



Promoting digital inclusion in modern transport systems: the management and use of data in the H2020 DIGNITY project

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UPC – Research Café

May 12th 2022



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



Institute for Sustainability Science and technologies



INSTITUTE FOR
Sustainability Science
AND TECHNOLOGY

- Interdisciplinary research Institute
- Researchers from 20 UPC research groups
- MSc and PhD in Sustainability
- <https://is.upc.edu/>






- Urban ecology and sustainable urbanism
- Circular economy
- Governance, participation and social impacts
- Environmental modelling
- Education for sustainability
- Environmental impact assessment
- Climate change
- Industrial wastewater, groundwater
- Treatment technologies



DIGNITY project – H2020



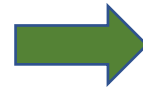
- 14 organisations (universities, research centres, public entities, companies) - 6 EU countries
- 3 years of duration - 2,750 M of funding
- Research based on social sciences – treatment of personal data

Phases	Understanding the digital gap	Building the Dignity Approach	Pilot demonstrations	Evaluation & Validation	Dissemination & Exploitation	Coordination & Management
Leading partner	 UNIVERSITY OF CAMBRIDGE Engineering Design Centre	 Breda University OF APPLIED SCIENCES	 MOBIEL21 SETTING PEOPLE IN MOTION	 UNIVERSITAT POLITÈCNICA DE CATALUNYA BARCELONATECH		
Pilot cities	-	Tilburg	Flanders	Barcelona	Ancona	



Foster a sustainable, integrated and user-friendly digital travel eco-system that improves accessibility, social inclusion, and quality of life for all citizens

Digital mobility services improve passengers' transportation options and experiences



- Smart / Map applications
- Route planners
- Vehicle sharing systems
- Ticketing & payment facilities

- 9.5% of the European population have never gone online (European Commission, 2020) and 12-15% do not own a smartphone (Taylor and Silver, 2019) – almost 10M
- Using the internet/smartphone does not guarantee the ability to operate complex digital services – elderly people in the EU are more than 90M

Risk of exclusion in transport

- Older people
- People with low levels of education
- People with low income
- Inhabitants of rural areas
- Migrants
- People with disabilities
-

DANGER: the trend towards digitalisation in mobility services (accelerated by the pandemic) may exacerbate the existing digital exclusion and social disadvantages.

Ensure Design of
Digital Mobility
Services INCLUSIVE



Information on
vulnerable to
exclusion groups



Technology use, digital
interface competence,
transport needs, use of digital
mobility services, etc.

Primary data sources: personal data, need of anonymization of datasets!!

- **Surveys** at national/regional level.
- Observations and qualitative data (voice recording, transcripts photographs) from stakeholders' **workshops and co-design activities** with end-users and service providers and transport operators.
- Qualitative information from **in-depth interviews to key** stakeholders, experts and end users (e.g. voice recording and transcripts).

Secondary data sources: mainly public data

- Legal documents (plans, policies, laws)
- Environmental and economic datasets of mobility patterns and their externalities (used in local analysis). Mainly coming from public datasets.
- Information from European research projects funded by the EU Commission, typically collected from official portals, primarily those of the EC and from project websites.

Research data mainly come from:

National surveys conducted in: Belgium, Germany, Italy, the Netherlands and Spain

- Computer-assisted face-to-face interviews (30-45 min.)
- Adapted from a previous questionnaire of the Univ. of Cambridge
- Outsourced to independent national research institutes of social studies / public opinion

96 variables, divided into 8 parts:

A. Technology access and use

B1. Technology for public transport

B2. General computer and mobile device activities

C. Attitudes towards technology

D. Technology symbols and interfaces

E. Capabilities

F. Demographics

G. Specific questions about daily mobility

Data Management Plan

- Publications – mandatory open access
- Data – not yet mandatory but strongly encouraged
- Dignity opts widest possible dissemination (ORD pilot)
- Life cycle data: handling data, use of data, security and preservation, ethical issues etc.



Data Management Plan [Deliverable 6.1]

Date: 11 May 2020

Version: 1.2

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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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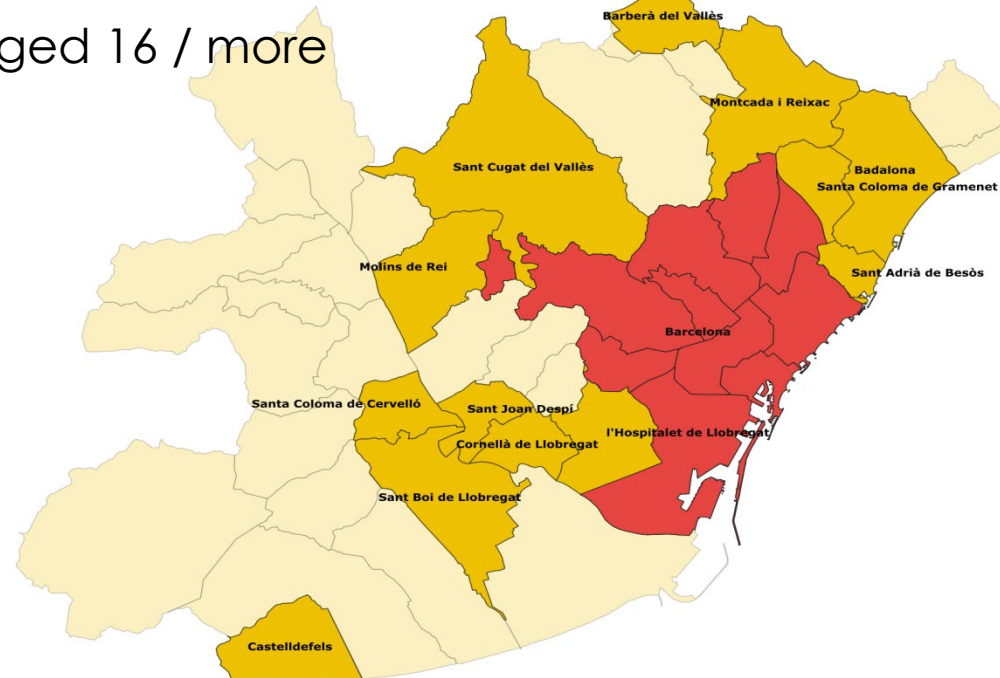


Data Management Plan

- Useful and enriching process
- Useful the support of experts – UPC library service
- CORA.eiNa DMP - <https://www.csuc.cat/ca/serveis/cora-eina-dmp>
- Plan specific data requirements ahead
- Anticipate potential problems in the collection and use of data / react in time
- Defining responsibilities of the partners on certain aspects of research data management
- Defining clearly ethical aspects related to data management (Recruitment of participants, confidentiality aspects, informed consent...)

Survey Barcelona Metropolitan Area:

- Computer-assisted face-to-face interviews
- Conducted between November and December 2020
- Residents of AMB aged 16 / more
- 601 interviews



	Group	Size	Percent
Residence area	Barcelona	306	50,9%
	The rest of the AMB	295	49,1%
Age	16-29	110	18,3%
	30-64	356	59,2%
	65 and more	135	22,5%
Sex	Women	312	51,9%
	Men	288	47,9%
	Prefer to self-describe	1	0,2%
Level of education	Low	185	30,8%
	Medium	209	34,8%
	High	206	34,3%
	Prefer not to answer	1	0,2%
Nationality	Spanish	506	84,2%
	Foreign	95	15,8%
Total		601	100%

Survey AMB: interesting figures

- 7% of the whole population without access to the Internet and 15% to a smartphone.



- 14% of the whole population have never used Internet on a smartphone,
- % reaches 37% of elderly people and 27% of individuals with low education levels.

Survey AMB: interesting figures

- 14% of the whole population feels low confident to plan an unfamiliar, local public transport journey using the Internet or an app on a smartphone,
- it reaches 40% in case of elderly and 25% in case of people with lower education levels.



- Very low uptake of digital transport services,
- more than 90% have never used car-sharing, car-pooling, or scooter/motorbike hire.

Where we are currently...

- Process of uploading UPCommons repository of survey datasets
- Survey data are currently available could be made public but partners asked for an embargo period until the very end of the project, in order to be the first to publish using these data. **Embargo periods on data are allowed, however is this in line with H2020 policy on open data?**



Thank you!

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