



CUARDIAN ANGEL (CARA)

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Workshops

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Introduction

Across Europe, different studies and reports indicate that an ageing population has already become a reality that will remain over the next couple of decades. This ageing demographic is (mostly) the result of a combination of people living longer and a reduced birth rate. Simultaneously it is projected that although labour rates are expected to rise, the effective number of employed would decrease. The age-related expenditure (pension-to-GDP ratio) is expected to rise in most (but not all) EU countries¹. There is strong concern that we cannot afford or maintain the same level of quality of life in the future, at least not from a monetary point of view.

Against this background, The CuARDian Angel project was initiated with co-funding by the European Commission AAL Programme (Active and Assisted Living). The project builds on keeping the ageing population mobile, active and independent as an important condition for a viable and sustainable society. Resulting benefits range from improved social life, a more independent and healthier lifestyle, to a better health prognosis. In terms of cost effectiveness, remaining independent for a longer period of time is very cost-effective. It reduces medical costs, societal costs, etc.

Within CuARDian Angel, we focus on car drivers aged 55 who are active drivers. The overall aim of the project is to gain insight in the potential use of personalised Advanced Driver Assistance Systems by the target group. To do so, we take a three-step project approach:

- Firstly, we gain insight in the familiarity, knowledge and use of (personalised) ADAS by the ageing drivers and associated end users
- Secondly, we develop a set of concepts based on the gathered knowledge. These concepts are tested a set of ideation workshops with the end users.
- Thirdly, for those concepts of personalised ADAS where the end users show most promise and interest, suitable business models are developed.

Within CuARDian Angel, three types of workshops were executed:

- Ideation workshop (internal)
- Primary end user workshops
- Tertiary end user workshops

The execution of the workshops was indicated as the Deliverable. The current document presents information on the date, place and workshop guidelines.

¹ [European Commission, DG Economic and Financial Affairs](#)

Ideation workshop (internal)

Date: February 4-5, 2019

Place: Salzburg

Methodology:

IDEATION WORKSHOP CONSORTIUM



Bring all information together

The workshop started off with presentations about the information that was collected during the first weeks of the projects: the literature study, the survey results and the findings from the first interviews. In this way, all consortium partners could start the ideation session with the same knowledge.



Obtaining a good understanding of the user

In order to get a good understanding of our future customers, the seniors, the value proposition canvas was used. The consortium partners wrote down the pains (what is annoying/troubling for the customer?), gains (what makes your customer happy?) and the jobs-to-be-done (what wants the customer to achieve?) of the seniors. In this way, a good understanding of the target group was established.



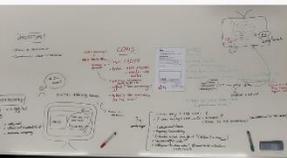
Ideation

The jobs-to-be-done, pains and gains were used as starting point for the ideation. The group divided in small groups of 2 to brainstorm about ideas to help the seniors to drive safely for a longer period of time. This led to a great amount of ideas. The ideas were gathered and similar ideas were clustered.



Selecting ideas

Each consortium partner got 5 stickers to vote for the ideas that they considered most interesting. The most popular ideas rated on innovativeness and acceptance. In the end, 5 ideas were chosen to further develop.



Further develop ideas

The ideas were divided over the group and in pairs the concepts were further developed into detail. This was done in two iterations.



Figure 1: CARA ideation workshop team

Primary end user workshops

The primary end user workshops took place in Belgium, the Netherlands and Austria.

Belgium:

Date: March 22, 2019

Location: JESCO Auto Training School, Puurs

Netherlands:

Dates: March 14, 2019

Location: Delft

Austria:

Date: March 18, 2019

Location: Vienna

Methodology:

Workshop set-up

Goals

- Obtain insight into what (elements of) concepts are considered interesting.
- Obtain insight into the obstacles the target groups sees regarding a new system.

Participants

The interview will be performed with 6-8 participants. Equal distribution of gender and age is preferred. It doesn't matter if someone also participated in the interview.

Planning

	Time	2 h	Activity	Material
1	13.00 - 13.30	30 min	Walk-in / consent form	
2	13.30 - 13.35	5 min	Start Short introduction project and planning of the workshop	Slides
3	13.35 - 13.45	10 min	Introduction round	Slides
4	13.45 - 13.50	5 min	Present concept 1 + questions	Slides
5	13.50 - 14.00	10 min	Discussion about concept 1	Post-its, pens, flip over sheets
6	14.00 - 14.30	30 min	Repeat this for concept 2 and 3	
7	14.30 - 15.00	30 min	Break – Host presentation	

8	15.00 - 15.30	30 min	Repeat this for concept 4 and 5	
9	15.30 - 15.35	5 min	Rate concepts	
10	15.35 - 15.40	2 min	Closure Word of thanks, next steps project, provide presents	Presents
11	15.40 – 16.10	30 min	Additional discussions	
		8 min	Extra time	

Needed

- Beamer / screen / audio
- Video camera (tape whole session to share with Belgium)
- Photo camera
- Post-its (green and orange/red/pink)
- Stickers for rating
- Markers and pens
- Flip over sheet for each concept
- Food (cookies, fruit, chocolate)
- Small present (gift cards in Belgium/the Netherlands)

Structured overview

1. Walk-in

While participants wait till the workshop starts, you can let them fill out the consent form.

2. Introduction project and workshop

Introduce the project and the planning of the workshop.

3. Introduction round

Let everyone **briefly** introduce himself/herself (name, age, place of residency).

Optionally: As nice activity, you can let the other participants guess which car belongs to the person. Therefore you should ask the participants on forehand to send a picture of their car.

4. Present concept

Order presentation concepts:

- 1) Carlexa (movie)

- 2) Car buying guidance (interfaces)
- 3) Observe yourself (interfaces)
- 4) Preventive driving (movie)
- 5) Best driver feedback system (interfaces)

- **Video**

When the concept is presented with help of a video, the video is self-explanatory and no extra information is required from the facilitator.

- **Interfaces**

When the concept will be presented with interfaces, the facilitator will be explaining the concept while explaining the concept.

Give the participants the opportunity to ask questions after presenting the concept.

5. Discussion

After showing the concept, let the participants write down things they think are good/interesting or that they like (**yellow** post-its), and things that they think are not good, that they don't like or that they think can be improved (**orange/blue/red** post-its). Gather the post-its, hang them on the sheet and ask people to explain a bit about what they wrote down. Ask the questions drawn up for each concept (if not answered yet).

6. Presentation and discussion concept 2 and 3

7. Break – Host presentation

8. Presentation and discussion concept 4 and 5

9. Rate concepts

Provide the participants with stickers and let them vote for their favourite concept, from which they think 'I would like to have this for myself'. Provide them 5 stickers and let them vote for their favourite concepts. It is not allowed to put more than 3 stickers on a sheet.

10. Closure

Thank the participants for participating and explain the next steps of the project.

11. Extra time

It will take more time to discuss certain concepts than others. So this time can be used during the session when more time is needed to discuss a concept.

Primary end user workshop outcome

The detailed findings to the primary stakeholder workshops are described in Deliverable 2.2 (restricted). More general findings in relation to ADAS and the sharing of data are presented below.

Contradiction: direct feedback or feedback afterwards?

The primary stakeholders rated the different concepts significantly differently. One of the main points of interest on which we tried to gather information was the need and/or requirements for presenting direct feedback. In the top 3 rated concepts, a concept can be found that provides direct feedback and two concepts that provide feedback afterwards. A contradiction existed: negative points of direct feedback are clear to the stakeholders (i.e. they are afraid it will distract them while driving and it provides a restless atmosphere). However, they like the fact that they get feedback in the moment. For feedback afterwards, they indicate that they can look at it in a relaxed way.

It should be clarified if there is a strong preference for one of these or a combination is wished.

A feeling of control is important

It became apparent that it is important for the seniors to have a feeling of control. They often indicate that the system should not 'think' too much for them, they want to make decisions themselves. They think that you become lazy as a driver if you are helped too much. So, it is important to support the seniors in a way that they have the feeling that they are in control, that they are still doing it themselves.

Match with current systems

Any driver support system match with devices the seniors already have in their cars. On one hand it is important that the new system is complementary with these devices. For example, many participants had a TomTom, so therefore they would like a service or product to be combined with their TomTom.

It is important that it does not have features that are already there in the car or have many similarities with these. For example, when one participant wanted to see how fuel-efficient she is driving, another participant mentioned that he does not need that because of the ECO-button in his car. While this is a different feature, the participant had the feeling that he therefore didn't need it. In order to make sure the seniors have a feeling that they really need the newly designed system, it should not have too much overlap with existing systems or be complementary as mentioned above.

Suspiciousness about data sharing with parties that can 'misuse' the data

The willingness to share data strongly differs per person. However, there is more suspiciousness when there is a chance the data will be misused. For example, some participants were very clear in not wanting to share the data with a central agency because this may be the organization that can take away your driving license. In addition, when it was not clear who was collecting the data, participants had some concerns about sharing data.

Willingness to share data (anonymous) for improvement of the infrastructure

Almost all participants indicated that they were willing to share data anonymously to improve the infrastructure.



Figure 2: CARA primary end user workshop



Figure 3: CARA primary end user workshop

Tertiary end user workshops

Stakeholder involvement

We involved multiple stakeholders at several moments in the project. Several interviews and workshops were organised with stakeholders to exchange knowledge and explore collaborations.

Table x shows an overview the activities that were organised and the stakeholders that were involved.

Activity	Country	Stakeholders involved
Interviews	NL	<ul style="list-style-type: none"> • Ministry of Road Safety • CBR (Driving license institute) • Province of South Holland • Koninklijke Rai Vereniging (Looking after the interests of OEM's). • SWOV (Road safety research institute) • A doctor that performs health checks with seniors for extension of the driving license. • KBO-PCOB (Senior organisation) • ANWB (Dutch automobile club) • Veilig Verkeer Nederland (non-profit foundation for road-safety) • VSN (Insurance broker)
	Be	<ul style="list-style-type: none"> • MOW (Ministry of Flanders) • VIAS (Belgium Institute for road safety) • VSV (Flemish non-profit foundation for road safety) • Assuralia (Represents all Belgium and foreign insurance companies that operate on the Belgium market) • NEOS (Senior organisation)
Stakeholder workshop 1	NL/Be	<ul style="list-style-type: none"> • MOW • CBR • Province of North Holland • Province of South Holland • Alliance (Insurance company) • SWOV • Veilig Verkeer Nederland (non-profit foundation for road-safety) • KBO-PCOB • JESCO (driving school)
Stakeholder workshop 2	NL	<ul style="list-style-type: none"> • SWOV • Province of North Holland • Province of South Holland • KBO-PCOB
Stakeholder workshop 3	Au	<ul style="list-style-type: none"> • ÖAMTC • Austrian Ministry for Transport, Innovation and Technology • WKO (Austrian Economic Chambers) • KFV (Austrian Road Safety board)

Table 1. An overview of the stakeholders that were involved in different activities during the project

The tertiary end user workshops took place at three distinct times within the CARA project:

- A first and second workshop with relevant tertiary stakeholders is performed in the first half of the project to gain insight in the acceptance of the concepts by such stakeholders.
- A third workshop with tertiary stakeholders is performed in the last month of the project to gain insight in possible business models.

Workshops

Stakeholders were involved in different kind of activities. We will briefly discuss all the stakeholder activities performed during the project.

Stakeholder workshop 1 (23th of January 2019, Delft)

We invited several Dutch and Flemish stakeholders in Delft, the Netherlands, for the first stakeholder workshop. An impression of the workshop is shown in figure x. The goal of the workshop was to get to know each other and to find out their interest in the project.

Together with the stakeholders, we discussed the first results of the literature study and questionnaire. The stakeholders pointed out the aspects they thought could additionally be interesting to research. In this way, we made sure that all important topics were covered. In addition, we prepared two exercises to find out the stakeholders' interest in the project and potential possibilities to collaborate and use each others strengths during and after the project. This resulted in a good overview of the different interests the stakeholders would have in our future service and potential collaborations. During the session, interesting discussions originated between the stakeholders which made it for everyone a valuable session.



Figure 4. Impression of the first stakeholder workshop

Stakeholder workshop 2 (11th of April 2019, Delft)

The second stakeholder workshop was also organised in Delft, the Netherlands. The goal of this workshop was to inform the stakeholders about the progress of the project and to validate assumptions of the business model. During the workshop we gathered valuable information to determine the impact and certainty of our assumptions.

In order to keep the stakeholders that could not be present involved, an email was send with some progress results or a separate meeting was scheduled. These stakeholders were also contacted to validate certain assumptions.



Figure 5. Impression of the second stakeholder workshop

Stakeholder workshop 3 (15th of May, 2019)

The third stakeholder workshop was organised in Vienna, Austria. The goal of this workshop was to inform the stakeholders about the project and its results, and to validate assumptions of the business model. In addition, it was seen how the stakeholders could play a role in the continuation of CARA.

During the workshop some interesting insights were gathered:

- It is important to also keep in mind the negative consequences a product/service could have.
- It is difficult to reach the people that really need to improve their driving behaviour.
- It should be kept in mind for solutions that there are many external variables that can influence safe driving behaviour such as other road users, weather conditions and infrastructure.



Figure 6. One of the project partners presenting the project to the stakeholders

Interviews

During the entire project, interviews were performed with different stakeholders in order to exchange knowledge and talk about potential collaborations.

Summary

CARA organised multiple stakeholder events in Belgium, Austria and The Netherlands. We mainly focussed on governmental bodies, non-commercial organisations and few insurance organisations. We've tried to let them work with the value proposition canvas and think from the seniors and not from their own organisation's point of view. Either our research outcomes were confirmed by the stakeholders or were totally new to them. We are very pleased with the organisations who signed a Letter of Support for the CARA proposal. They are now better informed about the challenges of keeping seniors longer and safely car mobile.

We received many positive reactions from stakeholders during the project. Public organisations were actively supporting the project, wanted to stay involved and were positively surprised by the outcomes of the project. We see that they are very aware of the fact that the senior population is increasing the coming years and that this creates challenges, but that they do not have solutions for these challenges yet. This is especially the case in the Netherlands where seniors are motivated to live independently for a longer period of time. Projects, such as CARA, are therefore very interesting for them and could help them to deal with the challenges. In addition, great interest was received from the Dutch Driving Institute. They see possibilities to change or improve the experience of the obligated health check and driving test at the age of 75.

During the project, we found out that it was difficult to involve insurance companies. They were eager to get information about the target group and the solution, but were not willing to collaborate or invest. In addition, we noticed in interviews with seniors that the seniors did not really trust the insurance companies. Therefore, we decided to no longer involve insurance companies. However, insurance brokers appeared to be more interesting partners for the project. After the project, we will continue to explore a collaboration with insurance brokers.