



D. 4.3 DIGNITY Framework Validation Report

Date: 12 December 2022

Version: Final

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Project: DIGNITY | www.dignity-project.eu

Project duration: 01.01.2020 – 31.12.2022

Grant Agreement N°: 875542

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°875542.



Executive summary

This deliverable describes the overall assessment and validation process of the DIGNITY framework, carried out by the Universitat Politècnica de Catalunya (UPC). It consisted of a 'process assessment', with which the different project's methodologies are analysed in depth, in order to identify the main drivers and barriers characterising each methodology as well as the organisation and management of the different activities implemented. Furthermore, a final process of validation of the DIGNITY framework, has been conducted. Its objective is to determine how well the different tools and strategies worked together and had a positive impact on the project outcomes, as a whole, and through its different local cases.

The evaluation process has been applied to the different methodologies and tools of the Framing and Bridging phases of the DIGNITY approach, and counted with the contribution of all partners responsible of specific activities and all pilot partners. The process of data gathering integrated quantitative and qualitative information collected from all internal (universities/research entities and pilot partners) and external (vulnerable-to-exclusion groups, end-users, mobility stakeholders) parties involved. Questionnaires, semi-structured interviews and in presence/online group activities have been employed throughout the whole duration of the research initiative. The report presents detailed tables analysing in depth each one of the methodologies employed. At the end of each section the reader can find specific key points, which summarise the main drivers, barriers and lessons learnt, identified for each methodology analysed. The final validation section, offers specific information about the potential of DIGNITY approach to improve the inclusivity of the process of transport digitalization; and whether such approach can be promoted and upscale for further applicability in other locations and contexts.

The evaluation process highlights that, overall, the DIGNITY framework presents a number of strong aspects that confirm the potential of this approach to improve the inclusivity in mobility systems, effectively integrating the needs of vulnerable-to-exclusion users in the proposed solutions. In this sense, the methodologies involved provided complementary results, covering the complex nature of the digital gap and, overall, favouring valuable learning experiences and the involvement of end-users at risk of exclusion. Furthermore, the approach has proven a capacity to produce effective concepts/solutions to bridge the digital gap, which can be easily adaptable to other contexts. Contextually, the analysis revealed some weaknesses, which are especially related to the resources and expertise required to maximise the benefit of the approach. In fact, some of the methodologies applied require expert guidance to ensure relevant outputs and high time dedication. To address these issues, partners worked at the simplification of processes and guidelines/materials in order to better respond to the needs of the diverse entities interested.



Document History

Date	Person	Action	Status
28/02/2022	Boris Lazzarini	Sent to Mobiel 21	Draft
28/02/2022	Boris Lazzarini	Sent to BUAS	Draft
11/03/2022	Boris Lazzarini	Sent to Mobiel 21	Draft
09/06/2022	Boris Lazzarini	Sent to IZT	Draft
25/10/2022	Boris Lazzarini	Sent to UCAM	Draft
10/11/2022	Boris Lazzarini	Sent to BUAS for the final review	Draft
30/11/2022	Nick van Apeldoorn	Sent back after review	Draft
12/12/2022	Boris Lazzarini	Sent to Isinnova	Final



Contents

Executive summary	2
Document History	3
List of Figures	6
List of Tables	7
1. Introduction	8
1.1. Dignity Project Summary	8
1.2. Objectives of this deliverable	8
1.3. Outline of this deliverable	9
2. Methodology: DIGNITY Evaluation framework	10
2.1. Introduction	10
2.2. Evaluation criteria	11
2.3 Data collection methods	14
3. Evaluation of the Framing Phase	15
3.1. Digital Gap Self-assessment	15
Digital Gap Self-Assessment detailed evaluation	16
Main drivers	21
Barriers and limitations	22
Lessons learned	24
3.2. Customer Journey Mapping	25
Customer Journey Mapping detailed evaluation	26
Main drivers	30
Barriers and limitations	31
Lessons learned	33
3.3. Focus group	34
Focus group detailed evaluation	35
Main Drivers	39
Barriers and limitations	39
Lessons learned	41
3.4. Large-scale regional survey	42
Main drivers	43





Barriers and limitations	44
Lessons learned	46
3.5. Overall perception of the framing phase	48
4. Evaluation of the bridging phase	53
4.1. Scenario Building	53
Main drivers	61
Barriers and limitations	62
Lessons learnt	62
4.2. Inclusive Design Wheel	64
Main drivers	72
Barriers and limitations	73
Lessons learnt	73
5. Validation of the DIGNITY approach	75
Strengths	75
Weaknesses	76
Opportunities	77
Threats	77
6. Insights and lessons learnt	78
References	80
Annex I. Focus group Questionnaire for participants	81
Annex II. Focus group participant survey results	83
A. Barcelona	83
B. Flanders	85
C. Tilburg	87
Annex III. Scenario Building co-creation workshop questionnaire for participants	90
Annex IV. Inclusive Design Wheel co-creation workshop questionnaire for participants	92
Annex V. IDW - Explore phase questionnaire (addressed to pilot partners)	94
Annex VI. IDW - End questionnaire (addressed to pilot partners)	96





List of Figures

Figure 1. The DIGNITY approach	10
Figure 2. Emoticons used in synoptic tables	11
Figure 3. Digital Gap Self-assessment/ Positive contributions	48
Figure 4. Digital Gap Self-assessment/ Suggested improvements	48
Figure 5. Customer Journey Mapping/ Positive contributions	49
Figure 6. Customer Journey Mapping/ Suggested improvements	49
Figure 7. Focus group/ Positive contributions	50
Figure 8. Focus group/ Suggested improvements	50
Figure 9. Feedback from pilots	51
Figure 10. Feedback from pilots - commentaries	52
Figure 11. SWOT Activity - Strengths	76
Figure 12. SWOT Activity - Weaknesses	76
Figure 13. SWOT Activity – Opportunities	77
Figure 14. SWOT Activity - Threats	77





List of Tables

Table 1. Evaluation criteria of methodologies/tools employed.....	12
Table 2. Digital Gap Self-assessment evaluation.....	16
Table 3. Customer Journey Mapping evaluation.....	26
Table 4. Focus group evaluation	35
Table 5. Scenario Building evaluation	54
Table 6. Inclusive Design Wheel.....	65





1. Introduction

1.1. Dignity Project Summary

The overarching goal of DIGNITY is to foster a sustainable, integrated and user-friendly digital travel eco-system that improves accessibility and social inclusion, along with the travel experience and daily life of all citizens. The project delves into the digital transport eco-system to grasp the full range of factors that might lead to disparities in the uptake of digitalised mobility solutions by different user groups in Europe. Analysing the digital transition from both a user and provider's perspective, DIGNITY looks at the challenges brought about by digitalisation, to then design, test and validate the DIGNITY approach, a novel concept that seeks to become the 'ABCs for a digital inclusive travel system'. The approach combines proven inclusive design methodologies with the principles of foresight analysis to examine how a structured involvement of all actors - local institutions, market players, interest groups and end users - can help to bridge the digital gap by co-creating more inclusive mobility solutions and by formulating user-centred policy frameworks.

The idea is to support public and private mobility providers in conceiving mainstream digital products or services that are accessible to and usable by as many people as possible, regardless of their income, location, social or health situation or age; and to help policy makers formulate long-term strategies that promote innovation in transport while responding to global social, demographic and economic changes, including the challenges of poverty and migration.

By focusing on and involving end-users throughout the process of designing policies, products, or services, it is possible to reduce social exclusion while boosting new business models and social innovation. The aim of DIGNITY is to provide an innovative decision support tool that can help local and regional decision-makers formulate digitally inclusive policies and strategies, and digital providers design more inclusive products and services.

1.2. Objectives of this deliverable

Task 4.3 aims at validating the DIGNITY approach as a whole, assessing to what extent our innovative methodology promotes the effective understanding of the digital gap in a specific geographical context and facilitating bridging the digital gap at local/regional level and ensuring its replicability in other contexts. The specific objectives of this deliverable are:

- Evaluate the results of the Framing phase
- Evaluate the results of the Bridging phase
- Validate the approach through a SWOT analysis
- Provide recommendations and improvements to facilitate its scalability and application in other contexts





1.3. *Outline of this deliverable*

This deliverable consists of six sections, including this introduction.

Section 2 describes the evaluation methodology and its specific implementation for each DIGNITY tool. The section includes a table summarising the methods and actors that have been involved in the evaluation of respective tools of the Framing and the Bridging phases. Furthermore, it is presented a description of the SWOT methodology applied for the validation of DIGNITY approach, aimed at providing recommendations to adjust and refine the framework in other contexts in terms of scalability and replicability.

In section 3 and 4 are presented the results of the evaluation of the different tools, respectively of the Framing and Bridging phase. Detailed results are presented for each one of the tools through a synoptic table at the beginning of each sub-section. Then, a summary analysis of main drivers, barriers and limitations and lessons learned and lesson learned follow.

Section 5 reports the results of the process of validation of the DIGNITY approach. Specifically, it describes preparation and the analysis of the results of the 'Validation Workshop', which was held during the 4th DIGNITY General Assembly, organised in Barcelona the 17 and 18 of October 2022.

Section 6 describes the main insights and lessons learnt.



2. Methodology: DIGNITY Evaluation framework

2.1. Introduction

The evaluation process consists in the assessment of the DIGNITY approach (Figure 1), which is a multi-phase process that combines different methodologies and tools aimed at i) framing and understand the digital gap in mobility in a specific local/regional context and ii) identifying and developing strategies and solutions to bridge the gap, contributing to build a more inclusive digital transport system. Finally, it evaluates, tests, and fine-tunes these strategies and solutions.

An initial framework and work flow proposal was presented in the deliverable D4.1 Evaluation Guidelines Report, and agreed with the whole Consortium. The assessment of this variety of tools, applied in different European contexts, has combined quantitative and qualitative methodologies, involving DIGNITY partners and external actors participating in project's co-creation activities. Data have been gathered through questionnaires, semi-structured interviews, group dynamics and participant observation of the team in charge of assessment activities in co-creation workshops.

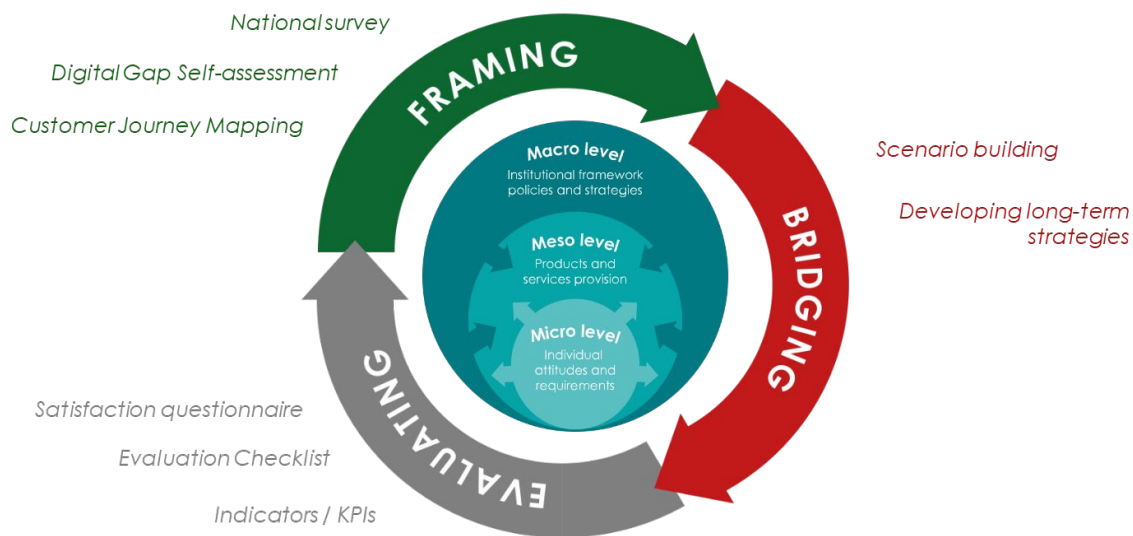


Figure 1. The DIGNITY approach

In the following sections, the assessment results are described in detail in several synoptic tables analysing the different DIGNITY methodologies and tools, under a set of evaluation criteria. Besides, the tables include emoticons, specific smileys to frowny faces, accompanying the descriptive text. Their function is basically to give the reader a more general impression of the overall performance of each indicator in parallel to the linguistic description. The legend below (Figure 2) gives a brief description of the meaning of each emoticon.




Legend - Emoticons		
No particular problems/ issues identified – no further action needed	Minor problems/ issues identified – specific improvements are suggested	Important problems/ issues identified – lack of relevant data /information
		

Figure 2. Emoticons used in synoptic tables

2.2. Evaluation criteria

The evaluation process of DIGNITY's framing and bridging methodologies and tools, implemented in the different pilots, is based on specific criteria established in D4.1 Evaluation Guidelines Report. These common and general criteria, reported in Table 1, comprise a battery of open questions aimed at exploring diverse aspects of the tools employed.

The actions fostered by DIGNITY local demonstrations were specifically addressed to particular vulnerable-to-exclusion target groups and local/regional prioritised areas. The evaluative framework designed for the assessment of specific pilots' outcomes is fully reported in the D4.1, and the results of pilots' evaluation is reported in the deliverable D4.2.

Table 1. Evaluation criteria of methodologies/tools employed

Evaluation Criteria	Evaluative questions	Target – Goal
Effectiveness	<p>According to the goals planned:</p> <ul style="list-style-type: none"> ● How successful was the implementation of the tool in pilots' interventions? ● Were the set goals accomplished? ● To what extent the tool has been implemented in each pilot as was initially planned? ● To what extent target groups have been involved? ● What part of the tool implementation generated more difficulty? ● Is the digital gap issue that the pilot/activity intends to address eventually improved? 	The tool is verified by being conceptually sound and effective to approach the target population in all pilot demonstrations.
Efficiency and resources	<p>According to the resources planned:</p> <ul style="list-style-type: none"> ● Has it been planned properly, in terms of time, human resources? ● Was the chronological chain of activities correctly implemented? ● Are the resources implemented related proportionally to the benefits obtained? ● Could other tools be considered that could have the same outcomes with less resources (human resources, time consumption, etc.)? 	Time, human and financial resources have been planned properly. Activity chain has been implemented correctly.
Participation and Collaboration	<p>According to the vulnerable groups and other stakeholders involved:</p> <ul style="list-style-type: none"> ● Was the implementation of the tool conducted with the vulnerable groups and stakeholders initially planned? ● Does the tool facilitate collaboration among involved parties? ● Has the Information and communication flows been fluid? ● Does the tool favour trust, commitment? ● Which are the main barriers and problems encountered in recruiting and involving participants? 	Group composition (for activities, workshops) reflects targets initially planned. The tool fosters collaboration and involvement of actors implicated.



<p>Expectations & social learning / Capabilities acquired</p>	<p>According to the vulnerable groups and other stakeholders involved:</p> <ul style="list-style-type: none"> ● Have the overall pilot's expectations been fulfilled? ● To what extent do the participants perceive as benefits what they have learned along the implementation? ● Has the implementation fostered empowerment of participants? ● Which are the main capabilities acquired by participants? ● What mechanisms / arrangements could be provided to improve the implementation of the tool by the participants? 	<p>The tool promotes reflexive learning and the development of key capabilities related to the reduction of the digital gap, as well as the empowerment of participants. Involved parties express satisfaction for the activity attended.</p>
<p>Relationship with other Dignity tasks.</p>	<ul style="list-style-type: none"> ● Does the tool establish bridges with the other Dignity activities? ● What resources/benefits does the tool provide to the other tasks within the Dignity project? 	<p>The tool facilitates clear connections and linkages with other project activities. The results and activities promoted within the tool benefit other tasks of the DIGNITY framework.</p>



2.3 Data collection methods

The assessment of the variety of tools applied at pilot level in the Framing and Bridging phases has involved the majority of DIGNITY actors. Data collection methods employed comprised:

- **Assessment questionnaires**

Different questionnaires have been employed for the assessment of the tools, specifically:

- Focus group questionnaire for participants (available as Annex I)
- SB evaluation survey: addressed to the participants of the different SB workshops (Annex III)
- IDW co-creation questionnaire: addressed to participants (end-users) in the co-creation workshops, conducted at the end of or soon after the workshops (Annex IV).
- IDW process questionnaire 1: addressed to pilot partners, conducted partway through the IDW process (usually somewhere in the Create phase) (Annex V).
- IDW process questionnaire 2: addressed to pilot partners, conducted at the end of the IDW process (Annex VI).

- **Semi-structured interviews**

Semi-structured interviews with all pilot partners and with the partners responsible of each tool have been conducted with the aim of assessing qualitative aspects of the different methodologies employed. Each interview was aimed at deepening the different assessment criteria indicated in Table. Interviews lasted approximately one hour they were recorded, transcribed verbatim and then analysed. Project pilots conducted two different interviews for the assessment of the tools of the Framing and Bridging phase.

- **On-line activities**

A participatory online activity was carried out to complement the information gathered through the interviews made to pilots' partners, in order to get more insights on the different framing tools. The activity was implemented through a tool called Miro (<https://miro.com/>), an online whiteboard platform that enabled pilots to provide their comments on the three framing tools, together with their overall perception of the framing phase as a whole.

- **Validation workshop**

A Validation Workshop was organised in Barcelona during the 4th General Assembly. It was the final assessment activity, involving all project partners, and aimed at gathering information to validate the overall DIGNITY approach. It consisted of a SWOT dynamic described in detail in section 5.



3. Evaluation of the Framing Phase

In this section an evaluation of DIGNITY tools applied in the framing phase has been performed; specifically, with the aim of assessing the usefulness and effectiveness of DIGNITY activities and methodologies employed, as well as their correct application in the different local/regional context. For each framing tool detailed results are presented with synoptic tables at the beginning of each sub-section. Then, a summary analysis and lesson learned follow.

3.1. Digital Gap Self-assessment

The digital gap self-assessment framework developed in DIGNITY proposes an instrument that should allow city or regional authorities to: identify the digital gap in mobility, gain clarity on which vulnerable-to-exclusion groups need the most urgent attention, and prioritise policy actions in addressing the digital gap.


The tool is specifically designed for the collection of a baseline information for each pilot to frame the current transport situation, with specific attention to digital gap related to mobility in a specific metropolitan/regional context. Public authorities are the key target audience of this framework and its results will provide them with an overall understanding of the size of the digital gap in mobility, allowing to zoom into the different assessment levels and getting a more in-depth knowledge about each one. The specific objectives of the self-assessment framework are the following:


- To provide an understanding of the current situation in the pilot region regarding digitalization, mobility, and the interaction between the two (e.g. reduced ability to travel due to digitalization).
- To provide knowledge on the ability of citizens to use digital products, identifying any vulnerable-to-exclusion groups that might require additional attention.
- To provide an overview of the current market supply of digital mobility products and services, with a specific focus on the need of vulnerable-to-exclusion groups for digital mobility products and services.
- To assess the policy readiness to address and act on the digital gap in mobility.
- To help cities in their decision-making process, by indicating priority policy areas (e.g. in terms of vulnerable-to-exclusion groups, specific markets, regulations etc.) to focus on.





Digital Gap Self-Assessment detailed evaluation


Table 2. Digital Gap Self-assessment evaluation

Evaluation Criteria	Evaluative questions	Feedback
C1. Effectiveness 	<ul style="list-style-type: none"> ● C1.1. How successful was the implementation of the tool in pilots' interventions? 	<p>The tool was unanimously perceived as useful to raise awareness and gain knowledge on the different aspects and topics relating digital gap and mobility, as well as to systematise the information about the different dimensions.</p> <p>The methodology helped partners to have disaggregated data at different levels (micro, meso, macro) and dimension to obtain an accurate framing of the main aspects characterising the digital gap in the different local interventions. It is important to highlight that some pilot partners, even with specific expertise in the transport/mobility field, had only a superficial knowledge of the complexity of the issue of the digital gap in mobility.</p>
	<ul style="list-style-type: none"> ● C1.2. Were the set goals accomplished? 	<p>Yes. The main objective of the DIGNITY self-assessment framework was to provide local authorities with a clear picture of the digital gap in mobility in their region/local context, helping them to prioritise the vulnerable-to-exclusion groups to be targeted.</p> <p>Each pilot partner mentioned that they were able to collect a set of information that they did not have framed or updated with the current transport situation, with specific attention to digital gap related to mobility in their specific metropolitan/regional context.</p>
	<ul style="list-style-type: none"> ● C1.3. To what extent the tool has been implemented in each pilot as was initially planned? 	<p>The tool responsible pointed out that the time that pilots needed to fill in the data was underestimated. Theoretically, pilots had enough time to perform the information retrieval but, apparently, they did not employ enough people and resources. Even if it was specifically stated that this task should involve the collaboration of external competent departments and entities, in the majority of cases searches related to the self-assessment tool seem to have been carried out</p>

		just with few people, independently. For these reasons, the outcomes of this task may not be as accurate as initially requested.
	<ul style="list-style-type: none"> ● C1.4. To what extent target groups have been involved? 	The involvement of target groups was out of the scope of this tool.
	<ul style="list-style-type: none"> ● C1.5. What part of the tool implementation generated more difficulty? 	Retrospectively, different aspects have generated difficulties according to the results of the interviews, specifically: i) the indicators proposed for every dimension analysed might have been too many and too detailed. Pilot partners perceived the information to collect as too extensive and time-consuming and many data that the tool pretended to collect were not available; ii) complexity of the information to collect that sometimes (for example at macro level) is described as too complex to be easily translated into different predefined indicators. Doubts regarding the validation of the interpretation of data collected due to its complexity; iii) partial availability of the requested information, often not detailed or disaggregated as required in the tool, need to modify/adapt some sections.
	<ul style="list-style-type: none"> ● C1.6. Is the digital gap issue that the pilot/activity intends to address eventually improved? 	Yes. The methodology provided pilot partners with relevant and useful insights at the different levels of analysis (micro, meso and macro) to address the digital gap issue in the respective local contexts. All partners interviewed remarked that the tool is “a good starting point to investigate the digital gap in the pilot region”.
C2. Efficiency and resources 	<ul style="list-style-type: none"> ● C2.1. Has it been planned properly, in terms of time and human resources? 	Overall, it was possibly underestimated the time that pilots needed to fill in the data. Theoretically, pilots had enough time to perform the information retrieval but, apparently, they did not employ enough people and resources. Even if it was specifically stated that this task should involve the collaboration of external competent departments and entities (public administration, data providers, mobility providers etc.), in the majority of cases searches related to the self-assessment tool seem to have been carried out just with few people, independently. In other words, probably very few contacts have been made with external entities, target groups etc. As a result, the outcomes of this task may not be as accurate as initially requested. Besides, this way was more time consuming and not motivating for people involved.

		Pilot partners interviewed remarked that the tool format for collecting data is very complete and very specific. It required an important search effort to obtain the comprehensive information required.
	<ul style="list-style-type: none"> ● C2.2. Was the chronological chain of activities correctly implemented? 	Yes. Overall, the chronological chain of activities was correctly implemented.
	<ul style="list-style-type: none"> ● C2.3. Are the resources implemented related proportionally to the benefits obtained? 	Yes, although human resources were pointed out as a potential limitation of the tool by few partners, all the interviewees agreed unanimously on the fact that the tool provided very useful data that is not normally so available, updated or disaggregated in a way to properly understand digital gap in mobility. Pilots considered that this tool provided essential statistical data – especially at the macro level – useful to identify potential groups at risk of exclusions and prioritise policy actions.
	<ul style="list-style-type: none"> ● C2.4. Could other tools be considered that could have the same outcomes with less resources (human resources, time consumption, etc.)? 	Possibly, pilots' partners were not sufficiently aware of the usefulness of these activities, and they lacked the right motivation to find essential information. Short surveys addressed to external entities could help them focus more on the results than on the search itself. This was the approach of Flanders' pilot and it proved to be very successful. On the other side, universities or research partners could be more involved in order to support pilots in searching activities, handle data sources, data analysis etc. Besides, the tool could be structured to allow frequent measurement in time. These aspects could potentially save resources.
C3. Participation and Collaboration 	<ul style="list-style-type: none"> ● C3.1. Was the implementation of the tool conducted with the vulnerable groups and stakeholders as initially planned? 	Activities with vulnerable groups targeted are out of the scope of this specific tool.
	<ul style="list-style-type: none"> ● C3.2. Does the tool facilitate collaboration among involved parties? 	According to the partners interviewees, pilot partners have mainly performed this task independently, with limited contacts with other entities. In this sense, Covid restrictions have surely not helped collaboration with different institutions at local level and with project partners. As future improvement, it is suggested to integrate aspects and tools fostering collaboration, involving stakeholders, universities, experts as well as any other key actors.

	<ul style="list-style-type: none"> ● C3.3. Has the Information and communication flows been fluid? 	Yes. The partners interviewees pointed out a good communication flow among partners during DGSA activities.
	<ul style="list-style-type: none"> ● C3.4. Does the tool favour trust, commitment? 	The tool provided pilot partners with a global picture of the digital gap of respective local contexts. This helped pilots to better understand the different facets of the issue. On the other hand, the complexity of some aspects/information to be collected through this tool generated doubts and uncertainty to some pilot partners involved, specifically on the correct interpretation and validation of the results.
	<ul style="list-style-type: none"> ● C3.5. Which are the main barriers and problems encountered in recruiting and involving participants? 	No external participants had to be involved with this tool.
<p>C4. Expectations & social learning / Capabilities acquired</p> 	<ul style="list-style-type: none"> ● C4.1. Have the overall pilot's expectations been fulfilled? 	Yes. Despite some concern regarding the complexity of the information to collect and the need to dedicate many resources (mainly in terms of working hours), pilot partners unanimously recognised the importance of this tool for a global assessment of the digital gap in mobility in the respective contexts.
	<ul style="list-style-type: none"> ● C4.2. To what extent do the participants perceive as benefits what they have learned along the implementation? 	The systematic collection of most of this data can be a useful resource for municipalities and local entities, with the possibility of reverting to the specific policies of the mobility sector.
	<ul style="list-style-type: none"> ● C4.3. Has the implementation fostered empowerment of participants? 	C4.3 - C4.4 The tool provided pilots a 'systemic' vision of the digital gap. It allowed prominence and integration into the discussion at the Meso and Macro levels, pointing out the importance to work systemically on different levels, in order to tackle these challenges. In that sense, the tool has raised awareness and provided specific knowledge on the different aspects that should be considered when reorganising a mobility ecosystem, in order to be as inclusive as possible.
	<ul style="list-style-type: none"> ● C4.4. Which are the main capabilities acquired by participants? 	
	<ul style="list-style-type: none"> ● C4.5. What mechanisms / arrangements could be provided to improve the 	Overall, it has been remarked that the tool should be adaptable and more focused on pilot needs and that it should be reduced the time spent searching the internet for available data. Specific improvements comprise: i) the format of data collection could be changed or integrated with less structured and more flexible/interactive

	<p>implementation of the tool by the participants?</p>	<p>tools, in order to facilitate data collection and organisation and providing results that are more direct when filling in the data; ii) a report or a descriptive document complementary to the spreadsheet might be easier to complete, according to specific kind of data; iii) interviews with experts or ready-made surveys addressed to different mobility providers might help integrate and complement with important information.</p> <p>In general, complementary information that pilots consider relevant should be included in the model, even if it does not specifically fit in the categories of the tool. In any case, it has to be stressed the importance for the pilots to go beyond specific needs related to planned interventions and help them to have insights on broader problems related to digital inclusion in respective regions.</p>
<p>C5. Relationship with other Dignity tasks</p> 	<ul style="list-style-type: none"> ● C5.1. Does the tool establish bridges with the other Dignity activities? 	<p>The tool helped to establish bridges with other activities only to a limited extent at the moment of the interview. Nonetheless, the design of the tool itself is meant to establish links with other tasks or aspects of the project of Framing and Bridging phases. As an example, macro categories inquired can help pilots better explore scenarios building activities. At Micro level, the tool could be better linked with Surveys, Customer Journey Mapping and Inclusive Design Wheel. Nonetheless, Covid restrictions caused the delay of different activities, and current timing of self-assessment digital gap is not logical for these tasks. This might have not helped pilots to clearly understand the different relations among project tasks. The extent to which the tool has effectively contributed to other parts will also be inquired through interviews to other partners, as soon as other tasks will be completed.</p>
	<ul style="list-style-type: none"> ● C5.2. What resources/benefits does the tool provide to the other tasks within the Dignity project? 	<p>It provides a complete overview at municipal/regional scale of the issues related to the digital gap that can be the “starting point” of the bridging tools of Scenario Building and Inclusive Design Wheel, as it offers detailed information at Macro/Meso and Micro Levels.</p>



Main drivers

- ✓ **Good starting point to have an overview of the context and a clearer vision of the problems and needs of the group at risk of exclusion**

The tool in general is perceived by project pilots as a useful instrument to raise awareness on the different topics that relate digital gap and mobility, as well as to systematise the information about the different dimensions. Thanks to the data collected – disaggregated at different levels (micro, meso, macro) and dimensions – the methodology helped pilot partners to have essential information and insights for an accurate framing of the different local implementations. In this regard, it is important to highlight that some pilot partners, even with specific expertise in the transport/mobility field, had only a superficial knowledge on the issue of the digital gap in mobility.

- ✓ **Raise awareness on lack of data and specific monitoring systems**

The lack of data and of specific monitoring systems has raised the awareness of diverse local actors on the systemic issue that characterise digital exclusion in mobility, showing the need of specific instruments aimed at identifying and monitoring key variables, as well as on the need of improving data systematisation and updating, in order to reduce the dispersion of information among institutions.

The tool is overall valued positively by pilot partners since it provides relevant data that are usually limitedly available, updated or disaggregated in a way allowing an exhaustive analysis of the digital gap related to mobility in a specific local context. Often data is available at a national/regional level but not at the municipal/local level and, in general, is not up-to-date data. Furthermore, even when data is available, it is most likely not representative of the whole population, since most surveys are distributed online, capturing mainly the 'digital savvy' people. The tool could be structured in order to allow frequent measurement in time, for example before and after the implementation of a policy action.

- ✓ **It provided essential statistical data – integrating meso and macro level – useful to point out the importance to work systemically and prioritise policy actions**

Digital inclusion and mobility poverty are often identified with end-user issues (mainly focusing at Micro level). The DGSA tool allowed giving prominence and integrating into the discussion also Meso and Macro levels, pointing out the importance to work systemically on different levels, in order to tackle these challenges. In that sense, the tool has raised awareness to the different aspects that should be considered when reorganising a mobility ecosystem, in order to be as inclusive as possible. Furthermore, even if the excel format may not be the ideal format to collect and present the information, the tool helped giving a logical order (starting from the population, moving to digitalisation, then mobility patterns, mobility poverty, to the link between mobility and digitalization) and structured sense to the great deal of information collected.





Data gathered, especially at a macro level, is perceived by project pilots as very useful for the correct framing of the local context and the identification of digital gap issues related to the groups at risk of exclusion and to prioritise local actions. The systematic collection of some of this data can be a useful resource for municipalities/local entities, with the possibility of reverting to the specific policies of the mobility sector. Finally, the structured approach to digital gap assessment may facilitate comparison of the gap between different pilot regions allowing cross pilot transferability analysis.

Barriers and limitations

✓ Great effort for pilot partners to collect all comprehensive information required

Despite the positive evaluation of the methodology as a whole, the list of data to be collected and the process of data gathering are described almost unanimously by the partner pilots interviewees as too extensive and time consuming. The tool for gathering information, a spreadsheet, combines very general and very specific information on various topics. The collection of data required in-depth demand searches. Data, if available, can be difficult to obtain, and not specifically detailed as required in the tool and often the gathering process may involve diverse entities or actors. For these reasons, pilot partners stressed that the process should be simplified and the information required could be adaptable to the specificities and context of the local implementations.

In this regard, according to responsible partners, the time spent searching the internet for available data should be reduced overall. As possible improvements, a possibility is that the format of data collection could be changed or integrated with less structured and more flexible/interactive tools, in order to facilitate data collection and organisation and providing results that are more direct when filling in the data. A complementary report or a descriptive document might be easier to complete, according to specific data. Alternatively, interviews with experts or ready-made surveys addressed to different mobility providers might help integrate and complement important information. In both cases, complementary information that pilots consider relevant should be included in the model, even if it does not fit in the categories of the tool. In any case, it has to be stressed the importance for the pilots to go beyond specific needs related to planned interventions and help them to have insights on broader problems related to digital inclusion in respective regions.

✓ Complexity, doubts on the validation of the data gathered, problems of data interpretation, relation among the different levels of analysis

Pilot partners raised doubts about the correctness of the validation of the data collected. Given the complexity and specificity of the sources from which data are extracted, the diversity of the





institutions involved, the lack of relevant comparative data, etc., most of the data collected can be subject to interpretation.

Overall, the indicators proposed for every dimension analysed might have been too many and too detailed, leaving no space for pilot partners to include other related information. Besides, pilots had not a clear idea of what to expect from the analysis of the data collected, in terms of specific applicability and benefit to respective local cases. In this sense, the partners involved had not the possibility to see direct results reflecting their contribution until the very end of the process. As a result, the implementation of the tool was not easy for pilots and might have resulted in a lack of motivation. Besides, pilot partners may have found it difficult to find and organise the information correctly and to fit their previous knowledge into the established categories of the tool.

As a possible solution, it was proposed by pilot partners the integration of a complementary report, with the function of a later revision and interpretation of the data collected, which might help pilots in the validation and contextualization of data gathered. Another concern of pilot partners is about a correct integration of the information gathered at the different levels of analysis (micro, meso, macro). A complementary report could also help pilots to identify important aspects resulting from cross-level information.

✓ **Need to overcome the rigidity of the tool**

According to the majority of partners interviewed, the DGSA should be more flexible and adaptable, and more focused on the needs and specificities of local initiatives. This position is supported by the argument that not all data required by the tool is relevant for their needs. Specific questions or even sections that the tool proposes should be adaptable. A few questions, specifically related to the macro/statistical data may be relevant to monitor for the future. As for possible improvement, the DGSA should be seen as a flexible framework that can be adaptable and more focused on each region/context characteristics and needs.

Having this proposal of improvement in mind, it should be avoided the risk of losing the view on the full picture and systemic dimension of the digital gap. In this sense, partners responsible for data analysis pointed out that data provided by pilots seems to be mainly related to local demonstrations that they have planned earlier and not aimed at having a complete picture of the digital gap in a specific region. Even if, on the one hand, this can be seen as positive, since pilots focused their analysis on clear and specific needs related to already planned actions. However, on the other hand, this might question the overall objectives of self-assessment digital gap.





Lessons learned

- Essential tool providing a global view of the different aspects characterising the digital gap in a local context. It is recommendable as first framing activity, especially in absence of alternative data sources, such as specific surveys.
- It should be reduced the time spent by pilots searching the internet for available data, improving the collaboration between local entities and public authorities, universities and research centres. So SDGA should be understood as a flexible and collaborative tool that can be shared by different institutions involved in framing the gap.
- It should be improved the overall flexibility of the tool with less structured sections and the possibility to adapt the data collection to the specific needs of local contexts.
- It should be explored how to include complementary documentation (such a report) giving the possibility to include important contextual information considered essential for pilots.
- Alternative ways of collecting information should be explored, such as interviews with experts or ready-made surveys addressed to different mobility providers might help integrate and complement important information.






3.2. *Customer Journey Mapping*


The Customer Journey Mapping (CJM) is a tool addressed at gaining a deeper understanding of the interactions between the customer and the provider of a service and the steps the customer takes along its journey. CJM originated from the field of marketing, but is also used in a broader context like services and design to obtain micro-level data based on real experiences. The CJM methodology deployed in the DIGNITY project, in its initial version, combined three qualitative research methods. Namely, executing a survey before the journey, observing the participant while asking for scores during the journey and an in-depth interview about why they give a certain score after the journey. The application of customer journey mapping in the field of mobility, and especially inclusive mobility research proved to be quite limited after an extensive literature review. Due to Covid restrictions, eventually, the CJM methodology could not be deployed in the way initially planned, specifically for the impossibility to accompany participants during their journeys and to perform face-to-face interviews. Consequently, an alternative methodology fitting the local Covid regulation was designed and, eventually, implemented by project pilots by excluding the observation and conducting online interviews based upon past experiences. Both methods are publicly available on the DIGNITY website.



Customer Journey Mapping detailed evaluation

Table 3. Customer Journey Mapping evaluation

Evaluation Criteria	Evaluative questions	Feedback
C1. Effectiveness 	<ul style="list-style-type: none"> ● C1.1. How successful was the implementation of the tool in pilots' interventions? 	<p>The activities conducted by pilots were overall very well planned, and the results provided useful information and relevant insights for most of the pilots, specifically at micro-level, which have complemented the results of the other framing methodologies. Due to Covid restrictions, eventually the methodology could not be deployed in the way initially planned, a fact that might have conditioned its overall perception. For its characteristics, the methodology requires time-consuming activities (such as detailed transcriptions of the interviews, which later have to be translated into English from local languages) and Covid limitations hindered some activities, such as the recruitment of participants and the organisation of phone interviews. These aspects may also have affected pilots' general perception of the tool. Nonetheless, this does not affect the relevance of the results obtained with CJM.</p>
	<ul style="list-style-type: none"> ● C1.2. Were the set goals accomplished? 	<p>Keeping in mind that the methodology was just partially deployed due to Covid restrictions, overall the alternative deployment of the tool – namely to get micro-scale qualitative data on the daily activities and trips of vulnerable-to-exclusion groups; excluding accompanying targeted people in their journeys – has been accomplished in all different local pilot implementations.</p>
	<ul style="list-style-type: none"> ● C1.3. To what extent the tool has been implemented in each pilot as was initially planned? 	<p>Overall, the tool was implemented as set out by the CJM specific manual with Covid regulation in place. Pilots benefited from the support of the responsible of the tool who helped pilots to plan and implement their activities. Ancona pilot did not provide the transcriptions verbatim of the interviews.</p>
	<ul style="list-style-type: none"> ● C1.4. To what extent target groups have been involved? 	<p>All pilots selected and recruited members of vulnerable to exclusion groups initially targeted.</p>
	<ul style="list-style-type: none"> ● C1.5. What part of the tool implementation generated more difficulty? 	<p>Some difficulties and challenges were pointed out during the interviews, some of them due to the fact of being under Covid-19 pandemic circumstances, which affected the overall planning and implementation the tool: i) recruiting participants for the</p>

		<p>interviews, ii) the templates provided to the pilots did not translate the richness of the transcripts and need to be improved; iii) pilot partners described the activities in general, and specifically the need to draft transcripts as time consuming. As a general comment, the fact of conducting the activities not face-to-face might have conditioned the overall appreciation of the tool by project pilots.</p>
	<ul style="list-style-type: none"> ● C1.6. Is the digital gap issue that the pilot/activity intends to address eventually improved? 	<p>The possibility to count with detailed micro-scale qualitative data on the daily activities and trips of targeted vulnerable-to-exclusion groups provided pilots with very valuable insights with which addressing actions aimed at improving the digital gap characterising the different local contexts.</p>
<p>C2. Efficiency and resources</p> 	<ul style="list-style-type: none"> ● C2.1. Has it been planned properly, in terms of time and human resources? 	<p>The tool is perceived quite unanimously as time-consuming and quite demanding to organise, from a practical point of view. The main reasons are resumed in all previous points, more specifically the difficulties reported in point C1.5. Nonetheless, overall the activities were properly planned in terms of time and human resources, in line with the initial goals of the methodology.</p>
	<ul style="list-style-type: none"> ● C2.2. Was the chronological chain of activities correctly implemented? 	<p>Yes. Overall, the chronological chain of activities was correctly implemented. It is worth noting that the CJM process was initially divided into before, during and after the journey, but due to Covid situation, the methodology had to be adapted and the interviews were carried out all in one.</p>
	<ul style="list-style-type: none"> ● C2.3. Are the resources implemented related proportionally to the benefits obtained? 	<p>As emphasised in C2.1, the CJM has been unanimously described as time and resource consuming. Nonetheless, it is worth remarking that the analysis of qualitative data at a very micro-level needs special caution in data treatment. In this regard, interview transcripts (translated into English from the local languages) were needed. Overall, the resources implemented can be considered proportional to the benefit obtained. In this regard, it is acknowledged that CJM helped to collect valuable and detailed information that contributed to increase the understanding of the digital gap and to complement the other framing tools, more focused on macro level. Notwithstanding the foregoing, there can be scope for further improvement of the tool.</p>
	<ul style="list-style-type: none"> ● C2.4. Could other tools be considered that could have the same outcomes with less resources (human resources, time consumption, etc.)? 	<p>There might be other tools available, and this specific methodology has been chosen after a literature research. In any case, the collection of qualitative data at a micro-level of a very small segment of the population would be demanding also with alternative qualitative methods. The possibility to accompany members of vulnerable groups in their daily journeys was considered especially appropriate for the objectives of the DIGNITY project.</p>

C3.
Participation and
Collaboration



- C3.1. Was the implementation of the tool conducted with the vulnerable groups and stakeholders as initially planned?

Yes, partially, according to the tool responsible and pilot partners interviewed. As pointed out earlier, the implementation was not conducted as initially planned for the pilots, since they were not able to join the participants during their journey, and to conduct interviews face-to-face. So that valuable insights such as the real perception of their emotions, abilities, challenges etc. might have been missing etc.

- C3.2. Does the tool facilitate collaboration among involved parties?

It is out of the scope of this methodology facilitating collaboration among parties. The possibility of conducting activities face-to-face would have helped the parties involved to better share emotions, abilities etc., useful for the research.

- C3.3. Has the Information and communication flows been fluid?

Yes. Overall pilot partners reported good communication with the responsible partner during CJM activities. The tool responsible pointed out some improvements on the reply timing due high workload.

- C3.4. Does the tool favour trust, commitment?

C3.4. Among participants, it was noticed that the planning and process (i.e. calling them previously) helps to establish a personal connection between the interviewers and the participants which strengthens their trust and helps to let them open up. Again, the possibility of conducting activities face-to-face would facilitate favouring trust and commitment.

- C3.5. Which are the main barriers and problems encountered in recruiting and involving participants?

As mentioned previously, in some pilot cities/regions it was quite difficult to recruit the participants targeted, especially due COVID circumstances. Besides, specific working groups targeted have poor availability due to their working hours (e.g. cleaning ladies in Barcelona) and it is not easy to plan long interviews.

C4.
Expectations &
social learning /
Capabilities
acquired




- C4.1. Have the overall pilot's expectations been fulfilled?

Overall, the information provided by CJM is perceived as valuable and complementary to other framing tools. However, pilots emphasised the fact that the methodology was very demanding from a practical point of view and time-consuming. It has to be considered the fact that pilots were not able to accompany targeted people in their journeys, which eventually resulted to be time saving. Having to provide transcripts translated into English was not especially appreciated by pilots. In this respect, some pilot partners suggested that the process itself was "more suitable for research or educational purposes, rather than for a municipality". All these aspects have surely conditioned the overall assessment of the tool made by pilots and, consequently, their expectations.

- C4.2. To what extent do the participants perceive as benefits what they have

The tool definitely has helped pilots to obtain micro data with very rich detailed information that granted new insights in daily struggles and problem-solving skills of groups at risk of exclusion. Pilots overall described the results useful for local



	<p>learned along the implementation?</p>	<p>implementations. Some partners especially appreciate the insights provided by CJM, others perceived the results as aspects partly already known. Designers/developers have especially appreciated this methodology for the insights that it provides.</p>
	<ul style="list-style-type: none"> ● C4.3. Has the implementation fostered empowerment of participants? 	<p>The empowerment or the acquisition of capabilities by participants is out of the scope of this methodology. Participants might have acquired knowledge related to some aspects of the digital gap in mobility along the process but this was not the focus of the tool.</p>
	<ul style="list-style-type: none"> ● C4.4. Which are the main capabilities acquired by participants? 	
	<ul style="list-style-type: none"> ● C4.5. What mechanisms / arrangements could be provided to improve the implementation of the tool by the participants? 	<p>The templates to collect information on the “feelings and level of satisfaction” have to be improved, and should be complemented with qualitative information to gather the richness of the information. This is a time-consuming task as one still has to do it manually. Templates could be improved to avoid having to check the transcript of the interviews to create the map.</p>
<p>C5. Relationship with other Dignity tasks</p> 	<ul style="list-style-type: none"> ● C5.1. Does the tool establish bridges with the other Dignity activities? 	<p>Yes. The tool responsible pointed out a clear link with task 1.2 (Surveys), 2.1 (Framing methodology) and the workshops of task WP3, since D3.1 compares results from the bridging phase tools. The other interviews confirmed the link with other framing activities emphasising the complementarity with the other framing tools, integrating more qualitative and micro aspects to the quantitative focus employed. Furthermore, the results and insights of CJM can establish links with certain aspects of bridging phase, specifically task 2.2.1 (Inclusive Design Wheel).</p>
	<ul style="list-style-type: none"> ● C5.2. What resources/benefits does the tool provide to the other tasks within the Dignity project? 	<p>Different benefits have been pointed out during the interviews:</p> <p>i) The systematic collection of micro level data, which integrate more quantitative/macro information provided by other tools ii) two CJM manuals: one without Covid-19 regulations and one with Covid regulations in place</p> <p>iii) Input for the activities indicated at point C5.1., namely: 3.1.3 workshops to validate the results of 1.2, 2.1, and 3.1.2. and iv) Input for the WP3 workshops, granting the micro, meso and macro overview of the experiences of our vulnerable to exclusion groups.</p>



Main drivers

✓ Useful methodology for providing important and insightful information on groups at risk of exclusion, specifically at a micro level

The methodology is particularly useful to get insights of the daily activities and trips of vulnerable-to-exclusion groups in the pilot regions, and allowed an overview of considerations and choices that transport users - specifically members of groups vulnerable-to-exclusion - make in their daily activities and trips, making visible their difficulties and obstacles, as well as the improvement opportunities that policy and mobility products and services have. Thanks to the methodology, each pilot region accessed to specific and relevant information, especially at micro level, that helps to develop a local implementation plan. The activity, carried out during the pandemic period, provided a valuable overview of considerations, choices and difficulties that the target group faced during a time characterised by a limited number of trips, minimising the use of public transport. Pilots were able to choose groups specifically targeted in their activities and to link customer journey experience with the results of the other tools, namely DGSA and national/regional Surveys (in few cases, preliminary results were available). This fact, gives pilots the potential to better define specific proposals and improvement opportunities for their local implementation plans.

Pilot partners, quite unanimously, described the methodology as useful for providing important and insightful information, specifically on the problems and challenges experienced by end users of the targeted groups at risk of exclusion. They stressed the fact that, due to Covid restrictions, it was not possible to fully apply the methodology – namely combining interviews with the direct observation of participants, accompanying them during a journey – and that the interviews were done mainly by phone. Nonetheless, despite this limitation, individual interviews with people from a very specific segment of the population can provide interesting and in-depth information, make come to light problems and barriers not previously considered, as well as personal limitations and feelings facing the use of the technology that participants may be reluctant to share in collective sessions.

✓ Qualitative learning that complement the other DIGNITY tools

A tool that systematically collects qualitative data at micro level through personal stories is very valuable for the assessment of the digital gap in mobility. Besides this methodology favours learning that complement the other tools of the framing phase, mostly focused on quantitative analysis. The methodology was developed and tailored not only to the needs of the projects but also focusing on the groups at risk of exclusion and specific journeys the pilots wanted to focus on. The implementation of the tool gave evidence of the fact that the methodology is easily adaptable to different contexts.

Micro data and personal stories collected through this tool contain very rich and detailed information providing insights on daily struggles of groups at risk of exclusion, as well as their





problem-solving skills. Furthermore, these kinds of stories are useful to communicate the importance and the urgency of policy advocacy on the digital gap in mobility.

✓ **Insightful results for tech companies**

CJM experience was of utmost importance for a company partner of the project, which focuses its projects predominantly on technological activities. It was described as especially valuable for company's employees, an important input to improve the quality and inclusiveness of their services, beyond the technological aspects. The employees are mainly young workers, with high technological skills, specifically dedicated to activities related to the optimization of the validation of a travel ticket through a cell phone. They had just superficial knowledge of the issue of digital gap in mobility and the experience of CJM was very enriching from a personal and professional point of view. Specifically, the results raised awareness on the problems and limitations that members of groups at risk of exclusion may experience, and also raised awareness on the significance of non-digital alternatives in travel planning, as well as the importance of the human side of the workers of transport companies when the digital part fails.

Barriers and limitations

✓ **Partial deployment of the methodology during COVID restrictions**

The methodology initially planned to make journeys accompanying targeted people, in order to observe them during their displacements. Regrettably, due to all pandemic restrictions put in place in partners' countries, it was not possible to accompany people and it was reduced the number of interviews, which had to be conducted over the phone or in a video call. This was not ideal but it was the best alternative available considering the pandemic limitations.

Before the interviews were conducted, an intake phone call took place to see if people were able to video call and share information through a screen. If this was not the case, a phone interview was conducted and templates have been sent through the mail. This was definitely a difficulty. Besides, some partners struggled to find people willing to participate in the interviews. Buas examined the transcripts of the interviews in order not to miss valuable information not specified in the templates.

It is worth remarking that the overall assessment of the methodology by project pilots might have been conditioned by the deployment of the methodology during pandemic restrictions in the different partners' countries. In fact, pilot partners stressed out that accompanying target people during their journeys, personally experiencing journeys accompanying people targeted, could have added very useful information and insights. In some way, the lack of a direct contact and 'human touch' with the participants, might have contributed to the overall perception of the tool as excessively 'distant' and academic. In this regard, some of the comments remarked that the tool seems more suitable for research or educational purposes, not for a local entity/municipality.



✓ **Perceived as time-consuming and demanding in terms of organisation**

Despite the fact that the methodology has not been applied integrally, the tool is perceived quite unanimously as time-consuming and quite demanding to organise, from a practical point of view. The CJM manual provided to the pilots is very detailed and all activities conducted by pilots were overall very well planned. Alongside that, the difficulty to recruit participants and organising interviews in times of Covid, as well as the time spent over the transcription of the interviews, might have conditioned this perception. Besides, in some cases, these efforts have resulted in collecting information whose usefulness was not fully clear for local implementations. By way of example, many questions of the CJM interviews addressed to targeted people were focused on the emotional state of the interviewees. Some pilots apparently have not cleared the relevance of the affective aspects for the implementation of local initiatives. It should be considered the fact that pilot partners are not researchers but civil servants and employees of public and private entities. Keeping in mind that the CJM methodology is academic and that pilot partners may not have specific knowledge of social sciences, they might not feel sure to conduct these activities correctly (this may vary depending on the profile of the person performing the activity). In any case, pilots' perception of CJM does not diminish the specific and relevant role of this methodology for the assessment of the digital gap in mobility.

✓ **Homogeneity and uniformity of results when addressing similar segments of the population with similar mobility problems**

Interviews conducted with a very specific and small segment of the population of the same target group at risk of exclusion provide specific in-depth information. Few pilot partners described the group at risk interviewed as too homogeneous and that the results in general gave the impression of being overly repetitive and excessively uniform. Other partners pointed out that since the tool was mostly focused at a micro level, they had difficulty to see its relations with the different levels of Dignity analysis (macro, meso and micro). In this regard, it is worth considering that CJM methodology explicitly focuses on very specific groups at risk and on micro data, besides the majority of the data of national/regional surveys was not available for most of the pilots until the very end of the framing phase. The availability of survey results could have helped pilot partners to have a more complete picture of the digital gap from the different levels analysed in the respective context. As mentioned earlier, the profile of pilot partners is very diverse, as well as the initiatives locally implemented. Previous knowledge on groups at risk of exclusion, and on the aspects related to the digital divide, may differ much among pilots. These differences have been reflected in the different expectations that partners had on CJM results and insights. This may explain the different positions and perceptions on this methodology among pilots.



Lessons learned

- The methodology is particularly useful for providing insights on personal issues faced by vulnerable-to-exclusion groups at a very micro level. The scope and contribution of this tool is especially significant to get a detailed understanding of the digital gap in mobility. Besides, it positively complements the other tool of the framing phase.
- The tool is perceived quite unanimously as demanding in terms of organisation and time-consuming and requires specific skills from social science to analyse results). It should be explored a possible way to reduce the time burden of local entities involved and enhance the value of the qualitative results obtained. Possibly a collaboration with a social scientist can help dealing with the management of research activities and its further analysis and interpretation.
- The CJM is a research methodology that, in the DIGNITY context, has been implemented by civil servants and employees. The support of universities/research institutes can be valuable for local entities to get the greatest benefit from CJM activities.





3.3. Focus group

Focus groups with vulnerable-to-exclusion groups are the final step of the DIGNITY framing methodology. These activities initially aimed at discussing and validating the data collected during the previous steps of the DIGNITY framing approach.

As defined in D3.1, the goal of this final step was not to collect a lot of new data, but rather to better understand and contextualise the results already known, adding another layer of information to the results and thus finalising the DIGNITY framing research methodology as a whole. The content of this focus group was therefore not fixed, but varies according to the already known insights in the vulnerable-to-exclusion groups in previous steps of the DIGNITY framing methodology.

A focus group is a well-known qualitative research method already established as a long-term tradition boasting various proven merits. In essence, a small selection of people is assembled to discuss a specific topic. In addition, a focus group is characterised by an inherent interactive nature that makes it distinct from a series of individual interviews or even a group interview. By recreating the social context in which people form their opinions, a focus group helps a researcher to understand group dynamics and the construction of opinions.


At the end of each focus-group, participants were asked to respond a questionnaire to get more insights on their impressions and learning experience. They were completed either paper-based or online, depending on the conditions and groups targeted on each pilot. The questionnaire was divided into two parts. The first part was meant to evaluate – on a scale from Strongly disagree (1) to Strongly agree (5) – the level of satisfaction of participants, the learning aspects, the level of understanding of the activity, its perceived usefulness, etc. In the second part, through open response questions, participants had the possibility to provide suggestions for improving the activity.

The complete version of the focus group participant questionnaire can be consulted in Annex I and the results in Annex II. The results of these questionnaires, the participants feedback can be cons



Focus group detailed evaluation

Table 4. Focus group evaluation

Evaluation Criteria	Evaluative questions	Feedback
C1. Effectiveness 	<ul style="list-style-type: none"> ● C1.1. How successful was the implementation of the tool in pilots' interventions? 	The implementation of the tool in pilot interventions was very successful. All partners reported useful and insightful results.
	<ul style="list-style-type: none"> ● C1.2. Were the set goals accomplished? 	The initial goals were only partially accomplished, since it was not possible to validate the results of all previous steps of the framing phase (DGSA, Surveys, CJM). However, eventually, the process helped to deepen in the understanding of the digital gap in a specific context and explore coherent solutions for each pilot.
	<ul style="list-style-type: none"> ● C1.3. To what extent the tool has been implemented in each pilot as was initially planned? 	
	<ul style="list-style-type: none"> ● C1.4. To what extent target groups have been involved? 	According to pilot partners, all the groups targeted in the different local initiatives participated in focus groups.
	<ul style="list-style-type: none"> ● C1.5. What part of the tool implementation generated more difficulty? 	No specific barriers have been indicated by pilots, except the selection and recruitment of participants during Covid restrictions. Some challenges were pointed out by the responsible of the tool, such as: i) the integration and validation of the results and insights of the other framing methodologies mainly due to the diversity of the tools employed and the complexity of data gathered; ii) the fact that the execution of a research method had to rely mainly on partners that are not researchers.
	<ul style="list-style-type: none"> ● C1.6. Is the digital gap issue that the pilot/activity intends to address eventually improved? 	All experiences provided important insights for the understanding and improving of the digital gap, according to the interviews.
C2. Efficiency and resources	<ul style="list-style-type: none"> ● C2.1. Has it been planned properly, in terms of time and human resources? 	Yes. The tool responsible and all pilots unanimously highlighted the fact that the activities were planned properly. According to pilots, the materials (guidelines, set of questions for each pilot) and the individual support received by Mobiel 21 was key for a proper planification and implementation of the activities. It is noted that one of the pilots chose to conduct the Focus Groups online, instead of face-to-face.



<ul style="list-style-type: none"> ● C2.2. Was the chronological chain of activities correctly implemented? 	<p>Yes. Overall, the chronological chain of activities was correctly implemented, apart from surveys. In fact, few national/regional Surveys, such as Tilburg and Flanders, had only preliminary results available during focus group planification.</p>
<ul style="list-style-type: none"> ● C2.3. Are the resources implemented related proportionally to the benefits obtained? 	<p>Yes, very well employed, as reported by pilots. Furthermore, most of the interviewees pointed out that more resources should be assigned to this tool, for example by doing at least two focus groups instead of only one.</p>
<ul style="list-style-type: none"> ● C2.4. Could other tools be considered that could have the same outcomes with less resources (human resources, time consumption, etc.)? 	<p>This tool has been especially highly valued by pilot partners and similar tools (groups sessions) would require a similar amount of resources. It should be considered that the verbatim transcript of each session (normally included in the focus group methodology) were not required. The responsible of the tool indicated that having the transcripts of the sessions would have been helpful for the analysis of the results, however, it would require a lot of time and resources, considering that transcripts should be translated into English.</p>

C3.
Participation
and
Collaboration



<ul style="list-style-type: none"> ● C3.1. Was the implementation of the tool conducted with the vulnerable groups and stakeholders as initially planned? 	<p>Yes. Overall, focus groups were conducted mostly with members of the vulnerable groups targeted by project pilots. The responsible of the tool highlighted the importance of implementing the tool in face-to-face sessions with the participants to obtain valuable results.</p>
<ul style="list-style-type: none"> ● C3.2. Does the tool facilitate collaboration among involved parties? 	<p>Yes, but the tool responsible suggested some improvements, such as the involvement of pilot partners in the design process of the activities, specifically a collaboration with the pilots in the design of the questions to be discussed in focus groups.</p>
<ul style="list-style-type: none"> ● C3.3. Has the Information and communication flows been fluid? 	<p>Yes, overall the communication flow was fluid even though it was sometimes difficult to get a response from the pilot partners in time.</p>
<ul style="list-style-type: none"> ● C3.4. Does the tool favour trust, commitment? 	<p>Yes. According to the interviewees, the process fostered creativity, empathy and a learning environment that benefited all parts, especially thanks to personal interaction of participants. Overall, pilot partners reported that the participants were very motivated to share their views and proposals for improvement and were grateful that someone listened to their problems and asked for their opinions.</p>
<ul style="list-style-type: none"> ● C3.5. Which are the main barriers and problems encountered in recruiting and involving participants? 	<p>Recruiting participants may be difficult, depending on the group targeted (elderly people, migrants etc.). Due to Covid restrictions that were still in place in some regions/countries, the recruitment process was quite demanding.</p>




C4.
Expectations
& social
learning /
Capabilities
acquired



<ul style="list-style-type: none"> ● C4.1. Have the overall pilot's expectations been fulfilled? 	<p>Yes. The focus group is by far the best-valued tool of the framing phase. It was unanimously described by pilots as a pleasant and useful method to get important insights from the members of groups at risk of exclusion. Also, the support of the responsible partner (materials provided and personalised attention) was especially appreciated by pilots.</p>
<ul style="list-style-type: none"> ● C4.2. To what extent do the participants perceive as benefits what they have learned along the implementation? 	<p>All involved parts remarked on the importance of the learning dimension of this methodology. Participants acquire new knowledge and perspectives on the digital gap related to mobility thanks to group dynamic. participants felt heard and suggested interesting ideas and solutions, with a positive feeling of contribution. Also group moderators learned from the experiences, concerns, and needs of participants. Many partners described it as a very meaningful experience, above all for its human side.</p>
<ul style="list-style-type: none"> ● C4.3. Has the implementation fostered empowerment of participants? 	<p>It is worth pointing out that the activities of focus groups contributed to raise the awareness of the participants that the digital divide and any personal limitations that they may experience in daily mobility cannot be brought down as personal issues and there are political responsibilities to improve conditions that affect thousands of people. They have also learned that there are no standard solutions and that the members of vulnerable groups can help provide valuable suggestions for improving their problems and that their contribution is well valued and necessary. All this contributed to their empowerment.</p>
<ul style="list-style-type: none"> ● C4.4. Which are the main capabilities acquired by participants? 	<p>The acquisition of specific capabilities is out of the scope of this methodology.</p>
<ul style="list-style-type: none"> ● C4.5. What mechanisms / arrangements could be provided to improve the implementation of the tool by the participants? 	<p>Overall, pilots and the responsible partner agree on the fact that allocating more resources to this tool mainly in terms of time, for example conducting two focus groups per pilot, could be very valuable to deepen specific aspects, considering the results and the satisfaction and the interest of the participants. Other possible improvements highlighted are related to a greater collaboration of pilots in the design of the focus groups activities, such as the design of the questions to be debated, dynamic of the activities etc. Besides, the participation of an experienced researcher/facilitator could be a further improvement, though this would imply allocating more resources. Lastly, the responsible of the tool was dependent on how pilots filled out their</p>



		<p>templates and often clarifications were needed to properly analyse the data. A redefinition of the templates or the integration of transcripts can be possible improvements.</p>
<p>C5. Relationship with other Dignity tasks</p> 	<ul style="list-style-type: none"> ● C5.1. Does the tool establish bridges with the other Dignity activities? ● C5.2. What resources/benefits does the tool provide to the other tasks within the Dignity project? 	<p>The initial goal of this tool aimed at integrating and validating the results of the other activities of the framing phase. In this respect, in its initial conception it should have established a bridge with the other phases of the DIGNITY approach, namely bridging and evaluation. As pointed out earlier, the main goal of the tool was only partially achieved, nonetheless, it can be affirmed that the results provide essential insights for different activities.</p> <p>According to the pilots, this tool helped integrate essential and diverse information on the multiple aspects related to vulnerable-to exclusion groups targeted. This impacted positively on the results of the framing phase, considered as a whole. Furthermore, it should impact at least on the preparation of the bridging activities.</p>



Main Drivers

- ✓ **The process is perceived as useful to get insights and very enriching for companies, municipalities and participants**

The focus group is by far the best-valued tool of the framing phase. It is unanimously described as a pleasant and useful method to get insight from different perspectives. According to the interviewees, the process fostered creativity, empathy and a learning environment that benefited all parts, especially thanks to personal interaction and diversity of participants.

The slight diversity in the composition of the different groups, as well as the possibility of a face-to-face debate (only the focus group of the pilot of Ancona was held remotely), has greatly enriched the conversation and a number of interesting ideas have emerged and have been discussed. Pilot partners and participants remarked on the learning dimension of this methodology. Group moderators learned from the experiences, concerns, and needs of participants. Many partners described it as a very meaningful experience, above all for its human side. Besides, the groups of participants were very motivated to share their views and proposals for improvement and were grateful that someone listened to their problems and asked for their opinions.

- ✓ **Well planned activity, but more time/resources could favour in-depth knowledge in a cost-effective manner**

The activity of the focus group is unanimously described as well planned in all different aspects. The list of questions provided by Mobiel21, specifically focused on the local experiences and groups targeted, was very useful to conduct the activity. Some pilots decided to include extra questions, in order to examine specific aspects related to the groups at risk targeted. It was pointed out unanimously that a small and slightly diverse group of people seems to be the best way to go in-depth on a particular issue. Participants were happy to explain their problems to the other participants and look together for potential solutions. This tool is described as the one with the best relationship between resources employed and results achieved. Moreover, in general partners would allocate more resources to this methodology, considering that extending the duration of the focus group would allow them to examine more in-depth specific issues and solutions.

Barriers and limitations

- ✓ **Difficulty in recruiting participants of targeted groups**

Partner pilots and tools responsible pointed out that recruiting participants was difficult, depending on the group targeted (elderly people, migrants, etc.). It has to be considered that Covid restrictions were still in place in some regions/countries, so the recruitment process was challenging and demanding for them.





✓ **Organisation of the tool implementation is somehow challenging**

Although it was unanimously highlighted that the activities were planned properly, the tool responsible noted that the organisation was quite challenging, since they had to implement for each pilot an *ad hoc* set of questions for conducting the activity, in a relatively short period of time. According to pilots, the materials (guidelines, set of questions for each pilot) and the individual support received by Mobiel 21 was key for a proper planification and implementation of the activities. As a possible improvement collaboration between the responsible partners and pilots in the definition of the specific objectives and specific questions/aspects to be discussed. Furthermore, a doubt on the transferability of the results of just one focus group conducted has been highlighted as improving remarks in the online activity.

✓ **The final results were different than the initial goals defined, since it was not possible to validate and integrate previous results of the framing phase**

According to the Focus Group Guidelines, “the goal of the focus group is primarily to discuss and validate the results from the digital gap self-assessment, the survey and the Customer Journey Mapping”. Even though initially the main aim of the focus group was the validation of the results of previous steps of the framing phase (DGSA, Survey and CJM), it went further this goal to be properly a tool to understand/deepen the digital divide in a specific context and explore coherent solutions for each pilot. As a consequence, the results added a more detailed layer of information more than validating framing results. It shows the capacity of adaptation of this tool and the valuable results.

✓ **The execution of the research method had to rely mainly on partners that are not researchers**

The final results of this methodology ultimately rely just on the feedback received by project pilots, namely non-researcher partners that implemented focus groups. In this regard, the possibility to have transcripts verbatim of the activities could improve the robustness of the analysis. On the other hand, this would imply the allocation of more personal resources.





Lessons learned

- More time/resources could be allocated to this tool, in order to maximise the benefits widely acknowledged by its participants. To get more valuable insights, several sessions with different and diverse participants should be promoted instead of one long workshop.
- Fostering collaboration between research partners and the respective pilots in the design of the group activities, such as the definition of the set of questions to be discussed, could possibly help the overall organisation of the focus groups and the improvement of the quality of the results.
- The availability of the transcripts of groups' discussions would help to analyse more appropriately the results of each session, since currently the results are based on how partner pilots fill out their templates. Processing the information discussed through transcripts and their subsequent analysis would help to deepen in the results of the session and provide return to the participants. This would require the allocation more resources.
- As remarked, pilots were provided with an ad hoc set of questions to be discussed during the focus group. Possibly, a general set of questions common to all pilots, and/or a guide on how to construct specific questions could be contemplated as a sort of guidance to facilitate the use of the tool beyond the Dignity project.





3.4. *Large-scale regional survey*

The DIGNITY project has conducted a set of surveys to gather population level data on a range of user factors that affect people's use of digital mobility products and services. The data from these surveys provides valuable information about the digital mobility gap in a region, the characteristics of vulnerable-to-exclusion groups and their needs for digital mobility systems. It can also be used to give a holistic understanding of who would be excluded from using a particular mobility product or service and why.

A questionnaire was developed for these surveys, based on an existing questionnaire for examining digital exclusion. This previous questionnaire was developed and implemented by the DIGNITY partners at the University of Cambridge (UCAM). Extra questions were added to examine the use of technology in transport and mobility poverty.

Surveys were conducted using this questionnaire in five countries/regions in 2020 and 2021. The regions were: Germany, Italy, the Barcelona Metropolitan Area (in Spain), Flanders (in Belgium) and the Netherlands. The overall process was coordinated by the University of Cambridge (UCAM), while the survey in each country was conducted by a local market research institution, under the direction of the research partners in that country. It is worth noting that, even though the UCAM team was involved in the survey work since the start of the project, they were not involved in the details of the implementation in the different local contexts. As a result, there was a degree of variation in how the survey was conducted in each country.

After the surveys were conducted, the DIGNITY partner Mobiel21 was in charge of communicating the survey results to local pilots. Since the project pilots were not directly involved in the implementation of the surveys, a detailed evaluation table has not been included in this section, unlike the sections for the other framing tools.

It should also be considered that, while the pilots focused their respective actions at a local/regional level, three of the five surveys were implemented at a national, rather than regional, level. This was because a key aim of the surveys was to gain a broader picture of the digital mobility gap across Europe as a whole, and to provide data that can be applied on a wider range of projects.





Main drivers

- ✓ **The tool provides essential information to deepen the understanding of a wide range of issues related to the digital divide**

The surveys provided important quantitative information specifically on the micro level. Pilot partners generally described the data collected through the surveys as very important and necessary for an exhaustive analysis of the digital divide related to mobility and for deepening their knowledge of the specifics related to the targeted groups at risk of exclusion.

While bearing this in mind, it is worth highlighting that, for some pilots, having survey data at a national level (a higher level of analysis than the local scope of their interventions) was mostly useful for providing a general understanding of the problem. In such cases, the implementation of the local initiatives was based on relevant data collected using the other tools of the framing phase, in addition to the survey data. These other tools (e.g., the Digital Gap Self-assessment and Customer Journey Mapping) linked more directly to the contextual characteristics of the pilots.

- ✓ **The results of the survey were the only available data source for some of the aspects of enquiry**

Information at the user level on digital technology access and use, attitudes towards technology, and digital interface competence is often limited or not available at all. The availability of such data varies between regions. For example, a big city usually differs considerably from a medium municipality in terms of the available data on people's digital capabilities, digital exclusion in transport etc. This can result in quite a big gap in the data, particularly in case of data beyond pure internet access.

Consequently, the results provided by the DIGNITY surveys were particularly relevant for local pilots. For some variables, the results of the surveys were the only obtainable data sources, especially when focusing on vulnerable-to-exclusion groups within the DIGNITY project.

- ✓ **Relevance of the survey results for the dissemination/awareness raising of the problems related to the digital gap in mobility**

The survey datasets are especially effective for dissemination purposes, particularly in terms of awareness raising. Data are extremely useful for a more direct understanding of the importance and the extent of the problem of digital exclusion. Regrettably, due to the delays caused by COVID restrictions in the different partners' countries, data were available for dissemination only at a later stage of the project. Currently, research on the data from the surveys is being continued with the development of personas, which was not explicitly included in the original project proposal. Personas are fictional profiles of users based on qualitative or quantitative research that help





designers and other stakeholders to understand and consider the needs of end users during the design process. Personas can be also very useful for communication and for helping stakeholders to better understand all the issues related to digital exclusion in mobility.

Barriers and limitations

✓ The time lag between the start of pilot activities and the availability of the data from the surveys, mainly due to Covid restrictions

The main problem reported by project pilots is the time lag between the start of the local activities and the availability of the final data from the surveys. Note that the pilots were not directly involved in the process of data collection, which was subcontracted to national or local research agencies/institutes.

The surveys were originally intended to be conducted prior to the start of the pilot activities. However, they experienced long delays due to Covid restrictions. These made it impossible to conduct face-to-face interviews until the restrictions eased. It was important that the survey interviews were conducted face-to-face in order to obtain data from people with all levels of digital experience and competence, including those with no internet connection. Furthermore, the technology competence questions required the interviewers to be able to see how participants interacted with paper mock-ups of smartphone interfaces.

The Covid restrictions varied between countries. In addition, some survey companies managed to collect some survey results in short periods of restrictions easing. As a result, the Ancona and Barcelona pilots had the opportunity to take advantage of at least the preliminary results from their surveys, with the possibility of comparing them with data collected locally through the other framing tools. In contrast, the Flanders and Tilburg pilots did not receive the DIGNITY survey data for their areas until later in their projects and were not able to compare the wider regional/national DIGNITY results with the data from the other framing tools.

✓ The survey data was collected from a wider area than the geographical scope of local demonstrations

As mentioned earlier, in general the DIGNITY surveys were conducted at a broader level than the specific geographical scope of local interventions. For example, the Italian and Dutch surveys were conducted at a national level, while the pilots in these countries were specifically focused on a very local context - the municipalities of Ancona and Tilburg. Most pilot partner interviewees remarked on this 'geographical bias', pointing out that the data provided by the other framing tools eventually allowed them to properly frame respective local interventions.





It should be noted that the surveys were mostly implemented at a national level, rather than local or regional, mainly because of the larger purpose of the project to get a picture of how the digital mobility gap is across Europe. This wider perspective was also chosen because it provides data that can then be applied to other projects. Exceptions were the surveys in Barcelona and Flanders. In the case of Barcelona, it was agreed to conduct the survey in the Metropolitan Area of Barcelona, rather than the whole Spanish territory because of the needs of the particular pilot. Similarly, the Belgian survey was conducted only in Flanders because of significant cultural, language and other differences between Flanders and Wallonia (the other main region in Belgium), and for organizational and practical reasons.

The priority placed on national data in the DIGNITY surveys was thus related to the broader European focus of the DIGNITY project. It should be considered for the replicability of these activities for more specific purposes that local surveys can be more useful for implementations carried out at a local level.

✓ **Conducting a new survey depends on the availability of financial resources**

The economic cost of conducting extensive face-to-face surveys is the main drawback of this methodology. It is a very expensive method; which DIGNITY local pilots can benefit from as partners of a European research project but that local authorities are not normally expected to implement.

It is important to note at this point that the datasets from the DIGNITY surveys will be made available open access on the UPCommons repository. As a result, other local authorities and other interested parties can make use of the already collected data, particularly if they cannot afford to collect their own. This is particularly useful for projects taking place in the next few years in the DIGNITY survey regions (Germany, Italy, the Barcelona Metropolitan Area, Flanders, and the Netherlands). The datasets will be less immediately useful for projects taking place in other regions or (because of the rapid pace of technology change) at later dates. However, even in these instances, it is possible to use the datasets in conjunction with other more local or more recent data to inform the picture of the digital mobility gap. This requires some statistical expertise but is much more affordable than running a new survey. It may be helpful if the DIGNITY partners can put together a tool to make it easier to examine and use these datasets for those without SPSS and other statistical expertise.

Another way to reduce the cost is to reshape the questionnaire, reducing the number of questions and focusing on the particular items of data required for the analysis of a specific local context. However, the amount of resources needed would probably still be quite expensive. The main reason is that this kind of survey should not be run online (which would really reduce its cost) because of the need to obtain data from people without internet access and with low digital technology competence.





✓ Aspects specifically related to mobility were not fully covered

The development of a specific survey for the DIGNITY project (integrating digital exclusion and mobility aspects) would have taken approximately six months and considerable research effort in itself. As a result, the original proposal was to use an existing survey examining digital exclusion (specifically a survey developed and implemented by the UCAM team). Later a specific module covering essential mobility aspects was added to the existing survey. However, there was no time to pilot this fully and the size of this module was limited as it was intended to be used together with the existing survey questions. As a result, many aspects relating to mobility and inclusion in digital mobility services were not fully covered.

On the other hand, using the more general survey meant that it covered general aspects of digital exclusion that could be useful for a wide range of projects. If the survey were instead focused on a specific pilot, the questions could be more specific and useful for that pilot, but less useful for other projects.

In any case, surveys focusing on digital exclusion and/or mobility services should be brought up to date periodically because of the fast pace of technology change. In particular, as time goes by, different applications or different kinds of devices become more widely used. Also, the current list of mobility services is very likely to change in the future.

Lessons learned

- Data specifically related to the digital gap in mobility are not commonly available or updated, especially regarding local contexts. A specific survey often can be the only available source of essential information on the digital mobility divide. For this reason, the option of conducting a new survey should always be explored, identifying the essential aspects to be surveyed.
- Complementary DIGNITY tools, such as the Digital Gap Self-assessment and Customer Journey Mapping, may help to identify the availability of the data required on a project at a local or regional level. This is important for determining whether a new survey is needed and, if so, what questions need to be included. This is important since surveys are commonly quite expensive and depend on the availability of financial resources.
- Local entities, as well as representatives of vulnerable-to-exclusion groups should be involved in the identification of key aspects to be surveyed, as well as in the definition of the geographical scope of the action.





- If it is not feasible to run a new survey, then the datasets from the surveys conducted as part of the DIGNITY project may be helpful to fill in the gaps, particularly for projects in one of the regions surveyed.
- The results of surveys are especially useful for awareness raising of the problems related to the digital gap in mobility. When considering whether to commit the financial resources required for a survey, local authorities should also consider the social benefits related to the dissemination of the survey results, for example in terms of awareness raising and a more direct understanding of the importance and the extent of digital exclusion in mobility.



3.5. Overall perception of the framing phase

In order to deepen and complement the information gathered through the interviews made to pilots' partners an online activity was conducted using Miro (<https://miro.com/>), an online whiteboard platform that enabled pilots to provide further comments on the three framing tools, together with their overall perception of the framing phase as a whole.

The first part of the activity enquired about the positive contributions of the specific framing tools to the understanding of the digital gap, as well as potential improvements proposed by pilots. Figures below show pilots' commentaries on the different framing tools.

- Digital Gap Self-assessment

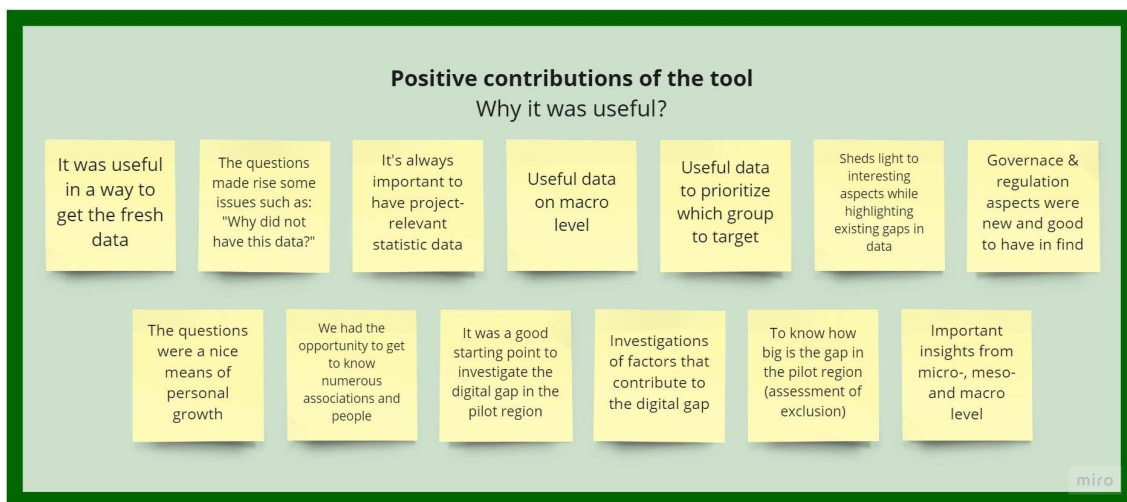


Figure 3. Digital Gap Self-assessment/ Positive contributions

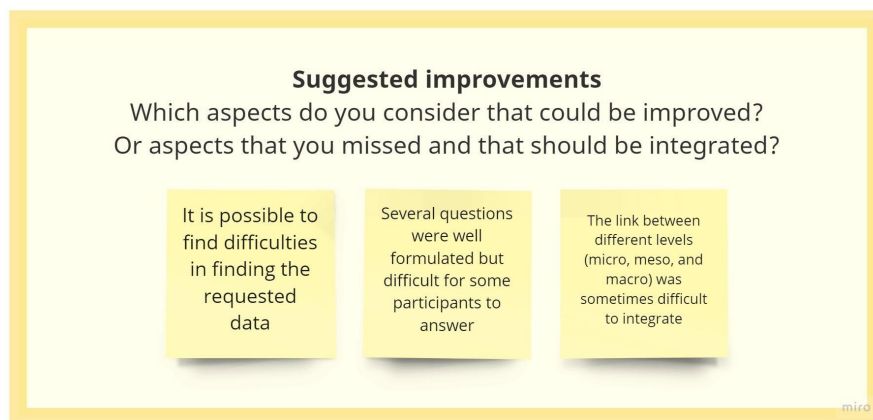


Figure 4. Digital Gap Self-assessment/ Suggested improvements

- **Customer Journey Mapping**

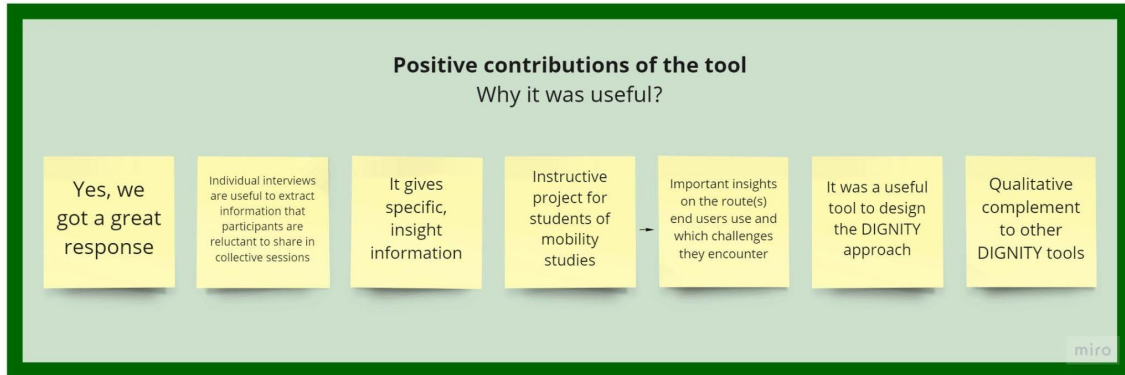


Figure 5. Customer Journey Mapping/ Positive contributions

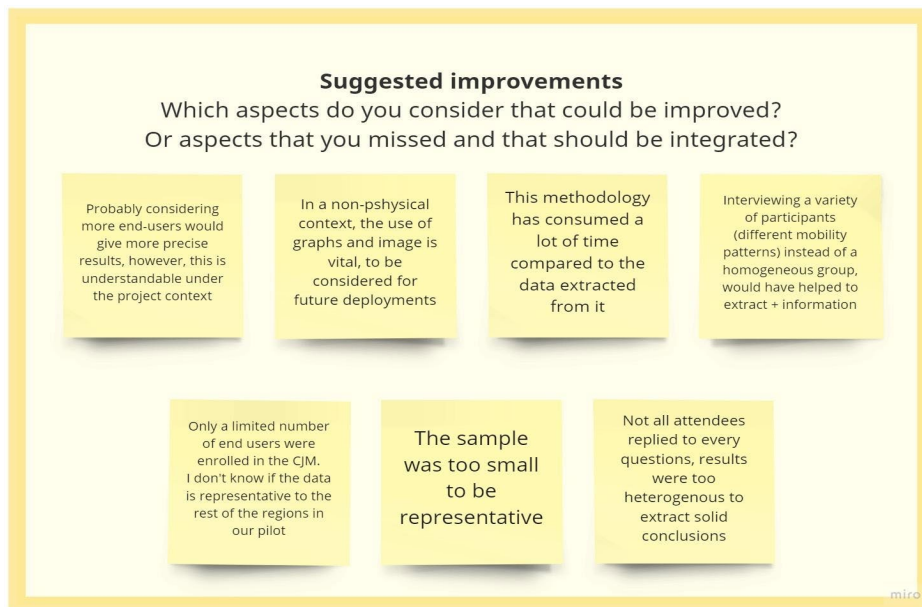


Figure 6. Customer Journey Mapping/ Suggested improvements

- **Focus Group**

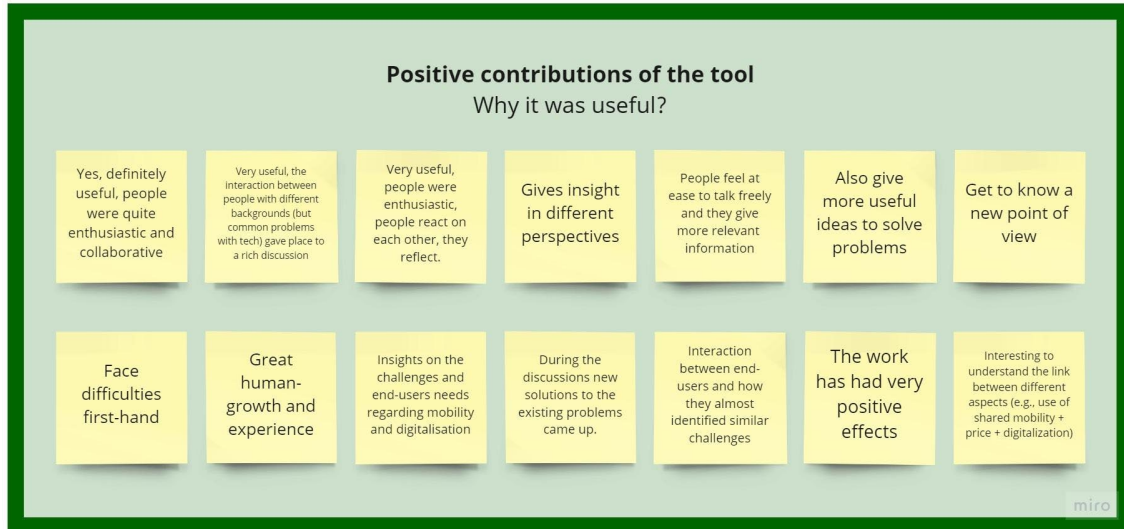


Figure 7. Focus group/ Positive contributions

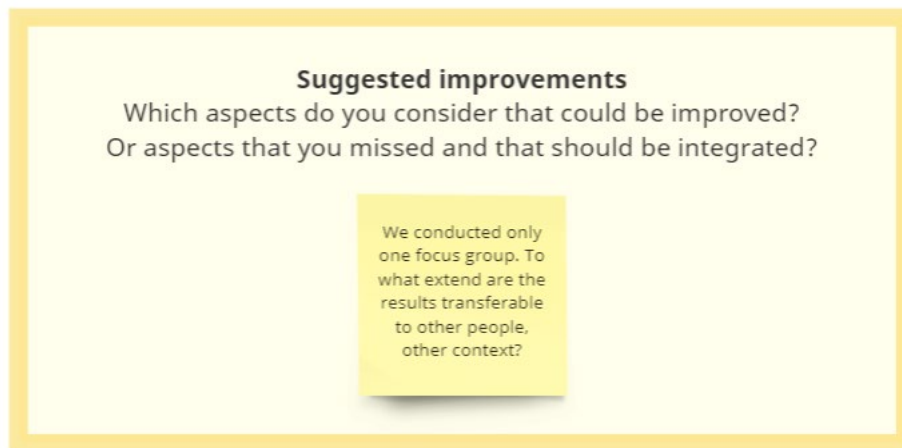


Figure 8. Focus group/ Suggested improvements

The second part of the activity was aimed at assessing the perception of pilot partners about the overall contribution of the framing phase, as a whole, to the understanding of the digital gap. It can be appreciated in Figure 9 that pilot partners placed themselves on the right upper quadrant of the plane, which describes their overall perception of the framing phase as an effective process, which provided an excellent understanding of the digital gap of respective pilots. It can be affirmed that the set of tools employed have improved their understanding of the digital gap, at different levels.

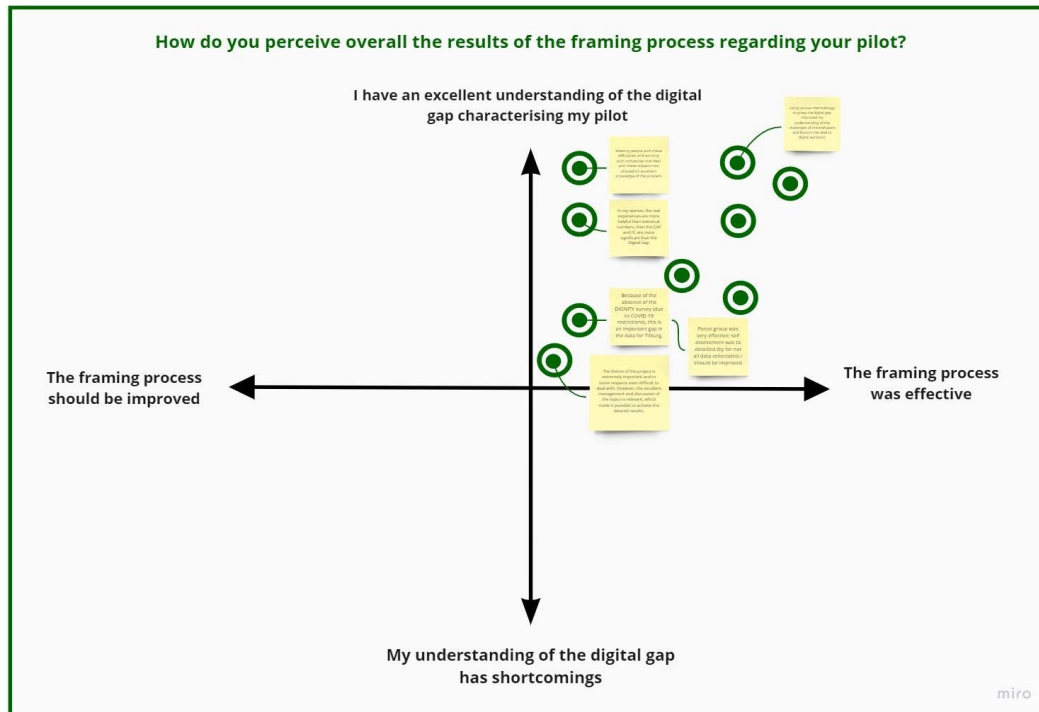
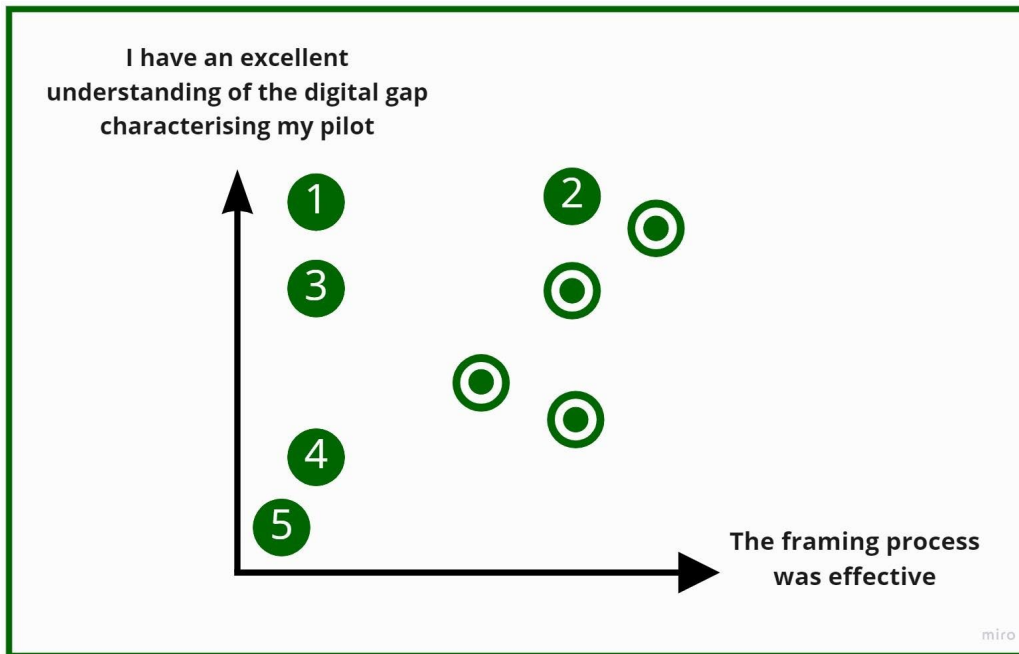


Figure 9. Feedback from pilots

Figure 10 shows a detailed view of the upper right quadrant, including the commentaries of pilot partners, which mainly highlight aspects discussed in previous sections.



- | | | | | |
|--|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| <p>Meeting people with these difficulties and working with companies that deal with these subjects has allowed an excellent knowledge of the problem</p> | <p>Using various methodology to grasp the digital gap improved my understanding of the challenges of the end-users and factors that lead to digital exclusion</p> | <p>In my opinion, the real experiences are more helpful than statistical numbers, then the CJM and FC are more significant than the Digital Gap</p> | <p>Because of the absence of the DIGNITY survey (due to COVID-19 restrictions), this is an important gap in the data for Tilburg,</p> | <p>The theme of the project is extremely important and in some respects even difficult to deal with.</p> |
| | | | <p>Focus group was very effective; self assesement was to detailed (by far not all data collectable) / should be improved</p> | <p>However, the excellent management and discussion of the topics is relevant, which made it possible to achieve the desired results.</p> |

miro

Figure 10. Feedback from pilots - commentaries





4. Evaluation of the bridging phase

4.1. Scenario Building

The scenario building technique is a foresight methodology that aims to co-create and analyse possible developments related to transport inclusiveness and present them coherently. One or more alternative future situations can be outlined, as well as possible paths that lead to them, showing possible options for future developments. Scenarios help overcome thinking limitations by developing multiple futures and its processes create possible, probable, and preferable visions of the future, focused on what might yet be. Scenario development increases the ability of organizations and institutions to deal with their uncertain environments. This approach is not meant to be a way of anticipating the future, but rather provides a foundation for strategic decision making, as it increases the ability of organizations and institutions to deal with their uncertain environments.

Each pilot conducted different workshops with key stakeholders of mobility and mobility services sectors, as well as representatives of vulnerable-to-exclusion groups targeted by respective pilots. The activities promoted under this methodology followed the main steps of the scenario building process, namely:

- 1) An assessment of the local/regional situation;
- 2) The development of scenarios;
- 3) The development of programs, plans, and options for actions.


Due to Covid restrictions, operating in all countries at the time of the activities, most workshops were held online.

More information about the methodology's implementation results in the different pilot cases can be found in the deliverable D4.2. Available at: <https://www.dignity-project.eu/deliverables/>

Table 5 presents a detailed evaluation of the SB methodology



Table 5. Scenario Building evaluation

Evaluation Criteria	Evaluative questions	Feedback
C1. Effectiveness 	<ul style="list-style-type: none"> ● C1.1. How successful was the implementation of the tool in pilots' interventions? 	<p>Overall, the implementation of the SB tool can be considered successful. The specificities and differences among pilots are discussed in deliverable 4.2. It is worth pointing out that the pilots had to learn and execute a complicated method independently and that Covid restrictions in all countries have hampered the implementation process. In general, the pilots that rely on a professional moderator were able to better adjust the process. Almost all participants in SB activities that responded to the surveys mentioned that the workshops met their expectations and personal objectives for attending. Most of them also agreed that the scenarios created were realistic, plausible, well designed, and understandable. The analysis of the results confirms, in general, these perceptions. The interviews with the pilot partners revealed that most of them gained relevant knowledge from the SB process and were able to collect valuable insights and translate these into general recommendations. A common issue to highlight, which will be described further in the next sections, is the need to run most activities online due to Covid restrictions. This affected the participation of specific vulnerable-to-exclusion groups and the quality of the interaction among the participants. This, in some aspects, might have conditioned the quality of the results.</p>
	<ul style="list-style-type: none"> ● C1.2. Were the set goals accomplished? 	<p>Overall, the goals that were set by the pilot regions were accomplished. Most pilots implemented workshop activities that led to co-creating future scenarios based on specific local contexts.</p> <p>The pilot regions managed to collect valuable insights and, in general, were able to translate these into policy recommendations.</p>
	<ul style="list-style-type: none"> ● C1.3. To what extent has the tool been implemented in each pilot as was initially planned? 	<p>Due to Covid restrictions in place in all partner countries in that period, most of the activities related to the Scenario Building methodology had to be developed online. Most of the pilot regions struggled with online implementation, especially to ensure a proper engagement of participants and maximise the impact of virtual activities.</p>

		Barcelona and Tilburg could rely on professional support from specialised companies in charge of the supervision of online activities and which provided expert facilitators during the workshops; Flanders had previous experience with foresight activities and had to adapt SB methodology so that previous result can be used. Furthermore, it was difficult to recruit members of specific groups at risk of exclusion, who had difficulties in participating in virtual activities (elderly people, migrants, etc.)
	<ul style="list-style-type: none"> ● C1.4. To what extent have target groups been involved? 	It is worth pointing out that the format of the workshops aimed at including not only members or representatives of groups at risk targeted, but also experts, policy makers, workers/directives of public transport companies, public administration etc. Pilot regions pointed out that because of the nature of the workshop (online), it was hard to involve members of specific target groups. However, most pilot regions were successful in reaching groups at risk of exclusion targeted, mainly through their representatives, and involving them in the workshop process.
	<ul style="list-style-type: none"> ● C1.5. What part of the tool implementation generated more difficulty? 	Planning and implementing the workshops online was indicated overall as the main difficulty experienced by the partners interviewed. This can represent a barrier for some pilot regions, depending on the characteristics of vulnerable-to-exclusion groups targeted. Some partners highlighted that foresight thinking can be particularly hard and demanding for some participants, and a facilitator can be extremely helpful in properly conducting such processes. Pilots could slightly adapt the activities proposed within the tool – for example regarding the duration of workshops session or grouping two sessions in one – to fit the needs of local initiatives better. The Scenario Building guidelines have been useful for the majority of pilots, even though the document has been described as quite long to be consulted in detail. Some of the strategies and examples reported were a bit unclear for some pilot regions, as they did not feel like they could relate their workshops to them (for example in the pilot of Ancona).
	<ul style="list-style-type: none"> ● C1.6. Is the digital gap issue that the pilot/activity intends to address eventually improved? 	The objective of the methodology was not intended to produce direct improvements for a specific digital gap issue addressed by pilots. Despite that, the interviews highlighted that the Scenario Building methodology provided pilot partners with relevant and useful insights at different levels of analysis to explore future developments/improvements of digital gaps issue in the respective local contexts.
C2. Efficiency and resources	<ul style="list-style-type: none"> ● C2.1. Has it been planned properly, in terms of time and human resources? 	Overall, pilot regions agreed on the fact that the workshops activities were planned properly in terms of time and human resources, in line with the initial goals of the methodology. However, due to the online nature of the workshops, some pilot regions



		<p>struggled with time management of dedicated human resources and described planning and recruiting activities as demanding, as reported in previous points. Some partners also highlighted that the planning of the workshops could be adjusted considering the pilots' specificities in terms of time management. Besides, some parts of the methodology took less time than originally planned.</p>
	<ul style="list-style-type: none"> ● C2.2. Was the chronological chain of activities correctly implemented? 	<p>The chronological chain of activities related to SB tool was correctly followed. No pilot region reported issues related to its implementation.</p>
	<ul style="list-style-type: none"> ● C2.3. Are the resources implemented related proportionally to the benefits obtained? 	<p>Overall, pilots' partners highlighted that the scenarios resulting from applying the methodology provide interesting and relevant information. Besides, the majority pointed out that discussing with key mobility actors to identify future scenarios was particularly useful. The results of the surveys also show a good perception of the attendants of the learning result and the quality of scenario developed. However, a few partners, even recognizing the appropriateness of the methodology and the relevance of the results - or, at least, of some key future aspects that emerged from the process -, were somehow doubtful about the applicability of the specific methodology to a specific future policy. From a policy making point of view, it should be considered that the topic itself involves social, mobility and technological aspects and can be perceived beyond current work competences/functions.</p>
	<ul style="list-style-type: none"> ● C2.4. Could other tools be considered that could have the same outcomes with fewer resources (human resources, time consumption, etc.)? 	<p>In general, pilot partners agreed that the SB tool was particularly appropriate to explore and analyse possible future developments of digitalisation in transport and the consequences potentially affecting vulnerable-to-exclusion groups. Overall, pilot partners expressed positive reactions to the method. Possibly, other foresight methodologies could have been applied, addressing the same objectives - It should be considered that the majority of partners are dealing with mobility planning and use foresight methodology for their work - nonetheless, the relevance of the results is especially related to the participation of key actors and the development of the initial phase of the SB process (namely, key factor identification and analysis). In this sense, in terms of resources, a good plan and organisation of the activities are always needed to ensure valuable results.</p>
<p>C3. Participation</p>	<ul style="list-style-type: none"> ● C3.1. Was the implementation of the tool conducted with the 	<p>As reported above in point C1.4, vulnerable-to-exclusion groups were just one of the categories that the methodology aimed to include in workshops' activities. Other categories comprise all key actors potentially involved in transport digitalisation, such</p>



and
Collaboration



vulnerable groups and stakeholders as initially planned?

as mobility experts, policy makers, workers/directives of public transport companies, public administration, service providers/developers etc. Attendance lists show that all pilots included such categories in SB activities. All pilots included representatives of vulnerable to exclusion groups.

● C3.2. Does the tool facilitate collaboration among involved parties?


All pilot partners have been involved in co-creating future scenarios related to digitalisation in transport. Participants had to discuss and agree on the different scenarios proposed. The methodology is based on promoting collaboration among diverse key players in mobility. Participation in SB activities has been described as enriching from a professional and personal point of view. The surveys addressed to participants highlight that the majority of respondents of all pilot regions think that workshops provided them with a better understanding of the perspective of the other stakeholders involved, which denotes a collaborating experience. According to pilot partners, virtual workshops might have hindered or reduced the potential of collaboration among attendants. Nonetheless, the whole process's results denote a strong collaboration among parties. Professional facilitators (specifically employed in Barcelona and Flanders pilots) helped to maximise collaboration in virtual environments.

● C3.3. Has the Information and communication flows been fluid?


A good organisation and implementation of the workshops, in some cases with the collaboration of professional facilitators, helped to overcome possible difficulties. According to the survey addressed to participants, the great majority of the respondents agree or strongly agree that they have sufficient opportunities to provide input to the discussion. The interviews with pilot partners confirmed that the communication flow between project pilots and the responsible of the tool, IZT, has been fluid.

● C3.4. Does the tool favour trust, commitment?

The pilot regions could not 100% confirm this, but some mentioned that a good atmosphere and collaboration were very present during the workshops' activities. According to the questionnaires, most respondents indicated that the workshops met their expectations and personal objectives for attending. Besides, the great majority indicated that differences among participants (during the workshops) were addressed constructively. Furthermore, according to the respondents, overall, the scenario building process helped converge diverse participants' perspectives. This evidence seems to confirm that the tool favors trust and commitment.

	<ul style="list-style-type: none"> ● C3.5. Which are the main barriers and problems encountered in recruiting and involving participants? 	<p>As highlighted earlier at point C1.5, the main barriers encountered in recruiting are related to the workshops' online implementation during Covid restrictions. This general barrier could be worsened for some pilot regions, depending on the characteristics of vulnerable-to-exclusion groups targeted. For example, pilots targeting elderly people, migrants, people with sensory disabilities etc. might have experienced more problems in recruiting and correctly involving participants in online activities. In spite of that, it has to be considered that, in most cases, workshops participants were representatives of such categories. Another issue pointed out is the challenge of forward-thinking, at least for some of the categories involved in the activities. For this reason, the coordination of an expert facilitator can help maximise the contribution of the different actors and the relevance of the results.</p>
<p>C4. Expectations & social learning / Capabilities acquired</p> 	<ul style="list-style-type: none"> ● C4.1. Have the overall pilot's expectations been fulfilled? 	<p>Yes. Overall, pilot regions pointed out that they gained relevant information about future scenarios and how these might work and, furthermore, how to use this method to ensure insights in long-term policy recommendations. Some partners especially highlighted the appropriateness of the methodology, specifically starting to explore and discuss the key factors potentially affecting the future digital gap situation; and leaving the part specifically focused on the co-creation of the scenarios as a subsequent step. The interviews reveal different perceptions of pilot partners regarding the practical applicability of the co-created scenarios and their use for advocacy actions. Yet, in general, it can be affirmed that pilot expectations have been fulfilled.</p>
	<ul style="list-style-type: none"> ● C4.2. To what extent do the participants perceive as benefits what they have learned along the implementation? 	<p>Overall, the great majority of pilot regions agree on the fact that they have learned valuable lessons during the workshops' activities and that they will take with them in future practices where the tool can be applied. Pilot partners also generally remarked the fact that external attendants perceived that the issues discussed are complex and relevant as social problems, and need to be addressed by policy making. The answers to the participants' questionnaire support this position. Specifically, participants perceive that the scenario building process provided them with new knowledge and perspective on digital inclusion in mobility, as well as a better understanding of other stakeholders' perspectives and future mobility challenges.</p>
	<ul style="list-style-type: none"> ● C4.3. Has the implementation fostered empowerment of participants? 	<p>It is worth reminding that most of the participants of the SB activities were professionals of the mobility sector; such as mobility experts, academics, policy makers, urban planners, managers of private companies, data management professionals, web</p>

<ul style="list-style-type: none"> ● C4.4. Which are the main capabilities acquired by participants? 	<p>developers etc. Vulnerable-to-exclusion groups mostly participated through representatives. In this sense, the empowerment or the acquisition of specific capabilities by participants were not goals of this specific methodology. However, the analysis of participants' questionnaires shows that, overall, the attendants gained relevant knowledge on this matter, such as a better understanding of the perspective of other stakeholders and that the scenario building process provided them new knowledge and perspective on digital inclusion in mobility. Moreover, in general participants agreed on the fact that their understanding of mobility future challenges has improved thanks to SB activities.</p> <p>The results of the interviews to local pilots also highlighted the acquisition of new knowledge and perspectives on digital inclusion issues by attendants. During the workshops, the participants were encouraged to broaden their horizons and think outside of their own professional/sectorial ways of thinking. This was sometimes difficult, but pilot regions did mention that they tried their best to improve this.</p>
<ul style="list-style-type: none"> ● C4.5. What mechanisms / arrangements could be provided to improve the implementation of the tool by the participants? 	<p>Very few partners expressed a critical opinion on the methodology and learning aspects provided by SB process. Some pointed out that the relevance of the results and the important insights of the process could be more related to the involvement and valuable contributions of key actors attending the workshops than the methodology itself. In any case, the great majority of the interviewees recognised that, having the workshops happen physically instead of online, the whole process in terms of implementation of the workshops and learning results of participants, would have dramatically improved.</p> <p>Specific points of improvement mainly include:</p> <ol style="list-style-type: none"> 1. Flexibility and adaptability of the process, considering the specific expertise of local pilots and the need to ensure the involvement and enthusiasm of participants and creativity of working sessions. The duration of preparation and actual workshop activities can be shorter for some parts and longer for others. <p>In this regard, some phases could be shortened or adapted while keeping the end goal of the process clear in mind. In conclusion, a 'light/adaptive version' of the process is suggested.</p>

		<p>2. Suggest considering the possibility of relying on an expert facilitator to maximise the active participation and contribution of the attendants and the relevance of the results. Some partners highlighted the difficulty of particular profiles of participants to stay focused in future thinking.</p> <p>3. The format of the scenarios and the related policy recommendations should be conceived considering the need for communication/dissemination of the results of the co-creating activity. This could be planned for advocacy actions or simply to raise awareness / activate interested parties, policy makers etc.</p>
<p>C5. Relationship with other Dignity tasks</p> 	<ul style="list-style-type: none"> ● C5.1. Does the tool establish bridges with the other Dignity activities? ● C5.2. What resources/benefits does the tool provide to the other tasks within the Dignity project? 	<p>Yes, the main bridge established is towards the Inclusive Design Wheel (IDW). Specifically, the results of the SB process have been used during the 'exploring phase' of the IDW, to identify possible future developments of issues related to the digital gap in mobility, affecting a specific geographical area or specific product/services. Besides, some of the concepts and data collected through the framing phase tools have been integrated in the SB discussion, to explore future developments of current trends better.</p> <p>Besides being a relevant input for the IDW process, the SB tool is key to approximating future strategy definition, addressed to the reduction of the digital gap in mobility in a sound and proper way. In all its related aspects, the trend of digitalisation is radically altering mobility patterns and is subject to relentless advances. Consequently, for the Dignity approach, the capacity to identify and envisage future developments of this issue is key for the definition of successful strategies in the future.</p>



Main drivers

- ✓ **Scenario Building can be considered an appropriate tool as a foresight methodology and for promoting long-term policy recommendations.**

Overall, the project pilots remarked on the appropriateness of the SB methodology for the DIGNITY subject, namely for identifying possible future developments of the digital gap in mobility, in a specific local context.

The scenarios resulted from the application of the methodology – even though the majority of pilots applied it for the first time, and that the application generally had to be adapted to the characteristics and specific needs of the local partners – provided overall interesting and significant information and insights, relevant for key stakeholders involved in the mobility field. The involvement of key mobility actors to identify potential future scenarios was particularly useful for identifying relevant policy recommendations, which resulted as the final outcome of the process.

- ✓ **Capacity of the Scenario Building process to converge diverse participants visions and perspectives.**

The SB methodology promoted participation in the diverse workshops of experts with different professional backgrounds and with specific visions and perspectives on the digital gap in mobility. The assessment highlighted that the SB process helped converge these diverse perspectives into co-created scenarios and policy recommendations. The initial discussion and agreement among the different stakeholders on the 'key future factors' related to the digital mobility gap have played a convergence effect, which was eventually reflected on co-created scenarios.

- ✓ **Flexibility and adaptability of the tool within the SB process.**

Despite the apparent rigidity and structuring of the SB tool, eventually, the evaluation process highlighted its flexibility and the capacity to be adapted to the different contexts and needs of local pilots. Few partners pointed out that the strict application of the proposed methodology (specifically in terms of timings, steps to be followed etc.) might have limited the active involvement and enthusiasm of participants and the creativity of the working sessions. Nonetheless, overall the tool has demonstrated a good adaptability to local limitations/requirements/expertise. By way of example, most of the workshop sessions and activities have been shortened or adapted (while keeping the end goal of the process clear in mind); workshops have been merged; even was possible an adaptation of the process integrating the results of previous foresight activities (such as the case of Flanders). This adaptation capacity should be reflected in a 'light/adaptive version' of the SB methodology.





Barriers and limitations

✓ **Difficulty to effectively conducting a foresight process for non-experts**

The conduction of a foresight process is difficult for non-experts, especially when focusing on complex and systemic matters, such as the digital gap in mobility. Most partners highlighted difficulties to effectively guide a group of people – the majority of which mobility experts – in the process of future thinking; the difficulty was increased because the majority of the workshops were conducted online. Most partners could rely on expert facilitators who helped maximise the active participation and contribution of the attendants, which eventually was reflected in the relevance of the results. Therefore, hiring an expert facilitator should be considered a very interesting option.

✓ **Virtual workshops limited the recruitment and representativeness of vulnerable-to-exclusion participants and to ensure high quality of the results.**

Because most of the workshops were run online, it was sometimes hard to recruit members of specific target groups. For example, pilots targeting elderly people, migrants, people with sensory disabilities etc., have experienced more problems in recruiting and correctly involving participants in online activities. This might have somehow limited the correct representation of these groups. However, it should also be considered that, in most cases, representatives of such categories were recruited instead of users. In any case, overall, it can be pointed out that face-to-face meetings would have maximised the relevance of the discussion and the cohesion and engagement of key stakeholders.

✓ **Difficulty in recruiting/engaging key stakeholders with leading positions for the whole SB process**

One of the keys to maximising the quality of the results of the SB is the recruitment of relevant stakeholders involved in the mobility process. In this regard, it was particularly difficult to recruit for the workshop activities key professional stakeholders with a high level of responsibility in public or private entities, able to participate in all the phases of the SB methodology. In fact, many actors were unable to participate in all the proposed workshops. In most cases different colleagues of the same entity had to participate alternately. This might have affected the quality of the scenarios developed.

Lessons learnt

→ Scenario Building is an appropriate methodology for identifying and analysing possible developments of digitalisation in transport, specifically related to the consequences





potentially affecting vulnerable-to-exclusion groups. However, it can be a complex methodology to be learned and to be executed with no previous experience; professional support is recommended.

- It is essential to maximise the participation and the involvement of members and/or representatives of the vulnerable groups targeted during the Scenario Building workshops. Conducting them preferably offline and taking special care with the recruiting activities is essential to ensure a proper involvement of the participants afterwards.
- Conducting a foresight process successfully can be particularly difficult for non-experts. Counting with professional support from experts or, at least, the presence of an expert facilitator during the workshops can improve the quality of contributions, collaboration and engagement of participants and eventually the quality of the results.
- The outcomes of the process (co-created scenarios, policy recommendations etc.) should be conceived and developed bearing in mind the importance of disseminating the results, with the purpose of awareness raising and advocacy.





4.2. *Inclusive Design Wheel*


The Inclusive Design Wheel (IDW) was originally developed by the Engineering Design Centre at the University of Cambridge to help designers to structure the inclusive concept design process. More information about the general version of the IDW is available at <http://www.inclusivedesign toolkit.com/>.

The IDW was adapted for the domain of digital mobility services as part of the DIGNITY project. In particular, it was modified to be more specific to the needs and context of digital mobility products and services, and to interface with other parts of the DIGNITY approach such as the self-assessment framework, customer journey mapping and scenario building.

The DIGNITY IDW process makes explicit the principal design phases of Explore, Create and Evaluate, guided by a central Manage (or decision-making) phase. It enables design teams to consider and address population diversity and inclusivity needs throughout the design process, and thus to develop more inclusive solutions.




Table 6. Inclusive Design Wheel

Evaluation Criteria	Evaluative questions	Feedback
C1. Effectiveness 	<ul style="list-style-type: none"> ● C1.1. How successful was the implementation of the tool in pilots' interventions? 	<p>The implementation of the IDW methodology was successful in all pilots. Overall, the assessment highlights that the outputs from the different pilot projects have the potential to reduce exclusion for the respective local mobility systems. These include both accessibility and usability improvements to existing services and the development of concepts for new services. In addition, most of the concepts developed are useful for improving the inclusion of the vulnerable-to-exclusion groups targeted by the different pilots. It is worth pointing out that the pilot cases were diverse in terms of the geographical scale of the intervention, the vulnerable-to-exclusion groups targeted, etc. The details of the pilot projects and differences between them are presented in detail in the deliverable D3.3 'Report on the meso level process (Inclusive Design Wheel)', available at this Link.</p>
	<ul style="list-style-type: none"> ● C1.2. Were the set goals accomplished? 	<p>The initial goals of the overall IDW process have been accomplished. It is worth pointing out that the IDW is an iterative process and would ideally involve multiple iterations of the Explore-Create-Evaluate phases. Within the DIGNITY project, the work on the IDW started in the summer of 2021 and there was not sufficient time to perform multiple iterations. Nonetheless, four of the five pilots were able to complete at least one iteration of the DIGNITY IDW process. The second Tilburg project (focussing on cycling and migrant women) was not able to conduct the Evaluate phase within the established timeframe (since they delivered their concepts too late to receive feedback from UCAM). However, UCAM did provide them with some informal feedback on the concepts after the formal end of the work. Even though pilots were only able to perform one complete iteration within the timescale of the project, the pilot teams are continuing to work on improving their outputs, effectively performing further iterations of the process.</p>
	<ul style="list-style-type: none"> ● C1.3. To what extent has the tool been implemented in each pilot as initially planned? 	<p>Overall, the tool has been implemented in each pilot as initially planned. It is worth pointing out that the Barcelona pilot had difficulties implementing their original pilot project. The project initially planned to promote and improve the use of carpooling in industrial parks on the outskirts of Barcelona. Later, this pilot identified a second use case focusing on Demand Responsive Transport (DRT). They ran both</p>

	<p>projects in parallel until they realised that it would not be possible to run a co-creation workshop for the carpooling project (due to COVID restrictions in the companies involved). As a result, IDW activities after this focused solely on the DRT project.</p>
<ul style="list-style-type: none"> ● C1.4. To what extent have target groups been involved? 	<p>The assessment of the different pilot cases highlighted that the overall IDW process ensured a good representation of the vulnerable-to-exclusion groups targeted. These groups were involved mainly through the co-creation workshops implemented in the different pilots during the Create phase. In general, the co-creation experiences were well valued by participants. The members of the groups targeted reported in general that the workshops were interesting and useful learning experiences, and they felt that their opinions were considered. The pilot teams also considered that the co-creation workshops were valuable and the ideas generated during these workshops had significant impact on the concepts that were developed.</p> <p>Specific details for each pilot can be found in the deliverable D4.2 'Pilot cases evaluation report', available at this link (https://www.dignity-project.eu/deliverables/).</p>
<ul style="list-style-type: none"> ● C1.5. What part of the tool implementation generated more difficulty? 	<p>The part of the tool that appeared to generate more issues/uncertainties among the pilots was the Design Log, a structured format (PowerPoint file) for recording progress on the IDW, including a brief guidance for each IDW activity. One of the issues that emerged was the linearity of the PPT format of the Log, which does not reflect the iterative nature of the IDW process. Therefore, it may be difficult to capture both large and micro iterations within this format. Furthermore, some pilots seemed unclear about which activities were essential or optional parts of the IDW process. These issues were detected in the IDW's own assessment process and the UCAM team is currently working on more user-friendly versions of the IDW process and the Design Log, with significant differences from the previous ones and addressing some of the issues raised by the pilot projects. Another issue raised was related to the IDW guidelines. Pilot work indicates that the ease of finding information in the IDW guidance document could be improved, and some pilot suggested to simplify the drafting, using a more concise and direct style.</p>
<ul style="list-style-type: none"> ● C1.6. Is the digital gap issue that the pilot/activity intends to address eventually improved? 	<p>None of the pilot projects actually implemented the ideas or concepts developed through the IDW process. This was clearly not possible within the timeframe of the project. Consequently, the evaluation process focused on the assessment of the overall usefulness/relevance of the ideas and insights produced through the IDW, for the</p>

		<p>development of inclusive digital mobility solutions. Within the Evaluate phase of the IDW the concepts and ideas produced in a project were evaluated. In particular, the UCAM team provided formative feedback for improving the concepts and, in most cases, summative feedback on the percentage of the population that would be excluded from using various aspects/features of the concepts based on their technology access, use, attitudes and competence. The latter was based on data from the DIGNITY surveys using the exclusion estimation methods developed by UCAM.</p> <p>The assessment highlights that all pilots developed concepts and ideas that have the potential to improve the inclusivity of existing digital mobility solutions or the inclusivity of the transport system as a whole, through adaptations to existing services or the creation of new inclusive services. Many of these concepts need further work to maximise inclusion as identified in the Evaluate phase of the IDW. As pointed out earlier, the pilot teams are continuing to work on improving their outputs and possibly some of the concepts developed will be implemented after the end of the project.</p>
<p>C2. Efficiency and resources</p> 	<ul style="list-style-type: none"> ● C2.1. Has it been planned properly, in terms of time and human resources? ● C2.2. Was the chronological chain of activities correctly implemented? ● C2.3. Are the resources implemented related proportionally to the benefits obtained? 	<p>Overall, the IDW activities were planned properly, both in terms of time and human resources. The start of the IDW process was delayed by the COVID restrictions in the different partner countries. However, thanks to careful planning of IDW activities and the efforts of the UCAM and Mobiel21 teams, pilots were able to carry out their local projects within the timeframe of the DIGNITY project. In terms of human resources allocated to IDW activity, it is worth highlighting the relevance of the continuous support provided by a team of experts from UCAM, which was key to the success of the activities.</p> <p>Note that it is not necessary to follow the IDW activities in a fixed order, although the teams are encouraged to work through phases of Explore, Create and Evaluate activities. In general, the chronological chain of activities related to IDW process was correctly followed in the pilots. No particular issues related to the chronological chain of activities were reported.</p> <p>The IDW process was especially relevant for the development of ideas and concepts aimed at improving inclusion in pilots' specific local/regional contexts. The resources allocated, mainly the dedication of human resources, can be considered proportional to the benefits obtained with the IDW methodology. Pilot partners unanimously agree that resources on the IDW process were well spent. As reported earlier, the iterative</p>


		<p>process of the IDW would ideally involve multiple iterations of the different phases of the process (Explore-Create-Evaluate), whereas in the project only one iteration was completed. Therefore, more resources would be necessary for more cycles of iterations. In addition, it should be considered that UCAM provided continuous support to the pilots. This may be modified the amount of resources allocated by the pilot teams.</p>
	<ul style="list-style-type: none"> ● C2.4. Could other tools be considered that could have the same outcomes with less resources (human resources, time consumption, etc.)? 	<p>Probably not, since the alternative inclusive design models/methodologies considered also involve an iterative process and user involvement with similar resources required in terms of human resources and time consumption.</p>
<p>C3. Participation and Collaboration</p> 	<ul style="list-style-type: none"> ● C3.1. Was the implementation of the tool conducted with the vulnerable groups and stakeholders as initially planned? 	<p>As mentioned for indicator C1.4, the IDW process was conducted, overall, with the vulnerable groups and stakeholders that were initially targeted and planned for. One exception was the Barcelona pilot, which was forced to redirect the initial plan for the project towards Demand Responsive Transport as explained under indicator C1.3. This resulted in a change to the vulnerable groups and stakeholders that needed to be involved.</p>
	<ul style="list-style-type: none"> ● C3.2. Does the tool facilitate collaboration among involved parties? 	<p>Overall, the tool facilitated collaboration among the different parties involved. The IDW process, particularly in the Create phase, brought together pilot partners, key mobility stakeholders, end-users and members of vulnerable-to-exclusion groups. The IDW activities enabled fruitful collaboration among all these parties, allowing for great learning experiences and insights. Furthermore, this collaboration helped to create appropriate concept and ideas for the respective pilot cases.</p>
	<ul style="list-style-type: none"> ● C3.3. Have the Information and communication flows been fluid? 	<p>The overall information and communication have been fluid between the UCAM team and pilot partners. A few communication issues were detected, mostly related to the responsiveness of a few pilots on specific occasions. In general, it can be affirmed that the methodology favoured a fluid and proper communication.</p>
	<ul style="list-style-type: none"> ● C3.4. Does the tool favour trust and commitment? 	<p>The evaluation process highlighted a high level of satisfaction for all actors involved in the co-creation workshops. The actors involved perceived the co-creation activities as useful and rich, providing interesting insights and a good learning experience. Pilot partners pointed out in the interviews with them that the co-creation experience was the most enriching experience of the process and that the interaction with members of the vulnerable-to-exclusion groups provided relevant learnings and insights for their</p>

		<p>respective pilot cases. According to the co-creation questionnaires, the majority of respondents indicated that the workshops met their expectations and personal objectives for attending. In addition, the great majority indicated that the workshop activities created a mutual learning experience, in terms of the relevance of content discussed.</p> <p>Overall, the continuous support provided by UCAM contributed to the positive engagement of all project pilots.</p> <p>All these aspects seem to confirm that the tool favors trust and commitment among all actors involved.</p>
	<ul style="list-style-type: none"> ● C3.5. What are the main barriers and problems encountered in recruiting and involving participants? 	<p>No significant problems have been remarked on for the recruitment and involvement of participants. In general, the pilots were able to recruit members of the vulnerable-to-exclusion groups targeted. Some targeted groups were well very well represented, for example in the two pilots run in Tilburg and the pilot of Flanders. Barcelona had more difficulty in recruiting members of the targeted vulnerable-to-exclusion groups in their DRT project, especially elderly people. However, they did manage to include some of this subgroup in their co-creation workshop.</p> <p>An exception is Ancona's pilot, which had to conduct their workshop online, due to COVID restrictions in place at the local level at that time. In this particular case it was especially difficult to recruit elderly people, and those with visual and physical impairments who were able to participate online. Furthermore, running the workshop online essentially meant excluding those who are digitally excluded. Later, the Ancona pilot organised complementary interviews with other members of the groups targeted in order to hear from a wider range of users.</p> <p>Overall, all pilots were able to ensure a good representation from the targeted end user groups in the IDW.</p>
<p>C4. Expectations & social learning /</p>	<ul style="list-style-type: none"> ● C4.1. Have the overall pilots' expectations been fulfilled? 	<p>Overall, all pilots' expectations of the IDW methodology were fulfilled. Pilot members pointed out relevant insights obtained through the IDW process, which were essential to develop ideas and concepts for the respective local cases. The IDW process helped them to go beyond accessibility and include concepts related to usability, notably improving their initial proposals.</p>

Capabilities acquired



<ul style="list-style-type: none"> ● C4.2. To what extent do the participants perceive as benefits what they have learned during the implementation? 	<p>Overall, all actors involved perceived the overall co-creation experience as useful, rich and productive. The great majority of participants highlighted that IDW activities, specifically the co-creation workshop, were very useful to improve their understanding of mobility problems in general and, specifically, those related to digital inclusion.</p> <p>Furthermore, the ideas and concepts generated through the process were perceived as especially appropriate for improving transport and promoting digital inclusion. Consequently, it can be confirmed that the overall learning experience can be considered to be beneficial for all actors involved.</p>
<ul style="list-style-type: none"> ● C4.3. Has the implementation fostered the empowerment of participants? 	<p>It has to be considered that the purpose of the tool was not the empowerment of participants. Nonetheless, the learning experience provided various benefits to the external participants in the co-creation workshops. This included important information and insights, which were useful to improve their understanding of the changes in the current mobility system and the current context/trend of massive digitalisation in mobility. Furthermore, the process helped them to deepen their understanding of the problems and the potential barriers they might face, as members of the vulnerable-to-exclusion groups, as well as those aspects they can expect from and advocate for to the public administration and the transport entities.</p>
<ul style="list-style-type: none"> ● C4.4. Which are the main capabilities acquired by participants? 	<p>Pilot partners, who had the opportunity to complete the whole IDW process, acquired a general awareness of the importance of the integration of inclusive design aspects in all mobility activities and, specifically, a better sensitivity to all aspects related to the potential exclusion of specific groups in all aspects related to mobility. They also acquired specific knowledge about concepts/ practices related to inclusive design methodologies, which they can apply in similar future processes.</p>
<ul style="list-style-type: none"> ● C4.5. What mechanisms / arrangements could be provided to improve the implementation of the tool by the participants? 	<p>From the information reported in the deliverable D3.3 'Report on the meso level process (Inclusive Design Wheel)' and the overall assessment process carried out for the evaluation of the pilot and the overall DIGNITY approach the main arrangements that should be provided to improve the implementation of the tool are the following:</p> <ul style="list-style-type: none"> - Simplification of the IDW guidelines, since most of the pilots pointed it out as an improvement needed.

		<ul style="list-style-type: none"> - Simplification/adaptation of the Design Log, to easily distinguish necessary and optional activities and to better adapt the linear format of the Log to the circularity/iteration of the IDW process. - More emphasis on the co-creation workshops and acknowledgement that they are valuable for both the Explore and Create phases. - Adaptation of the Manage phase to fit better with companies' existing project management processes.
<p>C5. Relationship with other Dignity tasks</p> 	<ul style="list-style-type: none"> ● C5.1. Does the tool establish bridges with the other Dignity activities? ● C5.2. What resources/benefits does the tool provide to the other tasks within the Dignity project? 	<p>The IDW methodology established bridges with the majority of the tools of the Framing phase. Key bridges were established especially with the Customer Journey Mapping and Regional Surveys, which helped pilots to better develop the Explore phase of the methodology. The Scenario Building activities were also aligned with the Explore activities in the IDW.</p> <p>The IDW methodology is particularly important for the DIGNITY process for its proven capacity to integrate all the various outputs and insights resulted from the Framing and Bridging tools and use these to guide the final process of creation / improvement of concepts and services aimed at improving the inclusivity of products and service in a specific local context. This is particularly beneficial for the overall approach and its tools, which can find reflected the respective results in a specific concept/service proposed.</p>



Main drivers

✓ Capacity to integrate / bring together the results and insights of the tools of the Framing and Bridging phases

The IDW methodology has proven the capacity to effectively integrate the results and insights of the other tools employed in the Framing and Bridging phases and to use these outputs to guide the creation of concepts aimed at improving the inclusivity of products or services in a specific local context. The IDW methodology established bridges with the majority of DIGNITY tools, including Scenario Building.

✓ The overall IDW process is particularly beneficial for all involved parties

The great majority of actors involved in the IDW process perceived it as useful and appropriate to improve their understanding of mobility problems and, specifically, issues related to digital inclusion in mobility. Furthermore, the methodology is described by project pilots as particularly useful for the development of concepts and ideas aimed at improving the inclusivity of digital products and services. The overall assessment confirms this perception and notes the relevance of this particular methodology for the development of the DIGNITY approach and the benefits that it brought to all involved parties in terms of awareness raising and mutual learning experience. Pilot partners acquired specific knowledge about concepts/ practices related to inclusive design methodologies and about how to identify the most appropriate services, which they can apply in similar future processes.

✓ Capacity to guide pilots to produce useful and appropriate ideas / concepts to create new or improve existing products / services

The IDW methodology was especially useful in guiding pilot partners to integrate inclusiveness in digital mobility products and services. Along with improvements related to the accessibility of the digital concepts produced (such as the improvement of an app or a website), the IDW process helped pilots to think more in terms of usability and inclusivity and to focus more specifically on the barriers and needs of digitally excluded people. According to these principles, the process guided the pilots to develop various non-digital concepts/options that complement digital aspects.





Barriers and limitations

✓ IDW process as a whole is time and resource consuming

The IDW is an iterative process and would ideally involve multiple iterations of the Explore-Create-Evaluate phases before the launch of the final product / service. During the DIGNITY project, none of the pilots conducted multiple iterations, but most of them completed at least one iteration and are continuing work on their proposals to improve them further.

It should be considered that the completion of multiple iterations is often very time consuming and needs financial and dedicated human resources. Entities wanting to complete the whole process are likely to have to rely on public funding or strong company commitment.

✓ Difficulty for non-experts to effectively conduct the IDW process

Just like for the Scenario Building methodology, a proper implementation of the IDW process can be difficult without the support of professional experts. In this sense the soundness of the process for the DIGNITY project was guaranteed by the continuous support and feedback provided by the UCAM team. The majority of the partners clearly recognise this aspect and remarked on the difficulty of correctly performing the iterative process without proper guidance. For these reasons, a proper implementation should have proper funding and the support of professional experts.

✓ Need to simplify / adapt IDW supporting materials

The supporting materials provided by the UCAM team, specifically the IDW guidelines and the Design Log were described as too complex and need to be simplified/adapted to the needs of pilot entities. Specifically, the pilot work indicates that the ease of finding information in the IDW guidance document could be improved. The format of the Design Log should be adapted to better reflect the iterative process of the IDW. The UCAM team is currently working on the improvement of the supporting materials.

Lessons learnt

- The DIGNITY IDW is an appropriate inclusive design methodology that helped pilots to develop inclusive concepts and ideas for the improvement of digital products and services offered at a local / regional level. Furthermore, it provided relevant learning experiences that benefited all parties involved in the process.
- The IDW methodology established bridges with the majority of DIGNITY tools. It integrates effectively the outputs and insights of the other tools employed in the Framing and Bridging





phases and it uses them to guide pilots in the creation of concepts aimed at improving the inclusivity of products or services addressed to vulnerable-to-exclusion groups. The tool is key for the DIGNITY approach.

- The characteristics of the design process, which involves multiple iterations to refine / improve the initial concept and needs expert support during the whole process, make the tool particularly time and resource consuming. As a result, the entities wishing to perform the process should have access to proper funding and dedicated human resources.





5. Validation of the DIGNITY approach

A validation Workshop was held during the 4th DIGNITY General Assembly, organised in Barcelona on the 17 and 18 of October 2022. Twenty-one partners participated in the workshop, representing most project partners.

The preparation of the workshop considered different inputs of the overall assessment process, specifically the inputs/results of:

- The evaluation of the different pilot cases, including lessons learned and potential future impacts (D4.2).
- The assessment of the DIGNITY framework, especially the evaluation of all tools and methodologies employed throughout the whole project, is reported extensively in the present deliverable (D4.3);
- Recommendations on gender-neutral transportation systems (deliverable D.4.4)
- Other project deliverables providing specific inputs about improving the approach as a whole and its potential for upscaling and application in different contexts.

The workshop consisted of a SWOT activity aimed at collecting information and perceptions of project partners on strengths, weaknesses, opportunities and threats of the DIGNITY approach. The coordinator, UPC, of the activity and responsible for evaluation and validation processes, provided partners with an initial proposal of SWOT aspects to be discussed, based on the assessment results. The activity involved a brainstorming phase conducted in small groups and then sharing the ideas/results with all partners. Afterwards, UPC partners analysed the results and rearranged the information gathered, avoiding possible overlap and duplication of concepts.

The following figures show the Strengths Weaknesses, Opportunities and Threats.

Strengths

Characteristics and internal aspects of the Dignity approach that give advantages and are valuable compared to other approaches.



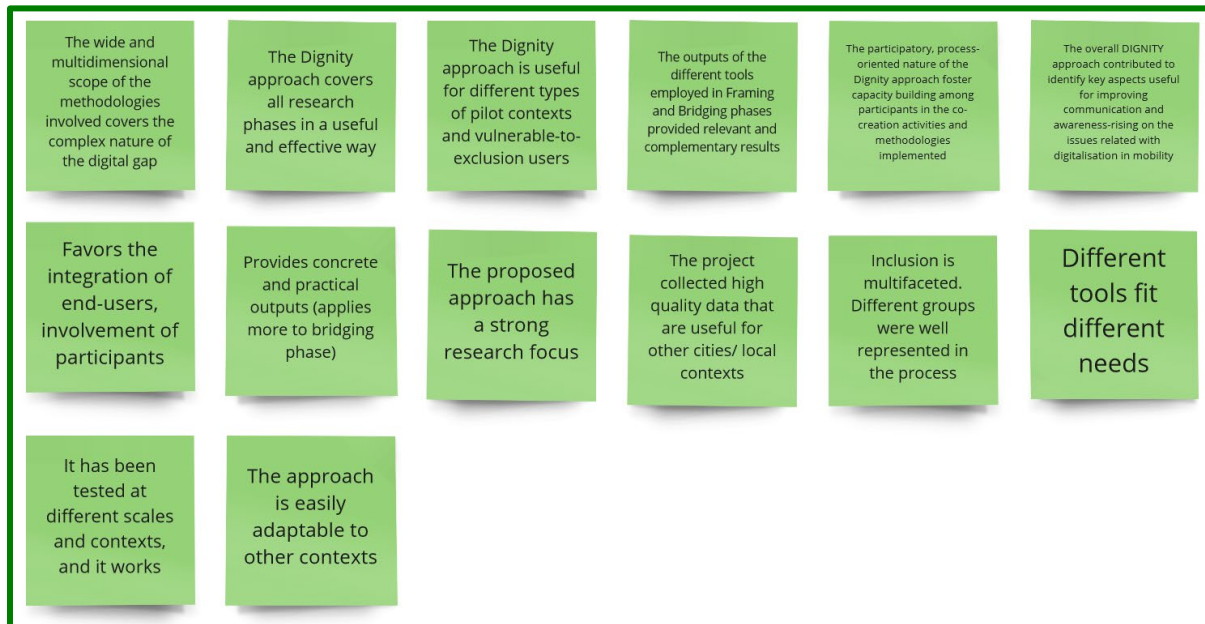


Figure 11. SWOT Activity - Strengths

Weaknesses

Characteristics and internal aspects of the Dignity approach that undermine potential impact.



Figure 12. SWOT Activity - Weaknesses

Opportunities

External factors and aspects that can promote or facilitate the Dignity approach becoming mainstream amplifying its positive impacts.



Figure 13. SWOT Activity – Opportunities

Threats

External factors and aspects that can negatively influence or impede the effective implementation of the Dignity approach in other contexts.

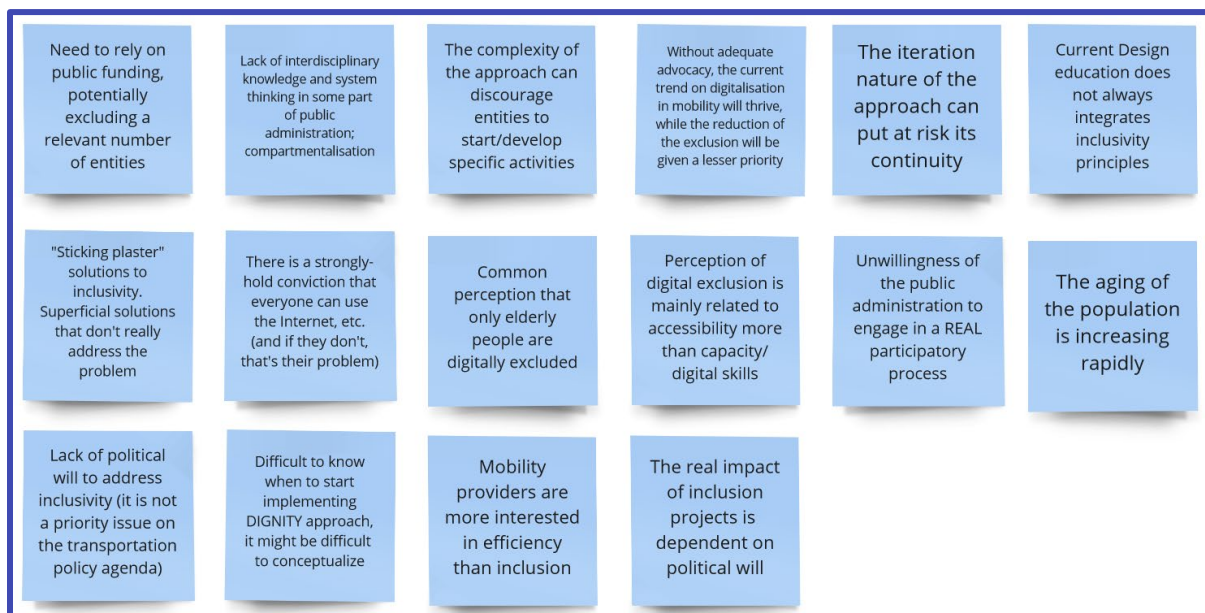


Figure 14. SWOT Activity - Threats

6. Insights and lessons learnt

Overall, the evaluation process has provided useful feedback on the DIGNITY framework. This section resumes the main insights and lessons learnt that reflect the strengths and weaknesses, which can be used as valuable inputs to improve the approach. It also considers some of the insights of the IDW process and pilot experiences reported in the DIGNITY Deliverable D4.2, which complement the present report.

Main lessons learnt are:

1. The approach presents several strong aspects that confirm its potential to improve inclusivity in mobility systems. First, the wide and multidimensional scope of the methodologies covers the complex nature of the digital gap in mobility. In this sense, the outputs of the methodologies provide relevant and complementary information and insights to address the different needs of vulnerable-to-exclusion groups. The approach has been tested at different scales and contexts and has proven its capacity to provide relevant and useful insights to bridge the gap. Second, the assessment highlighted that the approach favours the effective integration and involvement of end users, providing meaningful learning experiences, and promoting awareness-raising and empowerment of all the parties involved. Third, the flexibility of the approach favours its adaptability to different contexts and scales as been shown in the four pilots.
2. The main weaknesses seem to be especially related to the high resources (financial, human) and expertise required to correctly implement the different methodologies and maximise the benefits of the approach. In this respect, the assessment highlighted that some of the methodologies applied, require expert guidance and substantial time dedication to ensure relevant outputs. This fact can potentially discourage entities interested in applying the DIGNITY approach to improve the inclusivity of mobility products and services. Therefore, partners are currently working on adjusting and simplifying some of the methodologies' main processes and guidelines/materials to better respond to the needs of public and private transport entities.
3. Several external factors and societal trends can facilitate the mainstream of the DIGNITY approach, amplifying its positive impacts. First of all, the massive deployment of digitalisation in most societal contexts contributed to raising awareness of its negative impacts, especially related to an ageing society. Second, the COVID pandemic provided more visibility to the issues related to the digital divide and favoured the integration of digital inclusion into political agendas. Third, technological advances and current trends in transport – for example, the implementation of MaaS systems – can be an opportunity for fostering digital inclusion.
4. Contextually, different external factors and trends that can negatively influence the promotion of the DIGNITY approach have been identified. Some aspects are related to



the difficulty of addressing the digital gap on the political agenda. Even though some progress has been made, the digital gap related to mobility is still not a priority at the moment, and the efforts seem to be more focused on accessibility rather than inclusivity. Other aspects are more related to the characteristics and the organisation of the public administration. In this sense, often its compartmentalisation, the lack of an interdisciplinary approach to complex issues and the difficulty in effectively engaging in 'real' participatory processes can hamper the promotion of the DIGNITY approach. For these reasons, it seems particularly important to promote adequate advocacy at the different political levels.





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Annex I. Focus group Questionnaire for participants

DIGNITY Focus Group Questionnaire for participants

Autumn 2021

This form is intended to give you an opportunity to express your opinion of the focus groups discussions held as part of the Dignity project, and to make suggestions for improvements. It should take 5-10 minutes to complete.

1. Please rate your agreement with the following statements:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
					
I enjoyed the focus group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The facilitators encouraged participation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We were given enough time for discussion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The information provided and the questions to be discussed were clear and understandable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The topics discussed were useful to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The focus groups generated useful ideas for my daily mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I could participate well and my opinion was listened to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Differences among participants were addressed in a constructive manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



2. Questions about the workshop

2a. Please describe why did you attend the focus group:

.....
.....
.....

2b. Did you find any parts of the activity confusing or difficult? If so, please explain:

.....
.....
.....

2c. Do you have any suggestions for improving the activity?

.....
.....
.....

2d. Any other comments:

.....
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.....

Thank you for your feedback!



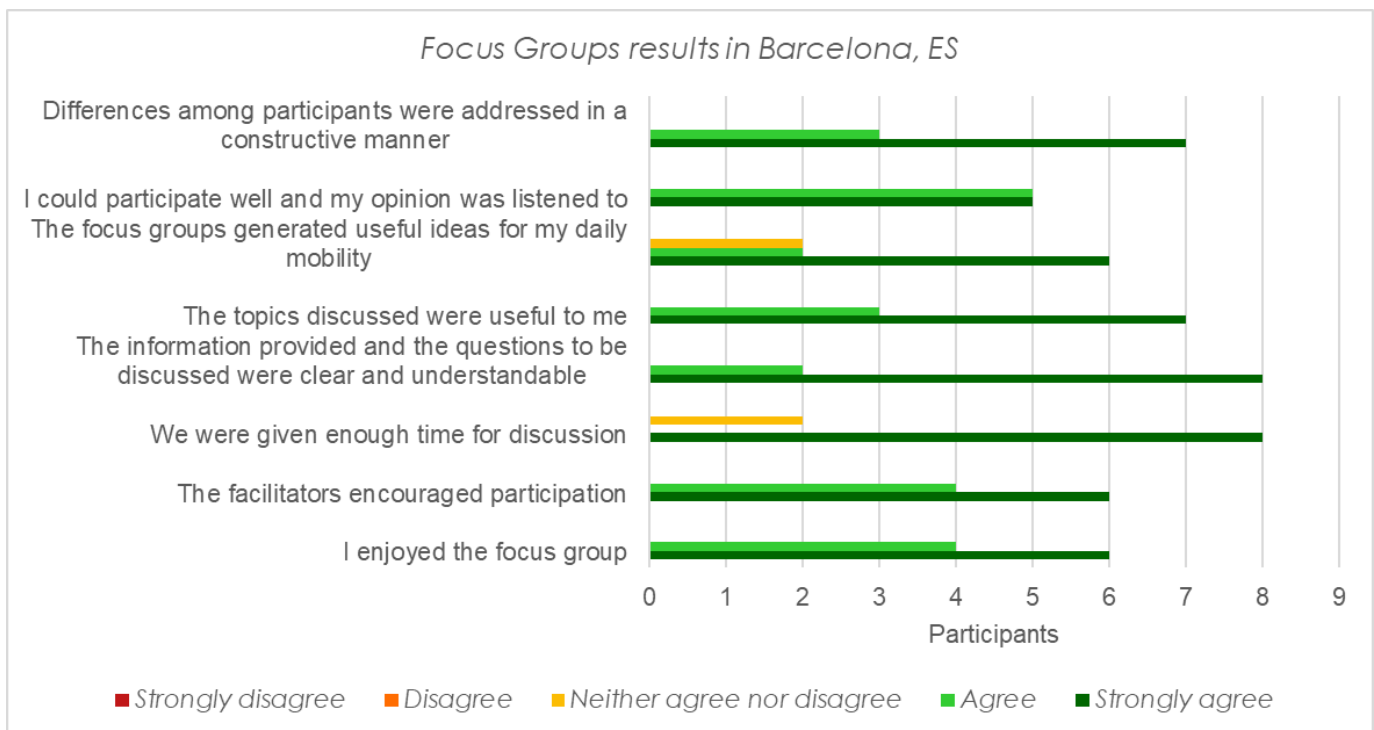
Annex II. Focus group participant survey results

In this section it can be found a detailed description of the results of the Focus Group participant survey for each pilot and the overall results

A. Barcelona

According to the results exposed in Deliverable 3.1, the Barcelona focus group brought together a diverse group of 10 participants, and in general, they all contributed equally to the discussion, partly thanks to the interventions of the moderator.

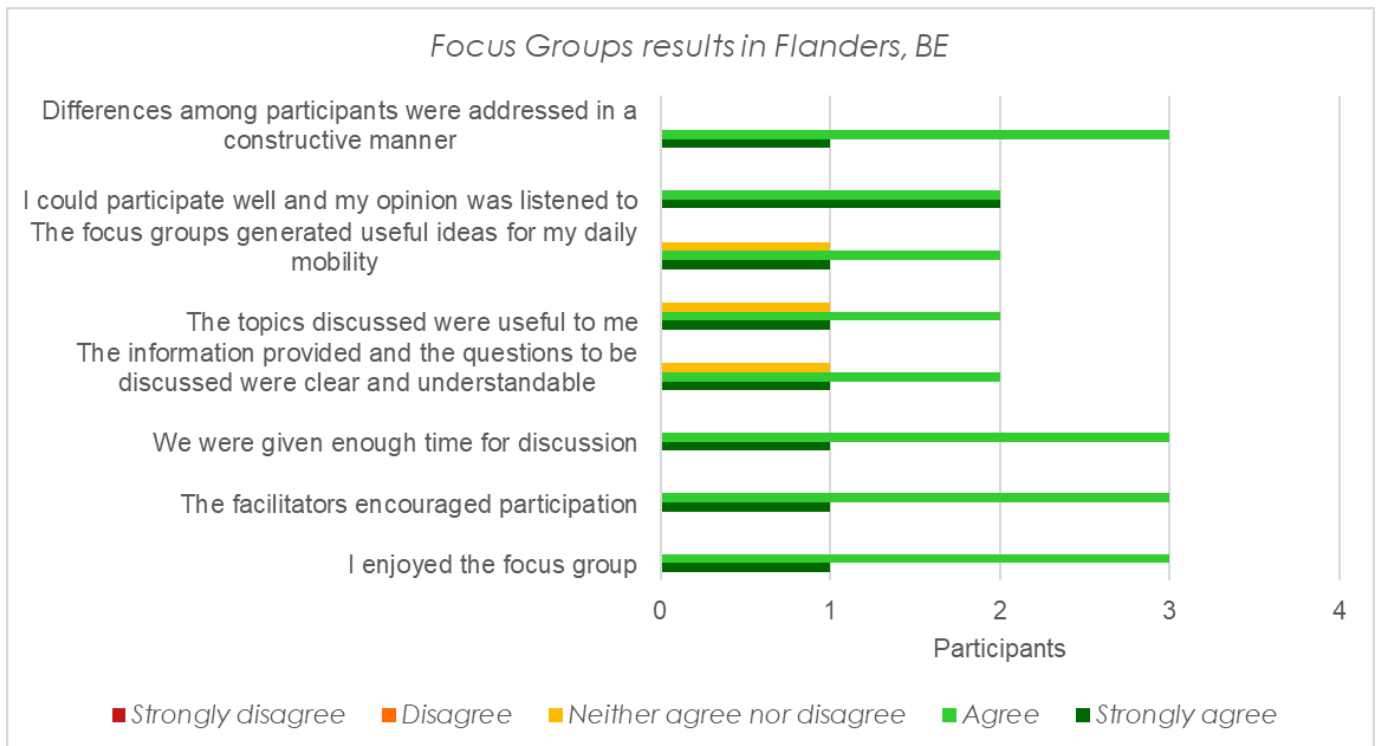
Regarding the targeted groups, several vulnerable-to-exclusion groups were represented. The group was balanced according to gender: five women and five men participated. Next, five participants had a migrant background, which was in all of these cases combined with a lower income. One other participant also had a lower income. The age of the participants ranged from 27 to 78, with four participants being considered as belonging to the group of 'elderly people'.



Participants showed generally satisfaction with the activity.

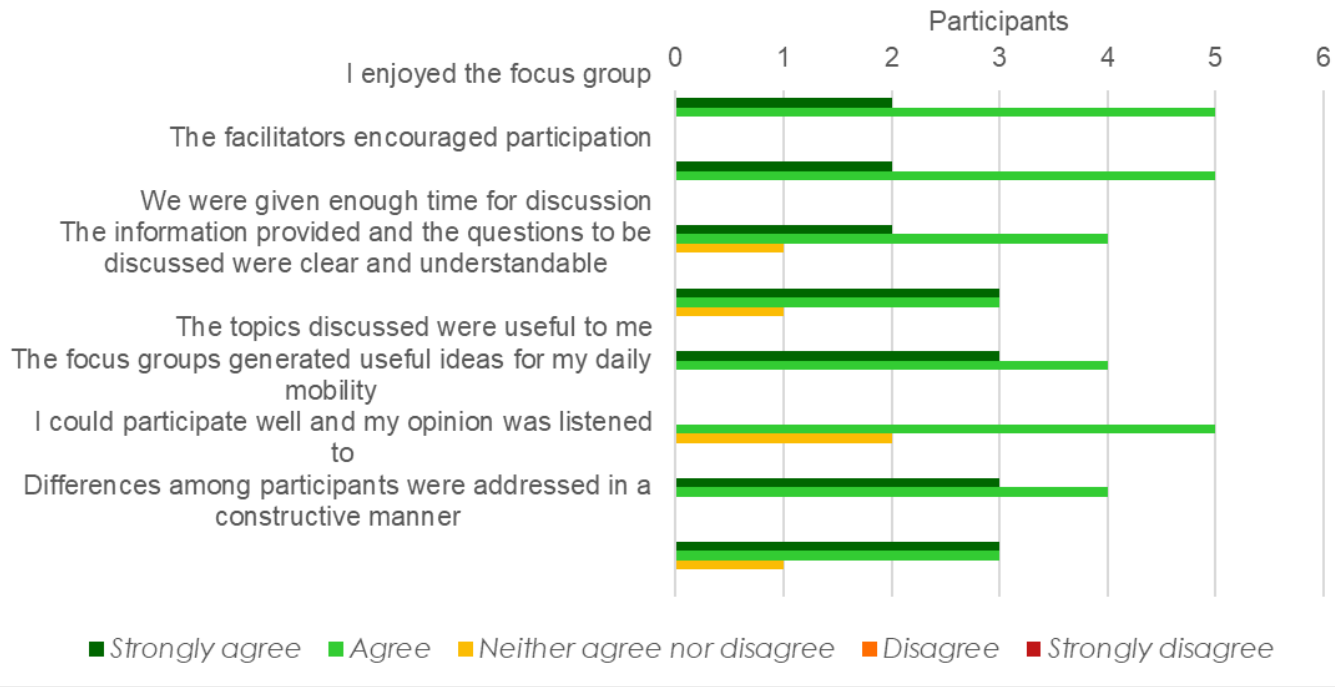
Participant	Why did you attend the focus group?	Confusing or difficulties during the activity	Suggestions for improving the activity	Other comments
1	I'm interested in the topic because it affects me	None	A bit more of time to explain	I found it very interesting
2	I am interested in the problems raised by technological development in all areas of people who have difficulty accessing technology.	All good	A bit more of time	I would like to know the findings of this work
3	I was told and I wanted to hear about new projects	No. Excellent and empathetic facilitator	Questions, know which are the real problems that worry	I would do it again!
4	For interest	No	I get the feeling that it has served more as an information gathering rather than an information service.	N/A
5	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A
7	It was really good.	N/A	No	N/A
8	Really good.	N/A	No	N/A
9	By recommendation, and because it affects us.	No, everything was well explained.	No	No
10	To know how transport works, and being able to improve it.	No, everything was well explained.	For next meetings, there are more topics to be discussed.	See you soon.

B. Flanders



Participant	Why did you attend the focus group?	Confusing or difficulties during the activity	Suggestions for improving the activity	Other comments
1	It's important to listen to relevant audiences and users.	No	When elaborating a digital system, to take sufficiently into account the "laggards"	The distance between others on map and digitalization is very large. Therefore, working would be helpful.
2	I was asked	The connection with the chatting (was) hard to understand	N/A	N/A
3	Because the digital gap is a current topic.	(...) the participants (for me) gave some more guidance.	N/A	N/A
4	I came through the person who invited me	It was okay, but sometimes difficult to understand	!	Hopefully, something will be done about it, there is still a lot to be solved.

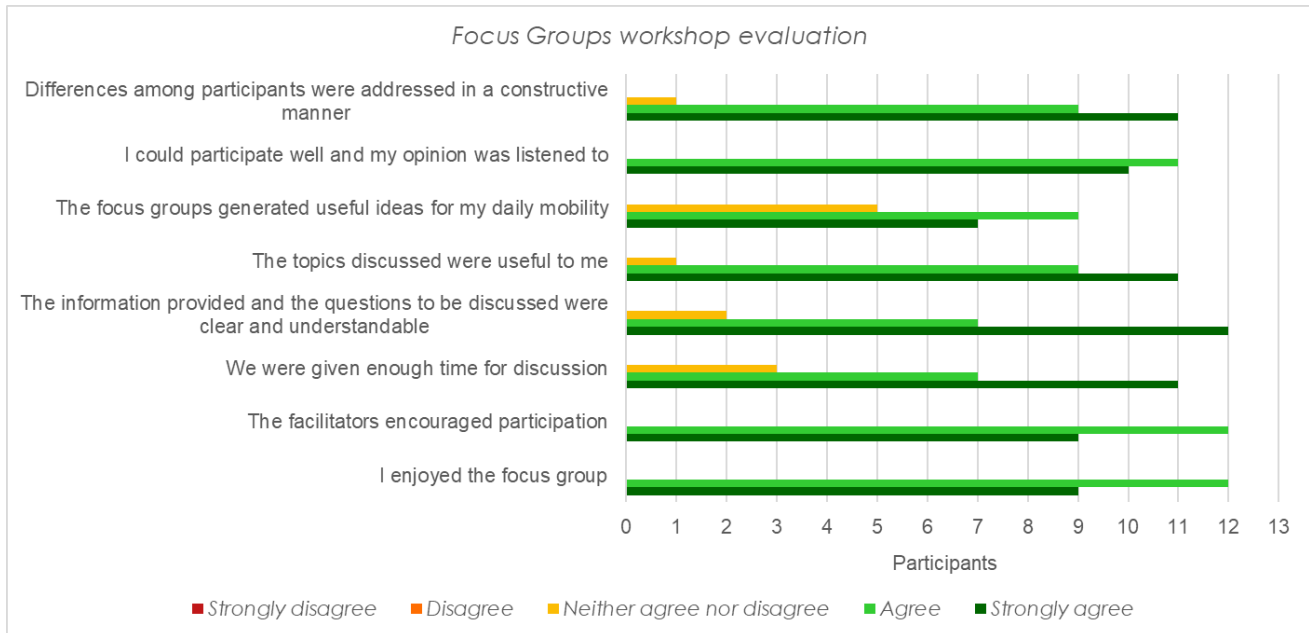
Focus Groups results in Tilburg, NL



Participant	Why did you attend the focus group?	Confusing or difficulties during the activity	Suggestions for improving the activity	Other comments
1	It was requested by a neighbourhood development employee	Difficult that questions say a lot but not enough interested in participants' ideas	Lead more powerfully and do not talk at the same time. Respond more to questions and/or proposals from the participants.	I want much more practical investment. I have enough ideas.
2	To gain experience and to learn from others	It was clear but we did not have a lot of time, also because of the side paths that, by the way, were helpful.	More time or more half-days	Good project manager and researchers
3	I got invited	No	Need to be repeated again	If necessary, important phone numbers and places where needed are available
4	I think it's educational	N/A	N/A	I find this types of workshops very interesting
5	I wanted to hear the information and I thought it would be useful for me to share my experience.	No	N/A	N/A
6	I got asked if I wanted to participate, but I didn't know what it was and what it entailed.	No	No	No

Overall participants feedback

Participants of each Focus Group discussion - except the pilot of Ancona, due to an issue of planification - were asked to fill a form collecting information on their satisfaction and a general feedback about the activity. The results presented below are based on 22 answers on the overall focus groups evaluation of the pilots in Barcelona, Tilburg and Flanders.



Results of the focus group participant survey

As described previously in section 2.1, the Questionnaire was divided in two parts. The previous figure shows the overall results of the first part, which evaluated quantitatively the degree of agreement of participants on specific statements. It can be appreciated from the table that participants did mostly agree or strongly agree about the different proposed statements, related to the understanding and perceived utility of the activity, as well as their participation and interaction during the process.

Alongside the quantitative assessment of the activity, participants answered open response questions focused on their motivation, difficulties experienced during the activity and suggestions to improve it. Regarding their motivation to attend the focus group, most of the participants were asked to participate by pilot partners or other related entities in the DIGNITY project, but also some participants manifested personal/professional interest to attend the activity and to gain knowledge on the digital gap in mobility or related relevant topics.

The activities carried out were mainly perceived as clear and easy to follow by the participants. Only a few participants in Flanders experienced some difficulties, specifically understanding the questions to be discussed and following the activity. Furthermore, most of the participants suggested that having more time available for discussion could have improved the overall experience of the activity (details of open questions for respective pilots' participants can be consulted in Annex II). In this regard, the feedback received from participants confirms the very positive assessment of the focus groups' activities expressed by the different partners interviewed.



Annex III. Scenario Building co-creation workshop questionnaire for participants

The main goal of this questionnaire is to collect information on personal assessment of the attendees of Scenario Building workshops, held in the framework of the European project DIGNITY 'Digital Transport in and for Society' (<https://www.dignity-project.eu/>).

It will take only 5-10 minutes of your time

1a. Reference Pilot

- Ancona
- Barcelona
- Flanders
- Tilburg

1b. What best describes your gender?

- Female
- Male
- Non-binary

1c. What best defines your category?

- Public administration
- Enterprise
- Expert/Academic
- Public transport User
- Public transport operator
- Other:

1d. Could you please briefly describe your interest to attend the workshop?

2a. Personal satisfaction. Please rate your agreements to the following statements (Scale 1 to 5)

1= Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly agree

- I was motivated to participate in these workshops
- These workshops met my expectations and personal objectives for attending
- I strengthen or made new connections for my professional network
- I believe that all relevant stakeholders were present at the workshops
- I am satisfied with the quality of the organisation and support provided





- I had sufficient opportunities to provide input to the discussion

2b. Learning results. Please rate your agreements to the following statements (Scale 1 to 5)

1= Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly agree
After the Scenario Building process:

- I feel that the most relevant topics were discussed during the activities
- I have a better understanding of the perspective of the other stakeholders
- My understanding of mobility future challenges has greatly improved
- The scenario building process provide me new knowledge and perspectives on digital inclusion in mobility.

2c. Quality of the results. Please rate your agreements to the following statements (Scale 1 to 5)

1= Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly agree

- The scenarios created are well designed and understandable
- The scenarios created are plausible and realistic
- Policies and strategies proposed through the process are relevant for a digitally inclusive mobility systems
- Differences among participants were addressed in a constructive manner
- The scenario building process helped to converge diverse participants perspectives

3. Can you please highlight 2 positive aspects of the workshop?

.....

4. Can you please highlight 2 aspects that could be improved (feel free to refer to any aspects of the workshop: contents, methods, practical information provided, activities, etc.)

.....

5. Further comments and suggestions (including activities you think would be useful, for the future).

.....





Annex IV. Inclusive Design Wheel co-creation workshop questionnaire for participants

This form is intended to give you an opportunity to express your opinion of the co-creation workshop held as part of the Dignity project, and to make suggestions for improvements. It should take 5-10 minutes to complete.

1. Information about yourself

1a. Which pilot are you part of?

- Ancona
- Barcelona
- Flanders
- Tilburg: Older people and digital mobility
- Tilburg: Migrant women and bicycles

1b. What best describes your gender?

- Male
- Female
- Prefer to self-describe:

1c. What best describes your role?

- Transport user
- Public administration
- Transport provider
- Designer
- Other:

1d. Which of the following groups do you consider yourself to be a member of? (Please feel free to skip this question if you prefer)

- Older person (age 65 or over)
- Person with a disability
- Person on a low income
- Person with a low education level
- Migrant to the country (i.e. you were born in another country)
- Low technology user (i.e. does not use a computer or smartphone regularly)
- Rural inhabitant
- Other:

2. Please rate your agreement with the following statements:



	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I enjoyed the workshop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The workshop was useful to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The workshop generated useful ideas for improving transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I could participate well and my opinion was listened to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Differences among participants were addressed in a constructive manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Questions about the workshop

3a. Please briefly describe your reasons for attending the workshop.

3b. Did the workshop meet your expectations? If not, why not?

3c. Did you find any parts of the workshop confusing or difficult? If so, please explain.

3d. Do you have any suggestions for improving the workshop?

3e. Any other comments:

Thank you for your feedback

Annex V. IDW - Explore phase questionnaire (addressed to pilot partners)

This form is intended to give you an opportunity to express your opinion of the work with the IDW and design log so far, and make suggestions for improvements.

IDW process so far

- In which ways was the process helpful? In which ways was it not helpful?
- What did you need support with in the IDW process so far?
- Was there any further help/support you would have liked from the UCAM team?
- Which of the Explore activities did you find the most useful? Which were the least useful?
- Any other comments:

IDW guidance document (Deliverable 2.2)

- In which ways was the IDW guidance document helpful? In which ways was it not helpful?
- At what points did you refer to this?
- What aspects did you find useful? What did you not find useful?
- Was there any information missing that you would like to have had?
- Was anything confusing or unhelpful? Please explain
- Suggestions for improvement
- Any other comments:

Design log

- In which ways was it helpful? In which ways was it not helpful?
- Which of the log activity entries were most useful? Not useful?
- Was there anything in particular you found confusing?
- Suggestions for improvement, e.g. different format; changes to the structure or to individual slides; suggestions for additions (slides, templates, activities)
- Any other comments:

	Very Poor	Poor	Average	Good	Very Good
How helpful was the IDW process so far?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How helpful was the support provided by the UCAM team?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How helpful was the IDW guidance document (Deliverable 2.2)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



How easy was it to find what you needed in the guidance document?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How helpful was the design log so far?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How easy was it to navigate and understand the structure of the log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

General comments:

.....

.....

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.....





Annex VI. IDW - End questionnaire (addressed to pilot partners)

This form is intended to be completed by members of the core pilot teams. It is intended to give you an opportunity to express your opinion of the work with the Inclusive Design Wheel (IDW) and design log, and to make suggestions for improvements. Depending on how many comments you would like to make, this should take around 10-20 minutes to complete.

1. Information about yourself

1a. Which pilot are you part of?

- Ancona
- Barcelona
- Flanders
- Tilburg: Older people and digital mobility
- Tilburg: Migrant women and bicycles

1b. What best describes your gender?

- Male
- Female
- Prefer to self-describe:

1c. (optional) Please describe your role on the pilot team

2. Please rate the usefulness, helpfulness and ease of use of various aspects of your experience of the IDW process:

	Very Poor	Poor	Average	Good	Very Good
How useful was the IDW process overall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How helpful was the support provided by the UCAM team?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How helpful was the IDW guidance document (Deliverable 2.2)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



How easy was it to find what you needed in the guidance document?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How helpful was the design log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How easy was it to navigate and understand the structure of the log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How useful was the co-creation workshop(s) held by your pilot?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How useful were the ideas produced in the co-creation workshop(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How useful was the feedback provided by UCAM on your concepts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The remaining questions ask you to comment on different aspects of the IDW process. It is fine to leave some of the questions blank if you do not feel you have anything to say about that particular topic.

3. These questions refer to your experience of the IDW process overall

3a. In which ways was the process helpful? In which ways was it not helpful?

3b. What did you need support with? Was there any further help/support you would have liked from the UCAM team?

3c. Which of the IDW activities did you find the most useful? Which were the least useful?

3d. Do you have any suggestions for improving the process or any other comments on the process?

4. These questions refer to your use of the IDW guidance document (Deliverable 2.2)

You can find this at: https://www.dignity-project.eu/wp-content/uploads/2021/04/D2.2_InclusiveDesignWheel.pdf

4a. In which ways was the IDW guidance document helpful?

4b. How could the document be improved?



4c. Any other comments

5. These questions refer to your experiences with the IDW design log (the PowerPoint file used for recording the IDW actions and outcomes)

5a. In which ways was the design log helpful?

5b. How could the design log be improved?

5c. Any other comments

6. These questions refer to the co-creation workshop(s) held by your pilot

6a. In which ways was the co-creation workshop(s) helpful?

6b. How could the co-creation workshop be improved?

6c. Any other comments

7. These questions refer to the feedback provided by UCAM on the concepts produced by your pilot.

7a. In which ways was the feedback helpful?

7b. How could the feedback be improved?

7c. Any other comments

8. Any other comments:

Thank you for your feedback





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