

Sustainable mobility:
Challenges and
innovations from the
perspective of
JOINVILLE
SOUTH OF BRAZIL

ABOUT JOINVILLE

Biggest city in the Santa
Catarina State

210,4 km²
(1,125 km² total)

569.645 inhabitants



ABOUT JOINVILLE



ABOUT JOINVILLE

An aerial photograph of an industrial park in Joinville, Brazil. The image shows several large, modern industrial buildings with grey roofs, surrounded by green fields and trees. A road with a roundabout is visible in the foreground. The background shows a hilly landscape under a clear sky.

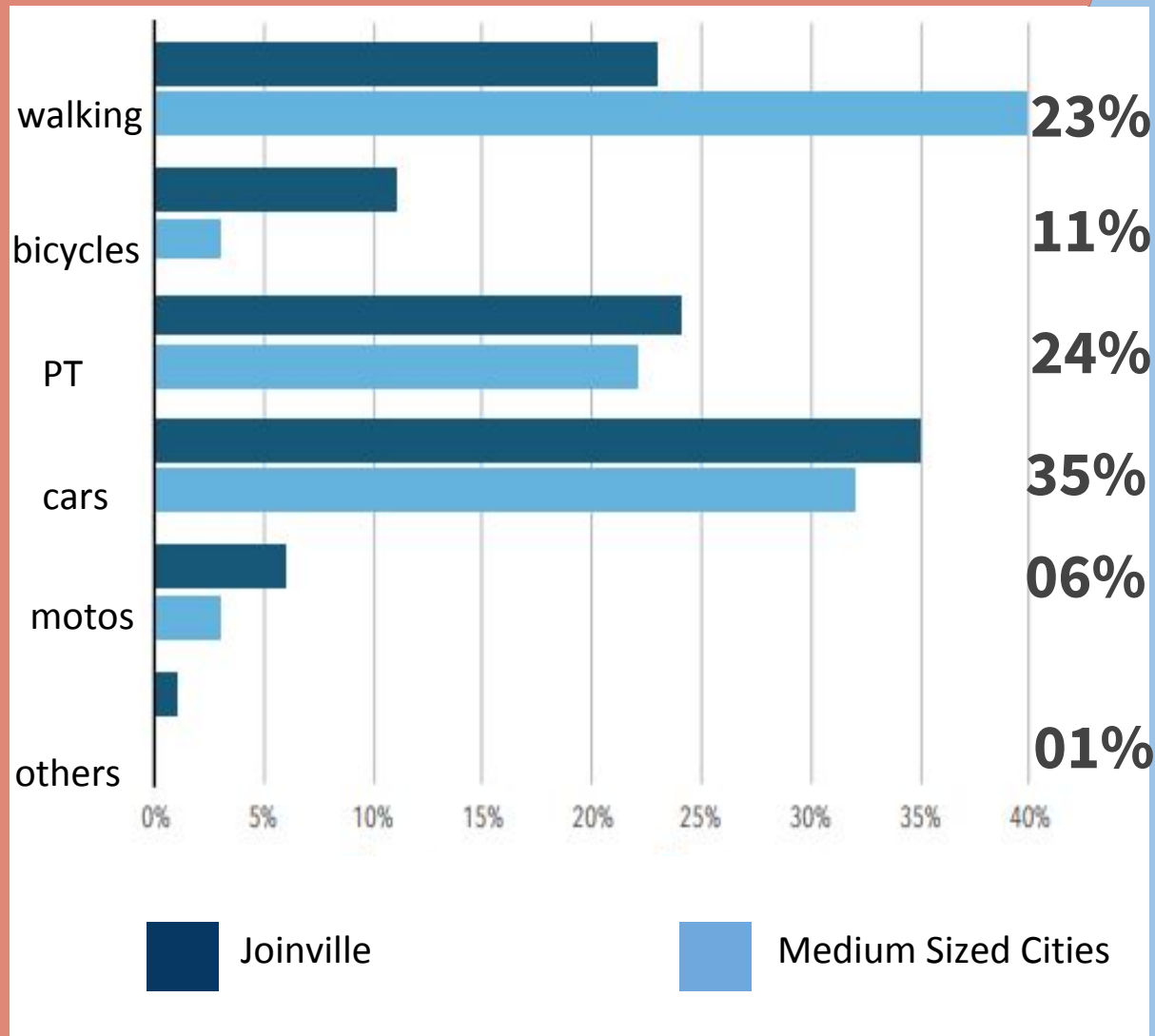
**Industrial and
technological pole**

**Entrepreneurial
ecosystem**

(every 100,000 inhabitants,
139 are entrepreneurs)

The best medium-sized city in strategies to attract foreign investment (The British Financial Times, 2017) 01 of the 10 most enterprising cities in Brazil (Endeavor, 2017).

ABOUT TRANSPORT



**16km of bus-only
preferred lane**

**140km in cycling
network**

**Increase of registered
vehicles
is 71% in the last 10
years**

**0.66 vehicles /
inhabitant**

ABOUT CHALLENGES

The background image shows a street scene with a yellow bus and a white bus with a wheelchair symbol. The image is split vertically by a diagonal red line. The left side is a faded, reddish-tinted view of a street with many cars. The right side is a clearer view of the same street, showing a yellow bus and a white bus with a wheelchair symbol. The white bus is in the foreground, and the yellow bus is behind it. There are trees and buildings in the background.

Outdated and dispersed data

**The absence of alternative
modes of transport and
integration between of the
existing ones**

**The centralization of the
individual motor vehicle**

We have the need for intermodality, not dependent on individual motor vehicles, as way of attracting users to a more complete, competitive and flexible system for a modern urban citizens.

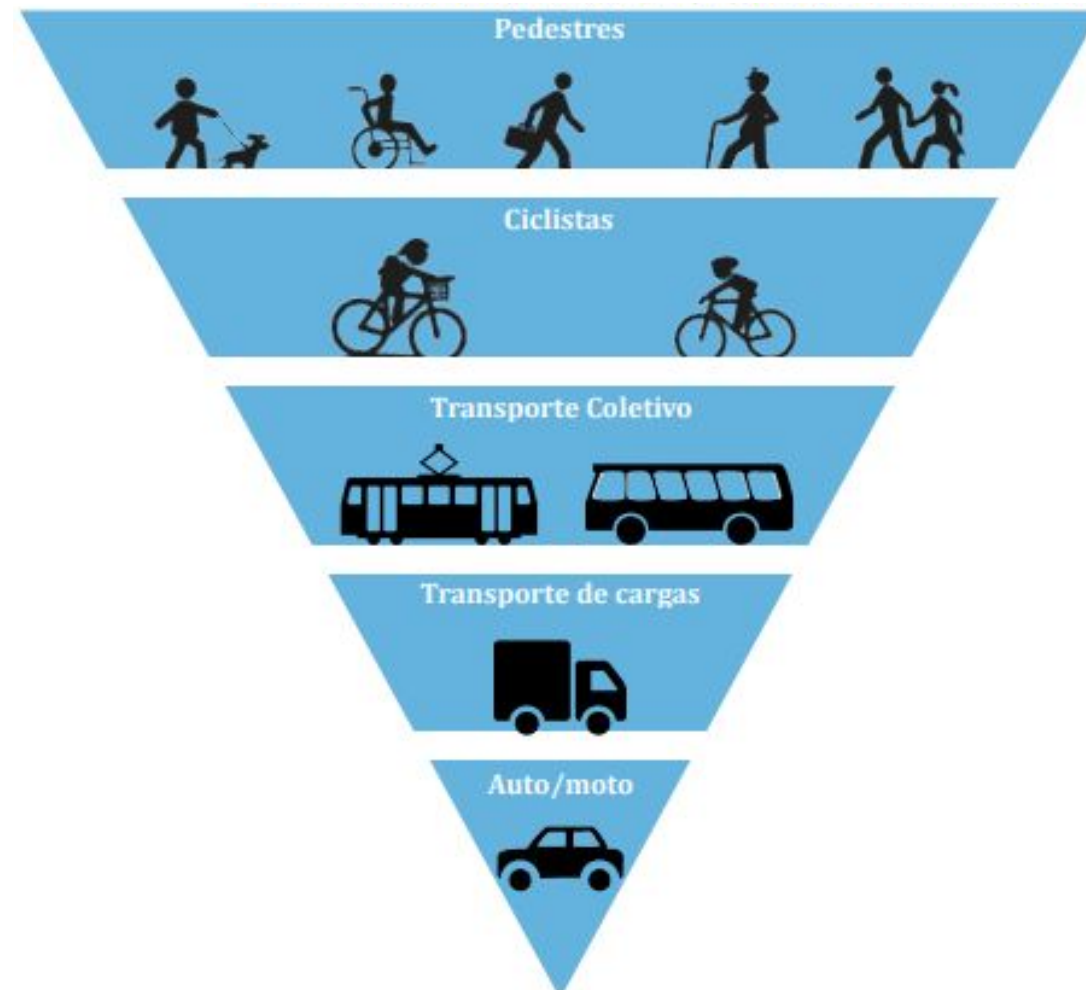
ABOUT INNOVATIONS

1. Sustainable Urban Mobility Plan - PlanMob 2016

**Focus on the non
motorized modes of
transport**

**2030 - reversing the
current modal
participation from 24% to
40% in public transport**

**Reduction of 50% in
the emission of gases
generated by the
collective transport
system**



ABOUT INNOVATIONS

2. Road Plan

**Intermodal Road Plan -
IDB financing**

**Georeferenced action
plan**

**Feasible plan, but also
open to new technologies**

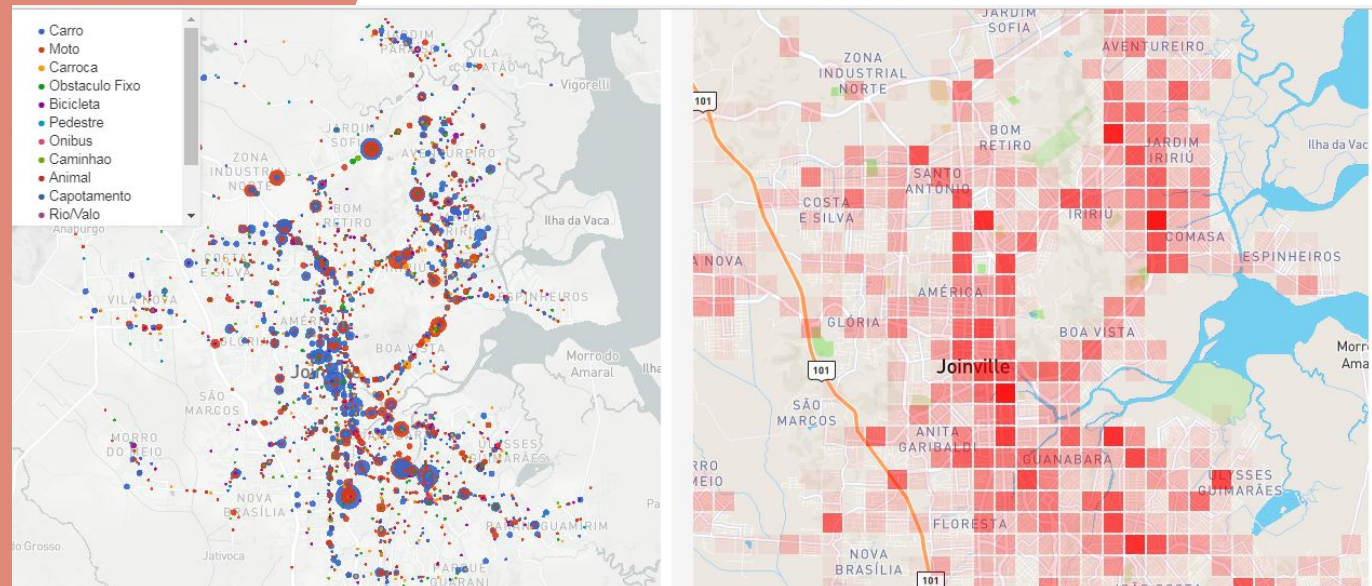
ABOUT INNOVATIONS

3. Smart Mobility Project - Big Data Oriented Decisions

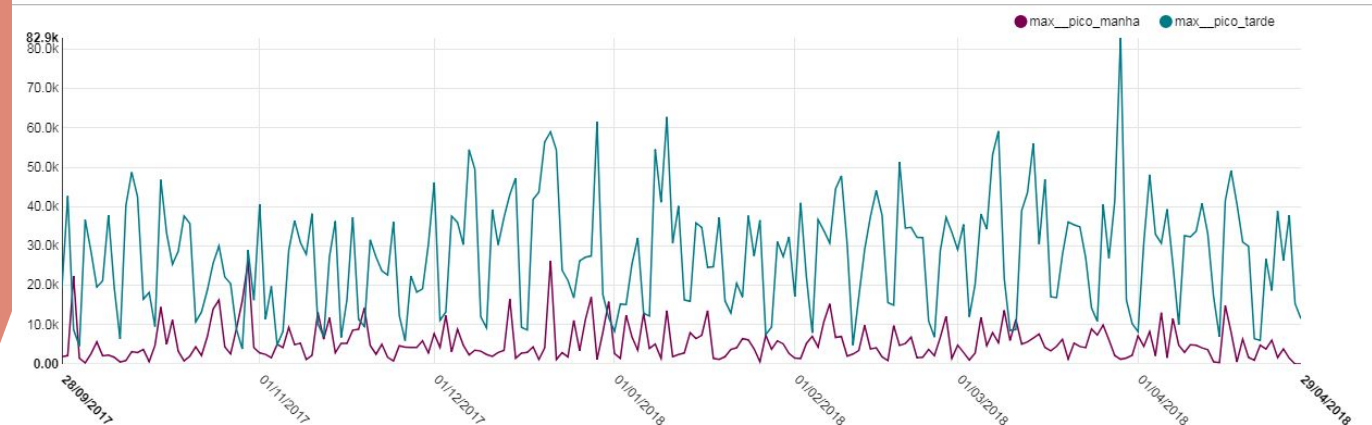
Intelligence and
greater assertiveness
in the decisions

2017 - Connected
Citizens program of
WAZE

Over 1,060,000 km of
updated queues
every 2 minutes



Picos de fila por Dia

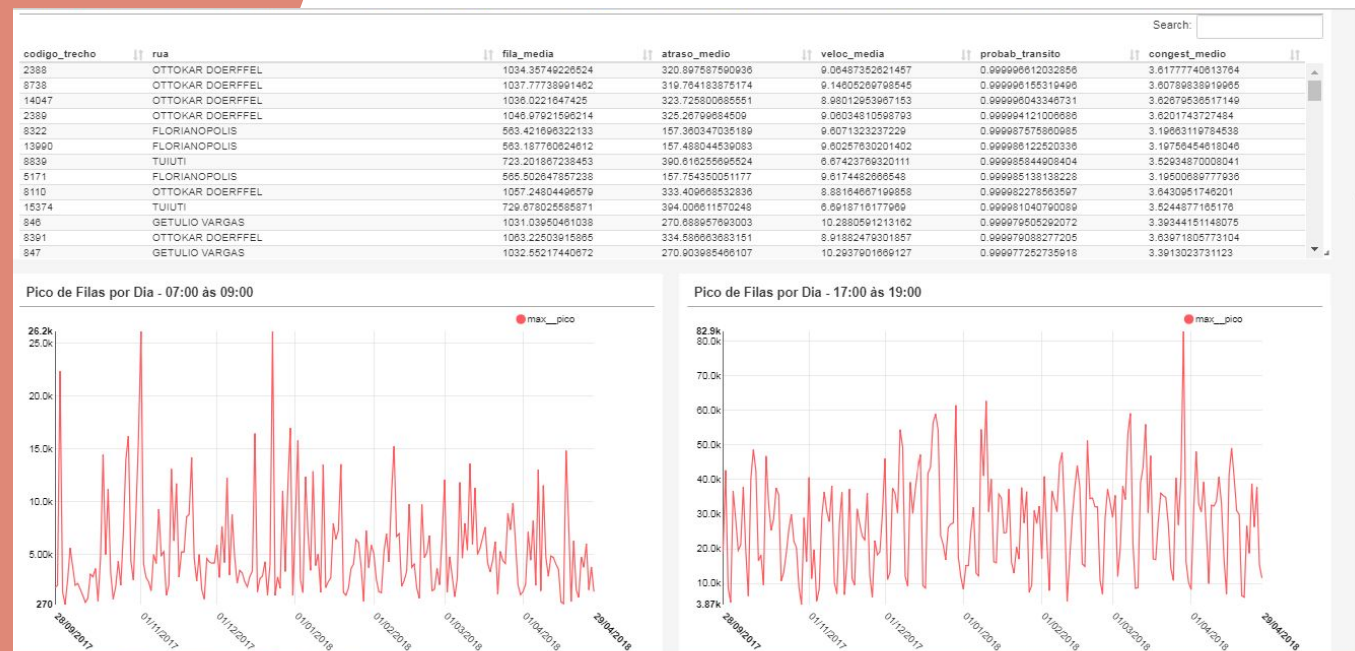


Smart Mobility Database, 2018. PMJ.

3. Smart Mobility Project - Big Data Oriented Decisions

The same is being developed with public transport and cycling network data

Generate rankings to identify the most problematic routes



ABOUT INNOVATIONS

4. Mobility City Lab (2017)

1st City Lab of the Americas
35 interviews +
analysis by indicators

25 ideias

(Governance - Socio Economic Development -
Intermodality - E-mobility - Technical)

1.5 weeks of work
Final workshop
10 ideias





1 "City Green" Certificate - Certificate issued by the city to companies promoting sustainable initiatives

2 Establish low emission area - Creation of low emission area in the city center

3 Open Data Platform - A platform that any city institution can feed to collect all the different types of mobility information. The information must be accessible to the entire population

4 Contest "Innovate your city" - Creation of an online platform, in which the population presents the biggest problems of the city and, through voting, select the best proposals that will receive funding.

5 "Park & Ride Station"

stations - Create parking spaces for cars and bicycles near bus terminals, so citizens can safely park their vehicles in these locations.

6 Bike sharing & safe parking - Installation of several stations for safe bicycle parking and sharing

7 Mobility Hubs - Creation of Mobility Hubs at strategic points to turn bus stations into interactive and attractive meeting points with various services.

8 Public transport by train - The existing structure for cargo transportation today could be used to transport people

9 Last mile delivery with E-cars and E-cargo bikes - Use low pollution and noise transport for the last delivery, in which the freight carried is small

10 Public Transport Tariff new zoning - Separation of the city into zones, with different tariffs for different distances and travel quantities

4. Mobility City Lab (2018)

Open Data Platform - Smart Mobility

- Reinforces the importance of Smart Mobility Project;
- Private initiative partnership in offering the support in greater hardware infrastructure

Last Mile Delivery with E-bikes and E-cars

- Launch a contest for business plans
 - Pilot Project

Bike Sharing & Safe Parking

- Regulatory environment
 - Pilot Project

4. Mobility City Lab (2018)

We are working together with startups and companies, involved in the theme.

Example:

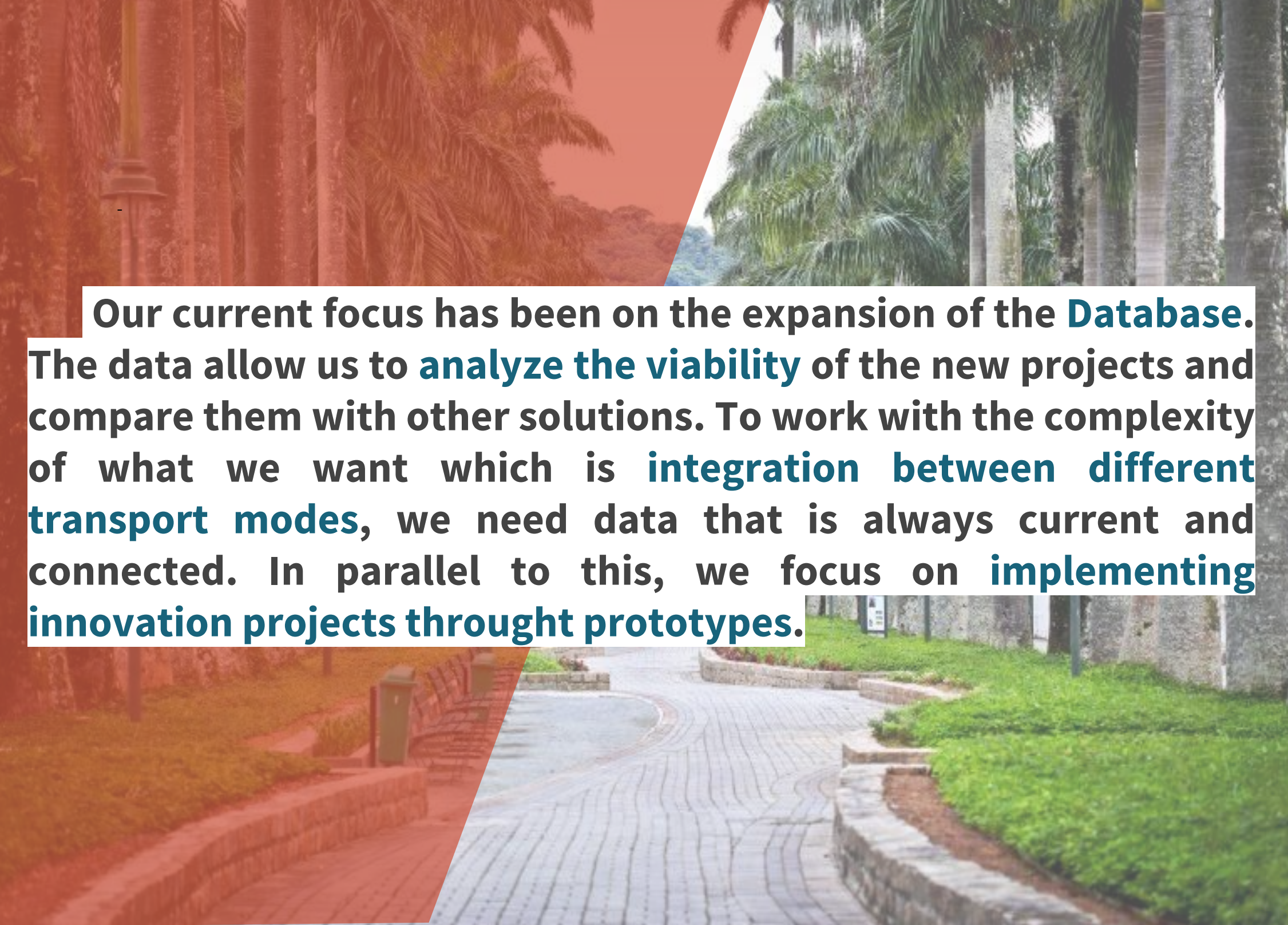
Scipopulis

- Chica Dockless Bike

Marcelo Felipozzi (TRUCKVAN)

- Cargo Bike



The background of the slide is a photograph of a park. In the foreground, there is a paved path made of grey bricks, curving to the right. To the right of the path is a green lawn. In the background, there are several tall palm trees. The left side of the image is partially covered by a semi-transparent orange-red overlay.

Our current focus has been on the expansion of the **Database. The data allow us to **analyze the viability** of the new projects and compare them with other solutions. To work with the complexity of what we want which is **integration between different transport modes**, we need data that is always current and connected. In parallel to this, we focus on **implementing innovation projects through prototypes**.**



Thank you,

Joinville Municipality