

# Mobility solutions and estimation of their potential impacts on inclusive mobility and equity

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## Abstract

This deliverable is aimed at appraising the mobility solutions to cope with transport poverty explored by Hireach and their potential impacts on inclusive mobility and equity. Focus group meetings in each of the six study regions identified by the project (in Germany, Luxembourg, Italy, Portugal, Greece and Romania) were organised in order to assess the identified innovative transport solutions which may rectify the identified issues/improve the capabilities of the solutions and allow to understand to which degree these innovations might affect their behaviour. Linked to Tasks 3.4 (Generation of new mobility solutions and business models) and 3.5 (Appraisal of mobility solutions and their potential impacts on inclusive mobility and equity), it is targeted to have a full appraisal of the mobility solutions and estimation of EU impacts on inclusive mobility and equity..

## About HiReach

HiReach aims at addressing the mobility needs of different groups vulnerable to transport poverty and social exclusion like people with temporarily or permanent reduced mobility, children, young and elderly people, women, migrants and ethnic minorities, low income and unemployed, to favour more inclusive and flexible mobility solutions. The project also analyses geographical and spatial elements affecting transport poverty to figure out mobility options that can serve the needs of such groups in different target areas like urban-peripheral, peri-urban, rural, and remote or deprived territories.

By combining different attributes of available transport concepts and bottom-up initiatives with new operational schemes and IT applications, HiReach explores viable business models for small scale, modular and easily replicable mobility services that can be provided at affordable prices and/or with minimum subsidies. For the first time, community transport services, informal ridesharing and van pooling, innovative ride-hailing mobility services and on-demand public transport are assessed within the scope of a new collaborative and fair business environment.

The HiReach mechanism for exploring, generating and testing inclusive mobility solutions is based on the creative work of and innovative entrepreneurs, but also on social innovation through the direct involvement of different social groups as developers, co-users and co-owners of the proposed solutions. HiReach is working in 6 EU study regions: Counties of Esslingen and Göppingen (Germany), Naxos and Small Cyclades (Greece), Inner Area Southern Salento (Italy), Guarda and Torres Vedras (Portugal), Buzău (Romania), North and South-East Luxembourg.

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## TABLE OF CONTENTS

<b>Acronyms and abbreviations .....</b>	<b>1</b>
<b>Executive summary .....</b>	<b>2</b>
<b>1 Introduction .....</b>	<b>4</b>
1.1 Purpose and scope .....	4
1.2 Structure of the document .....	5
<b>2 Background .....</b>	<b>7</b>
2.1 Inclusive mobility solutions: the handpicked case studies .....	7
2.2 New mobility solutions and business models: the outcomes of the HiReach Multidisciplinary Ideation Workshop .....	12
<b>3 Methodology .....</b>	<b>18</b>
3.1 Technology Acceptance Model .....	18
3.2 Second round of focus groups .....	20
3.3 Analysis and impact assessment of new mobility solutions .....	23
<b>4 Users' perspectives on innovative mobility solutions .....</b>	<b>26</b>
4.1 Germany: Counties of Esslingen and Göppingen .....	26
4.1.1 Elderly people .....	26
4.1.2 Migrants and refugees .....	28
4.2 Greece: Naxos and Small Cyclades .....	31
4.2.1 Children and young people .....	31
4.2.2 People living in rural areas .....	33
4.3 Italy: Inner Area Southern Salento .....	35
4.3.1 Women .....	35
4.3.2 People with reduced mobility .....	38
4.4 Luxembourg: North and South-East areas .....	40
4.4.1 Migrants and refugees .....	40
4.4.2 People living in rural areas .....	42
4.5 Portugal: Guarda .....	44
4.5.1 Low-income and unemployed people .....	44
4.5.2 Elderly people .....	48
4.6 Romania: Buzău .....	52
4.6.1 Children and young people .....	52
4.6.2 Low-income and unemployed .....	52
4.7 Summary of the user's perspectives on the different types of mobility solutions .....	53
<b>5 Impact assessment on inclusive mobility and equity .....</b>	<b>62</b>
5.1 Analysis of the fieldwork reports .....	62

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<b>5.2 Analysis of the results of the TAM survey .....</b>	<b>71</b>
<b>6 Summary and conclusions .....</b>	<b>81</b>
<b>References .....</b>	<b>83</b>
<b>Annex 1: Results from the HiReach Multidisciplinary Ideation Workshop .....</b>	<b>84</b>
Persona: Sami from Germany .....	84
Persona: Victor from Romania .....	86
Persona: Maria from Portugal .....	88
Persona: Thierry from Luxembourg .....	90
Persona: Giulia from Italy .....	92
Persona: Konstantina from Greece .....	95
<b>Annex 2: List of focus group sessions conducted .....</b>	<b>97</b>
<b>Annex 3: TAM questionnaire results .....</b>	<b>98</b>
<b>Section A .....</b>	<b>98</b>
<b>Section B .....</b>	<b>113</b>



## LIST OF FIGURES

Figure 1-1: D3.3 in the workflow of HiReach WP3 (Identification of new mobility options and business models) ...	5
Figure 2-1: Group discussion during the HiReach ideation workshop .....	13
Figure 3-1: Flow chart of the Technology Acceptance Model .....	18
Figure 3-2: HiReach study regions and targeted social groups .....	20
Figure 3-3: Conditions of transport poverty .....	24
Figure 4-1: Focus group session with elderly people in Frickenhausen.....	27
Figure 4-2: Focus group session with migrants and refugees in Esslingen .....	31
Figure 4-3: School in Naxos where the Focus group session was held in .....	32
Figure 4-4: Focus group session with people living in rural areas in Naxos.....	34
Figure 4-5: Focus group session with women in Tiggiano.....	36
Figure 4-6: Focus group session with people with reduced mobility in Andrano .....	39
Figure 4-7: Focus group session with migrants and refugees in Luxembourg.....	40
Figure 4-8: Focus group session with people living in rural areas in Luxembourg .....	43
Figure 4-9: Focus group session with unemployed people in Guarda .....	45
Figure 4-10: Focus group session with elderly people in Guarda .....	50
Figure 4-11: Focus group session with low-income people in Buzau .....	53
Figure 5-1: Reasons for changing mobility habits in each study region .....	72
Figure 5-2: Reasons for changing mobility habits per social layer .....	73
Figure 5-3: Likelihood of short term and long-term impact of new solutions per social layer .....	76

## LIST OF TABLES

Table 2-1: Details of HiReach case studies and potentially targeted vulnerable user groups .....	8
Table 2-2: HiReach Ideation workshop agenda.....	14
Table 2-3: Results of the HiReach Ideation Workshop .....	15
Table 3-1: Structure of the focus groups (second round) .....	22
Table 4-1: User's perspectives on the different mobility solutions.....	54
Table 5-1: Key mobility indicators of focus group participants.....	74
Table 5-2: Likelihood of short term and long-term impact of mobility solutions .....	77
Table 5-3: Overview of impact regarding the introduction of new mobility solutions in vulnerable territories and social layers .....	79

## Acronyms and abbreviations

ACRONYM	DEFINITION
A	Attitude towards Using
BI	Behavioural intention to use
CS	Case Study
DRT	Demand Responsive Transport
E	Perceived ease-of-use
FG	Focus Group
LSC	Lean Service Creation
MaaS	Mobility as a Service
NTA	National Transport Authority
PT	Public Transport
PU	Perceived usefulness
PRM	People with reduced mobility
TAM	Technology Acceptance Model

## Executive summary

This deliverable is aimed at **appraising the mobility solutions to cope with transport poverty explored by Hireach and their potential impacts on inclusive mobility and equity.**

HiReach has conducted **fieldwork activities in six study regions having different spatial characteristics and involving different vulnerable groups in Germany, Luxembourg, Italy, Portugal, Greece and Romania.** Local actors, stakeholders, experts and user groups were directly involved through tailored interviews and two round of focus groups to investigate respectively needs and attitudes towards specific inclusive services. The **second round of focus groups meetings** was organised in order to assess the identified innovative transport solutions which may rectify the identified issues/improve the capabilities of the solutions and allow to understand to which degree these innovations might affect their behaviour.

The **technology acceptance model** (TAM) together with an impact assessment methodology allowed to appraise the different mobility solutions and to estimate the impact the mobility solutions have on the mobility behaviour of the different target groups.

The most promising (13, out of the 20 analysed in the previous step of the project) innovative mobility solutions were presented in focus group discussions with the final users. Those solutions include: Bürgerbus Aichwald, Fairfahrt, Welcome to Berlin Ticket, PickMeApp, Taxi Colectivos Beja, Buurtkar, Local Link, Dörpsmobil, Boleia, Fietsmeesters, Bummelsbus, Locomobile, ZOOV.

Except that some participants of the focus groups had some difficulties to imagine the usage of a transport service they haven't used before, there are some general conclusions which can be made on the user's perspectives for each target group in the study regions:

- **Elderly people** are not very confident about new technologies. They prefer "traditional" transport services. Trust plays a big role in choosing a transport service.
- **Refugees/Migrants** rely on transports modes other than the private car. Some of the participants have a limited travel budget and have to rely on PT, which is in some countries for free or available at a reduced price.
- **People living in remote areas** especially rely on fast/effective transport modes, so that they don't spend too much time commuting from one place to another and to have more time for the daily social needs.
- **Children** rely on their parents who have to drive them or on PT, which is the cheapest option. However, parents are not always available and PT is not always reliable. Some new mobility solution would provide them a safe door-door transport service at an affordable price.
- **Women**, who participated in the focus groups, were more concerned about the mobility needs of other target groups, especially for their children and elderly members of the family. They are especially concerned about the safety and assistance for the target groups and themselves.
- **People with reduced mobility** rely especially on door-to-door services with assistance. However, this could unfortunately not be observed during the focus groups. It was retrieved, that the understanding of mobility needs and habits is different in different study regions and mobility solutions have been adapted to these aspects.



- **People with low income or unemployed** rely especially on the fare and the payment system of the different transport services. In addition, they need flexible services, which in case they are looking for a job, they need to be mobile and flexible.

The insights from the fieldwork, together with the results of the TAM survey, allow to depict and contextualize some attitudes of vulnerable groups towards new mobility services.

It has become clear, from this crossed qualitative and quantitative analysis, that **dimensions such as trust are really key relevant factors in the future take-up of a service**. Indeed, most of the new mobility services are perceived as not reliable due to the fact that they are not “regulated” nor directly supported by public services. Involvement of the public service seems to be of paramount importance to this respect. And as public institutions become involved in the management of the new and innovative services, they are also called to make **fares affordable, adapted to our vulnerable groups’ characteristics and legislated according to public service obligations**.

Considering that there is not much experience in evaluating the perceived impact that new services can bring to deprived areas and vulnerable groups, **the knowledge gained here is important to facilitate the surge of new evidence-based policies, capable of tackling transport poverty**. This is a significant advance and an asset that HiReach offers to the research community and decision-making bodies. However, it needs to be considered that the analysis is only based on a very small number of answers gathered during the focus groups and the TAM, which means the study regions do not stand representative for the whole countries or the whole vulnerable groups/population.

All in all, this ex-ante and comprehensive evaluation from the user's point of view has provided meaningful hints for successfully implementing new transport schemes. It can pave the way for a successful ideation of new services and successful trial demonstrations. It can also trigger a reflection about the ideal contextual framework for every type of service and the identification of the social groups that could welcome better solutions that will be accelerated in coming phases of the project.

# 1 Introduction

This chapter introduces the purpose and scope of the Deliverable, within the workflow of HiReach Work Package 3 (Identification of new mobility options and business models). It also indicates the whole document structure and anticipates the content of each chapter in order to help the reader move through the document and understand better its relevance within the HiReach project.

## 1.1 Purpose and scope

HiReach is a three-year EU-funded Horizon 2020 project that aims at eliminating transport poverty by generating new mobility solutions that reach low accessibility social groups and areas.

This deliverable is part of Work Package 3 (WP3) that consists in the "Identification of new mobility options and business models". This work package has a pivotal role in the HiReach workflow as it embeds the activities of the second step of the project ("Explore"), bridging the first step ("Analyse", directly linked with WP2 – Analysis of mobility needs and capabilities) with the third and final one ("Develop", i.e. WP4 – Development of mobility solutions).

In this second step, HiReach has explored and critically assessed new, efficient, inclusive, affordable and accessible mobility solutions and public transport models, as well as existing innovative organizational and operational frameworks aimed at delivering such new mobility solutions.

The first output of WP3 was **Deliverable 3.1**, which analysed and discussed the reasons behind transport exclusion, allowing for a preliminary assessment of the limits and drawbacks of current supply of PT systems and other mobility services, in terms of inclusion and accessibility for the vulnerable social groups targeted by HiReach. Available mobility options were classified (publicly contracted, market-based, community-based services) and the challenges and limits of the current transport offer and frameworks were identified.

**Deliverable 3.2**, the final output of Task 3.2 (Analysis of case studies and best practices), researched a series of frameworks and mobility solutions from different geographical areas and countries, in order to identify case studies and best practices. This helped determining which aspects of these solutions lead to improved accessibility, better mobility and more equity in prioritized areas. Twenty case studies of innovative transport solutions were considered to understand their advantages and limitations.

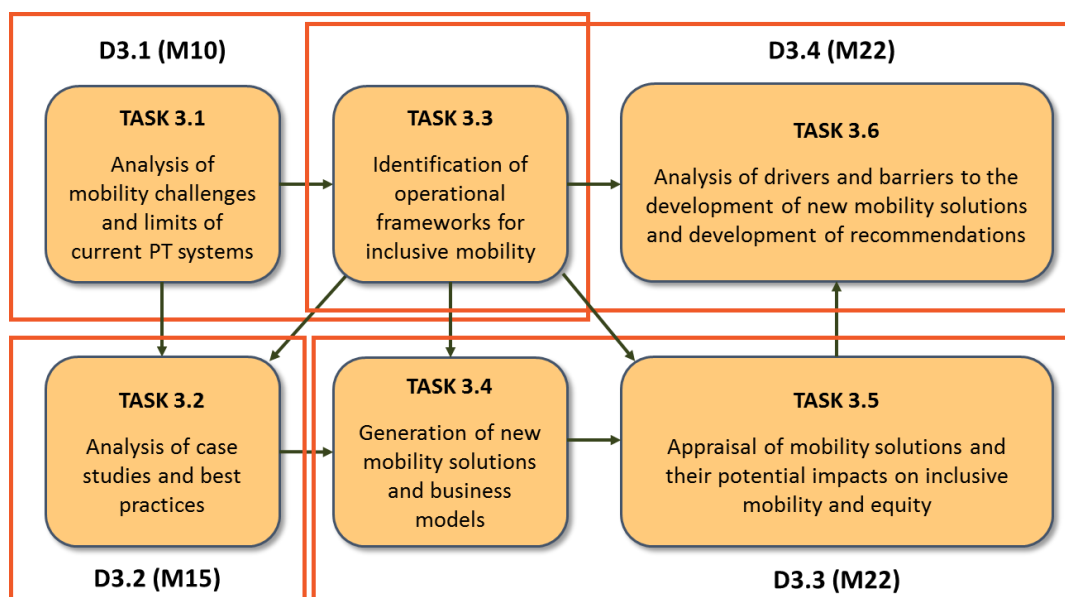
But HiReach aspired to go beyond innovative but already implemented or piloted experiences, to explore creative business models for the needs/problems identified while analyzing the targeted transport demand. To this end, a multidisciplinary workshop for European researchers, industry representatives, end-users and policy makers (at local, regional and national level) was organized.

This **Deliverable D3.3** complements D3.2 by appraising the selected mobility solutions and their potential impacts on inclusive mobility and equity. Focus group meetings in each of the six local study regions identified in HiReach were organised in order to assess the identified innovative transport solutions which may rectify the identified issues/improve the capabilities of the solutions and allow to understand to which degree these innovations might affect their behaviour.

Using the Technology Acceptance Model (TAM) in these focus groups allowed to estimate the acceptance of the innovative solutions on the wider social groups, the change of behaviour, and the expected impacts on inclusive mobility and equity.

Together with the analysis of the organisational frameworks and expert analysis of the case studies, this led to a full appraisal of the mobility solutions and estimation of their impacts on inclusive mobility and equity.

**Figure 1-1: D3.3 in the workflow of HiReach WP3 (Identification of new mobility options and business models)**



Source: Own elaboration

## 1.2 Structure of the document

This deliverable is organized in six chapters and three annexes.

**Chapter 1** introduces the content of the document, its scope within the HiReach project and its connection to the other deliverables and to the entire WP3.

**Chapter 2** summarises the set of inclusive mobility solutions that have been explored by HiReach in previous steps of the project. First of all, an overview of the 20 case studies that have been analysed in Task 3.2 (Analysis of case studies and best practices) is presented, providing a brief description of the service and the targeted user groups. Then, the

creative business models that have been sketched during the HiReach Multidisciplinary Ideation Workshop, which was held March 27<sup>th</sup> and 28<sup>th</sup> 2019, are described. The aim of this workshop was to design and implement new products, services, and solutions to tackle transport poverty and make mobility more inclusive.

In **Chapter 3** the methodology for the impact assessment of inclusive transport solutions is presented. That is based on a Technology Acceptance Model (TAM) survey, administered in the six HiReach study regions, where a second round of focus group session was organised to investigate respectively needs and attitudes towards specific inclusive services.

**Chapter 4** includes the results of the fieldwork by describing the user's perspectives on innovative mobility solutions. 13 out of 20 innovative mobility solutions were presented in the different study regions. Participants were eager to discuss about their mobility needs and which mobility solutions would improve their needs. The outcomes of the discussion are described in details in this chapter for each study region, target group and mobility solution considered.

**Chapter 5** presents the impact assessment of new mobility solutions on inclusive mobility and equity. First of all, a summary of the main problems felt by each targeted user group and the foreseen impacts that the new services can introduce in their daily life is provided. This is based on the elaboration and interpretation of the outcomes of the second round of fieldwork (focus group sessions) in the HiReach study regions. Moreover, based on the results from the TAM survey, the way in which individuals subjectively perceive the contribution that new mobility options will bring to their daily life is analysed both at the aggregated and at micro-level. Strong indicators for the services' robustness to what concern its convenience against people's concrete travel needs are indicators of behavioural intention to use a service and future-looking impacts in terms of transport take-up and future use

**Chapter 6** present the summary and conclusions of the estimation of the potential impacts on inclusive mobility and equity of the explored solutions.

The **Annex** includes the "personas" which were presented during the ideation workshop. In addition, the list of focus groups conducted in the different study regions and the results of the TAM questionnaire are attached.

Apart from the **authors of this deliverable**: Patrick Van Egmond, Joanne Wirtz (LUXM), Vasco Reis, André Freitas (TIS), André Marquet (PRO), the following partners contributed to this Deliverable by **performing the fieldwork in the respective countries**: Tobias Kuttler (TUB, Germany), Cosimo Chiffi, Stefano Borgato (TRT, Italy), Patrick Van Egmond, Joanne Wirtz (LUXM), Dariya Rublova, Akrivi Vivian Kiousi, Mariza Konidi (INTRA, Greece), Vasco Reis, André Freitas, Fátima Santos, Daniela Carvalho (TIS, Portugal), Valentin Iordache and Andrei Gheorghiu (UPB, Romania). The HiReach project expresses its gratitude to all the contributors.

## 2 Background

This chapter summarises the set of inclusive mobility solutions that have been explored by HiReach in previous steps of the project. First of all, an overview of the 20 case studies that have been analysed in Task 3.2 (Analysis of case studies and best practices) is presented, providing a brief description of the service and the targeted user groups.

Then, the creative business models that have been sketched during the HiReach Multidisciplinary Ideation Workshop, which was held March 27<sup>th</sup> and 28<sup>th</sup> 2019, are described. The aim of this workshop was to design and implement new products, services, and solutions to tackle transport poverty and make mobility more inclusive.

### 2.1 Inclusive mobility solutions: the handpicked case studies

As described in HiReach Deliverable 3.1 (Chiffi et al. 2018), three main clusters of mobility options and services have been analysed as fields of application for inclusive mobility.

**Publicly-contracted transport services** are delivered by public transport operators or local businesses (e.g. taxi companies receiving subsidies in rural areas), but may also be directly organised by a public entity (own-account services include for example transport of people with temporary or permanent disabilities operated by rehab centres or hospitals, or transport of pupils operated by the school). Adaptations and overall improvement of conventional public transport (typically scheduled bus and rail services) can make these services better “fitted for all”. On the other hand, quite often special and dedicated services are organised and funded by public authorities: school buses, door-to-door minibus/van services for people with disabilities or healthcare needs, but also demand responsive transport (DRT) services in low density and rural areas or in off-peak times.

**Market-based mobility services** are of a commercial nature, with the objective of resulting in a profit to the entity that owns it or has invested in it. This includes more traditional options like on street taxis and pre-booked private hire vehicles (PHV), but other solutions are nowadays offered as well by vehicle sharing and ride hailing companies that can directly or indirectly operate a fleet. New business models have been developed within the so-called shared economy paradigm, facilitated by technology advancements (i.e. ride-hailing services organised by the so called Transportation Network Companies or TNCs).

**Community-based mobility options** include community transport services provided by non-profit entities receiving minimum subsidies (e.g. in rural areas or for special transport services), informal or peer-to-peer ride-sharing (carpooling), shared “village cars” or peer-to-peer car sharing and community-owned bus services often referred to as “citizen buses”.

Following this classification, **20 handpicked innovative transport solutions** implemented in different regions and countries in and outside the EU were subsequently analysed in HiReach Deliverable 3.2 (van Egmond et al. 2019) considering their organisational and operational frameworks, the business potential and how each solution can be transferred

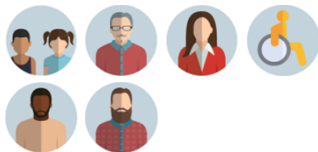

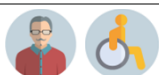
to other regions, embedded technologies and interoperability rules and aspects related to social innovation.

Four domains have been considered as relevant elements of innovation and used for both the selection and the assessment of the case studies. Such domains are:






- Implementing new organisational and/or business models, including back-office solutions that assure a better integration or exploitation of the offered services: **Integrating** new organizational and business solutions.
- Providing services or developed strategies that help to upgrade the image and attractiveness of the present public transport offer and other mobility options: **Upgrading** the present service offer.
- Enabling technologies (ICT solutions) and interoperability rules that increase the access and usage of the services (e.g. real-time booking systems, integrated ticketing, multimodal travel planners, etc.): **Augmenting** the existing services.
- Developing new forms of transport services based on sharing economy and community-based principles that allow for more efficient use of the means of transport: **Sharing** solutions.






Each case study's main characteristics are hereafter briefly described.







**Table 2-1: Details of HiReach case studies and potentially targeted vulnerable user groups**


CASE STUDY	TYPE OF SERVICE AND DESCRIPTION	AREA	VULNERABLE USER GROUP
<b>1. Boleia</b> (Portugal)	<b>Ridesharing/car-pooling platform</b> Developed by a small Portuguese company, Boleia distinguishes itself by not receiving any commission payment from the final users. Its business model is orientated towards big employers, cities and events with whom Boleia collaborates to offer tailored platforms.	Rural, Peri-Urban, Urban	
<b>2. Bummelbus</b> (Luxembourg)	<b>Rural on-demand bus driven by unemployed people</b> Bummelbus is a combination of a social project and a mobility service offering door-to-door trips in rural Luxembourg by means of on demand minibuses. Long-time unemployed people are coached and employed as drivers.	Rural	
<b>3. Bürgerbus Aichwald</b> (Germany)	<b>Community bus for elderly people</b> The German Bürgerbus (Citizen Bus) is a community transport scheme existing since 1985 that fulfils a complementary role in the public transport system and cater for situations of low demand. It is operated with volunteer drivers (usually retired people).	Rural	



CASE STUDY	TYPE OF SERVICE AND DESCRIPTION	AREA	VULNERABLE USER GROUP
<b>4. Buurtkar</b> (Belgium)	<b>Mobile shop and social service centre</b> The Buurtkar ('neighbourhood cart') is a mobile shop and service centre in the municipality of Bornem. People come to the Buurtkar to buy (fresh) food or other goods but can also find an ATM and receive information on local public services. The driver is a civil servant of the social department and also brings groceries inside or helps with small tasks in the house.	Rural, Peri-urban	
<b>5. Dörpsmobil</b> (Germany)	<b>Community e-car/Car club</b> The "Dörpsmobil" (village car) is an e-car sharing solution launched by the Mayor of the small municipality of Klixbüll. The service is being used by all members of the founding carrier organization (a registered local association): residents, employees of local companies and the municipality as well, which guarantees a minimum usage of the vehicle in order to sustain the scheme.	Rural	
<b>6. Fairfahrt</b> (Germany)	<b>Rural ridesharing platform making use of fixed and virtual stops</b> Fairfahrt (fair-ride in German) is organized in and around the rural area of Hessen in Germany. Car drivers on their way to a specific place can pick-up persons at one of the five designated stations and offer them a free ride. Riders have to register first and receive an ID card allowing them to request a ride at one of these five stations.	Rural	
<b>7. Fietsmeesters</b> (The Netherlands)	<b>Cycling training program</b> Fietsmeesters has the goal to achieve safer cycling through the organization of workshop at schools, practical cycling lessons and cycling education. The initiative is specifically targeted at children, migrants (especially women), and elderly people. It is operated in the city of Utrecht, in the Netherlands.	Urban	
<b>8. FlexTrafik</b> (Denmark)	<b>Demand-responsive transport scheme</b> FlexTrafik is a demand-responsive transport platform in Denmark that collects and coordinates the ride requests of all those citizens who do not have the opportunity to use regular public transport. It is a demand-driven service meaning that it is organized according to the users' needs and does not follow a fixed route plan.	Rural, Peri-urban, Urban	

CASE STUDY	TYPE OF SERVICE AND DESCRIPTION	AREA	VULNERABLE USER GROUP
<b>9. GoOpti</b> (Slovenia)	<b>Shared airport transfers (ride-hailing service)</b> GoOpti is a demand-responsive transportation network that provides a matching to passengers requiring a transfer (shared, private, or customized) between airports and smaller towns/cities. The service was launched in Slovenia and currently operates in several European countries.	Rural, Peri-Urban, Urban	
<b>10. GoOV APP</b> (The Netherlands)	<b>Public transport smart travel assistant</b> GoOV is an app that supports independent travel with public transport, acting as a smart travel assistant. The app helps travellers (especially people with a disability, but other groups may also find it helpful) in every step from trip origin to destination, providing detailed route navigation and up-to-date dynamic public transport information. GoOV also offers the opportunity to continuously monitor (actively, or passively) users requiring further guidance.	Rural, Peri-Urban, Urban	
<b>11. Local Link</b> (Ireland)	<b>Rural transport scheme</b> Local Link is a rural transport program in Ireland, since 2002. The scheme provides a year-round transport service in sparsely populated areas, where public transport stopped operating due to low levels of demand. The service has nearly 900 drivers serving almost 2 million passengers in 17 separate administrative areas.	Rural	
<b>12. Locomobile</b> (Belgium)	<b>Social taxi</b> Locomobile is a social taxi service that offers a service at an affordable price, compensating the insufficient offer of public transport in certain areas. The service is available in 19 different municipalities in the province of Luxembourg, in Belgium.	Rural	
<b>13. PickMeApp</b> (Italy)	<b>Ride-hailing service</b> PickMeApp is an on-demand transport service that offers a mobility solution specifically tailored to children, elderly, and disabled people. It offers a door-to-door service, with online booking and payments, and GPS traceability through a special bracelet. The service currently operates in the Italian cities of Potenza and Salerno.	Peri-urban, Urban	

CASE STUDY	TYPE OF SERVICE AND DESCRIPTION	AREA	VULNERABLE USER GROUP
<b>14. Pink Taxi</b> (International)	<b>Marketplace platform for women-only taxi services</b> Pink Taxi is a marketplace platform for women-only taxi services that was launched in London in 2006. The idea of the service is to provide a safe transportation option to female passengers and to empower their role in society. The service uses innovative technology and relies on blockchain for its implementation.	Urban	
<b>15. Transport a la Demanda in Catalonia</b> (Spain)	<b>Demand-responsive transport scheme</b> Transport a la demanda (TAD) consists of different demand-responsive transport services in Catalonia that are implemented in low demand areas. More than 200 services are currently operated and supported with public funding by the region.	Rural, Peri-Urban, Urban	
<b>16. Taxi Colectivos Beja</b> (Portugal)	<b>Shared taxi</b> Beja is a collective-taxi initiative offering a mix of fixed and on-demand routes and schedules deployed by taxis. The service operates since 2000 in the municipality of Beja, in Portugal.	Rural, Peri-Urban, Urban	
<b>17. Uber</b> (International)	<b>Ride-hailing service</b> Uber is a worldwide well-known ride-hailing service, that provides transport on demand through a driver-passenger matching platform. The service operates only in certain cities and differs from a taxi service mainly for two reasons: the cost is estimated beforehand and the price for the customer depends on the current supply and demand.	Peri-Urban, Urban	
<b>18. Village House Service Centre</b> (Finland)	<b>Community service centre</b> Rather than a proper transport service, the Village House is a centre that can accommodate different services provided according to the needs of the local inhabitants, who otherwise would have to travel to other places or larger communities. The Village House is located in Finland, in a small municipality near the border with Russia.	Rural	
<b>19. Welcome to Berlin Ticket</b> (Germany)	<b>Public transport ticket for refugees</b> The Welcome To Berlin ticket is a specific programme offering refugees the opportunity to use public transport upon their arrival in Berlin, Germany. The program	Urban	

CASE STUDY	TYPE OF SERVICE AND DESCRIPTION	AREA	VULNERABLE USER GROUP
	allows refugees to use public transport for free in a first stage. Later on, it offers a significant discount on the monthly fare.		
<b>20. ZOOV</b> (The Netherlands)	<p><b>Demand-responsive transport scheme</b></p> <p>ZOOV is a transport on demand service for people that do not have any other possibility to travel within the Achterhoek region, in the Netherlands. The service is operated by 40 vehicles, including cars, taxis and small buses mainly covering rural areas and small villages.</p>	Rural, Peri-Urban	

Source: Own elaboration

## 2.2 New mobility solutions and business models: the outcomes of the HiReach Multidisciplinary Ideation Workshop

HiReach aspires to go beyond innovative but already implemented or piloted experiences, to explore creative business models for the needs/problems identified while analysing the targeted transport demand. To this end, a **multidisciplinary ideation workshop** was organised and held on 27<sup>th</sup> and 28<sup>th</sup> March 2019 in Brussels.

The aim of the workshop was to design and implement new products, services, and solutions to tackle transport poverty and make mobility more inclusive. This was done using the Lean Service Creation (LSC) methodology, a design process, set of tools, and handbook that combines best practices of service design thinking, lean start-up, and agile development.

In the first day's plenary session it was introduced the HiReach project and provided background information about the workshop. On the second day, discussions delved into the challenges of designing new inclusive mobility solutions.

44 participants in total from 13 countries, including representatives of the HiReach project, the relevant Take-Up Group members, public authorities, transport operators and professionals, startups and entrepreneurs (selected by means of an open call), worked in 6 groups around the needs and places specifically developed **"Personas" from the six different HiReach study regions**: Sami from Germany, Victor from Romania, Konstantina from Greece, Maria from Portugal, Thierry from Luxembourg, and Giulia from Italy<sup>1</sup>.

<sup>1</sup> See Annex 1

These personas were developed from the inputs of fieldwork and research gained during WP2 (Analysis of mobility needs and capabilities) and WP3 (Identification of new mobility options and business models). Cross-linkages of several transport poverty layers result in the personas.

The “persona” is a technique commonly used in product development and management to represent typical lifestyles. In this case, the “personas” describe to which symptom of transport poverty (respecting the social and spatial context) they are exposed; they represent caricatures of the persons who participated in the first round of focus groups. The “personas” guide ideation processes and can help achieving the goal of creating a good user experience for the target group. In this case, the goal was to create mobility solutions suitable to their mobility needs.

The participants of the workshop had to choose one persona for which they wanted to create a new business model of a mobility solution. Using lean service development methodologies, they explored business ideas to reach low accessibility social groups or areas. Ideas that came out of this workshop should lead to projects that not only address specific mobility issues from unprivileged social and areas, but also work on a financially sustainable way.

**Figure 2-1: Group discussion during the HiReach ideation workshop**



Source: PRO



**Table 2-2: HiReach Ideation workshop agenda**

### DAY 1 - MARCH 27TH, 2019

- 17.00 - 17.30** Registration of participants
- 17.30 - 17.45** Introduction to the HiReach project (Stefano Borgato, TRT)
- 17.45 - 18.45** Problem context: vulnerable groups and inclusive mobility (Andre Marquet, Productized)  
*Participants are expected to get familiar with the issues related to transport poverty and inclusive mobility affecting multiple vulnerable groups of people. Storyboards pinned on the walls will help participants empathizing with such problems.*
- 18.45 - 19.30** Pitch Yourself and Team Building (All)  
*Participants will introduce themselves and explain what they can bring to the discussion on inclusive mobility. Multiple teams are also created in preparation of the next day's working sessions. Each team will be composed by mobility experts, transport operators, Startupper, public authorities, and vulnerable groups representatives.*
- 19.30 - 20.30** Social time with banquet dinner

### DAY 2 - MARCH 28TH, 2019

- 08.30 - 09.00** Welcoming coffee
- 09.00 - 09.15** Introduction to Lean Service Creation (LSC) methodology (Rafael Daron, Productized)  
*This methodology represents a design process, set of tools, and handbook that combines best practices of service design thinking, lean start-up, and agile development.*
- 09.15 - 09.30** Lightning talk on inclusive mobility in Europe (Cosimo Chiffi, TRT)
- 09.30 - 10.45** Hands-on chapters session 1: Problem facing, Business goals & limitations (All)  
*In teams, participants will dive into vulnerable groups' needs, extracting insights that are valuable to design meaningful and useful solutions. Each table is invited to think about the size of market and business potential of the problems faced by the vulnerable groups.*
- 10.45 - 11.15** Coffee break
- 11.15 - 12.30** Hands-on chapters session 2: Concept ideation & Solution sketching (All)  
*This is the ideation phase where teams are expected to design early solutions, concept and value propositions having the vulnerable groups in mind. Using sharpies teams will also sketch a storyboard of their mobility service concept(s) (no particular drawing skills are required ☺).*
- 12.30 - 13.30** Catered lunch
- 13.30 - 15.00** Hands-on chapters session 3: Prototype creation (All)  
*Teams are invited to create mock-ups of their mobility service concepts and to run a small script of use case.*
- 15.00 - 15.30** Hands-on chapters session 4: Pitch presentations (All)  
*To conclude the day, each team will make a very short presentation of its final product with the support of the mock-ups just created.*
- 15.30 - 16.00** Wrap-up and greetings

Source: Own elaboration



The **mobility solutions designed for each persona** are summarized in the table below; the full description can be found in the Annex I, while the respective video pitches are available at the HiReach YouTube channel:

<https://www.youtube.com/channel/UCMc4eQc55JymI2kOobbIGTw>

A photo album showing all produced materials and activities performed during the workshop is also available through the following URL:

<https://photos.app.goo.gl/M8ww4u94MZ67pMeP9>

**Table 2-3: Results of the HiReach Ideation Workshop**

PERSONA	PROBLEM	SOLUTION	POTENTIAL EFFECTIVENESS
<b>Sami from Germany</b>	Remote dwelling, racism, uncoordinated working hours	Worker´s (with similar issues) P2P transport community. Creating transport service carrying people to the city´s hubs. Lobbying for structural changes (more "normal" working hours)	The service might solve some of the problems faced by our persona.
<b>Victor from Romania</b>	Inability to travel to the desired/required destinations, due to lack of money (to use an available service, like public transport or taxi), and lack of knowledge (vision) to group with similar persons to create a ride sharing scheme.	Platform to share all the possibilities (including ride sharing options), managed by the public transport operator, will help gather information about the desired routes, destinations, and will even be capable to indicate the best location of ticket vending machines	Solves most relevant problems of our persona.
<b>Maria from Portugal</b>	Maria is an old lady, living in a small village near Guarda. Often, she needs to go to Guarda to attend medical appointment, shopping or visiting her grandchildren.	A platform which aggregates all transport services existing in the municipality. These transport services include regular public transport service, private transport services (i.e., social institutions transport services), and taxis. People could use the platform to book the journey	Solves most relevant problems of our persona.

PERSONA	PROBLEM	SOLUTION	POTENTIAL EFFECTIVENESS
		and a transport service would be attributed to people.	
<b>Thierry from Luxembourg</b>	Long distance or time due to bad PT connections between home-work and high cost and unsustainability of commuting by private car, along difficult communication or coordination with other commuters.	App to allow people from the Bastogne area to share a segment of their daily commute to work. The idea is to utilize a shared mode of transportation to reach more efficiently and more economically a major public transportation hub. Once arrived at the hub, the commute to work should be ideally completed using public transit that should offer a reliable and strong service to Luxembourg City.	Solves most relevant problems of our persona.
<b>Giulia from Italy</b>	Giulia lives on a wheelchair and works at home. She is very dependent on the Agenda and availability of her relatives and friends because she cannot move alone. She faces several physical barriers in the city. Also she cannot use public transport because this is not accessible and available in the area where she lives.	Combination of a door-to-door flexible transport service (provided by a professional driver/operator), a ridesharing platform (accessible also to PRM) and an incentive scheme for people who can offer them a lift. Info-mobility and training are two other key elements. The core is the App Felicity that can show to Giulia all available options for a certain trip from A to B: these are accessible PT services (buses, trains), available public cars if any (i.e. adapted/equipped cars that she can drive), the flexi service and the ridesharing platform where she can ask for a lift.	Solves most relevant problems of our persona.
<b>Konstantina from Greece</b>	Konstantina, is dependent on her parents, so as to	A MaaS approach in which the public administration, private initiative as also	Solves most relevant problems of our

PERSONA	PROBLEM	SOLUTION	POTENTIAL EFFECTIVENESS
	meet her extra-curricular activities and this is becoming extremely difficult for all. She is totally dependent on others so she is struggling so as to do something she likes.	social initiatives (carpooling) could be mingled into an integrated MaaS for all. Such MaaS would consider the on demand aspect and offer specialised solutions based on the needs of special groups.	persona.

Source: Own elaboration

### 3 Methodology

In this chapter, the methodology for the impact assessment of inclusive transport solutions is presented. That is based on a Technology Acceptance Model (TAM) survey, administered in the six HiReach study regions, where a second round of focus group session was organised to investigate respectively needs and attitudes towards specific inclusive services.

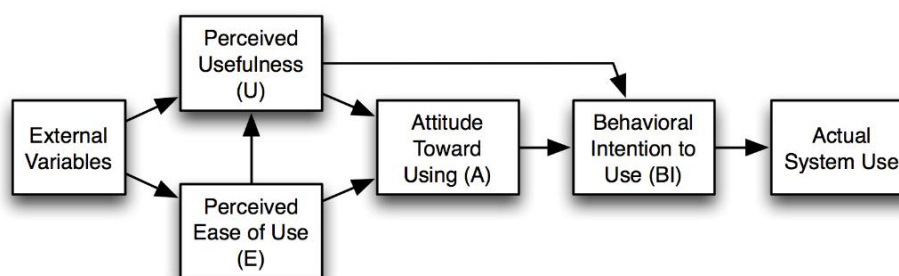
#### 3.1 Technology Acceptance Model

The assessment of the impacts on inclusive mobility of the innovative transport options considered by HiReach was based on the Technology Acceptance Model (TAM).

The TAM allows to understand how users come to accept and use a technology or a service. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it, notably:

- **Perceived usefulness (PU)** "the degree to which a person believes that using a particular solution would enhance his or her situation".
- **Perceived ease-of-use (E)** defined as "the degree to which a person believes that using a particular solution would be free from effort".
- **Attitude towards using (A)** represents individual's evaluative feelings, if positive or negative, when performing a particular behaviour (Ajzen & Fishbein, 2000 in Ng, Shroff&Ping 2013, 356). It has been identified as a factor that guides future behaviour and as an intentional cause that ultimately leads to a particular behaviour.
- According to the model, a user's perceptions of a system's usefulness and ease-of-use result in a **behavioural intention to use (BI)**, or not to use, the system (Davis, Bagozzi, & Warshaw, 1989; Nov & Ye, 2008 in Ng, Shroff&Ping 2013, 356).

Figure 3-1: Flow chart of the Technology Acceptance Model



Source: Davis, Bagozzi & Warshaw 1989

This model is applied to the main spatial-social layers identified by HiReach (i.e. low income and unemployed, elderly people, people with reduced mobility, women, migrants and ethnic minorities, children and young people, people living in rural and remote areas).

With the help of **dedicated questionnaires submitted during focus groups meetings**, it is possible to estimate the degree of transferability and determine the potential use of the presented solutions beyond the setting. The TAM indicates the extent to which the use of a mobility option is likely to change the travel behaviour (carpool more, use PT more, drive car less). In addition, it helps to understand the factors/features of each mobility solution which are most important in influencing their intention to use the service. It also helps to identify if there are any differences in factors influencing traveller's intention to use the specific service (and the subsequent changes in travel behaviour) by gender, age, mode of travel, purpose of trip, familiarity with smart phone technology etc.

TAM explains the motivation of users by three factors: perceived usefulness, perceived ease of use, and attitude toward use. Therefore, not only behavioural intention to use would be contained in TAM but also, two chief beliefs like perceived usefulness and ease of use have considerable impact on attitude of the user. These can be determined as an unfavourableness and favourableness toward the system. TAM is probably one of the most widely cited models in the field of technology acceptance.

Since TAM ignores the social influence on adoption of technology, it has some limitations. Besides, some variables as external variables need to be added to TAM to provide more consistent prediction of system use. Since the intrinsic motivations are not addressed in TAM, its ability to apply in a customer context where the acceptance and use of information technologies is not only to achieve tasks but also to fulfil the emotional needs may be limited (Taherdoost 2018, 963).

During the fieldwork (see next section), the participants from vulnerable to exclusion groups were asked to fill a **TAM survey** which contained several questions related to the selected innovative solutions, which could be separated into two sections:

- The **first section** included questions related to perceived ease of use, perceived usefulness, experience and trust. There were also questions on intention to use and impact of use. To answer these questions, the respondent needed to have a feel for what the service/product can offer them and how it will look.
- The **second section** asked for information about the participant and their current travel habits. This included questions on age, gender and a series of questions related to their most frequent journey (purpose, time of day, origin/destination, distance, travel time and main mode of transport). If the participants were asked to use a specific technology, they were asked to describe their level of comfort using smart phone app technology and to identify what would motivate them most to change their travel behaviour.

The **TAM has some limitations**. The first one is that the underlines of behaviour cannot be reliably quantified in an empirical investigation, due to a number of different subjective factors such as norms and values of societies and personal attributes and personality traits (Ajibade 2018, 4). In addition, it is problematic to measure behaviour, as hidden personality traits often motivate behaviour. Accordingly, potential users of technology may not necessarily base their acceptance and willingness to use new technology on

their perceptions of its usefulness and how easy it is to use, although the model does suggest that there may be other external factors which could be responsible for their acceptance of the technology (Ajibade 2018, 5).

Another limitation of the TAM is that it is not the end point of technology introduction. It does not measure the benefit of using a technology. Technology is usually used in order to improve working practices in some way, like the quality or timeliness of services. Thus, measures of technology usage (subjective or objective) are themselves surrogates for measures of technology value (Turner et al 2010, 471).

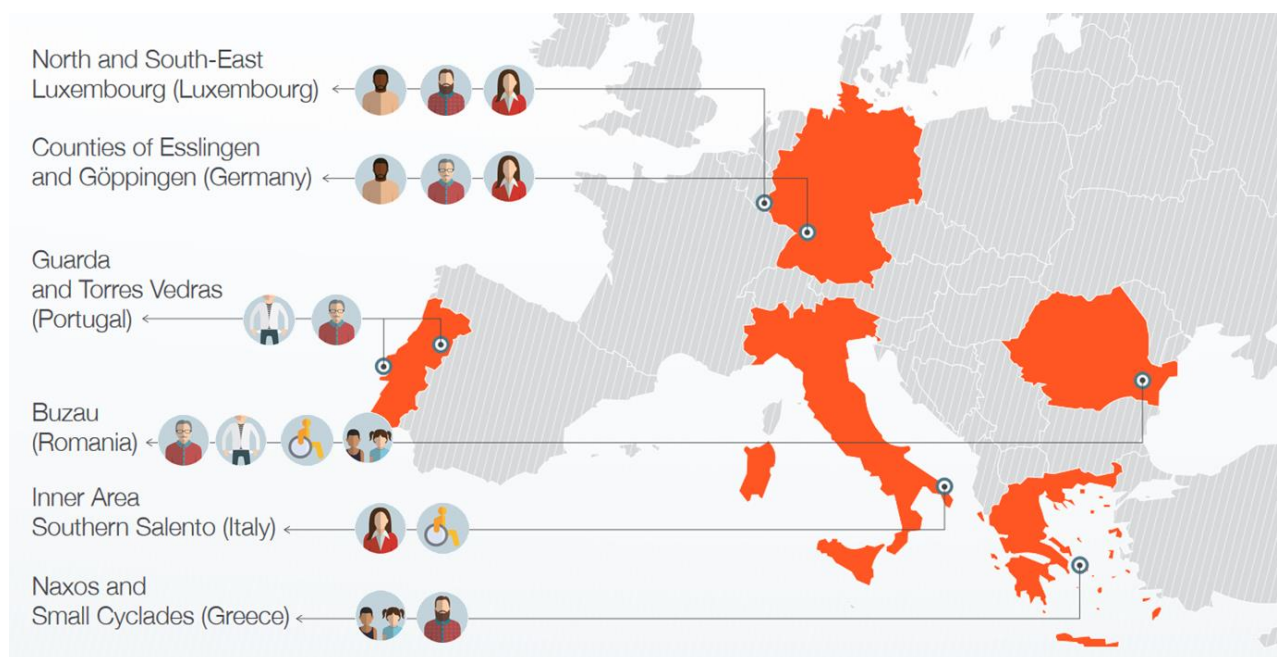
Besides the general limitations of the TAM methodology, the application of the TAM in HiReach was not used to assess the impact of a technology, but more the attitudes and perceptions towards the use of a certain selected innovative mobility solution. However, it allows to see how participants respond to the questions on the potential use of a service, even if for some participants it is difficult to imagine a certain service or to understand the questions.

Whenever occurred, limitations of conducting the TAM in the study regions will be explained in specific sub-chapters of Chapter 4, reporting on user's perspectives on innovative mobility solutions in the HiReach study regions.

### 3.2 Second round of focus groups

HiReach has conducted **fieldwork activities in six study regions having different spatial characteristics and involving different vulnerable groups in Germany, Luxembourg, Italy, Portugal, Greece and Romania**. Local actors, stakeholders, experts and user groups were directly involved through tailored interviews and two round of focus groups to investigate respectively needs and attitudes towards specific inclusive services.

**Figure 3-2: HiReach study regions and targeted social groups**



Source: Own elaboration



The **second round of focus groups (FG) meetings** was organised in each of the local study regions in May-June 2019 in order to assess the identified innovative transport solutions which may rectify several issues of transport poverty identified during the previous steps of the project. The focus groups were also the occasion to see how the previously identified solutions fit to the vulnerable target groups and prioritized areas, as well as to allow to understand to which degree these innovations might affect their mobility and behaviour and contribute to their inclusiveness.

The outcomes of the focus groups enabled the HiReach consortium to estimate the acceptance of the innovative solutions by the wider social groups, as well as to estimate the expected impacts on inclusive mobility and equity.

For this means, a TAM survey as described above was applied, which is used to gauge traveller's intention to use the specific service/product and to identify the factors which influence their attitudes towards using this service/product.

Each concerned HiReach partner (site manager) was asked to organise **two focus groups as to say one for each of the main vulnerable users group categories selected during the first round of focus groups** (for example one focus group with only elderly people and one focus group with women, if these were the two main categories during the first round). The recommended number of participants for one focus group was 6 to 10.

Each site manager was asked to **select four mobility solutions from the pool of twenty good practice case studies previously analysed (see section 2.2 above) and/or the six new mobility solutions developed during the multidisciplinary ideation workshop (see section 2.3)**. It was possible to choose e.g. one of the six new mobility solutions developed during the workshop and three of the selected case studies.

Each site manager was asked to justify the four mobility solutions chosen. This was done by mentioning why they chose a mobility solution for a specific vulnerable target group. In addition, they had to mention which maturity level the case studies have. If the selected solutions hasn't been further developed (as it is the case of the solutions ideated during the multidisciplinary workshop), it had to be indicated with a low maturity level. If the case study is well developed, it had to be indicated with an advanced maturity level. The overall goal was to have as much as different case studies attributed for analyses.

**During each of the focus group meetings, two solutions were presented.** After a general introduction the first solution was be presented. Following the introduction, each participant filled in individually a TAM survey questionnaire, and then the presented solution was discussed among the focus groups participants. Then the second solution was presented. A second TAM survey questionnaire was filled followed by a short discussion on the second solution. The main aim of the TAM survey and the following discussion was to understand their potential familiarity with the presented innovative mobility solutions as well as their attitude towards them in terms of usage and usability.

If the site managers chosed one of the six solutions developed during the workshop, the produced video on the HiReach Youtube channel should have been shown to the participants.

Before the focus group meetings, the different materials needed to be prepared. The site managers presented the participants a summary of the main findings of HiReach to date. This included the main findings of the previous steps of the project, including the findings of the first round of focus groups with the description of the "personas".

The site manager decided what to present to the participants before the focus groups. Therefore, some methodological flexibility was accepted. However, the material needed to be translated to the local language. Next to a possible translation of the introduction the following items had to be translated:

- The chosen mobility solution descriptions in the annex of HiReach D3.2 (Innovative mobility solutions: case study description and analysis),
- The “persona”,
- The TAM survey questionnaire,
- The consent form.

The focus groups were structured as indicated in the following table.

**Table 3-1: Structure of the focus groups (second round)**

STEP	DESCRIPTION	DURATION
1	Warm up with the entire group and tour de table.	15 minutes
2	Presentation of what has been done in the past year. If the site manager decided to depict problems found in the first FG, he could present the “Persona” with a translated version to the participants to get a feeling of other mobility problems and/or similar problems occurring in other territories.	15 minutes
3	Presentation of the first mobility solution (by the site manager or representative of the analysed case study). If it was possible, the participants could be shown the functioning or application of the service (if available) and let them use it. If there is no technology available, a video of the functioning of the service was another option. The moderator was asked to present the overall concept and was also expected to detail operation scenarios like: price, fleet, how participants plan, book, pay trips, etc. Otherwise participants are not able to understand how it will work.	20 minutes
4	The participants answered the survey individually. They were asked to answer to questions related to perceived ease of use, perceived usefulness, experience and trust. There were also questions on intention to use and impact of use.	10 minutes
5	The participants discussed in the group different aspects of how new mobility solutions might affect their behaviour. They were also asked to discuss about their impression/answers to the questionnaire and justify them. This led to a more in-depth co-creation/ideation session where features and other elements are added to the solutions.	30 minutes
6	Presentation of the second mobility solution.	20 minutes
7	Second round of filling of the TAM survey.	10 minutes

STEP	DESCRIPTION	DURATION
8	Second round of discussion on the second mobility solution	30 minutes
9	A final round of ideas/suggestions for future solutions closes the focus group meeting	20 minutes
10	Final thank you and indication that they will get a feedback on their inputs and outcomes of their work.	

Source: Own elaboration

The list of focus group session conducted is provided in **Annex 2**, while the (filled in) TAM questionnaires are provided in **Annex 3**.

### 3.3 Analysis and impact assessment of new mobility solutions

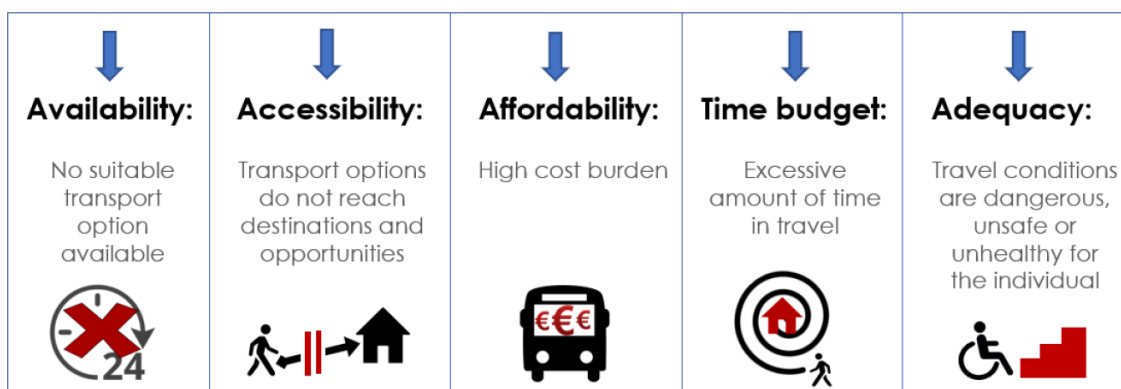
When analysing the case studies selected in D3.2, it has been realized that systematic evaluation of public transport in rural and deprived areas are rare.

**How then will it be possible to effectively conduct an evaluation of transportation services in our prioritized areas?** It is preferable to concentrate on the actual impact in meeting people's basic as well as social needs than on apparent factors contributing to success of transportation services.

It is wise to understand the current state-of-the-art and to briefly revisit the working definition of transport poverty in HiReach.

Transport poverty is a multifaceted phenomenon appearing in both advantaged and disadvantaged socio-economic environments. It is possible, for example, that individuals subjectively experience a form of transport disadvantage and subsequent social exclusion even with high socio-economic status. Transport poverty was more recently conceptualized in WP2, most notably in "D.2.1. Mobility in prioritized areas: mapping the field", where after extensive research project partners have come up with an adaptation of the renowned Karen Lucas definition, which "builds coherence in a scattered field of observation and it will be the starting point for all future discussions" (Kuttler et al. 2018, 14).

Figure 3-3: Conditions of transport poverty



Source: Kuttler et al. 2018, 14

To capture these different dimensions of transport poverty, the methodology of the analysis and impact assessment of new mobility solutions followed by HiReach is based on a **mixed approach**. This methodology combines answers from the question on how new solutions can impact positively in reducing perceived social exclusion, with the results sorted out from some key questions belonging to the TAM survey.

Effort to come to a good evaluation approach is that findings can become the basis for the development of new services and to identify relevant transfer-worthy success factors or, in turn, factors that can prevent services from failing.

One of the running EU projects whose focus lies in evaluation is **SMARTA (Rural Shared mobility project)**, which digests findings from previous related projects such as CIVITAS, MIND-SETS, CREATE, SUNRISE and other flagship and well-structured initiatives. SMARTA proposes an extensive evaluation plan, which was conceived in order to, “on one hand to come to useful understanding and conclusions at the level of the site, which is relevant for the local operators and authorities; and on the other hand to contribute in a strong way to the formulation of advices and guidance at the European and national levels on the future actions to support rural mobility” (SMARTA 2019, 2).

SMARTA evaluation framework is based on dozens of indicators classified in 13 categories, such as population density, ridership, quality of service offer, comprehensibility of transport services, among others.

When reflecting about the ideal evaluation approach for inclusive transport services, several mobility experts gathered in a SMARTA workshop considered that **“the most important evaluation criteria is probably whether people are happy/satisfied with the level of mobility services available”**. Another interesting, more objective, also overarching evaluation criteria is “accessibility to services and people” that enable rural residents to have a normal life (SMARTA 2019, 20). The latter aspect provides good hints for work beyond state of the art. It is thus crucial to **capture the ‘hidden’ social benefits**, e.g. contribution to maintain active healthy routines or guarantee that physical isolation is not followed by social isolation. These underlying social needs are often quoted as symptoms of transport poverty.

Unlike SMARTA, HiReach intends to use a partly different method to efficiently evaluate the contribution of new services and business models to transport poverty. This is done by

**collecting information and insights from two different datasets: on the one side, the TAM survey, on the other side the report produced by the rapporteurs and/or moderator of the focus groups about perceived impact assessment.**

Our methodology therefore consists of the following double layer approach:

- Identify the potential impact that new services can bring on different target audiences and contexts when compared to the conceptualization cited above (concise results from the individual fieldwork reports, which include also the final discussion with the participants) and understand to what extent other meaningful effects are likely to arise (indirectly or in the long-term);
- Measuring the likely direct and long-term impacts on mobility and accessibility as it is perceived by the target groups (results from the TAM surveys).

Results and evaluation findings can provide a precise and sharp description of the conditions and preconditions that need to be observed when analysing the feasibility of implementing innovative services to our social and territorial target groups.

## 4 Users' perspectives on innovative mobility solutions

The most promising (13, out of the 20 analysed in the previous step of the project) innovative mobility solutions were presented in focus group discussions with the final users in the six HiReach study regions. Those solutions include: Bürgerbus Aichwald, Fairfahrt, Welcome to Berlin Ticket, PickMeApp, Taxi Colectivos Beja, Buurtkar, Local Link, Dörpsmobil, Boleia, Fietsmeesters, Bummelsbus, Locomobile, ZOOV.

Participants were eager to discuss about their mobility needs and which mobility solutions would improve their needs; the outcomes of the discussion are described in details in this chapter for each study region, target group and mobility solution considered.

A final summary of the feedback and users' perspectives on each mobility solution in the different study regions is also provided.

### 4.1 Germany: Counties of Esslingen and Göppingen

#### 4.1.1 Elderly people

In Germany, one focus group was conducted with 8 elderly persons by presenting the citizen bus (Bürgerbus) and the Fairfahrt service. These solutions were chosen to compare attitudes of elderly towards two very different solutions, one with strong community involvement (citizen bus) and one with a strong focus on digital technology as facilitator of transport services. The session was conducted in Frickenhausen, in the county of Esslingen, a municipality with originally rural character, which today appears as a suburb of larger towns in the vicinity.

##### **Citizen Bus (Bürgerbus Aichwald)**

In the previous year, HiReach conducted two focus group sessions in towns/villages where citizen busses and voluntary transport services already existed. Mobility problems and the role of the citizen bus as a solution were discussed in these sessions. For this second round of focus groups, the municipality of Frickenhausen was chosen as a site. This municipality does not have a running citizen bus service yet, but is about to start one in October 2019.

The participants in the focus group were younger elderly (six below 75; two 75 or above), and every participant's household owned at least one car. The car was the main mode of transportation of participants in the session.

There was a more or less uniform statement from all participants that they think that **the citizen bus will be a great addition to the municipality's mobility system, and that it would be very suitable to travel within the different parts of the municipality** (one central village and two surrounding villages) because it will offer easy access to the main locations, which are supermarkets, doctors and pharmacies, the cemetery and - less important for intra-municipal travel - the train station. However, in the same uniform manner they highlighted that it was not a solution for *them* or *them* yet, because **they still are/feel young and drive their own cars/take public transport**. Hence, when they were talking about the future use of the citizen bus, they were more talking about a hypothetical use,



or usage of other persons, older people in the municipality they knew. Only one relatively young elderly participant, in a wheelchair, was concretely evaluating the new opportunities and discussing the pros and cons for his own mobility situation.

The discussion with the participants demonstrated that the success of a citizen bus is linked to the **trustworthiness and respectability of the organizers among the local population**. The citizen bus in Aichwald has been established upon an impulse from the municipality itself, with one representative of the municipality taking a leading role. Apart from that, several volunteers took active roles in setting up the system and promoting it in the municipality. All actors are well-known, popular and respected “honorarys” of the local community.

Several participants agreed that **travelling on the citizen bus will add extra costs to their travel budget**. The interpretation is difficult: it could correspond to the impact of an overall increase of travel due to availability of the citizen bus, e.g. for needs that were unmet before. Or it could mean that additional costs will amount because the people would maintain their car anyway and still use the car for most of their trips. Unfortunately, this point could not be clarified in the discussion.

As a conclusion, the **suitability of the citizen bus was largely confirmed by the participants**. They agreed in their evaluation that it will be successful. Also, it was voiced several times that the operation has not started yet, that naturally there will be a lot of faults and mistakes, and that the service will improve over time according to the people's needs and requirements. There is sufficient flexibility to change the operations and the design of the system, also in terms of regulations. However, transport laws also put restrictions on the service: the citizen bus in its current licensed form cannot offer flexible or additional rides, for example for certain popular cultural or social events in the municipality, such as the annual fairs etc. Also, the current license does not allow operation outside the municipality, e.g. to the neighbouring larger municipality, due to competition with the conventional public transport providers (train and bus). In the discussion, two participants questioned the suitability of the service due to these limitations.

**Figure 4-1: Focus group session with elderly people in Frickenhausen**



Source: TUB

## Fairfahrt

The Fairfahrt solution was met with **overwhelming negative reactions in the discussion**, corresponding to a largely negative evaluation in the survey. The survey shows that usage of the system itself was not the main concern of the participants: some stated that they think the system would be easy to use, and the majority even stated that the system's interface is clear and understandable. However, a majority responded that it would not improve their travel, and hence all participants responded that they would not use it on a regular basis, once available.

The survey and the discussion show that there is **a problem of trust in the drivers**. Only one participant slightly trusted that the drivers would bring the person to the destination attended. Especially the women voiced that they would never get on an unknown person's car. One female participant voiced: "When I was young, I was doing such things (=hitch hiking), but not anymore".

Hence, **personal safety and driver accountability was the primary concern**. The participants wondered why in the Fairfahrt system there was no obligation for driver registration at the town hall, while the riders have to register. Another concern was that there would be no guarantee that a ride would be actually offered and/or that the waiting times would be too long. Hence, the participants voiced that this service would be completely useless for one of their main trip purposes, which is doctoral appointments.

While highlighted as benefit in the presentation that the service was free-of-cost for riders, this benefit was not picked up in the discussion again, indicating **that travel costs are usually not the primary concern of the participating elderly**, much different to the refugees taking part in the second focus group in the German study region.

There was more or less a uniform opinion that **such a solution was not suitable for elderly people**, but for the young who have no safety and security concerns and are much more mobile in general. Such negative response took the responsible researcher by surprise, especially because the researcher thought that such a solution would be suitable in a rural municipality because most people know each other anyway, and informal ride sharing among neighbours and friends is very common.

The regional expert for citizen busses, who was present at the event as observer, clarified that the participants would not feel like living in closed, intimate communities, or at least that they do not have this feeling *anymore*, due to more and more people from other parts of Germany and also refugees migrating to the formerly quiet municipality, attracted by nearby employment opportunities in Stuttgart and other cities with industries and universities. This could lead to a subconscious feeling of confusion or even fear, which is usually not expressed explicitly, but could be the reason for the negative response on local/regional ridesharing that has little security and accountability mechanisms. The expert voiced his opinion that such local ridesharing would only be suitable in very remote rural areas where really everyone knows everyone.

### 4.1.2 Migrants and refugees

The second focus group was conducted with 13 refugees/migrants in the city of Esslingen (Neckar) by presenting the services "Welcome to Berlin Ticket" and Fairfahrt.

### **Welcome to Berlin Ticket**

The Welcome to Berlin Ticket was chosen because in the first round of focus group sessions with refugees, the participants voiced that ticket costs (both for single and monthly tickets) are the most severe barrier to their mobility, putting an enormous strain on their monthly budget. Many participants voiced their concern that a social ticket is not available to them, while it is available to fellow refugees in the city of Stuttgart and in the county of Göppingen. The decision to offer a social ticket (or a welcome ticket) usually is with the municipality or county.

The participants agreed overwhelmingly that a **Welcome Ticket in the first three months of their stay in Esslingen would have eased their arrival in the city, their everyday life and it would have been an easy way to explore the city/region and to get accustomed to public transport**. Regarding the travel time, some refugees confirmed that it would have reduced their travel time, since they mostly opted for walking and cycling in their early days in Esslingen due to not being familiar with the public transport system. Similarly, all refugees agreed that a Welcome Ticket in the sense of a monthly ticket at reduced price (half to 1/3 reduction, called "social ticket" in Germany) would improve their mobility.

To those refugees applicable, it was confirmed that a monthly ticket at a reduced price would **enable them to find a job or place of education more easily**, e.g. in Stuttgart or some other more distant place in the region. In the discussion, it became clear that for education (school, study, training) they have to travel long distances; but shopping, activities with children and other purposes are usually conducted within walking distance.

Given that 8 of the refugees had been living in Germany less than a year, it is remarkable that **almost all refugees stated that they are comfortable in using public transport** and that they understand how to use the system. However, some of them uttered that they are confused about the rules of the tickets, and that they had been in trouble with ticket inspectors (this confirms the findings from the 2018 sessions). Interestingly, almost all refugees were positive about travelling in public transport itself, and that they also interact with other passengers on the train or bus. Overall, participants expressed much appreciation for the existing public transportation offer in the region, while confirming the challenges identified in the 2018 sessions.

Most refugees stated that they would use public transport more often, and would travel more overall, if they had a price-reduced monthly ticket. This confirms that **mobility is severely limited by the financial constraints**, especially when it comes to leisure trips. Interestingly half of the participants stated that they would not walk or use their bikes less if they had a cheaper PT ticket.

Most refugees agreed that such a ticket would reduce their travel budget, and since expenses for mobility eat up a large part of their monthly budget, it would also ease their financial situation overall. However, some of the refugees uttered in the discussion that they were not really sure whether at the end of the month a social ticket would really be cheaper for them, because they would travel more overall. Also, the case of the Stuttgart social ticket was discussed, which offers a reduction of half the ticket price for monthly tickets for the inner zones, but for monthly tickets over larger distances, the reduction is less than a third. Hence, in such a pricing structure, those who travel large distances for work or education are disadvantaged.

Overall, the **response to the Welcome Ticket was very positive**, and the refugees stated that the Welcome Ticket would be highly suitable, both for the time when newly arriving in the city, and as a general social ticket with unlimited validity.

### **Fairfahrt**

As second solution, Fairfahrt was chosen for several reasons. First, as described above, due to high perceived costs for travelling on public transportation. Second, many refugees need to travel at odd times (late evening, early morning, weekends) for their jobs, or want to visit friends in other parts of the region where PT connections are less frequent or cumbersome with many interchanges. Third, from the 2018 sessions it was clear that refugees in Esslingen intensively use ridesharing for long-distance trips, such as BlaBlaCar, hence they could easily relate to the solution of Fairfahrt for local and regional travel. Fourth, the researcher's impression from the 2018 sessions was that refugees intensively use smartphones, so that a smartphone-based solution would be optimal for them.

Generally, the **participants stated that the Fairfahrt system is a good idea**, and that it would be a way to use ridesharing in the city and region. Most of the refugees had used BlaBlaCar, but services on this platform are usually not for short distance travel. Services/apps like FlixBus that focus more in short distance ridesharing, are not well known among the participants and not used. Also, they confirmed that in principle **a system like Fairfahrt would supplement PT at times with low PT frequency or low PT coverage**.

The majority of the participants understood how the Fairfahrt system works, and confirm that it would be easy to use in case it would be implemented in Esslingen. Except for two persons, all were experienced in using their smartphones for organizing travel, and had used services like BlaBlaCar before. Hence, they felt comfortable in understanding the system and are actually using the latter. This is supported by the statement of most participants that they usually enjoy ridesharing and interacting with other people while travelling. The participants highly appreciated that one of the explicit aims of the Fairfahrt system is to bring people together on the local/regional level who would otherwise not meet.

As travelling on Fairfahrt is free for riders, the service is attractive to refugees who have financial constraints. Hence, they highly value the Fairfahrt solution for its cost effectiveness.

However, the majority of the refugees questioned the practical suitability of the system in daily life. Being on time for appointments at the authorities, at the doctor's, at school or at work is of utmost importance, due to the constant (perceived or real) threat of losing jobs, or being reprimanded in any way. Since it is not guaranteed that a trip request will be answered by a car driver, or may be answered too late, the **refugees argued that it is not reliable enough for certain trip purposes**. Furthermore, as one refugee argued, since the service is on a voluntary basis, **drivers may reject a rider**, which is different to public transport services that are obliged to transport people (given a valid ticket is purchased). This could lead to uncomfortable situations, including acts of racism. One participant from Gambia highlighted how he had situations while being on a BlaBlaCar ride when he felt very uncomfortable. Other participants however highlighted that they had only good experiences with ridesharing.

To the refugees, the terminals provided in the original Fairfahrt solution seem not so necessary, since for them the system could run completely on smartphone basis.



Some of the refugees suggest that the Fairfahrt system should be developed in a way that the drivers at least receive a small incentive for offering rides.

Finally, the participants agreed that it could only be a supplementary service to PT. Since on most routes in the Esslingen, all buses are running minimum on a one hour headway (most run more frequently, trains minimum every 20 minutes), always a bus can be used if a request on Fairfahrt is not answered by a car driver. Also, the system may be useful in case the bus was just missed. The conclusion was that the more people start entering requests on the Fairfahrt system, and the more drivers start taking people along, the more effective the system would be.

**Figure 4-2: Focus group session with migrants and refugees in Esslingen**



Source: TUB

## 4.2 Greece: Naxos and Small Cyclades

### 4.2.1 Children and young people

One focus group has been conducted with 8 children aged between 12 and 16 years in Naxos by presenting the services PickMeApp and Taxi Colectivos Beija.

#### **PickMeApp**

All the children mentioned that this service gives them the **possibility to travel to the central villages or the town of Naxos** (for example for after-school activities, visiting friends, cultural activities, services, hospitals, etc.) It needs to be considered that school buses are subsidized by the regional authority and are for free for the pupils. However, the children made clear that they don't like that the school buses pass through many villages collecting pupils due to the fact that the route from the most remote places to school are too long and take too much time (up to 1 hour). Another issue which has been stated is that the school buses often have delays in so that they don't arrive to school on time. This also depends on the season (in summer there is more traffic due to a higher number of

tourists) and to the state of the roads. PickMeApp allows them to **travel faster and to arrive to school on-time**.

Children and teenagers in Naxos **widely use the Internet and IT applications**, so that they stated that they don't have any issues to use the application of PickMeApp. This would facilitate the adoption of a similar service on the island. However, the children were a bit sceptical about the fact that elderly people won't be able to use this application ("We can easily use mobile applications. But what about our grandparents?"). They agreed that younger relatives or neighbours could help them to use the application. In addition, they also like the possibility to pay online.

Children liked the fact they **will not depend on their parents' availability** to drive or pick them up from the after-school or other extracurricular activities and will have the opportunity to better socialize with other teenagers. As a result, parents will have more free time for them, without feeling stressed to catch up on everything. The parents also have the possibility to track their children's route in real time, which makes this service safe for children to travel and increases trust.

This solution seemed **very convenient as a door-to-door service and was welcomed by the children since it was very relevant and suitable for the case of Naxos**. The service is very competitive (in comparison to other transport modes available in the island) in terms of affordability and suitability of the on-demand service. Children stated that the PickMeApp solution is easy to apply, however there was a concern, regarding the new (financial) challenges of the Municipality of Naxos and whether such cost was feasible, also mentioned some operations provided by the municipality with private buses but of limited schedule.

**Figure 4-3: School in Naxos where the Focus group session was held in**



Source: INTRA



### **Taxi Colectivos Beja**

Since the residents of mountain villages in Naxos don't use taxis very often due to their high costs, the collective social taxis could be a good solution for their case. In general, the young participants are allowed to travel alone, which would allow them to use a service like Taxi Colectivos Beja, which is stated to be **easily useable** and which could be **used by them for their after-school and social activities**.

Moreover, they can **share taxis with their peers** while travelling to the same direction and **sharing the costs**, which of course reduces their travel budget. The costs seemed to be very important for them as they were asking if this service would be expensive and if they are able to afford it. For them the low costs sound attractive. However, the costs should be adjusted to the current bus fares in order to still be lower, as in Beja.

In addition, they state that the **routes should also be readjusted** to connect the small villages with the main villages as well as with the town of Naxos, as an alternative, with the main roads/central point where regular public buses can be taken (where buses implement regular routes many times/day). They want **more personalized transport solutions** with timetables and routes according to their needs.

A very interesting idea expressed from some children was that these solutions could also be **used for touristic purposes**. In addition, they mentioned that the Municipality could hire the existing rental cars during the low touristic period and they could be driven by unemployed residents of the island.

The subsidies paid to taxi-drivers can serve as a good motivation scheme for drivers to seek in signing a contract with the municipality for delivering such services to the public (e.g. in several hours/day basis) especially during the non-touristic seasons when their work is very limited.

### **4.2.2 People living in rural areas**

The service of Buurtkar, a mobile shop, and the citizen bus operated in Germany, were presented to 6 persons living in the remote mountain areas of Naxos.

#### **Buurtkar**

Buurtkar was chosen as a solution because it targets those who do not have cars or cannot drive which is very relevant for Naxos mountain villages case. Apart from replacing the need to travel, it offers opportunities for socializing and help with small tasks at home for those in need.

The participants in the focus groups believed that Buurtkar **would be really useful and would greatly serve the residents of Naxos rural areas if the costs would be affordable**. A grand advantage and a driving force for local communities is the fact that the service is self-financing and yields profits, it is supporting the local producers and offers employment opportunities to the vulnerable groups.

The solution seemed very relevant, if **adjusted to the needs of the residents** (e.g. the products that these villages cannot reach, as the clear majority of villages have small grocery shops).

### **Citizen bus (Bürgerbus Aichwald)**

The citizen bus seemed a solution that could fit well the mountain Naxos case, however with some adjustments.

The residents were in general interested in the mini-bus services with **affordable prices** that could **link the inland villages where they live with the main town and the port**, as well as the other important locations (e.g. schools, other places of interest). They also proposed that they could also link the inland villages with the bus stops on the main roads where the public buses services pass regularly. Then the total length of the mini-bus route would be much smaller in comparison to the connection with the main town. In addition, **the timetable and routes could be easily adjusted to the needs** of the residents given that the community of the possible users is rather small.

As the citizen bus in Germany is operated voluntarily by elderly people, an issue that was raised during the focus group discussion was that **volunteering is limited due to the fear of taking responsibility** and the fact that there is not an institutional framework to promote it.

Another interesting idea that was mentioned during the focus group discussion, was that the citizen bus could be **used for touristic purposes** as well, since it could have as sponsors tourism related businesses like hotels or restaurants ("Maybe hotels and restaurants would want to subsidize it in order to attract elderly tourists").

The participants in the focus groups believed that the citizen bus is a solution that could be more easily applied in Naxos case, however they find Buurtkar more practical and useful.

**Figure 4-4: Focus group session with people living in rural areas in Naxos**



Source: INTRA

## 4.3 Italy: Inner Area Southern Salento

### 4.3.1 Women

A first focus group was conducted with 6 women in Tiggiano by presenting the mobility solutions Local Link and Dörpsmobil. The Local Link scheme was considered a suitable alternative for the area. The facilitator presented in fact Local Link, PickMeApp, Boleia and Dörpsmobil as four alternatives asking the participants to select themselves the most interesting one. All of them identified immediately Local Link thus confirming the interest and need to focus the efforts on public transport first as emerged during the first round and the interviews.

To increase the number of involved people, a second focus group was also conducted in Tricase. There were 11 female participants with 2 under 18 years old and 2 elderly women. The core of the group was made of “active women” aged between 35 and 55 years. This condition was not only related to their working status (almost all of them being employed or self-employed) but also to their role in the community.

#### **Local Link**

In terms of usefulness, the answers ranged from being neutral according to its potential to reduce travel times to more disperse but still positive answers in relation to other elements like improvement of the PT offer and its quality. During the discussion the element of being **a service adapted and built around the effective needs/demand was particularly appreciated**. None of them had experience in using such kind of service, particularly for flexible/DRT services but also more in general of public transport. Reasons were identified in the total absence of a proper PT offer but also in the absence of information related to existing services that make participants unable to describe the current PT system.

For Local Link the characteristics of having one sole inclusive mobility solution instead of special services for other vulnerable groups (e.g. kids, disabled) was perceived as very positive in the discussion, particularly considering the fact that for such categories the service is totally free.

Respondents indicated **a substantial trust in the Local Link scheme** and this was confirmed also during the discussion when several positive elements of the service were highlighted, particularly in relation to the visual identity, clarity of the timetables and communication campaigns. In the discussion several opinions converged towards the service as typical PT offer (to be established and secured in its quality and standards by local authorities) allowing connection and interchange with other modes and particularly with local trains. Again, the debate highlighted the need and behavioural intention to use the service.

During the final discussion, a key point was the **overall governance behind the Local Link scheme, i.e. the local offices managed by the communities (volunteers-run)**: this aspect was seen as positive but not properly replicable in the local context because of a perceived scarce capacity of self-organization from the local communities (“it’s a very good approach and idea but we are not ready to cover these tasks and responsibilities”). They suggested that a Local Link Office could be more easily managed by some “intermediary bodies” like the Local Action Groups (GAL in Italian), public-private partnerships already existing in the region. This element was also linked to the fact that for a number of local services the local authorities already make large use of volunteers, often not properly recognizing the importance of their work. They argued local authorities

should guarantee proper funding and balance among professional and volunteer contribution to public services in general.

### **Dörpsmobil**

The solution of Dörpsmobil was evaluated very positively with reference to certain elements like the fact of being operated with an **electric car (environmental concerns) and the sharing principles behind the scheme (more community-based and not a commercial service)**. They considered this type of initiative as very positive in order to increase the sharing culture in the area and also because it transfers a good image and idea of local community (sharing items and collaborate/support each other). This can be confirmed also from the analysis of the answers related to perceived usefulness, usability and trust despite the fact that nobody used such kind of service in the past.

In relation to the impact of use, the answers revealed a more neutral attitude. This can be explained by the fact that all respondents are already car owners and users thus maybe less able to imagine themselves selling one of their cars to shift to car sharing. **The service was more evaluated as “additional” and not “substitutive”**.

Some mentioned the existence of a local commercial initiative called 4USMOBILE but remarked the element of the service to be very expensive and very far from the perceived convenience of Dörpsmobil. Another barrier in relation to its applicability to the area was seen in the **scarce availability of charging points in small villages**. Additionally, the managing scheme (i.e. the car club self-managed by the members) was seen as a barrier in the area despite the presence of a local authority.

The possibility of using the car sharing scheme also as “ridesharing” with someone available to drive and chauffeur was seen as positive particularly for elderly people. A direct reference to those persons not owning a car or not having its availability (e.g. because one sole car owned in the family) was made as **positive element to reduce social exclusion**.

**Figure 4-5: Focus group session with women in Tiggiano**



Source: TRT



## PickMeApp

The main element that can be highlighted is the attitude of women to evaluate and consider the key characteristics and advantages of PickMeApp not directly in relation to their primary needs but more considering **the needs of their kids and elderly members of the family** (this confirmed what already emerged during the first round of focus groups).

They appreciated a lot the **tracking bracelet as a tool for allowing autonomy for their kids**. Also in the case of young children and daughters, especially if they own and/or use mopeds (including those of friends), the female participants highlighted their concerns about safety issues ("I am particularly worried for them using the mopeds especially during the summer season... from Tricase to the sea the provincial road is very dangerous so that I prefer to chauffeur them everywhere").

Definitely the **flexibility of the service** was identified as its main advantage as well as the different functioning characteristics. It has to be underlined that elderly women confirmed their preference for the call centre instead of the App. On the contrary, no difficulties nor barriers were declared by the rest of the group.

Also, women being employed or self-employed declared their **willingness to use the service also for commuting trip** thus confirming the attitude of being not satisfied in their current intense car use (that is more a forced car use) as again emerged during the first round of the focus groups.

Elderly women confirmed that their **willingness to pay is very high**: the cost of their autonomy is considered to be fair according to the price list of PickMeApp. They declared that they could definitely be frequent users of the service.

When discussing about the service, several participants made reference to already existing ride hailing transport services (offered by private local operators) to pick up elderly people and people who are in particular health conditions from their homes to the very close thermal bath centre of Santa Cesarea Terme.

The service is sometimes managed in a very informal way (with people calling the operator by phone) also for certain trips to health centres and hospitals even if for some specific needs is the Local Health Service that can provide the transport option for free.

When looking at the questionnaires, answers confirmed a **positive evaluation of the perceived usefulness, the flexibility of the use and especially trust in the service** as it is organized and presented (they made reference to the drug test and constant checks of the affiliated operators from the startup). There was also a convergence in the final answers towards the effect of an increased mobility because of the introduction of PickMeApp in the area and definitely the prices offered on the market were not evaluated as a barrier or an increase in their monthly budget for transport.

As already described above, PickMeApp is seen especially by female elderly participants as a way for being more autonomous and independent for their mobility needs despite the fact this particular segment expressed no interest at all towards the digital components of the solution.

## Boleia

The suitability of Boleia revealed **different views** from the participants. They clearly knew BlaBlaCar and some of them declared they have also used the platform for long distance trips. One participant with a French husband highlighted the fact that he used carpooling in France also for short distance trips and that in general she thought this is linked to “the more pronounced sharing culture” in that country (“they have got used to sharing cars, bikes, etc. **it's matter of mentality and this is not the case here in Salento**”). This aspect confirmed what already emerged during the case study analysis in Deliverable 3.2.

Several participants agreed on the fact that in the area of Southern Salento there is still a kind of **prejudice towards the idea of sharing things and this includes rides and the costs associated to car trips and not only the costs associated with the car itself**. In this regard, participants argued that also a more structured carpooling platform might encounter difficulties in attracting new users while on the contrary the scheme is well known and used within more informal and “close” communities (friends, family).

Also, one participant raised the issue of “**security**” in case of a service like Boleia or BlaBlaCar available in a wide area: she argued she will definitely use carpooling on shorter distances but only in urban areas and not in Southern Salento or similar territories. The perception of the risk of being harassed in a rural road was very high and almost all the participants converged towards this main barrier.

### 4.3.2 People with reduced mobility

The focus group was organised in Andrano, with the participation of 7 people: 2 participants having physical impairments, the remaining ones having direct contact with PRMs, being workers/operator of social services or parents of a disabled person. In the end the discussion was very positive and constructive. The solutions discussed were Local Link and PickMeApp.

#### Local Link

What was immediately identified as suitable and directly replicable in the area was the **dual organization of Local Link on a set of both DRT and fixed line minibus services**. Again, the **need of a proper PT network in the area** was raised and the model of having flexible services connecting some main transport nodes was perceived as a positive element of the scheme.

In Southern Salento local authorities rely already too much on the work of volunteers and their self-organization or professionalization. The scheme designed by the Irish authorities seems to be appropriate and fitted for the area especially for its governance model: **local offices have to meet certain standards and they are assisted in several ways by the national transport agency**. This is something that should be covered by the Puglia Region.

Some also argued that rural Ireland is maybe a territory where understanding mobility habits and needs is easier than peri-urban Salento. This type of analysis/survey cannot be done by volunteers but need a kind of “algorithm” and a tailored method that only a professional could deliver.

**The Local Transport Plan is therefore seen as a key component of the scheme including the flexibility of the funding and operative model:** “if a service is not used then it's correct to use the resources in other areas or for other links. Of course, the closure of a service



follows a campaign for relaunching the service and involving the community thus nobody can argue about the final result”.

The possibility of offering an inclusive and not dedicated service for PRMs is seen as a very positive element for reducing social exclusion. Many of them quoted the number of PRM passengers reported in the brochure as a success of the scheme.

### PickMeApp

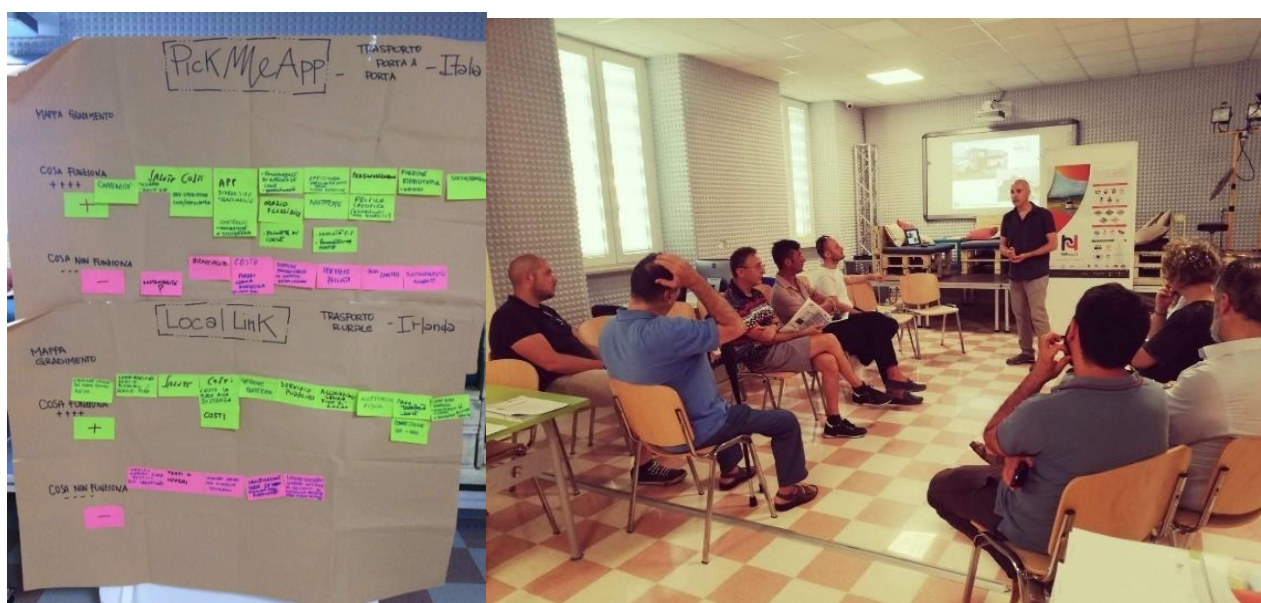
PickMeApp was seen as **more fitted for urban areas** and not for inter-urban trips: “in a city like Potenza or Salerno mobility needs are concentrated on shorter distances and travel times. This is not the case of Southern Salento where the possibility to match different trips from more users – located in different locations – is definitely more difficult”.

The **cost of the different “ride packages” is considered fair and in line with the budget but only in case of frequent use**. Especially during the evening and on slightly longer distances, the willingness to pay is higher. This declared perception was not really in line with the answers to the questionnaires.

The **tracking bracelet** of PickMeApp was seen as a key component and innovation of the service. From the perspective of the social operator (the cooperative or the association having to guarantee certain services to PRMs, often receiving subsidies from the local authority) the possibility to associate to a “simple” transport need from A to B also a tailored work on the issue of autonomy is fundamental.

The participants discussed about the **role of a smartphone app and call center in assisting users with special needs**. The HiReach facilitator presented briefly the GooV solution in the Netherlands allowing people with mental disabilities to move autonomously and being assisted. Exactly this type of possibility was highlighted as relevant in order to build up a communication channel and trust between the transport operator and the final user.

Figure 4-6: Focus group session with people with reduced mobility in Andrano



Source: TRT

## 4.4 Luxembourg: North and South-East areas

### 4.4.1 Migrants and refugees

The first focus group in Luxembourg was conducted with 6 migrants and refugees, 4 women and 2 men, by presenting the mobility solutions Fietsmeesters and Welcome Ticket.

#### **Fietsmeesters**

The service of Fietsmeesters was chosen due to the fact that the bike becomes an important mode of transport in Luxembourg especially for people not owning a car. Car traffic in Luxembourg becomes more and more dense, hence people are looking for other modes of transport replacing the car. Accordingly, the first question asked within the group was who actually owns a bicycle. Three out of six participants own a bicycle, however, they are not using it on a regular basis. In addition, four out of six participants do not know how to cycle. Consequently, four out of six participants would use the Fietsmeesters service **to learn how to ride a bicycle in Luxembourg**, especially because they are afraid to cycle on the road in Luxembourg.

However, the main issue mentioned was the **lack of adequate cycling infrastructure and that there is no cycling culture present in Luxembourg**. If you can cycle in countries with a cycling culture it is easier to become part of society which improves integration. Cycling infrastructures like cycling lanes and parks should be improved and made safer before the participants are willing to use a bicycle in Luxembourg.

**Figure 4-7: Focus group session with migrants and refugees in Luxembourg**



Source: LUXM

Two participants mentioned that they would use the service if it would become a need to use the bicycle, but now they do not see it as necessary. Short cycling trips are preferred because long travels are exhausting and people have to be motivated to ride longer distances with the bicycle. However, all of them do not see **riding a bicycle as necessary because they travel by public transport**. The advantages are that cycling is actually more environment-friendly and that it is fun to learn how to ride a bicycle and to use it.

The cycling training program teaches people how to ride a bicycle which is easily accessible because of the cheap price of cycling compared to other transport modes.

They stated that the **price is affordable** and if it is necessary to learn how to cycle, they would use this service. Also, because the maintenance cost of a bicycle is quite low.

The participants stated that it is **not necessary to target only women** because in Luxembourg there are a lot of women who know how to cycle. A Syrian participant mentioned that in Syria a lot of women know how to ride a bicycle, especially younger women. They think the cycling program is especially interesting for elderly people but more as a fun physical leisure activity.

Another aspect which was mentioned was that cycling depends on the weather and is not pleasant when it rains, it is too windy or too cold/warm.

In conclusion, all the participants **would use this service, however, they don't think it is necessary for them right now**. There is a lack of adequate cycling infrastructure and there is no cycling culture present in Luxembourg. Motorized forms of transport like cars and buses are prioritized and have dedicated infrastructure.

### **Welcome to Berlin Ticket**

Welcome Ticket was chosen as a solution to ask the participants in the case they would have to pay, what they would spend on PT and how they consider in general PT as transport option. It was intended to trigger a discussion about the fact that providing free PT tickets is not always the best solutions to fulfil mobility needs.

All participants stated that they are using public transport on a daily basis. Four of the participants have a free monthly transport pass, which allows them to travel through whole Luxembourg by train or bus. One participant buys a monthly pass (€ 50/month) and another participant bought a year pass (€ 444/year). Three out of six participants own a car and are using it almost daily.

The Welcome Ticket in Berlin is not for free however the reduced price means that a trip is affordable. By using public transport it is easier to take part in social activities, which supports social integration.

An important fact which needed to be mentioned is that PT in Luxembourg will become free for everyone from March 2020 onwards. However, some participants were very sceptical about this. They stated that it is strange that they do not have to pay for this service ("To have/get more and not to pay for it, that is a question"). They also fear that public transport will become chaotic to use, that buses will become overcrowded and that there will be safety issues. **They were convinced that free PT will not solve mobility issues**. It should be better to give a free ticket to more vulnerable groups like children, students, and refugees.

Next to cycling infrastructure, also infrastructure for buses and trams need to be improved. The participants stated that they like to take the tram so more tracks for trams would be appreciated. All the participants use their smartphone as an information tool and think that the current mobility application of the national transport community "Verkëiersverband" needs to be improved. The participants were sceptical about making Luxembourg City car-free. There was a general consensus that Luxembourg should provide more (free) parking spaces outside of the city (park and ride facilities). Ride-hailing like Uber was also considered as a good alternative by a participant. In general, it should also be easier to transfer from one transport mode to another (multimodality). There is however no single solution, there should be an array of different transport solutions.

In conclusion, the participants mentioned that this service is **especially usable as an integration tool for refugees**. For them, this service is not needed because most of them get a free annual PT ticket. However, they would be willing to pay for a PT ticket if it is affordable and PT is efficient.

#### 4.4.2 People living in rural areas

A second focus group was conducted with six people living in rural and remote areas. Four out of six participants live in France, close to the Luxembourgish border, which is considered as a remote/rural area. Two other participants live in southern Luxembourg close to the French border. All of them work in Luxembourg City and commute each day during the week from their homeplace in France or near the border to Luxembourg City to go to work. Due to the fact that the housing costs in Luxembourg are increasing, more and more people decide to stay or to move to the neighbouring countries where the housing costs are lower. The Bummelbus service, which is only running in the northern municipalities of Luxembourg, and Boleia, the ridesharing/carpooling service running in Portugal, were presented to the six participants.

##### **Bummelbus**

All participants appreciated the door-to-door service provided by Bummelbus. One participant mentioned that the Bummelbus is **especially useful for children and elderly people** because they do not have a strict schedule in contrast to people who are working. Another participant stated that he would like to use it during the weekends, while visiting a friend, in and around the municipality.

It has to be considered that half of the participants have to travel more than 30km to get to their destination. That's why the participants mentioned that there is a gap compared to the range of distances that are served by Bummelbus. For this reason another mobility service was presented in the first round of focus groups in September 2018, called Kussbus, which was operated as a cross-border door-to-door service between the homeplace and workplace in Luxembourg City. Unfortunately, this service is not operating anymore.

Participants that own a car mentioned that **they would prefer rides with Bummelbus at night and on Sundays**. At night, the service is however limited and on Sunday the service is not running. For these participants the time table of Bummelbus is not suitable. However, an attitude difference between the participants that own a car and those who do not was observed. The service was perceived flexible by a participant who does not own a car and the opposite by those who own a car. The ones that own a car need a more flexible transport mode for their work commitments and they do not think that the reservation system is flexible enough. All participants however agreed that the service is comfortable. For one participant, who doesn't own a car and relies on PT, this service would even offer a considerable travel time reduction. The solution would offer her more flexibility and an advantage is that the service is door-to-door which solves the first and last mile (problem).

All the participants agreed that Bummelbus is not expensive. One participant would even prefer to pay for an on-demand door-to-door solution rather than having free public transport with a longer travel time. Bummelbus tries to solve the lack of public transport available for people who live in rural areas.



**Figure 4-8: Focus group session with people living in rural areas in Luxembourg**



Source: LUXM

The person in charge of Bummelbus, who participated in the focus group, mentioned that there are users who made a reservation but are not ready when the shuttle is there to pick them up. This also leads to **non-punctuality of the shuttle** and this is not practical if you would use the Bummelbus service to go to work, trainings or other appointments. This is being solved by not allowing latecomers after a few times.

All the **participants did not like the fact that the Bummelbus has to be booked one night before**. This would make the service less flexible. That's why the Bummelbus will provide an application (which would be appreciated by the participants), which improves the reservation by allowing users to reserve a seat more spontaneously, similar to the system of Uber. Prices will not increase because of the app.

In conclusion, all the participants think **this service is useful and could be easily replicated in other regions**. They would use this service if it would be available in the region they are living in and if it would be more flexible regarding their working hours.

### **Boleia**

Boleia was chosen to be presented to this focus group because it tries to solve the lack of public transport available for people who live in rural areas by offering a flexible and cheap (costs are shared) service.

In general, the participants are **not willing to use a car-pooling/ride-sharing service** especially due to the **non-flexibility and trust issues**.

Three out of six participants carpooled with co-workers but stopped doing it because it got too complicated, e.g. somebody moved or changed working hours. Not everybody has the same working hours and knows who is travelling to the same destination. That's why the participants appreciated an **interactive platform** like the one that is being offered by Boleia, which is a good solution to change this aspect.

However, they added that the platform of Boleia should also notify if there is a **match between suppliers that are offering the same trip**, maybe they could also share a ride with each other.

One participant tried to carpool (by using a similar car-pooling app) once but the driver never showed up, so it stayed a one-time experience. The other participants mentioned that they are not interested in carpooling and prefer their own car or public transport because it is more trustworthy and flexible. The participants who own a car prefer their car because they can go wherever they want, whenever they want it. In addition, one participant mentioned that she prefers to listen in the car to what she wants, and not be obliged to undergo a small talk conversation with strangers.

The participants stated that car-pooling is **not trustworthy**, however, the **possibility to rate others is a good feature that increases the level of trust**.

Some participants stated that Boleia, and in general the car, is not the best solution for inclusive mobility. Not everyone agrees on this because they think that the car is a very flexible transport mode, e.g. to adjust to changing working hours.

What needs to be mentioned is that carpooling is being promoted in Belgium and Luxembourg right now. There is a car-pooling lane on the highway in Belgium that only runs until the border of Luxembourg and then ends. However, a carpooling lane is being tested in Luxembourg, by allowing cars with more than three passengers to use the hard shoulder of the highway. This is only tested on the motorway from the Belgian border and it is roughly 6 to 7 km long.

## 4.5 Portugal: Guarda

### 4.5.1 Low-income and unemployed people

The focus group in the municipality of Guarda was conducted with 10 unemployed people presenting the mobility solutions Bummelbus and Dörspmobil.

#### **Bummelbus**

Bummelbus was chosen because it is a service that seeks to help integrating unemployed people. The participants in Guarda are in the same situation and could feel compelled to use it either as customers or "providers".

When someone who is unemployed calls to schedule a trip with Bummelbus, in the other side of the phone there will be also someone who is currently unemployed and that is receiving training so that in the short term he or she can be employed in the transport industry or in a similar area. **Being in the same unemployment situation, it became notorious the empathy created among the group.** Most people said that they agree that this is a good initiative that could be replicated by the local unemployment agency. And that it would be good for the overall population of Guarda, but not exactly to themselves tough.

Only a few, however, would really like to use Bummelbus. The flexibility of bus stops and schedule seemed to be attractive at a first look. But then, participants started to imagine that they are engaged in an appointment which might take longer than expected (they repeatedly gave the example of the Focus Group meeting itself), and consequently immediately **look suspiciously towards a service which works upon reservation (or whose**



**reservation seems to be not immediate).** As a result of this rationale, participants stressed that it would not be very easy to book a trip with one day in advance. They think that the concept could be better applied to elderly people (who they envisage as having less variety of trips) and not to those who are still active (in this case, actively looking for a job).

When they were asked about what a good level of service is for them, they unanimously point out the schedules. For the participants, it would be more important to have it operating over the whole week, but especially on Sundays and holidays which is when people have less transport options (especially the ones which are more relying on public transport). The main perceived advantage is that people do not have to wait for the traditional bus to arrive, as they assume that the schedule of the new service would be more agile and suitable to their needs.

**Figure 4-9: Focus group session with unemployed people in Guarda**



Source: TIS

It seemed that **Bummelbus would be a better fit for bigger and longer trips and therefore should be implemented in remote villages, where PT offer is scarcer.** Deployment in areas closer to the city could be useful only during the weekends, especially on Sundays and holidays. This topic was though not consensual, and for a couple of persons Bummelbus could work better in the city and in the surrounding area, because, unlike Uber which is based on cars, Bummelbus offers high occupancy and should be shared with other citizens, which is something difficult to obtain in less densely populated areas.

When asked if they could feel unsafe somehow because the service is managed by unemployed people which may have less skills than a professional could have, they felt relaxed and confident that “nobody is born knowing how to drive”.

Socializing with others is a topic which divided the audience. In general, the younger prefer not to socialize while the older ones appreciate the chance and the trip to do such things.

Participants were well aware of the money spent on the car they own (fuel, insurances, maintenance etc.). Those who use taxis mentioned that a 7 km ride costs, on average, about 10€. So Bummelbus would be comparatively much less expensive. Nevertheless, the

price of the fare actually in use at Luxembourg is considered a price they cannot afford. 2€ is considered reasonable, but not to be used on a daily basis and especially not to be used in urban journeys. All in all, everyone considered that the price should be linked with the exact and concrete distance. As a result, flat rates should not be applied.

The participants requested that for Bummelbus to be effective in Guarda, **all the payment options should be covered** (pre-payment, onboard, post-payment, in money, with debit, using public transport card, using the smartphone or using paper-based tickets), but one should be able to offer the basic payment procedures which resemble what is offered nowadays. This means that payments should be done directly to the driver whenever an occasional trip is made. For regular users, a monthly fare would be due. People prefer to pay directly to someone else instead of doing it remotely and online, arguing that they are leveraging employment in the region by doing it so. They also prefer to pay directly in the exact moment the product is consumed, rather than before or much after. The younger participants find it important to pay and to take a ride using the smartphone (it is worth pointing out that not all participants use smartphones) of a dedicated ticket for example.

The van which was shown in the video was regarded as good and the chance to take goods aboard as an important feature of this service. The possibility to use electric vans would only be important if the cost of the fares would decrease as a result of that. Participants were always worried about the resources to allocate to this measure. They questioned how many buses or vans would be necessary to operationalize such service. They are, arguably, concerned about the availability of the bus, which should not prevent them to make a trip they need to make, as it happens with the current public transport.

What is important to retain is therefore that the service must be offered as a complement to regular public transport services, giving them the mobility opportunities currently not covered by local transport services. The Bummelbus scheme seeks to deliver a transport solution to people that have less transport options, especially unemployed persons. But it also offers them a chance to work and learn how to manage such service, either as bus driver or in the dispatch centre, in the sense that unemployed people could really be simultaneously users and providers of such transport scheme. This concept was understood by the focus group members as a sound contribution to maximize job opportunities and to reduce transport poverty in the region.

### **Dörpsmobil**

Dörpsmobil was chosen as a solution to present because it is a **shared-vehicle that could be an economic solution for unemployed people living in sparsely populated areas**. It is also important to test if unemployed people from Guarda could be willing to enrol themselves as voluntary drivers.

The first impression of Dörpsmobil was that the service is regarded as a **direct replacement of taxis and this was seen with a lot of reluctance, because it was felt that it would increase unemployment among taxi drivers**. However, the moderator highlighted that there are several (if not the large majority) of villages that don't have a permanent taxi. Dörpsmobil could fill this gap and offer a solution to such sites.

The second immediate impression of the participants is that a shared vehicle will rapidly be dramatically degraded due to the lack of maintenance and absence of a shared sense of ownership of the vehicle. Everybody agreed that it would require a **close**

**monitoring of the status of the vehicle** (in terms of cleaning and maintenance), otherwise it will evoke problems among the community itself, with persons accusing others for damaging the car. Under these conditions, a smooth implementation would require strong enforcement from the organization team. For those who showed intention to use the service, the possibility to drive the car (especially because it is an electric one) is considered a decisive factor.

It is important to stress that these comments revealed the **absence of a culture based on circular and shared economy**. The general mindset is that the vehicle will break down or will get dirty and no one will take responsibility for that. In consequence of this, the service will quickly become less appealing and will eventually stop being provided. Confronted with this mindset, the moderator said that one must think that the service is managed by a not-for profit organization, which assures that maintenance and cleaning work are properly executed.

Not that it fits less the needs of the target group, but definitely Dörpsmobil was seen as **a less appealing solution for unemployed**. Dörpsmobil was regarded as an option for occasional use of transport, especially among the younger generation (less than 30 years old). Most of the target group individuals own a car or have access to one, so the idea of using a shared car while having one of their own is seen as odd and not practicable. However, a shared vehicle could eventually be used in situations where the car is not available, like when it is being repaired, for example. But this is something very irregular and does not justify the fixed monthly fare which is paid for the club who manages the shared vehicle system.

It was agreed that the **fare that is in force in Germany is not expensive**. Participants would be willing to pay about 2.5€ for 1 hour of shared vehicle usage. It was voluntarily asked by the participants if a deposit – that could reassure the organizers of this initiative in case of severe damages – would be applicable to this service. Regardless of the importance of this deposit, it was mentioned that 100€ could be excessive and that few people could afford to give such amount for a deposit. Payment could also become a problem for unemployed persons of Guarda. For some, especially the ones who are likely to use the service less often, payment in money was mentioned to be preferable, as they advocated that lots of jobs have been lost due to “the take-up of new technologies”.

Besides this mindset, the fact that the service in Germany doesn't involve a direct payment (either to the driver or to the machine where one picks up the car keys), led only a few persons to be willing to use it. For car users, the main mobility problem of the region lies in the expensive tolls they must pay. If a service like Dörpsmobil could be implemented and be except from paying tolls (if shared with other users, for example) the service could become quite popular and would make a decisive impact in transport poverty.

For some of the focus group participants, taxis were seen as an obstacle to the implementation of Dörpsmobil. Few persons agreed that the mobility market should be open and adjust itself. Those who win will distinguish themselves for providing the best service at the lowest price. To illustrate such thought, some argued that they paid more for a 3km ride in a taxi in the city of Porto than for the train ride from Guarda to Porto (a 200 km train ride). Paradoxically, it happened that those who defend the taxis don't actually use them, because they are expensive and, consequently, something to be used only as a last resource.

Location of the dedicated parking places for the shared electrical vehicle was also a key feature. Some argued that they are not willing to walk much to pick up or drop off the vehicle. Thus, the vehicle could be parked next to the parish or next to some other similar public building. It was mentioned that it is important that the alternative of a voluntary driver is foreseen, which could be useful for those who don't drive or that don't wish to bring the car back to the origin.

Those more willing to use a shared electrical vehicle are also the ones who have already drove an electrical vehicle before or that have a very good understanding of the technological differences between one and a conventional fuelled vehicle, which feature a totally different experience.

It was discussed the **importance of leaving the car in the destination parking place where a recharging infrastructure could be created**. In fact, it could also be important to have a minimum number of vehicles and central drop off points in a central location, so then one does not have to bring the car back to the original location. The key important factor for using Dörpsmobil was related with the flexibility. This would imply that there are sufficient vehicles available and a good coverage of parking places so than the time required for booking a trip is minimized.

Those who showed willingness to use the service correspond to the exact same persons for whom online reservation through the Dörpsmobil portal would not constitute a problem. If a journey was already booked for other person who would make a similar trip at the same hour, participants didn't seem to be dissuaded from using the vehicle, because "everybody knows each other in the villages".

Nonetheless, it was argued the importance to know in advance who they would need to share the vehicle with (with a profile section or with a photo). In addition to this, participants who wish to use the sharing system see themselves helping others (neighbours, relatives and friends) to reserve. The possibility to have access to the track record of trips performed by the user is something that focus group participants would appreciate seeing. However, there was a lot of resistance to what concerns the provision of personal data. People feel that the services do not need to know basic information such as people's name and age.

All in all, Dörpsmobil was **only suitable to a younger generation** who seems not to be prevented from doing anything they would like to do because of poor mobility services (tolls seem to be the only thread to start being employed).

#### 4.5.2 Elderly people

The second focus group session in Guarda were conducted with 11 elderly people by presenting the services PickMeApp and Locomobile.

##### **PickMeApp**

PickMeApp was chosen because it is a service and application which works with **wearable tracking devices which seems to be particularly useful for non-digital communities such as elderly people**.

The initial appreciation of PickMeApp was positive. However, since it is based on a smartphone app, some resistance soon arose, because **elderly people in Guarda don't feel comfortable or safe using smartphones technology or knowing that a service works**

**with this technology behind.** Overall, only two persons would download the app and make the registration themselves. All the other nine persons would rely on their sons to do that, if absolutely needed. The registration in PickMeApp is easy for those who decide to enter with Facebook or with the Google account, however, findings show that only two persons have a Facebook account and three have email addresses.

In Italy, all journeys booked with PickMeApp have a flat price of 4€ and the journey is never paid directly to the driver (because PickMeApp retains a share of the overall amount when the transference is made). Some participants use taxis and they mentioned that they had made small trips from the city centre to the train station (4km and 10 minutes by car), which were charged between 4.5€ to 5.5€. For PickMeApp to be competitive against taxis, it should offer less than 4€ ride for short trips such as that one, because if the price difference is small, elderly people will prefer the service they are already used to take.

Regardless of the cases, it became clear that **it is of paramount importance that the service doesn't apply flat prices**, but rather adjust fares according to distance travelled. In a nutshell one can mention that for a fare of 4€, they could use PickMeApp very occasionally (about 4 times per month) but would not replace their car for this service. It was asked how much they would be willing to pay for a monthly fare that would allow them to use PickMeApp with no limitations. About 20€ was the suggested fare. Most of them said that this service would not suit them because they don't need to travel so often, and they pay less than 10€ for the public transport.

PickMeApp **payment (as well as reservation) that is only based on the smartphone would not be suitable to the majority of participants.** But they feel glad that someone else could do that on their behalf. This would be possible, as parents and their children speak with each other daily, to mutually understand how they are and what will they do in the coming days.

Elderly people's daily arrangements are quite heterogeneous among the group. They seem not to be capable of making reservation with more than one day in advance. For those who intend to manage the app themselves, it seems reasonable that reservation could be done with one or two days in advance. Everyone would like to receive an SMS confirming that the trip was scheduled. This is a feature that PickMeApp would have to offer. There are however persons who are not able to read, and for them there would be a need to have a phone call where someone from the company would confirm the trip.

For day to day activities, especially the ones who require travelling to and from the city centre of Guarda, **a public transport solution is almost unanimously regarded as preferable**, because people in some situations don't feel comfortable to ask other persons to give them a ride or because they are already feeling less fit to drive. So a public transport solution such as PickMeApp could be an option. But only if the fare would be associated to the distance.

There are some situations where public transport (and even taxi offer) are scarce, for example late night in the evening. At these times, PickMeApp could be a solution. Late evening events in the city centre (that normally involve situations where parking is difficult) and occasional events such as an international fair that was organized in an industrial area not served by public transport are some of the occasions for which a new mobility solution could be useful.



There is an underlying and general lack of confidence in the service. To try to overcome this issue, it was asked if in case they had an adequate telephone, with someone of their confidence teaching them how to download and use the app, if they would use PickMeApp. Participants said that they trust their children's and would do what they like, even if they don't feel personally compelled to use PickMeApp. Another important characteristic that would nurture their confidence would be to know in advance who the driver is. Generally speaking, people are receptive to see the driver's photo so than the trust in the service could raise. A telephone number for support could also be an important feature so than people could call if any problem occur.

On using a simple tracking-bracelet to take the service, some persons, notably the older women, mentioned that they would be really scared that they would be kidnapped. All other groups of people, younger women and men, were convinced that the bracelet doesn't offer any particular danger.

There is a strong cultural barrier for those who are older, that have less educational skills and live further away from the city centre and that impedes them to adopt new mobility solutions, even if these services could help them to make trips that they are prevented from doing currently. Nobody has used a service based on a mobile app before, so it was not easy for participants to make a comprehensive appreciation of the PickMeApp platform in terms of usability.

**Figure 4-10: Focus group session with elderly people in Guarda**



Source: TIS

### **Locomobile**

Locomobile was chosen to be presented because it is a social taxi whose target audience addresses elderly people directly, especially the one with less PT coverage.

Everyone found Locomobile practical and useful, particularly for those who cannot drive anymore. The driver who accompanies and supports the user is regarded as of profound importance and ideal for them (the fact that is not based on a digital platform, the low-cost, the all week coverage and the assistance from the driver seemed to be the most



relevant features). An app could complement the current service, but the main reservation process should continue to be as straightforward as it is currently, over the telephone.

In Belgium, a standard fare of 2.87€ is applied to trips under 8km and a 0.36€ surplus is applied for longer trips. So, disregarding the wage and cost living gap between Belgium and Portugal, **the cost is much less expensive than a regular taxi service operating in Guarda**. Locomobile would impact here very favourably, offering people some stability and the possibility to manage better the available budget.

There was an additional advantage in Locomobile which was perceived as positive among participants: **it allows people to know in advance how much they will have to pay**, whereas when they use the taxi, they never know exactly how much they are going to pay. The fact that immediate payment after the service is provided was considered as the ideal procedure for everyone, even if it was suggested several different options like receiving a letter at the end of the month with the global amount they need to pay.

All vehicles that were showed in the video were regarded as comfortable enough for short trips such as the ones performed in Guarda. In this case, access to the interior of the vehicle seemed to be easy and will overcome the difficulties elderly people feel nowadays in accessing the bus whose steep stairs represent an accessibility barrier for less agile users.

It was said that it was not fundamental to have someone unemployed as driver. Actually, it could probably be less recommended instead, as jobs are lacking, and job vacancies should be filled by full time employers. Allocating professionals to this service would increase the quality of service that is offered to users and consequently the trust that users have in the service, they argued.

If Locomobile had other persons aboard and needed to make deviations to take these persons to their destinations, the participants would be fairly comprehensible about the need to make such deviations. They would not quit the trip because of this issue. In fact, socialization was seen as relevant to the old group of people, so a service that is shared with others is positively perceived.

In Belgium, Locomobile reservation scheme obliges people to request a trip in advance using a dedicated phone line that is open only on week days (people cannot make a reservation on weekends, so if they need a trip on Sunday they must request it at least two days before).

For the social taxi to work in Guarda, the key is to know in advance who is the driver and not so much the ability of the driver to provide support to other auxiliary activities.

Locomobile was regarded as **having the potential to dramatically diminish transport poverty in Guarda, especially in case of persons who cannot drive or that need someone else to support them in day to day activities**. Some persons mentioned that Locomobile resembles the offer provided by the elderly homes, who also offer specialized transport services and some support to daily activities.

## 4.6 Romania: Buzău

### 4.6.1 Children and young people

Being the end of the high school year, the children had low availability, however, seven students participated to the focus group, which took place at the High School building, between some of their classes. This led to a limited time for discussions. Especially for the solution PickMeApp, there was no time to discuss.

#### **ZOOV and PickMeApp**

Participants, who travel to schools by walking, believed this is **more suited to their needs than the PickMeApp service**. One of the children would prefer this solution to go to school instead of the public transport because she always arrives late to school. To reach the bus she has to pass several rail crossings, and a transport solution that will take her from door-to-door will be better. For occasional trips she mostly walks. All the participants would **consider to use this service only to go to school**. Otherwise, they enjoy walking.

Being art students, they have less free time than other students, and this service would provide a faster trip to school. The public bus, in some cases, takes longer routes instead of the direct route to school. However, they also think that the trips may last longer depending on the pick-up location of other passengers. Another disadvantage would be that it costs more than they can afford. They would prefer the **service to be free** for them, probably subsidized.

When it comes to children or young people, their transportation means must be cheap, fast and quickly available. The chosen solutions, **ZOOV and PickMeApp, may not be the best for regular trips to school for example, as the public transport is almost for free**. If a student uses one bus line, it is for free, however, in most cases one line is not enough to reach the destination. **For occasional trips it may prove to be a good alternative, as the public transport is not reliable in late evening**. In addition, the timetable is not always respected, their schedule is ending too early or having a low frequency. Public transport does not have the proper coverage and a door-to-door service would be ideal for them.

Often the students stated that they have **an issue regarding giving non-reserved bus seats to elderly people**, considering that they have a long school schedule and in some (art) classes they must stand for hours. If they would use ZOOV, there are no different vulnerable social groups using this service or different destinations travelled to (students will always take this service with other students and only to/from school). Public subsidies could also make the service attractive and the existence of an app will make it easier for the students to access the transport service in a reliable and safely manner.

### 4.6.2 Low-income and unemployed

One focus group was conducted with seven men with low income in Buzău. It was hard for the participants to imagine how they could use the presented services. Most of them had a low capacity of understanding, analysis and expression, which is why the information gathered is scarce and maybe not so trustworthy. Two of them were hurrying or even leaving earlier, and a TAM survey was not considered because the participants scored consecutive answers of 7 or 1, seemingly not understanding the questions. The service TAD Transport a la Demanda couldn't be further discussed.

### **Taxi Colectivos Beja and TAD in Catalonia**

Participants would be more confident with this transport service than with the classic taxi service because they were already in situations when they ordered a taxi and it didn't arrive.

Participants would use the presented solutions **for both daily and occasional trips**. Some of them would have **difficulties using the service due to the need of a software application**. Not everyone of the participants owns a smartphone or knows how to use it.

The participants stated that they **need a convenient travel mode** for the activities they are performing, and, in their case, this implies different routes and transport needs every day. Their material situation is poor and access to a cheaper transport solution (the public transport) is difficult due to two reasons: it is not properly distributed in the city and the ticket selling points are rare, forcing them to buy them from the driver, at a higher price.

Ride sharing is considered sometimes as an alternative, however, its usage is still being limited by the issue of fuel costs. They **didn't reject the idea of traveling together with other users, they even intend to socialize with them**. Splitting the costs with other users **will help lower their travel budgets** and if, as they asked, the authorities would act to improve their mobility by, for example, **subsidizing the service, it would be even more accessible and the costs will be even lower**. Access to the transport solution would improve their mobility, as the user can opt for a fixed route, if they are close to a regular bus stop, or an on-demand one.

Also, the **availability of a call-centre makes it easier for the users to make reservations**, considering they have limited capabilities in terms of the use of modern technologies.

**Figure 4-11: Focus group session with low-income people in Buzau**



Source: UPB

## **4.7 Summary of the user's perspectives on the different types of mobility solutions**

The feedbacks about potential inclusive mobility solutions from the targeted vulnerable to exclusion groups gathered in the second round of focus group discussions in the six HiReach study regions are summarised in the following table.

**Table 4-1: User's perspectives on the different mobility solutions**

MOBILITY SOLUTION	TARGET GROUP	STUDY REGION	PERSPECTIVES
<b>Bürgerbus Aichwald</b>	Elderly people	Germany: Counties of Esslingen and Göppingen	<ul style="list-style-type: none"> <li>• Great addition to the municipality's mobility system</li> <li>• Offers easy access to the main locations/services</li> <li>• Organizers are trustworthy and respectful among the local population</li> <li>• Adds extra costs to their travel budget</li> </ul> ⇒ Strong suitability however operation has not started yet
	People living in rural areas	Greece: Naxos and Small Cyclades	<ul style="list-style-type: none"> <li>• Affordable prices</li> <li>• Could link the inland villages with the main town or with bus stops on the main roads where public buses pass regularly</li> <li>• Also suitable for touristic purposes</li> </ul> ⇒ Strong suitability
<b>Fairfahrt</b>	Elderly people	Germany: Counties of Esslingen and Göppingen	<ul style="list-style-type: none"> <li>• No trust in the drivers due to personal safety and driver accountability</li> <li>• No guarantee that the ride will be offered/waiting times too long</li> </ul> ⇒ Negative evaluation: would not use it, especially not on regular basis (weak suitability)
	Migrants and refugees	Germany: Counties of Esslingen and Göppingen	<ul style="list-style-type: none"> <li>• Good idea and good way to use ridesharing within the city and region</li> <li>• Supplement to PT at times with low PT frequency or low PT coverage.</li> <li>• Brings people together on the local/regional level</li> <li>• Attractive to refugees with financial constraints/Cost effective</li> <li>• Not reliable enough for certain trip purposes</li> </ul> ⇒ Practical Suitability of the service questioned due to reliability issues and voluntary system (weak suitability)
<b>Welcome Ticket</b>	Migrants and refugees	Germany: Counties of Esslingen and Göppingen	<ul style="list-style-type: none"> <li>• Appreciate the easiness to use PT</li> <li>• Would use PT more often if they had a price reduced monthly ticket, especially for work or education, which reduces their travel budget</li> <li>• Would have eased their arrival in the city and to meet their social</li> </ul>

MOBILITY SOLUTION	TARGET GROUP	STUDY REGION	PERSPECTIVES
			<p>needs better.</p> <ul style="list-style-type: none"> <li>• Reduction of travel time</li> </ul> <p>⇒ Strong suitability</p>
	Migrants and refugees	Luxembourg: North and South-East areas	<ul style="list-style-type: none"> <li>• Would buy a ticket with a reduced tariff if it stays affordable</li> <li>• Good integration tool</li> <li>• Only provide this ticket to vulnerable groups, like children, students and refugees.</li> </ul> <p>⇒ Medium suitability due to the fact that the transport ticket is free for refugees and will be free for everyone from March 2020 on</p>
<b>PickMeApp</b>	Children and young people	Greece: Naxos and Small Cyclades	<ul style="list-style-type: none"> <li>• Would allow children to travel to central villages and to do daily activities without asking their parents for rides</li> <li>• Real time tracking makes this service safe for children and increases trust</li> <li>• Teenagers very confident with the Internet and IT applications</li> <li>• Advantage is the online payment</li> </ul> <p>⇒ Strong suitability</p>
	Women	Italy: Inner Area Southern Salento	<ul style="list-style-type: none"> <li>• More useful for the needs of their kids and elderly members of the family due to tracking bracelet</li> <li>• High flexibility as well as the different functioning characteristics</li> <li>• Willingness to use the service also for commuting trips</li> <li>• Willing to pay for this service as the prices are not a barrier or an increase in the travel budget</li> <li>• Smartphone app and call centre in assisting users with special needs important as a communication channel and trust between the transport operator and the final user</li> </ul> <p>⇒ Strong suitability especially for elderly people for whom it is a good way to be more autonomous and independent</p>



MOBILITY SOLUTION	TARGET GROUP	STUDY REGION	PERSPECTIVES
	People with reduced mobility	Italy: Inner Area Southern Salento	<ul style="list-style-type: none"> <li>• Would better fit in urban areas and not for inter-urban trips</li> <li>• Costs are considered fair and in line with the budget however only if frequently used</li> <li>• Tracking bracelet seen as key component and innovation of the service</li> </ul> ⇒ Strong suitability
	Elderly people	Portugal: Guarda	<ul style="list-style-type: none"> <li>• Resistance because some of the participants don't feel comfortable or safe using smartphones technology so that assistance would be needed</li> <li>• Tracking bracelet seen as danger</li> <li>• Service shouldn't apply flat prices, but rather adjust fares according to distance travelled.</li> <li>• The online payment and reservation would not be suitable to the majority of participants.</li> <li>• Everyone would like to receive an SMS confirming that the trip was scheduled.</li> <li>• Lack of confidence in the service</li> </ul> ⇒ Weak/Medium Suitability: PickMeApp could be an option. But only if the fare would be associated to the distance and if someone assists them with the reservation
<b>Taxi Colectivos Beja</b>	Children and young people	Greece: Naxos and Small Cyclades	<ul style="list-style-type: none"> <li>• Lower costs than the usual taxis</li> <li>• Social taxis can be easily used by teenagers and children for their after-school activities</li> <li>• Subsidies paid to taxi-drivers can serve as a good motivation for drivers to seek in signing a contract with the municipality</li> <li>• Difficulties with technology</li> <li>• Car sharing is considered sometimes as alternative</li> </ul>

MOBILITY SOLUTION	TARGET GROUP	STUDY REGION	PERSPECTIVES
			⇒ Medium/Strong suitability
	Low-income and unemployed people	Romania: Buzău	<ul style="list-style-type: none"> <li>• More reliable than “classic” taxis</li> <li>• Would use them for daily and occasional trips</li> </ul> ⇒ Medium suitability
<b>Buurtkar</b>	People living in rural areas	Greece: Naxos and Small Cyclades	<ul style="list-style-type: none"> <li>• Combines the social and commercial aspects into one service</li> <li>• Adjusts to the needs of the residents (grocery shopping)</li> <li>• Supporting local producers</li> </ul> ⇒ Medium suitability if the costs are affordable
<b>Local Link</b>	Women	Italy: Inner Area Southern Salento	<ul style="list-style-type: none"> <li>• Service which can be adapted or built around the effective needs/demand</li> <li>• Substantial trust in relation to the visual identity, clarity of the timetables and communication campaigns</li> <li>• The aspect that the local offices are managed by the communities was seen as positive</li> <li>• Having one sole inclusive mobility solution instead of special services for vulnerable groups</li> </ul> ⇒ Weak/Medium suitability: Not replicable in the local context because of a perceived scarce capacity of self-organisation from the local communities (could be more easily managed by some intermediary bodies or already existing PPP in the region)
	People with reduced mobility	Italy: Inner Area Southern Salento	<ul style="list-style-type: none"> <li>• Good governance model (local offices assisted in several ways by the NTA)</li> <li>• The understanding of mobility habits and needs is different in peri-urban Salento.</li> <li>• Local Transport Plan seen as a key component of the scheme including the flexibility of the funding and operative model</li> </ul>

MOBILITY SOLUTION	TARGET GROUP	STUDY REGION	PERSPECTIVES
			⇒ Strong suitability due to dual organization on a set of both DRT and fixed line minibuses services
<b>Dörpsmobil</b>	Women	Italy: Inner Area Southern Salento	<ul style="list-style-type: none"> <li>Increases the sharing culture</li> <li>Would be used more as an additional mobility service and not “substitutive” mobility service</li> <li>The fact that someone is available to drive and chauffeur was seen as positive, especially for elderly people</li> </ul> ⇒ Medium suitability: Service is operated with an electric car and the sharing principles behind the scheme and the community-based operation are appreciated
	Low-income and unemployed people	Portugal: Guarda	<ul style="list-style-type: none"> <li>Taxis are seen as an obstacle to the implementation.</li> <li>The fare to use this service in Germany is not expensive</li> <li>Cash Payment would be preferable</li> <li>Location of the dedicated parking places is a key feature</li> <li>Flexibility of the service is questioned due to the sufficient availability of vehicles and coverage of parking places</li> <li>Importance to know in advance who they would need to share the vehicle with</li> </ul> ⇒ Medium suitability: only suitable to a younger generation who seems not to be prevented from doing anything they would like to do because of poor mobility services and who don’t have issues to use an online platform, ⇒ Less appealing solution for unemployed, only as an option for occasional use of transport
<b>Boleia</b>	Women	Italy: Inner Area Southern Salento	<ul style="list-style-type: none"> <li>Carpooling is still less trustworthy in Italy (prejudice)</li> <li>The perception of the risk of being harassed was very high</li> </ul> ⇒ Medium suitability: Different perceptions views on Boleia

MOBILITY SOLUTION	TARGET GROUP	STUDY REGION	PERSPECTIVES
	People living in rural areas	Luxembourg: North and South-East areas	<ul style="list-style-type: none"> <li>• Not flexible enough if you have specific working-hours</li> <li>• The communication of possible trips could be better (notifications)</li> <li>• Not trustworthy</li> <li>• The function to rate the driver or passenger is useful</li> </ul> <p>⇒ Weak/Medium suitability</p> <p>⇒ Not the best solution for inclusive mobility (some of the participants don't see the car as solution)</p>
<b>Fietsmeesters</b>	Migrants and refugees	Luxembourg: North and South-East areas	<ul style="list-style-type: none"> <li>• Affordable price</li> <li>• Good integration tool in countries with a cycling culture (which is not the case in Luxembourg)</li> <li>• Should not only target women</li> </ul> <p>⇒ Medium suitability: they would use the service if it necessary and a better cycling infrastructure exists</p>
<b>Bummelbus</b>	People living in rural areas	Luxembourg: North and South-East areas	<ul style="list-style-type: none"> <li>• Especially useful for children and elderly people due to a more flexible schedule in contrast to people who are working.</li> <li>• Participants would appreciate this service later in the evening or weekends.</li> <li>• The reservation should be more flexible.</li> <li>• Different perceptions on flexibility between participants owning a car and not owning a car.</li> <li>• Comfortable service</li> <li>• Affordable prices</li> </ul> <p>⇒ Medium/Strong suitability: all the participants think this service is useful and could be easily replicated in other regions. They would use this service if it would be available in the region they are living in.</p>
	Low-income and	Portugal: Guarda	<ul style="list-style-type: none"> <li>• Reservation not flexible enough however they think it is better applied for elderly people than for people who are still working or are looking</li> </ul>

MOBILITY SOLUTION	TARGET GROUP	STUDY REGION	PERSPECTIVES
	unemployed people		<p>for a job</p> <ul style="list-style-type: none"> <li>Schedules should be adapted (also on Sundays or holidays).</li> <li>Would be a better fit for longer trips and therefore should be implemented in remote villages, where the PT offer is scarcer.</li> <li>Fair price: Price should be linked with the exact and concrete distance.</li> <li>Different payment options should be covered.</li> </ul> <p>⇒ Strong suitability: good initiative that could be replicated by the local unemployment agency</p> <p>⇒ The participants think that this service is useful for the overall population of Guarda but not exactly for them (only some of them would use it)</p>
<b>Locomobile</b>	Elderly people	Portugal: Guarda	<ul style="list-style-type: none"> <li>The fact that is not based on a digital platform, the low-cost, the all week coverage and the assistance from the driver are appreciated</li> <li>The prices are much less expensive than a regular taxi service</li> <li>Knowing in advance how much they will have to pay and immediate payment after the service are considered as the ideal procedure for everyone</li> <li>Knowing in advance who the driver is</li> <li>Social interaction is positively perceived.</li> </ul> <p>⇒ Strong suitability: Everyone found Locomobile practical and useful, particularly for those who cannot drive anymore.</p>
<b>ZOOV</b>	Children and young people	Romania: Buzău	<ul style="list-style-type: none"> <li>Punctuality plays a big role, so this service would be preferred instead of PT</li> <li>Door-to-door instead of changing transport modes</li> <li>Use this service only to go to school</li> <li>The participants think that the trips may last longer depending on the pick-up location of other passengers,</li> <li>Prefer if the service would be free for children and only used by children who are going to the same school and back to their home</li> </ul>



MOBILITY SOLUTION	TARGET GROUP	STUDY REGION	PERSPECTIVES
			<ul style="list-style-type: none"> <li>• Would appreciate an app to make it easier for students to access.</li> </ul> <p>⇒ Medium suitability: not the best solution for regular trips as PT is almost for free, but for occasional trips</p>

Source: Own elaboration

## 5 Impact assessment on inclusive mobility and equity

This chapter presents the impact assessment of new mobility solutions on inclusive mobility and equity. First of all, a summary of the main problems felt by each targeted user group and the foreseen impacts that the new services can introduce in their daily life is provided. This is based on the elaboration and interpretation of the outcomes of the second round of fieldwork (focus group sessions) in the HiReach study regions.

Moreover, based on the results from the TAM survey, the way in which individuals subjectively perceive the contribution that new mobility options will bring to their daily life is analysed both at the aggregated and at micro-level. Strong indicators for the services' robustness to what concern its convenience against people's concrete travel needs are indicators of behavioural intention to use a service and future-looking impacts in terms of transport take-up and future use.

### 5.1 Analysis of the fieldwork reports

First of all, **a summary of the main problems felt by each targeted user group and the foreseen impacts that the new services can introduce in their daily life is provided.** This is based on the elaboration and interpretation of the outcomes of the second round of fieldwork (focus group sessions) in the HiReach study regions.

It is important to notice that the outcome of a measure can always be caused by a variety of effects which need to be considered, because impacts are often indirect, with several causal chains between an activity and its eventual impact.

Henceforth, we'll differentiate between **direct impacts** and **other indirect and long-term effects**. Direct impacts mostly relate with the five dimensions of transport poverty framed in HiReach, whereas other relevant impacts (indirect or in the long-term) are associated with other social outcomes that derive from the implementation of the designated service.

#### ***Study region: Counties of Esslingen and Göppingen (Germany)***

##### **Target group: Elderly people**

**Main mobility problem:** Locals feature high levels of vehicle ownership, especially along the motorways. But on sparsely populated villages, with comparatively less public transport coverage, accessibility problems are meaningful.

##### **1. Mobility solution: Bürgerbus Aichwald**

**Direct impact:** Bürgerbus appeals to voluntary citizens who wish to "operate" a sort of citizen bus and provide extra mobility options for the local community, especially of interest in the hilly south German little towns. This role is typically taken-up by young elderly adults, who are in the process of retirement and have strong-community ties and some

spare time. Elderly people with mobility impairments have an option to travel as the service is often door-to-door or at least very close to the homes. Drivers help with getting on/off from the bus, with luggage, groceries, etc. Vehicles are mostly wheelchair accessible, and tickets are very affordable. All of these aspects have a direct impact on reducing social isolation and exclusion.

**Other relevant impacts (indirect or in the long term):** the Bürgerbus is normally headed by people who are in a life cycle turning point and wish to strengthen ties with other elderly people with whom they interact more closely. As a consequence of this greater involvement in the local community, the target audience envisages as a positive effect the chance to take public credit of their engagement.

## 2. Mobility solution: Fairfahrt

**Direct impact:** it was important to assess the potential for transferability of Fairfahrt, as the municipality of Frickenhausen, where the session took place, has very similar characteristics to the municipality of Romrod where the service is actually being tested. However, the research team has concluded that no direct impacts were envisaged due to the lack of trustworthiness of a service which is run under no public law (differing from the Bürgerbus which operates under public transport law) and that therefore does not provide any guarantee that a ride is actually offered or that a driver will actually pick up a rider.

**Other relevant impacts (indirect or in the long term):** nothing to report.

## Study region: Counties of Esslingen and Göppingen (Germany)

### Target group: Migrants and refugees

**Main mobility problem:** Locals feature high levels of vehicle ownership, whilst newcomers, notably migrants, who concentrate both in larger cities and towns or small villages, hold low knowledge levels of the local public transport system (adequacy) and have material privations (affordability) which limits the pace they commute and integrate in the local community and so they require solutions that are free, at least until they can organize their life and get a stable job.

### 1. Mobility solution: Welcome to Berlin Ticket

**Direct impact:** It is not rare they get penalties for riding the system with no ticket or with no suitable ticket and get trapped in a bureaucratic process for fare violation. This can be directly avoided by the Welcome Ticket initiative. It can also contribute to social inclusion of this group that this way can directly mingle among the locals.

**Other relevant impacts (indirect or in the long term):** besides regular social needs, the Welcome Ticket allows migrants to also travel for social purposes, which further enhance their inclusion within the local community.

## **2. Mobility solution: Fairfahrt**

**Direct impact:** no direct impacts were envisaged by prospective users, as they don't envisage the system as reliable to get to a designated place on time.

**Other relevant impacts (indirect or in the long term):** no other impacts were envisaged.

### ***Study region: Naxos and Small Cyclades (Greece)***

#### **Target group: Children and young people**

**Main mobility problem:** There is no suitable transport options in the Greek islands of Naxos that can take children safely (adequacy) to school and to other personal assignments. They have therefore to rely on their parents for chauffeuring them around.

#### **1. Mobility solution: Taxi Colectivos Beja**

**Direct impact:** Collective Taxis could provide parents with a safe solution they could rely on.

**Other relevant impacts (indirect or in the long term):** Children could feel more autonomous in a process that could help them grow up with increased responsibility. They could also have the opportunity to socialize more frequently with other people their age during the journeys. Parents, on the other hand, would have more free time for their personal and professional affairs.

#### **2. Mobility solution: PickMeApp**

**Direct impact:** similar to Collective Taxis, but with increased chances to become widely accepted by parents, because they can track in real time where their children are at every moment.

**Other relevant impacts (indirect or in the long term):** similar to Collective Taxis.

### ***Study region: Naxos and Small Cyclades (Greece)***

#### **Target group: Elderly people**

**Main mobility problem:** There are few public transport options (availability) in the scattered villages of Naxos to travel and buy goods at the grocery's shops.

#### **1. Mobility solution: Buurtkar**

**Direct impact:** Buurtkar can help to distribute the products that small villages require and reduce the need of elderly people to travel.

**Other relevant impacts (indirect or in the long term):** help making elderly people with reduced mobility more self-reliant, support the local producers and offer employment opportunities to vulnerable groups.

## **2. Mobility solution: Bürgerbus Aichwald**

**Direct impact:** the mini-bus can link the inland villages with the port villages and other important locations of interest with a timetable and route which is adjusted according to the concrete needs of the users. It therefore impacts very positively on the accessibility and availability of transport options in the region, especially among vulnerable groups that cannot drive or that do not have cars to move independently.

**Other relevant impacts (indirect or in the long term):** no significant other impacts can be expected.

## ***Study region: Inner Area Southern Salento (Italy)***

### **Target group: Women**

**Main mobility problem:** Young and employed participating women do not perceive themselves as transport poor also because they own one or more cars. The group as a whole recognise on the contrary the absence of a proper PT offer and the importance of having such alternative. This confirmed the need to focus on public transport provision as emerged during the 1st round of focus groups and the interviews.

### **1. Mobility solution: Local Link**

**Direct impact:** it allows the link with neighbouring towns, local services and multimodal interchanges, such as local rail stations (accessibility).

**Other relevant impacts (indirect or in the long term):** The service was also envisaged as a good example for increasing trust and quality of public transport (e.g. visual identity, clarity of the timetables, communication campaigns) especially because it is reliant and managed by a public authority.

### **2. Mobility solution: Dörpsmobil**

**Direct impact:** The possibility of using the car sharing scheme also as "ridesharing" with someone available to drive and chauffeur was seen as positive particularly for elderly people (increasing availability of options).

**Other relevant impacts (indirect or in the long term):** They considered this type of initiative as very positive in order to increase the sharing culture in the area and also because it transfers a good image and idea of local community.



### 3. Mobility solution: PickMeApp

**Direct impact:** flexibility and market-based elements can expand availability of options and costs are considered to be fair according to the service's price list (affordability).

**Other relevant impacts (indirect or in the long term):** it can increase transport safety for the mobility of young children and daughters because they can avoid to use cars and motorbikes.

### 4. Mobility solution: Boleia

**Direct impact:** these are perceived as less relevant due to their concerns focused on local cultural elements and especially on security issues, i.e. the risk of being harassed in a rural road that was seen as main barrier (adequacy)

**Other relevant impacts (indirect or in the long term):** it can increase the sharing culture in the area.

## ***Study region: Inner Area Southern Salento (Italy)***

### **Target group: People with reduced mobility**

**Main mobility problem:** lack of proper infrastructures and transport options for mobility impaired citizens who wish to become more autonomous (availability and adequacy). Lack of alternatives for reaching neighbouring towns (accessibility).

#### **1. Mobility solution: Local Link**

**Direct impact:** it allows the link with neighbouring towns, local services and multimodal interchanges, such as local rail stations (accessibility).

**Other relevant impacts (indirect or in the long term):** The governance model and the fact that local offices have to meet certain standards are perceived as positive elements for the area if the Region provides proper support to the local teams. Moreover, disabled persons perceive as positive to travel along other citizens that do not have a mobility impairment (inclusive and not dedicated/special service).

#### **2. Mobility solution: PickMeApp**

**Direct impact:** The cost of the different "ride packages" is considered fair and in line with the budget but only in case of frequent use or during the evening and on slightly longer distances (affordability)

**Other relevant impacts (indirect or in the long term):** the tracking bracelet was seen as a key component and innovation of the service. It allows to associate also a tailored work

from social assistant and families on the issue of autonomy of people with some mental impairment.

### ***Study region: North and South-East areas in Luxembourg***

#### **Target group: Migrants and refugees**

**Main mobility problem:** the number of migrants arriving to this region is increasing. They are currently entitled to free public transport but have other social integration issues and might require long-lasting low-cost transport solutions.

##### **1. Mobility solution: Fietsmeesters**

**Direct impact:** cycling lessons to teach migrants to ride a bicycle can have an impact as they will have to pay for travelling after some time (affordability). Unlike other modes of transport, operation is free, and maintenance of the transport mode is cheap.

**Other relevant impacts (indirect or in the long term):** in a country with a strong cycling culture, moving around in a similar mode of transport as the one chosen by the majority of locals ease social integration.

##### **2. Mobility solution: Welcome to Berlin Ticket**

**Direct impact:** public transport is free for migrants, so there is no direct impact. However, they had to imagine that if they wouldn't get a PT ticket for free, how much they would spend for a ticket to use PT in Luxembourg.

**Other relevant impacts (indirect or in the long term):** if migrants would pay to ride public transport they might avoid negative feedback and therefore could feel more comfortable and integrated in the surrounding community.

### ***Study region: North and South-East areas in Luxembourg***

#### **Target group: People living in rural areas**

**Main mobility problem:** even though it is located at the heart of Europe, some rural areas of Luxembourg are underserved by public transport, especially for cross-border connections (accessibility).

##### **1. Mobility solution: Bummelbus**

**Direct impact:** could help to alleviate the problem of availability and accessibility of the current public transport system.

**Other relevant impacts (indirect or in the long term):** no other relevant impact was observed.

## **2. Mobility solution: Boleia**

**Direct impact:** could be particularly useful for long-distance travelling, especially for cross-border connections, which is the main mobility problem.

**Other relevant impacts (indirect or in the long term):** *no other relevant impact was observed.*

## **Study region: Guarda (Portugal)**

### **Target group: Low-income and unemployed**

**Mobility Problem:** In rural Guarda, public transport options are scarce and, as a consequence, people are forced to own a car. Those who don't have the possibility to do so and that don't have easy access to a vehicle, are immensely disadvantaged in their daily life.

### **1. Mobility Solution: Bummelbus**

**Direct impact:** Bummelbus is conceived in a way that it allows to overcome the service lack of availability, especially over the weekend, whilst also offering flexibility/accessibility to allow people to travel in areas not directly covered by the current PT service (such as the hospital).

**Other relevant impacts (indirect or in the long term):** The service empowers citizens as they can be involved as "prosumers" and be involved in service management/delivery. In particular, this feature might help unemployed citizen of Guarda to increase the chances to become employed. It also provides rural people with solutions to attend cultural events (hence, not only covers basic needs).

### **2. Mobility Solution: Dörpsmobil**

**Direct impact:** This service can be particularly useful for long distance (inter-municipal) journeys, but the lack of trustworthiness in the service seems to prevent people from using it.

**Other relevant impacts (indirect or in the long term):** no other impacts can be identified.

**Study region: Guarda (Portugal)**

**Target group: Elderly people**

**Mobility Problem:** Some elderly people are no longer physical fit to drive a car, so when no public transport option is available, they are forced to stop socializing with some friends and relatives and become much more isolated (availability). Considering that their mobility needs are occasional, they sometimes use taxis, whose fare is unpredictable (affordability).

**1. Mobility solution: PickMeApp**

**Direct impact:** PickMeApp could be a solution to people that are not tech savvy as they can take a ride managed by someone else and not need to own or know how to use a smartphone device.

**Other relevant impacts (indirect or in the long term):** No other impacts are envisaged because the prospective users are reluctant to use this service. The concept of using a simple bracelet is so innovative that detracts potential elderly users.

**2. Mobility solution: Locomobile**

**Direct impact:** When using taxis, fares are unpredictable. Locomobile could help to overcome this affordability barrier and help elderly people to better manage their available budget. The service, based on private vehicles, is also seen as more inclusive than the current buses whose entrance into the vehicle is less adequate (they are not low-floor).

**Other relevant impacts (indirect or in the long term):** The possibility of having the driver assisting in daily tasks is understood as an asset of the service which scores high in the perceived utility of Locomobile.

**Study region: Buzău (Romania)**

**Target group: Children and young people**

**Main mobility problem:** scarce public transport coverage which makes travelling more time-consuming.

**1. Mobility solution: PickMeApp**

**Direct impact:** for children's, having a fast transport solution is one of the most important factors. PickMeApp would score high in this respect. The possibility of taking children door-to-door is also seen as a very positive element of the service (accessibility).

**Other relevant impacts (indirect or in the long term):** no other impacts are envisaged.

## 2. Mobility solution: ZOOV

**Direct impact:** a service such as ZOOV school is considered adequate as it provides door-to-door service (accessibility). Parents seem to prefer that their children's travel with other children's, for adequacy and safety reasons.

**Other relevant impacts (indirect or in the long term):** the fact that the service is managed by an app makes it very appealing for youngsters.

## Study Region: Buzău (Romania)

### Target group: Low-income and unemployed people

**Main mobility problem:** Regular transport services are not equally distributed in the city and the ticket selling points scarce forcing them to buy from the driver, which is more expensive.

## 1. Mobility solution: TAD Catalonia

**Direct impact:** this service would be useful occasionally.

**Other relevant impacts (indirect or in the long term):** the availability of a call-centre is regarded as important, opening a channel of communication between providers and suppliers and enhancing trust in the service. This is a relevant enabler for persons with limited capabilities to use modern technologies. Plus, citizens feel more confident in on-demand services such as this one than in the regular taxis, because there are situations where they order a taxi and it does not come (trustworthiness and reliability).

## 2. Mobility solution: Taxi Colectivos Beja

**Direct impact:** this service would be useful occasionally.

**Other relevant impacts (indirect or in the long term):** impacts were similar to the ones found for Transport la Demanda.

It is now important to have **a fine-grained overview of the quantitative perceived impacts that these new services can introduce, as well as the reasons why some have become widely accepted in certain regions but rejected in others, due to a bad match between initial understanding of the site characteristic and final user's needs.** Findings accrued from the mobility solutions proof-tested in the six study regions will help designing feasible mobility products and business models that HiReach will sought-after in the next steps of the project (see Work Package 4, Development of mobility solutions).



Hence, in the next section, one will analyse at both the aggregated and micro-level how individuals subjectively perceive the contribution that the new services will bring to their daily life. Strong indicators for the services' robustness to what concern its convenience against people's concrete travel needs are needed. These are indicators of behavioural intention to use a service and future-looking impacts in terms of transport take-up and future use.

## 5.2 Analysis of the results of the TAM survey

To understand the vulnerable groups' attitudes, it is equally important to build on the results of the TAM survey **to look for underlying patterns which can enable the take up of new services designed to meet their mobility needs.**

To address the impact that the new services can bring into the mobility situation of the vulnerable to exclusion groups, it has been decided to analyse more in depth only two key questions, which were expressed in a crispier manner and offer a good understanding of attitudes towards the new services.

The first question allowed to depict if the participants to the focus groups would use the service immediately after it was implemented, whereas the second question allows one to get a feeling if the service enables citizens to travel with more frequency.

The following two questions are consequently proxy indicators of short-term (direct) impact and long-term impact, respectively, and were formulated as follows:

- Q1. When I have access to [new service], I intend to use it on a regular basis;
- Q2. If I use [new service], I will be likely to travel more.

Getting back to the evaluation criteria identified in the SMARTA workshop (SMARTA project, 2019), **understanding if people would use the new service immediately after its implementation and willingness to travel more as a result of the new service are concrete indicators that show the extent to which people are (un)happy with the solutions they currently have available and can therefore be regarded as an effective impact assessment indicators.**

However, to have a better overview of their mobility situation before evaluating the impacts of the different services, participants of the focus groups were asked in a second part of the TAM questionnaire to answer to general questions concerning their daily mobility. One determinant question asked was: "What would motivate you most to change your travel behaviour?".

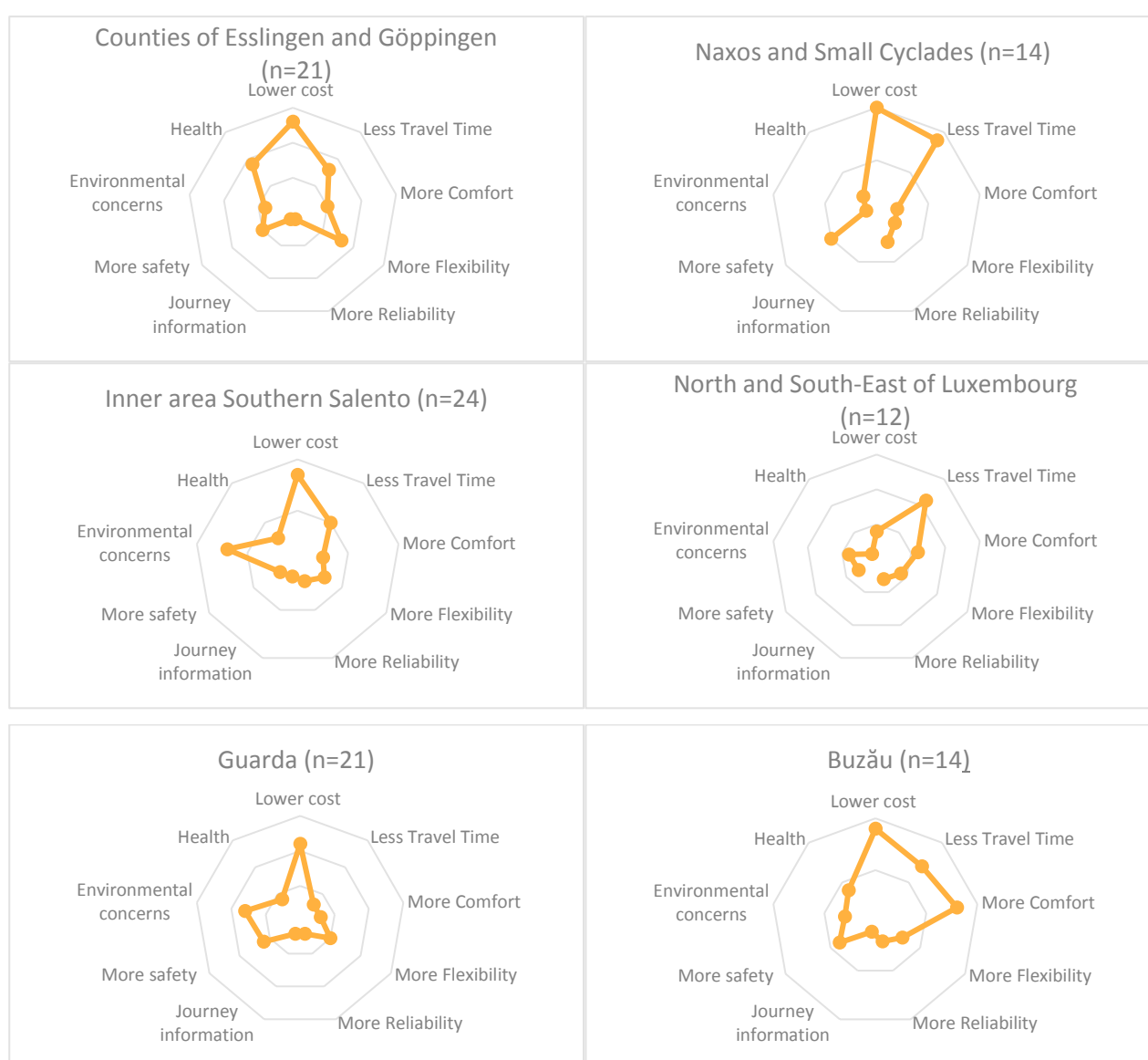
The radar plots (see the two figures below) include the 9 different options, which could have been chosen. The plots depict that Luxembourg is the only country where the main reason for changing the mobility mindset does not rely on offering transport options at a lower cost. In fact, **cost arises as the main factor that could leverage modal shift, except for Luxembourg, where travel time is the most important intrinsic motivation to predict attitudinal change.**

The **importance of saving money as a determinant for modal choice** is particularly striking in the case of Guarda, where environmental concerns come second on the list (and the only study region where travel time doesn't seem to constitute a problem). These results are aligned with the ones encountered in the case of the Inner Area of South Salento. In Buzău, comfort is envisaged as a key aspect of transport provision.

Another relevant determinant is the **possibility to save travel time**. This is what Luxembourg users are more worried about, probably because of long-distance and cross border commuting habits. Flexible services are particularly what the participants in the counties of Esslingen and Göppingen are looking for.

What seems not to be very relevant in all countries is improved journey time information as this was the factor with the lowest average score. One will now have a look to the motivations for potential modal change and check if these are social group specific.

**Figure 5-1: Reasons for changing mobility habits in each study region**



(N= number of respondents)

Source: Own elaboration

**Figure 5-2: Reasons for changing mobility habits per social layer**



Source: Own elaboration

Whilst comfort and reliability are key service characteristics for disabled persons, saving travel time is the most important factor for children's and for citizens who live in rural and remote areas. Unsurprisingly, health related concerns are among the most important triggers for modal change among elderly people. In this group what comes as a surprise is how high environmental concerns rank in the list of the main factors for modal change. This result can be a tip for communicating new services to this segment of the population. Also, quite concerned with health issues are the unemployed and low-income population.

All in all, the cost factor is by far the most important determinant of modal change. **The second most predictive factor that could enable a modal change lies in the possibility of saving travel time.** Environmental concerns come third. At the end of the list lies the need for **improved travel information which seem not to be strong enough to motivate any behavioural change**, not even among migrants who could require tailored information to their specific needs. For this segment of the population, cost is really the main factor, which can explain the likeability of changing mobility habits through a Welcome to Berlin card-like scheme.

To have a better grasp on the differences per study region, one has identified some key mobility features, which are laid down in the following table.

**Table 5-1: Key mobility indicators of focus group participants**

STUDY REGION	TARGET GROUP	% WITH A CAR AVAILABLE	% SHORT TRIPS (less than 5km)	% THAT RELY ON CAR	% THAT RELY ON PT	% THAT RELY ON CYCLING, WALKING OR OTHER
Counties of Esslingen and Göppingen (Germany)	Elderly	100%	43%	50%	17%	33%
	Migrants	8%	17%	0%	92%	8%
	Average	40%	33%	16%	68%	16%
Naxos and Small Cyclades (Greece)	Children	100%	25%	75%	25%	0%
	Rural	100%	0%	100%	0%	0%
	Average	100%	14%	86%	14%	0%
Inner Area Southern Salento (Italy)	Women	100%	23%	68%	11%	21%
	PRM	100%	14%	100%	0%	0%
	Average	100%	22%	77%	8%	15%
North and South-East areas (Luxembourg)	Migrants	50%	14%	27%	64%	9%
	Rural	83%	0%	56%	44%	0%
	Average	66%	13%	40%	55%	5%
Guarda (Portugal)	Elderly	80%	50%	40%	30%	30%
	Low-income	100%	22%	82%	18%	0%

STUDY REGION	TARGET GROUP	% WITH A CAR AVAILABLE	% SHORT TRIPS (less than 5km)	% THAT RELY ON CAR	% THAT RELY ON PT	% THAT RELY ON CYCLING, WALKING OR OTHER
	Average	90%	39%	62%	24%	14%
Buzău (Romania)	Children	86%	57%	14%	14%	71%
	Low-income	43%	43%	29%	71%	0%
	Average	71%	52%	19%	33%	48%

Source: Own elaboration

The average commuting distance seems also to correspond directly to the “saving time” motivation, which was more pronounced among users from Luxembourg and Greece, precisely the ones who have less percentage of short-distance trips.

By analysing the correspondence between owning and using a car, **one of the most impressive results comes from Buzău, where, whilst 71% of participants own a vehicle, only 19% rely on them for daily use, which can be motivated partially by the short distances, but the main underlying reason must rely on the high burden of using and maintaining a vehicle, especially among families with children.**

After analysing the differences between target groups and countries on the aggregated level, it is important to have the **general view over the perceived impact that the new mobility services can bring to European vulnerable groups**. This fine-grained analysis is of particular importance for transferability reasons as there is no “one size fit all” solution and it can happen that one service could work very well in one specific context and fail in another one.

The results (see figure below) seem to endorse the idea that **migrants are the target group that are more willing and open to immediately try new solutions** (they have scored an average of 5.4 in a 1 to 7 scale that measure the likelihood of using the service immediately after being implemented). Likewise, this is the group for whom new innovative services would impact the most in the sense that they will increase significantly the number of trips they carry out nowadays. It can be interpreted from these figures that **this group is the one with highest number of mobility needs currently unmet**.

Unemployed and people with low income are also among the ones who are keener for new transport services. If one merges this social group to migrants, who are generally also materially deprived, results underpin the theory that material privation is the main determinant of transport poverty. On the other hand, **scarce financial resources can be regarded as a sound precondition for mobility change**. Unemployed and low income are among the ones who are more willing to change mobility habits.

On the opposite side one can find **elderly people**, for whom the new services are not so suitable (they score 3.5 in the 1 to 7 scale) and are reluctant to change mobility behaviour, even if these new services were designed to meet their mobility needs. Of

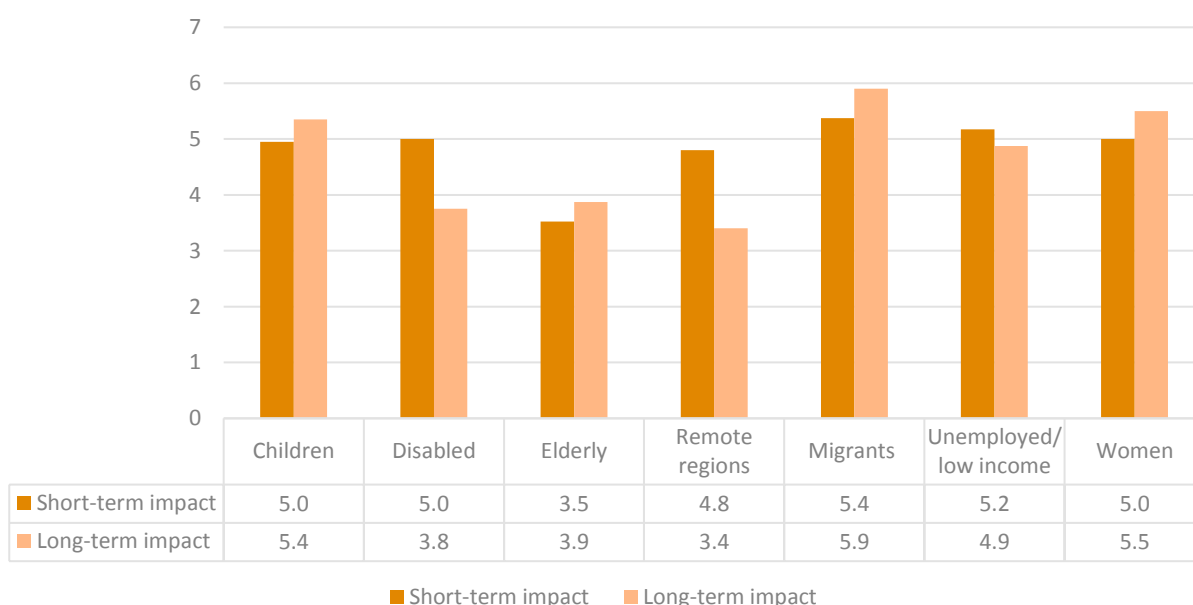
course, it has to be noted that, once a new services is introduced and understood, users could be more inclined to to use it, particularly the elderly.

What happens in concrete is that **people living in rural and remote** areas don't seem to be heavily prevented from travelling. Indeed, they score low on the question addressing the possibility to travel more often. Even if this is the general conclusion, one should consider also that these results are partially explained by the type of service which was introduced to them, some of which had the purpose of reducing the need to travel.

**Women are among the ones who gather better conditions for changing mobility habits.** They are active with or without car. They are willing to adapt to the modes of transport available.

Worth mentioning are also the results from the **people with reduced mobility**, who score above average (5.0) when asked if they would take-up the new services as soon as these are available, but who have manifested that the new services would not trigger more trips than the ones they currently undertake.

**Figure 5-3: Likelihood of short term and long-term impact of new solutions per social layer**



Scale: 1 to 7

Total respondents, n=106. Children (n=15), Disabled (n=7), Elderly (n=18), Remote areas (n=12), Migrants (n=19), Unemployed/Low income (n=18), Women (n=17)

Source: Own elaboration



**Table 5-2: Likelihood of short term and long-term impact of mobility solutions**

MOBILITY SOLUTION	SHORT-TERM IMPACT	LONG-TERM IMPACT
Boleia (n=17)	4.6	4.2
Bummelbus (n=17)	4.4	3.8
Bürgerbus Aichwald (n=14)	4.9	4.5
Buurtkar (n=6)	5.2	3.5
Dörpsmobil (n=17)	4.3	4.1
Fairfahrt (n=21)	3.5	3.6
Fietsmeesters (n=6)	4.3	5.8
Local Link (n=13)	5.5	4.8
Locomobile (n=10)	5.2	5.6
PickMeApp (n=43)	4.5	5.0
Taxis Coletivos Beja (n=7)	5.5	5.1
TAD Catalonia (n=7)	6.4	6.4
Welcome to Berlin Ticket (n=19)	5.8	6.2
ZOOV (n=7)	4.7	4.7
<b>Average</b>	<b>4.8</b>	<b>4.7</b>

Scale: 1 to 7

N= number of respondents

Source: Own elaboration

It has become clear, from the table above, that **the services whose implementation is likely to become more successfully are the ones that require a better organization of public transportation in sparsely populated areas, with a strong management role of public authorities.** This is the case of Transport a La Demanda in Catalonia, the Spanish demand-responsive scheme, and the Irish Local Link. It is interesting that such services are the ones whose transfer-potential is higher in the mindset of vulnerable groups as **they account to more conventional arrangements to what concern transport provision.**

The main conclusion is that new high-scale institutional arrangements<sup>2</sup>, that is to say, reorganisation of public transport provisions at national level, following a top-down approach, with clear and well-defined transport obligations and rights, are not a panacea to solve transport exclusion, but can certainly be an important element of a more inclusive transport system as the acceptability of vulnerable users is considerably high.

<sup>2</sup> Services organized at national or regional level and subject to degrees of economic regulation (hence, with a clear setup of obligations and passenger rights)

On the complete opposite side one can find **services that hold a different format and are based upon new technology developments, requiring digital acquaintance to be used.** These services essentially compete, rather than integrate, with current public transport operators. One refers to ride-sharing schemes such as Fairfahrt and, to some extent, Dörpsmobil<sup>3</sup>. Some services which are regarded as novel for the local context tend to be rejected by some social layers which are more reluctant to experiment something new.

Even though the services seem, at a first glance, strongly inclusionary and with potential to eliminate transport poverty, there are **dimensions who prevent people from using it, such as perceived reliability, accountability, familiarity and safety.**

This cluster of factors scare potential users and should therefore be duly balanced in recommendations for startups wishing to enter into this market. What is important for startups to retain is that to disrupt the usual way of providing transport, it is rather relevant to count on the support of traditional operators and, most notably, on public authorities' patronage, so that the service can be perceived as reliably managed. However, these services try to complement and enhance the already existing system. The aim is the integration of all of these services, and not replacement.

However, it is most likely that fears for the users mentioned above would disappear once the new service is in place and they have the opportunity to test it.

This problem is not site-specific, but rather seems to be common to most of the European territory. The conclusion that can be drawn from these results is that **citizens cannot accrue the benefits of the services if they don't feel they are trustworthy, regardless of the potential a service might entail.** The implementation of such services should therefore be followed by close monitoring of the existing and latent take-up, to identify if the inclusionary objectives are being met, who is being target and who is being excluded from such a system.

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<sup>3</sup> Buurtkar was indeed the service with lower score when asked about the likelihood of travelling more as a consequence of the introduction of the new service. However, in this case, one refers to a special service whose operation, unlike all others, has the ambition of removing the need to travel (in this case, to buy products).

**Table 5-3: Overview of impact regarding the introduction of new mobility solutions in vulnerable territories and social layers**

STUDY REGION	TARGET GROUP	MOBILITY SOLUTION	SHORT-TERM IMPACT	LONG-TERM IMPACT
Guarda (Portugal)	Elderly	PickMeApp	3.5	3.7
		Locomobile	5.2	5.6
	Low-income and unemployed p.	Bummelbus	4.8	4.7
		Dörpsmobil	4.1	3.8
Counties of Esslingen and Göppingen (Germany)	Elderly people	Burgerbus	4.1	4.5
		Fairfahrt	1.3	1.7
	Migrants and refugees	Welcome to Berlin Ticket	6.3	6.0
		Fairfahrt	5.6	5.5
Naxos and Small Cyclades (Greece)	Children and young adults	PickMeApp	5.9	6.1
		Taxis Coletivos Beja	5.5	5.6
	People living in rural areas	Buurtkar	5.2	3.5
		Burgerbus	5.7	4.5
Inner Area Southern Salento (Italy)	Women	Local Link	5.6	6.0
		Dörpsmobil	4.5	4.4
		PickMeApp	5.8	6.0
		Boleias	4.9	5.6
	People with reduced mobility	Local Link	5.3	3.5
		PickMeApp	4.7	4.0
North and South-East areas (Luxembourg)	Migrants and refugees	Fietsmeesters	4.3	5.8
		Welcome to Berlin Ticket	5.3	6.3
	People living in rural areas	Bummelbus	4.0	2.8
		Boleias	4.3	2.8
Buzău (Romania)	Children and young adults	ZooV	4.7	4.7
		PickMeApp	3.7	5.0
	Low-income and unemployed people	TAD Catalonia	6.4	6.4
		Taxis Coletivos Beja	5.4	4.6

Scale: 1 to 7

Source: Own elaboration

Site and target group idiosyncrasies are captured in the previous table. What one can see on the disaggregated level is that **Transport a La Demanda is the initiative with the highest**

**potential of impact on the short term** in the Romanian target region. The Welcome to Berlin Ticket is what comes next in terms of transfer-worthiness. Unlike the former, the latter is however a service tailored to a very specific target public.

Another service whose transferability between one region and another within the same country was tested was the Fairfahrt system. Whilst migrants recently arrived to Germany are keen on experiencing this service (**confirming that this population is, globally speaking, the most willing to embrace new mobility proposals**, which can be explained by the fact that they don't have yet well-established mobility routines), elderly people seem to reject it as not suitable for their needs. When this concept was introduced to elderly participants, it was perceived as having less immediate and long-term impact. Indeed, Fairfahrt is a comparatively new transport concept whereas more conventional transport arrangements, such as Taxis Colectivos Beja, Local Link and Transport a La Demanda, rank very high in transport poverty eradication.

The results of the TAM survey applied in Luxembourg to the focus group meeting (gathering people living in remote areas) showed that the new services will not contribute to increase the number of trips (both Boleia and Bummelbus score under 3 in the question that investigated whether people would travel more as a consequence of the new service). One might argue if the research team interpreted the right symptoms of transport poverty and did not correctly choose the most suitable solutions for this group. What can explain these results is precisely the amount of time that people need to make long-distance travelling, so new transport schemes might help people to organize better their daily life, giving them increased options. However, they will not be able to increase the overall number of trips per se, precisely because there is no spare time left.

**PickMeApp** was perceived as a sound solution with a very high potential. This is the reason why it was **selected for evaluation in 4 study regions. This is a solution whose take up could work very well in some countries and have much less impact on other ones. Its effectiveness is therefore not context-free**, in what can be globally regarded as a warning against ambition to implement specific transport solutions as panacea, flexible as they can be.

In Guarda (Portugal), where the service was introduced to an elderly population as a solution for their lack of tech savviness, the concept of using bracelets and the possibility of real-time tracking was decidedly rejected. Such new products were met with suspicion and local elderly population tend to prefer more conventional services that they understand as having no technological backend framework. The service was also introduced to population groups featuring completely different characteristics, namely the active population of women in Italy and children in Greece, where the service was received with wide enthusiasm.

In Buzău (Romania), where another group of children was interviewed, they have first welcomed the concept with some suspicion (score of 3.7 in the willingness to use it on a regular basis) but with the potential to grow (score of 5 in impact of use). This could be the case due to the fact that people would be travelling more often as a result of the introduction of the new solution. This is a suitable proxy indicator for impact in transport poverty reduction because this young population envisages PickMeApp as an important improvement from current transport options, and the potential to dramatically diminish transport poverty in Buzau increases.

## 6 Summary and conclusions

In this last chapter, a summary of the outcomes of the second round of fieldwork in the HiReach prioritized areas, in terms of vulnerable user's perspectives and of impacts on transport inclusion, is presented.

Except that some participants of the focus groups had some difficulties to imagine the usage of a transport service they haven't used before, there are some general conclusions which can be made on the user's perspectives for each target group in the study regions.

**Elderly people** are not very confident about new technologies. They prefer "traditional" transport services, which they can reserve by phone and for which they can pay immediately in cash after the use. Trust plays a big role in choosing a transport service. They like to know who is the driver when they are sharing a vehicle. In addition, car-sharing is very unusual in some of the study regions, which also depends on the missing culture of for example sharing a car. They are very concerned about their personal safety. Most of the participants are still very active and use their cars, that's why they would use other mobility services only occasionally.

**Refugees and migrants** rely on transports modes other than the private car. Some of the participants have a limited travel budget and have to rely on PT, which is in some countries for free or available at a reduced price. However, PT is not always reliable, hence supplement transport services are good options. The understanding of PT or the usage of new technologies don't seem to cause problems. Especially when arriving in a new country, reduced or free transport can be a good integration/socialization tool.

**People living in rural and remote areas** especially rely on fast transport modes, so that they don't spend too much time commuting and to have more time for the daily social needs. In many cases, the car is the best option to travel from one place to another, however, the costs of having and maintaining a car are high. Other transport modes would then be less expensive than the costs needed for covering the use of a car. The participants rely on flexible services, which are adaptable to their working hours.

**Children** do not have a big choice of transport modes. They rely on their parents who have to give them a ride or on PT, which is the cheapest option. However, parents are not always available and PT is not always reliable. Some new mobility solution would provide them a safe (e.g. by tracking bracelet) door-to-door transport service at an affordable price. Nowadays, children and young adults are used to new technologies, so that services with online reservation and payment would facilitate their journeys.

**Women** who participated in the focus groups were more concerned about the mobility needs of other target groups, especially for their children and elderly members of the family. They are especially concerned about the safety and assistance for the target groups and themselves. The participating especially appreciated sharing principles schemes and community-based services, however, they would only use them as a "substitutive" mobility service.

**People with reduced mobility** rely especially on door-to-door services with assistance. However, this could unfortunately not be observed during the focus groups. The understanding of mobility needs and habits is different in different study regions and mobility solutions have been adapted to these aspects. Especially a good governance model, like local offices assisted by a national transport authority are needed for a successful service.

**Low-income or unemployed people** rely especially on the fare and the payment system of the different transport services. In addition, they need flexible services, which in case they are looking for a job, they need to be mobile and flexible.

The insights from the fieldwork, together with the results of the TAM survey, allow to depict and contextualize some attitudes of vulnerable groups towards new mobility services.

It has become clear, from this crossed qualitative and quantitative analysis, that **dimensions such as trust are really key relevant factors in the future take-up of a service**. Indeed, most of the new mobility services are perceived as not reliable due to the fact that they are not “regulated” nor directly supported by public services. Potential users also don't know the service and they might have difficulties to figure out how it works. Involvement of the public service seems to be of paramount importance to this respect. And as public institutions become involved in the management of the new and innovative services, they are also called to make **fares affordable, adapted to our vulnerable groups' characteristics and legislated according to public service obligations**.

Considering that there is not much experience in evaluating the perceived impact that new services can bring to deprived areas and vulnerable groups, **the knowledge gained here is important to facilitate the surge of new evidence-based policies, capable of tackling transport poverty**. This is a significant advance and an asset that HiReach offers to the research community and decision-making bodies. However, it needs to be considered that the analysis is only based on a very small number of answers gathered during the focus groups and the TAM, which means the study regions do not stand representative for the whole countries or the whole vulnerable groups/population.

All in all, this ex-ante and comprehensive evaluation from the user's point of view has provided meaningful hints for successfully implementing new transport schemes. It can pave the way for the ideation of new services and trial demonstrations. It can also trigger a reflection about the ideal contextual framework for every type of service and the identification of the social groups that could welcome better solutions that will be accelerated in coming phases of the project.



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## Annex 1: Results from the HiReach Multidisciplinary Ideation Workshop



### Persona: Sami from Germany

### Sami from Germany

Sami is a 43 year old immigrant in Esslingen, Germany, where he arrived two years ago. He is originally from Syria. When he arrived, he did not speak German at all and could hardly understand English. After learning how to move around in public transportation with the help of some volunteers, he started to heavily rely on public transportation for commuting for his job as cleaning clerk on a city mall. He feels accessibility deficits because refugees were housed in the more remote and scattered settlements and main job opportunities are in the city centre. Even though he used to drive in his hometown, he can't do that here, because he can't afford it (public transportation fares already represent almost a quarter of his available income). Sami works late night, early morning and weekend shifts, so there are no buses that suit his needs and he must take the bicycle to the train station to then take the train.

It's very hard for him to cycle at night with negative temperatures. Especially when travelling in a group with other migrants, he feels that train ticket inspectors are suspicious and control them more often. He has several friends who were caught without a valid ticket and had to pay high fines only because the ticket was wrong or no longer valid and they were not aware of it. He also feels discriminated when his wife travels by train with his son and a stroller and nobody offers to help her getting in and out of the trains.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement no. 768676


<b>Team leader</b>	Massimo Moraglio (TUB)
<b>Problems faced by the Persona as defined by the group</b>	Remote dwelling, racism, weird working hours (evenings, weekends, early mornings)
<b>Insights from group dynamic</b>	Very committed group, which inventively focused on systemic a radical change (as for the end of early morning/late night working shifts), as well as for more practical solutions, as for informal hubs and P2P transport sharing and pooling service



<b>Solution(s) the team came up for this persona</b>	Worker's (with similar issues) P2P transport community. Creating transport service carrying people to the city's hubs, that is, developing formal and informal transport hubs/stations where the passengers can swap transport means. Lobbying for structural changes, that is, more "normal" working hours
<b>Main components of the service proposal</b>	<p>P2P network can support users to find shared and pooled transport service, thus reducing their transport difficulties. Unions, municipalities or industry organisation can be the promoter of this.</p> <p>More urban and countryside hubs should be established, so to smooth the change of transport system.</p> <p>More systemic changes are also called, as for "normal" working hours in the cleaning industry (Sami's occupation)</p>
<b>Technical feasibility</b>	Feasible with current technology
<b>Business model</b>	Non-profit driven model
<b>Potential effectiveness</b>	The service might solve some of the problems faced by our persona
<b>Video pitch</b>	<a href="https://www.youtube.com/watch?v=d0O9Eq7jIWA">https://www.youtube.com/watch?v=d0O9Eq7jIWA</a>

## Persona: Victor from Romania

### Victor from ROMANIA

Victor is 30 years old and lives in a small city in central Romania. As the majority of Roma people his age, he is unemployed. There are few opportunities for employment in the city and the level of pay is lower than the country average. He lives in an overcrowded accommodation and already lost job opportunities because they are out of range and he doesn't own a car. In fact, he has already accepted unsuitable jobs and declined better jobs that were not accessible. Despite being unemployed, he has several mobility needs that are quite irregular, as he does not have a steady job, which implies different routes and transportation needs every day. On the other hand, he also performs some more stable routines, essentially for taking his children to kindergarten and to school. When it rains, he takes the bus with his children, even if this is a financial burden, because public transportation fares are seen as fairly high. Tickets can be bought in specific sales points at a lower price, but for people living in areas such as the one where Victor lives, these options are not available, and they have to pay more by buying the ticket from the driver.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement no. 708818

<b>Team leader</b>	Andrei Gheroghiu (UPB)
<b>Problems faced by the Persona as defined by the group</b>	Inability to travel to the desired/required destinations, due to lack of money (to use an available service, like public transport or taxi), and lack of knowledge (vision) to group with similar persons to create a ride sharing scheme
<b>Insights from group dynamic</b>	All the group members were involved in finding the best approach, each of them proposing solutions based on their previous expertise
<b>Solution(s) the team came up for this persona</b>	As the lack of knowledge about possible solutions was among the issues identified by the team, a platform to share all the possibilities (including ride sharing options) was considered to be the best approach. This will be managed by the public transport operator, and will help gather information about the desired routes, destinations, and will even be capable to indicate the best location of ticket vending machines (this aspect will solve the purchase issue: people living in remote areas can now only buy tickets from the bus drivers, paying a higher fare)
<b>Main components of</b>	It is not really about a new service, but a platform that will gather

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<b>the service proposal</b>	all existing options (even the ones few people are aware now - like ride sharing). It involves an App to be developed for mobile devices (maybe also a Web page)
<b>Technical feasibility</b>	Feasible with current technology
<b>Business model</b>	For profit driven model
<b>Potential effectiveness</b>	Solves most relevant problems of our persona
<b>Video pitch</b>	<a href="https://www.youtube.com/watch?v=sT-rL4aRJHw">https://www.youtube.com/watch?v=sT-rL4aRJHw</a>



## Persona: Maria from Portugal



### Maria from Portugal

Maria, 70 years old, is from a village in the vicinity of the small city of Guarda in Portugal. Despite being retired, Maria is still very active and works as a farmer. She enjoys going to the main city every week to buy fresh food directly at the market, but getting there by public transportation is not an option because there is only a bus in the early morning and another in the evening, so she would have to stay in the city for the whole day. She knows that it is possible to buy public transport tickets using the Internet, but she shows little aptitude with technology and is suspicious about buying online, even though her daughter assures her that it is perfectly safe.

She likes to use the bus, even if it takes more than 1 hour to reach the nearest city due to circuitous routes. The lack of public transportation is a major problem when she needs to attend medical appointments in the city. She also likes to visit her grandchildren but there isn't any bus connection to their home, so she needs her daughter to pick her up because she cannot afford to call a taxi.

Maria has recently sold her car and is now worried about the prospects of losing autonomy, as she stopped driving because of her physical condition, and because public transportation is getting scarcer. On top of this, she complains that bus stops are far away and there are no sidewalks to get there safely, which is a problem especially at night.



This project has received funding from the European Union's Horizon 2020

<b>Team leader</b>	Fátima Santos (TIS)
<b>Problems faced by the Persona as defined by the group</b>	Maria is an old lady, living in a small village near Guarda. Often, she needs to go to Guarda to attend medical appointment, shopping or visiting her grandchildren
<b>Insights from group dynamic</b>	What are the best transport solutions that suit Maria's mobility needs? Does the Portuguese government support transport services for old people?
<b>Solution(s) the team came up for this persona</b>	Guarda Municipality should provide a platform that aggregates all transport services existing in the municipality. These transports include regular public transport service, private transport services (ie, social institutions transport services), and taxis. People could use the platform to book the journey and a transport service would be attributed to people
<b>Main components of the service proposal</b>	Transport services information platform



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<b>Technical feasibility</b>	Feasible with current technology
<b>Business model</b>	Non-profit driven model
<b>Potential effectiveness</b>	Solves most relevant problems of our persona
<b>Video pitch</b>	<a href="https://www.youtube.com/watch?v=hPMewJ-jgew">https://www.youtube.com/watch?v=hPMewJ-jgew</a>

## Persona: Thierry from Luxembourg

### Thierry from Luxembourg

Thierry is 45 years old. Despite working in one of the wealthiest countries in the world, he was forced to rent a house in Belgium, in the city of Bastogne, because living costs are too high in the urban centre of Luxembourg.

The downside of his housing option is that his available public transportation connections take almost 2h by train each way, leading to long commuting distances.

He and his wife have two cars. So while he commutes to the capital city of Luxembourg to save two hours per day in public transportation, she uses the second car extensively to hop-on/hop-off many times a day from one place to another, taking and picking up their son at school and for soccer practice and sometimes to assist her parents who live home alone in a small village nearby.

Thierry would like to have an uber-like transport that would take him and/or his wife from their doorstep to the destination in an affordable manner. In fact, he dreams of becoming progressively car-free, by selling at least their second family car and by saving some money in the process, to increase his family's quality of life.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement no. 708818.


<b>Team leader</b>	Stefano Borgato (TRT)
<b>Problems faced by the Persona as defined by the group</b>	Long distance or time due to bad PT connections between home-work and high cost and unsustainability of commuting by private car, along difficult communication or coordination with other commuters
<b>Insights from group dynamic</b>	All group members actively engaged in the design of transport solutions
<b>Solution(s) the team came up for this persona</b>	The main solution generated in our group discussion consisted in the development of an app to allow people from the Bastogne area (Lux) to share a segment of their daily commute to work. The idea is to utilize a shared mode of transportation to reach more efficiently and more economically a major public transportation hub. Once arrived at the hub, the commute to work should be ideally completed using public transit that should offer a reliable and strong service to Luxembourg City. On one hand, this solution could significantly shorten the commuting time as it requires less public transit connections in



	<p>areas where the service cannot frequent enough. On the other hand, it could reduce the cost of driving private cars alone by grouping together drivers. Gamification would incentivize users to carpool to work for a part of their journey by offering virtual rewards/compensation.</p> <p>The key idea of this solution is that combining carpooling with efficient public transportation would be the best solution to allow Thierry commuting from home to work everyday offering savings both in terms of time and money</p>
<b>Main components of the service proposal</b>	Carpooling app with seamless integration with public transport
<b>Technical feasibility</b>	Feasible with current technology
<b>Business model</b>	Non-profit driven model
<b>Potential effectiveness</b>	Solves most relevant problems of our persona
<b>Video pitch</b>	<a href="https://www.youtube.com/watch?v=jCdWQC-VLqW">https://www.youtube.com/watch?v=jCdWQC-VLqW</a>

## Persona: Giulia from Italy

### Giulia from Italy

Giulia is 28 and from a small village, Gemini, in the south Italian region of Salento. She uses a wheelchair and heavily depends on the availability of her parents and relatives to chauffeur her by private car. She learned how to have a very precise agenda of daily activities, usually planning her trips at least one week in advance, but last-minute changes for non-basic trips might also occur due to changes in the availability of the people she relies on. She works at home in customer service for a telemarketing company. She feels that the absence of proper and dedicated public transport alternatives is the main element affecting her autonomy and social life. She also feels that, in Italy, public institutions are not sensitive towards disability, because public spaces and services have several infrastructural barriers and don't follow universal design solutions. In transport services things are no different. Dedicated special transportation services for people with permanent impairment are organized only for home-to-school trips. There are also no taxi services in the area that can accommodate a wheelchair. Public transportation vehicles and services are not accessible to people with reduced mobility because buses and trains are not equipped with lift platforms. The absence of direct links can create additional accessibility problems for wheelchair users. Public transportation personnel are neither adequately trained for assisting her nor for providing travel information. She browses the Internet and doesn't find this information either. Giulia dreams on traveling to amenity spaces like beaches and events like everyone else, but this would require "door-to-door" mobility services.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement no. 769818

<b>Team leader</b>	Cosimo Chiffi (TRT)
<b>Problems faced by the Persona as defined by the group</b>	<p>Giulia lives on a wheelchair and work at home. She is very dependent on the Agenda and availability of her relatives and friends because she cannot move alone (apparently she cannot/does not drive a special vehicle on her own). She faces several physical barriers in the city (because of lacking of urban design principles and absence of proper accessibility). Also she cannot use public transport because this is not accessible and available in the area where she lives. Of course she would like to be autonomous but the risk is that she feels isolated and cannot participate to social life. --- The Group identified four main cluster of problems. MARKET: fragmented travel demand thus difficult business case; possible long waiting times to book a DRT service; available and existing services (e.g. special medical and school transport) not adapted and used for other purposes despite available resources; the overspending for the adaptation of the whole PT network (particularly on generalised lines) when the most useful solution is a door-to-door flexible</p>

	<p>service. INFRASTRUCTURE: the need of transforming the public space; the fact that the strenght of a trip chain depends on weakest links (so that the need to focus on them); accessibility of leisure, natural and cultural places; accessibility of train stations. POLICY: the need to involve concretely local authorities; the lack of suitable mobility offer for PRM; urban design and transport do not serve the needs of vulnerable users, the need to create a system that can allow people to move autonomously. USER-RELATED: convince PRM having also other vulnerability issues (e.g. kids, mental, etc.) to use inclusive transport services independently from their relatives and friends; car users are not used to public transport</p>
<b>Insights from group dynamic</b>	<p>Cosimo presented some insights on fieldwork activities where in practice it was very challenging for a couple of participants on a wheelchair to confirm their availability because of the need to preliminarily ask the availability of relatives and friend to chauffeur them. In one case the participant refused also the special service provided by the project, probably for a lack of trust. The group discussed on the fact that Giulia most probably lives alone. What she asked is a right not a desire (Luana). Quite difficult to focus on the problems: immediately the discussion suggested DRT solutions (Bas) even if the the service itself does not solve the problem: there is a need to act on policy making and the solution can reinforce the right. Also, it cannot be standalone and segregated but integrated in the PT network. Joan Prat highlighted the fact that even if you adapt the conventional PT service, you always need a flexible transport solution</p>
<b>Solution(s) the team came up for this persona</b>	<p>The solution developed is called "Felicity". It's a combination of a door-to-door flexible transport service (provided by a professional driver/operator), a ridesharing platform (accessible also to PRM) and an incentive scheme for people who can offer them a lift. Infomobility and training are two other key elements. The core is the App Felicity that can show to Giulia all available options for a certain trip from A to B: these are accessible PT services (buses, trains), available public cars if any (i.e. adapted/equipped cars that she can drive), the flexi service and the ridesharing platform where she can ask for a lift. Those users who can offer a ride/service and assistance to Giulia need to receive a proper training and register their vehicle describing the characteristics and available equipment/skills. But they could also give a lift to Giulia because they can manage to fold the wheelchair and help Giulia sitting in the car. Providers, both private citizens and professionals, become "members" of Felicity after the training and a validation check. Giulia receives a voucher that she can spend for covering the whole or part of the cost associated to the preferred/chosen mobility solution. Resources for the voucher are collected by the Felicity managing organisation through local authorities, charities and also businesses. Professional Felicity members can receive back the money associated to the voucher Giulia decided to spend with them (from local authorities). Private members earn credits and discounts to be spent in local business and to participate</p>



	at local events, festivals and concerts
<b>Main components of the service proposal</b>	The solution developed is called "Felicity". It's a combination of a door-to-door flexible transport service (provided by a professional driver/operator), a ridesharing platform (accessible also to PRM) and an incentive scheme for people who can offer them a lift
<b>Technical feasibility</b>	Feasible with current technology
<b>Business model</b>	Non-profit driven model
<b>Potential effectiveness</b>	Solves most relevant problems of our persona
<b>Video pitch</b>	<a href="https://www.youtube.com/watch?v=bUIPfQ8mygg">https://www.youtube.com/watch?v=bUIPfQ8mygg</a>



## Persona: Konstantina from Greece



### Konstantina from Greece

Konstantina is a 15-year-old girl living in Keramoti, a small village nestled in the mountains of one of the Cyclades islands, in Naxos, Greece. Her family owns a car (like every family in these islands, she argues), but no school or after-school activities are organized in this place. Thus, she needs to cross long distances of mountain road (sometimes bad-quality roads) with a school bus to go to school, and even longer distances, driven by her parents, for after-school activities, meeting friends and leisure (the last two very rare in her case due to mobility limitations). She loses a lot of time traveling and feels tired. In the long-run, this might affect her grades. Her parents would like to rent a flat for her in a village where her high school is located, or even in a Naxos town so she avoids everyday long-distance travels, but this would raise the family expenses, so they decided not to do that. They keep taking her to some extra school activities (sports, language lessons, etc.), which oblige them to postpone other works and activities and travel long distances by car. Even if she uses the Internet very intensively, she would like to gather with her friends more frequently and spend more time for leisure (cine, café). To become more independent, their young friends and relatives start to ride motorbikes at a very young age (16) and drive their way through the mountains of the island. The main problem for these children is that opportunities for after-school activities and for socializing with peers are very limited. Public transportation services are inadequate in remote mountain areas (very rare schedules, delays), taxis are expensive, and cycling is not an option due to the local topography, insufficient infrastructure (absence of cycling lanes) and increased risk of road accidents. Apart from travelling to school, which is covered by school buses, it is up to her parents or informal carpooling to cover all other transport needs. In an ordinary day, she takes the school bus to a close village where her school is located. This takes her about one hour (25 minutes if she is driven directly). Then their parents have to go pick her up and take her to the other side of the island, to the city of Naxos (30 minutes by car), where she has some extra-school activities. They wait until she is over and take her back to their house (45 minute trip).

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement no. 708818

<b>Team leader</b>	Vivian Akrivi Kliousi (INTRA)
<b>Problems faced by the Persona as defined by the group</b>	Konstantina, is based on her parents so as to meet her extra-curricular activities and this is becoming extremely difficult for all. They have even considered for her to rent an apartment to stay near the city so she can reconcile on the time lost but that means that she leaves the family next soon. She is totally dependent on others so she is struggling so as to do something she likes
<b>Insights from group dynamic</b>	The ideas are centered around an inclusive MaaS for all integrating more social means of transport a part from the typical i.e. carpooling
<b>Solution(s) the team came up for this persona</b>	The team proposes a MaaS approach in which the public administration, private initiative as also social initiatives (carpooling) could be mingled into an integrated MaaS for all. Such MaaS would consider the on demand aspect and offer

	specialised solutions based on the needs of special groups
<b>Main components of the service proposal</b>	Integrated MaaS as a service
<b>Technical feasibility</b>	Feasible with current technology
<b>Business model</b>	Non-profit driven model
<b>Potential effectiveness</b>	Solves most relevant problems of our persona
<b>Video pitch</b>	<a href="https://www.youtube.com/watch?v=GOkWE1H6_iQ">https://www.youtube.com/watch?v=GOkWE1H6_iQ</a>

## Annex 2: List of focus group sessions conducted

#	FOCUS GROUP	N. OF PARTICIPANTS	LOCATION/VENUE	DATE
<b>Germany: Counties of Esslingen and Göppingen (TUB)</b>				
1	Migrants and refugees	13	Esslingen	16.06.2019
2	Elderly people	8	Frickenhäuser	24.06.2019
<b>Greece: Naxos and Small Cyclades (INTRA)</b>				
1	Children	8	Naxos	29.05.2019
2	People living in rural areas	6	Naxos	30.05.2019
<b>Italy: Southern Salento Inner Area (TRT)</b>				
1	Women	6	Tiggiano (LE)	20.05.2019
2	Women	11	Tricase (LE)	14.06.2019
3	People with reduced mobility	7	Andrano (LE)	21.06.2019
<b>Luxembourg: North and South-East areas (LUXM)</b>				
1	Migrants and refugees	6	Luxembourg City	24.05.2019
2	People living in rural areas	6	Luxembourg City	12.06.2019
<b>Portugal: Guarda (TIS)</b>				
1	Low-income and unemployed people	10	Municipality of Guarda	14.05.2019
2	Elderly people	11	Municipality of Guarda	15.05.2019
<b>Romania: Municipality of Buzau (UPB)</b>				
1	Low-income and unemployed people	7	Buzau	7.06.2019
2	Children and young people	7	Buzau	10.06.2019

## Annex 3: TAM questionnaire results

### Section A

#### Germany – Migrants and refugees – Welcome to Berlin Ticket

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
A Welcome Ticket would have enabled me to better use public transport <u>during the first three months</u> of my stay in Esslingen		2			1		10	
A Welcome Ticket would have reduced my travel time <u>during the first three months</u> of my stay in Esslingen	1	1	3	3			5	
If implemented in Esslingen, purchase of the Welcome Ticket should be obligatory for all refugees (first 3 months, 26 Euro, deducted from monthly budget)	1			4	3		5	
If implemented in Esslingen, refugees should be able to freely decide whether they want to purchase the Welcome Ticket or not (first 3 months, potentially higher price than 26 Euro)	1	2		2		1	7	
In my current situation, a Welcome Ticket would improve my mobility / ease my mobility situation					1	4	7	1
In my current situation, a Welcome Ticket would reduce my travel time	1	2	1	2	1	1	4	1
If not employed at the moment: In my current situation, a Welcome Ticket would make it easier to find a job	1			2		1	7	2
If not in training or education: In my current situation, a Welcome Ticket would make it easier to start an education or training program		1		1		2	6	3
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
A Welcome ticket during the <u>first three months</u> in Esslingen is easy to use.	1					1	10	1
In my current situation, a Welcome Ticket will be easy to use						3	9	1
In my current situation, a Welcome Ticket will be flexible enough to manage my choices.				1	1	2	8	1
In my current situation, a Welcome Ticket will make it easier for me to become a skilful public transport user.				1	2	3	6	1
I understand the instructions of how to use public transport		2				5	5	1
Experience	1	2	3	4	5	6	7	NA
I have experience in using public transport		1			2	5	4	1
I have experience in using a Welcome Ticket elsewhere (e.g. in Germany)	4	2		1	2	3		1
During the travel, I socialize with other people using public transport		1		1	4	2	4	1
I enjoy travelling on public transport				1	1	2	7	2
I experience time spending in public transport as lost time.	2	2	1	2		1	3	2
Trust	1	2	3	4	5	6	7	NA
I generally trust the information I receive from the public authorities				1		5	5	2
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
If I had access to a Welcome Ticket <u>during the first three months</u> in Esslingen, I would have travelled more in the city/Region					2	2	8	1
When I have access to a Welcome Ticket, I intend to use public transport <u>on a regular basis</u> .					1	7	4	1
When I have access to a Welcome Ticket, I intend to use public transport <u>more than before</u>		1			1	4	6	1
Impact of use	1	2	3	4	5	6	7	NA
If I use a Welcome Ticket, I will be less likely to make my journey by bike or by foot	4	1	1			2	5	
If I use a Welcome Ticket, I will be more likely to use public transport.	1				1	3	8	
If I use a Welcome Ticket, I will be likely to travel more.		1		2		2	8	
Perceived cost	1	2	3	4	5	6	7	NA
If I purchased a Welcome Ticket, it will add extra costs to my travel budget.	2	1	1	3	3	1	2	
If I purchased a Welcome Ticket, it will reduce my travel budget		1				5	7	
If I purchased a Welcome Ticket, I will have less financial problems overall		1		2	1	4	5	

## Germany– Migrants and refugees – Fairfahrt

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
The Fairfahrt system will enable me to make better use of ridesharing in the city and region		1		2	3		7	
The Fairfahrt system will improve my travel in the city/region easier overall				1	3	4	5	
The Fairfahrt system will improve the quality of my travel.		2		1	3	4	3	
The Fairfahrt system will reduce my travelling time.	1	2	2	2	3	1	2	
The Fairfahrt system will allow me to travel at times when public transport is not available		1		1		3	8	
The Fairfahrt system will allow me to travel to/from areas where public transport is not available		1				3	9	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
The Fairfahrt system will be easy to use.			1	1	1	5	5	
The Fairfahrt system's interface will be clear and understandable.				2	2	7	2	
The Fairfahrt system will be flexible enough to manage my choices.		1		1	1	7	3	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	2	2		1	2	2	2	2
I have experience in using my smartphone for organising my travel (such as buying tickets, looking up schedules)		2				2	7	2
I have experience in using other ridesharing services (like BlaBla car)		1			1	3	6	2
If yes, during ridesharing, I socialize with other people						3	8	2
I enjoy ridesharing		1			1	3	5	3
Trust	1	2	3	4	5	6	7	NA
I will trust the Fairfahrt drivers in transporting me to the place of destination.				1	2	7	2	1
I will trust the information I receive from the Fairfahrt company				2	1	4	5	1
I will trust that Fairfahrt company will take good care of my personal data				2	3	5	2	1
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to the Fairfahrt system, I intend to use it on a regular basis.	1	1			1	4	5	1
When I have access to the Fairfahrt system, I intend to use public transport <u>less</u> .		2		2	3	3	2	1
When I have access to the Fairfahrt system, I intend to use it for trips to work or my education/ training program	2				3	4	2	2
When I have access to the Fairfahrt system, I intend to use it for trips to the authorities		1		4		4	2	2
When I have access to the Fairfahrt system, I intend to use it for leisure trips/to meet friends			1		2	6	2	2
Impact of use	1	2	3	4	5	6	7	NA
If I use Fairfahrt, I will be less likely to make my journey by bike or foot	2	4			4	2	1	
If I use Fairfahrt, I will be less likely to use public transport.		6		1	3	2	1	
If I use Fairfahrt, I will be likely to travel more.				5	1	2	5	
Perceived cost	1	2	3	4	5	6	7	NA
If I use Fairfahrt, it will add extra costs to my travel budget.	7	1				3	2	
If I use Fairfahrt, it will reduce my travel budget		1			3	2	7	
If I use Fairfahrt, I will have less financial problems overall	1			1	3	3	5	

## Germany – Elderly people - Citizen bus

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
The citizen bus will make my travel in the municipality easier overall.		1			1	2	3	1
The citizen bus will improve the quality of my travel.	1			1		1	3	2
The citizen bus will reduce my travelling time.	1		2		2			3
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
The citizen bus will be easy to use.						3	4	1
The citizen bus will be easy to use with mobility impairments.						3	3	2
The citizen bus will be flexible enough to manage my choices.		1	1			3	2	1
The citizen bus will allow me to participate more often in the social and cultural life of the municipality.	1	1			3	1		2
Experience	1	2	3	4	5	6	7	NA
I have experience in using public transport.	2	1	2				2	1
I have experience in using a citizen bus in a different location.	5	1						2
During the travel in public transport, I socialize with other people using the same transport mode.			1	1	1	1	2	2
I experience time spending in public transport as lost time.	2	2		1		1		2
Trust	1	2	3	4	5	6	7	NA
I will trust the organizers and drivers of the citizen bus in transporting me to the place of destination and back.	2					1	5	
I will trust the information I receive from the municipality about the citizen bus.							6	2
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When the citizen bus becomes available, I intend to use it on a regular basis.	2	1			1	4		
When the citizen bus becomes available, I intend to use my own car less.	2			2		2		2
Impact of use	1	2	3	4	5	6	7	NA
If I use the citizen bus, I will be less likely to use public transport.	1			1	1	2	3	
If I use the citizen bus regularly, I will be likely to travel more.	1			1	2	2		2
Perceived cost	1	2	3	4	5	6	7	NA
If I use the citizen bus, It will add extra costs to my travel budget.	3		1	1	1		2	

## Germany- Elderly people – Fairfahrt

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
The Fairfahrt system will make my travel in the municipality easier overall.	4	1		1				1
The Fairfahrt system will improve the quality of my travel.	4	1			2			
The Fairfahrt system will reduce my travelling time.	5				1			1
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
The Fairfahrt system will be easy to use.	3		1		2		1	
The Fairfahrt system will be easy to use for people with mobility impairments.	2		1	1		1		2
The Fairfahrt system's interface will be clear and understandable.		2			1	2	2	
The Fairfahrt system will be flexible enough to manage my choices.	4	1	1					1
Experience	1	2	3	4	5	6	7	NA
I have experience in using ridesharing/ridepooling	5	1						1
I have experience in using my smartphone for organising my travel (such as buying tickets, looking up schedules)	5	1						1
When I travel in a car with friends and family members, I socialize with the other riders					1		6	
Trust	1	2	3	4	5	6	7	NA
I will trust the Fairfahrt drivers in transporting me to the place of destination.	2		2	1	1			1
I will trust the information I receive from the Fairfahrt company	2		1	1	1	1		1
I will trust that Fairfahrt company will take good care of my personal data	2		2		2	1		
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to the Fairfahrt system, I intend to use it on a regular basis.	4	2						1
When I have access to the Fairfahrt system, I intend to use public transport less.	4	1	1	1				
Impact of use	1	2	3	4	5	6	7	NA
If I use Fairfahrt, I will be less likely to use my own car.	4			1		1		1
If I use Fairfahrt, I will be likely to travel more.	5		1	1				
Perceived cost	1	2	3	4	5	6	7	NA
If I use Fairfahrt, it will reduce my travel budget	2	1		2			1	1



## Greece – Children and young people- PickMeApp

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.				1	3	5	3	
...will improve the quality of my travel.						4		
...will reduce my travelling time.			1	2	1		4	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.				1	2	4	1	
... will be easy to get ... to function as expected.				1	3	1	2	1
... 's interface will be clear and understandable.				1	1	2	2	2
... will be flexible enough to manage my choices.				2	1	3	2	
It will be easier for me to become a skilful ... user.				1	2	2	1	2
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	3		1	3				1
I have experience in using other mobility services.				4	1		2	1
During the travel, I socialize with other people using the same transport mode.	1			1	2		4	
I experience time spending in that mode of transport as lost time.	3		1	2			1	1
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.					2	3	3	
I will trust the information I receive from the ...					1	3	3	1
I will trust that ... will take good care of my personal data.				1	3	1	3	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.				1		5	1	1
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.					2	1	3	2
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.					3	3	1	1
If I use..., I will be less likely to make my journey by as a car driver.		1	1	1	1	1	2	1
If I use..., I will be more likely to use the service.								
If I use..., I will be more likely to use public transport.			1	2	2	2		1
If I use..., I will be likely to travel more.		1				1	5	1
Perceived cost	1	2	3	4	5	6	7	NA
If I use..., it will add extra costs to my travel budget.	1		1	2		1		3

## Greece – Children and young people – Taxis Collectivos

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.			1	1	1	1	4	
...will improve the quality of my travel.				2		3	3	
...will reduce my travelling time.				1		4	3	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.				1	3	2	2	
... will be easy to get ... to function as expected.				3		5		
... 's interface will be clear and understandable.			1	2	4		1	
... will be flexible enough to manage my choices.					4	2	1	1
It will be easier for me to become a skilful ... user.				1	1	2	2	2
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	1		2	1	2	1		1
I have experience in using other mobility services.				1	2	1	4	
During the travel, I socialize with other people using the same transport mode.	1				3	1	2	1
I experience time spending in that mode of transport as lost time.	2	2		3				
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.					4	1	2	1
I will trust the information I receive from the ...					4	1	2	1
I will trust that ... will take good care of my personal data.				1	3	1	3	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.				1	2	2	1	2
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.				1	3	1	2	1
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.					1	3	2	2
If I use..., I will be less likely to make my journey by as a car driver.			1		2	2	2	1
If I use..., I will be more likely to use the service.								
If I use..., I will be more likely to use public transport.				1	2	3	1	1
If I use..., I will be likely to travel more.		1			2		4	1
Perceived cost	1	2	3	4	5	6	7	NA
If I use..., it will add extra costs to my travel budget.	1	3		1		1		2

## Greece – People leaving in rural areas - Buurtkar

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.					1	5		
...will improve the quality of my travel.					2	2	2	
...will reduce my travelling time.				1	1	2	2	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.					2	3	1	
... will be easy to get ... to function as expected.						4	1	1
... 's interface will be clear and understandable.					3	1	2	
... will be flexible enough to manage my choices.					2	4		
It will be easier for me to become a skilful ... user.				1		4	1	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.				6				
I have experience in using other mobility services.		1		2		1	2	
During the travel, I socialize with other people using the same transport mode.	4				2			
I experience time spending in that mode of transport as lost time.	4		1	1				
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.					2	2	1	1
I will trust the information I receive from the ...				1	1	3	1	
I will trust that ... will take good care of my personal data.			1	1	2	1	1	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.				3	1		2	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.				1	1	1	3	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.				1	2	2	1	
If I use..., I will be less likely to make my journey by as a car driver.				2		3	1	
If I use..., I will be more likely to use the service.								
If I use..., I will be more likely to use public transport.			1	3	1		1	
If I use..., I will be likely to travel more.	1		3	1			1	
Perceived cost	1	2	3	4	5	6	7	NA
If I use..., it will add extra costs to my travel budget.	2		1	1	1			1

## Greece – People leaving in rural areas - Citizen Bus

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.					2	3	1	
...will improve the quality of my travel.					3	1	2	
...will reduce my travelling time.				3	1	1	1	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.					2	1	3	
... will be easy to get ... to function as expected.					1	4	1	
... 's interface will be clear and understandable.				1	1	3	1	
... will be flexible enough to manage my choices.						3	3	
It will be easier for me to become a skilful ... user.						4	2	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	3	2		1				
I have experience in using other mobility services.		3		1	1		1	
During the travel, I socialize with other people using the same transport mode.	3			1	2			
I experience time spending in that mode of transport as lost time.	4		2					
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.					1	3	2	
I will trust the information I receive from the ...				1	1	2	2	
I will trust that ... will take good care of my personal data.				2	2		2	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.					3	2	1	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.						4	2	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.					3	2		1
If I use..., I will be less likely to make my journey by as a car driver.			1		2	2	1	
If I use..., I will be more likely to use the service.								
If I use..., I will be more likely to use public transport.	1	1	1	3				
If I use..., I will be likely to travel more.		1		3		1	1	
Perceived cost	1	2	3	4	5	6	7	NA
If I use..., it will add extra costs to my travel budget.	2	2	1	1				

## Italy – Women 1 – Dörpsmobil

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.				1	2	1	1	
...will improve the quality of my travel.				2		2	1	
...will reduce my travelling time.				4		1		
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.				1	2	1	1	
... will be easy to get ... to function as expected.					3	1	1	
... 's interface will be clear and understandable.				1	1	2	1	
... will be flexible enough to manage my choices.					1	3		1
It will be easier for me to become a skilful ... user.					1	3		1
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	1							4
I have experience in using other mobility services.			1					4
During the travel, I socialize with other people using the same transport mode.			1					4
I experience time spending in that mode of transport as lost time.	1							4
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.				1	1	2	1	
I will trust the information I receive from the ...					2	2	1	
I will trust that ... will take good care of my personal data.					2	2	1	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.				3		1		1
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.					1	1	3	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.			1	2	1		1	
If I use..., I will be less likely to make my journey by as a car driver.			1	3			1	
If I use..., I will be more likely to use the service.								
If I use..., I will be more likely to use public transport.			1	2		1	1	
If I use..., I will be likely to travel more.			1	3			1	
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.		2		2		1		

## Italy – Women 1 – Local Link

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.				1	1	3	1	
...will improve the quality of my travel.				1	1	2	2	
...will reduce my travelling time.				3	1	1		1
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.					2	2	2	
... will be easy to get ... to function as expected.			1		2	2	1	
... 's interface will be clear and understandable.					1	2	2	1
... will be flexible enough to manage my choices.				2	2	1	1	
It will be easier for me to become a skilful ... user.				2	1	2	1	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	2							4
I have experience in using other mobility services.		2						4
During the travel, I socialize with other people using the same transport mode.		1			1		1	3
I experience time spending in that mode of transport as lost time.	2	1						3
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.						3	3	
I will trust the information I receive from the ...						3	3	
I will trust that ... will take good care of my personal data.		1				3	2	1
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.				1	2		2	1
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.	1					4	1	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.				2	2	1	1	
If I use..., I will be less likely to make my journey by as a car driver.						4	1	1
If I use..., I will be more likely to use the service.								
If I use..., I will be more likely to use public transport.				1	2	2	2	
If I use..., I will be likely to travel more.					2	1	2	1
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.	1	2		1	1			

## Italy – Women 2 – PickMeApp

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.			1	1	1	2	4	1
...will improve the quality of my travel.				1	1	3	4	
...will reduce my travelling time.			3		2	2	2	1
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.			3		3	1	5	
... will be easy to get ... to function as expected.				1	4	1	3	
... 's interface will be clear and understandable.			1	1	2		5	1
... will be flexible enough to manage my choices.			1		2	2	5	
It will be easier for me to become a skilful ... user.			2		3	1	4	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	3	1					1	5
I have experience in using other mobility services.	2	1		1			2	4
During the travel, I socialize with other people using the same transport mode.	1			2	2		2	3
I experience time spending in that mode of transport as lost time.	6	1						3
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.				1	1		8	
I will trust the information I receive from the ...			1		1		8	
I will trust that ... will take good care of my personal data.			1		3	1	5	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.		1			3	1	5	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.	2		3	1		1	1	2
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.			1		2	3	3	1
If I use..., I will be less likely to make my journey by as a car driver.		1		1	1	1	5	
If I use..., I will be more likely to use the service.						1		
If I use..., I will be more likely to use public transport.		2		1	3		4	
If I use..., I will be likely to travel more.			1	1	1		6	1
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.	4	1	2			1		2

## Italy – Women 2 - Boleia

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.		1	1	3		1	5	
...will improve the quality of my travel.		1	2	2	1	1	4	
...will reduce my travelling time.		2	1	4	2		2	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.		1	1	1	2	1	5	
... will be easy to get ... to function as expected.			2		4	2	3	
... 's interface will be clear and understandable.			3	1	1	1	4	
... will be flexible enough to manage my choices.		1	2	2	3	2	1	
It will be easier for me to become a skilful ... user.		1	1	3	2		4	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	2					2	3	3
I have experience in using other mobility services.	1	1	1	1		1	2	3
During the travel, I socialize with other people using the same transport mode.		1	1		2		4	3
I experience time spending in that mode of transport as lost time.	6		1		1		1	2
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.		1	1		2	3	2	2
I will trust the information I receive from the ...		1	1		3	4	2	
I will trust that ... will take good care of my personal data.		1	1		3	2	4	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.	1	1	1		1		4	3
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.			1	2	2	3	2	1
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.		2	2	2	3	1	1	
If I use..., I will be less likely to make my journey by as a car driver.		1	1	2	1	1	5	
If I use..., I will be more likely to use the service.								
If I use..., I will be more likely to use public transport.		1	1	2	3	1	3	
If I use..., I will be likely to travel more.		1	1	1	1	1	6	
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.	3	3	1	2				2

## Italy – People with reduced mobility - PickMeApp

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.		1	1	1	1	2		1
...will improve the quality of my travel.		1	1	3	1	1		
...will reduce my travelling time.	1	1	1		2			2
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.			1		3	3		
... will be easy to get ... to function as expected.				2	2	2		1
... 's interface will be clear and understandable.				1	4	1		1
... will be flexible enough to manage my choices.			1	1	4			1
It will be easier for me to become a skilful ... user.				3	2		1	1
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	2				2			3
I have experience in using other mobility services.	2		1		2			2
During the travel, I socialize with other people using the same transport mode.	1			1	4		1	
I experience time spending in that mode of transport as lost time.	4	1		1	1			
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.				1	3	2	1	
I will trust the information I receive from the ...			1	1	3	2		
I will trust that ... will take good care of my personal data.			1	1	3	1	1	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.		1		2	1	3		
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.			3	1	3			
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.			1		5	1		
If I use..., I will be less likely to make my journey by as a car driver.			2	2	1	2		
If I use..., I will be more likely to use the service.			3	1	2	1		1
If I use..., I will be more likely to use public transport.			1		4	1		1
If I use..., I will be likely to travel more.	1		1		4			1
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.	1			2	1	3		

## Italy – People with reduced mobility – Local Link

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.					3	1	2	
...will improve the quality of my travel.			1	1	2	2		
...will reduce my travelling time.	1	2		2		1		
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.					3	2	1	
... will be easy to get ... to function as expected.				2	2	2		
... 's interface will be clear and understandable.			1	1	1	2	1	
... will be flexible enough to manage my choices.			3	1	2			
It will be easier for me to become a skilful ... user.					2	3	1	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	3	1		1				1
I have experience in using other mobility services.	3	1	1	1				
During the travel, I socialize with other people using the same transport mode.	1	1		1	2		1	
I experience time spending in that mode of transport as lost time.	3	1		2				
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.			1		3	1	1	
I will trust the information I receive from the ...				1	3	2		
I will trust that ... will take good care of my personal data.				1	2	1	2	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.				1	3	1	1	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.		1	1		2	1	1	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.			1	1	3	1		
If I use..., I will be less likely to make my journey by as a car driver.			1	1	1	3		
If I use..., I will be more likely to use the service.				2	1	2	1	
If I use..., I will be more likely to use public transport.				1	2	3		
If I use..., I will be likely to travel more.	1	1		2	2			
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.	1	1	1	1		2		

## Luxembourg – Migrants and refugees - Fietsmeesters

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered./will enable me to move from A to B more freely			1	1	3	1		
...will improve the quality of my travel.			1	2	1	1	1	
...will reduce my travelling time.		1	1		3	1		
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.			2	1	2	1		
<del>... will be easy to get ... to function as expected.</del>								
<del>... 's interface will be clear and understandable.</del>								
... will be flexible enough to manage my choices.			1	1	2	1		1
It will be easier for me to become a skilful ... user./to ride a bike			2	1	1	1	1	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service./riding a bike	2			1		1	2	
I have experience in using other mobility services.					1	3	2	
During the travel, I socialize with other people using the same transport mode.	1				1	2		2
I experience time spending in that mode of transport as lost time.	1	1	1	1	1		1	
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back./I feel safe riding a bike.	1	1	1	2			1	
<del>I will trust the information I receive from the ...</del>								
<del>I will trust that ... will take good care of my personal data.</del>								
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis./to a bike.		1		2	2	1		
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.	1			1		2	2	
Impact of use	1	2	3	4	5	6	7	NA
<del>If I use..., I will adjust my journey based on the information it provides.</del>								
If I use..., I will be less likely to make my journey by as a car driver.				2		2	2	
<del>If I use..., I will be more likely to use the service.</del>								
If I use..., I will be more likely to use public transport.	1			1		1	3	
If I use..., I will be likely to travel more.				1	2		3	
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.	1	1		1	1		2	



## Luxembourg – Migrants and refugees – Welcome to Berlin Ticket

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered./to better use public transport				1	1		4	
...will improve the quality of my travel.		1			2		3	
...will reduce my travelling time.		1	1	1			3	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.			1	1		1	3	
<del>... will be easy to get ... to function as expected.</del>								
... 's interface will be clear and understandable./ I understand the instructions of how to use PT					1	1	1	3
... will be flexible enough to manage my choices.			1		1		3	1
It will be easier for me to become a skilful ... user./ a PT user				1	1	1	3	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service./in using PT			1		1	3	1	
I have experience in using other mobility services.					3	1	2	
During the travel, I socialize with other people using the same transport mode.	1				2	2	1	
I experience time spending in that mode of transport as lost time.	2		1	1	1		1	
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.			1			2	3	
I will trust the information I receive from the .../Public authorities			1	1		1	1	2
<del>I will trust that ... will take good care of my personal data.</del>								
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis./to PT				2	2		2	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.					3		2	1
Impact of use	1	2	3	4	5	6	7	NA
<del>If I use..., I will adjust my journey based on the information it provides.</del>								
If I use..., I will be less likely to make my journey by as a car driver.					2	1	3	
<del>If I use..., I will be more likely to use the service.</del>								
If I use..., I will be more likely to use public transport.						1	2	3
If I use..., I will be likely to travel more.					1	2	3	
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.	2	2					2	

## Luxembourg – People living in rural areas - Bummelbus

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
<del>...will enable me to make better use of the mode of travel offered</del>								
...will improve the quality of my travel.	1			1	1	2	1	
...will reduce my travelling time.	2			2			2	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use to use to travel from one place to another.			1	1	1		3	
... will be easy to get ... to function as expected./It is easy to book/to access through the modalities described.		1	1		2	2		
<del>... 's interface will be clear and understandable.</del>								
... will be flexible enough to manage my choices./my needs to move	1		1	1		3		
<del>It will be easier for me to become a skilful ... user.</del>								
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	5			1				
I have experience in using other mobility services.	2					1	3	
During the travel, I socialize with other people using the same transport mode.	2	1	1		1		1	
I experience time spending in that mode of transport as lost time.	3	1				2		
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.						2	4	
I will trust the information I receive from the website/application.					1	2	3	
I will trust that ... will take good care of my personal data.						2	4	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
I would use this service on a regular basis.	1		1	2	1		1	
Although I will likely take the private vehicle for a long way, I think that I may use Bummelbus in the future.			1	1	1	2	1	
Impact of use	1	2	3	4	5	6	7	NA
I will adjust my journey based on the information it provides./I would adapt my needs and projects to travel by this service.	1		3		1	1		
If I use..., I will be less likely to make my journey by as a car driver./If I would use this service I would be less inclined to use the car.		1	2			1	2	
<del>If I use..., I will be more likely to use the service.</del>								
<del>If I use..., I will be more likely to use public transport.</del>								
If I use..., I will be likely to travel more./ I would probably travel more.	2	1	1	1		1		
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.		1				1	4	

## Luxembourg – People living in rural areas – Boleia

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered./to better use public transport								
...will improve the quality of my travel./as a passenger			1	2		1	2	
...will reduce my travelling time.	2		2		1		1	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use./to travel from one place to another as a passenger.				1	1	2	2	
... will be easy to get ... to function as expected.								
... 's interface will be clear and understandable./It is easy to book/access through the modalities described.					2	2	2	
... will be flexible enough to manage my choices./my needs to move			1	1	3	1		
It will be easier for me to become a skilful ... user./a frequent user				2	1	3		
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	2	2					2	
I have experience in using other mobility services.	2					1	3	
During the travel, I socialize with other people using the same transport	1	2			1	1	1	
I experience time spending in that mode of transport as lost time.	3		1		1		1	
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back./I will trust the driver in transporting me to the place of destination and back.			1		2	3		
I will trust the information I receive from the website.					2	2	2	
I will trust that Boleia will take good care of my personal data.			1		1	1	3	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I would intend to use it on a regular basis.			1	2	3			
Although I will likely take the private vehicle or public transport for a long way, I think that I may use a carpooling service in the future.			1		2	1	2	
Impact of use	1	2	3	4	5	6	7	NA
I will adapt my needs and projects to travel by service.		2	1		1	2		
If I use..., I will be less likely to make my journey by as a car driver./If I would use this service I would be less inclined to use the car.	1	1		3	1			
If I use..., I will be more likely to use the service.								
If I use..., I will be more likely to use public transport.								
If I use..., I will be likely to travel more./I would probably travel more.	2	2		1			1	
Perceived cost	1	2	3	4	5	6	7	NA
If I use.... It will add extra costs to my travel budget.	1	1	1	2	1			

## Portugal – Low-income and unemployed people – Bummelbus

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.				3	1	2	5	
...will improve the quality of my travel.				1	1	3	6	
...will reduce my travelling time.					1	3	6	1
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.		1			2	4	4	
... will be easy to get ... to function as expected.								11
... 's interface will be clear and understandable.								11
... will be flexible enough to manage my choices.		1	1		1	4	4	
It will be easier for me to become a skilful ... user.		1	2		2	2	4	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	6	1			1	1	1	1
I have experience in using other mobility services.	6			1	1	1	1	1
During the travel, I socialize with other people using the same transport mode.	2		1	2		3	2	1
I experience time spending in that mode of transport as lost time.	2		2	4	1	1	1	
I regularly use Smartphones	4		1			2	4	
I regularly use Apps	4		1		1	1	4	
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.			1	1	3	2	4	
I will trust the information I receive from the ...			2		2	2	5	
I will trust that ... will take good care of my personal data.				2	3	2	4	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.	1	1		3	1	2	3	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.	3	1		1	2	1	2	1
I will stop using the service as soon as it doesn't work as expected	4	2	1	2		1	1	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.				2	4	2	3	
If I use..., I will be less likely to make my journey in the usual mode of transport	1			1	1	4	3	1
If I use..., I will be more likely to use the service.								11
If I use..., I will be more likely to use public transport.	2	1	1	2	1	1	2	1
If I use..., I will be likely to travel more.	1	1		2	1	2	2	1

## Portugal - Low-income and unemployed people – Dörpsmobil

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.	1	2		2		3	2	
...will improve the quality of my travel.	1	2		2		3	2	
...will reduce my travelling time.	2	1		2		2	3	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.	2		3	1		3	1	
... will be easy to get ... to function as expected.								11
... 's interface will be clear and understandable.	1		1		3	3	2	
... will be flexible enough to manage my choices.	2		2		2	2	2	
It will be easier for me to become a skilful ... user.	2	1	1	1		3	2	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	6	2	1		1			
I have experience in using other mobility services.	6			1	1	1	1	1
During the travel, I socialize with other people using the same transport mode.	2		1	2		3	2	1
I experience time spending in that mode of transport as lost time.	2		2	4	1	1	1	
I regularly use Smartphones	4		1			2	4	
I regularly use Apps	4		1		1	1	4	
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.	1	1	1	1	1	3	2	
I will trust the information I receive from the ...	1			2	1	3	3	
I will trust that ... will take good care of my personal data.	1		1	1	2	3	2	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.	2	1		2	1	4		
Although I will likely take the private vehicle or public transport for a long way, I	1	2		3	2	2		
I will stop using the service as soon as it doesn't work as expected	2	1	2	3		1		1
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.	2		1	2	2	2		1
If I use..., I will be less likely to make my journey in the usual mode of transport	2	1	1	1	2	3		
If I use..., I will be more likely to use the service.								11
If I use..., I will be more likely to use public transport.	2	1	1	1	2	3		
If I use..., I will be likely to travel more.	2	1	2		2	3		

## Portugal – Elderly people - PickMeApp

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.	1	2	3		1	1	2	
...will improve the quality of my travel.		3	1	1		2	2	1
...will reduce my travelling time.		3		2	1		2	2
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.		1	2	1		4	2	
... will be easy to get ... to function as expected.								10
... 's interface will be clear and understandable.	2		1	1		3	2	1
... will be flexible enough to manage my choices.		1		1	1	1	2	4
It will be easier for me to become a skilful ... user.				1	3	1	1	4
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	4		1			1		4
I have experience in using other mobility services.	2				2	3		3
During the travel, I socialize with other people using the same transport mode.				1	1	3	5	
I experience time spending in that mode of transport as lost time.	2	1	1	1		2	3	
I regularly use Smartphones	5	2					3	
I regularly use Apps	7		1				1	1
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.					2	3	3	2
I will trust the information I receive from the ...	1			1		1	4	3
I will trust that ... will take good care of my personal data.	1	1		1		1	2	4
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.	2	2	1	2	1	1	1	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.	3			1	2	1	2	1
I will stop using the service as soon as it doesn't work as expected								10
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.	4		1	3		2		
If I use..., I will be less likely to make my journey in the usual mode of transport	4			2		2	2	
If I use..., I will be more likely to use the service.								10
If I use..., I will be more likely to use public transport.	2			1	2	1	1	3
If I use..., I will be likely to travel more.	4			2	1	1	2	

## Portugal – Elderly people – Locomobile

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.			2		1	2	5	
...will improve the quality of my travel.		1	1			2	5	1
...will reduce my travelling time.	1		1	1		2	4	1
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.			1		1	2	6	
... will be easy to get ... to function as expected.								10
... 's interface will be clear and understandable.								10
... will be flexible enough to manage my choices.					2	3	5	
It will be easier for me to become a skilful ... user.	1		1		1	4	2	1
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	4	1		1			4	
I have experience in using other mobility services.	2				2	3		3
During the travel, I socialize with other people using the same transport mode.				1	1	3	5	
I experience time spending in that mode of transport as lost time.	2	1	1	1		2	3	
I regularly use Smartphones	5	2					3	
I regularly use Apps	7		1				1	1
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.					2	3	5	
I will trust the information I receive from the ...	1		1			2	6	
I will trust that ... will take good care of my personal data.	2		1	1		2	4	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.			1	3	2	1	3	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.	1		2	1		4		2
I will stop using the service as soon as it doesn't work as expected	2	1			1	4	2	1
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.		2	2	1	1	3	1	
If I use..., I will be less likely to make my journey in the usual mode of transport		1			3	4	2	
If I use..., I will be more likely to use the service.								10
If I use..., I will be more likely to use public transport.	2	3	1		2	1		1
If I use..., I will be likely to travel more.				3	1	3	3	

## Romania – Children and young people – PickMeApp

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.			2	1	3		1	
...will improve the quality of my travel.			4	1	2			
...will reduce my travelling time.				4	1	2		
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.			1	1	3	2		
... will be easy to get ... to function as expected.		1		3	1	2		
... 's interface will be clear and understandable.			1	2	1	2	1	
... will be flexible enough to manage my choices.			1	1	3	2		
It will be easier for me to become a skilful ... user.					3	3	1	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.		2	3	2				
I have experience in using other mobility services.		1	2		2	1	1	
During the travel, I socialize with other people using the same transport mode.	1		1		2	3		
I experience time spending in that mode of transport as lost time.		1	3	2		1		
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.					3	2	2	
I will trust the information I receive from the ...					4	3		
I will trust that ... will take good care of my personal data.		1	1	1	2	2		
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.			3	3	1			
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.		1		1	3	1	1	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.				3	2	1	1	
If I use..., I will be less likely to make my journey by as a car driver.		1	1	2		3		
If I use..., I will be more likely to use the service.		1	2	3		1		
If I use..., I will be more likely to use public transport.		1		1	3	2		
If I use..., I will be likely to travel more.				2	3	2		

## Romania – Children and young people - ZOOV

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.			2		3	2		
...will improve the quality of my travel.			2	2	1	2		
...will reduce my travelling time.			2	4	1			
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.		1		1	2	3		
... will be easy to get ... to function as expected.			2	2	1	2		
... 's interface will be clear and understandable.		1		3	1	2		
... will be flexible enough to manage my choices.		1		2	2	1	1	
It will be easier for me to become a skilful ... user.				2	3	2		
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.		2	2	2	1			
I have experience in using other mobility services.		1		1	2	2	1	
During the travel, I socialize with other people using the same transport mode.	1			1	2	2	1	
I experience time spending in that mode of transport as lost time.			3	3	1			
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.			1		4		2	
I will trust the information I receive from the ...			1	2	3		1	
I will trust that ... will take good care of my personal data.			2	1	2	1	1	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.			1	2	2	2		
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.				3	2	1	1	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.			1	2	3	1		
If I use..., I will be less likely to make my journey by as a car driver.			1	1	2	2	1	
If I use..., I will be more likely to use the service.			3	1	1	1	1	
If I use..., I will be more likely to use public transport.			2	2	1	2		
If I use..., I will be likely to travel more.			1	2	2	2		

## Romania – Low income people – TAD in Catalonia

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.					1		4	
...will improve the quality of my travel.					2		3	
...will reduce my travelling time.					1		4	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.	1		1	1			2	
... will be easy to get ... to function as expected.			1		1	2	1	
... 's interface will be clear and understandable.	1			1	1	1	1	
... will be flexible enough to manage my choices.	1					2	2	
It will be easier for me to become a skilful ... user.	1			1	1		2	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	4							1
I have experience in using other mobility services.	2				1	1		1
During the travel, I socialize with other people using the same transport mode.	1					1	3	
I experience time spending in that mode of transport as lost time.	4					1		
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.		1					4	
I will trust the information I receive from the ...		1		1	2		1	
I will trust that ... will take good care of my personal data.		1		1	3			
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.					1	1	3	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.				2	3			
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.			1	3		1		
If I use..., I will be less likely to make my journey by as a car driver.	1	1					3	
If I use..., I will be more likely to use the service.				1	1		3	
If I use..., I will be more likely to use public transport.		1			1	3		
If I use..., I will be likely to travel more.						3	2	

## Romania – Low income people – Taxis Colectivos Beja

Perceived Usefulness (PU)	1	2	3	4	5	6	7	NA
...will enable me to make better use of the mode of travel offered.				2			3	
...will improve the quality of my travel.			1			1	3	
...will reduce my travelling time.				1			4	
Perceived Ease of Use (PE)	1	2	3	4	5	6	7	NA
...will be easy to use.	1		1		1		2	
... will be easy to get ... to function as expected.		1		1	3			
... 's interface will be clear and understandable.		1	1		2		1	
... will be flexible enough to manage my choices.	1		1	1	1	1		
It will be easier for me to become a skilful ... user.				1	1	1	2	
Experience	1	2	3	4	5	6	7	NA
I have experience in using such kind of service.	5							
I have experience in using other mobility services.			1	2	1	1		
During the travel, I socialize with other people using the same transport mode.				3			2	
I experience time spending in that mode of transport as lost time.	2	2					1	
Trust	1	2	3	4	5	6	7	NA
I will trust the service in transporting me to the place of destination and back.	1					2	2	
I will trust the information I receive from the ...					3	1	1	
I will trust that ... will take good care of my personal data.		1		1		2	1	
Behavioural Intention to Use	1	2	3	4	5	6	7	NA
When I have access to ..., I intend to use it on a regular basis.			1	1		1	2	
Although I will likely take the private vehicle or public transport for a long way, I think that I may use ... in the future.				2			3	
Impact of use	1	2	3	4	5	6	7	NA
If I use..., I will adjust my journey based on the information it provides.				3	1		1	
If I use..., I will be less likely to make my journey by as a car driver.	1			2		1	1	
If I use..., I will be more likely to use the service.		1	1			1	2	
If I use..., I will be more likely to use public transport.				1	1	2	1	
If I use..., I will be likely to travel more.		1		2		1	1	



## Section B

### Germany – Elderly people

What gender are you?

Female	Male
4	3

What is your age?

45-54	55-64	65-74	75-84	85-90	Older than 90
	1	4	2		

How many cars does your household have?

0	1	2	More than 2
	6	1	

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
	5		2

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.		Before 7 a.m.	
7 a.m.-10 a.m.	2	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	4	10 a.m.-4 p.m.	3
4 p.m.-7 p.m.		4 p.m.-7 p.m.	2
After 7 p.m.		After 7 p.m.	1

What distance is your most frequent journey?

Distance	
0-2km	1
2-5km	2
5-10km	2
10-15km	1
15-20km	
20-30km	1
Over 30km	

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	
10-20 min	4
20-30 min	2
30-45 min	
45-60 min	1
Over 60 min	

What is the main mode of transport for your most frequent journey?

Car	Ridesharing /Car pool	Taxi	Bus	Tram	Train	Cycle	Walk	Other
3					1	1		1

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	1
Less Travel Time	2
More Comfort	1
More Flexibility	3
More Reliability	
Improved journey information	
More safety	1
Environmental concerns	3
Health related considerations	7

### Germany – Migrants and refugees

What gender are you?

Female	Male
5	8

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
	4	7	2			

How long have you been living in Esslingen?

Up to 3 months	4-6 months	7-12 months	1-1.5 years	1.5 - 2 years	More than 2 years	More than 3 years	More than 4 years
	1	7	1	1	2	1	

How many cars does your household have?

0	1	2	More than 2
12	1		

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
1	1	10	

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.	3	Before 7 a.m.	
7 a.m.-10 a.m.	4	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	5	10 a.m.-4 p.m.	5
4 p.m.-7 p.m.		4 p.m.-7 p.m.	6
After 7 p.m.		After 7 p.m.	1

What distance is your most frequent journey?

Distance	
0-2km	
2-5km	2
5-10km	3
10-15km	2
15-20km	1
20-30km	
Over 30km	4

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	1
10-20 min	4
20-30 min	2
30-45 min	3
45-60 min	
Over 60 min	2

What is the main mode of transport for your most frequent journey?

Car	Ridesharing /Car pool	Suburban train	Bus	Tram	Regional Train	Cycle	Walk	Other
	5		4		3		1	

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	12
Less Travel Time	6
More Comfort	4
More Flexibility	5
More Reliability	1
Improved journey information	
More safety	4
Environmental concerns	1
Health related considerations	2

## Deliverable D3.3 - Mobility solutions and estimation of their potential impacts on inclusive mobility and equity

### Greece – Children and young people

What gender are you?

Female	Male
4	4

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
8						

How many cars does your household have?

0	1	2	More than 2
	4	3	1

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
		7	1

What time of the day is your most frequent journey?

Outward journey	Return journey
Before 7 a.m.	Before 7 a.m.
7 a.m.-10 a.m.	7 a.m.-10 a.m.
10 a.m.-4 p.m.	10 a.m.-4 p.m.
4 p.m.-7 p.m.	4 p.m.-7 p.m.
After 7 p.m.	After 7 p.m.
8	3
	4
	1

(What is your origin and destination postal code for your most frequent journey?)

Origin postal code	Destination postal code
84302	84300

What distance is your most frequent journey?

Distance
0-2km
2-5km
5-10km
10-15km
15-20km
20-30km
Over 30km

What is the usual travel time for your most frequent journey?

Travel time
0-10 min
10-20 min
20-30 min
30-45 min
45-60 min
Over 60 min

What is the main mode of transport for your most frequent journey?

Car	Carpooling	Taxi	Bus	Tram	Train	Cycle	Walk	Other
6			2					

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour
Lower cost
Less Travel Time
More Comfort
More Flexibility
More Reliability
Improved journey information
More safety
Environmental concerns
Health related considerations

### Greece – People living in rural areas

What gender are you?

Female	Male
6	

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
			4	2		

How many cars does your household have?

0	1	2	More than 2
	5		1

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
5		1	

What time of the day is your most frequent journey?

Outward journey	Return journey
Before 7 a.m.	Before 7 a.m.
7 a.m.-10 a.m.	7 a.m.-10 a.m.
10 a.m.-4 p.m.	10 a.m.-4 p.m.
4 p.m.-7 p.m.	4 p.m.-7 p.m.
After 7 p.m.	After 7 p.m.
2	
3	
	2
1	3
	1

(What is your origin and destination postal code for your most frequent journey?)

Origin postal code	Destination postal code
84302	84300

What distance is your most frequent journey?

Distance
0-2km
2-5km
5-10km
10-15km
15-20km
20-30km
Over 30km

What is the usual travel time for your most frequent journey?

Travel time
0-10 min
10-20 min
20-30 min
30-45 min
45-60 min
Over 60 min

What is the main mode of transport for your most frequent journey?

Car	Carpooling	Taxi	Bus	Tram	Train	Cycle	Walk	Other
6								

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour
Lower cost
Less Travel Time
More Comfort
More Flexibility
More Reliability
Improved journey information
More safety
Environmental concerns
Health related considerations

## Italy – People with reduced mobility

What gender are you?

Female	Male
1	6

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
		2	3	1	1	

How many cars does your household have?

0	1	2	More than 2
	4	2	1

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
6	1	1	

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.		Before 7 a.m.	
7 a.m.-10 a.m.	6	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	2	10 a.m.-4 p.m.	2
4 p.m.-7 p.m.		4 p.m.-7 p.m.	4
After 7 p.m.		After 7 p.m.	1

What distance is your most frequent journey?

Distance	
0-2km	
2-5km	1
5-10km	1
10-15km	2
15-20km	1
20-30km	
Over 30km	2

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	3
10-20 min	1
20-30 min	1
30-45 min	
45-60 min	2
Over 60 min	

What is the main mode of transport for your most frequent journey?

Car	Carpool	Taxi	Bus	Tram	Train	Cycle	Walk	Other
7								

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	6
Less Travel Time	1
More Comfort	4
More Flexibility	3
More Reliability	4
Improved journey information	
More safety	2
Environmental concern	2
Health related considerations	1

## Deliverable D3.3 - Mobility solutions and estimation of their potential impacts on inclusive mobility and equity

### Italy – Women 1

What gender are you?

Female	Male
5	

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
		2		3	1	

How many cars does your household have?

0	1	2	More than 2
		4	2

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
5	3		

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.		Before 7 a.m.	
7 a.m.-10 a.m.	4	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	2	10 a.m.-4 p.m.	5
4 p.m.-7 p.m.	1	4 p.m.-7 p.m.	
After 7 p.m.		After 7 p.m.	2

What distance is your most frequent journey?

Distance	
0-2km	
2-5km	2
5-10km	4
10-15km	1
15-20km	
20-30km	
Over 30km	

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	2
10-20 min	5
20-30 min	
30-45 min	
45-60 min	
Over 60 min	

What is the main mode of transport for your most frequent journey?

Car	Carpool	Taxi	Bus	Tram	Train	Cycle	Walk	Other
5							2	

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	5
Less Travel Time	4
More Comfort	
More Flexibility	2
More Reliability	
Improved journey information	3
More safety	
Environmental concerns	2
Health related considerations	2

### Italy – Women 2

What gender are you?

Female	Male
11	

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
2			2	5	1	1

How many cars does your household have?

0	1	2	More than 2
	3	4	4

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
3	7	3	2

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.		Before 7 a.m.	
7 a.m.-10 a.m.	5	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	1	10 a.m.-4 p.m.	3
4 p.m.-7 p.m.	3	4 p.m.-7 p.m.	4
After 7 p.m.	2	After 7 p.m.	4

What distance is your most frequent journey?

Distance	
0-2km	
2-5km	1
5-10km	1
10-15km	1
15-20km	3
20-30km	
Over 30km	5

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	
10-20 min	3
20-30 min	4
30-45 min	1
45-60 min	2
Over 60 min	1

What is the main mode of transport for your most frequent journey?

Car	Carpool	Taxi	Bus	Tram	Train	Cycle	Walk	Other
8			2			2		

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	6
Less Travel Time	5
More Comfort	1
More Flexibility	3
More Reliability	
Improved journey information	
More safety	2
Environmental concerns	10
Health related considerations	3

## Deliverable D3.3 - Mobility solutions and estimation of their potential impacts on inclusive mobility and equity

### Luxembourg – Migrants and refugees

What gender are you?

Female	Male
4	2

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
	4		2			

How many cars does your household have?

0	1	2	More than 2
3	3		

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
3		1	

one participant mentioned all of them  
one participant mentioned 2 to 4

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.		Before 7 a.m.	
7 a.m.-10 a.m.	3	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	3	10 a.m.-4 p.m.	2
4 p.m.-7 p.m.		4 p.m.-7 p.m.	1
After 7 p.m.		After 7 p.m.	3

What distance is your most frequent journey?

Distance	
0-2km	
2-5km	1
5-10km	1
10-15km	2
15-20km	
20-30km	2
Over 30km	1

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	
10-20 min	
20-30 min	
30-45 min	4
45-60 min	
Over 60 min	2

What is the main mode of transport for your most frequent journey?

Car	Carpool	Taxi	Bus	Tram	Train	Cycle	Walk	Other
3			5		2		1	

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	1
Less Travel Time	5
More Comfort	5
More Flexibility	2
More Reliability	2
Improved journey information	
More safety	3
Environmental concerns	2
Health related considerations	1

### Luxembourg - People living in rural areas

What gender are you?

Female	Male
4	2

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
		5		1		

How many cars does your household have?

0	1	2	More than 2
1	3	2	

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
5			

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.	2	Before 7 a.m.	
7 a.m.-10 a.m.	5	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	1	10 a.m.-4 p.m.	
4 p.m.-7 p.m.		4 p.m.-7 p.m.	5
After 7 p.m.		After 7 p.m.	3

three persons answered to 2 options

What distance is your most frequent journey?

Distance	
0-2km	
2-5km	
5-10km	
10-15km	
15-20km	
20-30km	2
Over 30km	6

two persons answered to two options

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	
10-20 min	
20-30 min	
30-45 min	2
45-60 min	2
Over 60 min	3

one person answered to two options

What is the main mode of transport for your most frequent journey?

Car	Carpool	Taxi	Bus	Tram	Train	Cycle	Walk	Other
4	1		3		1			

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	3
Less Travel Time	6
More Comfort	1
More Flexibility	2
More Reliability	1
Improved journey information	
More safety	
Environmental concerns	2
Health related considerations	

## Deliverable D3.3 - Mobility solutions and estimation of their potential impacts on inclusive mobility and equity

### Portugal – Low-income and unemployed people

What gender are you?

Female	Male
5	5

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
	1	1	4	4	1	

How many cars does your household have?

0	1	2	More than 2
	3	5	1

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
	10		

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.	1	Before 7 a.m.	1
7 a.m.-10 a.m.	6	7 a.m.-10 a.m.	
10 a.m.-4 p.m.		10 a.m.-4 p.m.	
4 p.m.-7 p.m.	2	4 p.m.-7 p.m.	6
After 7 p.m.		After 7 p.m.	2

What distance is your most frequent journey?

Distance	
0-2km	
2-5km	2
5-10km	5
10-15km	
15-20km	2
20-30km	
Over 30km	

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	3
10-20 min	2
20-30 min	4
30-45 min	
45-60 min	
Over 60 min	

What is the main mode of transport for your most frequent journey?

Car	Taxi	Bus	Tram	Train	Cycle	Walk	Other
3		2					

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	6
Less Travel Time	2
More Comfort	2
More Flexibility	3
More Reliability	1
Improved journey information	
More safety	1
Environmental concerns	3
Health related considerations	3

### Portugal – Elderly people

What gender are you?

Female	Male
5	4

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
				3		7

How many cars does your household have?

0	1	2	More than 2
2	4	2	2

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
2		7	1

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.		Before 7 a.m.	1
7 a.m.-10 a.m.	6	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	3	10 a.m.-4 p.m.	
4 p.m.-7 p.m.	1	4 p.m.-7 p.m.	5
After 7 p.m.		After 7 p.m.	4

What distance is your most frequent journey?

Distance	
0-2km	1
2-5km	4
5-10km	1
10-15km	
15-20km	2
20-30km	1
Over 30km	1

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	2
10-20 min	4
20-30 min	3
30-45 min	
45-60 min	1
Over 60 min	

What is the main mode of transport for your most frequent journey?

Car	Taxi	Bus	Tram	Train	Cycle	Walk	Other
4	1	2				3	

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	5
Less Travel Time	1
More Comfort	1
More Flexibility	2
More Reliability	1
Improved journey information	2
More safety	5
Environmental concerns	5
Health related considerations	1



## Romania – Children and young people

What gender are you?

Female	Male
7	0

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
7						

How many cars does your household have?

0	1	2	More than 2
1	5		1

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
	4	3	

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.		Before 7 a.m.	
7 a.m.-10 a.m.	1	7 a.m.-10 a.m.	
10 a.m.-4 p.m.	3	10 a.m.-4 p.m.	
4 p.m.-7 p.m.	2	4 p.m.-7 p.m.	1
After 7 p.m.	1	After 7 p.m.	6

What distance is your most frequent journey?

Distance	
0-2km	1
2-5km	3
5-10km	2
10-15km	
15-20km	1
20-30km	
Over 30km	

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	
10-20 min	2
20-30 min	5
30-45 min	
45-60 min	
Over 60 min	

What is the main mode of transport for your most frequent journey?

Car	Carpool	Taxi	Bus	Tram	Train	Cycle	Walk	Other
1			1				5	

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	5
Less Travel Time	6
More Comfort	5
More Flexibility	3
More Reliability	
Improved journey information	
More safety	1
Environmental concerns	3
Health related considerations	

## Romania –Low-income and unemployed people

What gender are you?

Female	Male
1	6

What is your age?

Under 18	18-24	25-34	35-44	45-54	55-64	Over 65
		1		1	1	4

How many cars does your household have?

0	1	2	More than 2
4	2	1	

What is the purpose of your most frequent journey?

home based work trips (1)	home based other trips (2)	home based education trips (3)	non-home based other trips (4)
1	4		2

What time of the day is your most frequent journey?

Outward journey		Return journey	
Before 7 a.m.		Before 7 a.m.	1
7 a.m.-10 a.m.	4	7 a.m.-10 a.m.	3
10 a.m.-4 p.m.	2	10 a.m.-4 p.m.	2
4 p.m.-7 p.m.	1	4 p.m.-7 p.m.	
After 7 p.m.		After 7 p.m.	

What distance is your most frequent journey?

Distance	
0-2km	
2-5km	3
5-10km	4
10-15km	
15-20km	
20-30km	
Over 30km	

What is the usual travel time for your most frequent journey?

Travel time	
0-10 min	5
10-20 min	2
20-30 min	
30-45 min	
45-60 min	
Over 60 min	

What is the main mode of transport for your most frequent journey?

Car	Carpool	Taxi	Bus	Tram	Train	Cycle	Walk	Other
2			5					

What would motivate you most to change your travel behaviour? Select up to 3 options

Change of behaviour	
Lower cost	4
Less Travel Time	1
More Comfort	3
More Flexibility	
More Reliability	2
Improved journey information	1
More safety	3
Environmental concerns	
Health related considerations	4

## Document History

Version	Date	Author/Editor	Description
0.1	23/3/2019	Joanne Wirtz (LUXM)	Table of content
0.2	8/5/2019	Simone Bosetti (TRT)	Revised Table of Content
0.3	8/7/2019	Joanne Wirtz (LUXM)	First draft version
0.4	12/7/2019	Joanne Wirtz (LUXM)	Second draft version
0.5	18/7/2019	Joanne Wirtz (LUXM)	Final consolidated draft
0.6	22/7/2019	Tobias Kuttler (TUB)	First review
0.7	26/7/2019	Joanne Wirtz (LUXM)	Updated version after first review
0.8	31/7/2019	Silvia Maffii (TRT)	Final review – QA
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