Pilot lab findings and lessons learnt

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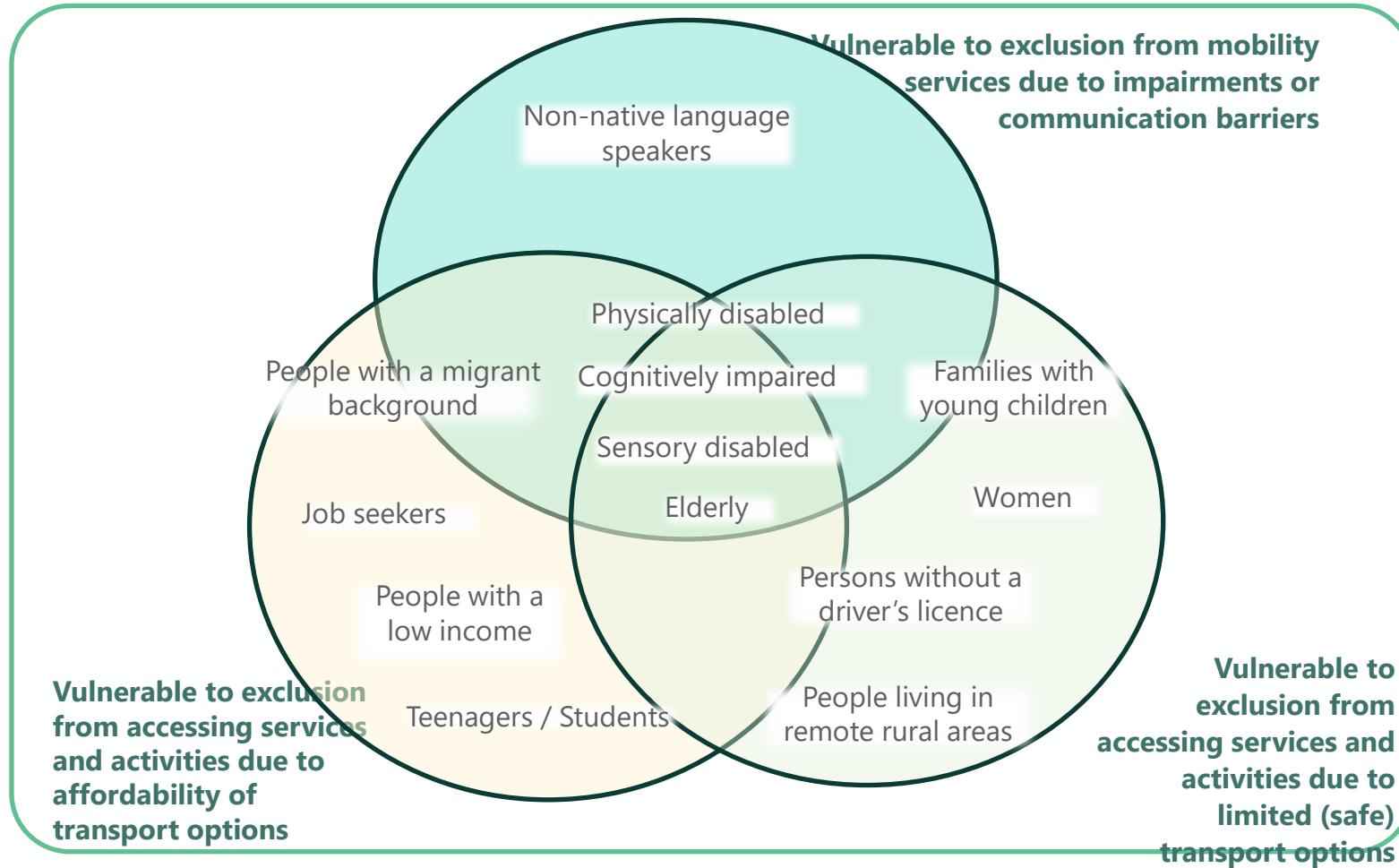
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common INCLUSION project objective to:
"*Ensure accessible, inclusive and equitable conditions for all and especially vulnerable user categories*".

Pilot Lab locations

- **10 Pilot Lab demonstrations**
  - 1 or 2 measures introduced in each
  - variety of different transport environments, socio-economic contexts, and cultural and geographical conditions
  - Remote, Rural, Deprived areas.

Cairngorms National Park rural area – Scotland, UK

Flanders region – Belgium

Rhein-Sieg region – Germany

Budapest urban area – Hungary

Florence metropolitan area – Italy

Barcelona peri-urban area and neighbouring conurbation – Spain

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Vulnerable Users

Vulnerable to exclusion from mobility services due to impairments or communication barriers

Non-native language speakers

Physically disabled

Cognitively impaired

People with a migrant background

Families with young children

Sensory disabled

Job seekers

Elderly

Women

People with a low income

Persons without a driver's licence

Vulnerable to exclusion from accessing services and activities due to affordability of transport options

Teenagers / Students

People living in remote rural areas

Vulnerable to exclusion from accessing services and activities due to limited (safe) transport options

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BUDAPEST Pilot Lab – STAFF AWARENESS TRAINING

- **Objective:** to contribute to improvements in public transport usability for people with reduced mobility.
  - training the public transport staff to better understand the needs and capabilities of vulnerable users in order to provide appropriate assistance and behaviour towards those users.

- **Target users:** blind and visually impaired, disabled, travellers with luggage or baby buggies, tourists, and non-native language speakers.

Area Type	Urban
Main Actors	BKK – Public Sector transport operator in the city of Budapest
	Associations representing vulnerable users - Community/not-for-profit
Delivery	Public Sector

+20% Staff competency in recognising and assisting vulnerable users who may benefit from extra assistance.

More of the vulnerable target users feel confident to use public transport

Vulnerable users satisfied or very satisfied with public transport services. **+20%**

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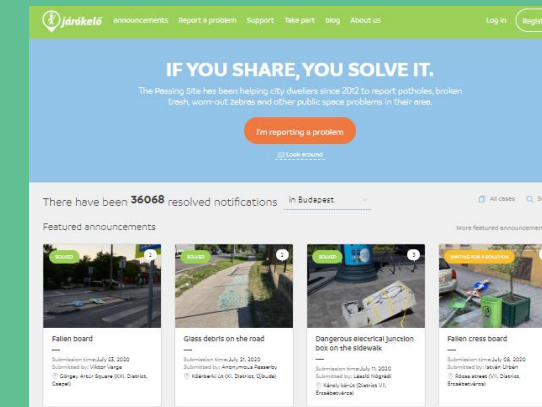# BUDAPEST Pilot Lab – JÁRÓKELŐ ONLINE CROWDSOURCING PLATFORM

- **Objective:** to contribute to improvements in public transport usability for people with reduced mobility.
  - capturing public transport user feedback through a crowdsourcing online platform and acting on the information received.

- **Target users:** blind and visually impaired, disabled, travellers with luggage or baby buggies, tourists, and non-native language speakers.

Area Type	Urban
Main Actors	BKK – Public Sector transport authority and operator in the city of Budapest
	Járókelő – Community/not-for-profit NGO developing the technology
Delivery	Public-Community-Partnership

Reported incidents and passenger feedback increased from 5 per month using previous methods (e-mail, phone) to 14 per month

44% of reported issues were quick and relatively cheap to solve or respond to.

Sharing success stories of issues that have been solved and showing that the platform works, is crucial to engaging these users and building trust.

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BARCELONA Pilot Lab – GENERATING DEMAND RESPONSIVE COLLECTIVE BUS ROUTES FROM SOCIAL NETWORK DATA ANALYSIS

- **Objective:** To improve access to social and cultural events for groups vulnerable to exclusion due to a lack of available and safe transport options
  - extracting demand data for a large music and cultural event (Canet Rock) from mining social network (Twitter) content to feed into the design of commercially viable bus routes to the Canet Rock music festival

- **Target users:** young persons and women; mainly in peri-urban and rural areas

Area Type	Peri-Urban + Rural
Main Actors	BusUp – Private Sector bus operator
	MOSAIC – Private sector technology company
Delivery	Private Sector (commercial)

11 new commercially viable collective bus routes from peri-urban and rural areas

450 new users

58% of under 18's could not have attended without the service

Service enhances opportunities and empowers young people and women to attend the event

84%

Requires:
1. Events/destinations where attendees are not known in advance
2. Social Media active target groups
3. Lack of suitable existing transport options

Cairngorms National Park Pilot Lab – PUBLIC PRIVATE PARTNERSHIPS (PPP) TO DELIVER SHARED E-BIKES IN RURAL SCOTLAND

- **Objective:** to promote and increase active travel options in CNP.
  - E-bike sharing scheme delivered through public-private partnership with local bike shops

- **Target users:** (active) elderly people, persons of reduced mobility, young adults and teenagers, local residents who suffer from fuel poverty due to high rural fuel costs, and tourists.

Area Type	Rural
Main Actors	HITRANS – Public Sector regional transport authority
	Local Bike shops - Private sector (commercial)
Delivery	Public-Private Partnership

Cost of delivering the service is significantly reduced compared to the cost of the public sector providing the service on its own.

Bike shops act as the local champion – promoting and partnership building

Empowering: more able old persons to enjoy active travel for health and leisure purposes

30% of resident users > 60 years old

Health providers refer people with mobility impairments or health conditions to aid recovery/maintain fitness;

Younger persons and those suffering from transport poverty use e-bikes to access work - affordable travel option that fosters independence.

FLORENCE – IMPROVING BUS SERVICES FOR MIGRANTS IN DEPRIVED CAMPI BISENZIO AREA IN NORTHERN FLORENCE

- **Objective:** to improve access to public transport in a deprived peri-urban area for migrants
  - Redesigning local bus lines to provide a better direct connection from the bus to the tram line.
  - Provide tailored information for vulnerable users (through in bus info panels + simplified journey planning app)

- **Target users:** Migrants and low-income people

Area Type	Peri-Urban
Main Actors	AFAF – Public Sector metropolitan transport authority of Florence
	Busitalia – Private Sector (public funded) bus operator
Delivery	Public Sector

Co-design workshops and focus groups were an essential component of the success of this measure.

+84% increase in migrant user trips

50% of trips now involve a connection

Information communicated to migrants needs to be kept simple by using icons and images and avoiding lengthy text – cartoon videos were particularly effective

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FLORENCE – IMPROVING BUS SERVICES FOR RURAL DWELLERS IN THE MUGELLO AREA TO THE WEST OF FLORENCE

- **Objective:** to improve access to public transport in a rural areas
  - redesign bus lines to improve the connectivity between different bus lines and the connections between bus and rail
  - improve the quality of the user information especially for connections

- **Target users:** Rural commuters, especially young adults and those on low income.

Area Type	Peri-Urban
Main Actors	AFAF – Public Sector metropolitan transport authority of Florence
	Busitalia – Private Sector (public funded) bus operator
Delivery	Public Sector

+8% increase in bus trips

increase in journeys involving a connection **+82%**

+75% increase in satisfaction with quality of information

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FLANDERS – MOBITWIN APP

- **Objective:** introduce a new technology (real-time MobiTwin app) to make booking of volunteer car service trips more convenient and responsive.
  - automate back-office processes + make the workload more bearable for the employees of the volunteer car service (Less Mobile Stations) who currently match requested trips by calling volunteers

- **Target users:** Older persons and those with mobility impairments who are vulnerable to exclusion from social activities due to a lack of transport.

Area Type	Urban; Peri-Urban; Rural
Main Actors	Taxistop – Community/not-for-profit mobility company
	Less Mobile Stations (LMS) – Public sector municipalities coordinating local volunteer car service
Delivery	Public-Community Partnership

! Technology solutions need to fit the abilities and speed of life of the target group

Co-creation at the design stage is essential

Extra one-to-one support, training and encouragement to become confident to use the technology is necessary

Building **trust** is very important

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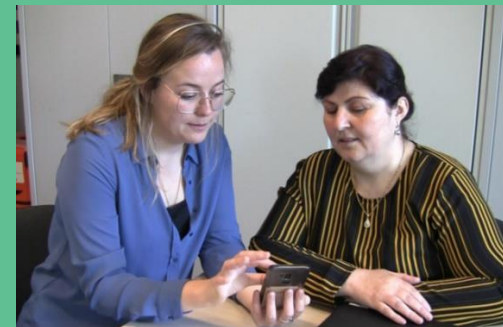
FLANDERS – OLYMPUS APP FOR MIGRANT JOBSEEKERS

- **Objective:** to improve access to job opportunities for migrants through increased awareness and use of mobility solutions
  - The Olympus app was enhanced providing a personal mobility budget and tailoring the information content to be more understandable by non-native language speakers.

- **Target users:** Migrants vulnerable to exclusion from job opportunities due to lack of knowledge about, and ability to afford, transport.

Area Type	Urban; Peri-Urban; Rural
Main Actors	Taxistop – Community/not-for-profit mobility company
	STEP partnership- Public sector funded not-for-profit NGO's supporting migrant job seekers
	Olympus – Private sector technology developer
Delivery	Public-Private-Community Partnership

Migrant users need extra one-to-one support, training and encouragement to become confident to use the technology. This is time consuming and labour intensive.

Establishing and maintaining good relationships with the organisations that support vulnerable groups is essential when delivering a new technology measure.

Technology should be seen as an extra support in addition to human interaction and not as a full replacement of it.

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- **Objective:** to improve access to public transport in a family oriented new housing development (Hennef Im Siegbogen) and attract new users to the bus.
  - Increasing afternoon bus frequencies (for school and after school trips) and reducing single bus fares.

- **Target users:** Families with young children and teenagers

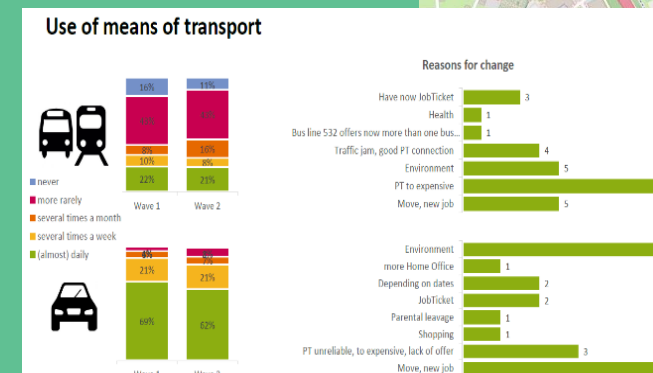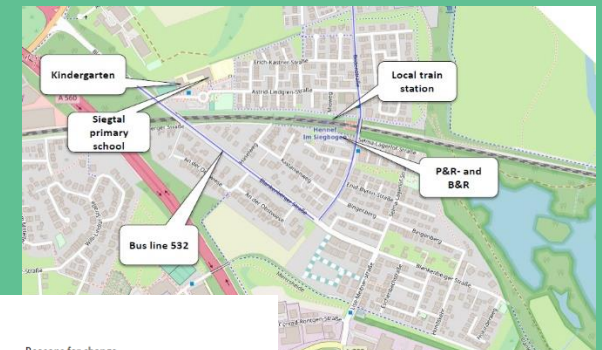| Area Type	Peri-Urban
Main Actors	VRS – Public Sector regional public transport authority
	Rhein-Sieg-Kreis – Public Sector district municipality
Delivery	Public Sector

+400% Bus trips to primary school - parents accompanying child

Proportion of parents driving their children to primary school decreased from 35% to 21%.

+40% unaccompanied children travelling by bus at least once a week

RHEIN SIEG – PROMOTING CYCLE USE

- **Objective:** to improve usage of bikes (and e-bikes) in Hennef Im Siegbogen.

  - Improve information on cycling facilities and routes, including 'forgotten paths' for cycling – mobility map delivered to all households

  - Introduce a small scale trial of an e-bike rental service

- **Target users:** Families with young children and teenagers

Area Type	Peri-Urban
Main Actors	VRS – Public Sector regional public transport authority
	Tourist information office – Public Sector
Delivery	Public Sector

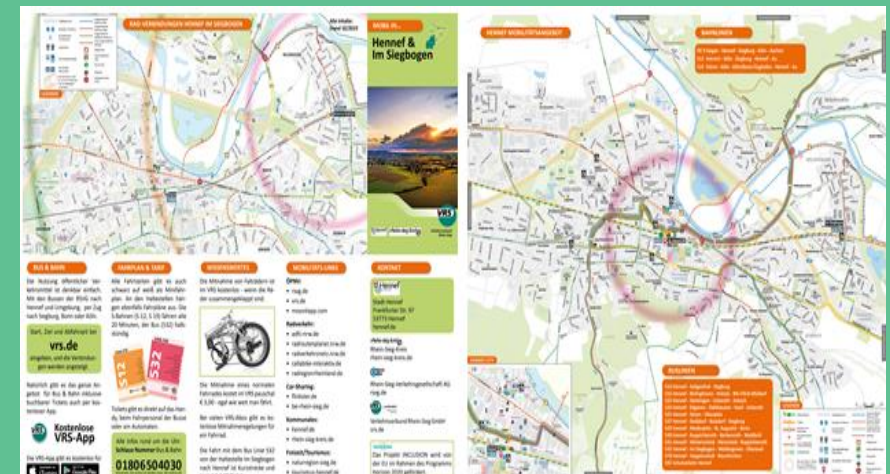**+5%** Increase in cycling trips

E-bikes
- over half the trips by e-bike were previously made by car
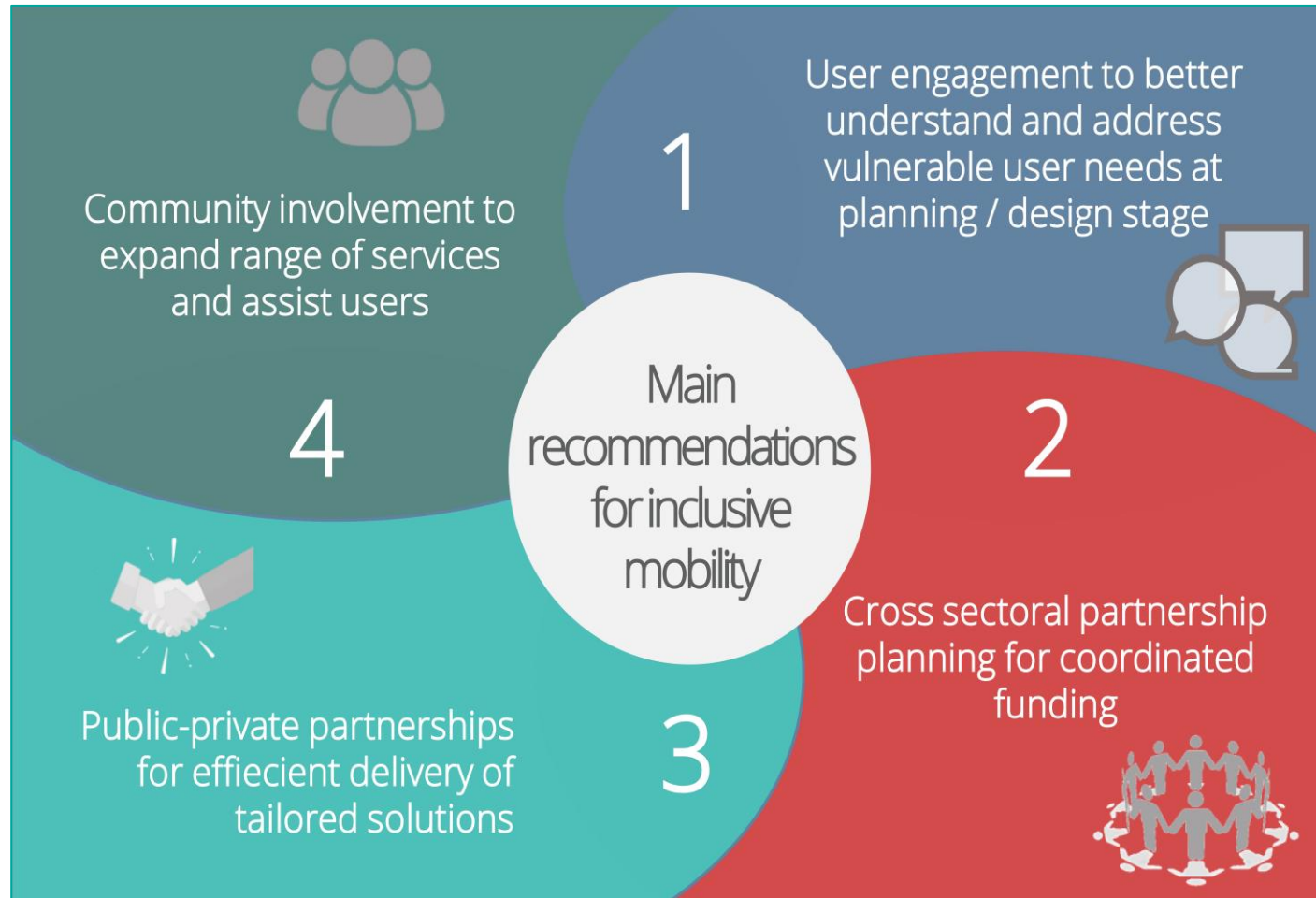- 13% were new trips for leisure purposes.

*indication of the potential of the e-bike service

Key to the success of the measures has been establishing a comprehensive understanding of the needs of the target users prior to designing the interventions.
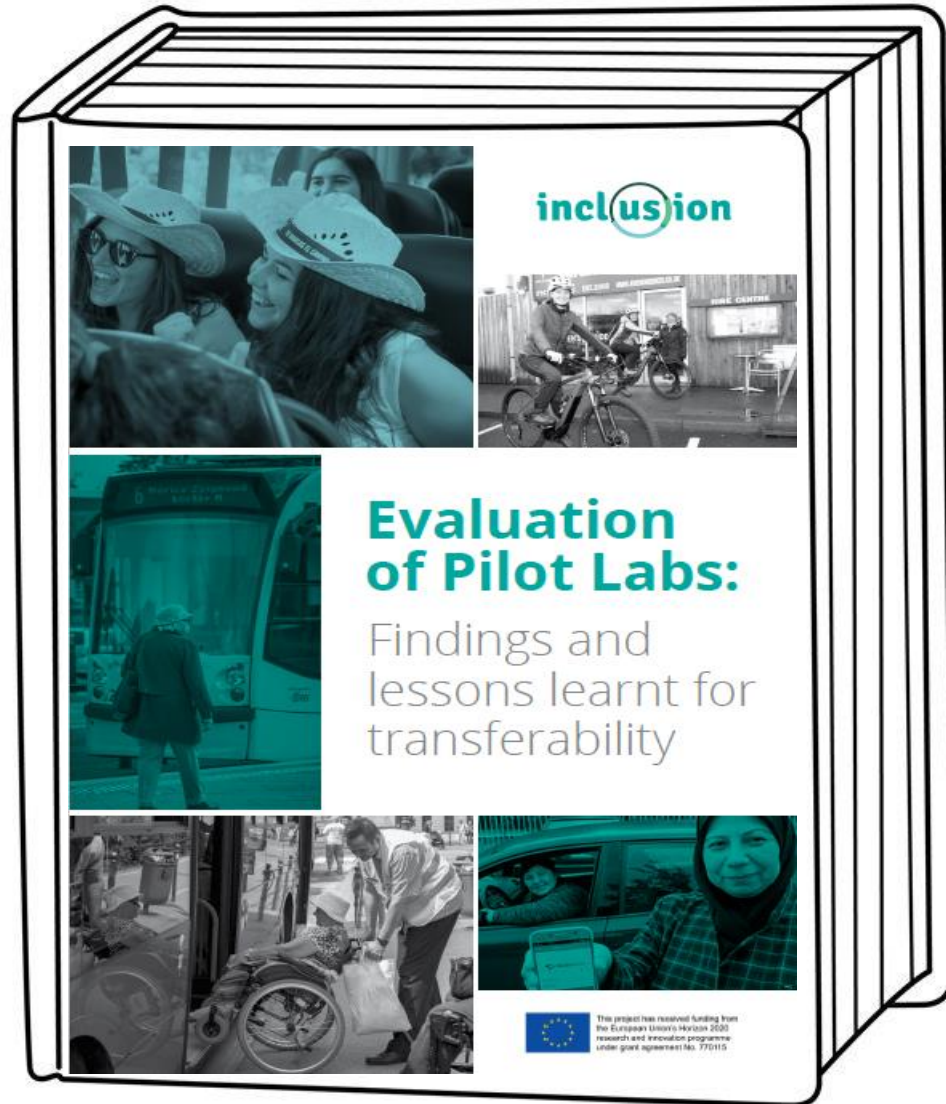
The e-bike hire measure reduced operational costs by utilising the local tourist office to host the service.

Conclusions

Main recommendations for inclusive mobility

1 — User engagement to better understand and address vulnerable user needs at planning / design stage

2 — Cross sectoral partnership planning for coordinated funding

3 — Public-private partnerships for effiecient delivery of tailored solutions

4 — Community involvement to expand range of services and assist users

TECHNOLOGY:
ICT solutions can play an important role if the needs and skills of vulnerable people are fully comprehended

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Thankyou for listening!

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