go out to with” (6)
 - 3 photos: before leaving – on the go – at destination (pleasant/unpleasant aspects)
 - Description of activity
 - Indication of ‘experience’(smiley)
 - “Today I stay at home to with” (3)
 - 3 photos: location at home – tools used – activity (pleasant/unpleasant aspects)
 - Description of activity
 - Indication of ‘experience’(smiley)
- 1 card:
 - “I also want to share this:”
 - 1 photo

Ad 3 Session 2: one to one interviewing

Goal: Gathering more in-depth information on activities by dividing the activities in tasks and to focus on why the respondents do the things they do and what problems they have.

In this session 7 elderly participated (one couple with one person mild dementia) and 6 researchers from the project in a one to one interviewing situation. The session had a duration of 3 hours with a 25 euro compensation for the participants.

The session had the following programme:

- Welcome and introduction
- Part1: The participant chooses one of the photo’s he/she made to determine the activity to discuss in more detail. The respondent and researcher discuss the activity in five scenes: at home, on the way, at destination, way back, back home. For each scene notes were made. This leads to the making of story boards.

The aim was to talk about the activity to get more information on what happens, but also to know how people experience what happens.

Figure 1: The asked questions in part 1 of session 2, co-design trajectory the Netherlands

Activity	Experience/reflection
Activity: What happens? What is the goal? How does it happen?	How do you feel?
Circumstances: Where does it happen? Time of the day, duration. Weather.	What is nice/pleasant/important?
Other(s): Persons involved. Artifacts/objects involved. Transportation means/aids.	Compared to the past? How about in the future?
Social: reward, value	What does it mean to you?

The story boards consist of the following aspects:

- Visually enriched ‘stories’ that present scenario’s of typical activities-in-context that map people’s everyday life
- Description of a key-activity
- Goal of the activity
- Underlying value, personal meanings, i.e. the ‘gain’, of this activity
- Key characters and their respective roles in the activity
- Temporal order of events of key-activities
- Possible obstructions/problems/challenges currently part of the activity
- Artifacts / objects used in the activity

The next story boards were made:

- **Story board 1:** go for a walk with a dog in the woods
 - Scene 1: at home, preparation
 - Scene 2: going to the woods
 - Scene 3: back home
- **Story board 2:** on the bike going shopping in a (open) market
 - Scene 1: at home, preparation
 - Scene 2: On the bike and to the supermarket
 - Scene 3: at the supermarket
 - Scene 4: Back home
- **Story board 3:** going with the car to a party
 - Scene 1: at home, preparation
 - Scene 2: in the car
 - Scene 3: at the party
 - Scene 4: way back home, at home

Part 2 of the session with the next questions:

- We are going to design a product that will support you outside the home.
Where would it be of use in your scenes?
 1. What is difficult now?
 2. What would you like, wish for?
 3. What could be better?
 4. Where do you expect a problem in say 5 years?
- Attach a product card to the location in the drawing where it applies.
 1. what does the product do?
 2. what is the benefit for the user?
 3. how should it be operated?

Ad 4 Session 3: separate interviews with people with mild dementia or mild cognitive impairment

The instrument of co-design is not well suited for people with mild cognitive problems (mild dementia or mild cognitive impairment) due to their cognitive impairment. There was one person with mild dementia included in the co-design sessions, together with her husband. To gather more information and the context of their lives for this target group we followed an alternative route:

- Based on several studies on direct and social navigation for people with dementia an initial scenario of use is described. See deliverable 1.1 for a description of content and major results of these studies.

In the Netherlands with help of the care organisation Zorgpalet Baarn-Soest:

- Get data from this group by interviewing the person with mild dementia at home and then by interviewing the caregiver of the person with mild dementia.

2.2.2 Spain

In Spain the trajectory included:

- A face to face introduction meeting with the participants
- Sending emails to all participants with a short manual and instructions for their personal webportal
- Each participant had a personal webpage used for the online questionnaires
- In a first phase of 15 days duration the participants were asked to fill in a first questionnaire aimed at getting an overall vision about their life style, to try to detect their needs regarding mobility and to get a general idea to be refined during the second phase
- Second phase with a second questionnaire: more concise vision based in their lifestyle and to understand concrete aspects of their ‘routines’

The second questionnaire included the following four relevant blocks that influence on mobility:

1. Movement:
 - Public
 - Private
 - Walking
 - Carry things
2. Cognition
3. External support
4. Social

See annex 1 for the used questionnaires.

2.3 When and numbers of participants

For the Dutch trajectory:

- Session 1 for two groups , November 28, 2012: one in the morning (n= 15) and one in the afternoon (n=6), in total 21 persons
- In between activity: diary study with 8 out of 11 filled in diaries
- Session 2: 7 participants and 6 researchers in one to one interviewing January 21st, 2012
- Session 3: two participants (couples) in one to one interviewing

For the Spanish trajectory:

- Introduction session for one group November 2012: 13 participants (3 male, 9 female)
- First on line questionnaire for 15 days: December 2012
- Second on line questionnaire for 15 days: January 2013

3. Analysis of the data collected

3.1 Profiles of the participants

For the Dutch trajectory:

- Ages: 58-93
- Living situation: alone/couple, most living independently in sheltered accommodation.
- Some had physical disabilities, others had mild memory loss

See further paragraph 3.5 Persona

For the Spanish trajectory:

- Ages: 65+, but in the younger age groups
- Living situation: alone/couple, living independently at home
- None or mild physical disabilities and/or non or (very) mild memory loss or other cognitive problems (see further below).

Technological knowledge: The profile of the participant is a person with a minimum of computer knowledge; they know how to navigate for Internet, search for information and if necessary buy via this resource.

Availability of technology: The participants in general, have a desktop PC or even a laptop. They also have smartphones (iPhone predominantly), but generally are not connected to data lines, or only use local WiFi at home. Tablets are not usually used, and in any case, for those who have tablets, the iPad is the predominant brand.

Usability of technology: In general the participants use the Internet technology, browse and search for certain kinds of information, especially, for messaging and sending e-mail messages. In general they reject the use of social networks and the vast majority do not have much confidence in buying in web shops for two reasons: first, because they do not trust the security of the data in relation to the use of credit cards, and secondly, they expect that a customer will not get exactly the product he wants and / or the quality is not good enough or acceptable.

With respect to participant's cognitive abilities, the studied group is in general without acute problems of memory or concentration. Sometimes, due to unexpected situations or a certain level of stress, they may lose the precise orientation .

The participants in the Spanish trajectory have a very social life and are performing several activities together with others. These activities are walking with friends, chat or a coffee, go to social, sport or cultural events, depending of the inclinations and interests of the participants (see also the next paragraph).

In general the participants are no informal caregivers with exception of one participant. The family socialization revolves around siblings, children and grandchildren.

3.2 Story boards/activities identified

3.2.1 Story boards Dutch trajectory

In annex 2 are included amongst others the reports of the one to one interviewing in session 2 of the Dutch trajectory: a personal story board.

Derived from this the next three combined storyboards were made:

- 1: go for a walk with the dog in the woods
- 2: on the bike going shopping in a (open) market
- 3: going with the car to a party

Figure 1: *Storyboard 1, go for a walk with the dog in the woods*

Walking with the dog



At home, preparing to leave (1)

I am Mrs. Verhoog. I live together with my husband in an apartment on the third floor. I love to go out for a walk. My dog is my faithful companion. At four set times during the day (around 7 and 11 am, 4 and 10 pm) I pick up the dog belt. Should I forget, the dog will let me know that it is time for a walk by sitting at the front door. I put on my coat and pick the keys out of the key box, located next to the door on the wall. My husband hands me my coat and asks if I have my mobile phone and my keys. He himself needs a scoot-mobile to go out. Most of the times I walk the dog by myself. I am more of an outdoor person than he is, anyways. Ok, als set and ready to leave.



On the way (2)

The dog and I usually walk on the bicycle path as the pavement often has broken tiles. Mostly the dog, and sometime I, decide which direction we are going to take this particular instance. This choice also depends on the weather and how much I am in pain, because I do have some light mobility problems. If we get the chance we always go through the wood. Often I pass by another walker and we greet each other friendly. We pass him almost every day, two times. It is wonderful and cozy to walk with my dog. If I would not have the dog, I wouldn't go out this much, considering my husband and all. But together with my four-footed friend: even when it is raining I enjoy this activity!



On the way back (3)

In the evening I go back by the main road, because I don't want to go through the woods in the dark. This is not the nicest way to go but at least I won't get lost. Luckily today there isn't much traffic, these scooters can be frightening, racing by like madmen.



Back home (4)

When we arrive at home I release the belt and get out of my coat. I put the keys back in the box, because I am somewhat afraid about losing my keys. I sit down in my chair, with my feet up. On my lap is a blanket for the dog. The three of us listen to the radio and I make a puzzle. The dog and I take some rest to get ready for our next round, later today!

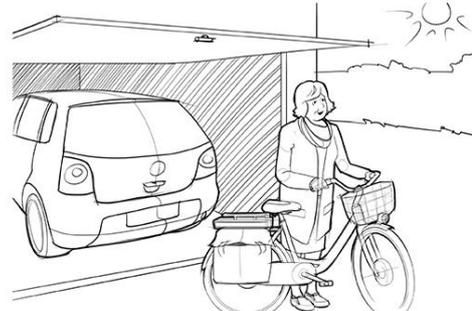
Figure 2, Storyboard 2: *On the bike going shopping in a (open) market*

Buying groceries at the supermarket



At home, preparing to leave (1)

I am Mrs Emma Johnson. Here I look at the grocery list that is always on the small desk next to the kitchen. Whenever something's finished, me and my husband write it up here. I call to my husband, who is a heart patient and sitting in his chair. I ask whether he is feeling ok for me to leave now. He says: remember to get some paracetamol (pain killers), but buy them at the pharmacy, those at the supermarket are too hard to squash! I check whether I have all my stuff: the list, wallet on elastic cord, cane, shopping bag, water, sugar (I am a diabetes patient), I have my keys - and spare keys attached to my top, below my clothes, for emergencies. I consider asking Nancy, the neighbour, to buy the paracetamol, so I would not have to visit the busy street in the centre. But as it is a nice day with good weather, I decide I can do it myself.



On the way (2)

I take the electric bike out of the garage. It is fueled up. I need to go through a tunnel that has bad concrete to drive on. This is always a bit of a hassle, especially when motor cyclists pass close by, with all the noise. Before leaving I put the newspaper in the neighbours' postbox. I check my watch: there is enough time to do the shopping and be back in time for lunch. It is important to keep my sugar level stable. I try to take the bike as much as possible, but when it is really bad whether, or icy in winter, I take the car. Luckily I have a drivers licence, unlike my sister, who relies on public transport if she cannot bike. There are several places not easily reached by public transport and it is more of a hassle.



At the supermarket (3)

On my way into the supermarket I pass a homeless person selling a paper. I feel a bit unsafe. O dear, I forgot to rewrite the grocery list such that the items match the order of the supermarket floor-plan. It is now more difficult to check whether she has everything she needs. But luckily it isn't a big list. When I have all I need in my cart, I pay the cashier using the card. I hardly pay with cash money anymore. I walk the cart to the bike outside and put everything in my panniers (bike-bags). I bike to the pharmacy. After that, there I have time left. I walk by some market stalls in the street next to the pharmacy, just for fun. I treat myself to a beautiful bouquet of flowers. Well, best be home now. The sky is darkening; rain's coming!



Back home (4)

Back home I feel tired, but satisfied. I don't mind to go out for shopping. Going out regularly is a good thing. My husband helps me to plug in the bike into the power outlet and unload the grocery bags. Some stuff immediately goes into the storage cupboard in the garage. The rest goes to the kitchen. While my husband puts everything in its place, I arrange the flowers and put the kettle on. It is pouring outside! We both drink tea and eat a sandwich. Job well done! Nancy phones whether we would need anything from the city. I look at my husband who smiles and I say no, that wouldn't be necessary, but thanks so much for the offer!

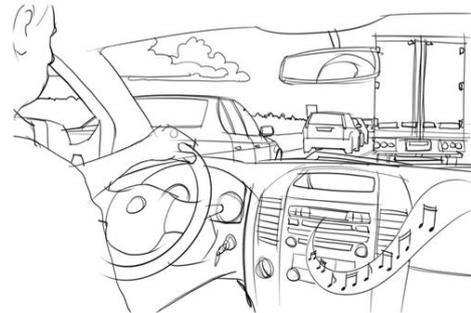
Figure 3, Storyboard 3: Going with the car to a party

Wedding anniversary party



At home, preparing to leave (1)

I am Mr. De Wit. Since my wife passed away, three years ago, I live by myself in a sheltered home, located on the first floor. Luckily I have still many friends and family whom I like to visit. If I get an invitation for a birthday or a party, I call the person that invited me to tell them I will be present, and to have a little chat as well. This time I got an invitation for a 50 year wedding anniversary. I don't know the location of the party and it will get dark quickly. It was a smart decision to already drive to the location yesterday, in daylight, to get familiar with the route. I now will manage to get there again by car, even in the dark. Before I leave for the party I switch off all the standby devices in my home, just like I do with the lights I don't need them when I come home. Next to my keys, jacket and mobile phone I take a gift and my good mood with me.



On the way (2)

In the car, I listen to the radio. I am driving behind a big truck, on my own speed. I don't like to drive fast, like I used to do when I was younger. I now have all the time in the world! Next to that, it is peak time on the driveway (5 pm, rush hour). Normally I wouldn't be driving on this time of the day: way too busy! This time I drive alone but if there are other people I know that go to the same event, we carpool. We just have more fun together. Driving a car is a real luxury, I appreciate and enjoy it very much. If for some reason I cannot drive by car, I order a taxi. I hate the public transport (bus), because I would have to walk far for the bus station and based on where I live, I almost always need to switch buses more than once.



At the party (3)

At the party people usually give me a seat. I need to be in a spot where I can hear the people around me speaking, I am deaf at the right ear. There will be laughter and a lot of talking. I make an appointment with an old friend for tea next week. After the social talk we eat. The soup is served at the table, the main course is served at the tables behind us. Just before I go home there is coffee. I leave at 10pm. I thank the hostess and drive home safely.



Back home (4)

Back home, I unlock the door and walk into my home. I switch the light on and put my coat in the wardrobe. Then I go straight to bed. The next day, I walk to the local shopping centre to buy a thank you card. I send it to the hostess to let them know I had a great time.

3.2.2 Activities identified in The Netherlands and Spain

In The Netherlands: the next activities are mentioned :

- 33 activities
 - Health (2)
 - Housekeeping/ shopping (12)
 - Hobby (6)
 - Family visit / day away (7)
 - Others incl. inside (6)

Activities favoured in categories that differs from those mentioned above:

- Social activity: bridge, visiting children
- Daily activity: food shopping, walking the dog
- Physical: cycling

In Spain the next activities are mentioned:

- 250 activities
 - Health (1)
 - Housekeeping/ shopping (1)
 - Walk(106)
 - Use public transport (65)
 - Use taxi(1)
 - Use private car (75)
 - Hobby (N/A)
 - Family visit / day away (1)
 - Other include inside (N/A)
- Social activities:
 - Visiting children
 - Theatre
 - Sports events
 - Visit the family
- Daily activity
 - Food shopping
 - Walking
- Physical
 - Walking

In general the participants in the Spanish trajectory are people with a lot of activity, which requires them to carry an agenda with their daily activities. Also, due to the volume of there activities, they usually prepare them ahead of time, without any problem. The activities they usually do, are in general the ones that give them (some) satisfaction.

The activities they usually do are:

Walking, shopping, cultural activities in public schools or social centers (Universities, painting, dance, languages, etc.)

3.3 Locations visited

Locations visited by the elderly from the Dutch trajectory:

- Super market
- Other shops
 - Optician
 - (also for pleasure – in NL the specific store Action)
- Post office
- Garage (car repair)
- Residential care home
- Theatre
- Bus stop
- Letter box
- path to get to location e.g. pavement to bus

Locations visited by the elderly from the Spanish trajectory:

- Supermarket
- Other shops
- Garage/parking
- Residential care home
- Theatre
- Bus stop
- Post office
- Other family house
- School (grandchildren)
- Parks

3.4 Factors affecting the activities of the participants

Relevant factors derived from the Dutch sessions:

- Factors that will affect what the elderly will
 - Time of the day
 - Distance to go
 - Weather forecast

- Emotional state
 - At ease in the street
 - Feeling uneasy/ stress when problem with journey
 - Being in the traffic jam
 - Unsecure about journey back
 - Having a good time at a family reunion
- Objects to take
 - Electric scooter, electric bicycle
 - Reading glasses
 - Letters to post
 - Mobile telephone
 - People around
 - Myself
 - Family Care giver
 - Family member (children, grand-children, niece...)
 - Neighbour
 - Other residents
 - Pet (dog)

Mentioned mobility problems:

- Get on and off the bicycle
- Mobility problems also seem to be related to the external factors mentioned earlier e.g.
 - dark outside
 - bad weather
- Route navigation

Relevant factors derived from the Spanish questionnaires:

- Objects to take
 - Private car
 - Shopping trolley
 - Mobile
 - Public transport ticket
 - Money (rather than credit cards) & wallet (incl. ID, etc.)
- People around:
 - Family members (sons/daughters, grandchildren, niece)
 - Friends

Mentioned mobility problems:

In the first questionnaire no relevant problems related to mobility were found.. Based on the comments received, we identify two blocks:

1. Problems related to the physical status:
 - Limited ability to transport/carry goods (shopping)
 - Visual problems
 - Body pain: knees, in their back, etc.
2. Problems related to little cognitive deterioration:
 - Loss of memory
 - Loss of orientation
 - Loss of concentration (especially affecting to the participants who are driving a car)

The most used form of transport is public transport (bus and metro). The other type of transportation used, but much less frequently, is private transport. The reasons for this are , in general, that all activities are focused in the areas where they live. If they have to travel to the city, it is more convenient to use public transport. When they have to do some activity outside the city and at a large enough distance from where they live then they choose to use private transport.

Not detected in this study are any physical limitations to the use of any of the mentioned types of transport.

In the group studied, except for isolated cases of injuries, the participants do not use any mechanical device for mobility support, but in cases where this has happened, the most used are the crutches.

3.5 Persona

In the Dutch co-design trajectory four persona are made, derived from the diaries (cultural probes) and the story boards. A persona is a character description representing a particular user type within a targeted demographic group.

1. a couple: one needing help and his/her care giver
2. a quite old elderly, active, needing to be aware of risks
3. an elderly with less physical problem but mental block to go outside
4. someone with mild dementia

SEE ANNEX 3.

4. Results

4.1 Initial user requirements

The next first initial requirements are derived from the Dutch trajectory:

- Helping not to forget things before going outside
- Helping coming back home safely (dark outside, no more bus) / feeling of security
- Helping against potential attack /thief when being alone outside
- Helping to keep orderly arrangement of things and outside activities
- Build up social / meeting community
- Helping keeping what is needed for the activity (e.g. shopping list)
- Remind of appointments or activities, suggest activities
- Helping with navigation
- Make use of the technology the elderly already used (e.g. Ipad)

The next first initial requirements are derived from the Spanish trajectory:

- Avoid/reduce the lack of concentration
- Improve orientation while moving
- Reduce needed effort to transport groceries or goods from the shop to home
- Tool to help elderly with the task of being carers of other elder people
- Increase the opportunities for face to face social interaction: cultural or sport events, courses, etc.

4.2 Ideas for services

The next ideas for services are derived from the Dutch trajectory:

- Alarm for emergency situations when walking outside (woods, not busy pathways) or driving
- Public transport service
- Navigator service
- Community service
- Agenda service (appointments, suggestions for activities)
- Forgotten key service (enter the house)

The next ideas for services are derived from the Spanish trajectory:

- GPS services and navigator

- Service to transport or do the usual shops (such as shop food); service that would give a social company, reaching users via phone or webpage.
- New Social network that allows to control in a remotely way, for “caregivers” for people living far from their caregivers (as an example, the Social Network called AAAIDA <https://www.aaaida.com>)

4.3 Input for next deliverables in WP 1 and for WP 2

The personas, storyboards, scenarios, initial requirements and ideas for services that have resulted from the co-design sessions, questionnaires and interviews in The Netherlands and Spain, form input for the next deliverables in the Happy Walker project. First, as part of WP1, the information should be further organized, prioritized, related to the three different target groups and attributed to possible cultural differences between The Netherlands and Spain. In cooperation with WP2, the information should be matched to available technologies, and the feasibility of developing the technologies within time and budget preconditions of the Happy Walker project. After having selected the services, first scenarios and use cases of service interactions should be drafted and evaluated with the target groups. Then, technological development and user interface design of the services should commence, in iterations, with intermediate end-user evaluations, both in The Netherlands and Spain.

Annex 1: Questionnaires used in the Spanish trajectory

First phase on line questionnaire

- 1.Date
- 2.Wake up hour
- 3.Did you during the morning any type of activity that implies movement or displacement like walking on the street or use any type of transport (public or private): yes/no
- 4.Could you describe how you are moved? Text area
5. Did you have any type of difficulty to move? y/n
- 6.In this case (answer no) could you explain us what happened: text area
- 7.Did you have the feeling that you have any difficulty to move? y/n
- 8.If yes, could you explain why?
- 9.During the evening, did you do any type of activity that implies movement or displacement like walking on the street or use any type of transport (public or private?) y/n
- 10.Could you describe how you are moving? (e.g. walking, bicycle, private or public transport) text area
- 11.Did you have any type of difficulty to move? y/n
- 12.In this case (yes), could you explain what happened?
- 13.Did you feel at any moment during the day that you can't remember what you planned to do or your destination or your starting point? y/n
- 14.Did you during the night any type of activity that implies movement or displacement as walking on the street or use any type of public transport? y/n
- 15.Could you describe how you moved? (walking, bicycle, private or public transport), text area
- 16.Did you have any type of difficulty to move, y/n
- 17.In this case (answer yes) could you explain what happened, text
- 18.Did you feel at any moment during the day that you can't remember what you planned to do or your destination or your starting point? y/n
- 19.Did it happen quite often? y/n
- 20.Does it create any anxiety? y/n
- 21.Do you need the help of a caregiver to move y/n
- 22.Do you need any mechanical support: a wheelchair, walker, a crutch, a stick check box
- 23.If you use a device not in the list, could you describe it? Text area
- 24.Are you all day in you home? y/n
- 25.If yes, could you describe why? Text area

Second phase on line questionnaire

Public transport:

1. Type of transport
2. Number of times
3. Reason for displacement: alone or with company
4. With partner, friends or family carers\

5. Could you indicate what is the most important inconvenience to use these services
6. Is there anything that prevents to use it more often (time problems, accessibility etc)

Private transport:
idem public transport

Cognitive block:

1. Do you have problems to read signals
2. Due to visual problems?
3. Due to interpretation difficulties?
4. Could you explain us your perception?
5. Is there any relative or friend that suggests that you are experiencing memory losses or lack of concentration/reflections
6. In this case could you explain which?

Walking block:

1. How many times
2. Reason for displacement
3. Aprox time
4. Aprox KM
5. Alone or with company
6. In the case of with company: could you indicate with whom (partner, friend, family, caregiver).
7. If you walk for sporting purposes is this based on medical prescription (frequency, distance, time)
8. How do you control this parameter
9. Extern support: Is there any relative or friend that suggest you the possibility to buy any device to support you in your mobility?
10. What type of device?

Social block:

1. Do you go to social events often?
2. Could you indicate which events
3. Do you go to cultural events often?
4. How did you know it?
5. Who bought the entries?
6. Where he/she bought the entries? (internet/others)
7. Do you go to sport events often?
8. Where he/she bought the entries
9. Do you go to family events often?
10. With which frequency?
11. Do you go to your friends often?
12. With which frequency
13. What do you usually do with your friends

|

Annex 2: General overview of the results of the Dutch co-design sessions, the cultural probe materials (diaries) and the results of session 2

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1. Overview documents of both co-design sessions (1 and 2).

The data of the first two co-design sessions is present. This information exists out of storyboards, audio files, photos and probes. The table makes clear whether the participant joined the first or/and second session, has made photo's or filled in the probe's. All the information is findable at the TNO

	Participant	Present at session 1	Storyboard (session 2)	Audio	Photo's	Probe's
-	11 Participants	9 participants	6 participants at session 2	6 audio documents	9 photo series	9 probe's
1	A	X	Present	Y- Livescribe Remko	X	X
2	B	Present	Present	Present Phone audio Esther	Present	Present
3	C	Present	Present	Present Livescribe Janny	Present	X
4	D	X	Present	X	Present	Present
5	E	Present	Present	Y Livescribe Jelle	Present (disc M)	Present
6	F	Present	Present	Present Livescribe 1	Present (disc 2)	Present
7	G	Present	X	X	X	Present
8	H	Present	X	X	Present (disc 3)	Present
9	I	Present	X	X	Present (disc 4)	Present
10	J	Present	X	X	Present (disc 1)	Present
11	K	Present	X	X	Present (disc 5)	Present

X= not present Y= Yet to come

2. Happy Walker co-creation session 1 - 29 november 2012

In this chapter there will be a description of the first session. This will be built by the general impression of the first session and information of the participants.

2.1 Number of attendants

The central theme of this meeting was to introduce end-users to the project and invite them to join for the next two meetings.

Of the 500 invitations, 24 responded to come to the first meeting. This already shows in some way that the target group will be a challenging group to work with.

The participants showed a broad range of ages, from 58 to 93 years old.

Some had physical disabilities, others had mild memory loss (as the participants said themselves 'forgetting things sometimes').

Six participants came as a married couple and generally responded to the activities 'as a couple'. The other participants came by themselves.

11 people agreed to do the 2-week home assignments (diary and photo-camera).

3 more people did not want to do the assignments but did want to join the next meeting.

2.2 General impressions

Anxiety

Participants are generally afraid of the future, but also realistic about it: they know that in the future they will be able to do even less on their own than is currently the case. This provides both a challenge as well as an opportunity: Challenge: How can we engage people to think about future products if they do not want to think too much about the future, if, to them, the future is 'no fun'? Opportunity: joining our project could provide an opportunity to actively work towards a positive aspect for the future, compensating for the many fears and worries they may usually have about it.

Privacy

A number of participants is concerned about privacy. Two factors combine to strengthen this concern. One is their personal situation, which is not always of a nature one would like to share with others. Many of the difficulties in the daily situation (e.g. toilet-problems, to name one) are associated with feelings of shame. And some of the participants like to 'be on their own' in general, and they do not see this as something negative. This is to be respected. It will provide difficulties in getting people to talk about themselves openly. Another factor is that our project deals with computers and digital information. For some participants the internet is 'all black magic' and the internet means that 'when you have information about me on your computer, *the whole world* immediately can see it'. Taken together this leads to a design requirement: strong guarantees of privacy of information (or rather: personal control over who has access to what information). This guarantee of safety should not only be realized in terms of software protocol but also in the way the product communicates this safety to the user: the user should not in any way experience the product as a piece of black magic that puts all your shame on the street.

Knowledge

A number of (male) participants had technical/engineering knowledge. This knowledge should be acknowledged and respected. It provides the opportunity that the participant can actively contribute to ideas. It provides a challenge in that the participant will perhaps concern himself with issues that are outside of the scope of the co-creation sessions: the technical issues are not 'co-created'.

A number of (female/male) participants were active in certain groups or committees. This may provide an opportunity to get more people involved in a derivative participatory activity if we can find a way to get back the results from them.

Concreteness

Participants indicated in various sorts of ways they need to have a concrete object *about which* they can then speak. Two participants in different sessions independently stated that they do not see how they can contribute anything of value if the product is not there yet. This is a well-known communication issue in co-design. The problem is that people can state very easily whether they like a product or not, but we want to have that kind of information *before* we design the product, which is a circular reasoning. This means we have to construct, on the basis of the little information we have now, concrete objects, examples, scenario's and other materials that participants can respond to in the next meeting.

Cognitive capacity, attention span

Generally speaking the group was attentive, active, listened to the explanations, asked questions and had opinions. This is a good thing. With larger groups the attention quickly diminished and there was a problem with people not hearing well or not being able to remain silent. There is however a form of inflexibility, we have to go slow, step by step, gradually moving people into the co-design situation. Much effort will go into getting people into the cognitive/psychological state for being able to contribute to the co-design process at all. Most suggestions and ideas we heard today are well within the stereotype/automatic response class which is the first phase of involvement. It gives us no direct design requirements (or none that we do not already know from literature or personal experience). But it is necessary to go through this phase in order to have people contribute and feel concerned with our project. This phase will take more time than in other groups that are more flexible and more easily switch to take a meta- or third person's perspective to the activity.

Method and materials: reflection

Include a 'sub-group' activity already in the first meeting where people can talk with each other, drink some coffee with one another. It was too 'plenary'. Some people started talking with their neighbors, instead of this being a way to get involved to the session it was disturbing the plenary explanation. It should not be disturbing but instead used positively.

Easier probes: we have way to many ambitions right now, should be just 1 assignment for each day with only 1 question, for all the days ask one and the same straightforward question. (take 1 picture, write about your experience).

E.g. "Today I went out and I experienced something good/bad". + Take a picture of the thing or scene that your experience is about. (But ideally even simpler).
Coffee and pie was good.

It worked really well to have one researcher travel with one of the participants to the event and immediately show a photo series of the travel experience in the presentation.

It works well to make local connections in introducing each other, for instance when Anita said: I work in Soesterberg at the damweg that is close to here. ("I know that place", says one participants). These are important local connection moments that people can relate to.

The intro assignment with pictures of means of transportation worked ok but we can think about how to optimize it. For the next meeting perhaps we can do an introduction assignment not centered around transport vehicles but much more about: "where you live", e.g. where is everybody's home on a map, where is the shop, where is the church, and so on.

2.3 Results

In the table below the characteristics of the participants and the way they use transportation is described.

Participant	Description participant	Means of transportation
A	<ul style="list-style-type: none"> - Has no real problems up to now - Lives alone, independently in sheltered accommodation (care is nearby if needed) - Likes to participate because problems may come 	<ul style="list-style-type: none"> - Riding a bike - Using the train - Driving in own car - Walking - Using the bus - Using the tram
B	<ul style="list-style-type: none"> - Walks the dog four times a day - Has mild cognitive problems (forgetting names once in a while) - Likes to participate because if something happens while walking the dog or riding the bike, it would be nice to have a device to help 	<ul style="list-style-type: none"> - Riding the bike - Driving in own car - Walking with a stick - Walking with walker for doing groceries - Using the bus
C	<ul style="list-style-type: none"> - Is 58 years old - Lives independent with her husband - Once every 14 days a help comes for heavy work in the house - She has some physical problems, not able to walk long distances 	<ul style="list-style-type: none"> - Walking with stick - Making use of the elderly bus service
G	<ul style="list-style-type: none"> - Lives alone, independently in sheltered accommodation - Is still very active, for example helping 	<ul style="list-style-type: none"> - Driving in own car - Riding the bike (electric) - Using the train
J	<ul style="list-style-type: none"> - Is 93 years old - Riding the bicycle every day - She doesn't feel comfortable walking because of her continence problems - She receives help for heavy work in the house - Has mild cognitive problems 	<ul style="list-style-type: none"> - Riding the bike - Driving with others - Making use of the elderly bus service
L	<ul style="list-style-type: none"> - Lives alone, independently in sheltered accommodation - Cooks herself - Fell down once, used the emergency-button, she recalls waiting for help for half an hour - She experiences some physical difficulties 	<ul style="list-style-type: none"> - Walking with a walker - Making use of the elderly bus service - Driving with others

2.4 The qualitative analysis of the completed probes

In this paragraph the information of the probes is described by subjects like location, activities, persons, objects, wheatear and so on. These lists categorized by subjects are in Dutch.



In total 33 activities:

- Care: (2 activities)
- Domestic/ groceries: (12 activities)
- Getting out for a walk: (6 activities including twice: Wishes they could go outside, but didn't go because of the bad wheater.
- Family visit/ trip: (7 activities)
- Hobby (6 activities)

Thereafter we have written down some short quotes for all activities. These short quotes we marked whit colors which have lead to the following categories:

Location, Activity, Object, Person, Time / distance determinations, Affective expressions / beliefs, and some specific categories: Weather Circumstance, Service provision / receive reward after work.

- 'wij zijn de proefkonijnen ...
benieuwd wat eruit komt'
(bij HW sessie)

Reward after work

- Napraten
- Thee + koffie
- Wijn + zoutjes
- Glaasje wijn
- Sauna
- Even zitten bij thuiskomst
- Heerlijk diner
- Gezellig wat drinken
- Even koffie gedronken

Affective expression or belief

- 'Rustig op straat'
- De klus was 'niet veel werk'
- 'mooi helder weer'
- 'het bleef droog'
- 'te glad'
- 'fijn gesport'
- Auto is 'veiliger' dan fiets bij gladheid
- Supermarkt in wooncomplex 'is fijn'
- 'Voor onszelf zorgen'
- Regen 'niet fijn'
- Zelf klussen 'prima gelukt'
- Het klussen 'ging goed'
- 'onzeker en bang' door langsrazende auto's
- Met vrieskou 'lekker thuis gebleven'
- 'Druk verkeer'
- Bij het sjoelen 'weinig belangstelling' (= lage opkomst)
- Bij slecht weer 'vlug weer naar huis'
- 'Uit nieuwsgierigheid gekomen' (naar HW bijeenkomst)
- Hobbyruimte -> fijn om thuis klusjes te kunnen doen
- 'Proefkonijn' (bij HW bijeenkomst – niet negatief bedoeld)
- 'Kriebels in buik' vanwege problemen reis scootmobiel
(losliggende tegels, gaat de lift wel open?)
- '0,= euro (voor autoreparatie) prima service'
- 'gratis!' (concert)
- Na hartoperatie weer genezen nu weer in staat buitenshuis op
bezoek te gaan bij anderen (en belastingadvies te geven)
- 'veel plezier met familie en kennissen' (op huwelijksfeest)
- 'geen file'
- 'rij liever niet in het donker'
- 'slecht pad – je kunt niet naast elkaar lopen, ronduit gevaarlijk'
- 'gezellige middag' in theater
- 'fijn bij familie te zijn'
- een uitje 'ging goed'.

Below the quotes of the separate map 'Dit wil ik nog even kwijt...'

- 'Vroeger was ik zeer reislustig. Opmerkelijk is dat reizen me nu eerder afschrikt dan aantrekt, is de leeftijd.'
- 'De knopjes op de zijn te klein en te dicht op elkaar. Zodoende kan ik niet met een mobieltje overweg.'
- 'Daar op en afstappen van de fiets voor mij moeilijk is, is het voor mij nog niet doenlijk onderweg foto's te nemen.'
- 'Sneeuw en ijs hebben mij binnen gehouden, zodat ik niet veel opdrachten heb kunnen doen.'
- De periode was te kort om de verschillende acties die ik doe te registreren
- Ik heb een prepaid telefoon gaat steeds mee

- Foto toestel komt op volgende bijeenkomst nieuw [onleesbaar]
- 'Als dit nog uitgevonden moet worden! Op je mobile bereik je ook 112'
- 'Als je valt, hoe kom je omhoog'

3 Goals and intended outcomes for co-design session II

In what follows, the totality of the to-be-designed HW interactive device(s) & the (online) services provided via these devices will be called **the HW-system**.

3.1 Goal of the session

The goal of this session is to gather detailed insight into the lives and activities of the potential end-user of the HW-system.

This outcome will take the form of a number of **personae** and **activity scenario's** within which the HW-system can subsequently be envisioned to be a useful tool, appropriated meaningfully into the end-user's everyday life.

The basis for these personae and scenario will be

1. The results from the literature review of WP1 (Desk-research).
2. The insights gained through interacting with potential end-users during the co-design sessions (Empirical data: observed behavior and self-report).

Underlying this aim is the overall HW-project goal to support a prolonged independent living of elderly with reduction of costs of professional elderly care and increased autonomy and empowerment of the target group.

3.2 The outcome: personae and scenario's (storyboards)

The **personae** will provide concrete, visual- and textually enriched, exemplar based insights into the end-user:

- Personal history, experience, skills, knowledge, cultural background
- General perspective on life
- Personal experience [believing] of aging
- Personal experience [believing] of using technology
- Personal experience [believing] of going outdoors
- Delights, pleasures, satisfaction, happiness
- Problems, fears, resistance, frustration
- Wishes, desires, dreams, hopes

The **activity scenario's** are meant to provide visually enriched 'stories' (storyboards) that present scenario's of typical activities-in-context that map people's everyday life (the part relevant to the current project). These activity-scenario storyboards can then either be added to, transformed or augmented (e.g. prolonged) by introducing design-concepts for the HW-system. Each storyboard will contain

- Description of a key-activity potentially relevant to the HW system
Example: going by foot to the local shop on the corner of the street
- The immediate aim/goal of the activity: what is the intended outcome for the person undertaking it? (When is it successful, what would define failure?)
... in order to buy groceries
- The underlying value, personal meanings, i.e. the 'gain', of this activity for the user (why a person puts in the effort, what makes it valuable)
Buying groceries is not just to get new food in the fridge but also makes for a social event, chatting in the shop with the neighbours.
(Design consequence: ordering food online and having it delivered would not support this latter, implicit intention behind the activity)

- Key characters and their respective roles in the activity
The elderly person, the shop-keeper, the neighbor (see below)

- Temporal order of events of key-activities (drawn in visual storyboard)
Make list of things to buy at home
Put on coat, get keys, glasses, purse, etc.
Go out, lock the door
Walk the street to the corner
Wave at the neighbor through his window
Enter the shop
Order groceries...etc

- Possible obstructions/problems/challenges currently part of the activity (what may lead to abandoning the activity or failing in the attempt)
Shop is closed
Too cold outside
Forget keys
Forget where shop is
Too tired
..etc

- Artifacts used in the activity
Keys
Purse
Paper note
Pen
Phone? (emergency)

3.3 Mapping the outcomes to the design of the HW system

The gain of undertaking this exercise for the HW development team is the following: If the HW system succeeds in connecting seamlessly/intuitively to both the persona and the scenario's on all relevant levels of system design, this in turn will heighten the probability that the system as a whole will be experienced as useful and appropriated successfully by the intended end-user in her daily practices. This seamless/intuitive 'connection' should be achieved on (at least) the following two levels of system design: the *system functionality* and the *interface form*, and ideally these two form one coherent, unified 'user experience' to the user.

1. System functionality: The definition of the actual functionalities (the services) that the system provides to the user.

E.g.: an information service that provides to the user info on which local shops are open (or e.g.: which shops are known to be friendly for elderly people).

2. The concrete interfacing-form of the system (the way the user perceives and interacts with the system at the most concrete level of action and perception). This level of design itself contains two aspects, which can be separated but which can also be fully integrated in the design:
 - a. Graphical/digital forms, as for example visual images (icons, data) presented on a screen, to be manipulated by a conventional pointing device (touch, pen or mouse)

- b. Physical, interactive elements, i.e. the concrete physical form of the devices and their interactive behavior (light, buzz, movement, movement detection, wireless interaction with other devices, location-aware behavior, haptic feedback, etc etc).

3.4 Format of the session

The session consists of three parts. The two first parts will be conducted at Zorgpalet Soest together with a selected group of independent living seniors who have visited the earlier first introduction session and filled out a diary and made photo's in the form of a 'cultural probe' (hereafter called the 'probe materials'). Part 3 will be conducted in Antwerp together with the technical partners of HW and the co-design team (the elderly people will not be present).

Part 1: Enriching a personal scenario of an everyday activity (relevant to the context)

Part 2: Thinking about possible functions for technology

Part 3: Integrating technical constraints with co-design results: towards system functionalities, essential system components and interface aspects.

3.5 Description of co-design session 2

The session will be held at monday 21 january in Soest Zorgpalet.
We expect 7 elderly participants and 5 co-design team members.

Jacomien (TNO, 'industrial design')

Jelle (HU, 'design researcher')

Anita (HU, 'researcher')

Nienke (Vilans 'researcher')

Esther (TNO 'elderly / built environment')

Roos (HU 'designer')

The remainder is in Dutch

Part 1.1: Introductie (Jelle)

"Welkom.

Het doel van vandaag is om van u informatie te krijgen waarmee we de functie en ook het uiterlijk kunnen bepalen van ons nieuwe product.

In algemene zin moet het product u ondersteunen buitenshuis.

Het vormt als het ware een soort persoonlijke assistent die u bij u draagt, die u met van alles van dienst kan zijn. Het doel is dat mensen die wellicht niet gemakkelijk zelfstandig buitenshuis op pad gaan het met ons product wel weer zelfstandig kunnen, of dat ze het vaker en gemakkelijker kunnen dan vroeger.

U zou kunnen zeggen: alles wat u nu nog wel kan maar over vijf jaar misschien niet meer, daarbij zou ons product kunnen ondersteunen zodat u het over vijf jaar nog wel zelfstandig kunt. Maar misschien zijn er ook al dingen die nu al moeilijk of lastig gaan, waarbij ons product zou kunnen helpen, bijvoorbeeld door nuttige informatie te geven, door u te waarschuwen, of door u in staat te stellen met anderen te communiceren die u kunnen helpen met het een of ander."

Wat gaan we doen?

Er zijn twee rondes van gesprekken, voor de pauze en na de pauze. Voor de pauze gaan we het nog niet over het product hebben. Eerst willen we wat meer te weten komen over waarom en met welk

doel U de deur uit gaat. Tegelijk willen we dan ook in detail weten hoe dat nou precies gaat, als u de deur uit gaat. Hoe bereid U de reis voor, wat gebeurt er onderweg, wat gebeurt er op de plaats van bestemming, en hoe gaat het met de terugreis? We zoeken naar het persoonlijke verhaal: het gaat erom hoe u het beleeft, hoe u het doet, om uw eigen ervaring. We willen weten wat u als prettig ervaart en wat u als probleem ervaart, en waar u nou eigenlijk het meeste belang aan hecht tijdens zo'n buitenshuis activiteit.

Al deze informatie wordt anoniem verwerkt, dus zonder uw naam erbij. Uiteindelijk wordt het product natuurlijk gemaakt voor een grote groep mensen die in een vergelijkbare situatie verkeren als u. Door uw ervaringen met ons te delen kunt u dus een hele hoop mensen zoals uzelf helpen, in de nabije toekomst.

'We nemen de gesprekken op omdat we dat in de komende week allemaal willen gaan uitwerken en het is teveel informatie om in een keer allemaal op te schrijven en te onthouden'.

Hoe gaan we het doen?

U heeft over deze onderwerpen al enigszins nagedacht bij het invullen van het boekje en het maken van de foto's. Deze informatie is dan ook het startpunt van de gesprekken van vandaag.

Wat we gaan doen is dat we in tweetallen gaan praten over 1 activiteit die u in het boekje heeft genoemd. Daar gaan we dus nog wat dieper op in. U gaat daarover in gesprek met een van ons, dus we maken groepjes van 2 zodat u de tijd heeft om echt met elkaar in gesprek te komen. Wij hebben wat materialen waarmee we uw verhaal in kaart gaan brengen, dat wijst zich allemaal vanzelf zo dadelijk.

In het tweede deel van de middag, na de pauze, gaan we dan met elkaar nadenken over hoe ons nieuwe product en dan zijn we ook erg benieuwd naar uw eigen ideeën daarover.

[groepjes maken, foto's en probes worden uitgedeeld per duo]

Voordat we in groepjes verder gaan wil ik ieder van u vragen om een foto uit te kiezen van een activiteit die voor u belangrijk is. De vraag is: wat is nou een activiteit die u absoluut niet zou willen missen. Iets wat u zeer graag over vijf jaar nog steeds zelfstandig zou willen kunnen doen. Of iets waar u nu al enigszins bezorgd over bent, omdat het steeds lastiger wordt om dit nog zelfstandig te doen.

Dus bijvoorbeeld, u hebt een foto gemaakt van de Volkstuin. U kiest deze foto. Want: U gaat nu nog regelmatig naar de Volkstuin en daar haalt u veel voldoening uit, maar dat doet u met de auto, en als u nou veel minder zou kunnen zien in de toekomst zou u niet meer met de auto naar de Volkstuin kunnen. Als u nou al wel weet wat voor activiteit u zou willen kiezen maar daar is nou net geen foto van, dan kunt u het ook gewoon vertellen zonder de foto.

Aan de begeleiders wil ik ook vragen een foto uit te kiezen die voor hen iets belangrijks weergeeft. Bijvoorbeeld omdat ze er iets van geleerd hebben of denken geleerd te hebben over u, de doelgroep van ons product.

Kijkt u maar rustig in uw foto's en kiest u iets uit waar u veel belang aan hecht.

[goed verlichtte foto's.]

Heeft iedereen iets gekozen?

Dan wil ik even de rij af gaan. Kunt u kort beschrijven wat er op de foto te zien is en daarna wat het voor u betekent: waarom is dit een belangrijke activiteit, of onderdeel, voor u?

[beginnen in groepjes]

Deel 1: scenario's maken

5 * 8 minuten om de basisopzet te maken + 5 minuten om iets af te maken af te ronden.

- 1) Thuis "Als je nog thuis bent: wat doe je allemaal voor je het huis verlaat?"
- 2) Onderweg naar bestemming: hoe gaat de reis onderweg?
- 3) Op de bestemming
- 4) Terug naar huis
- 5) Weer thuis

Je kunt/zult met enkele van deze scenes langer bezig zijn dan met de andere. Focus vooral op 2 en 3 en/of 4, dus blijf niet TE lang hangen bij 1, alhoewel het erg belangrijk kan zijn bijv mbt de vraag 'ben ik niets vergeten' en hoe regelt de persoon dat.

Als je merkt dat een bepaalde scene nog veel 'verhaal' in zich heeft kun je ook kiezen om eerst (in iets minder tijd) de overige scenes af te maken, waarna je als laatste nog even terug keert naar de belangrijkste scene om daarover door te praten. Het zou jammer zijn als het complete verhaal helemaal niet af is (dus dat je blijft hangen in scene 2 en niet verder bent gekomen). Het is ook jammer als je met elkaar 'lekker snel en praktisch klaar bent' en niet 'de diepte' in bent gegaan. Daar moet je een optimum in zien te vinden.

Activeer de smart-pen of opname apparaat, druk op record op het papier (het rondje). Als er 'record' op de pen staat loopt hij. Daarna kan je telkens als je dat nodig vindt een korte aantekening maken op het live scribe papier.

Ok. Je hebt gekozen voor Hoe gaat deze activiteit? Laten we eens beginnen als je nog thuis bent. Wat doe je dan allemaal voordat je de voordeur verlaat?

Stel vragen en teken de situatie (in totaal 5 'stappen' voor de hele activiteit). In de schets maak je annotaties: wat is wat, wat wordt erover gezegd (steekwoorden, pijlen, etc). Verwerk iig: - de betrokken personen, de gebruikte objecten, belangrijke elementen in de omgeving/context, wat er 'gebeurt' (de actie). Je kunt de voorgedrukte plaatjes gebruiken en daarbij tekenen + schrijven. Houd de tijd in de gaten

Als het gesprek niet veel op lijkt te leveren: Het kan helpen als co-designer te bedenken hoe jij het zelf doet/zou doen, daaruit kunnen vragen voortkomen (maar neem je dan geen sleutels mee?): Je kunt je ook opstellen als een 'student' of 'acteur' die moet 'leren' deze activiteit zo exact mogelijk na te spelen. Welke info mis jij nog aan details om het morgen precies zo na te doen als je gesprekspartner het heeft verteld?)

Vragen die je kunt stellen:

- Wat doe je precies (zo concreet mogelijk). Wat is het doel?
- Met wie/wie is erbij betrokken
- Wat voor [artefacten, bestaande technologie] kleding/objecten/dingen/reismiddelen/vervoersmiddelen gebruik je, heb je nodig? Wat gebruik er erbij, omdat het handig is, of omdat het nodig is? (Bijv: sleutels, aan een bos, in handtas)
- hoe ziet de context eruit (de fysieke ruimte, meubels/straat-elementen etc) praat *met foto erbij* als die er is.
- hoe laat doe je dit meestal? Hoe lang duurt dit?
- (Wat is de invloed van weersomstandigheden)
- (Wat is je beloning)
- (Wie betekent wat voor jou en wat betekenen jij voor een ander?)

Doorvragen (als er tijd is):

- *hoe beleef je dit?*
- *Hoe voel je je erbij?*
- *Wat is leuk/plezierig aan deze activiteit?*
- *wat betekent dit voor jou? (waarom is dit belangrijk voor jou)?*
- *wat vinden anderen er van? wat vind jij daar weer van?*
- *hoe deed je het vroeger? is er iets veranderd?*
- *wat is voor jou belangrijk, wat moet ik goed begrijpen hieraan?*
- *hoe zit het met (key-words uit de oorspronkelijke probe-tekst noemen)*

Deze vragen allemaal in de context van deze scene in de activiteit.

Afronden scene:

Welke foto's passen bij deze activiteit? Plak ze erbij. Begin met de volgende scene op een nieuw papier. Maak eerst een aantekening met je livescribe pen zodat de audio-opname aan dit nieuwe vel wordt gekoppeld.

Hang elke scene in de goede volgorde aan de muur en begin met de volgende tekening totdat er een 'stripverhaal' af is van de totale activiteit.

Kijk of er nog aanvullingen nodig zijn.

Pauze

Bespreek en evalueer met co-design team.
Oudere deelnemers krijgen koffie en thee en wat lekkers.

Bespreek (met co-design teamleden):

- wat valt je op (observatie)
- wat zou een mogelijke oplossingsrichting kunnen zijn (inhoud/uitkomst)
- hoe ga je om met problemen in de communicatie (proces)?

Deel 2: Mogelijke functies voor het product/persoonlijke assistent

Begeleider pakt het kaartje met het HW 'ding' (vierkant ding, geen concrete invulling). Waar zou dit ding allemaal een bijdrage kunnen leveren en welke bijdrage dan?

Vraag is: Waar zit het probleem/de problemen in het scenario? Waar zitten de kansen voor het product om bij aan te sluiten?

(Misschien zijn er al genoeg aanknopingspunten van voor de pauze.)

Eventueel nog eens herhalen:

- het product gaat u ondersteunen buitenshuis.
- een soort persoonlijke assistent die u bij u draagt, die u met van alles van dienst kan zijn.
- alles wat u nu nog wel kan maar over vijf jaar misschien niet meer, daarbij zou ons product kunnen ondersteunen zodat u het over vijf jaar nog wel zelfstandig kunt.
- misschien zijn er ook al dingen die nu al moeilijk of lastig gaan, waarbij ons product zou kunnen helpen, bijvoorbeeld door nuttige informatie te geven, door u te waarschuwen, of door u in staat te stellen met anderen te communiceren die u kunnen helpen met het een of ander.

Evt. doorvragen op/benoemen:

- 1) *wat vind je lastig?*

- 2) *wat zou je graag willen?*
- 3) Wat is nu al problematisch/lastig, waar ervaar je problemen?
- 4) Wat zou beter kunnen, of gemakkelijker?
- 5) Wat verwacht je dat over vijf jaar lastig zal zijn?
- 6) Het probleem kan zitten in (contact met of afwezigheid van) andere mensen die je nodig hebt
- 7) Het probleem kan zitten in dingen of omgevings-aspecten die niet werken of niet voldoen of waar je last van hebt (bijv druk verkeer, weer, informatie in bushokje klopt niet etc)
- 8) Het probleem kan ook zitten in je eigen mogelijkheden: bijv fysiek of mentaal. (rollator, of je vergeet snel dingen, of visueel).

Plak per idee het kaartje op de plek waar het hoort in het scenario.

Wees zo concreet mogelijk over de fysieke plek van het 'ding' in de activiteit bijv zit het vast aan het bushokje of hangt het om je nek? Etc.

Schrijf erbij

- *wat het product doet*
- *wat dat de gebruiker oplevert*

Afronding

Elke begeleider benoemd kort de uitkomst en vraagt om reactie van de partner.

“Dank voor jullie aanwezigheid – verder in maart?”

Phase 5 (after the session) finalizing the storyboard & creating the personae by artist.

In Co-design session III we can work with physical props that represent 'the HW device' (e.g. foam objects) to 'enact' the use of the device within the created scenario.

4. Something to discuss/think about

I have made these design levels and how they connect to human practice in such detail (and perhaps in terms not customary to standard ICT development jargon) in order to emphasize that *to the user*, it is the *complete unified experience of the system as a whole* that will determine whether the system will be meaningfully appropriated within everyday practice, or not.

First of all – and this is something most developers readily realize, this means that one may have a perfectly good 'functionality' that will not be used if it interfaces very badly to the user. This is a plea for designing for good *usability*.

Likewise one may also have a very fine 'user friendly' interface, that however connects to a service or function that is 'of no use' to the user, or one that leads to undesirable by-effects that obstruct other intentions and goals of the user. Note that this is not a matter of fact but a matter of experience: a function that *could objectively be argued to be useful* may not be experienced as such by the user. This is a plea for designing functions that connect to the way people themselves understand their own lives and what a technological system could provide within that life: design for appropriation.

Secondly, and perhaps even more importantly, these two aspects: appropriation and usability are not independent: whether the interface is usable has impact on the perceived 'usefulness' of the system's *function*; and whether the *function* of the device is perceived as useful has impact on the perceived *usability* of the device.

In my view this is why we need a rich and full insight, based on personal experiences of actual (potential) users, into this complete experience of the user and why we need to develop the concrete interactive form and the functionalities of the device (as much as possible) in parallel.

What problem

problem or challenge you think will arise in the near future: why is this activity in danger? What problems do you already experience right now concerning this activity? We do this by making a detailed scenario of the activity: what steps to take in the activity, which people are involved, what objects and tools you use, what is the order of events, etc. After that we try to pinpoint the 'weakest link' in the whole activity: what is the weakest link in the chain of events people and things? What is the point where it may go wrong in the future? [E.g. if my husband is no longer there he can no longer drive me by car and I do not have a drivers license and there is no easy bus service to X... etc.] If you experience no problems with the activity right now, think about what will happen if you get older or if you would have certain physical problems that other elderly people may have that makes the activity more challenging.

- How could a computer tool that would be like a personal assistant that you can take with you everywhere you, as a portable thing you put in your pocket help you? How could it help you still do the things you do now in five years from now, or do them right now more easily/with less problems.
- Phase 1.2: Sharing outcomes of the probes (photo's)

Every participant (elderly or team-member) takes a photo from his own set or that of another and tells the rest of the group why this photo shows something significant or important about:

- What it is like to be an independent living senior (in general)
- What one encounters when going outdoors
- How one experiences technology / computers in daily life.

Team-members express what they think is important/how the picture connects to the HW project. Elderly people express whatever they feel is worthwhile sharing with the group.

4. Overview documents of both co-design sessions (1 and 2).

In this chapter we present an overview of the results of co-design session 2.

4.1 General info

In this session six participants joined us. Five of them also participated in co-design session 1. Six participants joined the activity. 5 of these also participated in co-design session 1.

Co-design session 2 lasted for four hours. In this time, each elderly participant teamed up with a researcher and together created a storyboard of their everyday life and activities, inspired by the probe materials they had brought to the session.

The results of co-design session 2 and the probe materials are summarized in three final scenario's in storyboard style and four persona posters. These final results can be found here: folder: WP1, Co-design session the Netherlands, "Summary of results, storyboards and personas"

4.2 Short report per couple A

Participant: A

Interviewed by: Anita Cremers, UASS/TNO

Scenario: Attending a 50 year wedding anniversary party

Persona: Sprightly elderly

ATTENDING A 50 YEAR WEDDING ANNIVERSARY PARTY

Participant A. (78) is a very active person who lives by himself (widower?) in an apartment building. His children live nearby. He states that he still does everything he used to do, he does not experience any problems yet. For example, he is a frequent car driver. However, he admits that he doesn't like to drive in bad weather (fog, rain, snow) anymore, and always keeps to the right on the highway, he prefers to drive slowly (this is a difference with how he used to drive!). He is very keen on social contacts, and likes to pay visits to family and friends, and gets invited for birthdays and parties. He always confirms his attendance (telephone) and asks for directions if necessary. Usually he goes by himself or carpools if other people go to the same event. He never forgets to send a thank you card after the event, with a small personal poem. He has written a large collection of poems, he also likes citations of famous people and sayings, and uses them to cheer up and activate other people. He also helps people to fill in their tax forms. One year ago he has suffered from a heart attack, but he feels he has fully recovered now. He is very interested in technology, and has already brought in a number of newspaper and magazine clippings with gadgets that already exist, to inform us what he would like about these gadgets (eg. a mobile telephone with a dedicated alarm button). His main interest is in such an outdoor alarm function: if you don't feel OK, you can get in touch with someone who could help you.

Life motto: "say more often : Yes". People who are getting older tend to complain a lot and focus on negative things. But there are many opportunities to be active, by not focusing on thresholds but on opportunities.

Scene 1: at home

Sometime before going to the party he always calls to confirm his attendance. This is a normal and polite thing to do. People should know how many people to expect, for food and drinks. This particular party started at 5 o'clock pm, which is not at time he would usually take the car because of the rush hour. He just takes ample time to be sure to arrive on time, considering the time of the day. In this situation the weather was nice and clear, if there had been fog, rain or snow, he would have taken a taxi (not public transport, is too much of a hassle), or, if he had known other people who went there, carpooled. A taxi would be worthwhile in this situation since he knows the couple well. He makes sure he takes a shower, dresses, shaves, takes his keys (front door + car), the present and a good mood! His mobile telephone always stays in his car, it contains pre-programmed numbers (programmed by his children), of relatives but also ANWB (help if something happens with the car). His car is always filled with gas, he always goes to the same gas station, where he knows the people who work there.

Scene 2: in the car

He gets in the car, he likes it having a 'high seat'. If mr K. does not know the exact route, he looks it up in the "10.000 streets book" and writes it down, sometimes with a small drawing, on a piece of paper which he takes with him. If he gets lost, he parks the car and asks someone for the right way. If he is not sure about the right route, he sometimes drives there beforehand to 'practice' during the day to find out, so he knows when he has to go there in the evening! He really enjoys driving, it gives him a feeling of freedom, of luxury (warm, dry, fast) and he can listen to his favorite music. He doesn't like the new roundabouts, where you have to pick your lane before you enter it and cannot change lanes because of thresholds in between lanes. The location of the

party was at a large hotel, which has a nice parking lot, so there is no problem there. He always tries to find a nice parking space, does not mind to drive a bit longer to find one that suits him.

Scene 3: at the party

When he arrived at the parking lot of the hotel, he saw an acquaintance who directed him to a free parking space. He liked to go to this party, knows a lot of people there, and feels that he should honor the couple who organized the party. He would feel very bad, if he was not able to visit these kinds of events anymore. He hardly ever drinks alcohol, sometimes one glass of white wine, he feels that if you drive, you should not drink at all, but that is no problem for him. He often makes new appointments with people at the party. He has always had a hearing problem at one ear (one-sided deaf from birth) but he is used to that and asks people to sit at his 'good side' so he can hear them well.

Scene 4: Back home

After the party he drove back home, nothing special. He can park easily behind the building. If there is snow, the concierge always makes sure the sidewalk is snow free.

“Geen tijd bestaat niet, geen prioriteit wel!”
(no time does not exist, no priority does!)

He lives at the eighth floor which he likes a lot (nice view, quiet, lots of light), takes the lift there. They have added an extra lift so there is always one available. If he should forget the key, he has pasted a note by his door with three numbers of people who have spare keys he could use. This only happened once up till now. At home, he does not do something special. He always send a thank you card or calls to thank the organizers after a party. Someone told him once this was a nice thing to do, and now people count on it.

Product ideas:

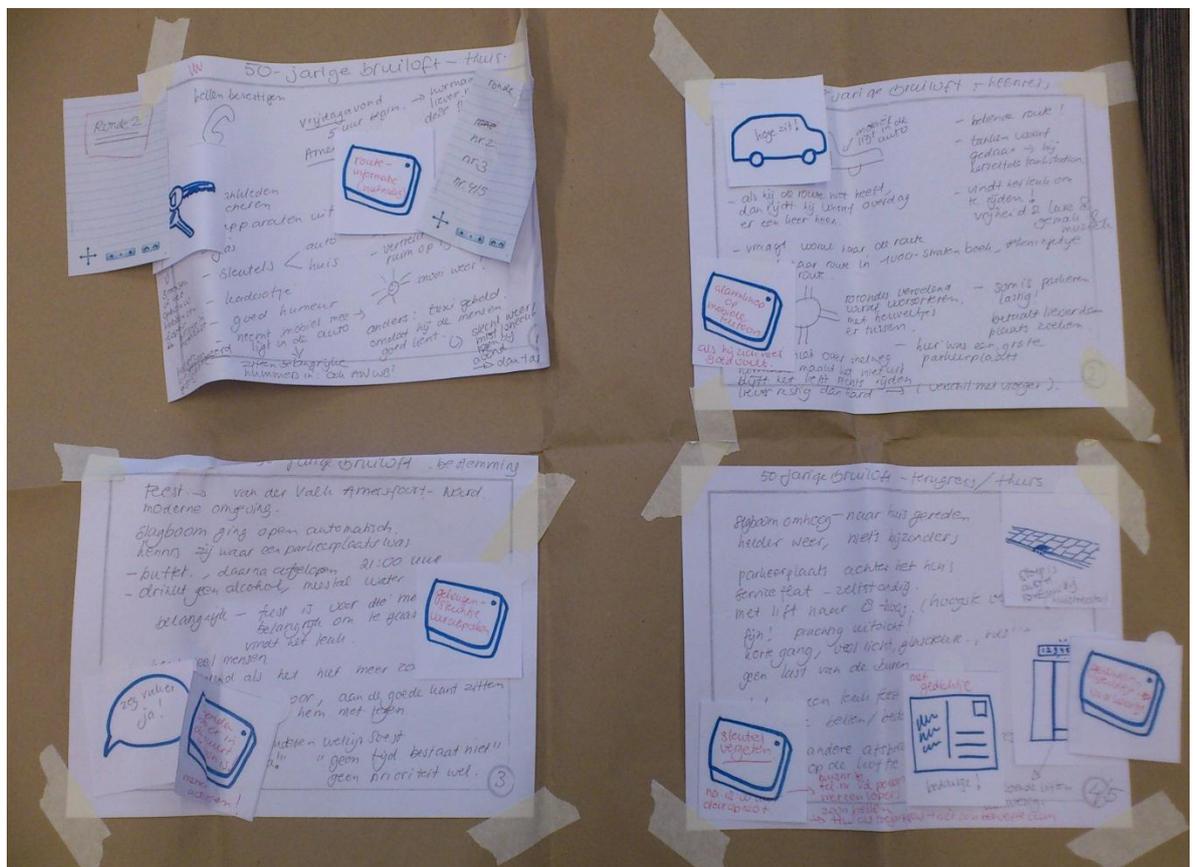
Alarm button on mobile phone.

Reminder for appointments, ideas for activities in the neighborhood.

Route navigation in the car

Help if it is late, the front door is closed, and you have forgotten your key. (maybe personal card to open the door).

Scenario



4.3 Short report per couple B

Participant: **B**

Interviewed by: **Esther Felix**

Scenario: Walking the dog

Persona: Sprightly elderly

WALKING THE DOG

Scene 1: at home

4 moments a day to go out with the dog: 7 am, 11 am, 4 pm and 10/10.30 pm.

She plans her activities around these moments and is not concerned with the weather conditions. She used to live on a farm, so she really likes it to be outdoors.

Before leaving her apartment in the complex called 'Hondsbergen':

- Objects: leash for dog, jacket, snowboots (at the moment), keys, mobile phone
- Activity: preparing for going out, putting on jacket and boots, take leash for dog. Then going to the elevator with dog and go down.

Scene 2: going to woods

After 5 minutes ms H and the dog arrive downstairs. Sometimes she checks the common mail box, in which people, who are not able to go outside, can drop their letter. She brings the letters to the mail box 100m away from the apartment building. According ms H the use of the indoor mail box is often related to laziness. It would be better not to have the mail box inside, so people are forced to go outside.

After she leaves the building, she crosses the street and heads to the woods. In the morning and afternoon she takes the road right through the woods, in the evening she takes the road along the woods, because she doesn't want to be there when it is dark. While being in the woods Ms H always carries her keys in her hands, with one key sticking out. In case somebody wants to attack her, she can use this to defend herself. Fortunately she has never been forced to use it.

On her way she meets people who are also walking with a dog, usually the same people: one with a pit-bull and one with a 'herder'. She always chats with them, while the dogs play together. She says it's important that the dogs like each other and get along well. For example: she doesn't go to a 'hondenuitlaatveldje' close to her apartment, because there is always a fight going on: the dogs and consequently their bosses don't get along well.

Ms H. points out that the availability of more benches in the woods would be nice: to sit down for a while, to enjoy the nature and to have a short rest.

EF: TNO is working on a research about walking routes for elderly. The results might be included in an app, which shows people attractive routes, the accessibility and the availability of benches.

Scene 3: home sweet home

After 20 to 25 minutes ms H and the dog return home.

In the evening a bit earlier: around 15 minutes. In front of the elevator mr X is hanging around with special cookies for the dogs. But: once a day is enough, she says.

Then she goes up the elevator again, takes the leash of the dogs and lets him run back to the apartment.

There she takes her jacket out, shoes out and sits down for a rest. The dog joins her on her lap, he likes that. She has to take care of her shoulder, which is easily overloaded.

Stimulate people to go outside, by not arranging everything for them inside the building

Looking back at the walk she says: it's just so nice to be outside. To see the rising of the sun, to hear the birds sing... And it's nice to go outside with the dog. To be outside together. She thinks that with a dog, you are more motivated to go outside. You simply have to.

Ms H. also takes the dog with her on trips. For example to

family or acquaintances (she fills out the taxpapers for them) or to the zoo. They go with the car and the dogs sits on the seat next to her in a bench.

I don't think in problems, but in solutions. I don't want to complain, but strive for staying active.

In front of the apartment building she sees people with a mobile walker having difficulty arriving at the bus stop, because of the inaccessible sidewalk. The roots of the trees push the pavement tiles upward. A better accessible sidewalk might stimulate the use of public transport.

Ms H now carries a mobile phone in case something might happen to her. But she would rather have an alarm button, so she can reach somebody with a single push on the button. At home she has a bracelet with an alarm-button, but this only functions inside her apartment. A similar design seems appealing to her. Besides the alarm-button it would be nice that a speech-connection can be established, so she gets a direct confirmation that she is heard. But the most important thing is that somebody will come to help her when it is needed, it doesn't matter who.

4.4 Short report per couple C

Participant: **C**

Interviewed by: **Jacomien**

Scenario: (traveling by bus)

Persona: Melancholy elderly Doesn't like to go outside.

DOING GROCERIES

Scene 1: at home

<ol style="list-style-type: none"> 1. Make shopping list the night before together with husband. Looking in the brochures for special offers. <ul style="list-style-type: none"> • Fruit, cheese, ... on the market • Muffins for her husband (Bakker Bart) & 3 bread rolls for herself 2. Health check in the morning: Yvonne has severe asthma, so first thing in the morning is checking whether she can do something that day (is she trembling, feeling well, ...) 3. Cleaning the house: make everything dust-proof 4. Looking outside: what kind of whether, because when it is misty, slippery or too warm (asthma), she won't go outside. 5. Taking medication: right before leaving the house she takes painkillers for her leg and inhales her asthma medication. 6. Takes with her: <ul style="list-style-type: none"> • Coat, scarf • Shopping bag and/or backpack • Shopping list • Cane with elbow support • Medicine passport • Wallet, mobile phone • Bottle of water and fructose 	<ul style="list-style-type: none"> • Helps her to decide whether she should stay at home because of the asthma. • Reminder to take her medication before or during dinner • Reminds her to take her things with her (by beeping), one thing at the time because she cannot handle too many things at once. • Carry the thing in her purse
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Scene 2: On the road

<p>The whole activity should not take more than 1,5-2 hours.</p> <p>Check with the older neighbor if he would like fish from the market or something else. She likes to take care of other people, feels that this is very rewarding to her.</p> <p>She walks slowly (15 min.) with her cane to the market, preferably through the beautiful park (<i>"walking clears my head and makes me calm"</i>).</p> <p>Sometimes (rarely) she becomes unwell and calls the senior bus to pick her up and bring her home.</p> <p>From the market until Bakker Bart it is another 10 minutes walking.</p> <p>On the way, she sometimes meets friends or acquaintances with whom she talks for a while. If it takes too long (when her leg starts hurting) they</p>	<ul style="list-style-type: none"> • Call functionality to call a friend with a car or the senior bus when something goes wrong on the way to the market • Reminder to do relaxing exercises during the walk in the park • Time monitoring: to not talk too long, otherwise she'll be out of energy and won't even reach the market. • Cane with GPS tracking in case she leaves it somewhere after a chat and cannot find it again. Or beeps when she forgets it.
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<p>sometimes stop for a coffee break or sandwich, but not too often because this is expensive. Cars parked on the pavement force her to walk on the street, which is dangerous. There is no public transport to the market available.</p>	
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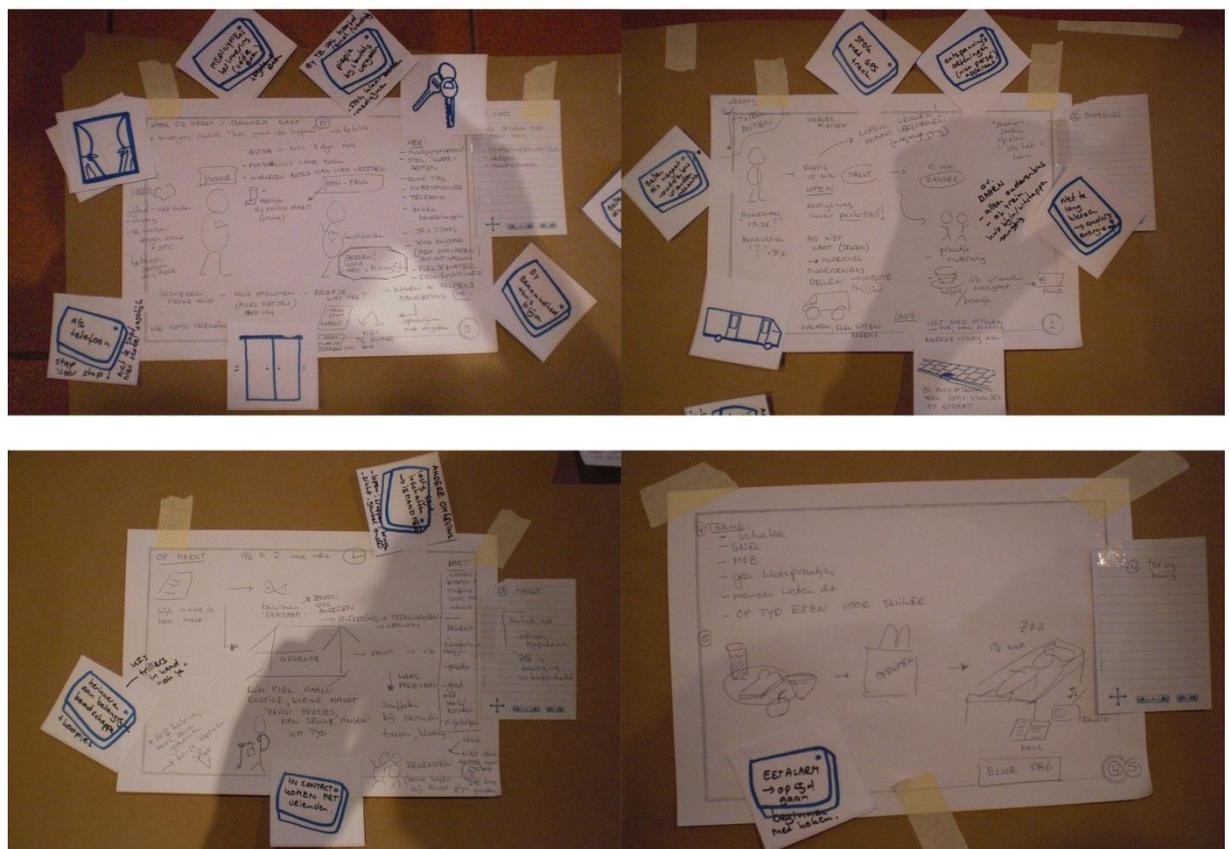
Scene 3: At the market

<p>Arrived at the market place, she looks at her shopping list where she should go (<i>"first the must-haves, then the fun stuff"</i>)</p> <p>The small market is set up very wide, so walking with the cane is no problem.</p> <p>After the must-haves, she takes some time to look at the jewelries, clothing, handbags, taste some cheese en chat with other people.</p> <p>The chats with other people are mainly about them, because she doesn't like to talk always about herself. Now and then, they sit down somewhere with coffee, but not too long.</p> <p>Sometimes she gives herself a threat, because she is proud of herself that she recovered so quickly after her leg incident.</p> <p>At Bakker Bart they treat people with disabilities very good. They know she comes and already placed her order in the back to be safe it is still there for her.</p>	<ul style="list-style-type: none"> • Connect with other people (friends who are also at the market), find them quick within the time. • Reminder of important groceries & bargains • In a new environment it is hard to predict the way. This device should help her with the time management, to be able to return home on time.
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Scene 4: The return

<p>The return home is a quick one, all the energy is gone, she's tired and does not stop for a chat. People know this about her. She must be home in time to eat for her diabetes.</p>	
<p>5 Back home</p>	
<p>At home she first eats something, a sandwich, with a yoghurt, milk and some fruit.</p> <p>Then she puts away the groceries</p> <p>Finally she goes to bed for 1,5 hours to rest; sleep, read or listen to radio.</p>	<ul style="list-style-type: none"> • Eating alarm, to be sure that she eats in time

Scenario



4.5 Short report per couple D

Participant: **D**

Interviewed by: **Roos Tichelaar**

Scenario: Doing groceries

Persona: Sprightly elderly

DOING GROCERIES

Participant D. is niet niet zoals andere ouderen haar leeftijd. Ze woont in een groot appartementen complex waar alleen ouderen wonen. Hier heeft ze een eigen appartement en één keer per week een schoonmaakster. Ook gaat ze vaak naar de soos om daar met andere ouderen te zijn. Mevrouw heeft een iPad om te skypen en spelletjes te spelen en facebook om bij te houden wat haar familie en vrienden doen. Daarnaast doet ze veel voor de mensen om haar heen. Denk aan de krant doorgeven aan de buurvrouw als ze hem zelf gelezen heeft. Dit vind mevrouw de normaalste zaak van de wereld. 'Zo zou iedereen toch moeten denken.'

Scene 1: Thuis

Mevrouw B. is er innovatief. Als ze een probleem heeft lost ze dit het liefste zelf op. Ze deelt dit ook graag met mede bewoners. Voordat ze wel gaan heeft ze een aantal rituelen. Als eerste is het een keer gebeurd dat mevrouw haar sleutel vergeten was. Gebeurd dit, dan moet je 75 euro betalen. Hierom heeft mevrouw zelf een zakje gemaakt wat ze aan haar BH-bandje vastknoopt. Dit doet ze elke morgen. Hier zit de reserve sleutel van de voordeur in. Daarnaast heeft ze haar portemonnee altijd onder de poncho. Zo kan deze niet gestolen worden.

Scene 2: Onderweg

Mevrouw gaat altijd op dinsdagmiddag boodschappen doen. Dan zijn namelijk de aanbiedingen, zijn er kantoormensen op straat en gaan de scholen uit. Dat vind mevrouw een fijn idee. Dit is naar de C1000 – supermarkt om de hoek.

Onderweg loopt mevrouw met rollator, dat is haar vriend. Na de verbouwing is de weg door de tunnel prima te doen, daarvoor was het wat nauwer en lagen er wel eens losse stenen. Er fietsen ook fietsers, maar daar vind ze niet erg. Wel zegt ze dat de familie het niet fijn vind als ze alleen door de tunnel loopt, omdat er soms jongeren hangen. Mevrouw heeft hier geen probleem mee, maar als het donker is loopt ze toch langs het veerhuis in plaats van door de tunnen. Soms loopt ze ook heen door de tunnel en terug langs het veerhuis. Dan maakt ze er meer een ommetje van. Deze terugweg is namelijk iets langer. Bij het veerhuis is de oversteekplaats gevaarlijk en moet je goed kijken.

Dit is naar de Albert Heijn – die iets verder op zit.

Als mevrouw naar de Albert Heijn gaat maakt ze er een uitje van. De bus is \$1.30. Als mevrouw naar de AH gaat is dat niet alleen om boodschappen te doen. Ook om daar naast een kopje koffie te drinken, 'Daar wordt je echt behandeld als een koning, die mensen zijn zo aardig. Niet dat ik zo behandeld hoeft te worden, maar het is wel eens leuk.' Daarnaast neemt ze dan altijd een bloemetje voor in huis mee. Een aantal mensen in haar omgeving zeggen wel eens; 'Durf je dat zomaar, overdag in zo'n drukke bus.' Maar daar heeft mevrouw helemaal geen probleem mee. Er staan altijd wel mensen op voor je en ik vind het een prettige rit.

Scene 3: Op locatie

Bij de supermarkt aangekomen zet mevrouw het mandje op haar rollator en loopt ze daarmee rustig door de winkel. Na de vraag of daar nog iets spannend of vervelends is zegt ze: 'Nee, wat kan daar nou gebeuren?' Wel is mevrouw twee weken geleden voor de winkel onderuit gegaan. Daar heeft ze al een tijdje last van en heeft mevrouw ook een apparaatje voor. Deze hangt om de nek. Wat jammer is is dat mevrouw het niet voelt aankomen dus het apparaatje dan geen zin heeft, omdat ze te laat op de knop drukt. Wat wel als vervelend ervaren wordt is de krantjesverkoper voor de supermarkt. Mevrouw denkt dat deze man gewoon werk moet kunnen krijgen en voelt zich erg ongemakkelijk als ze hierlangs loopt.

Scene 4: Terug thuis

Op weg naar huis is niks gek, eigenlijk hetzelfde als de heenweg. De boodschappen kunnen gewoon in de rollator en de weg terug is ook prima te doen. Als mevrouw thuis komt zet ze de boodschappen voor in de koeling en in de vriezer er meteen in. Dan gaat ze even op de stoel zitten met de voeten omhoog. 'Even uitrusten.' Op de terugweg neemt ze meteen de post mee naar boven. Soms gaat ze met de lift en soms met de trap.

Mogelijke producten:

Een apparaatje waarbij als je valt je geen knop hoeft in de drukken, want dan is het te laat. Graag eentje die dat zelf merkt.

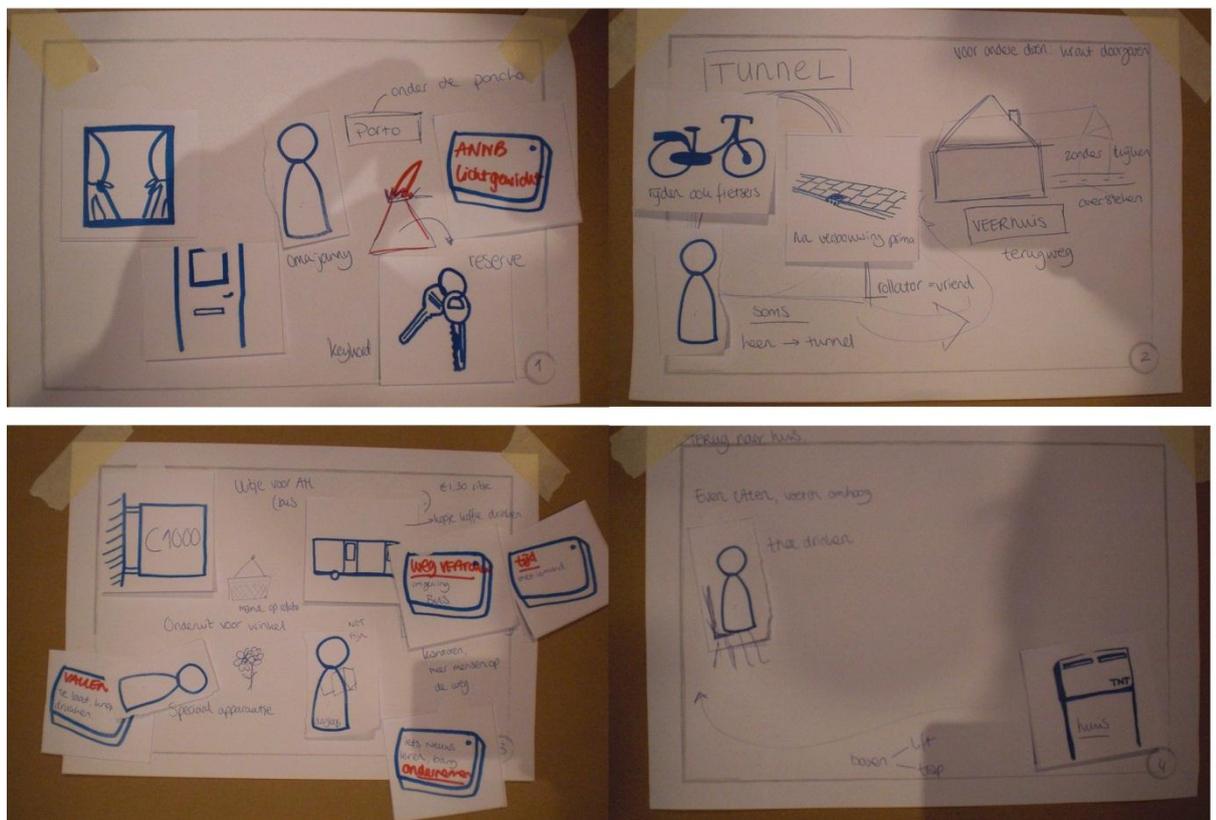
Een apparaatje dat vertrouwen geeft voor andere ouderen om ook mee in de bus te gaan. Dit gaf mevrouw als tip voor ons.

Een apparaatje waarmee je je kan inschrijven om samen boodschappen te doen of iets anders waardoor het makkelijker en veiliger is/voelt om de deur uit te gaan.

Een apparaatje wat de angst weghaalt om iets nieuws te leren. Mevrouw denkt dat haar mede ouderen hier bang voor zijn, zoals bijvoorbeeld een iPad.

Als er een nieuw apparaat komt moet dat niet een ander vervangen, want mevrouw wacht altijd totdat iets helemaal versleten is. Er staat bijvoorbeeld al twee maanden en nieuwe rollator in de kamer, maar de oude doet het nog prima.

Scenario



4.6 Short report per couple E

Participant: **E**

Interviewed by: **Jelle van Dijk**

Scenario: Doing groceries

Persona: Sprightly elderly

BUYING THE WEEKLY GROCERIES

Participant E is a 'young' elderly (55?) on early retirement from the army. He does live in a senior-apartment, together with his wife. They chose this apartment mostly with an eye on the future, as Mr Mays experiences no age-related physical or mental problems at the moment associated (There may be covert cognitive impairment that Mr Mays did not want to talk about but it was in any case not obvious from the interview and Mr Mays presented himself as fully healthy with no specific age-related condition). When he retired he decided to move back to an area in the Netherlands close to his daughter and her family, and this apartment turned out to be available. He often visits his daughter and two grand children. He is also member of the board of the renting organization, servicing the interests of the inhabitants. I experienced Mr Mays as a man that has opinions and ideas about his own life and especially is focused on an orderly arrangement of things and activities in his everyday affairs: he is a man of structure.

Mr Mays is 'member of many clubs', such as the alumni-meetings of his military group that organizes excursions and of the University Nijmegen where he attends lectures for alumni. He likes to go out to 'walk in the woods, do a bike-tour'. Three times a week he goes by bike to the local gym to train. The current scenario he wanted to discuss with me because he already has a certain vision on how this process could be improved using technology. Going to the buy the weekly groceries, for him, is certainly not a social outing or a means to stay active: it is 'purely functional', something that has to be done because 'one has to eat'. At the same time it is also something he does not hate to do at all.

Mr Mays has two iPads. One he bought to read all the paperwork for the meetings of the board of the building complex he is member of. He used to be getting the files and had to print them himself. He receives 25 euro's for that printing. But he decided he could better use that money to finance the iPad instead. But his wife 'discovered that there are games' on the iPad and started to use the iPad so often that Mr Mays 'hardly could use it himself'. So he bought another iPad for his wife.

I have an iPad as well. Actually I have two of them! They are very handy, especially for small things. Looking something up. And the paperwork I get from the committee I just transfer from dropbox to the iPad, very easily. When I really need to type a text, I go

Scene 1: at home

Each week Mr Mays does the weekly groceries at two supermarkets. He used to do this after work, also on Thursday, and this day is still grocery day. He and his wife decided that they would no longer try to do the groceries together because that caused problems, for instance when both of them would put the same product into the cart and they would then buy two instead of one. Apparently these kinds of 'errors' are frustrating for Mr Mays: he repeatedly returns to discussing ways to optimize the process of buying groceries such that these kinds of mistakes will not happen.

To this end, Mr Mays has designed a logistic system [my terminology]. In the kitchen on the table where the cutlery lies a paper list. This list is divided in two columns. On the left he writes what should be bought from the Lidl (a cheaper supermarket) and on the right what should be bought from Hoogvliet (a more luxury supermarket). The system works such that whenever a certain product is finished (e.g. the butter carton is emptied) Mr Mays or his wife will throw away the empty pack, go to the storage room to get a new one, and at that moment

write on the list 'Butter'. In this way, mr Mays tells me, it is ensured that the storage is refilled to the right amount. On Thursday, mr Mays takes the list to do the weekly groceries. Mr Mays notes one problem with his system: certain products, such as ketchup, are used so rarely that when they run out, the replacement sitting in the storage room has already passed the due date. Sometimes either mr or Mrs Mays will take the list and go past the products in the cupboards of the kitchen to check whether something should be added. Mr Mays not only does the grocery shopping, he also cooks. "My wife is not allowed in the kitchen", he says "I cook". But his wife, he tells me, does the cleaning up. According to mr mays this is a good arrangement that works out for both of them. I could not ask Mrs Mays about her opinion as she was not present.

"I never carry pocket money anymore. Just cards. Even on the market you can now pay with your card in most stalls"

Scene 2: On the bike and to the supermarket

If the weather allows it, Mr Mays always takes the bike to do the shopping. He does this after 12:00 as this is a relatively quiet moment. He is amazed at the business on Sundays, asking whether 'these people' have no other opportunity to buy their weekly shopping than on that day. The recent snow however forced him to take the car, as it would otherwise 'not be safe' to go by bike in snowy weather and ice on the streets.

What if my supply-list is on your mobile thing and it automatically reorganizes itself to match the floor-plan of the supermarket?

Mr Mays goes to the bike-garage. He has an electrically enhanced bike that is charged in the garage in a power outlet with a cable. This all works just fine according to Mr Mays. He has the list in his pocket, and in the back-pocket of his trousers he carries his wallet, with just

cards (credit cards and membership cards from the supermarket, for getting discount, as well as his drivers licence). He carries no pocket money. He has experienced that he can do almost anything without pocket money and he finds it most handy to just use his cards. He shows his wallet to me, which is neatly organized. In his car, however, an old photofilm container sits on the dashboard with a few coins in it, to pay for parking if necessary. This he can use if so needed but only if he is using his car, he states.

Mr Mays has two bike-bags which sit on the backpart of his bike. They are of a kind that one can unclip from the bike to carry along as normal bags. This is handy as in the bike-garage of the senior-apartment complex the bikes are positioned close together and so it is not handy to park the bike with the bags still on the bike. The bags are however not large enough to carry all the groceries in one go. He therefore first bikes to Lidl, buys the groceries there (see next scene), comes back, unloads the groceries (see last scene) and then again takes the bike, this time to Hoogvliet, the other supermarket. Each ride is about 1 km there and back. Mr Mays has to pass two roundabouts that one needs to be careful, as 'having way' does not mean 'one actually gets it'.

According to Mr Mays it would be very inconvenient to do this routine trip using (regular) public transport. The busses would not stop close to the supermarket, nor his house, and it would take him 'half a day'. So in his experience it is either the bike or the car. If these would no longer be possible, this would present a problem. and perhaps having the groceries delivered at home would help. Presently however Mr Mays has 'no problem at all' going out to buy the groceries himself. 'It is nice to be able to go outside for a moment'.

If I could no longer take the bike, perhaps 'rolling pavements' would be a solution (laughs). And well, one could do a lot using a rollator or scoot-mobile, I guess

Scene 3: at the supermarket

Mr Mays parks his bike in one of the bike standards outside and takes a cart. Here Mr Mays returns to the subject of his 'system'. It would be convenient if his list would be in order of the organization of the supermarket. But the way it was created (see scene 1) it is of

course not. This means Mr Mays has to pay extra attention in checking that he has everything he needs. Also, he often loses his list, as he has the list in hand but also needs his hand to push the cart or take out products from the shelves. He is always glad when he finally retrieves his list, which could have fallen into the cart, or stored in one of his pockets. He 'knows his way' in the supermarkets, this is a routine job.

Mr Mays comments on the self-scan services in his supermarkets. One system asks him to take a hand-scanner and scan each product in his cart. This is inconvenient since he is often unsure whether he has forgotten to scan one of the products. A better system is the one that asks you to put each product onto a rolling-band, which goes past a scanning station. That way you always know what you have already scanned and what still is left to scan. It could be nice to have a cart that automatically detects what in the cart, he says.

He does not load his groceries directly into bags but walks with his cart to his bike and then loads it into the bags that are still attached to his bike.

Mr Mays does not mention other people as playing a role in the supermarket. As said, he does not want his wife to come along as this could induce all kinds of 'mistakes'. Buying groceries does not seem to be a 'social outing' for him and it is the question whether he is interested in informal social contact: He does other things to enjoy himself, he says, such as going to the woods or take part in an excursion by the alumni-group of the army. When I mention the cassiere as a person, this prompts him to reflect on the topic of 'self-scanning' using a device.

Scene 3: Back home

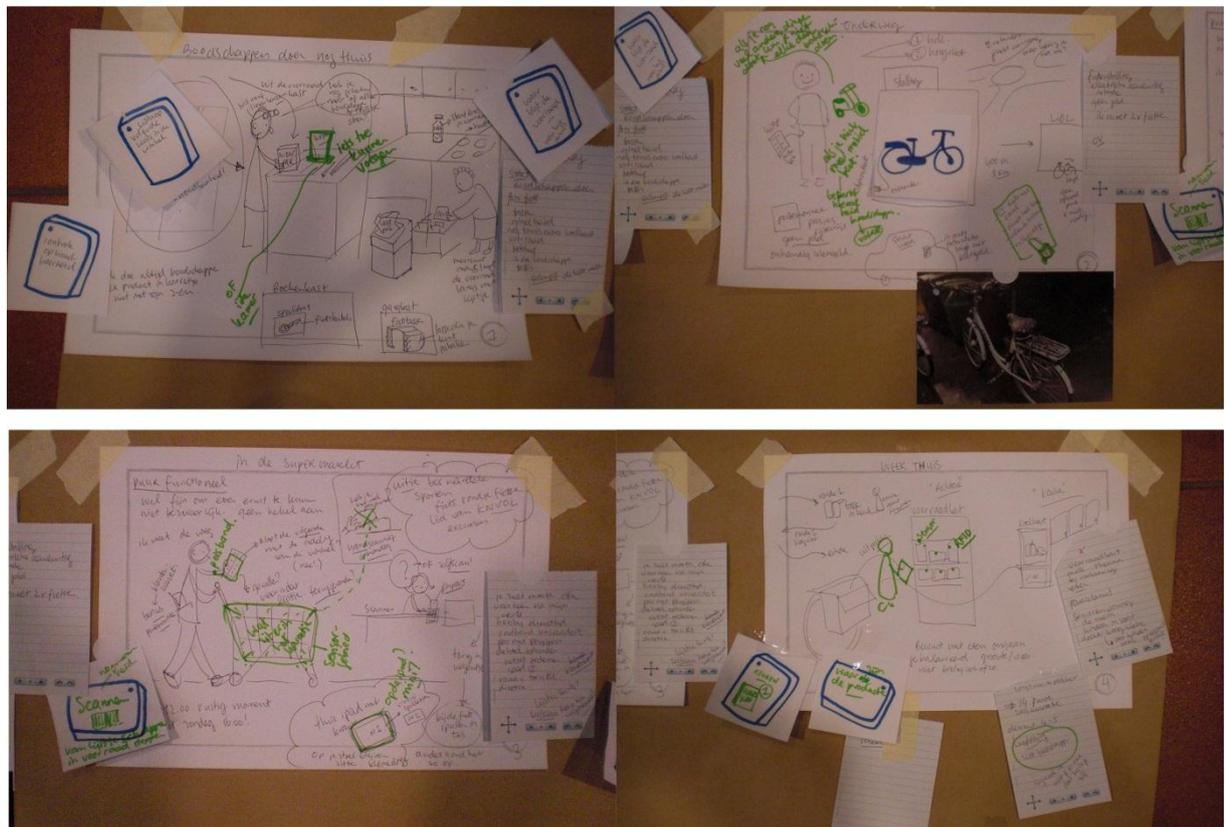
Back home, Mr and Mrs Mays each have their task. After unloading his first round, Mr Mays goes on to do his second round. Meanwhile Mrs Mays puts all the groceries where they belong. A large part of it is stored in a separate storage room. Then there is the stuff going into the refrigerator in the kitchen or in the bottom part of it which is the freezing compartment. Mr Mays comments on his eating habits: He tries to eat healthy and be conscious of what he eats. “not that we eat biological or anything, just varied. Brown bread, vegetables, meat”. He mentions buying Paracetamol (pain killers) not at the supermarket but at the pharmacy, because ‘those at the supermarket you cannot smash at all, they are like concrete’.

Mr Mays: ‘Suppose there would be sensors in the storage room that would automatically detect what products were almost finished, and also how many of them were left, for instance with products that come in batches of three’. And that you could always see ‘where’ something is located.

Jelle: “Well you could have these cheap tags in the packages themselves, these RFID tags”

“Mr Mays, yes of course that would solve all of it. That is what we’re heading to I guess, that all products already contain a chip”

Storyboard



4.7 Short report per couple F

Participants: **F**

Interviewed by: **Nienke**

Scenario: Walking the dog

Persona: Couple

Participant E (she suffers from Alzheimer's disease – early stage, he has problems with his health too, has been in the hospital several times and expects to be there again and has mobility problems, problems with walking long distances because of lack of shape).

WALKING THE DOG

Scene 1: At home

They almost always walk together. Mrs likes to walk, Mr walks along because it is good for his health.

Mrs forgets the keys quite often. Mr walks behind her to check if she's got them. They are learning to leave their keys at one place and that it becomes a habit for Mrs to check that place.

They always bring their telephone with them, Mrs do not forget that

If Mr is not there, he send several text messages to make sure Mrs doesn't forget anything

Possible help:

Device could give a signal (sound and icon) telling to take the keys

For the future it could also be a good idea if it helps with informing when it is time to walk the dog

Scene 2: Walking the dog itself

Mr and Mrs Nortier have 4 regular routes (a smaller route for the evening) to walk the dog

The long routes take about 30 minutes, different routes, mostly on small roads/footpaths.

Mr sometimes takes his scooter mobile

The dog actually decides which route they are taking

Sometimes Mrs does not know where she is.

Mrs frequently walks on the middle of the street. Mr pays attention

Possible help:

Device could help with telling where you are and how to go home from there. It would be helpful if the location of the device could also be seen on the home computer by Mr Nortier. He can more easily let her go on her own. (Mrs. Nortier told that she couldn't find her bicycle once, device could also help tracking her bicycle?!)
Device could also contain the name and address of the person so someone else can help to bring Mrs back.

Device could give a signal if you are walking on the middle of the road?

Scene 3: Back home

When they come in they take of jacket, loosen the bridle and put the keys back in specific place.

Then Mr and Mrs sit down, Mr is tired and needs to rest, Mrs joins, They drink coffee or tea. Mrs reads or makes a puzzle.

5 A selection of quotes from session 2

Party

“Bellen om te bevestigen dat ik blij ben met de uitnodiging enzo.”

“Jas, sleutels pakken. Bij mij zal niet de televisie op stand-by staan.

“En natuurlijk een cadeautje en een goed humeur.

“Ik ga alleen. Ik ga vrij vroeg weg.”

“Als ik de route niet weet rijd ik er van te voren gewoon even naar toe, overdag.”

“Ik stel mij altijd een beetje veilig zodat ik onderweg de weg weet, mits er iets heel gek gebeurt.”

“Als ik verweg moet kijk ik in het 100.000 stratenboek.”

“Je kan beter zo een dingetje in je auto hebben want dit boek is een uur later al weer oud.”

“Rotondes vervelend”

“Ik ben nog een beetje van de oude stempel wat dat betreft. (Gaat altijd naar dezelfde winkel als die hen bevat.)

“Ik betaal liever dan een parkeerplaats zoeken.”

“Voor als er iets gebeurt heb ik mijn mobiel bij mij.”

“Ik rij altijd rechts, muziekje aan, mooi rustig aan.”

“Buffet warm en koud. Daarna ijs en dat soort gedoe.”

“Ik drink nooit alcohol. Glaasje kraan.”

“Heel belangrijk om naar toe te gaan omdat ze de mensen goed kennen en er op rekenen dat je komt.”

“Neem een goed humeur mee.”

“Ik vindt het zelf ook leuk.” (Om naar feestjes te gaan.)

“Ik zou het jammer vinden als ik daar niet naartoe kon.”

“Zelf niet kunnen rijden zou hij een taxi nemen.”

“Als je ouder wordt ga je overall tegenop zien. Maar als je geen ‘ja’ zegt raak je steeds eenzamer.”

“Zeg vaker ja, blijf er bij betrokken.” (bij mensen/ het leven)

“Smoesjes, vaak wel.” (vaak smoesjes verzinnen om dingen niet hoeven te doen)

“Geen tijd bestaat niet, geen prioriteit wel.”

“Rustig is prettig.”

“Het was een leuk feest.”

“Nieuwe afspraken op feest maken gebeurt ook wel eens.”

“Bus zeker niet, al die elende eer je er bent. Stuk lopen en twee keer overstappen.”

Walking dog

“Riem pakken, sneeuwschoenen aantrekken.”

“vijf minute lopen voor ik beneden ben, ik moet de lift af.”

“Ik loop op het fietsbad.”

“In totaal ben ik een half uur, drie kwartier onderweg.”

“Altijd sleutels in mijn handen. Één sleutel tussen de vingers.” (om zichzelf te kunnen verdedigen)

“Telefoon in mijn jaszak, als ik val wat dan.”

“Altijd dezelfde tijd als hij, vandaar dat ik hem altijd twee keer per dag tegen kom. (Zelfde man 2x per dag tegenkomen met zijn hond.)

“Je komt weinig mensen tegen.”

“Als ik gelopen heb moet ik altijd zitten.”

“Ik kan slecht lopen maar niet tillen.”
“Door de rust gaat het over.” (pijn/ wondroos)
“Op een stoel, met benen naarvoren toe, handdoek op mijn schoot, gaat de hond erop loggen.
Ga ik ook ff rustig zitten.”
“Het leukste vind ik gewoon buiten zijn, heerlijk.”
“Als het maar buiten is.”
“Je moet de mensen laten zoals ze zijn.”
“Plent andere activiteiten om hond uitlaten heen.”
“Mijn pijngrens is heel hoog doordat ik altijd doorgelopen ben.”
“Klein hondje, is makkelijker.”
“Altijd briefje ergens bij de portemonee liggen” (voor boodschappen opschrijven)
“Overleg ik altijd samen wat er gehaald moet worden.” (volders doorkijken) “Kaas, fruit, niet te
veel want dat is te zwaar voor mij.” (halen op de markt)
“Smaandags zijn het alleen de volders, dan kijk ik even. Wat is er in de aanbieding?”
“Eerst mijn inhaler, pufje nemen. Ee nkeer extra zodat ik niet onderweg benauwt wordt.”
“Ook een pijnstiller extra vlak voor ik weeg ga. Die neem ik altijd vlak van tevoren in, en de
inhaler neem ik mee.”
“Stok klaar zetten, ik kan niet zonder kruk, boodschappentas, denk na, portemonee, telefoon,
want dat vergeet ik vaak en de boodschappen briefjes.”
“Soms neem ik een rugzak mee doe ik daar de boodschappen in, dat is makkelijker voor mij.
(arm ontlasten)
“Nog even naar de buurman om te vragen of hij zin heeft in een visje, twee haringen haal ik altijd
voor hem. (Buurman van in de 80)
“Vijftien minute lopen naar de markt.”
“Als het niet lukt dan bel ik de ouderenbus.” (als het lopen niet lukt)
“Als het helemaal niet gaat moet ik het aan vrienden of aan de burens vragen en daar baal ik best
wel van.”
“Even een praatje maken onderweg.”
“Effe snuffelle n bij de sieraden, handwerken en de brijgaren. Overal even kijken.”
“Ik maak er altijd een uitje van. Ben ruim anderhalf a twee uur weg.”
“Meteen wat eten als ik thuis kom door de pretnison. Boodschappen uitpakken.”
“Ik wil zo snel mogelijk naar huis.”
“Heel moe.”
“Dan moet ik optijd eten voor mijn suiker.”
“Dan eet ik een broodje met een beker karnemelk.”
“Benen omhoog, radio zachtjes, soms een boek.”
(Vrijwilligers werk 4 uur per week, echt een geschenk.)
“Lopen is de juiste manier om mijn hoofd leeg te krijgen.”
“Ik prober zoveel mogelijk zelf te doen zodat mijn man niet alles hoeft te doen op zijn vrije dag.”
“Soms lopen op straat, het moet want dan is het ongelijk.”
“Oppassen om niet met been te slepen. Proberen allert te zijn.” (Ze sleept met been, vandaar de
kruk, door goed focussen en op een glade ondergrond te lopen gaat het wel goed.)
“Oja, altijd een flesje water en duivensuiker op zak.”
“Dan ben ik buiten en geeft de hond aan aar we heen gaan.”
“Die haal ik uit het sleutelkastje.” (sleutels)
“Ron loop tmees naar de deur en begeleid haar, zorgt dat de sleutel mee is.”
“Ik heb altijd mijn mobile bij me. Neem ik mee om bereikbaar te zijn.”

“Ik zeg tegen mijzelf dat ik niet in paniek moet raken.” (Weg niet weten of haar mn kwijt zijn)

“Geen vaste route”(voor de hond uitlaten)

“Savonds hebben we een vaste route, dat is een korter rondje.”

“De hond kent de routes”

“Ik loop ook rustig het dorp in, maar dat mag niet mert de hond. Maarja, alleen doe ik het niet, dat is niet gezellig.

“Ze loopt altijd midden op de weg. Je hebt total geen gevoel van hier is de stope, het fietspad of de weg.”

“Nee klopt, dat is inderdaad een vreemde gewoone van mij.”

“Negen van de tien keer loopt hij wel mee.”

“Altijd even zitten, meestal heeft zee r dan een puzzelboekje bij.”

“Jas uit, sleutels in ‘t rekkie en ff zitten.”

“Het lopen is niet inspannend. Ik heb er geen moeite mee. Misschien ook meer uit gewoonte.”

Annex 3: PERSONA



ACTIVE LIFESTYLE

Dora Summers
The Hedonist
(Bon Vivant)

Thomas & Martha Henderson
The inseparable couple

Ruth Goodridge
The Homebird
(coach potato)

Helen Cook
Mild Dementia

PASSIVE LIFESTYLE



Thomas & Martha Henderson
The inseparable couple

Martha and Thomas Henderson live together in a senior-apartment, which they chose because it is close to their children and seemed sensible with an eye on the future. Thomas is 69 and retired, he has no significant age-related physical or mental problems. His wife Martha is 71 and shows symptoms of early stages of dementia. Sometimes she can be very anxious or restless; luckily Thomas is there to reassure her.

What also works for them is their very structured and orderly lifestyle. They have put together a nice routine and distribution of roles. Accordingly Thomas always does the groceries. They are better off not going together because that would bring trouble like getting things double.

Going out to get groceries is not a social outing for Thomas, it's strictly functional. He usually travels by bike and goes by two of his regular supermarkets; this will take him half a day. Once home Martha puts away the groceries. She likes to contribute as much as possible. It's not always easy having to depend on her husband all the time. Thomas also tries to let his wife do and remember things by herself. He never warns her to bring the keys, but does check at the moment they leave the door whether she has them. If Thomas isn't home he regularly checks up on his wife through SMS.

They spend as much time together as possible! This includes their social lives; Martha joins Thomas when he goes out to play bridge and he on his turns accompanies his wife to the knitting café. They usually go out at set times. Additionally they like to play a game of shuffleboard with their fellow residents. Thomas is also member of the board of the renting organization, servicing the interests of the inhabitants. He even bought an iPad to handle his work for the organization, but after Martha discovered she could play games on it, it was never available for Thomas to use anymore. So now they have 2! Although the iPad is very handy for looking things up, Thomas still prefers the computer when he has to type long messages or documents.

They like they can still travel by car. But Thomas also uses his electric bike a lot. If Martha wants to go out she takes the mobility scooter, although she is very hesitant. It is pretty hard to use the elevator with the mobility scooter and the sidewalk is full of irregularities like tree stumps and pavements. They never use public transportation. Taking the bus is an absolute misery, you have to walk quite a bit and often you have to transfer to get to your destination. If by some reason they cannot take the car because of bad weather for instance, they take a taxi.

Structure & Routine

"Actually we follow a fixed routine every week. Sometimes we deviate from it."

Thomas: "I'm a bit old fashioned, when I like a store I will always return there"

Togethermess & Support

Martha: "My husband is my living notebook!"

Thomas: "I always go with her, 9 out of 10 times we are together, absolutely!"



Thomas: "I love playing bridge with my friend, we always come together at Thursday afternoon."



Martha: "I really enjoy knitting at the knitting cafe with the girls, Thomas always joins me and drinks beer at the bar with the other men"



Thomas: "We have an iPad as well. Actually we have two of them! Since my wife discovered she could play games on it, they are very handy, especially for small things. Looking something up. And the paperwork I get from the committee I just transfer from dropbox to the iPad, very easily. When I really need to type a text, I go and sit behind the computer."

Our means of communication

Texting to check up on my wife



Taxi instead of public transport

Thomas: "We never take the bus, it's absolutely miserable! First you have to walk and then transfer twice."

Our means of transportation



I'm a bit anxious to go out with the mobility scooter, there are so many irregularities in the side walks.



"I must say, I like to be at home"

The comfort of home

"I'm always afraid I do something wrong, I'm a bit insecure you know"

"In the past I was really keen on travelling, remarkably traveling scares me now rather than attracts me, it is the age I guess."

"To reward myself for going out I really enjoy a nice cup of tea and a biscuit when I get home"

Go by my neighbours to have a chat. And stop to have a talk with acquaintances on the way

"I can be open about my problems to them. It's really for myself indeed. (Volunteering for others) It wipes my tears away, it's true."

Social Contact

Our means of communication

"Yeah, I really make a social coding of going to the mall. But on the way home I'm usually so tired to stop and have a chat."

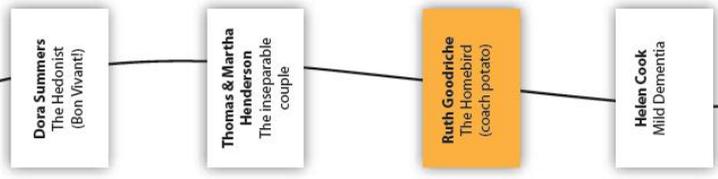
I always take my cane with me, also my inhaler, painkillers and water"

I never use my mobile phone, it is hard to use.

My means of transportation

"The senior bus takes me from door to door!"

ACTIVE LIFESTYLE



PASSIVE LIFESTYLE



Ruth Goodriche is 73 and a bit of a couch potato. She suffers from mild asthma, but has been her entire life, occasionally she experiences some pain in her left leg. She just likes to be in the comfort of her home. Back in the day Ruth was very fond of travelling, but now she is more reluctant to go on trips. For the past week Ruth hasn't been outside a lot. She was still recovering from a cold and it was raining a lot over the past days. These type of concerns can really hold her back, and contribute to her lack of confidence. On those days going to the mall can feel like quite a challenge.

When she does go out to get groceries she always walks by her neighbor to ask if she can get him something from the mall and to have a talk. They usually chit-chat about the weather, their children and the burdens of getting older. Ruth really enjoys the social contact. It's good distraction from her troubles and also nice to have somebody to share your stories and most of all complaints with. Furthermore she usually meets some acquaintances on her way to the supermarket and stops to have a chat. It makes the essential trips to the supermarket a nice social outing.

Once in a while Ruth treats herself to a cup of tea and a piece of pie at the bakery next to the supermarket. It is a way of rewarding herself, she thinks she really deserves it especially when her leg is aching again. She doesn't do this often though, it is pretty expensive. She needs to watch her expenses as she doesn't have large financial means (living on AOW).

Ruth never leaves the house without her painkillers, a bottle of water, her inhaler and of course her walking cane. Sometimes she feels a bit unsafe especially in quiet and deserted areas. By force of habit she then holds on to her keys in her pocket with one standing out, as a defense mechanism. She does own a mobile phone but she actually never uses it, she finds it really hard to use. Preferably she would carry a mobile alarm button with her that also works outside.

If Ruth wants to visit her son she usually takes the senior bus. It's really convenient, you can order it in advance. It literally takes you from door to door!

