

D3.5 Four local strategies for an inclusive digital travel eco-system

Report on the DIGNITY process in the pilots

Date: 22 July 2022 **Version:** Final

Author(s): Sam Delespaul (Mobiel 21), Els Vandenbroeck (Mobiel

21), Ingo Kollosche (IZT)

Contributor(s): Pilots

Project: DIGNITY | www.dignity-project.eu Project duration: 01.01.2020 – 31.12.2022

Grant Agreement N°: 875542

Coordinator: Silvia Gaggi Email: sgaggi@isinnova.org





Executive summary

This deliverable reports on the last step of the implementation of the DIGNITY approach in the four DIGNITY pilots (Ancona, Barcelona, Flanders and Tilburg): developing a strategy for an inclusive digital travel eco-system. The output from the previous phases in the DIGNITY approach (framing the digital gap, scenario building, Inclusive Design Wheel process) are put to use as the baseline for four local strategies. The pilots used the gathered insights, results and lessons learnt, to develop a strategy that inspires policy on the long term. This DIGNITY strategy development process was structured by the use of two templates that were specifically created for this purpose: one strategy one pager and an action plan. With support of IZT and Mobiel 21, the four DIGNITY pilots completed the two templates, which combined form their local strategy towards an inclusive digital travel eco-system. These resulting strategies and action plans are shown in this deliverable.

Document History

Date	Person	Action	Status				
31/05	Sam Delespaul	First version	Draft				
24/06	Ingo Kollosche	Chapter added	Draft				
28/06	Sam Delespaul	Second version for review	For review				
06/07	Silvia Gaggi	Quality Review					
19/07	Sam Delespaul & Els Vandenbroeck	Processed review	Final				

Status: Draft, Final, Approved, and Submitted (to European Commission).



Contents

Executive summary	2
Document History	2
List of figures	5
1. Introduction	
1.1 DIGNITY project summary	
1.2 Framing and bridging the digital gap in mobility	
1.3 Objectives and outline	3
2. DIGNITY strategy development	10
2.1 Baseline for a strategy for an inclusive digital mobility	system10
2.2 What is a strategy?	10
2.3 Strategy development process in the pilots	12
2.3.1 Templates	12
2.3.2 Pilot iterations	12
3. Four local strategies	16
3.1 Ancona	17
3.2 Barcelona	19
3.3 Flanders	21
3.4 Tilburg	24
4. Discussion	26
4.1 Assessment of the process	26
4.1.1 The internal pilot process	26
4.1.2 The materials	27
4.1.3 The importance of the DIGNITY approach	27
4.2 Assessment of the content	28
4.2.1 Definition stage	28
4.2.2 Design phase	28
4.2.3 Result stage	30



	4.3. Lessons learned	30
5.	5. References	32



List of figures

Figure 1: Integrated strategy process (Source: own illustration according to Tighe, 2019, p. 48	3)11
Figure 2: strategy one pager template	13
Figure 3: Action plan template	14
Figure 4: Strategy one pager Ancona	
Figure 6: Strategy one pager Barcelona	19
Figure 7: Action plan Barcelona	
Figure 8: Strategy one pager Flanders	21
Figure 9: Action plan Flanders (part 1)	
Figure 10: Action plan Flanders (part 2)	
Figure 11: Strategy one pager Tilburg	
Figure 12: Action plan Tilbura	



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 digitalized mobility solutions by different user groups in Europe. Analysing the digital transition from both the users, providers and policy perspective, DIGNITY looks at the challenges brought about by digitalization, 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 cocreating 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 Framing and bridging the digital gap in mobility

The DIGNITY approach consists of three stages: framing, bridging and evaluating. During the first stage a mixed-method research design is used to assess the digital gap on the local level. The perspective of the end user, especially those that are most vulnerable to digital exclusion, is at the centre of this research design. The goal is to gain insight about





the local state of affairs on digital abilities and mobility poverty (micro level), digital mobility provision (meso level) and policy on digital mobility and inclusion (macro level). The combination of qualitative and quantitative methods allows to better understand what the actual problems concerning digital mobility are and which groups are most affected by them. The following tools and methods are developed within the DIGNITY framing phase:

- A national survey
- A self-assessment exercise
- A customer journey mapping process
- A focus group with vulnerable-to-exclusion groups

Every method brings in its own specific information. The survey provides insights on digital abilities, mobility poverty and use of digital mobility services on the country or regional level. The self-assessment exercise creates an overview about the local digital mobility conditions on the micro, meso and macro level. Lastly, the customer journey mapping and focus group collect micro level data to better understand how certain groups experience the use of digital mobility in their day to day travels. For each of these different methods ready-to-use guidelines (see for example guidelines on the self-assessment or the customer journey mapping) were developed. This enables local authorities to implement the research methods by themselves.

The second phase of the DIGNITY approach, bridging, is focused on finding solutions to bridge the digital gap in mobility. The insights from the framing are used to learn in which direction solutions should be sought for. The work in the bridging phase is focused in two processes on the macro and meso level. First, a scenario building process aims at drafting inclusive policies. By using foresight analysis, possible future scenarios are created to inform strategy development. All relevant stakeholders, from policy makers to transport providers and especially the end-users, are aimed to participate in the scenario building. Next, the Inclusive Design Wheel process is used to design digital mobility products and services for all. The goal of the Inclusive Design Wheel is to develop solutions that are as inclusive, or can be used as universally used, as possible. Within the context of the DIGNITY project this means designing digital mobility services from the perspective of the most vulnerable-to-exclusion groups.

Like for the tools of the framing phase, detailed and ready-to-use guidelines were developed for both bridging phase processes (see DIGNITY $\underline{D2.2}$ and $\underline{D2.3}$). These guidelines were set up by specialists on either scenario building (IZT) or the creators of the





Inclusive Design wheel (University of Cambridge). These institutions also supported the DIGNITY pilots in the implementation of these processes.

As mentioned above, the goal of the DIGNITY project is to create an inclusive digital travel eco-system. The DIGNITY approach should thus result in solutions or a strategy to reach this goal. Therefore, the DIGNITY approach is developed in such a way that the output of framing and bridging phases collectively can be used to develop a local strategy towards an inclusive digital travel eco-system. In other words, the implementation of all aforementioned tools, methods and processes leads to valuable insights that can inspire long term policy strategies. This report describes this step from bridging and framing to local strategy.

1.3 Objectives and outline

This deliverable is the result of task 3.4 of the DIGNITY project: Developing long term strategies to fill the gap: drafting outputs from the pilots. This task is part of the third phase of the DIGNITY approach: evaluation. During this phase the DIGNITY approach is being evaluated on its capacity to reach the intended goals. The additional aim is to integrate all output and results from the bridging and framing phases and develop a strategy and action plan on the long term. Like with all other parts of the DIGNITY approach, the strategy development was put to the test in the four DIGNITY pilots: Ancona (IT), Barcelona (ES), Flanders (BE) and Tilburg (NL). The main objective of task 3.4 and this deliverable is to develop a local strategy towards an inclusive digital travel eco-system in each of the DIGNITY pilots.

We want to guarantee that the output coming out of the implementation of the tools and methods of the DIGNITY approach are put to use in a future and action oriented manner. The results of the scenario building are therefore the most relevant context for the development of a local strategy. The results and insights from the framing phase and the Inclusive Design Wheel are included to inform more specific or detailed parts of the strategy. Within the DIGNITY project, the strategy is structured around two parts, for each of which a template is being created: a strategy one pager and an action plan.

The process that was followed to develop the local strategies in the pilots is described in chapter two. Deeper explanation about the used templates is also provide there. Chapter three then collects the actual strategies and action plans in each of the four DIGNITY pilots. Since the templates are designed in such a way that they should be comprehensible without extra explanation, they are presented as they are. A detailed analysis of each of the different strategies isn't part of this deliverable. However, the





strategies are assessed on a more general level in the final chapter, together with an evaluation of the process and the use of the templates by the pilots.



2. DIGNITY strategy development

2.1 Baseline for a strategy for an inclusive digital mobility system

Developing a local strategy for an inclusive digital travel eco-system is the final step of the DIGNITY process in the four pilots. The previous steps in the process (framing, scenario building, Inclusive Design Wheel) act as a baseline for this strategy. Therefore, a reflection about the framing and bridging phases in the pilots was the set off for the strategy development process.

To start, the pilots were encouraged to think about the most important lessons learnt in their city or region from the framing phase, the scenario building and the Inclusive Design Wheel process. These were discussed during a live workshop session, where pilots could exchange about the process and output in their city or region. This exchange supported the pilots in the reflection about their own work.

In a next step these lessons were integrated in a framework. This framework was constructed around the three levels (micro, meso, macro) and the overall DIGNITY process. The reflection and integration exercise then resulted in a structured overview of the most important results and insights in each pilot. These are a necessary baseline for the strategy development: what do we know about the digital gap (framing phase), what can be done about it (e.g. ensuring a more inclusive design of digital products and services) and within which policy background (scenario building).

During this integration exercise, it became clear that the same process led to different results and output in the four pilots. These differences are also reflected in the diversity of the resulting strategies and action plans (see below).

A report and summary of output and results of the framing phase, the Inclusive Design Wheel and the scenario building in the pilots can be found in DIGNITY deliverables <u>D3.1</u>, D3.3 (forthcoming) and <u>D3.4</u> respectively. The content of these reports functions as the context for the strategies shown in the next chapter. They can be consulted for a better understanding of the resulting strategies and action plans.

2.2 What is a strategy?

Now that we have described the baseline for the strategy development in the DIGNITY context, this section explains on a more general level the meaning and context in which strategy development is used, what a strategy is, and what function it serves in planning processes.





Strategy development is about "organisational empowerment" (Tighe, 2019, xiii). It is a framework for goal-oriented action. Every strategy is a structured pathway into the future. They define development paths for structured action. Besides, the development of and work with strategies is a creative learning process for the organization.

Responsible administrations and departments of local governments have the concrete challenge of designing a digitally inclusive mobility ecosystem. Based on the scenarios and other relevant output and insights, they are able to develop adaptive and flexible strategies. The whole process is about the development of capacity for action for the pilots. Capacity means empowerment. The administration as an organization can develop adequate policy recommendations on the basis of a robust strategy.

In this sense, strategies act as future oriented agreements within the organization. These agreements function as the the basis of acting. Strategies are action plans to achieve certain goals in perceived future environments. In this context, one can distinguish three perspectives of strategy development. Strategic Positioning means the positioning in different environments through visions, the mission and the defined goals (compare in the following ibid, 44). Strategic Reasoning means the perceived future environments. These contexts were designed and shaped in the scenario building. The planning level is implemented through the Strategic Objectives. What the organisation wants to do and how it wants to do it is at the center of the activities here.

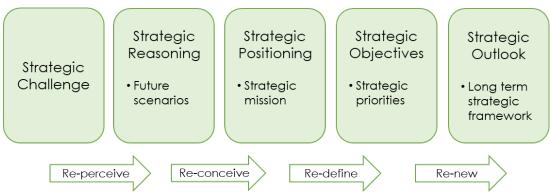


Figure 1: Integrated strategy process (Source: own illustration according to Tighe, 2019, p. 48)

Strategy development is not only a process with an output but also a source of resources, creativity, participation and learning. The central elements of a strategy therefore include (Porter, 1979):

- Plan: consciously intended course of action What should be done?
- Pattern: stream of action How should it be done?



- Position: orientation in the environments With whom should it be done?
- Perspective: organisational culture and shared worldview Who are we as an organization in this transformation process?

The implementation of these elements takes place in the organisation, or pilots, by defining the overall vision and developing the corresponding mission together with a target pyramid. To do this, the relevant resources must be planned, the necessary partners and stakeholders must be identified and a road map has to be developed that structures the individual actions and milestones. Correspondingly, a communication plan should be developed to accompany and support the implementation of the strategy.

2.3 Strategy development process in the pilots

The output from the previous stages in the DIGNITY project were used by the pilots to develop their own comprehensive strategy for an inclusive digital mobility eco-system. They were supported in this process by DIGNITY partners IZT (as scenario building and strategy development specialist) and Mobiel 21 (as pilot coordinator). The actual process and the recourses used are described below.

2.3.1 Templates

To guide and structure the strategy development in the pilots, IZT and Mobiel 21 designed two templates. During several meetings in March and April 2022, these templates were discussed, refined and agreed upon. The lay out of the templates was finalized with the help of DIGNITY partner UPC. The idea behind the templates is that, when completed, they should suffice as strategy. This means that the strategy and corresponding action plan is clear from the content of the templates, without extra explanation. The resulting local strategy towards an inclusive digital travel eco-system consists of two parts: a strategy one pager and an action plan.

For each of these two parts, a separate template is being designed. The strategy one pager, designed in PowerPoint, provides the overview of the strategy and is inspired by the work of Jan Jonker (Jonker, 2014). It is divided into eight building blocks: context & motivation, mission, vision, stakeholders, plan, core activities, impact and values. These building blocks are further structured in three stages. Together they form a comprehensible, useful and future oriented local strategy. More detail on what is meant by each of the building blocks can be found in figure 2. Aside from the explanation on the content of each building block, the template also gives guidance/tips on what the





most relevant or appropriate sources of information is to fill in that specific part. This way, the strategy and the previous steps in the DIGNITY project are explicitly linked.

ARR DIGNITY

<u>How to</u> - Strategy toward an inclusive digital travel eco-system in <u>XXX</u>



Figure 2: strategy one pager template

The action plan consists of concrete actions with corresponding timing to undertake during the implementation of the strategy. In other words, it describes the road to achieve the goals set in the strategy. For each phase in the action plan, four aspects are defined beforehand: management/coordination, action, resources and communication. To allow more flexibility in adding extra phases or aspects, the action plan is designed as an Excel file. The empty template for the action plan is also presented on the next page (figure 3).



ala	Action plan to	ward an inclusi	ve digital trave	l eco-system	6	н	111
DIGNITY	Phase X	Phase Y	Phase Z	Phase X	Other		
	Short description of the phase	(add more phases if needed)					
Timing	f.e. May 2022 - October 2022	Add time scale here	Add time scale here	Add time scale here	Add time scale here	Notes	
Management / Coordination							
Q Action							
Resources							
Communication							
Other							
Action	Plan (+)					: 0	

Figure 3: Action plan template

2.3.2 Pilot iterations

Following the integration exercise during the workshop in March and the designing of the templates, the pilots proceeded the work on the strategy development. IZT and Mobiel 21 organised individual online pilot sessions in late April to introduce the process and the templates. The pilot teams received a general introduction on strategy development and the specific process in the DIGNITY project. The reasoning and content of the templates was thoroughly explained and the proposed timeline was shown. After this meeting, the pilots received the templates and could start the actual work on their strategy development. Since the strategy development uses the output from all previous steps in the DIGNITY approach, all DIGNITY pilot partners that were involved in any of these process (framing, IDW, Scenario Building) were included in the strategy development. The following actors contributed to the strategy in the respective pilots:

- Ancona: Municipality of Ancona (local authority), myCicero (digital service provider) and Conerobus (public transport operator)
- Barcelona: Barcelona Regional (public agency led by Barcelona City Council) and Factual (consultancy firm specialized in mobility)



- Flanders: MOW (Flemish department of Mobility and Local Works, department of Flemish government)
- Tilburg: Municipality of Tilburg (local authority), Nextbike (bike sharing company) and Bureau ZET

Developing a strategy is a process that requires several iterations before a final version of the strategy is produced. Concretely, this meant a feedback loop between the pilots on the one hand and IZT and Mobiel 21 on the other hand was set up. While the pilots developed their strategy internally, they received feedback on intermediate versions on two occasions: through a digital feedback session on the first version of the pilots' strategy, and via e-mail on the second version. The final version, finished in June 2022, of the strategy and action plan represent the local strategy for an inclusive digital travel eco-system in each pilot and can be found in the next chapter.



3. Four local strategies

On the following pages, the completed templates for each of the four pilots are shown. These function as the strategies that resulted from the process described above. For every pilot the strategy one pager is presented first, followed by the action plan.

3.1 Ancona



Strategy towards an inclusive digital travel eco-system in Ancona

Definition stage



Context & motivation

More livable city for all users by including smart solutions to reduce the car dependency taking into considerations the urban planning for greener cities in terms of mobility and aligned with sustainable goals of the UN's Agenda 2030, giving special attention to the "reduced inequalities", "gender equality" and in general societal goals and how to realize a concrete inclusivity in a heterogeneous context

Mission



Vision



 Construction of the base of a sustainable, resilient, digital and non-digital inclusive and ecofriendly city, using the principles of the UN's Agenda 2030 in terms of mobility and social inclusion

Design stage



Stakeholders

- Public authorities and municipality departments: "Urban Planning", "Public Building, Port Authority and Mobility", "Green Public Environment", "Cultural, School and Educational Policies", "Financial department", "Social Policies" General Director and Mobility Managers
- Disable user associations: UILDM, ENS, CISL, UICI and Migrants Associations
- Mobility private and public providers (including CONEROBUS), service providers (myCicero) and others service providers like electric charging stations

Plan



- Pillar 2: Cultural awareness about the individual and collective transport choices and the barriers (digital or not) that affect the social inclusion in the mobility and their impact on the environment and community
- Pillar 3: Economical efforts to facilitate the shift for more sustainable behaviors in mobility

Core activities



- Creation of a monitoring and decision committee of experts representing different areas of mobility, transportation and social inclusion to define core goals, to be included in the local SUMP
- Campaign for sensibility and awareness for individual and collective choices (by festival, congress, meetings, etc.), including digital trainings, technology testing, cycling days, car-free days, empathy days with vulnerableto-exclusion groups, among others
- Creation of dedicated subsides that favor the user of green transport modes, such green bonuses, and more control over mobility plans

Result stage



Impact

- Trips and distance travelled by sustainable modes and done by vulnerable-toexclusion groups
- Number of vulnerable-to-exclusion groups in leadership on public transport and related companies
- o Digital barrier perception thought survey
- o Ranking quality of life Italian cities (i.e. "Ranking from Sole 24 Ore")

Values





- Improving relation and cooperation between public and private entities
- o Improving the life quality and decrease of barriers for social inclusion

Figure 4: Strategy one pager Ancona

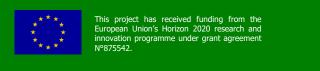




Action plan toward an inclusive digital travel eco-system

DIGNITY	Pillar 1: Horizontal and vertical aligning of the public departments and authorities around sustainable and inclusive goals defined by expert committee		Pillar 2: Cultural awareness their impact on the environ	Pillar 3: Economical efforts to facilitate the shift for more sustainable behaviors in mobility and a more inclusive city			
	Phase A	Phase B	Phase C	Phase D	Phase E	Phase F	Phase G
	Working Group and goals definition	Iterations	Submission of the final report	Local research of environmental	Mobility Manager alligning	Cultural awareness	Funds/budget for events and
Timing	okt/22	October 2022 - December 2022	dec/22	January 2023 - October 2023*	September 2023 - October 2023*	April 2023 - September 2024*	January 2023 - September 2024*
Management / Coordination	Coordination by a general director from Public Administration, General Director and Departments responsabiles from Ancona Municipality	Coordination by previous entities in terms of document iterations	Definition of an event for including major and local authorities	Coordination between the Municipality of Ancona to study the local impacts of the individual and collective choices in terms of mobility, transportation and other aspects, in a way to have local data and numbers to show to the citizen, generating more impact. By SUMP, the KPI must be defined and monitored.	Cooperation with the Mobilty Manager from Municipality. Contacting the Mobility Managers for further coordination meetings	Coordination of activities by the General Director from Municipality of Ancona. Coordination with cultural dissemination groups, such as festival, theater groups. Coordination with public transport operators and mobility providers for green days free car Coordination with association from the vulnerable-to-exclusion groups associations	Coordination with Financial and Events departments for budget estimation. Coordination with Public Transport Operator for Business Model and Promos.
QQ Action	Definition of the multisectorial committee of experts from different areas of mobility, transportation and social inclusion. Definition of a physical event to provide an introduction of the project DIGNITY, the general output and challenges coming from the research, the vulnerable-to-exclusion groups and needs, the stakeholders involved and the target to be accomplished by the strategy. Definition of the next meetings and venues	Different meetings for iterations following the initial plan	Submission of the final report with the strategy's goals to be distributed to the public entities for being included in the SUMP	Generation of a local research about choices and their impacts. Generation of graphical material to show in the different events of the next phase	Improving the figure of the Mobility Manager role, by orientation, training and boosting the task alligned with the strategy goals defined in the previous phases	Reach the citizens in a way to show them the impacts generated by their individual and collective choices in terms of transport and mobility (but not only) to the community and environment. Awareness as digital barriers for vulnerable-to-exclusion groups from DIGNITy project's outcome. Link to global warming is highly recommended.	Part I: Estimation and provision of funds for the previous activities, such as festival, university agreements, booking of venues, licences, etc. Part 2: Subsidies for boosting sustainables transport modes, such as green bonuses
Resources	DIGNITY outcomes local dissemination event and future venues and timeslot for next meetings	DIGNITY outcomes local dissemination event and future venues and timeslot for meetings	Preparation of an inclusive presentation of the result for the citizens, in a way to reach as many as it is possible	Agreement with local and regional universities, including publications platforms and working internships during the research period	Meeting venue for Mobility Managers meetings	Different venues along the city. Contribution with surveys for assessing the participation	Application to different finantial sources as tenders (national/european), PNFR, national founds (from different ministeries), local reserve funds, etc.
Communication	DIGNITY outcomes local event	Internal communication with and within the participant body	Dissemination for all the members of the society interested in the green development of the city	Direct communication with universities programms/departments directors in a first stage and with researchers in a second stage	Communication between public entities and companies / Mobility Managers from Municipality	Use of social networks, flayers, local tv and radio Direct communications with user associations, specially for vulnerable-to- exclusions ones	Internal communication within the expert committee and coordinators
Externalities				On June 2023 there will be elections for the local authority in Ancona, this situation can change the lead and organization of the different actions before and after this date	* On June 2023 there will be elections for the local authority in Ancona, this situation can change the lead and organization of the different actions before and after this date	^a On June 2023 there will be elections for the local authority in Ancona, this situation can change the lead and organization of the different actions before and after this date	* On June 2023 there will be elections for the local authority in Ancona, this situation can change the lead and organization of the different actions before and after this date

Figure 5: action plan Ancona

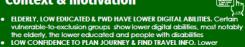


3.2 Barcelona

2022-2029 Strategy towards an inclusive digital travel eco-system in Barcelona

Definition stage

Context & motivation



- educated and people with disabilities have lower use of digital services to find travel information and lower confidence to plan a journey with an
- INTERNET ACCESS LINKED TO AFFORDABILITY. Some vulnerable-to-exclusion groups depend on the availability of Wi-Fi to use digital mobility services. Mobile internet (like 4G) is not affordable for everyone.
- EXTERNALITY OF LACK OF INTERNET ACCESS. No access to real-time, up-todate information during a trip can cause stress for some people during
- commuting NON-DIGITAL OPTIONS. There needs to be ongoing attention to non-digital alternatives to find travel information, both before as during a trip.

Mission



Vision



Achieve universal accessibility on public transport systems in the whole Metropolitan region of Barcelona.

Design stage



Stakeholders

- Public Administration

 Metropolitan Area of Barcelona (AMB)

 Metropolitan Transport Authority (ATM)

 Barcelona City Council

 Barcelona Regional

 Generalitat transport, digital transformation, social affairs departments

Plan



 Launch targeted initiatives & policies, boasted by political commitment, awareness among main stakeholders and active citizen participation.

Core activities



Result stage



Impact (add KPIs/ indicators/ milestones)



Increased impact of public participation on accessibility policies and final solutions

Civil society groups
• Public Transport User

- · Accessibility to public transport regardless age/income/gender/disability degree of
- Improvement of digital competences of the population (% people digitally)

Values



- Sustainable mobility promotion
 - Universal accessibility

Figure 5: Strategy one pager Barcelona

Action plan toward an inclusive digital travel eco-system

DIGNITY Digital transport in and for society	Phase 1 Phase 2		Phase 3	Phase 4
	Awareness raising	Capacity building & legislation	Citizen engagement	Policies and initiatives launch
to planning cycles - what is urgent)	2022 -2023 (Before Barcelona Metropolitan Mobility Plan)	2022 - 2029 (Before and during Barcelona Metropolitan Mobility Plan)	2023 - 2029 (Before and during Barcelona Metropolitan Mobility Plan)	2024 - 2029 (Aligned with next Barcelona Metropolitan Mobility Plan)
Aim	Aim: Create strong political commitment on public transport and its accessibility	Aim: Create legal framework to enforce universal accesibility while generating knowledge among decision-makers & technical staff	Aim: Ensure effective citizen participation in policy making, especially of vulnerable groups	Aim: Based on the previous three phases, launch a series of policies which will advance universal accesibility in the mobility sector while tackling structural issues
Management /	Stakeholders involved: Barcelona City Council, Generalitat de Catalunya, AMB, ATM, Barcelona Regional, PEMB, IRMB, Mobility providers (TMB, FGC, Metropolitan buses, regional buses, RENFE- ADIF, universities, research centres	Stakeholders involved: Barcelona City Council, Generalitat de Catalunya, AMB, ATM	Stakeholders involved: Public Transport User associations, Income vulnerability associations, associations related with disabilities (cognitive, sensory), senior people associations	Stakeholders involved: Barcelona City Council, Generalitat de Catalunya, AMB, ATM, Barcelona Regional, PEMB, IRMB, Mobility providers (TMB, FGC, Metropolitan buses, regional buses, RENFE-ADIF, universities, research centres, Public Transport User associations, Income vulnerability associations, associations related with disabilities (cognitive, sensory), senior people associations
Q Action	- Establish a working group gathering different public entities and multiple levels of government (multi-sectorial and multi-level governance) - Develop dissemination activities/ initiatives sharing DIGNITY results among the local public entities, private mobility companies and providers, academic sector - Promote DIGNITY Learning Community platform locally	- Generate local legislation for universal accessibility & develop mechanism to ensure its compliance is above market dynamics - Generate local legislation to ensure control of data & political transparency - Generate capacity-building (trainings) in universal accesibility among local government, PTO, PTA teams - Engage big public operators and share initiatives on digital inclusion. Work with private operators in the same direction	- Co-creation of public policies with the users throughout the cycle process, so that the design of solutions is user-centered Establish awareness-raising mechanisms to facilitate integration of people with difficulties into the transport system Disseminate accessibility policies through dissemination campaigns - Launch learning mechanisms to improve digital skills on the population, especially on the targeted groups with difficulties	1. Continue with the digital integration of the different public transport services in Barcelona and introduce the following requirements when procuring new mobility services: - Provision of analoguellow-tech channels accompanying digital solution (face-to-face, telephone assistance, etc) - Provision of accesible (digital & analog) infrastructure associated to the service 2. Establish a simpler and customizable fare system, to facilitate access to public transport
Resources	- Dissemination activities! initiatives - DIGNITY Learning Community platform	- Local government, PTD, PTA technical teams - Trainings Personnel	- Co - creation workshops with citizens - Dissemination campaigns - Civic participation analog & digital tools	- Personnel proving face-to face assistance - Personnel providing telephone assistance - RFP development effort - Investment in digital & analog infrastructure

Figure 6: Action plan Barcelona

3.3 Flanders



Strategy towards an inclusive digital travel eco-system in Flanders

Definition stage



Context & motivation

- Exclusion of certain groups of end-users due to 1) digital mobility services and 2) limited provision of public transport: elderly people, people with a disability, people living in rural regions, low digital skills to plan a trip
- Fragmented picture of public transport (multitude of services, such as De Lijn, NMBS, MIVB, ... with own apps & procedures)

Mission

o Developing an inclusive digital mobility framework accessible to all



Vision



 Provision of public transport through hierarchical structure: train network, core network, supplementary network and tailor-made transport for target groups
 → Hoppincentrale

Design stage



Stakeholders

- o Public mobility providers
- o Flemish government
- o Cities & towns
- o 15 local transport regions
- o Policy makers
- Vulnerable to exclusion end-users
- Bus/taxi/tram drivers and operators
- o Market players: private mobility providers



- make the travel system in Flanders demandoriented'

 Implementation of the Hoppincentrale and
- appropriate services (one point of contact accessible through phone or app/web applications that will offer tailor-made route to users' destination)

Core activities



- To incorporate the unmet needs of vulnerable endusers into the design and implementation of the Hoppincentrale. When launching, basis services will be provided but in the longer term this will include private providers (MaaS III level)
- Creating inclusive digital policy and strategies at the level of the Flemish government for mobility providers, transport regions, Hoppin app designers, ...
- Establishing shared mobility such as shared cars and bicycles at Hoppin points for inclusive and sustainable on demand public transport

Result stage



Impact

- Quantifying the digital gap in Flanders and number of vulnerable to
 exclusion end-users that will be excluded from the services of the
 Hoppincentrale due to digital incapability and the use of digital services in
 general.
- o Improving digital capabilities of vulnerable end users through (local) training
- Improving skills of public transport personnel on how to interact with people with a disability
- o Putting inclusivity and accessibility on the agenda of key stakeholders

Values



- o Inclusion: tailor-made transport
- Accessibility: digital and non-digital ways to reach and communicate with the Hoppincentrale
- o Sustainable mobility (shared mobility (bike/e-bike), electric cars, ...)
- Efficiency: Hoppincentrale will provide different routes and different types of transport (bus/tram/train/shared mobility)

Figure 7: Strategy one pager Flanders



Action plan toward an inclusive digital travel eco-system

DIGNITY	Set goal(s)	Analyse data	Develop a strategy	Implement the strategy	Monitor the strategy
	Define goal, mission, vision and values	Gather and analyse all relevant data	Plan how to achieve the goal	Execute the plan	Evaluate/improve the plan
Timing	2020 - 2021	2021 - 2022	May 2022 - June 2022	anno July 2023	anno July 2024
Management / Coordination	Identify relevant stakeholders and their mission and vision. Align values and goals in order to be able to work together effectively Goal: inclusive digital travel eco-system in Flanders	What is the key information each team member needs? How can we best gather this data? How to best analyse data? How to bring pieces of information together?	Involve all relevant stakeholders to create a plan to guarantee digital inclusivity and accessibility for all end-users Assign tasks to each team member: Hoppincentrale, Department of Mobility and infrastructure (DMOW), mobility providers,	Make sure that Hoppincentrale is up and running (Hoppincentrale call centre, web applications, reservations, payment, mobility providers functioned,)	Monitor the effectiveness of the plan: experience/best practices
Action	1. Define mission, vision and goals of each party involved 2. Identify strengths, weaknesses, and opportunities (political, economic, sociacultural, technological, environmental, legal,) 3. Define short/term objectives (3-5years)	In order to develop inclusive didgital mobility system in Flanders, we need to identify the demands and needs of vulnerable to exclusion groups (elderly people and people with a disability), such as data on how they plan their journey, which challenges they encounter when booking and making the trip, digital capabilities,	Tasks of each party involved: 1. Hoppincentralet/lia: plan for reservations, payments, communication, software application, number call center, personnel call canter, (training) staff, plan customer complaints/issues, Ensuring standardization and simplification (digital and non-digital) 2. DMOW: tender mobility providers for shared mobility (shared cars and (e)-bikes), plan integration software, integration tariff, legal issues (privacy gap shared mobility), budget for digital inclusion, KPIs (Public Transport authority), Incorporate the findings of the Dignity project into the plan to ensure inclusive digital travel system 3. De Lijp: accessible information regarding the bus timetables, real-time information on bus stops, new user-friendly app, auditory information (app/busses), 4. Providers of shared cares/bikes; plan for how to roll out shared mobility (location, oharging stations cares/e-bikes, installation of bikes shed,	1. Functional Hoppincentrale 2. Structural consultation/meeting: follow- up of the plan and keep up new developments 3. Supported/joined decisions	Evaluate the action plan: 1. Collect feedback from each team member on best practices 2. Collect suggestions from each team on how to improve future performance 3. Improve action plan where necessary 4. Focusgroups with end-users with the same participants after the implementation of the decree basis accessibility 5. Measurement of indications before (baseline measurement) and after (postmeasurement) the implementation of the decree basis accessibility (e.g. customer effort score: survey among target groups (elderly, poor,) on their perception of the provided service

Figure 8: Action plan Flanders (part 1)

Resources	Human resources: relevant stakeholders Finacial resources: budget needed to launch the coopertion, coordination, Time to bring stakeholders together	Data from end-users of public transport Other relevant resources/studies done in the past	Decree basic accessibility of the Flemish government -> effective use of resources to achieve the goal. If necessary, obtain extra resources Human resources: division of tasks and activities, Relationship between Hoppincentrale & Public Transport authority Financial resources: Budget		Consultations/meetings between parties involved		
Communication	Clear and transparent communication among all stakeholders Participation/Cooperation/Voice	Communication of the results, bringing all data together,	Reliable and timely communication, professionalism of public transport, and feedback	Internal communication: Keep up reliable communication horizontally and vertically External communication: campagnes, network meetings, Data exchange and flow Good knowledge of tasks			
External influences	Budget (e.g. more functionalities for the Hoppincentrale depending on the available budget), political agenda, and coming elections will be the important external factors on how the Hoppincentrale will be implemented in practice and how cooperation and collaboration between the stakeholders will take place						

Figure 9: Action plan Flanders (part 2)

* The work in context of the DIGNITY project in the pilot of Flanders is part of a new approach in the mobility system that was politically formulated and approved in 2019 as the decree on Basisbereikbaarheid. This explains why the action plan already starts in 2020. The added value and insights of the DIGNITY work are incorporated in the actions from 2022 on.

3.4 Tilburg



Strategy towards an inclusive digital travel eco-system in Tilburg

Definition stage



Context & motivation



Mission



Vision



Everyone can travel in Tilburg!

Create solutions, in which personal contact remains crucial next to the digital solutions to ensure accessibility within the mobility system.

Mobility 100% accessible!

An accessible mobility system where everyone can participate digitally, socially & physically.

Design stage



Stakeholders



- Citizens
- Municipality Tilburg social domain

Tilburg is important to foster

so are the issues they face.

becoming more and more digital.

o Migrant women: have a need to own(access) a

bike and to be able to cycle.

o Municipality Tilburg mobility domain

o Why? Digital inclusiveness for vulnerable groups in

o These groups are getting bigger in the future, and

o Elderly: are less digitally capable in a world that is

- <u>ContourdeTwern</u>
- Province Noord-Brabant
- Transportation providers
- Representatives of target groups
- Region Hart van Brabant

Plan



- Accessibility as a focus point within the municipal social and mobility domains
- Achieve political commitment within the region on accessible public transport, with the aim: Everyone can travel!

Core activities



- o **Policy making:** embedding social, physical, digital
- accessibility within the mobility system

 Experimenting: to take the outcome of scenario building and IDW and to test this in practice via a pilot approach
- approach
 Mobility market: Introducing elderly to mobility options in Tilburg
- Bike school: empowering migrant women to ride a bike and increasing their independence

Result stage



Impact/milestones



- o Have bike school in place: empowerment of women
- o Mobility market: increased awareness
- o Policy in place within social and mobility domain
- o Pilot phone number has been tested

♦ Values



- Accessibility
- o Inclusion
- Empowerment
- Engagemen

Figure 10: Strategy one pager Tilburg

Action plan toward an inclusive digital travel eco-system

DIGNITY		Policy making	Experimenting	Mobility Market	Bike school
		Aim: embedding social, physical, digital accessibility within the mobility system	Aim: to take the outcome of scenario building and IDW and to test this in practice via a pilot approach	Aim: Introducing elderly to mobility options in Tilburg	Aim: empowering migrant women to ride a bike and increasing their independence
	Timing	May - September 2022	May 2022 - December 2022	Q3 - Q4 2022	January 2022 - December 2022
	Management / Coordination	Marjolein Scheepers Nicolette van Poppel Annette van Aanholt	Nicolette van Poppel Inez Hastovac		Inez Rastovac + Angela Mobycon Coordinator bike school (not known jet)
the DV vision 2040 Connect with current elderly policicy GGDUD and livelihoo Write report with Dignity findings policy recommendations by Z researching support/interest f realizing bike school within differ policy domains (12 july)		Connect with current elderly policicy GGOUD and livelihood. Write report with Dignity findings and policy recommendations by Zet researching support/interest for realizing bike school within different policy domains (12 july) Integrations lessons learned within	Pilot: Set up advice point contour de twern, experiment with this and connect with what's already in place. Focus on ask reluctance/shyness create a flyer with the mobility offer and distribute this	Mobility market in Berkel Enschot for elderly by DTV, experiencing digital tools/options like OV pas, T- helpt, ikwilvervoer	Create a centrally regulated cycle structure focused on 4 pillars: - learning to cycle - having a suitable bike - bike repair - enjoyment of riding a cyvling
IDW Scenario B nextbi		UCAM analysis IDW Scenario Building nextbike Contour de Twern Mobicon	UCAM analysis Scenario building workshops IDW	DTV consultant Several mobility organisations	IDW, targetgroup, Nextbike, Mobycon, workshop policymakers Tilburg, stakeholderworkshop experts, workshop managers and policymakers Tilburg
Communication			Give more publicity to the phonenumber, though campagne + create a flyer with the mobility offer and distribute this	Communication through KBO, local paper, Contourde Twern, elderly consultants. Use of mix media	Website Tilburg and Conmtourdetwern, social workers, cycling teachers, key figures targetgroup, local newspapers, social media

Figure 11: Action plan Tilburg



4. Discussion

All 4 pilots consolidated the work done in the previous steps of the DIGNITY approach into a local strategy. In this chapter we assess as well as reflect on the process to get to these. Next, we also make a general assessment of the content of the final products.

This assessment is on the one hand based on a feedback round which was organised digitally between pilot representatives and researchers. On the other hand, pilots were asked to complete a short questionnaire about their strategy development process and how they evaluated this process, the use of the templates and the support by Mobiel 21 and IZT. Their responses shed light on how the templates and the process can be improved, in order to enable other local authorities to use them.

4.1 Assessment of the process

All pilots followed the same structure and material for their DIGNITY strategy development process (see above chapter 2). However, after an initial common briefing, the pilots implemented the strategy development process in their respective city or region individually. This is important because a strategy should respond to the local needs, which the pilot partners know best. This means that the same structure and material at disposal resulted in different experiences.

4.1.1 The internal pilot process

The way the pilots handled the strategy development is comparable to a large extent. All pilots organized some collective brainstorming sessions or workshops, either digital or in person with the involved pilot partners described in chapter 2.3.2. These were generally followed by more in-depth work by multiple staff members individually or in smaller groups, depending on their expertise or specific topic during which the details were worked out. Outcomes from this work were brought together and further revised by all involved pilot partners. This mix of collective and individual work seemed to work well for all pilots.

This approach points firstly to the important notion of strategy development being an iterative process. Different versions need to be created and revised before a satisfying end product for all can be achieved. As a result, strategy development is clearly a process that should be given sufficient time and effort.





Not only is strategy development an iterative process that needs some time, the pilot implementations show also that it's clearly a collaborative effort. The development of the local strategy was the only DIGNITY action where *all* pilot partners were involved collectively in comparison with other actions like the IDW or Scenario building that were implemented by only some of the pilot partners or where the different pilot partners worked separately.

4.1.2 The materials

The templates introduced in chapter 2 were intended to help structuring this process. Based on pilot feedback, it seems that they succeeded in this goal. In general, the templates were evaluated positively on both their content and format, since they helped structure the strategy development work instead of starting from a blank page. The format in which they were presented (PowerPoint for the strategy one pager, Excel for the action plan) made the templates accessible and easy to use. Clear instructions are fundamental to fill the templates appropriately.

Pilots suggested to add some more flexibility to the strategy one pager, also using something like Miro. This would allow building blocks to be moved around more easily. It has to be considered however that for a comprehensive strategy, an overall structure in building blocks and focused definitions should always be at the heart.

4.1.3 The importance of the DIGNITY approach

The iterative and collaborative nature of strategy development underlines the importance of the process in itself, irrespective of the end product. The process leading up to the strategy is as important as the strategy itself. This is illustrated by how the pilots implemented the strategy development. The process encouraged them to discuss the DIGNITY project output in depth with pilot partners, with different external stakeholders and with the DIGNITY research team. In that sense, the whole strategy development functioned also as an integration exercise of the output from the entire DIGNITY project in the pilots. The results from the framing and bridging phases were discussed in a structured way and pilots were enabled to assess what to do with the different outputs from the previous phases.

For this reason we can say that the strategy development process delivered the envisioned results, by not only resulting in four local strategies but also by stimulating a collaborative thinking process about the DIGNITY output and digital inclusion in mobility





in general. This, however, does not mean that strategy development isn't a challenging task. When asked to evaluate the difficulty of the strategy development on a scale from 1 to 10 (1 meaning very easy and 10 meaning very difficult), the pilot scores went from 2 to 8, with most answers between 6 and 8. The average score of 6 shows that, overall, strategy development is considered by the pilots as not an easy process. Feedback rounds with Mobiel 21 and IZT were thus well appreciated. Especially the first feedback round in May helped the pilots to confirm that they were on the right track with their strategy development. After this first feedback round, the pilots were also able to take a look at the first versions of the other pilots. This was very inspirational and appeared to be very helpful to see in which direction they could proceed.

4.2 Assessment of the content

Each pilot had to develop within this task a local strategy for an inclusive digital mobility eco-system. Each strategy is evidently imbedded in a local context. It's interesting to notice how the same templates and the same overarching goal led therefore to four different local results. But there are some common parts too. The next paragraphs shortly describe the most apparent commonalities and differences between the four local strategies in the DIGNITY pilots.

4.2.1 Definition stage

The main goals of a strategy are to be reflected in the mission and vision parts, based on a well-defined local context. The context and motivation building block shows very different content for each pilot, since the research to frame the digital gap led to different insights and results in all four pilots.

Being at the core of the DIGNITY work, the mission and vision building blocks are however among the most comparable between the four strategies. Most pilots encapsulate the mission of digital inclusion in a wider vision of (sustainable) mobility that is accessible for all. Some pilots, notably Barcelona and Flanders, are more specific by focusing on public transport alone.

4.2.2 Design phase

The type of stakeholders to involve is evenly extensive and comparable in all 4 pilots which is not very surprising. Policy makers, transport operators and digital service providers should be, and are, included in all four strategies. These are the stakeholders that need





to be involved in the implementation of the strategy for it to properly reach its intended goal of inclusive digital mobility.

Furthermore, all four pilots specifically mention the end-users as stakeholders for the implementation of their strategy. Either by listing specific civil society organisations and associations representing specific vulnerable to exclusion groups, or by mentioning more generally 'citizens' or 'vulnerable-to-exclusion end-users'. This is very relevant and important as it shows the commitment that end-users will be involved and participate in the implementation of the strategy which is key from the DIGNITY perspective.

During the framing and bridging phases which are explicitly used as input for the strategy, vulnerable-to-exclusion end-users were highly involved. Accordingly, they had a defining influence on the output of these processes and thus, albeit indirectly, on the direction of the strategy. To assure that the actions and policy taken for more inclusion also start from the perspective of the most vulnerable groups, it's important that citizen participation is included in the strategy. Listing them as stakeholders, besides the policy makers, transport operators and others, shows the engagement of the pilots to do so.

The difference between the strategies begins to show more in the plan and core activities building blocks and is very clear in the corresponding action plans. The focus and depth here vary substantially between the pilots. This points to the different local contexts in which these strategies and action plans will be implemented. The most apparent and interesting aspects of the action plans are listed here:

- One of the main differences in the action plans is the focus on either publicly provided transport options (Barcelona and to some extent Flanders) and stimulating citizens to make more sustainable choices (Ancona) or empowering citizens explicitly (Tilburg). This shows to a difference in what to act upon in first instance: policy or citizens/end users. If the primary focus lies on either policy or citizens doesn't mean that pilots won't act upon the other.
- It's interesting that 2 action plans (Ancona and Flanders) explicitly take possible changing contexts into account. The implementation of a strategy always depends on several circumstances that are subject to change, like the political administration in place or the available budget. Elections leading to a different administration might change the envisioned course of the strategy.
- A last notable aspect is that the action plans have in common that they specify
 the importance of good and transparent communication between different
 stakeholders. This communication however has two very distinct meanings in the
 different action plans. It can function as a check or assurance from the policy level





that the market players keep their promises when it comes to inclusion. The second, very different, form of communication considered is aimed towards citizens: creating awareness through campaigns or organising citizen participation in the policy process. The latter is again evidence that putting the end-users voice central, is crucial for a strategy working on inclusion to reach its envisioned goals.

4.2.3 Result stage

Given that the mission and vision point in the same direction, most of the pilots translate these to similar values to be created like 'inclusion, equality, universal accessibility'. For those pilots that explicitly mention sustainable mobility in their vision, 'sustainability' is also listed as one of the values. This points to sustainable mobility being more than just modal shift. The social aspect needs to be considered in this shift as well.

The milestones defined by each pilot differ significantly from each other, as they have to monitor and evaluate the detailed core activities. However they are all SMART designed as to make it possible to act as a KPI to assess the impact of the strategy and its plan.

4.3. Lessons learned

The development of the strategies in the context of DIGNITY was a learning experience as well, formulating recommendations for the next steps in the project and the final products:

- As a suggestion for the future, pilots proposed to give more flexibility to the predefined structure of the templates and leave enough space for own adaptations considering the local context. This was already in part included in the action plan template, where pilots could add and remove aspects and phases as they thought appropriate. An explicit reference between the two templates could be a useful addition in this regard.
- To help completing the templates a concrete example of how a strategy looks like, would be helpful. This could give some guidance and enlighten on what kind of content each building block would require.
- The development of a strategy requires relevant input from previous research or analysis. Pilots recommend to go through the different framing and bridging stages to be well prepared and informed for the strategy work.





- Strategy development is an iterative and collaborative process that can only result in an effective and impact-full result if time and effort are available for different partners and stakeholders.
- The purpose of a strategy is to be effective and guiding for future work. It should be regularly verified and at least yearly assessed and adapted where needed. The defined milestones are key for this exercise.



5. References

- Jonker, J. (2014). Nieuwe Business Modellen: Samen Werken aan Waardecreatie. Den Haag: Academic Service.
- Porter, M. E. (1979). How Competitive Forces Shape Strategy. *Harvard Business Review*, *57*(2), 137-145.
- Tighe, S. (2019). Rethinking Strategy: How to anticipate the future, slow down change and improve decision making. Milton: John Wiley & Sons.



The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Union. The European Commission is not responsible for any use that may be made of the information contained therein.

