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LEZ4all
Low Emission Zone for all

Supporting vulnerable people toward car-restrictive policies

*Toolkit and lessons learned from the
LEZ4All-pilot projects*

Summary of the final deliverable of WP3

July 2026



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BRUXELLES MOBILITÉ
BRUSSEL MOBILITEIT

SERVICE PUBLIC RÉGIONAL DE BRUXELLES
GEWESTELIJKE OVERHEIDSDIENST BRUSSEL

What to expect in this kit?

Context: This toolkit is one of the outputs of the LEZ4All project. It is based on three tests implemented in Brussels and Barcelona aiming to support vulnerable groups in the context of different LEZ and UVAR policies, which took place between end of 2025 and summer 2026.

Methodology: During this experimentation phase, project partners shared views on existing solutions and services aimed at making Low Emission Zones more socially equitable, with the objective of adapting to their territories mobility solutions already existing in other partners municipalities. These preliminary exchanges among partners were enriched by dialogue with external stakeholders and ultimately led to three pilot projects

The following pages take you inside these three pilot projects, presenting their ambitions, obstacles and the lessons already emerging from the field.



Timeline of the 3 pilot projects



LEZ4All (Low Emission Zones for All) is a two-year EU-funded project that aims to help cities make car-restrictive and sustainable mobility policies more inclusive. Auxilia, Àrea Metropolitana de Barcelona, Bruxelles Environnement and University of Antwerp partner up in this project to support professionals in understanding and reducing the social impacts of car-restrictive measures. The project develops tools, training, and practical methods to better include the needs and challenges of vulnerable population groups in mobility planning. By connecting experts in transport and social inclusion, LEZ4all strengthens cooperation across sectors and cities. Join our [LinkedIn community](#) to keep updated!



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Pilot test #1: Developing an AI-based chatbot for social and mobility professionals

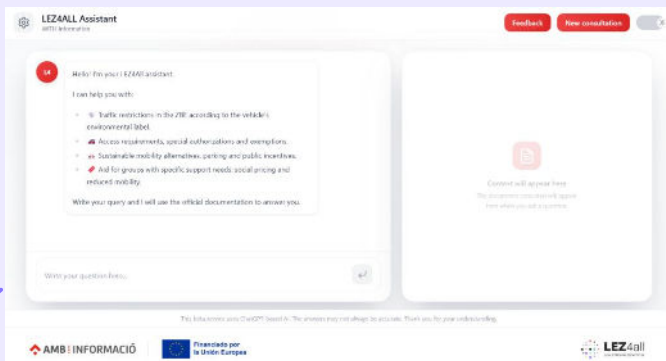


A total of **335 queries** over the test period (between April and June 2026)

About the tool

The “**LEZ4All – Assistant**” is an AI-powered chatbot built on a **Retrieval-Augmented Generation (RAG)** pipeline designed to centralise information on **LEZ (exemptions, authorisations, schedules and alternative mobility options)**. It responds to several objectives:

- Help metropolitan and municipal services, associations and front-office professionals who work with vulnerable groups **answer citizens' questions on Low Emission Zones (LEZs)**.
- **Ensure more transparent guidance** for citizens, particularly the most vulnerable to mobility restrictions.
- Guide them in profiling the person's situation (working hours, age, employment status, mobility constraints, accessibility needs) **to suggest tailored solutions and connect users to existing services** (e.g. Mobility Guidance Office).



AMB chatbot interface/AMB Informació i Serveis/May 2026

How does it work? A RAG combines a large language model with a vector database of validated sources so that answers are generated from retrieved, relevant content rather than the model's general knowledge alone.

Methodology

This tool was developed and tested by **AMB Informació i Serveis** with four partner institutions (the LEZ citizen service, the AMB citizen service office, and two municipal citizen services), then shared to **Brussels Mobility** for adaptation and testing.

Steps of implementation:

1. Definition of needs and requirements
2. Technological proposal (structure of the tool)
3. Content preparation (structures information base)
4. AMB prototype development
5. Experimentation and refinement
6. Adaptations and experimentation (Brussels)
7. Publication to external users in Barcelona (feedbacks and evaluation)

Key learnings

- **Both social staff and participants particularly valued the information session and technical coaching on carsharing and micromobility.** It helped gaining practical knowledge they could continue to use beyond the test, and becoming more aware of the costs of private car ownership and their travel habits.
- **Bringing together different actors (administration, mobility coach, community center) opened an important conversation on providing social support for the mobility transition.** However, to make such support more efficient, it is important to give social partners flexibility in how they engage.
- **The tests showed that, despite financial support and accompanying measures, some accessibility barriers sometimes remained.** Time constraints and, importantly, digital barriers still sometimes limited experimentation. Longer testing periods (over one month) and in-person or video support help tackle this.
- **The main impact of the tests was not an immediate shift away from private cars, but greater multimodality amongst the participants.** By discovering and gaining confidence in alternative mobility options, participants now have more choices to match their mode of transport to their needs, which can contribute to gradually reducing car dependency over time.

Pilot test #2: Implementing a Mobility Guidance Office for tailor-made mobility advice

About the tool

Inspired by Brussels Mobility Coach, this user-centred approach led to the Mobility Guidance Office implemented by the Barcelona Metropolitan Area (AMB) aiming to support citizens in their daily mobility across the metropolitan region.

The Mobility Guidance Office provides free and tailor-made support adapted to each user's needs and proposes suitable alternatives to individual cars such as public transport, shared mobility, active modes, or combinations of these.

Methodology

Steps of implementation:

1. Benchmarking International Experiences
2. Designing the AMB Model
3. Branding and Communication Strategy
4. Engagement with Metropolitan Municipalities
5. First Stage: Telephone-Based Advisory Service
6. Second Stage: In-Person Service Deployment

In this case, the AMB opted for local partnerships with municipalities affected by the expansion of the Low-Emission Zones. The Mobility Guidance Office's local presence has made it possible to set up helpdesks as closely as possible to users.



44 consultations at the mobility office during the pilot.

6 out of 10 users come from outside the AMB showing latent demand beyond the initial target zone.

Key learnings

The service achieved a 93% resolution rate and high user satisfaction, confirming strong demand for personalized mobility advice. The pilot's most significant outcome is the high level of satisfaction expressed by users, who particularly valued the personalised approach, the clarity of information, and the practical nature of proposed solutions. **The initiative was well received by LEZ professionals as well** who showed a strong interest for the service as a way to improve communication with local residents and to facilitate changes in an encouraging and “non-punitive” way, reflecting its practical relevance for local mobility management.

Despite its initial positive reaction, **the pilot faced a limited visibility of the service** which made it difficult to reach potential users. This highlights the need to put in place more effective communication, outreach, and marketing strategies to achieve broader impact.

The **pilot also encountered political caution in some municipalities**, linked to concerns that the Mobility Guidance Office might unintentionally amplify criticism or opposition to LEZ policies, which in certain cases could slowed down or limited willingness to scale up the service.

The Mobility Guidance reflects a broader shift in mobility governance, from infrastructure and regulation toward user-centred, advisory, inclusive services, positioning it as a key tool to ensure sustainable mobility policies like LEZs are implemented fairly.

Pilot test #3: To have vulnerable groups discovering and testing alternative mobility solutions

About these tests

The Brussels pilot was about a new model to help vulnerable groups discover and adopt new modes of transport through close collaboration between mobility and social sector actors. Initially designed to facilitate access to car-sharing services, the support model was subsequently expanded to include a wider range of sustainable mobility solutions.

The model combined participant outreach through social organisations, training and awareness-raising activities on sustainable and shared mobility services, and the provision of a small budget that enabled participants to try different mobility options in real-life situations. Throughout the process, participants also benefited from personalised advice and ongoing support

Overall, the pilot allowed to:

- Learn from the experience of selected households in the adoption of sustainable mobility modes (car-sharing, shared e-bikes, public transports).
- Develop an effective model of mobility coaching targeting vulnerable groups, based on the collaboration of mobility and social actors



On-site support with participants/Brussels Environment trial/2025

Methodology

Steps of implementation:

1. Identification and engagement of partner organisations
2. Adaptation of the pilot approach to the needs of the partners organisation and their public
3. Training of partner staff on sustainable mobility solutions available in Brussels.
4. Implementation of the participant mobility experience phase, including guidance and financial support to try different mobility options.
5. Evaluation of outcomes, development of recommendations, and dissemination of results.

This methodology was adapted and replicated with 6 different partners, working with different socio-economic groups.

Key learnings

Both staff and participants valued the information session, especially two aspects: the opportunity to reflect on their travel habits and consider more efficient or sustainable alternatives and gaining practical knowledge (useful for participants and social workers alike).

Bringing together different actors (administration, mobility coach, community center) opened an important conversation on social support for mobility transition. However, to improve the efficiency of the pilot it is important to clarify a multi-stakeholder methodology with complementary roles.

A one-month test duration may discourage participation, it was important to **deploy an ambitious call for applications** with in-person outreach to identify 5 to 10 households that are interested and available in participating (with a compensation of 300€).

The test did not drive structural adoption of carsharing. Still, several participants said their current vehicle would likely be their last, suggesting behavior change may only emerge over time than a pilot test.



Good practice for each pilot test

The following indications are deduced from the experimentations and the reception from the field. It can guide you in your own iterative process, conscious of the success and limits you might encounter.

The chatbot is a concrete example of how digital tools can support professionals who are not specialised in Low Emission Zones but who are in direct contact with citizens whose mobility can be impacted by their adoption.

Usability: the tool should be simple and quick to use, so that frontline professionals can consult it during their daily work. It is recommended to clarify the professional use case with targeted professionals so you can adapt the content and accessibility of the tool to ensure its integration into the daily work of frontline staff.

Reliability: answers should be linked to fragments and exact sources of official information, allowing professionals to ensure the source is the official one before passing it to citizens. We recommend you build the tool as a RAG pipeline, that can help centralise this information and make it easier to access during citizen support interactions. A certain level of technical knowledge in software development is required to implement the project.

Confidentiality: conversation data may be temporarily cached for consistency, but it is then deleted.

Flexibility: information should be updateable from URLs, APIs or documents, allowing the system to evolve as regulations and services change. Monitoring is essential to improve the chatbot itself and to remain aligned with the needs of professionals.

The mobility guidance office is a user-centered mobility service, including both innovative and challenging aspects.

Maintain individual support as the core of the service, it is especially effective for complex situations such as changes in travel behaviors or adaptation to LEZ regulations. It confirms that advisory services focused directly on people's needs can meaningfully complement traditional mobility policies.

Develop a proactive communication to reach potential users and raise awareness of the service. You can rely on local stakeholders with wider reach into target populations.

In case of complex multilevel governance, engage local decision-makers early to clarify the service's role and framing, positioning it as a facilitator of acceptance rather than a trigger for controversy around LEZ or UVAR. You can provide a kit of communication, summarizing the way the service works and indicating a contact person in case of questions.

Addressing effective communication and transversal support upstream the deployment of the service will be essential to consolidate and expand it across the metropolitan area.

The car-sharing pilot test resulted in a positive experience but is not yet adopted.

In a multi-stakeholder environment, it is important to clarify a roadmap to ensure all parties co-design and agree on their parts and have a complementary role with others.

The partnerships can be more efficient if you partner with organizations with wider reach into target populations or, alternatively, with a very close bond and deep knowledge of their audience. You can also adjust the test duration to reduce dropout linked to logistical burden.

Keep follow-up during the trial of the mobility solutions to report any difficulties encountered or solutions found by the households. If needed and possible, prioritize in-person digital support and demonstration video tutorials to help overcome these issues.

In order to diversify the social stakeholders involved and reach a broader audience, you can duplicate the pilot in different neighborhoods, with various social organizations and beneficiaries.

You can align the test perimeter with your core objective: open up mobility options if the goal is to shift participants away from private cars, or focus on a single mode if the goal is skill-building.



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