Accelerating the implementation of active mobility in cities

5. March 2026
13:30–15:00 CET/UTC+1

"Cities on the Move! Driving the innovative transition of urban mobility" webinar series

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Cities on the Move! Driving the innovative transition of urban mobility

Online webinar series
26. February - 9. April 2026

Agenda

Pumping the brakes on urban emissions with mobility planning tools

15 min. **Welcome and setting the scene**

45 min. **Trends, challenges and solutions for sustainable urban mobility**
– key experts working with cities

- Martin Jespersen & Sigurd Jensen, Aarhus University (Denmark), CITWIN project
- Nuria Blanco Caballero - Las Rozas Innova (Spain)
- Donna Tabangin - City of Baguio (Philippines)
- Emanuel Barbito– City of Quelimane (Mozambique)

25 min. **Guided panel discussion about ways forward for cities**
- moderated by the UTM/DUT teams

- Panel discussion
- Q&A with the audience

5 min. **Conclusions and outlook**

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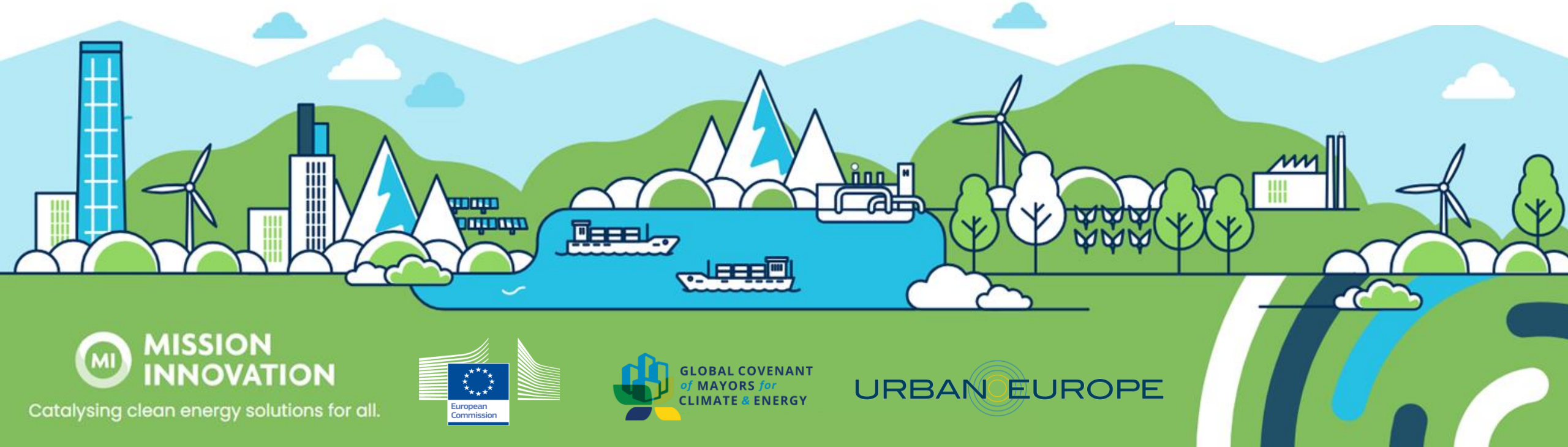
We **mobilise decision makers** across all levels of government to prioritise net-zero pathways enabled by clean energy and **systemic innovation**.

We **empower cities** to adopt innovative solutions and help reach tipping points in the cost and scale of those solutions for urban transitions and **broker solutions**, approaches, and knowledge for **net-zero transitions** at each stage of a city climate action journey.



MISSION INNOVATION
Catalysing clean energy solutions for all.

European Commission

GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY

URBAN EUROPE

DUT Partnership

The Driving Urban Transitions Partnership funds transformative research and innovation to build capacities of urban stakeholders and empower them to drive urban transitions in Europe and beyond.

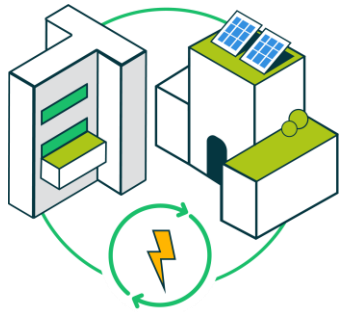
Together with **65+** partners from **28+** countries, and the European Commission, we fund over **40** transnational research and innovation projects each year.

Three Transition Pathways for urban transitions

Circular Urban Economies

15-minute City

Positive Energy Districts



Driving Urban Transitions

EUROPEAN PARTNERSHIP

Co-funded by the European Union

Get Involved!

Are you passionate about making an impact on urban sustainability? The DUT Partnership is your gateway to collaborating with a diverse network of stakeholders. Learn how you can get involved by visiting **dutpartnership.eu**.

Follow us on LinkedIn **@Driving Urban Transitions Partnership**

Our **next funding opportunity** will open in **September 2026**. Join our matchmaking platform to stay informed and find future collaboration partners.

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Today's speakers

Martin Jespersen & Sigurd Jensen – Technical Assistants, Aarhus University (Denmark), CITWIN project

Nuria Blanco Caballero – Mobility Manager, Las Rozas Innova (Las Rozas de Madrid, Spain)

Donna Tabangin – Dept. Head of the City Planning, Development and Sustainability Office, City of Baguio (Philippines)

Emanuel Barbito –Local BICI project coordinator, Architect and Urban Planner, City of Quelimane (Mozambique)

Accelerating the implementation of active mobility in cities

URBAN TRANSITIONS MISSION

Driving Urban Transitions

While active mobility offers significant benefits to urban residents, cities often lack adequate infrastructure, political will and public acceptance to prioritise walking and cycling. This webinar addresses these challenges by presenting examples of concrete and digital tools for **planning cycling infrastructure** and **pedestrianising public spaces** in a balanced manner, as well as how multi-modal planning can synergise with such objectives.

These approaches provide practical entry points for advancing active mobility, enabling participants to explore new ideas and suitable instruments. The session situates walking and cycling within broader sustainable mobility and public health objectives, offering insights into how cities can **systematically scale and mainstream active mobility** solutions.

Accelerating implementation of active mobility in cities

- Active mobility understood as **non-motorised movement** by own muscle strength, best-known: Walking and cycling
- **Characteristics**: Low-cost and emission-free, health benefits for users, supporting active mobility leads to more accessible and people-friendly cities.
- **Requires active commitment at all levels of governance**:
  - Funding, mobility planning, allocation of space and adequate infrastructure, awareness-building
  - Political will and vision, as well as public acceptance to prioritise walking and cycling
  - Specific focus on vulnerable people with reduced mobility

Societal costs of transport modes – in person-km and vehicle-km

	Car	Motorbike	Bus	Coach	Bike
Climate (€/pkm)	1.18	0.89	0.47	0.44	0.00
Climate (€/vkm)	1.90	0.94	8.83	8.66	0.00
GHG (€/pkm)	0.38	0.51	0.17	0.15	0.00
GHG (€/vkm)	0.62	0.53	3.12	2.85	0.00
Air pollution (€/pkm)	0.71	1.12	0.76	0.73	0.00
Air pollution (€/vkm)	1.14	1.17	14.19	14.34	0.00
Noise (€/pkm)	0.60	9.00	0.40	0.20	0.00
Noise (€/vkm)	0.90	9.40	8.00	4.70	0.00
Accident (€/pkm)	4.50	12.70	1.00	1.00	10.60
Accident (€/vkm)	7.20	13.30	18.90	18.90	10.60
Delay (€/pkm)	11.00	0.00	1.80	1.80	0.00
Delay (€/vkm)	17.70	0.00	35.50	35.50	0.00
Deadweight (€/pkm)	1.90	0.00	0.30	0.30	0.00
Deadweight (€/vkm)	3.10	0.00	6.10	6.10	0.00

* In freight transport, €/pkm is measured in €/tkm

Major sources of costs

CE Delft, INFRAS & Fraunhofer ISI, (2011). External costs of transport in Europ
Commision, E. (2019). Handbook on the external costs of transport version 201
Gössling, S. & Choi, A. S. (2015). Transport transitions in Copenhagen: Compar
Ecological Economics (113),106–113.

Data from CERTH, 2021 – SPROUT project

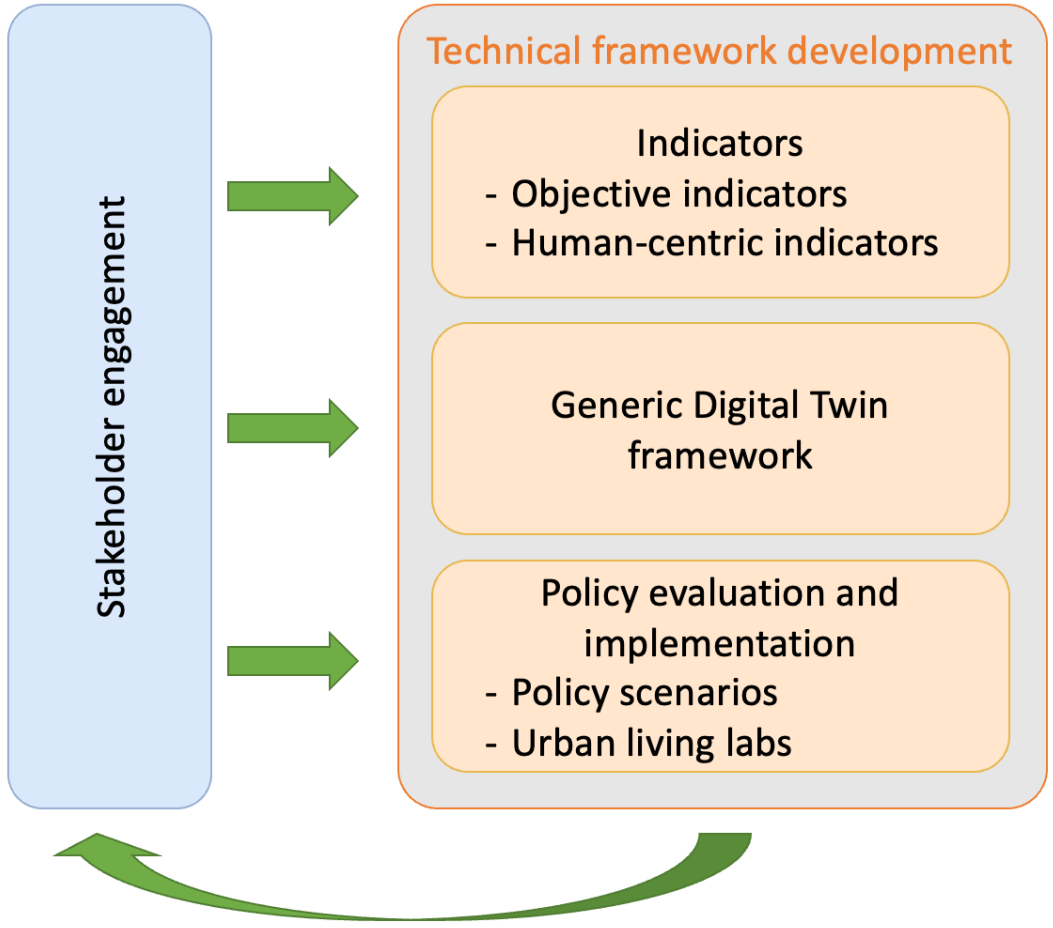
CITWIN

DIGITAL TWIN

ACCELERATING THE IMPLEMENTATION OF ACTIVE MOBILITY IN CITIES

PROJECT OVERVIEW

- **CITWIN General goal**
  - 15-minute city
  - We need to rethink and reorganise our mobility systems
  - Digital Twin as a promising technology
  - 2 cities (Urban living labs)
    - Aarhus, Denmark
    - Eskilstuna, Sweden



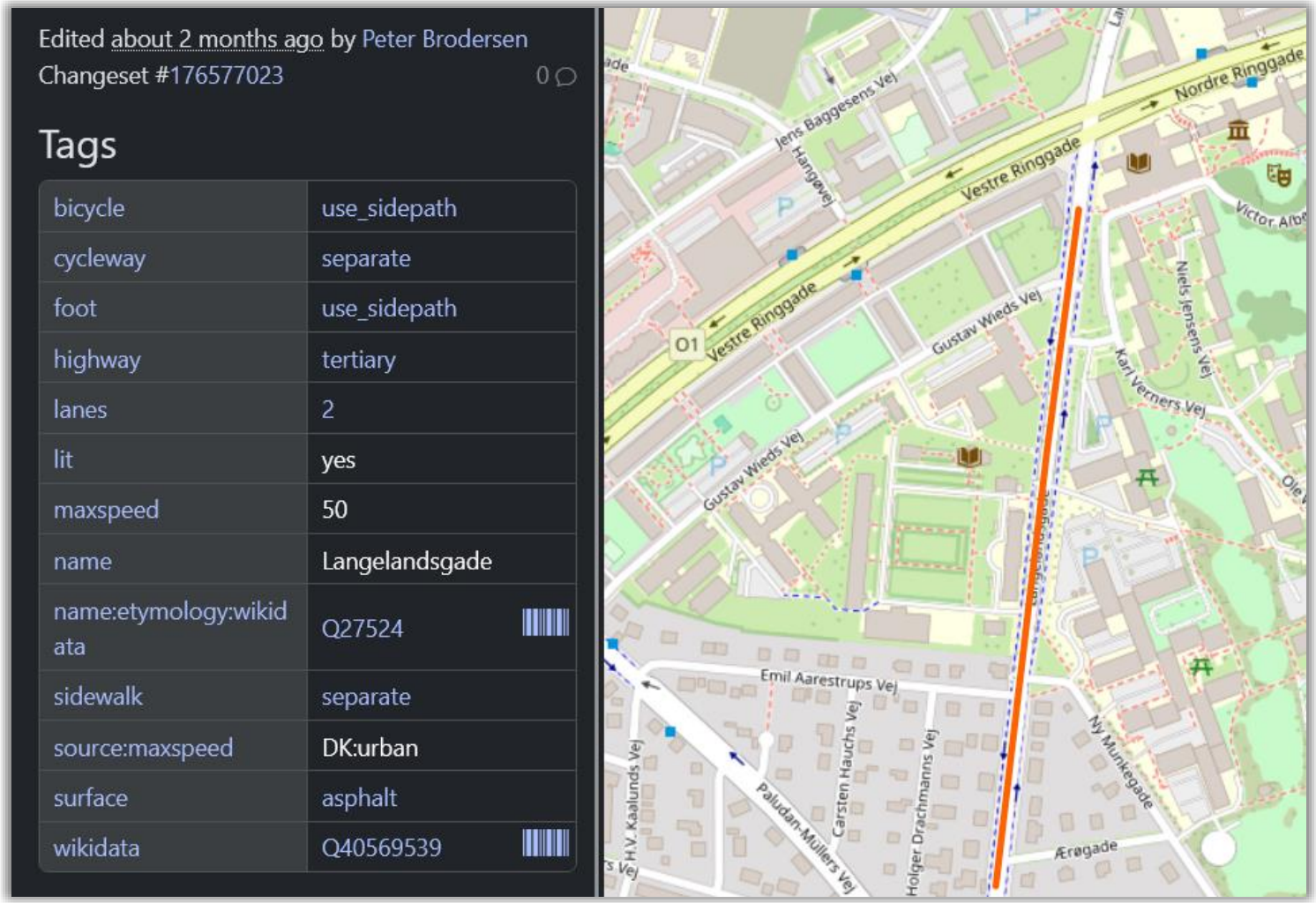
DIGITAL TWIN

- **General Concept**
  - Digital copy of a physical system
- **Problem**
  - Changes to infrastructure is hard
- **Solution**
  - Feedback loop
- **Focus**
  - User Interaction
  - Immersive 3D visualization
  - Simulation Scenarios
  - Data Visualization

TOOLS

- **CITWIN tools**
  - ThingsBoard (2D)
  - Digital Twin City (3D)
- **Data**
  - Open-source
  - Municipality surveys
  - NetAScore

Digital Twin City (3D)
↕
Database
(Knowledge Graph)
↕
ThingsBoard (2D)



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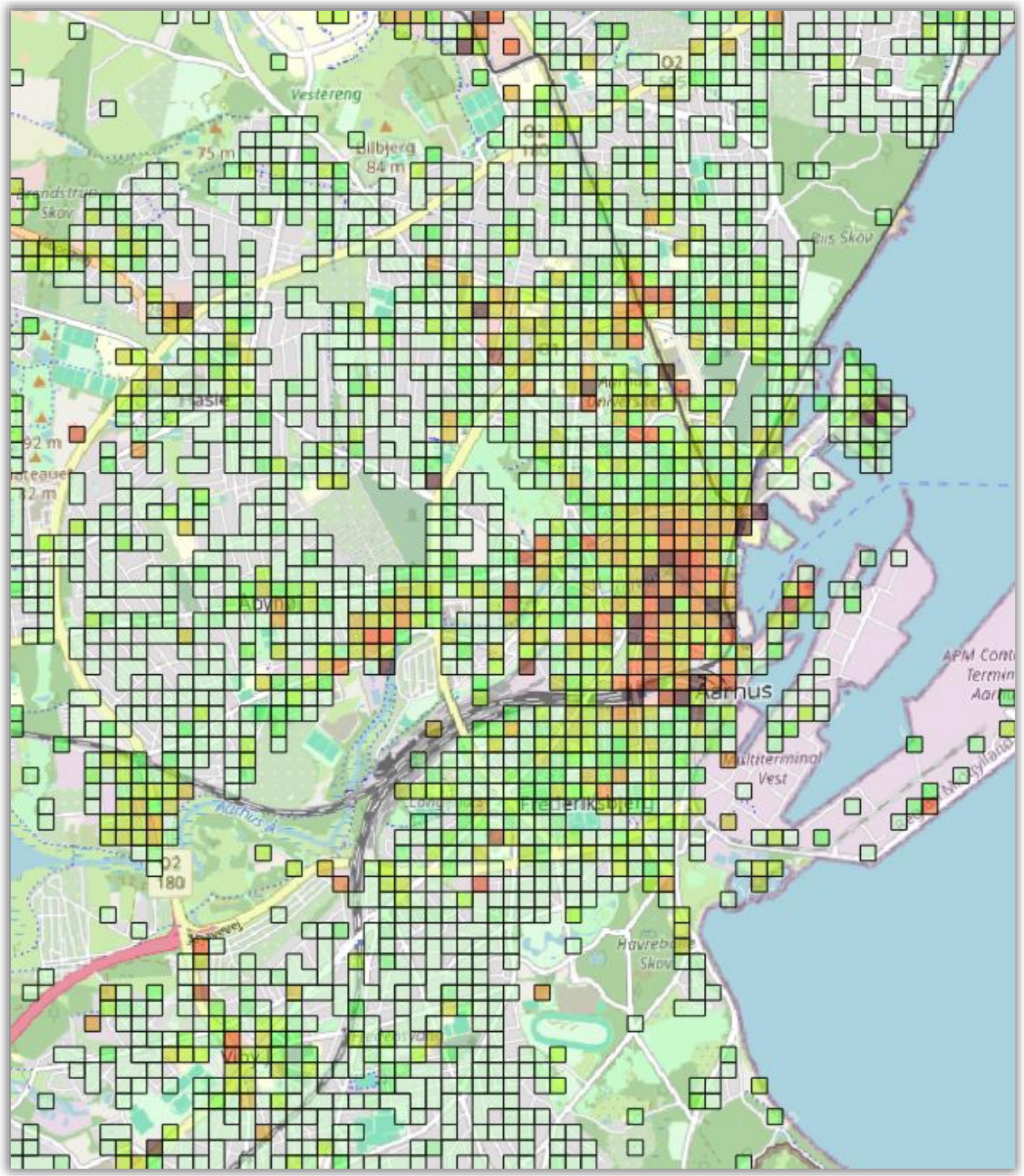

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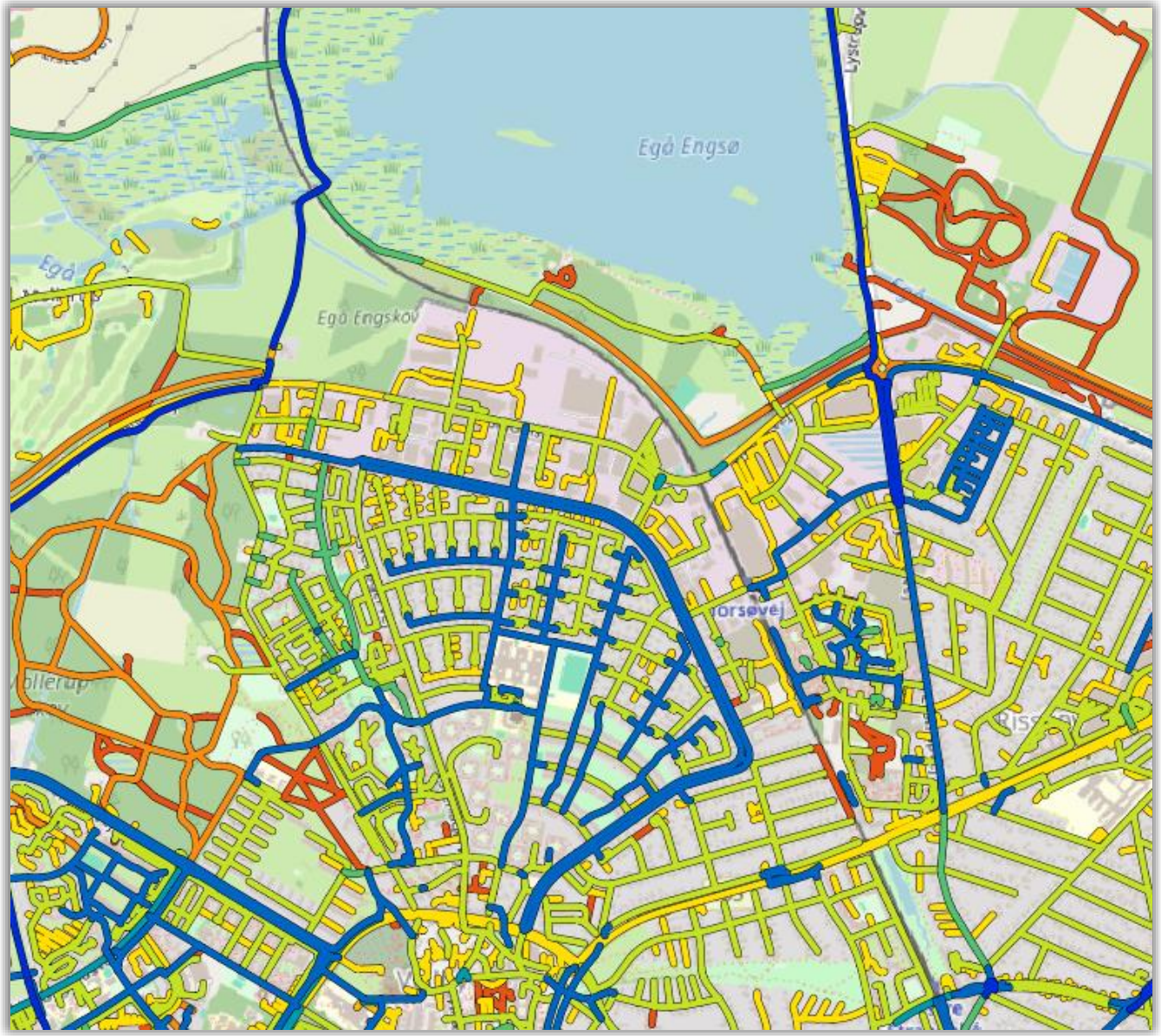


KNOWLEDGE GRAPH

- **Ontology**
- **Database**
- **Heterogeneous data sources**

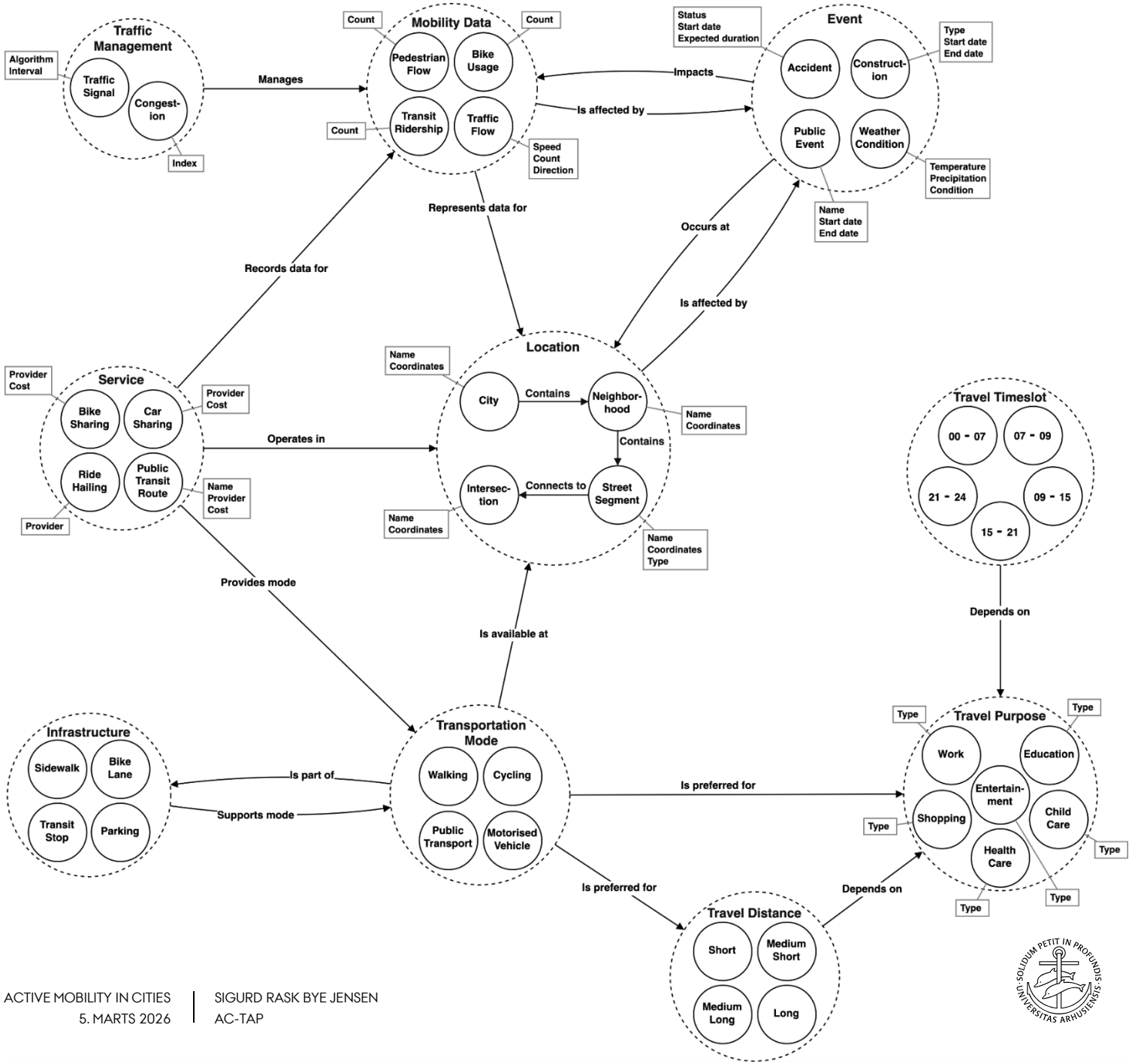
3D visualisation

↕

Knowledge Graph

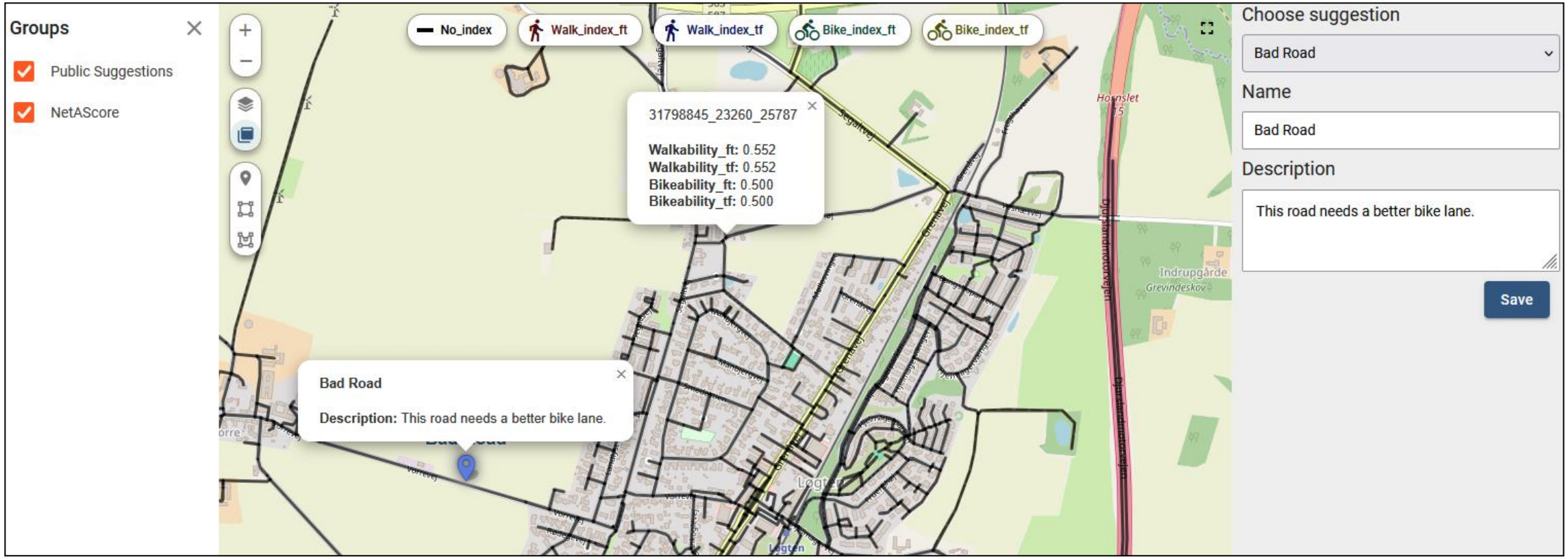
↕

ThingsBoard



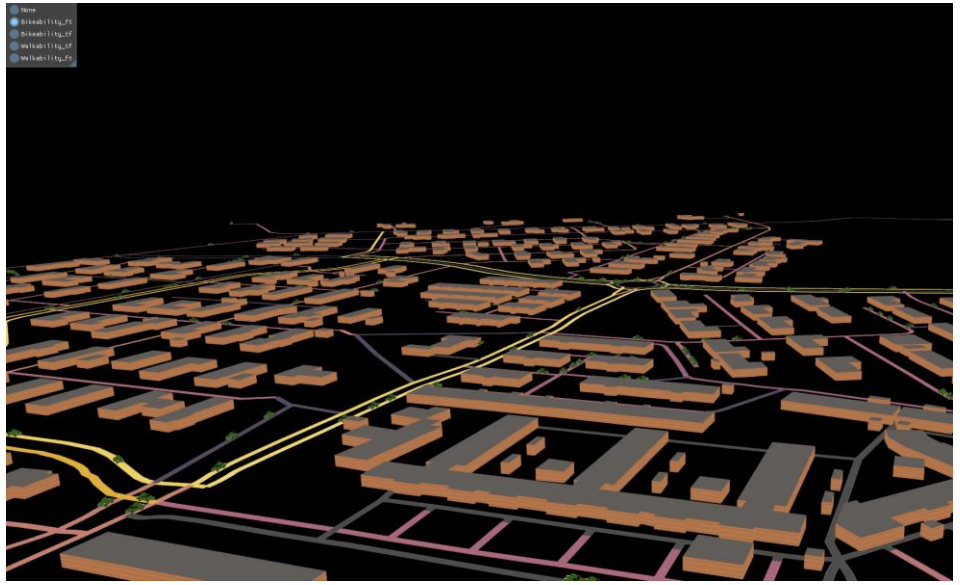
THINGSBOARD

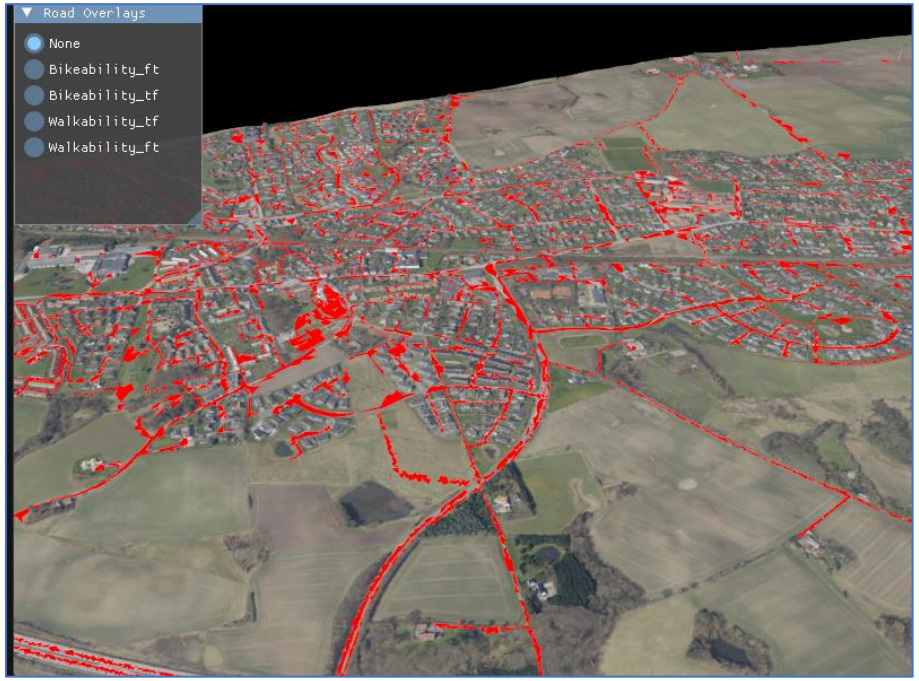
- Simple
- Allows for public suggestions



DIGITAL TWIN CITY

- **Focus**
  - Immersion
  - Visual data representation
  - Simulation (To be developed)
- **Data Sources**
  - Geospatial data (Open Street Map)
  - 3D geometry (Aarhus Municipality)
  - NetAScore (University of Salzburg)
  - MATSim Simulations (KTH)





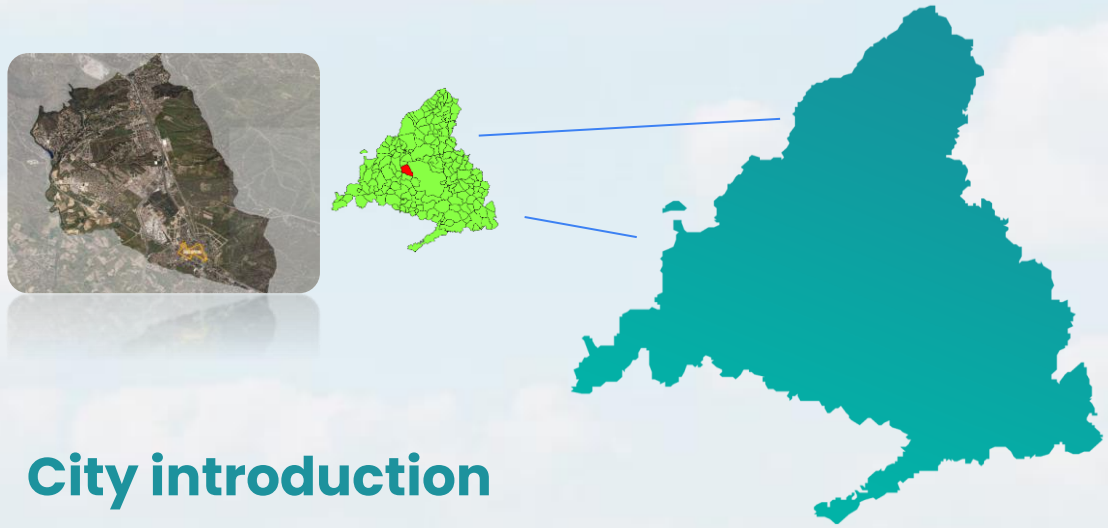

SOLIDUM PETIT IN PROFUNDIS
UNIVERSITAS ARHUSIENSIS

Accelerating the implementation of active mobility in cities

March 5th, 2026

Nuria Blanco
Mobility Manager. Las Rozas Innova

Las Rozas de Madrid



City introduction

- Municipality located in the Northwest of Madrid Region
- Population: 100.000 in habitants
- Size: 59,14 km2
- 350 km of municipal roads

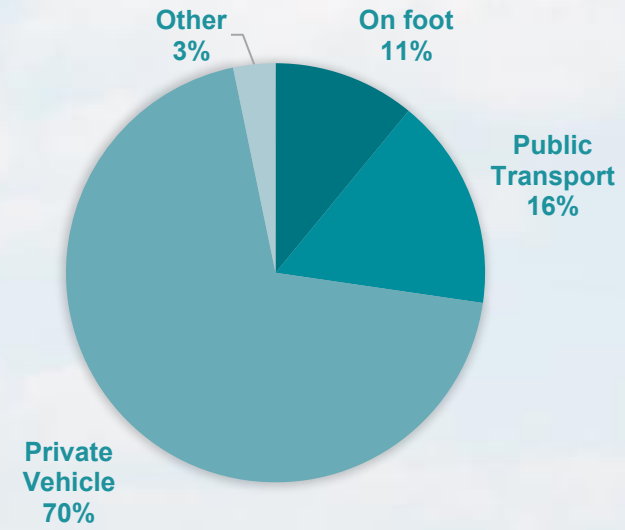
Las Rozas Innova

- Public Innovation Company of the City of Las Rozas.
- It promotes the city's technological and innovative ecosystem.
- It attracts and connects talent, entrepreneurship, companies and public administration looking for a smart and sustainable city.

Mobility in the municipality - overview

Crossed by three main highways

Big residential areas



High dependence of private vehicle both for internal and external trips

Huge challenges for the management of the mobility of the municipality, the promotion of active mobility and accessibility to all.

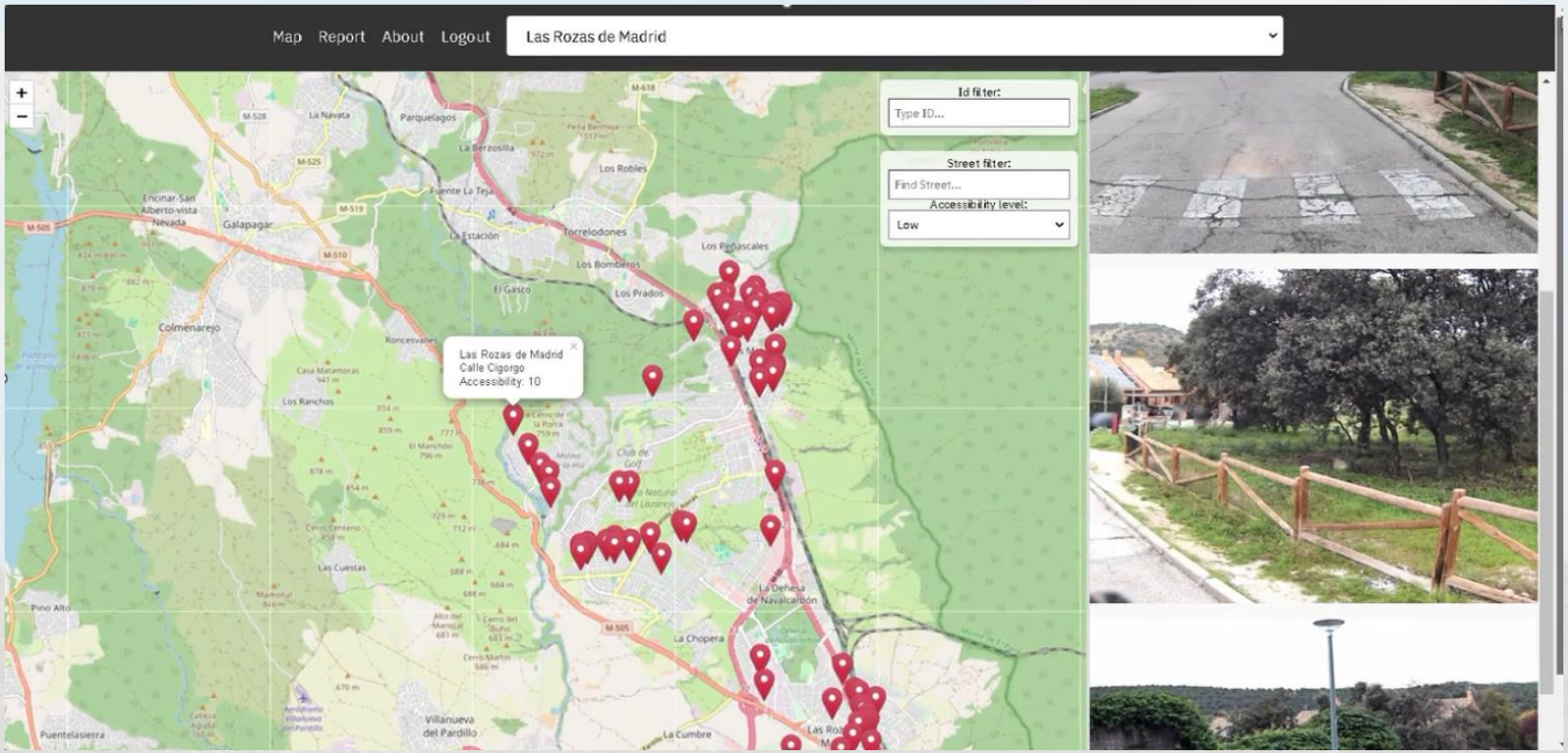
How can we collect and analyze data on the accessibility of Las Rozas pedestrian infrastructure?

AIPECRA technology

- High-resolution front-facing and side cameras
- Global Navigation Satellite System (GNSS) and Artificial Intelligence
  - Sign detection
  - Capture pavements, ramps and pedestrian crossing accessibility features
- Accessibility scoring system
  - Development of an AI-based scoring system to evaluate and rank pedestrian infrastructure.
  - Scores are aligned with local regulations and user-defined criteria (slopes, obstacles, signage).
- Close collaboration with specialized associations such as FAMMA and Plena Inclusión Madrid

Results of the project

2,411 pedestrian crossings scanned in 22 hours , more than 99% of the city covered.



Through a dedicated WebApp, the user will have access to all pedestrian crossing data:

- Photo and precise geolocation.
- Estimated accessibility index (painting, vertical signals and lateral accessibility)
- Anonymized data
- Data can be exported in a customized format (xls, csv, gis).

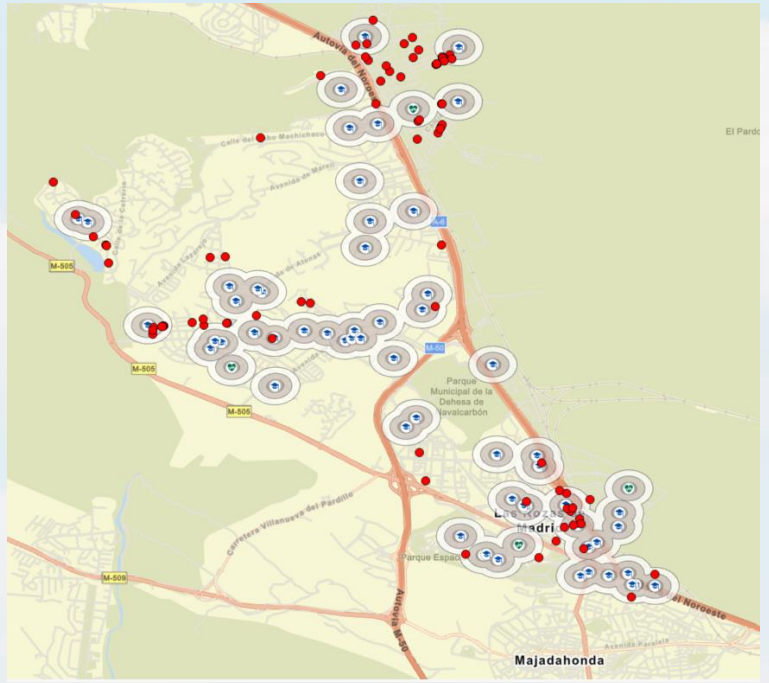
Information shared with different areas of the city council

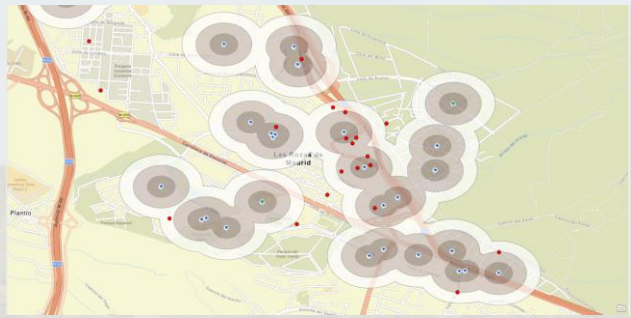
Lessons learned

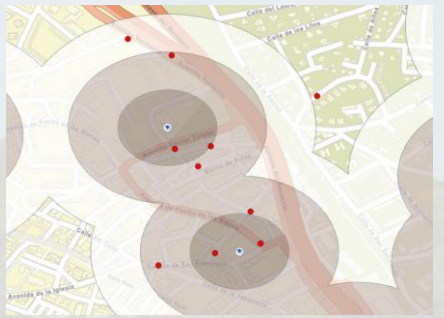
- Accessibility is a complex problem. **Collaboration with associations is crucial**
- The existence of a **strategic plan** such as the SUMP helps the implementation of these projects
- Many municipal areas involved in urban planning. **Lack of coordination** between them
- Having an updated infrastructure inventory takes a lot of effort. **Innovation is the key**

Follow up

- Development a new strategic plan for accesibility in Las Rozas
- The pilot will serve as a basis for prioritizing actions on the pedestrian infrastructure of the municipality
- New projects with the social entities that have participated on the pilot
- New line of innovation in Las Rozas Innova (participation in European Initiatives, consortiums etc.)







Thank you!

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DRIVING TOWARDS A SUSTAINABLE FUTURE

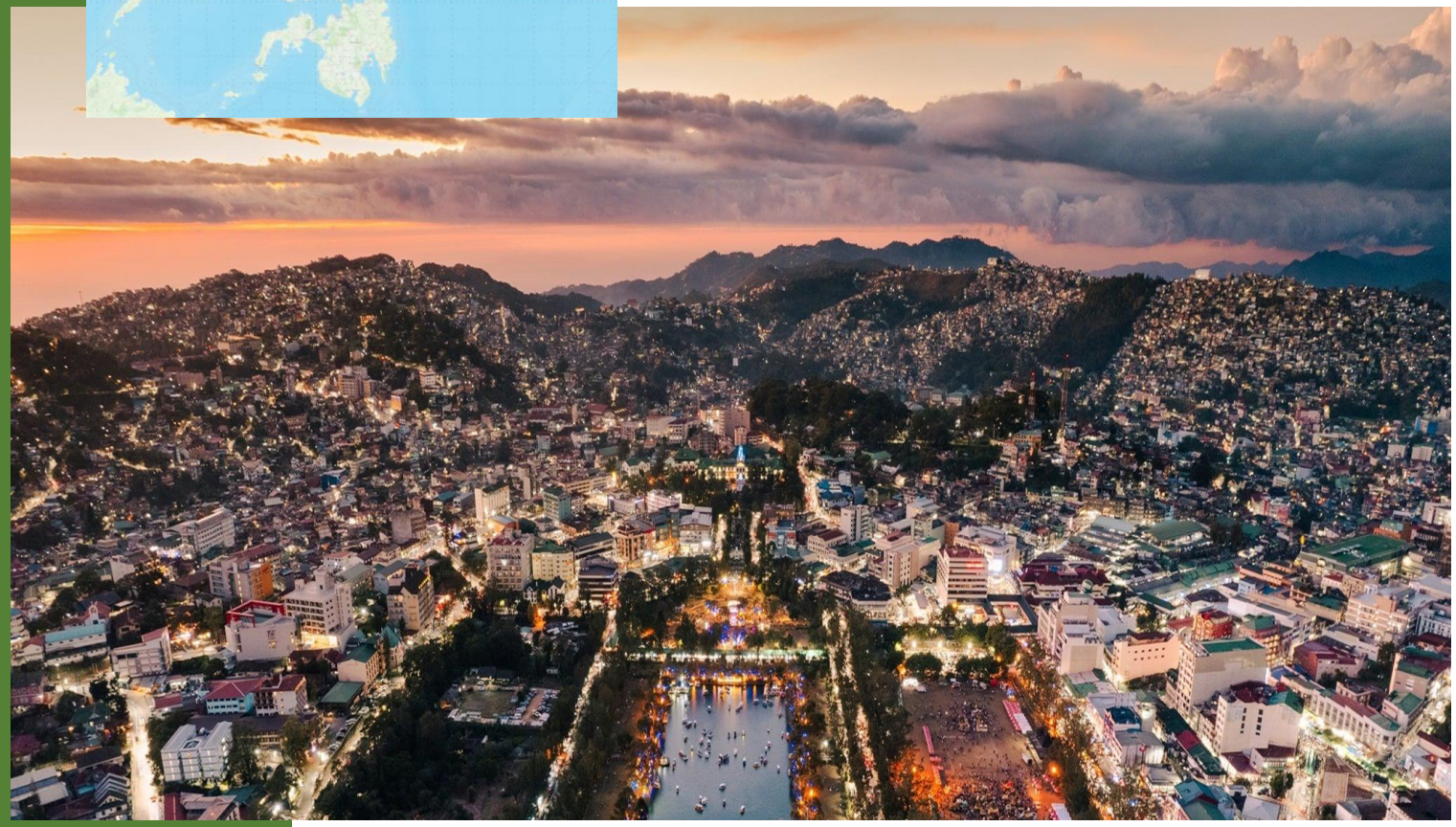
TRANSITIONING TO ACTIVE MOBILITY AND LOW CARBON TRANSPORT: BAGUIO CITY

DONNA R. TABANGIN

City Planning, Development and Sustainability Coordinator
Local Government of Baguio City
Philippines

City Vision:

BAGUIO 2043:
A LIVABLE, INCLUSIVE, AND CREATIVE CITY

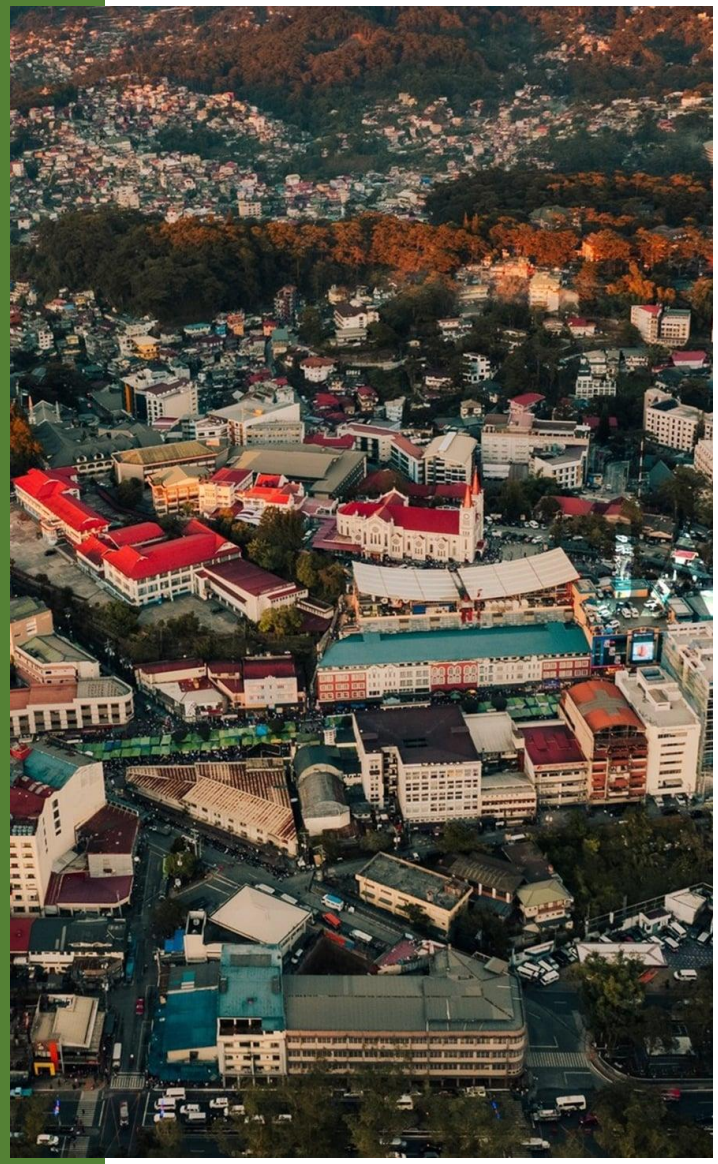


- Elevation 1,500 meters ASL;
- Land Area: 57.52 square kilometers;
- 1st class Highly Urbanized City;
- 2020 Census Population: 366,358
- 2020 Urbanization Level: 64.70%
- Comprised of 129 barangays, 20 districts;
- Regional Center of the Cordillera Administrative Region (CAR);
- The Summer Capital of the Philippines; and
- UNESCO Creative City for Crafts and Folk Arts.

PROBLEM

- Inadequacy of infrastructure and services for public transportation and non-motorized transport;
- Increasing volume of vehicles contribute to increasing pollution and urban heat in the city;
- Inadequate road width to provide separate laned for active transport; and
- Visitors tend to bring their own vehicles when visiting, further exacerbating the problem.

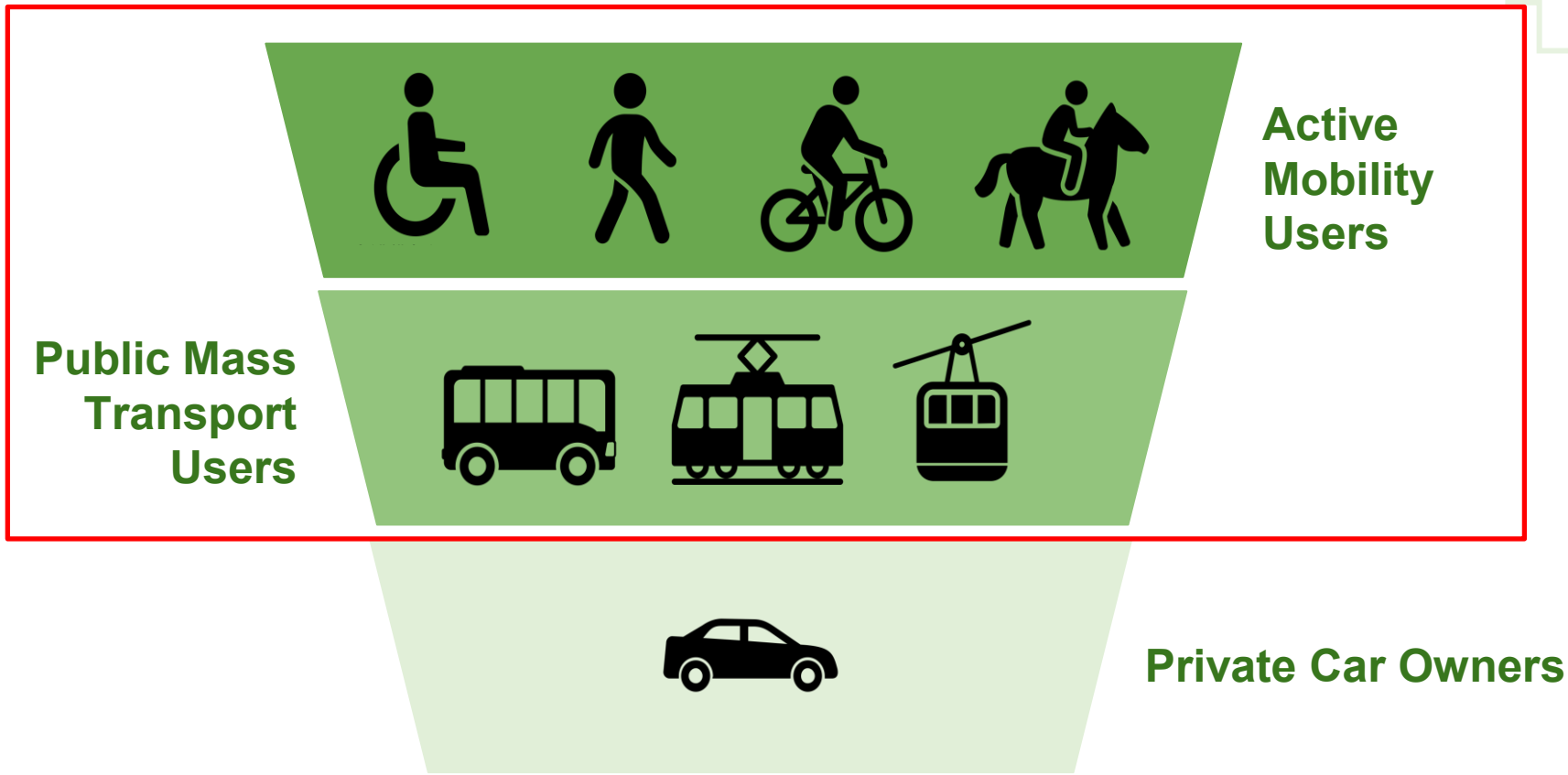
OPPORTUNITY



- Majority of residents still prefer **walking and public transport;**
- Enforcement of **strict emission standards** for vehicles within the City;
- **Funding Opportunities**- international agencies and private sectors support developments;
- **Sustainable Tourism**- boost the local economy by increasing the quality, not the volume of visitors;
- **Economic Benefits**- Job Creation, Local Business Growth, Reduced Energy Costs; and
- **Enhanced Reputation**- a sustainable and forward-thinking place to live and do business whill attract investments and talents.

DIRECT BENEFICIARIES

Development of Multi-modal Mobility Plan of the city, benefiting users of all forms of transport, recognizing a hierarchy based on needs and demand, and priority to active mobility users and public mass transport.



IMPACT ON VULNERABLE SECTOR

SAFE TRANSIT

PUBLIC EDUCATION

WOMEN-ONLY TRANSPORT OPTION

INCLUSION IN PLANNING COMMITTEE

ANTI-DISCRIMINATION

LGBTQ++ CENTER

PUBLIC AWARENESS

SENSITIZATION & TRAINING

ACCESSIBILITY

EMPLOYMENT OPPORTUNITIES

ASSISTANCE

CULTURE

CUSTOMS

LAND RIGHTS

#breathe BAGUIO

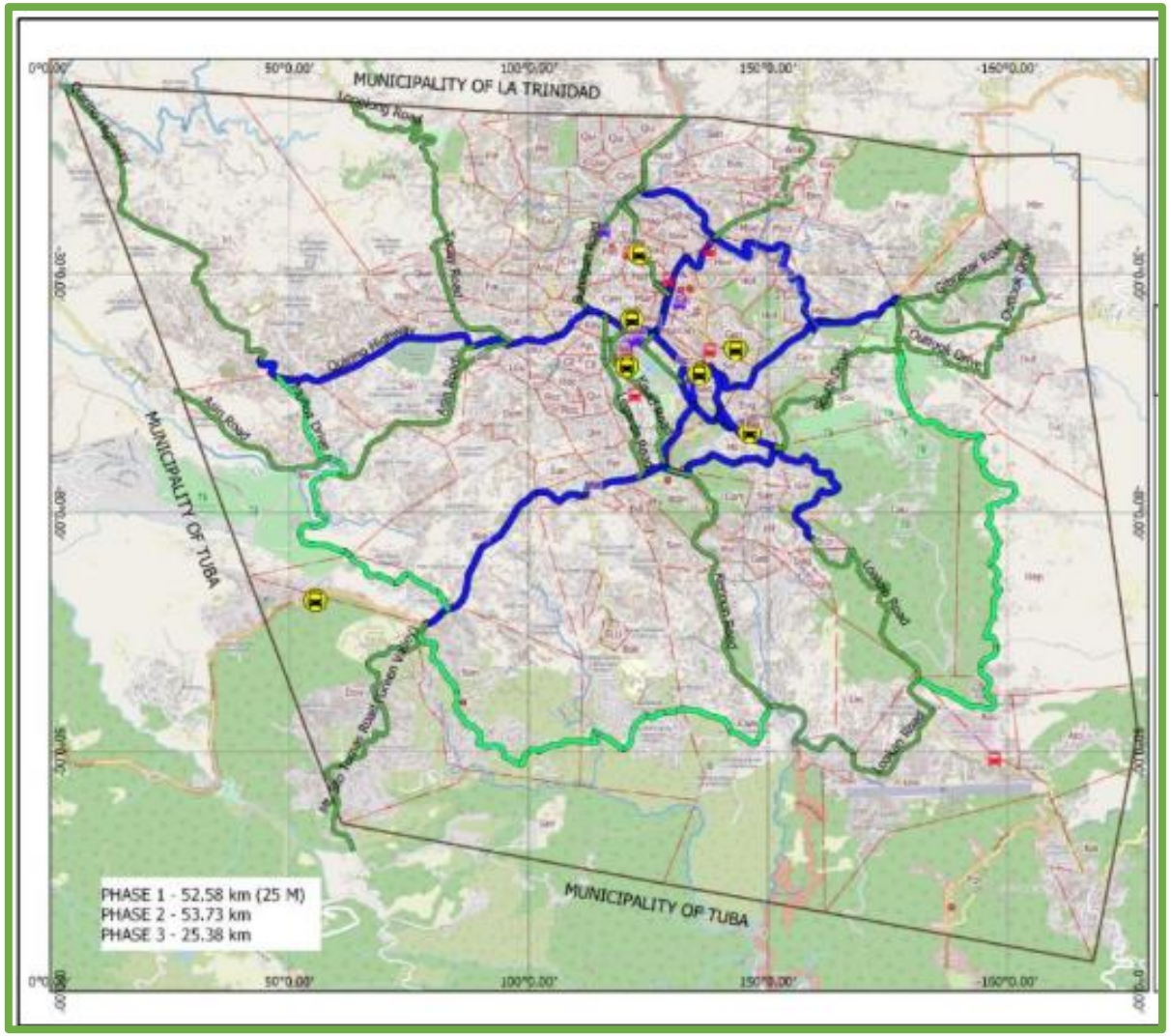
ACTION PLAN SUMMARY

Decrease Transport emissions from 63% to 20% by 2030

Reduce Traffic Congestion (Congestion Charging)	Advanced Traffic Management System
5% of city government fleets are converted to hybrid vehicles and/or full electric vehicles	Smart Parking Management System
Relocation of Non-essential Traffic Induced Activities	Intelligent Traffic Signal Control
Complete Streets and Park and Ride Facilities Development	Leverage on Mobile App as a means to provide integrated services for the Baguio City Commuters (integrated service, information and payments for all mobility services)
Provide integrated services for all PUV Travels, PUV Priority Schemes	Enhancing Traffic Violation Enforcement Regime (Automated Traffic Enforcement System)
Leverage on Technologies to improve Efficiency of Public Transport System such as adoption of fleet management technologies to improve public transport fleet operation efficiency and reliability	Improve Road Safety and Responses to Traffic Incident
Leverage on Technologies to maximize capacity and Efficiency of Road Network and Parking Resources	Provides better monitoring and responses to traffic incidents

ACTION PLAN

1. Provide facilities for Active Mobility by 2030



- Implementation of Green Walks (Complete Streets) Program
-Implementation of Bike Route Master Plan
-Improvement of Bike Facilities
-Construction of Multi-level Parking Structures

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BIKE LANES/ SHARED LANES

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TACTILE SIDEWALKS

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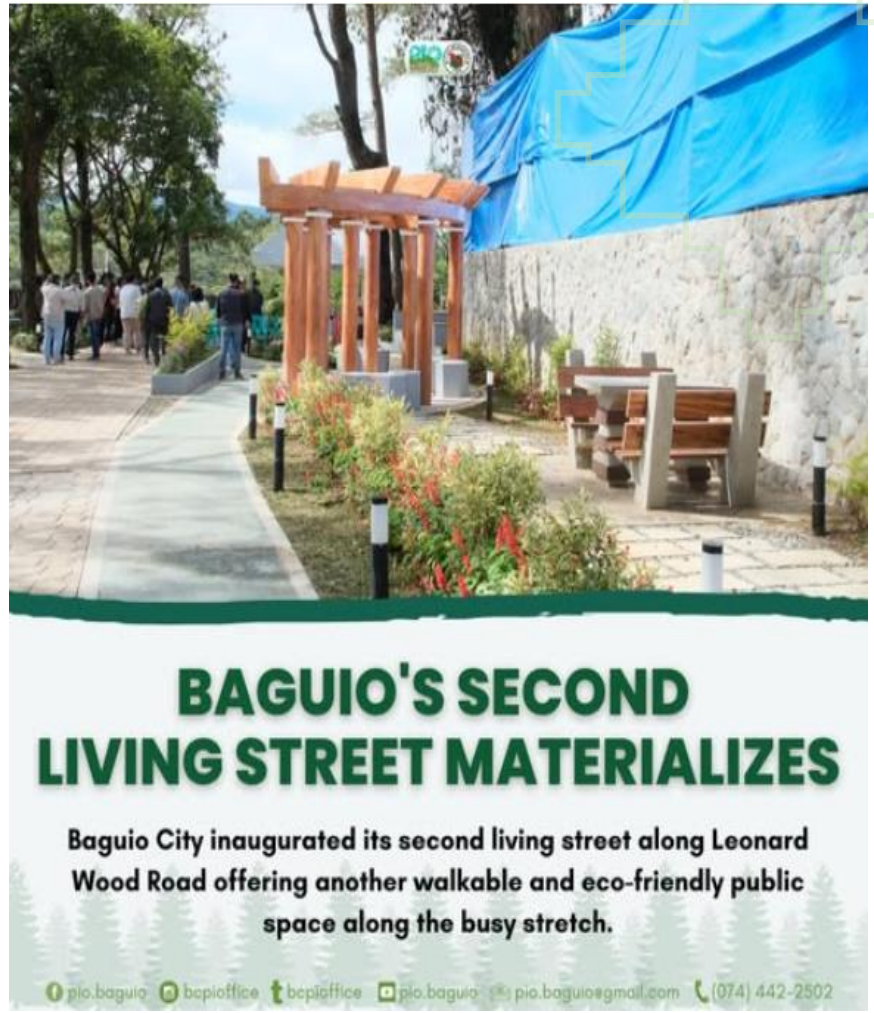
LIVING STREETS



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Action Plan: Multi-Modal Mobility

2. Transition public transport to EVs by 2030

Initial concept for Charging Stations

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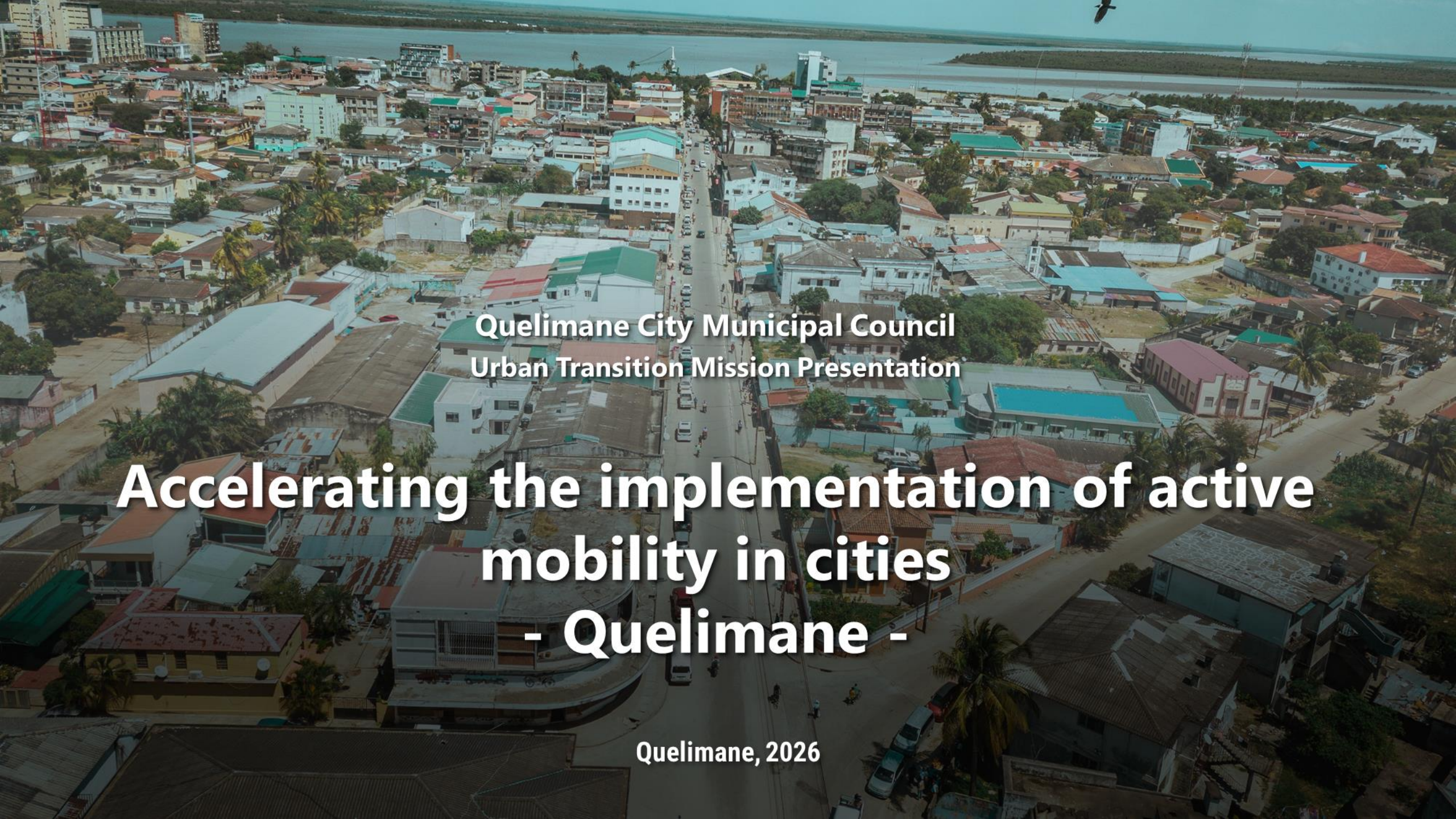
BAGUIO



Quelimane City Municipal Council

Urban Transition Mission Presentation

Accelerating the implementation of active mobility in cities - Quelimane -

Quelimane, 2026

Introduction to Quelimane

The city of Quelimane has been taking a significant steps toward a more sustainable and accessible future with the development of a comprehensive cycling network. This project aims to transform urban mobility by promoting the use of bicycles as an efficient, environmentally friendly, and health-beneficial mode of transport for its citizens.

Geographical Context

Country of Mozambique

Province of Zambezia

City of Quelimane

Typical Street Conditions

Typical Street Conditions

Cycling Culture of Quelimane

Cycling as a means of everyday transportation

Cycling as a means of everyday transportation

Cycling as a Economy

Cycling as a Economy

Bike lanes in Quelimane

Introduction to BICI - Project

The Bloomberg Initiative for Cycling Infrastructure (BICI), led by the **Global Designing Cities Initiative** in partnership with **Bloomberg Philanthropies**, was created to address the global challenge of providing safe, connected, and inclusive cycling infrastructure that enables cities to prioritise people over cars.

From 275 applications across 66 countries, ten cities were selected worldwide and Quelimane is proudly among them.

BICI BLOOMBERG INITIATIVE FOR CYCLING INFRASTRUCTURE

10 selected cities!

Through BICI, Quelimane is developing new protected **cycling tracks, improved pedestrian spaces, and dedicated bicycle taxi parking** to support non-motorised transport and strengthen safe, inclusive mobility.

40%

35%

0,4%

7,6%

17%

Existing bicycle lane

Phase I: BICI scope

Phase II

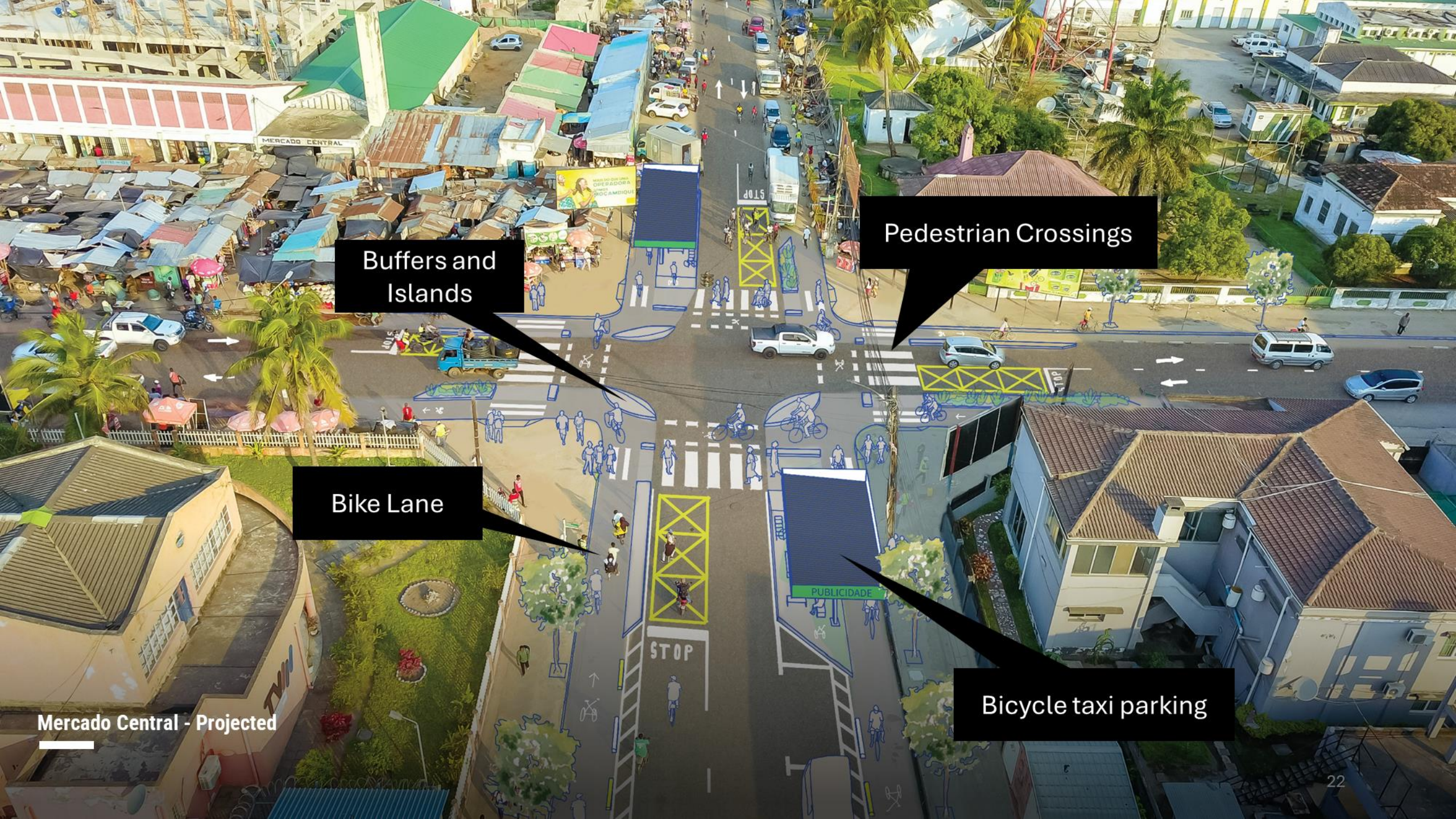
Cycling Network

Mercado Central - Before

Mercado Central - Projected

Mercado Central - Before

Mercado Central - Projected



Mercado Central - Projected

Marginal Ave. – Tourism and Recration Hotspot

Marginal Ave. – Tourism and Recration Hotspot

Marginal Ave. – Tourism and Recration Hotspot

Implementation Challenges

Implementation Challenges

1. **Cultural perception of cars and bicycles**
2. **Initial resistance to cycle lanes**
3. **Media backlash and Political scrutiny**
4. **Ongoing low public awareness of new infrastructure**

Our Response

Our Response

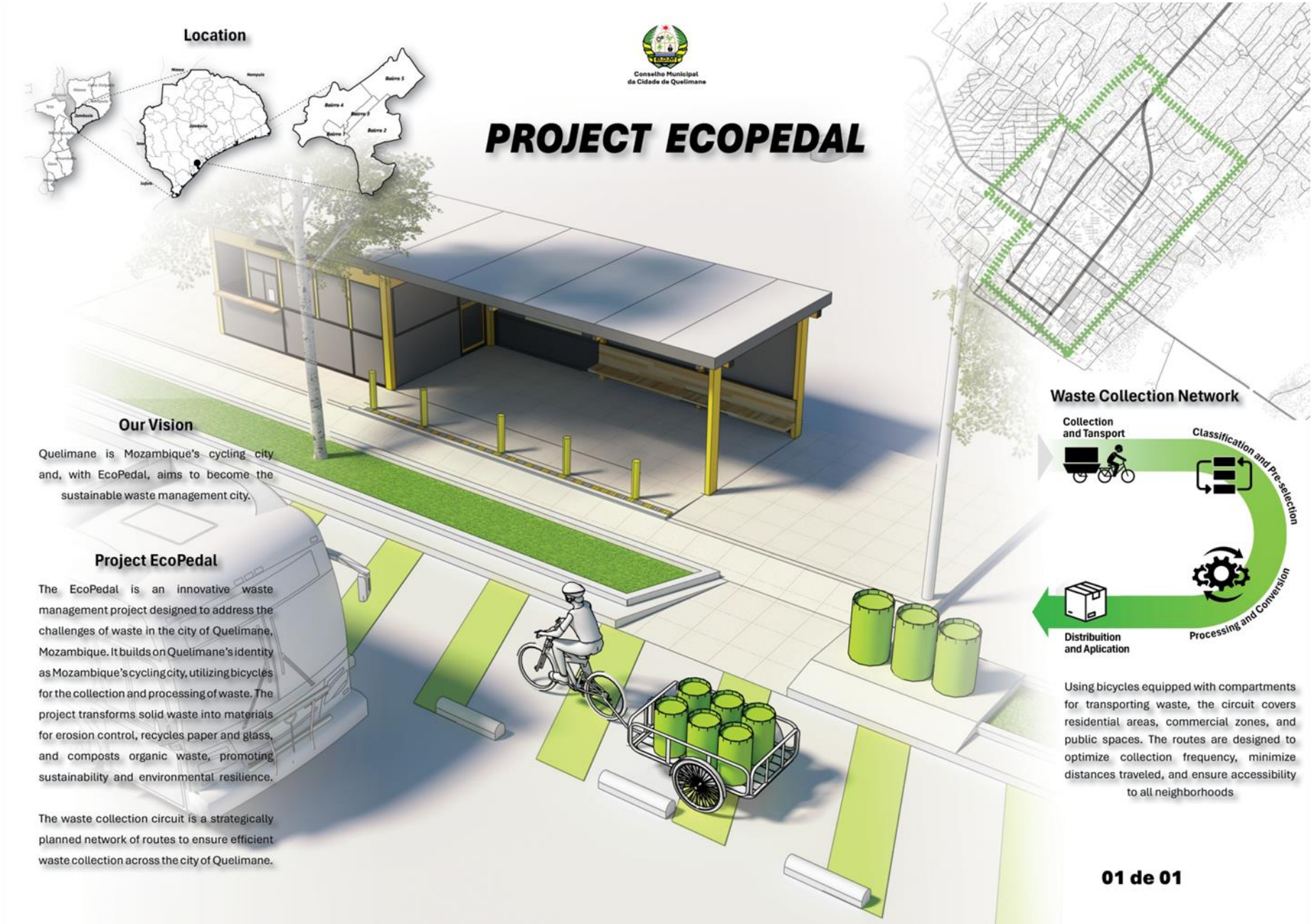
1. **Data-driven technical defense**
2. **Legal and regulatory clarification**
3. **Transparent communication, Stakeholder consultations and presentations**
4. **Media engagement and awareness campaigns**
5. **Institutional resilience beyond political cycles**

Workshops and Community Engagement

Workshops and Community Engagement

Other City Initiatives

Project EcoPedal



Thank You

Quelimane City, 2026

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Panel discussion & Q&A

Martin Jespersen & Sigurd Jensen – Technical Assistants, Aarhus University (Denmark), CITWIN project

Nuria Blanco Caballero – Mobility Manager, Las Rozas Innova (Las Rozas de Madrid, Spain)

Donna Tabangin – Dept. Head of the City Planning, Development and Sustainability Office, City of Baguio (Philippines)

Emanuel Barbito –Local BICI project coordinator, Architect and Urban Planner, City of Quelimane (Mozambique)

Conclusions and outlook

- 26. February
  Pumping the brakes on urban emissions with mobility planning tools
- 26. March
  Putting citizen needs in the driver's seat for inclusive urban spaces and mobility
- 9. April
  Steering towards sustainability via electrified transport

webinar series

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Putting citizen needs in the driver's seat for inclusive urban spaces and mobility

Register here ↴

26. March 2026
13:30-15:00 CET/UTC+1

"Cities on the Move! Driving the innovative transition of urban mobility" webinar series

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Housing Capital: How to Expand Financial Accessibility?

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Thank you for joining us today and in the future!

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