

JOURNAL

PROJECT

VoxPop - People, Processes & Technology towards the digital transformation of the urban mobility system of Lisbon

📍 Lisbon, Portugal

TOPIC

Digital transition

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VoxPop's Final journal

See on UIA website 



The VoxPop project arose from a need identified by several local actors to work in a more collaborative and transparent way to share mobility data in the city of Lisbon. This sharing is in the public interest and aims to generate more people-centered solutions.

The expected result of the VoxPop project was the improvement, in terms of efficiency and effectiveness, of the functioning of the urban mobility system in the city of Lisbon. This improvement was intended to be achieved through the development of informed solutions, through a better understanding of the real needs and expectations of the city's people. And thus, improve the mobility experience of those who live, work, study and visit the city of Lisbon.

The project achieved most of its foreseen outcomes, including the mobilization of the main mobility actors of the city of Lisbon, the identification of the most relevant challenges and the development of dedicated solutions as well as the increase of the system capacity in using them. Additionally, the project was an important seed for following up actions, such as the elaboration of policy documents, the creation and enrichment of data spaces and the development of new mobility apps and services.

Furthermore, the project ensured the long-term sustainability of its outputs by using open data and open sources, by setting up the local eco-system and through capacity building. At the same time it created key knowledge in both lessons learnt and recommendations for replicability and scalability of the project outputs.

Finally, in operational terms, the project faced many barriers, including a worldwide pandemic, but managed to overcome them successfully, delivering the expected impacts and providing an important legacy of tangible and non-tangible outputs to the city of Lisbon, being the most important the set up of the bases, and awareness for the importance of sharing data, not only between the public partners but also with private stakeholders as well, in order to improve the data sharing ecosystem in Lisbon.

Project's progress

The project achieved the following:

- Mobilization of the main actors in the city's urban mobility system, securing political commitment and achieving cross-departmental work, through the promotion of a forum to stimulate dialogue and establishing a collaborative process to overcome current barriers in sharing data between organizations;
- Identification, through a participatory approach, of challenges for urban mobility where sharing of data can generate opportunities, with elaboration of 13 use cases following a collaborative and cooperative approach;
- Co-development of previously identified use cases (in the proposal) involving the use of already available city data, and with particular focus on platform development (e.g. apps furniture), delivering functional requirements for technological solutions;
- Training entities for data science, combined with social and human sciences and with qualitative research methods centered on people, in order to generate information that facilitates the creation of new mobility solutions or the improvement of those already available;

- Implementation of solutions, using digital technology, to enhance accessibility for people with reduced mobility, through the attraction of European innovators in responding to the urban mobility challenges of these communities. This was achieved by launching a public procurement able to attract mobility innovators and to achieve expected results, ensuring local benefits.



What has happened with the project since its end date

Various follow-up activities have been executed by the project partners after the end of the project, including the addition of new data layers and indexes to the project platforms, the elaboration of policy documents and the development of new mobility apps and services.

Addition of new data layers and indexes to the project platforms

Using the telematics of the fleet of buses, a new index presenting the commercial speed of the buses will be added to the city platforms.

Urban obstacles and accessibility of people with reduced mobility to public transport services will be added to sidewalks width mapping done in the project. Additionally, both datasets will be made available through the European Mobility Data Space.



Elaboration of policy documents

The new strategy for parking lots of the city will be aligned with the public transportation offer.

Development of new mobility apps and services

The city will promote corporate MaaS to increase the use of public transport.

The app for people with reduced mobility and the app for gathering users' feedback will be finalized.

What is the project's plan for long-term sustainability

The project had various ways to ensure long-term sustainability, such as:

- Use of open data & open source
 - The project raised awareness of the importance of sharing data and knowledge between the public sector incorporating open-source principles into digital solutions.
 - The open call for innovators had as a requisite that the solutions should be open source, facilitating its adoption, maintenance and enrichment by the local community of practitioners.
 - Reinforcement of the open data policy of the city of Lisbon.
- Organizational & local eco-system
 - The set-up of the Innovators Alliance, even if within the project didn't manage to integrate public and private data, it created a forum for discussion between the public and private entities of the city. Being seated at the same table will facilitate cooperation, collaboration and improve collaboration. Additionally, some of the mobility challenges

identified by the project included making park-and-ride facilities more appealing, identifying bicycle parking needs in the city and assessing the suitability of the cycling network, mapping accessibility for people with reduced mobility on public transport routes and increasing the attractiveness of public transport compared to cars. Using data science, the project's partners were able to begin identifying opportunities and value propositions for the city.

- The apps and platforms created within the project are of common interest and hosted by public entities. These are of strategic importance for them and thus they will maintain their operation in time. Examples are the EMEL open data platform, which will be launched in the next period, and the CARRIS apps (VRU and user's feedback), which although they will not be finally launched, the requirements and some functionalities of both will be included in the existing CARRIS App.
- Adoption of new ways of working on city challenges (new processes such as co-creation, people and city centered).
- The working group on data analytics will be reactivated as soon as funding is available, while the observatory will act as a link between local partners.
- Operational & capacity building
 - The consistency of the project in exploiting the quick win case, which was the promotion of cycling in the city. Within the project secure parking areas were created and the cycling data collected and analyzed.
 - Co-definition of a model for identifying voluntary sharing rules and access conditions to data and information relevant to mobility in the city.
 - Training public bodies with human resources and knowledge in the context of (new) work and research methods. Promotion of show and tell – create moments of sharing about projects.
 - Identification of ways to finance projects that address common challenges were promoted.

Generated Knowledge

The lessons learned can be classified in the following domains:

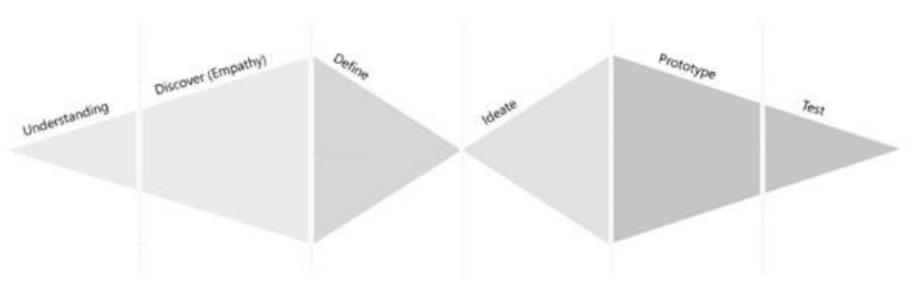
- Ecosystem and data governance
 - It is difficult to attract private actors in the urban mobility ecosystem.
 - Lack of a consensual and attractive governance model for data sharing and management.
 - Members of the eco-systems present different maturity levels, which translates into different challenges, concerns and ambitions that are sometimes misaligned.
 - Teamwork and cross-departmental collaboration help to reach a clear and well-defined work methodology and to break barriers.
- Availability of humans resources and skills
 - It is difficult to attract qualified human resources in the field of digitalization, so these resources should be secured well in advance.
 - The high rotation of human resources between project partners, resulted into low stability and greater challenges in monitoring and implementing the project. Thus, these mechanisms should be less depending in concrete persons and more in protocols.
 - Creativity and innovation mindset are needed to rethink approaches. Openness, transparency and honesty facilitate dialogue and negotiation, key aspects for the success of the project.
- Political commitment
 - Changes at the municipal level (e.g. the change of executive), requires the review of the city's strategic priorities and the realignment of the project objectives and outputs with it.
- Project planning
 - Co-define and plan more tangible quick-wins and outputs and demonstrate them internally to motivate partners in the execution of the project.
 - Plan wisely the contribution and execution of the project in terms of internal resources and involve technical teams as soon as possible.

Develop the proposal with more time and in advance to allow time for reflection and maturation of ideas as well as internal engagement.



The recommendations can be classified in the following domains:

- Secure and motivate your assets
 - It is key to be able to raise awareness and mobilize key actors and resources in the public sector to successfully execute city-led projects. The difficulty in securing the resources from the private sector created a significant delay to the execution of VoxPop.
 - To ensure the participation of the whole eco-system it is key to identify common challenges, especially attracting the participants from the private sector. The lack of interest by the private sector did not allow to fully exploit the capabilities of the Innovators Alliance.
- Co-create with (and for) the end-users. Take everyone on board, be inclusive
 - Implement an innovative solution development process, such as design thinking or co-creation methods, making use of social and human sciences and using people-centered qualitative research methods to ensure that all solutions developed focus on the real needs, preferences and expectations of those who will benefit from the solutions. Use it also to define a strategic roadmap for the city's digital transformation, safeguarding the continuity of the processes triggered by the project.
 - Promote collaboration with start-ups, enhance entrepreneurship in the city and support small businesses. Allow them to benefit from the use of new technologies to develop solutions (e.g. organizing hackathons). In VoxPop this was done by leveraging dynamic incentives, such as cascade funding.
 - Identify sustainable and user-centered business models that allow addressing the unexplored potential of joint analysis of the multiple datasets existing in the city. Involve in this process the partners of the project in the definition of future rules for sharing data between ecosystem organizations to ensure that it is based on concrete and relevant use cases.
- Align your work with policy and decision making
 - Cities should support (shared) data to make decisions that are more aligned with the expectations and needs of citizens and users of the urban mobility ecosystem. This will increase user satisfaction and, consequently, the perception of quality of life in the city.
 - Review of regulation and public policies, reinforcing the attractiveness of each city (not only in terms of public space and quality of life, but also for investment based on the urban innovation ecosystem).
- Achieve visibility in relevant initiatives and networks
 - Actively participate in forums and global collaboration networks within the scope of digital transition and urban mobility. In VoxPop, the participation of the city in the UIA (e.g. KIC Urban Mobility) was a good form of visibility for the project.
 - Promote the conceptualization and development of a dashboard for monitoring a set of metrics in the urban mobility context, including a comparative assessment with other European cities with similar characteristics (e.g. size, population density, offering mobility, etc.), in order to allow the construction of a reliable, evolutionary and comparative source, leveraging existing solutions.
- Envisage long-term continuation
 - Leverage the relationship established, and provided by the project, between the key actors in the urban mobility ecosystem to ensure the continuity of data sharing and collaborative work, clearly and concretely defining responsibilities of the various actors in the ecosystem.
 - Identify opportunities and good practices in order to make monitoring mechanisms tangible, in the long term, in particular through the identification of indicators and KPIs to be monitored and defining a governance model and long-term communication strategy.
 - Safeguard that resources (human, financial and technological) are maintained and/or reinforced in the long term. The adoption of the proposed recommendations represents an additional effort for the entities, mobilizing resources for activities that are not directly related to the core activities of the entities involved.



- Improve the attractiveness, inclusiveness of your city while protecting your citizens privacy
 - Promote collaboration mechanisms reinforcing the importance of processing and sharing data in a way that safeguards ethical issues of privacy and security, preventing abusive or inappropriate use of citizens data.
 - Contribute to digital inclusion, by disseminating digital solutions to support the journey and experience of the users of the urban mobility services while safeguarding the specific needs of vulnerable groups in society, i.e. individuals with physical and/or check disabilities.

Conclusion

Following the project execution was a long and exciting journey where the project partners proved their resilience. Starting with an excellent proposal full of key elements to be developed for the city of Lisbon, the project partners managed to execute most of them, even facing strong barriers. These included internal barriers such as change in the political support or delay in securing the needs resources, and external barriers, such as a worldwide pandemic or lack of collaboration by non-project partners. Still, the partners managed to overcome them successfully, reducing their impact to the project execution and outputs.

The legacy of the project is composed of tangible and non-tangible outputs. Tangible outputs include all solutions generated by the project (or the ones started within the project and finalized after it), such as the open platform and the user apps, or the open-source services developed by the companies selected in the open call for innovators. Non-tangible outputs include the rich experience gained by the companies participating in the open call, for which follow-up opportunities were proposed, but also a better knowledge of the mobility eco-system of the city, emphasizing in the disconnection between the public and the private entities with regards to data.

As a concluding remark, the most important result/legacy of the project has been the significant advances in the process of developing the data sharing ecosystem for the city of Lisbon.

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