

POLIS

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The importance of user engagement in improving accessibility to public transport

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VOXPOP

Lisbon Mobility
Goes Digital



VoxPop at a glance

- 2019 - 2023
- Digital transformation based on an integrated, participative approach to challenges with a particular emphasis on user-centred methodologies



the ambition

To develop a more collaborative city management model
supported by digital tools for
more efficient planning, operation, and maintenance
of the transport infrastructure
and
the creation of user-centred mobility solutions

the challenge

- Most apps are developed for typical (mass) users, not accounting for the specific needs of people with impairments and/or disabilities who have their mobility experience significantly limited
- Lisbon's Population: 10% "can't" or has "great difficulty" in walking and 9% "cannot" or "has great difficulty" in seeing (censos 2011)



objective

Build a digital navigation tool to help people with different types of disabilities in navigating Lisbon's public transport network

target groups

 Blind people

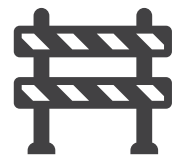
 Wheelchair users

 Caretakers of wheelchair users

placing the users at the core of the solution development process



Desk research



Mapping of barriers and unmet needs

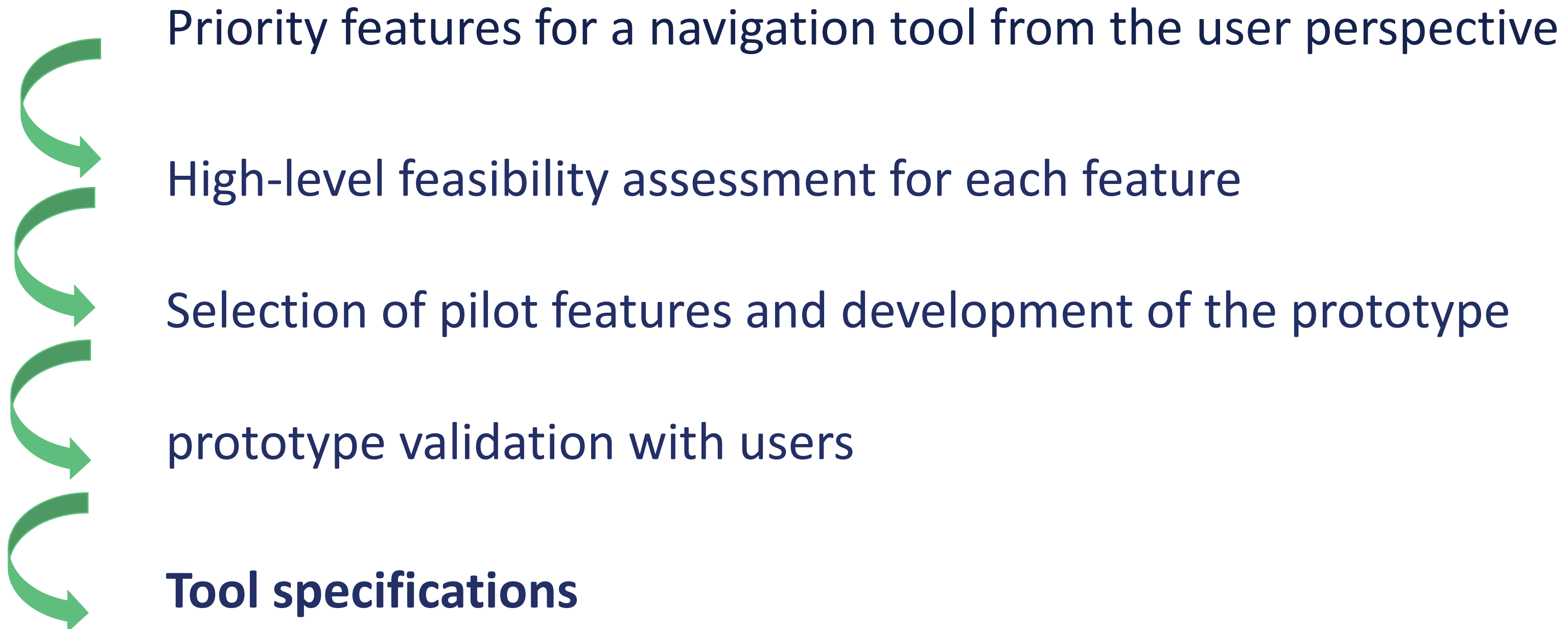


Gap analysis based on the user journeys identified



Benchmarking of digital support tools

understanding how public transport operator can meet user needs



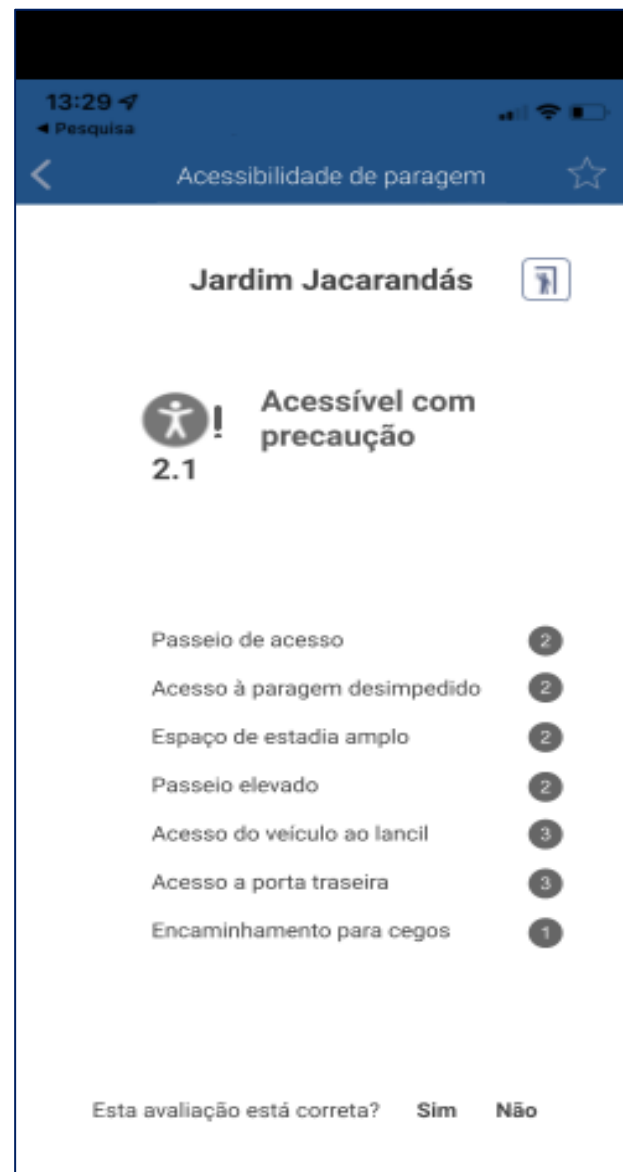
results

- The approach proved to be effective in linking user needs with a feasibility assessment
- By applying a co-design approach gains were made by focusing on what is important, rather than what is easy

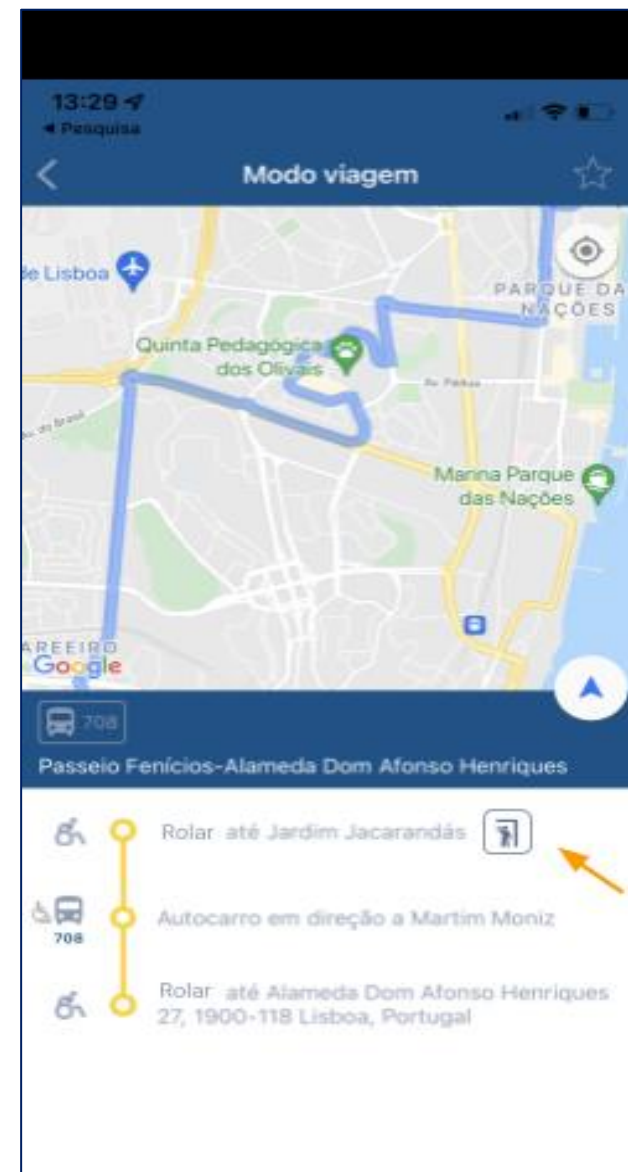
Priorities	Target Groups		
	Wheelchair users	Visual impaired	All
Bus stop accessibility	✓	✓	
Availability of shelter in the bus stop	✓	✓	✓
Accessibility of the vehicle (e.g. ramp)	✓		
Level of occupation of the vehicle	✓	✓	✓
Information of arriving vehicle		✓	
Identification of exit stop	✓	✓	✓
Identification of precise stop location		✓	

examples of prototyped features

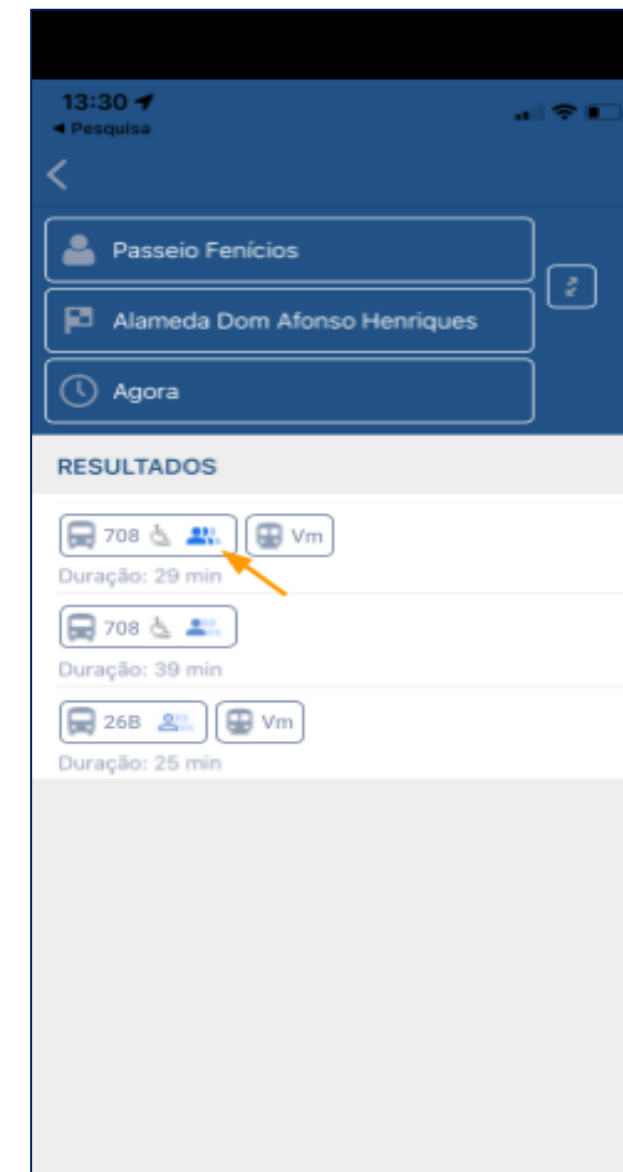
Bus stop accessibility



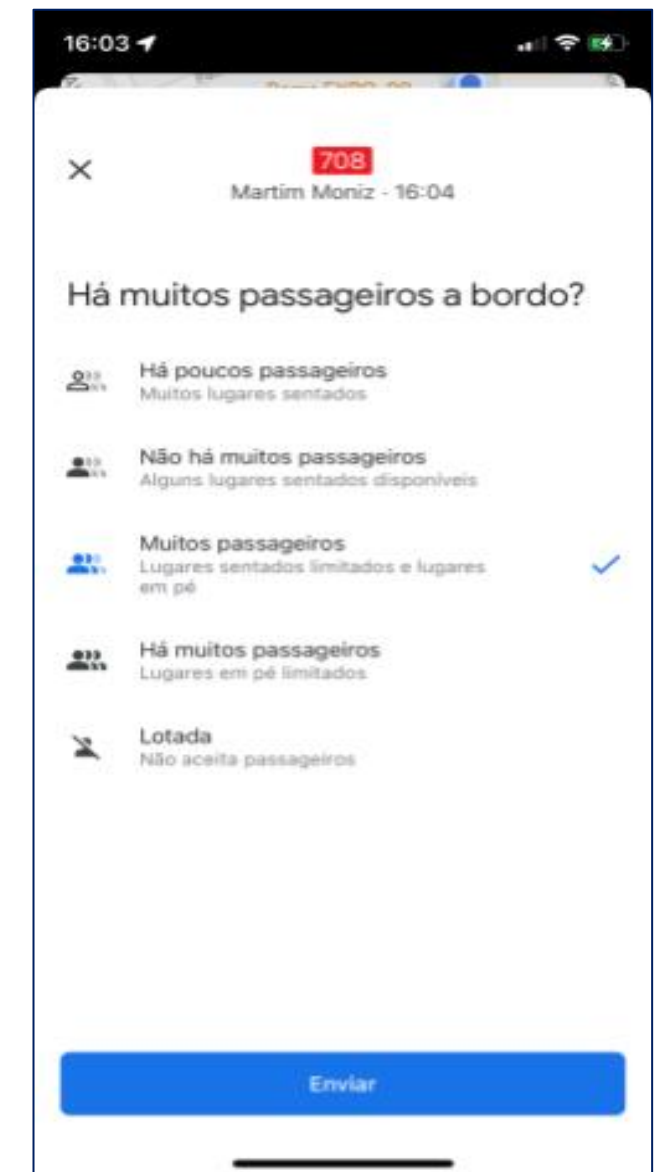
Type of stop/shelter



Expected occupancy



Occupancy levels



lessons learnt

- Physical barriers to mobility of people with disabilities are exacerbated by the lack of information
- When carrying out the co-design process of the solution, two main aspects came to light:
 - i) that would require collaboration with entities beyond the public transport operator itself
 - ii) that solving the needs of this specific user group would benefit larger segments of the population
- It is essential to work directly with the end users to avoid biased perceptions of what is important
- Time is needed to well structure and engage with the users before and during the exercise.

Investing time and effort in a careful user recruitment pays back

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Thank you



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