

# Towards more inclusive mobility services

---

# APPENDICES

**Master Thesis**  
Nina van Savooijen  
Strategic Product Design  
October 2022



## Appendices overview

A: The project brief	3
B: Data RMC	10
C: Travel motives elderly	12
D: Interview guide empathizing session	13
E: Interview guide elderly	14
F: Quotes elderly	15
G: Quotes elderly clustered	16
H: Interview guide experts	17
I: Quotes experts	18
J: Quotes experts clustered	19
K: Feedback session roadmap	20
M: Inclusivity workshop slides	21
N: Inclusivity workshop principles	27
O: Evaluation session roadmap	28
P: Evaluation quotes clustered	29
Q: MaaS is our future	31

## A: Project brief

DESIGN  
FOR OUR  
future

5692

## IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

**USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT**  
Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

**STUDENT DATA & MASTER PROGRAMME**  
 Save this form according to the format "IDE Master Graduation Project Brief\_familyname\_firstname\_studentnumber\_dd-mm-yyyy".  
 Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1!

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">family name</td> <td style="border-bottom: 1px solid black;">van Savooijen</td> </tr> <tr> <td>initials</td> <td>N given name Nina</td> </tr> <tr> <td>student number</td> <td>4556119</td> </tr> <tr> <td>street &amp; no.</td> <td>Koninklijke 21A</td> </tr> <tr> <td>zipcode &amp; city</td> <td></td> </tr> <tr> <td>country</td> <td></td> </tr> <tr> <td>phone</td> <td></td> </tr> <tr> <td>email</td> <td>l.m.savooijen@student.tudelft.nl</td> </tr> </table>	family name	van Savooijen	initials	N given name Nina	student number	4556119	street & no.	Koninklijke 21A	zipcode & city		country		phone		email	l.m.savooijen@student.tudelft.nl	<p>Your master programme (only select the options that apply to you):</p> <p>IDE master(s): <input type="radio"/> IPD <input type="radio"/> Dfi <input checked="" type="radio"/> SPD</p> <p>2<sup>nd</sup> non-IDE master: _____</p> <p>individual programme: _____ (give date of approval)</p> <p>honours programme: <input type="button" value="Honours Programme Master"/></p> <p>specialisation / annotation: <input type="button" value="Medisign"/></p> <p><input type="button" value="Tech. in Sustainable Design"/></p> <p><input type="button" value="Entrepreneurship"/></p>
family name	van Savooijen																
initials	N given name Nina																
student number	4556119																
street & no.	Koninklijke 21A																
zipcode & city																	
country																	
phone																	
email	l.m.savooijen@student.tudelft.nl																

**SUPERVISORY TEAM \*\***  
 Fill in the required data for the supervisory team members. Please check the instructions on the right!

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">** chair</td> <td style="border-bottom: 1px solid black;">Suzanne Hiemstra-van Mastrigt</td> <td style="width: 15%;">dept. / section:</td> <td style="border-bottom: 1px solid black;">SDE / MD</td> </tr> <tr> <td>** mentor</td> <td style="border-bottom: 1px solid black;">Mathijs Buijs</td> <td>dept. / section:</td> <td style="border-bottom: 1px solid black;">DOS / MOD</td> </tr> <tr> <td>2<sup>nd</sup> mentor</td> <td style="border-bottom: 1px solid black;">Mike van Hamersveld</td> <td></td> <td></td> </tr> <tr> <td></td> <td>organisation: <input type="text" value="LabelA"/></td> <td></td> <td></td> </tr> <tr> <td></td> <td>city: <input type="text" value="Rotterdam"/></td> <td>country: <input type="text" value="the Netherlands"/></td> <td></td> </tr> </table>	** chair	Suzanne Hiemstra-van Mastrigt	dept. / section:	SDE / MD	** mentor	Mathijs Buijs	dept. / section:	DOS / MOD	2 <sup>nd</sup> mentor	Mike van Hamersveld				organisation: <input type="text" value="LabelA"/>				city: <input type="text" value="Rotterdam"/>	country: <input type="text" value="the Netherlands"/>		<p>Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v.</p> <p>Second mentor only applies in case the assignment is hosted by an external organisation.</p> <p>Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.</p>
** chair	Suzanne Hiemstra-van Mastrigt	dept. / section:	SDE / MD																		
** mentor	Mathijs Buijs	dept. / section:	DOS / MOD																		
2 <sup>nd</sup> mentor	Mike van Hamersveld																				
	organisation: <input type="text" value="LabelA"/>																				
	city: <input type="text" value="Rotterdam"/>	country: <input type="text" value="the Netherlands"/>																			

comments (optional): This project will be carried out in collaboration with Label A, RMC and DDL Seamless Personal Mobility Lab.

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30

Page 1 of 7



**APPROVAL PROJECT BRIEF**

To be filled in by the chair of the supervisory team.

chair Suzanne Hiemstra-van Mastrigt date 25 - 04 - 2022 signature Suzanne Hiemstra-van Mastrigt

Digitaal ondertekend door Suzanne Hiemstra-van Mastrigt  
Datum: 2022-04-25 21:49:09 +0200

**CHECK STUDY PROGRESS**

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: 24 EC  YES all 1<sup>st</sup> year master courses passed  
Of which, taking the conditional requirements into account, can be part of the exam programme 24 EC  NO missing 1<sup>st</sup> year master courses are:

List of electives obtained before the third semester without approval of the BoE

name K. Veldman date 29 - 4 - 2022 signature [Signature]

**FORMAL APPROVAL GRADUATION PROJECT**

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked \*\*. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks?
- Does the composition of the supervisory team comply with the regulations and fit the assignment?

Content:  APPROVED  NOT APPROVED  
Procedure:  APPROVED  NOT APPROVED

comments

name Monique von Morgen date 9/5/2022 signature MvM

A roadmap towards more inclusive mobility services \_\_\_\_\_ project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 18 - 04 - 2022 end date 26 - 09 - 2022

**INTRODUCTION \*\***

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

The importance of the inclusivity of mobility is growing [1]. Access to transport can transform the lives of people with physical, sensory and cognitive impairments, improving employment opportunities, access to health care, education and overall quality of life [2]. Inclusive mobility is a challenge that seeks to overcome the traditional transportation paradigm, which focuses on road infrastructure as a solution to traffic [3]. Rather, it seeks to focus on providing adapted equipment for people with disabilities, taking into account their needs in a comprehensive manner. The inclusion of people with disabilities in decision-making, planning and evaluation processes is necessary to generate changes, achieve higher quality outcomes and develop policies that are successfully implemented [4]. Inclusive design requires that the needs of all disabled people are considered from the outset of any transport and pedestrian infrastructure, including maintenance, schemes., so that, for example, tactile paving surfaces provided for vision impaired people do not create trip hazards or cause undue discomfort to people with conditions such as arthritis [5].

This project will be done in collaboration with Label A, a digital product agency and RMC (figure 1). The most important service of RMC is and will remain target group transport, for people who cannot use existing modes of transport, such as walking, cycling and public transport [6]. In other words, the people with the impossibility of using the available modalities. It is therefore of great importance that their services become inclusive for their whole target-group.

Label A is a company that creates innovative technical solutions and sets up complex digital ecosystems [7]. It is a team of analysts, developers and designers which generate solutions and systems that make organisations more successful and make life easier for end users. They are interested in this project collaboration as this will be an inspiration and strategic guidance for their future collaborations with other mobility stakeholders and clients. They will also allow me to have a better understanding of the technological possibilities there are and the development process of a solution from a contractor but also a client perspective.

**Limitations:**

The ways people travel in this post-covid stage can be different from their normal travel habits. There are a lot of regulations when it comes to (public)transport, collaborations can be a solution but these other parties have their own interests as well.

(All sources can be found on the motivation page)

space available for images / figures on next page



introduction (continued): space for images

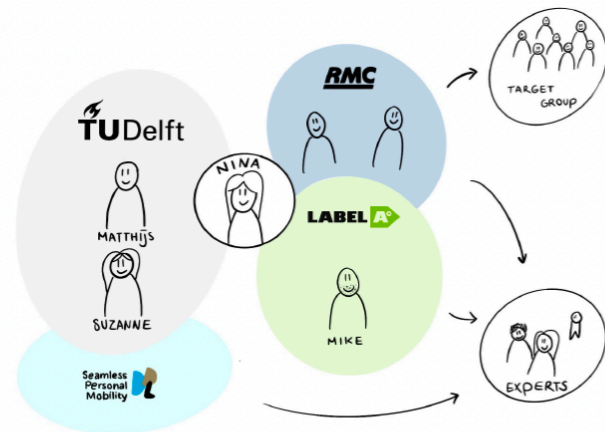


image / figure 1: Collaborations in my project and their relations

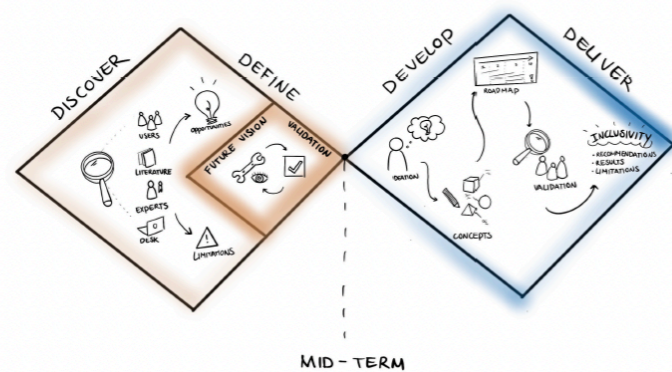


image / figure 2: The Double-diamond method including my steps

**PROBLEM DEFINITION \*\***

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

Mobility-as-a-Service (MaaS) is becoming more and more important in the movement of people, therefore, inclusivity of this service plays a big role in our future. Label A is working with different clients on several services in the area of mobility, so their main goal for this project is to develop knowledge on how they can make MaaS as inclusive as possible.

Because this research question is too broad to be answered in my graduation project, a concrete case study will be used to contribute to the broader scope, in this case RMC.

When it comes to mobility for those who can no longer plan their own transportation or with the support of family or friends, RMC is a major player. This refers to the necessity to be inclusive to this disabled population, as well as the need for RMC to make inclusion a continuous priority.

The aim is to discover where exclusivity gaps still exist within the context of Mobility as a Service (MaaS) and explore how emerging technologies, collaborations, different channels and regulations can turn these gaps into opportunities for inclusion. This will be done by including the target-group into the research and review different opportunities given by the literature research. With the design goal is to give LabelA a strategic foundation that can deliver concrete insights and provides guidance into implementation possibilities. A roadmap will showcase more of the feasibility of the inclusivity concepts and will discover the pitfalls and opportunities for MaaS.

This RMC case study will eventually provide Label A insights and recommendations on the inclusivity aspects of MaaS.

**ASSIGNMENT \*\***

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, ... In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

Designing an inclusivity strategy within the context of Mobility as a Service, supported by a roadmap and vision for RMC, to help them develop a service for a broader audience. These outcomes can serve as an example and inspiration for Label A, and provide general principles to help future clients to make their mobility services more inclusive.

To achieve this, the project is divided into four phases, using the framework of the 'Double Diamond' as a guidance (see figure 2).

**Discover** - In this stage the research will be done. The main focus is on stakeholders (RMC, users of MaaS and LabelA), the potential of emerging technologies, trends and on the current regulatory issues and opportunities. With the help of this research, an overview will be made of the exclusivity gaps and chances for inclusivity.

**Define** - In this stage of the double diamond method, there will be elaborated on the discovery phase. With the help of the overview of exclusivity gaps and the opportunities, a future vision can be made. This future vision is a bold and clearly articulated vision that can inspire the people working at RMC and especially LabelA to work on new ways to create value for customers. This future vision will be validated with experts but also with the end users.

**Develop** - In this stage a roadmap will be made on how to get to this future vision. Elements that will be addressed in this roadmap will be for example: opportunities, barriers, stakeholders, technology, mind-switches and then-defined integration possibilities and intermediate solutions.

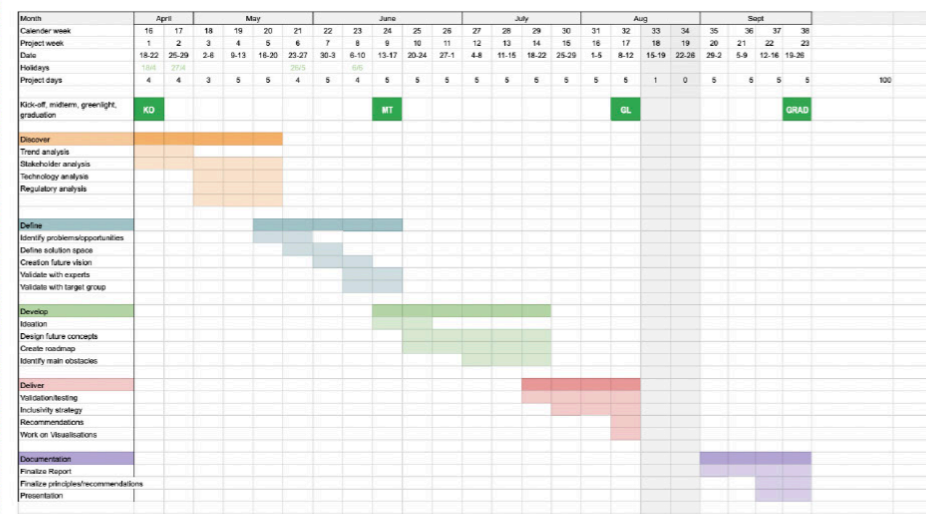
**Deliver** - In this stage the validation of the final roadmap/concept will be done by stakeholders, users and experts. With this validation, the final recommendations and the inclusivity strategic roadmap can be finalized.



**PLANNING AND APPROACH \*\***

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 18 - 4 - 2022 end date 26 - 9 - 2022



I will be working full-time on this graduation project, which means 5 working-days a week. My plan is to be at the office of LabelA most of the days, to be able to connect with people in person and to be able to ask a lot of questions.

Every stage will end with a presentation for two contact persons from RMC, two from Label A (Floris and Mike) and two from TU Delft (Suzanne and Matthijs, my chair and mentor), to show what I have done in this phase and to elaborate on what I will be doing in the next coming weeks and what I will need from them to be able to complete this next phase.

Because my project will overlap with the TU Summer holidays, I will take 2 weeks off in my Documentation phase to spend some time with my family and to be able to recharge before my final Graduation.

**MOTIVATION AND PERSONAL AMBITIONS**

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, .... Stick to no more than five ambitions.

**User-centeredness**

The focus of my work is on implementing user-centeredness into a current ongoing innovation project. This requires a designer which is capable of evaluating the current state of the system [8] and keeps the user involved in all stages of the design process. By being an empathic designer, I can leverage this by leaving my own beliefs behind and not only hearing, but really listening to what the user has to say.

**Mobility interest**

My interest in mobility started when I did my 6-month internship at KPN, where I set up a new employee mobility plan together with the mobility department and AMBER mobility. In this MaaS project, it was really narrowed down to the employees of KPN as users, which made the plan specific but also not inclusive. With new MaaS parties entering the market and it being trendy in the big cities for people with more to spend but also able-bodied, a lot of progression can be made to make more inclusive MaaS plans.

**Help people with a real need**

This project is focused on a group of people who has a real need and are currently a bit left out in the MaaS solutions that exist. This also means that I will have to work on my qualitative research skills, which I really like to master, to be able to get the information from these people that is helpful to complete my project.

**Visual Thinking**

A key learning for me in this project is to become a real visual thinker. I want to use my visual skills to communicate complex information to both the users but also to Label A as a company. Especially when designing a roadmap and a future vision, I want it to challenge myself to make it as clear but also as complete and informative as possible.

**References:**

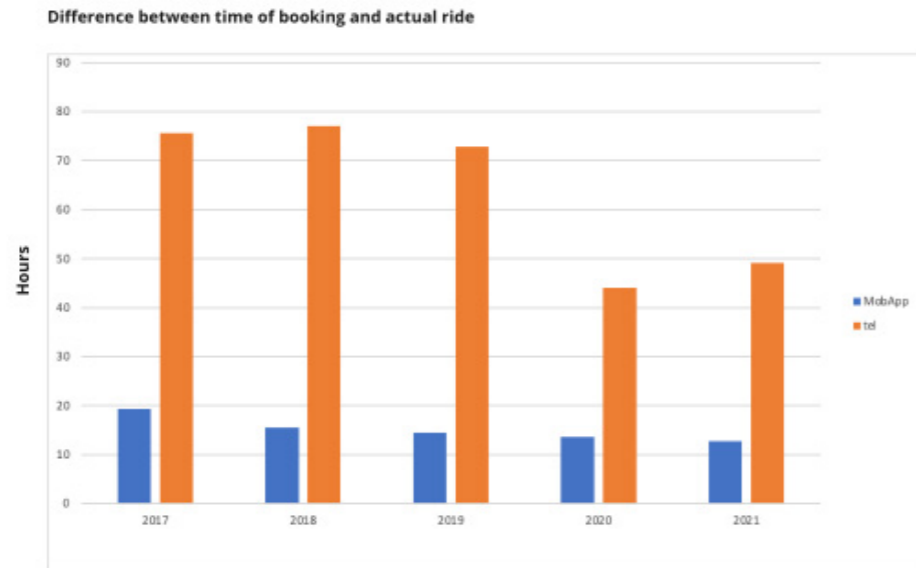
[1] Schweiger, C. (2018). Accessibility and inclusivity: two vital elements of mobility. Intelligent transport.  
 [2] Varistha Ltd. (z.d.). TRL | Inclusive Mobility. TRL. Geraadpleegd op 29 maart 2022, van <https://www.trl.co.uk/about-us/our-vision-mission/inclusive-mobility>  
 [3] Herrera, P. (2021, 4 juni). What is Inclusive Mobility and why is it important? LinkedIn. Geraadpleegd op 29 maart 2022, van [https://www.linkedin.com/pulse/what-inclusive-mobility-why-important-pamela-herrera/trk=public\\_profile](https://www.linkedin.com/pulse/what-inclusive-mobility-why-important-pamela-herrera/trk=public_profile)  
 [4] Banister, D. (2008). The sustainable mobility paradigm. Transport Policy, 15(2), 73–80. <https://doi.org/10.1016/j.tranpol.2007.10.005>  
 [5] Britain, Department. (2002). Inclusive Mobility: a guide to best practice on access to pedestrian and transport infrastructure. Social Research in Transport (SORT) Clearinghouse.  
 [6] RMC Nederland. (z.d.). Doelgroepenvervoer. RMC. Geraadpleegd op 29 maart 2022, van <https://www.rmc-nederland.nl/dienstverlening/doelgroepenvervoer>  
 [7] LabelA (z.d.). Over ons. Geraadpleegd op 29 maart 2022, van <https://www.labela.nl/about>  
 [8] Abras, C., Maloney-Krichmar, D., Preece, J. (2004) User-Centered Design. In Bainbridge, W. Encyclopedia of Human-Computer Interaction. Thousand Oaks: Sage Publications.

**FINAL COMMENTS**

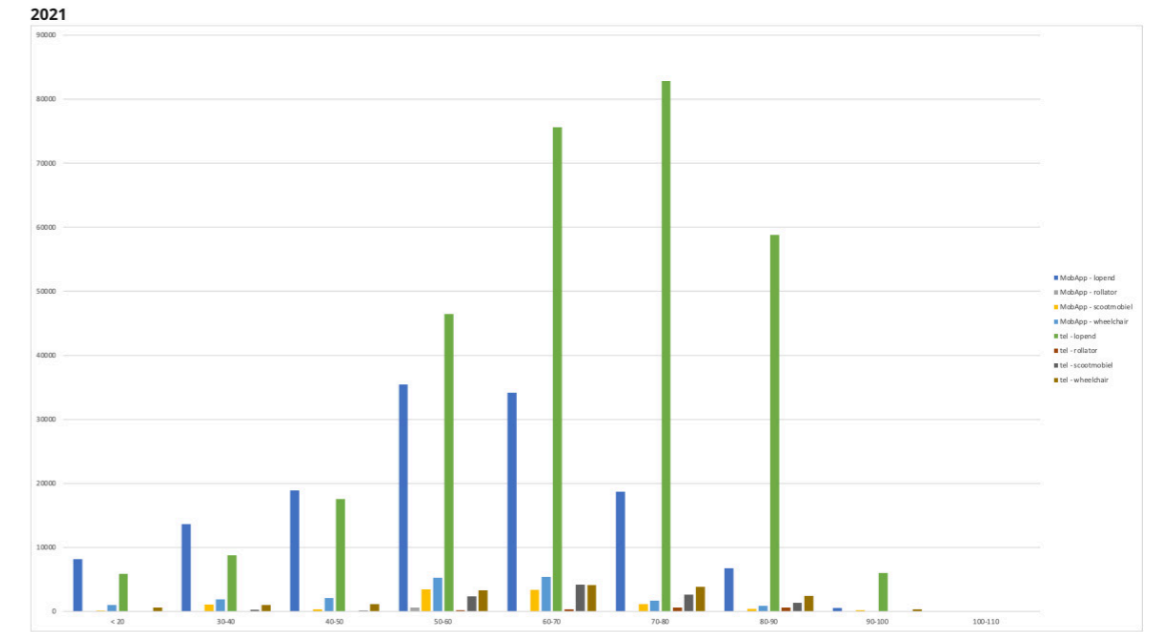
In case your project brief needs final comments, please add any information you think is relevant.

## B: Data RMC

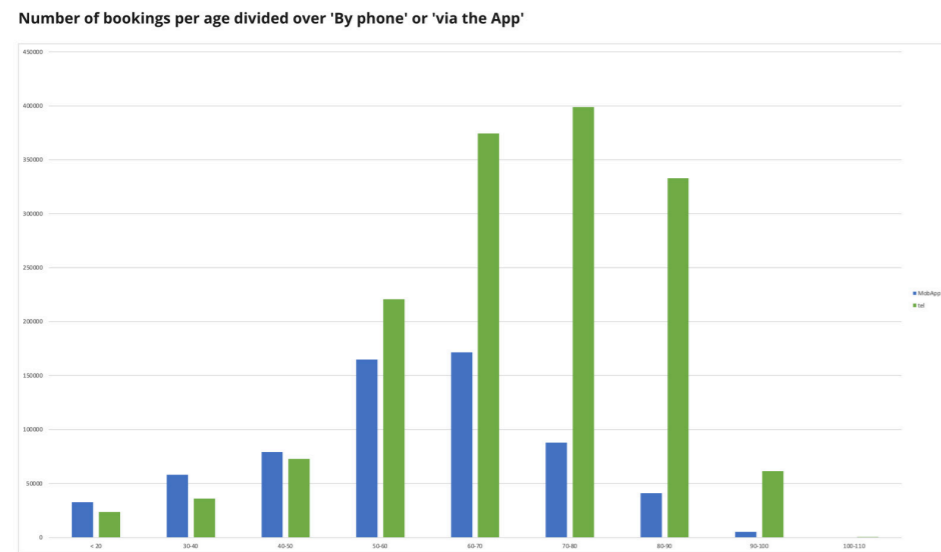
01.



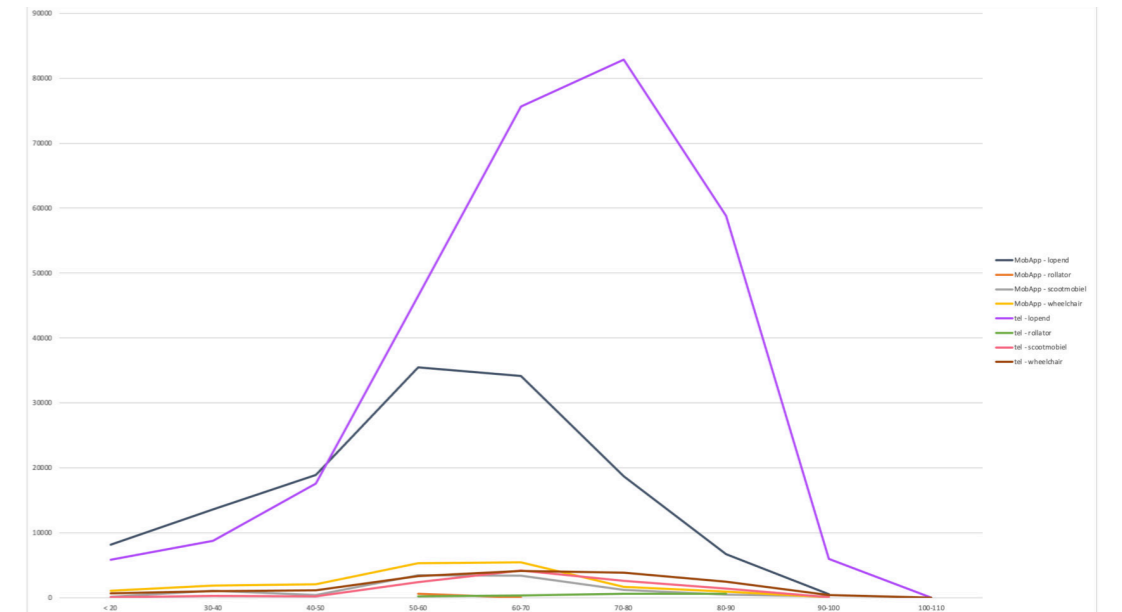
03.



02.

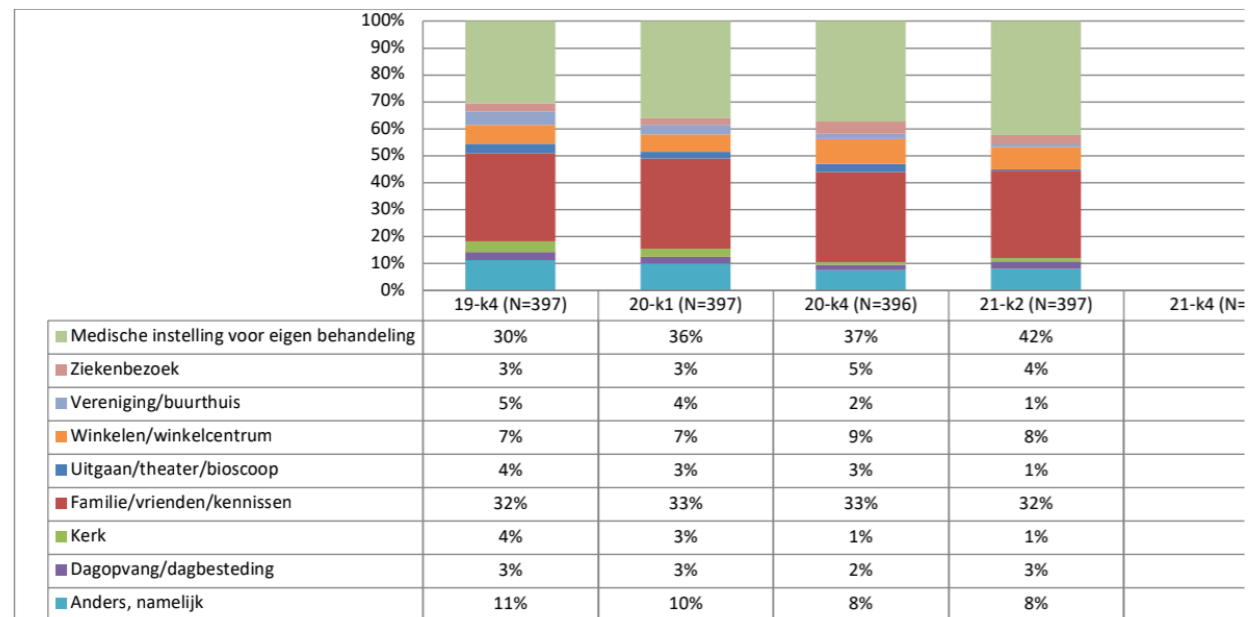


04.





## C: Travel motives elderly



## D: Interview guide empathizing session

### Interview guideline

1. Introduction (1 min)
2. Personal background and context (3 min)

- How old are you?
- In which neighbourhood do you live?
- Describe your household
- How long have you been using WMO vervoer and what is your main reason to do so?

### 3. User interview

#### TOPIC: BOOKING

- Can you please describe how you have booked this trip you are taking right now?
- > What was positive about it and what problems did you encounter?
- > How did you solve the problems you encountered?

#### TOPIC: THE TRIP

- Can you describe the last trip you did with WMO vervoer (before this one)
- > What was positive about it and what problems did you encounter
- > Why did you at that moment choose this type of transportation
- > Who was on the car, how was the driver, was it on time, did you arrive on time, how was the trip back?

- Can you please describe the most negative experience in a WMO rit

#### TOPIC: ALTERNATIVES/MOTIVES

- Is WMO the only way of transport for you?
- > What other means of transportation?
- > How is the choice made to use a specific mean of transportation?

### 4. Wrap up and greetings

# E: Interview guide elderly

## Richtlijnen voor het interview

### 1. Inleiding (1 min)

Hi ik ben Vief en ik werk als onderzoeker bij het RMC. Zou ik, als u hier tijd voor heeft, kort een paar vragen mogen stellen hoe u reist met RMC en of u hier tevreden over bent. Zo kunnen we onze diensten verbeteren en heeft u hier ook profijt van.

### 2. Persoonlijke achtergrond en context (3 min)

- In welke wijk woont u?
- Hoe lang maakt u al gebruik van WMO-vervoer en wat is uw belangrijkste reden om dit te doen? (handicap)
- Heeft u een smartphone? Waarom niet? Zo ja, waar gebruikt u deze voor?

### TOPIC: BOEKEN

- Kunt u beschrijven hoe u uw laatste reis heeft geboekt?
- > Hoeveel tijd van tevoren? Heeft u het als spontaan ervaren?
- > Wat was er positief aan en welke problemen ondervond u?
- > Hoe heeft u de problemen die u ondervond opgelost?
- > Wat heeft u doen kiezen voor de WMO in plaats van andere vormen van vervoer, zoals OV?
- > Wat zijn voor u belangrijke aspecten bij het maken van een reis?
- > Boekt u vaker via bellen of met de app? Waarom en waarom niet de ander?
- > Wat zou u graag veranderd zien aan het WMO vervoer? Of ander vervoer?
- > Hoe ziet uw ideale toekomst eruit als het gaat om vervoer?

### TOPIC: DE REIS

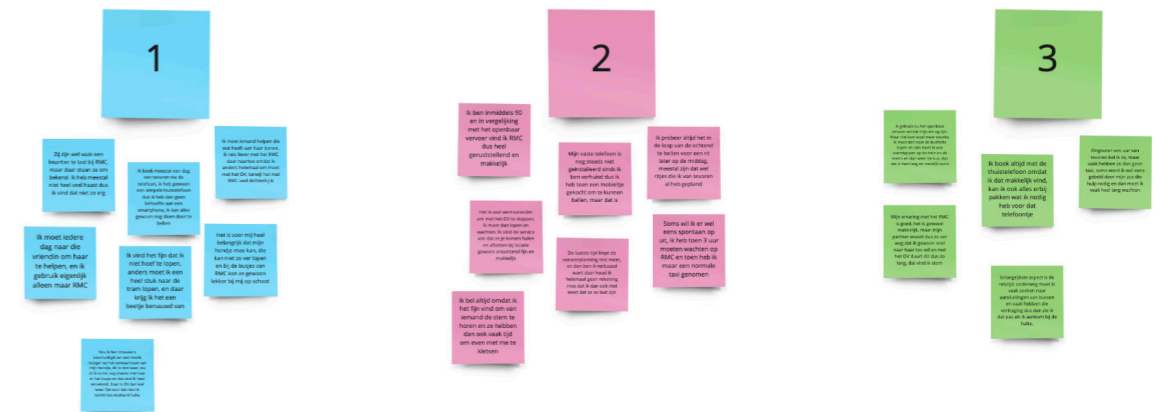
- Kunt u de laatste reis beschrijven die u met WMO vervoer heeft gemaakt (voor deze reis)
- > Waarheen/welke soort reis was het?
- > Voor wat voor soort reizen gebruikt u WMO vervoer het meest?

### TOPIC: ALTERNATIEVEN/MOTIEVEN

- Is de WMO het enige vervoermiddel voor u?
- > Welke andere vervoermiddelen?
- > Hoe wordt de keuze gemaakt om een bepaald vervoermiddel te gebruiken?

### 4. Wrap up en groeten

# F: Quotes elderly



Copy of Explorative interview



Copy of Explorative interview





Needs elderly

G: Quotes elderly clustered



H: Interviews experts



# I: Quotes experts

### Jurgen

Three opportunities exist... (text continues)

WAVO gaat transformeren... (text continues)

Wij willen een inclusief platform... (text continues)

### Daan

Individueel zou... (text continues)

Op het moment dat... (text continues)

Wij hebben ook een... (text continues)

## Copy of Expert interviews

### Joost

Het is een kwetsbare groep... (text continues)

Als je wilt dat deze mensen... (text continues)

### Hans

Maas is een geweldig idee... (text continues)

Op beide zijn krijgen... (text continues)

### Helsinki: Kutsu +

## Copy of Expert interviews

### Anne Durand

If we look at digitalisation... (text continues)

52% said that if... (text continues)

### Marcel Sloot

Gemeenten en provincies... (text continues)

De provincie is... (text continues)

### report: inclusief ov systeem in de digitale tijdperk

# J: Quotes experts clustered

### Most potential

... (text continues)

### Illegal use

... (text continues)

### Before, during and after the service

... (text continues)

### Pilots

... (text continues)

### Inclusivity (budgets and priority)

... (text continues)

### Co-operating

... (text continues)

### SGT -> public transport

... (text continues)

### Mobility islands

... (text continues)

### Elderly

... (text continues)

### Taking responsibility

... (text continues)

### Ideal future = Maas

... (text continues)

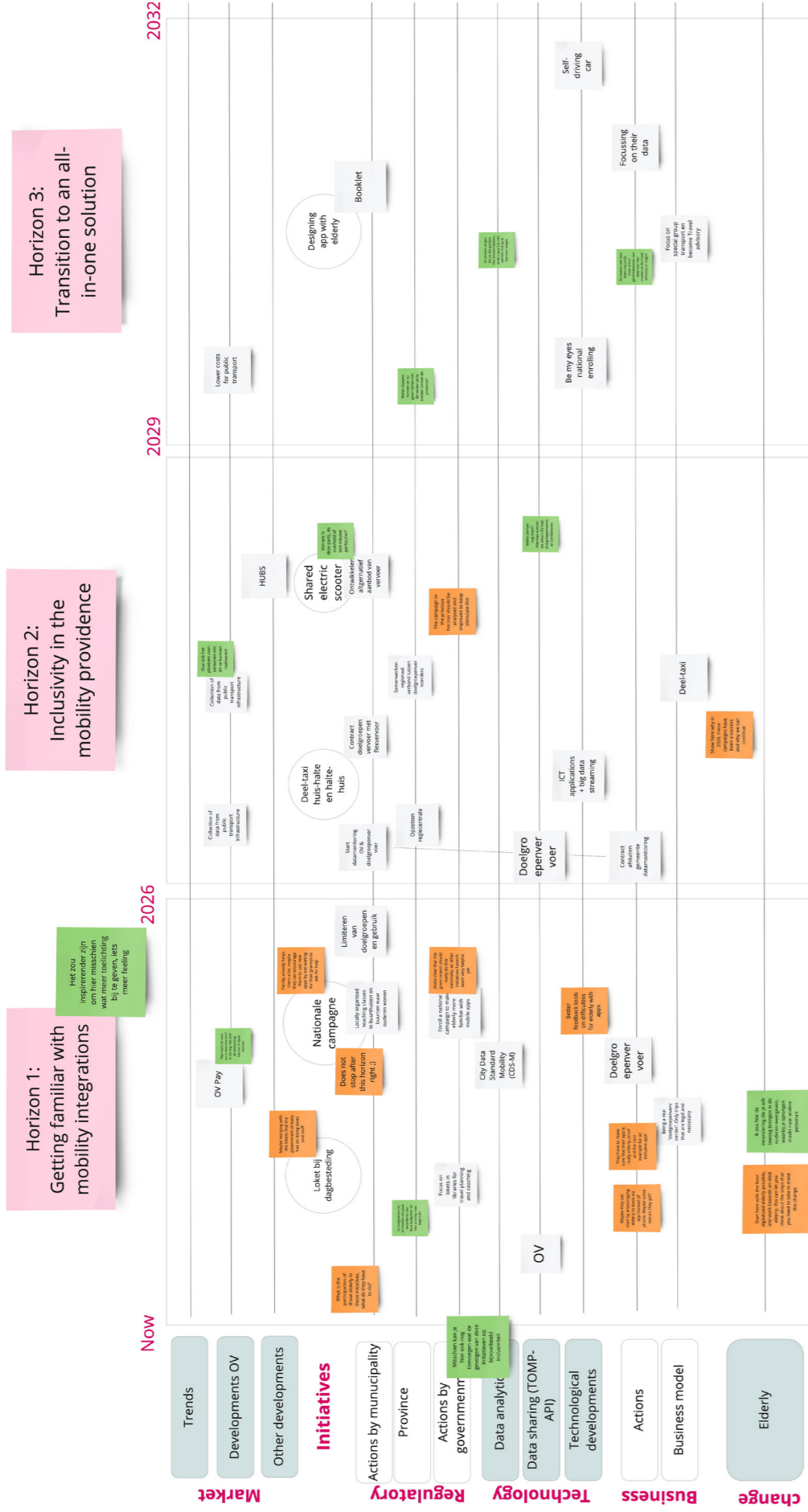
### Responsibility

... (text continues)

18



## K: Feedback sessions roadmap



Anne Durand

Marcel Sloot

## L: Inclusivity workshop slides

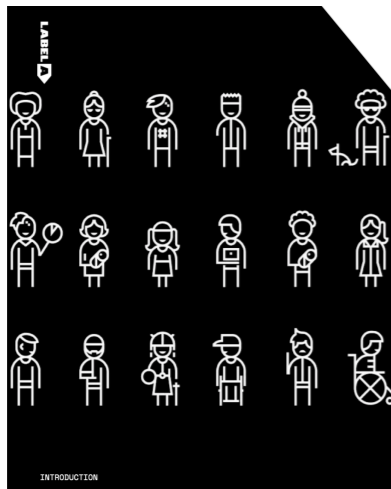


**AGENDA**

Inclusive design	4
Case example	7
Target-group	11
Setting up inclusive design principles	12
Discussion	18

INTRODUCTION





**“Inclusive design is a design methodology that enables and draws on the full range of human diversity.”**

4



**! Designing inclusively doesn't mean you're making one thing for all people. You're designing a diversity of ways for everyone to participate in an experience with a sense of belonging. !**

5

## RMC

- Special group transport
- New application
- Booking trips



8



### Recognize exclusion

Exclusion happens when we solve problems using our own biases



### Learn from diversity

Human beings are the real experts in adapting to diversity



### Solve for one, extend to many

by focusing on what's universally important to all humans



## Special group transport

- WMO-vervoer
- Leerlingenvervoer
- Participatie vervoer
- Jeugdhulp



9





## WMO vervoer

Elderly and disabled people  
>1.000.000 trips per year

10



Elderly and disabled people

## What are limitations when it comes to using apps for these people?



11



# INCLUSIVE DESIGN PRINCIPLES



## Consider the situation

What are situations that these people can be in when using the application? Do we need alterations/notifications when in different situations?

People are first time users, established users, users at work, users at home, users on the move, and users under pressure. All of these situations can have an impact. For those who already find interaction challenging, such as those with disabilities, this impact may make usage particularly difficult.

13



## Give control

Do not suppress or disable the ability to change standard browser and platform settings such as orientation, font size, zoom, and contrast. In addition, avoid content changes that have not been initiated by the user unless there is a way to control it.

14



## Add value

Features should add value to the user experience by providing efficient and diverse ways to find and interact with content. Consider device features such as voice, geolocation, camera and vibration [API's](#), and how integration with connected devices or a second screen could provide choice.

16

## M: Inclusivity workshop principles



### Prioritize content

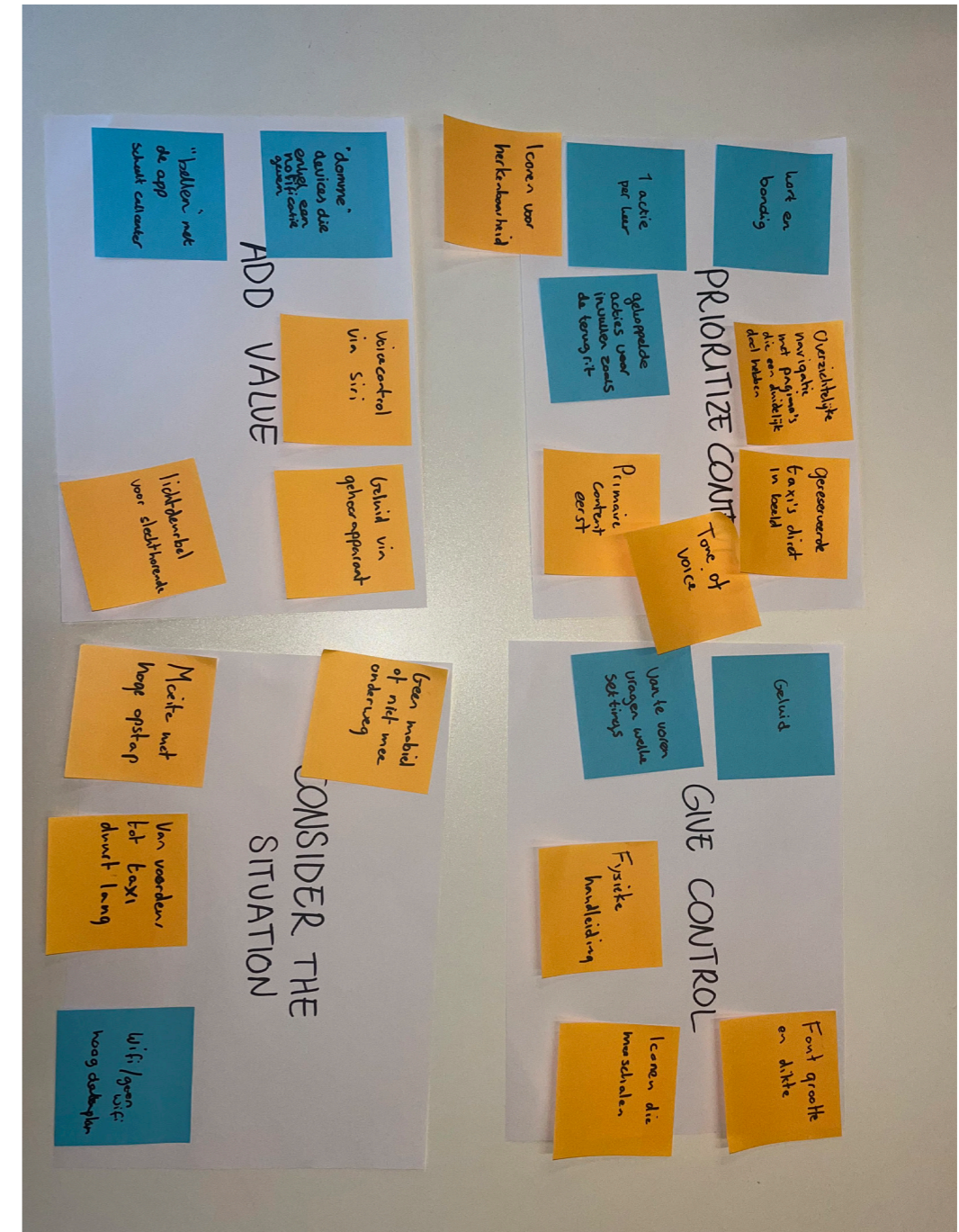
Interfaces can be difficult to understand when core features are not clearly exposed and prioritised. A site or application may provide lots of information and functionality, but people should be able to focus on one thing at a time. Identify the core purpose of the interface, and then the content and features needed to fulfill that purpose.

27



### Discussion

- Focussed on design, how can we challenge them to take this into account?
- Who should be responsible for monitoring these principles?
- Target-group, who should define this?
- In your processes, where can inclusivity play a role?
- Testing with the target audience, when?
- Other questions/thoughts?





# N: Evaluation session roadmap

## Evaluatie sessies Roadmap

### Introductie

- Basic uitleg over inclusive design
- Waar gaat mijn thesis precies over en waarom ligt mijn focus bij ouderen
- Hoe ik tot de uiteindelijke roadmap ben gekomen

### First impressions

1. What was your first impression when reading and looking at the roadmap?
2. Was everything clear? Or was something immediately missing in your opinion?

### Bruikbaarheid

1. What did you like seeing/don't like?
2. Do you think this roadmap can help organisations which are active in the mobility sector? And how? If not, what should be added?

### Realistic

1. Which steps do you think are most valuable and important to take when realising a MaaS future
2. What steps did you think were not realistic/most realistic?
3. What do you think are the best first steps to take after completing these roadmaps.

--> What is your opinion on MaaS in general?

--> Do you think we can work more inclusively on this concept?

--->Do you recognize a need from elderly to be able to travel like this in the future from your experience?

---> Do you have remaining questions that should be further explored?

# O: Evaluation quotes clustered

**Support**

- Bevinden het het gaat met... (quote about platform use)
- Oud is de beleving... (quote about user experience)
- Overstroomt over mensen... (quote about user volume)

**Data sharing**

- Als de partijen... (quote about data exchange)

**Getting parties on board**

- Er zijn... (quote about stakeholder involvement)
- Maak een... (quote about incentives)
- Die 7 pilots... (quote about pilot projects)

**Contextual**

- Context is heel belangrijk... (quote about context importance)
- Ni heeft... (quote about user needs)

**Multi-modality**

- Er wordt... (quote about multi-modal options)
- Die 7 pilots... (quote about pilot projects)

**Scooter**

- Wat belangrijk is bij... (quote about scooter integration)

**One chance**

- De toegankelijkheid... (quote about accessibility)
- Heel... (quote about opportunity)

**Platform owner**

- Heel... (quote about platform ownership)

**Costs**

- Wat zijn... (quote about costs)

**Provide opportunities for multiple platforms**

- Vanuit de... (quote about government role)
- Wij hebben... (quote about government support)

**Our government**

- Wij hebben... (quote about government support)

## P: MaaS is our future

Besides the fact that a regional MaaS solution is seen as our “ideal future” by the municipality of Amsterdam, most of the experts I spoke to also agreed on this. Besides the fact that it is a real challenge to be able to achieve this, the final vision is the same for everyone (see appendix 8). That’s why the key advantages and characteristics of a MaaS ecosystem are identified and explained (see figure 18).

### Accessibility

The accessibility of the final destination is critical in meeting the needs of the elderly when it comes to travel (see need 1, chapter 9.2). Hospitals, as well as urban settings, friends and families, must be accessible. In high-demand locations, the emphasis will move toward public transportation, active modes of transportation, and shared mobility. Motorized vehicles are only permitted in these places in exceptional circumstances. Other types of transportation can reach the city’s outskirts and regions outside the city center. High-demand destinations for the elderly can be determined using travel data and interviews, which can eventually increase the accessibility of these areas by providing them with a MaaS solution that provides them with ways to go there.

### Flexibility

Seniors using SGT see little flexibility when it comes to planning a trip. They are tied to certain combinations made by the travel center, so their departure and arrival times are not flexible. They would like to make more spontaneous trips, so the future mobility plan should allow for more flexibility for the elderly. One of the most crucial aspects of the future of a MaaS ecosystem is access to a diverse range of transportation modes and the encouragement of multi-modality (chapter 4.2), this makes MaaS a solution for flexibility desires.

### User focused mobility

MaaS offers a user-focused approach. With the ability to enter a lot of information about your travel needs, a customized trip can fully take this into account. Together with the collection of data from other travellers with the same set of requirements, a MaaS ecosystem can improve itself. Now the elderly often have very special characteristics and wishes when it comes to travel, which makes it a nice fit for this target group.

### Sustainability

Making mobility more sustainable plays an important role in the energy transition. Governments and companies from different sectors are working together on the biggest transformation in mobility since the advent of the internal combustion engine (PwC, 2022). When implementing MaaS, a cutting-edge technology to book, plan, and pay for door-to-door transportation services, is predicted to minimize the need for consumers to use private automobiles, and even postpone and eventually discontinue purchasing a car, leading to an improvement in sustainable transportation. Together with cutting the use of SGT and encouraging elderly to use PT more often, sustainability goals will be met.

