

# Combining bicycle data sources: intelligent solutions to enable modal shifts



## Cycling Insights

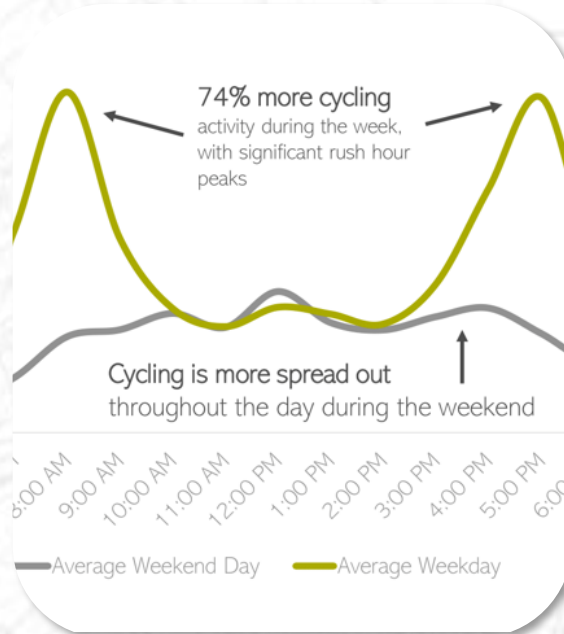
François CARDIN, Sales Representative for Be Counted, Eco-Counter



# Three Leverage Points



**Cycling Network**



**Cycling Usage**



**Cycling Community**



# Two leaders in cycling data collection

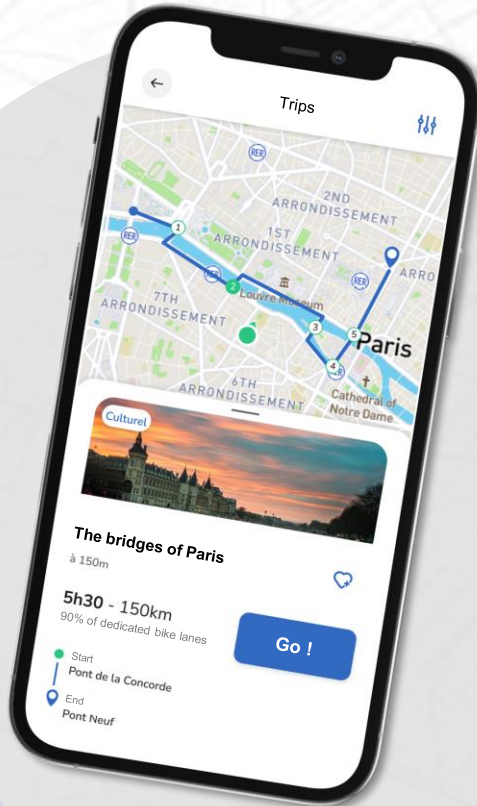


**Ground truth bike counts**  
collected by automatic counters



**GPS data** collected by  
the Geovelo mobile app

# Geovelo, the free app for safe cycling routes



Best cycling routes:

- Safe and reliable cycling routes
- Based on the profile and bike



By cyclists, for cyclists:

- Catalog of rides and trips
- Detection of hazardous areas



Citizen's application :

- Collective challenges
- Users contributions

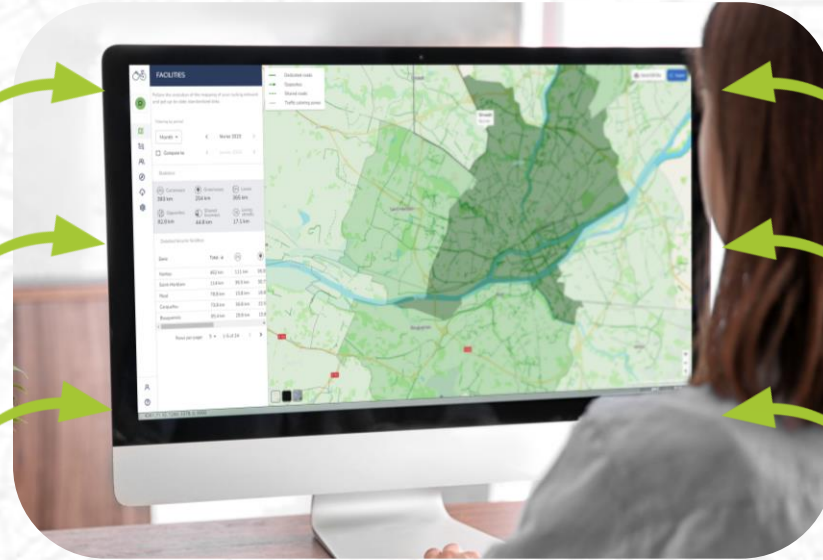


# A all-in-one solution to enable modal shift

Bike counts

Existing cycling infrastructures

GPS Traces



New cycling infrastructures

GIS data

OpenStreetMap

Innovating dashboard combining ground truth data and GPS traces



# Cycling Network



# Cycling Network



## Facilities



March 2024

Compare to

February 2024



+ 19.7 km vs last year

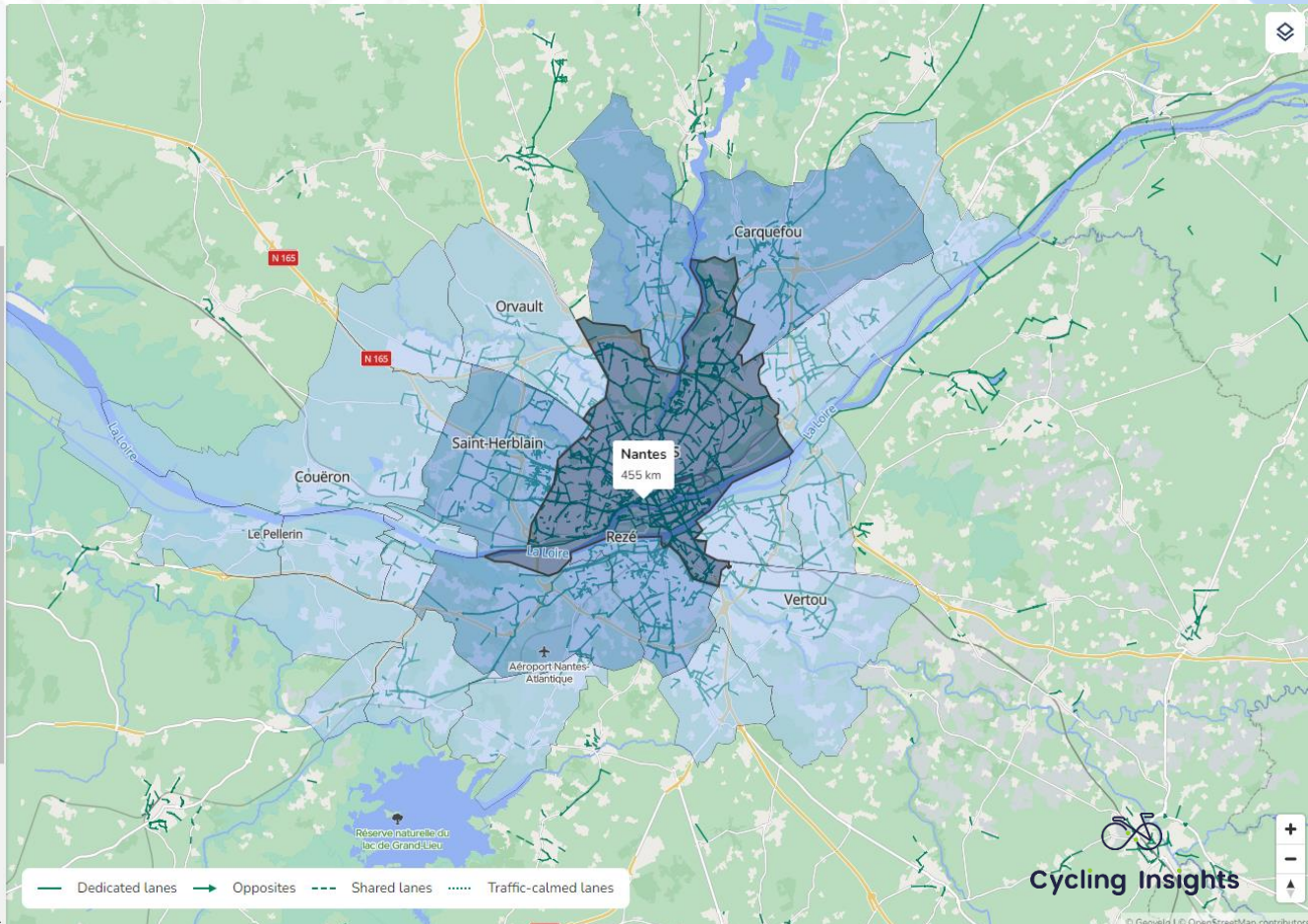
|  |   |   |
|--|---|---|
| <span style="color: green;">●</span> Cycleways<br>401 km | <span style="color: green;">●</span> Greenways<br>240 km      | <span style="color: blue;">●</span> Lanes<br>371 km               |
| <span style="color: blue;">●</span> Opposites<br>90.3 km | <span style="color: blue;">●</span> Shared busways<br>43.8 km | <span style="color: purple;">●</span> Mixed facilities<br>63.2 km |

## Main progress

All zones >

Progression of cycling facilities over the last 12 months

|   |         |
|---|---------|
| <span style="color: red;">●</span> La Chapelle-sur-Erdre<br>57.2 km     | +6 km   |
| <span style="color: red;">●</span> Saint-Sébastien-sur-Loire<br>38.6 km | +3.2 km |



# Cycling Network



## ISOCHRONES

Communicate how well your area is served (downtown, businesses, schools, etc.) and identify areas that are more difficult to access by bicycle.

- Choice of points
- Choice of durations
- Choice of search settings

Cycling profile

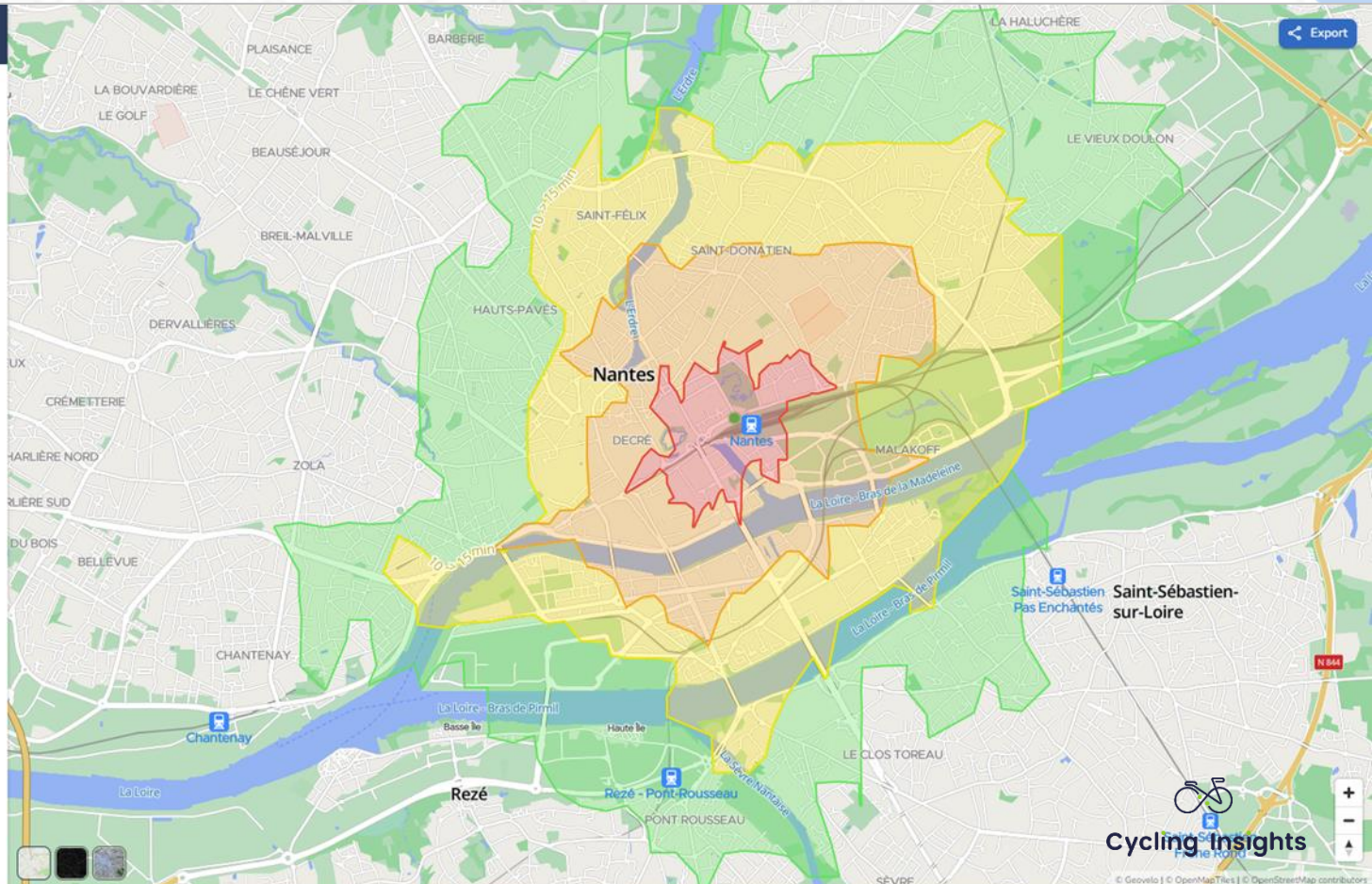
Safe

Electric bike

Previous

Compute

- 0 → 5 min
- 5 → 10 min
- 10 → 15 min
- 15 → 20 min

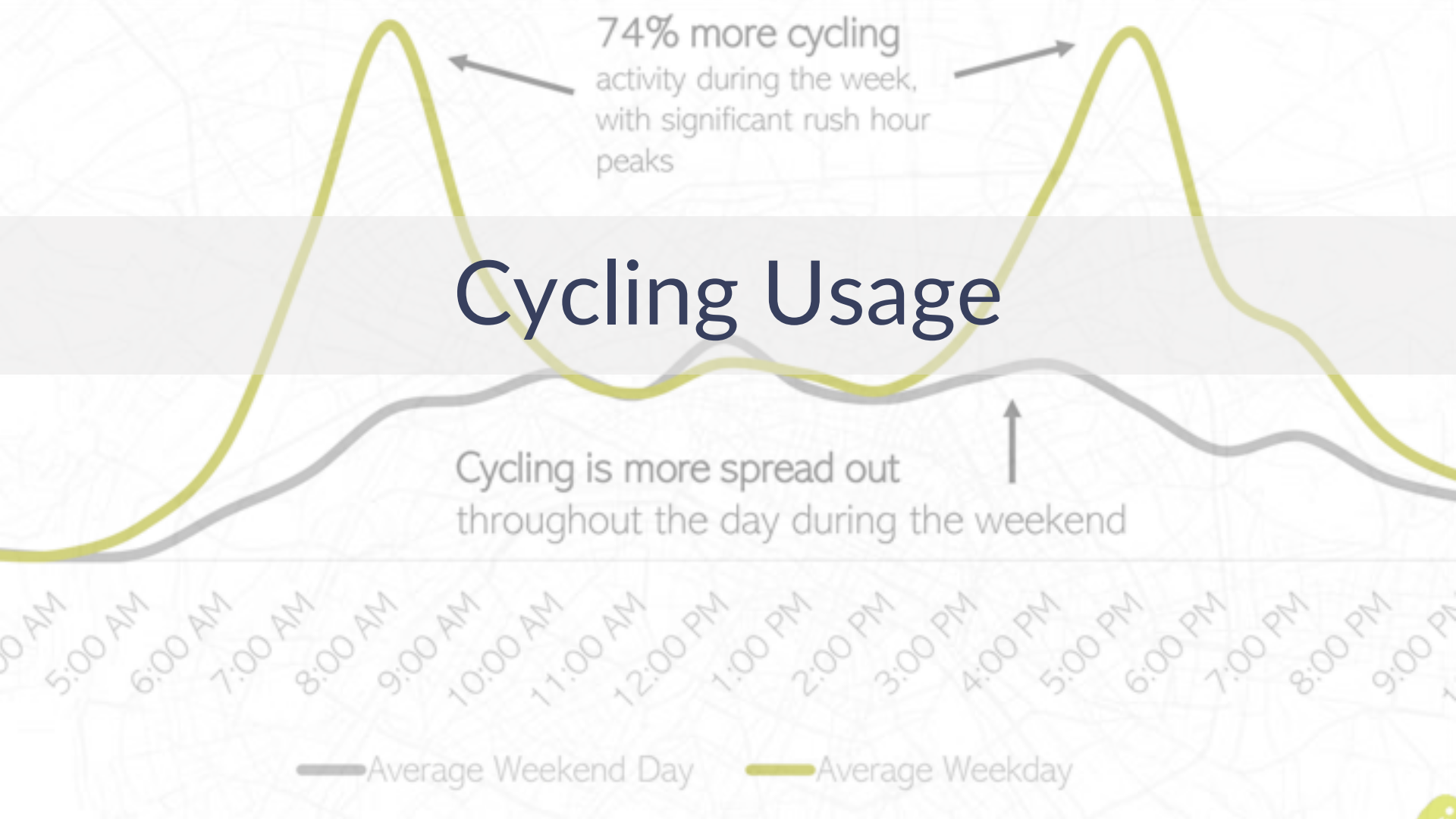


Export



Cycling Insights





# Cycling Usage



## Use of roadways

Discover the distribution of bicycle traffic in your area, to better target future bicycle facilities.

< December 2023 >

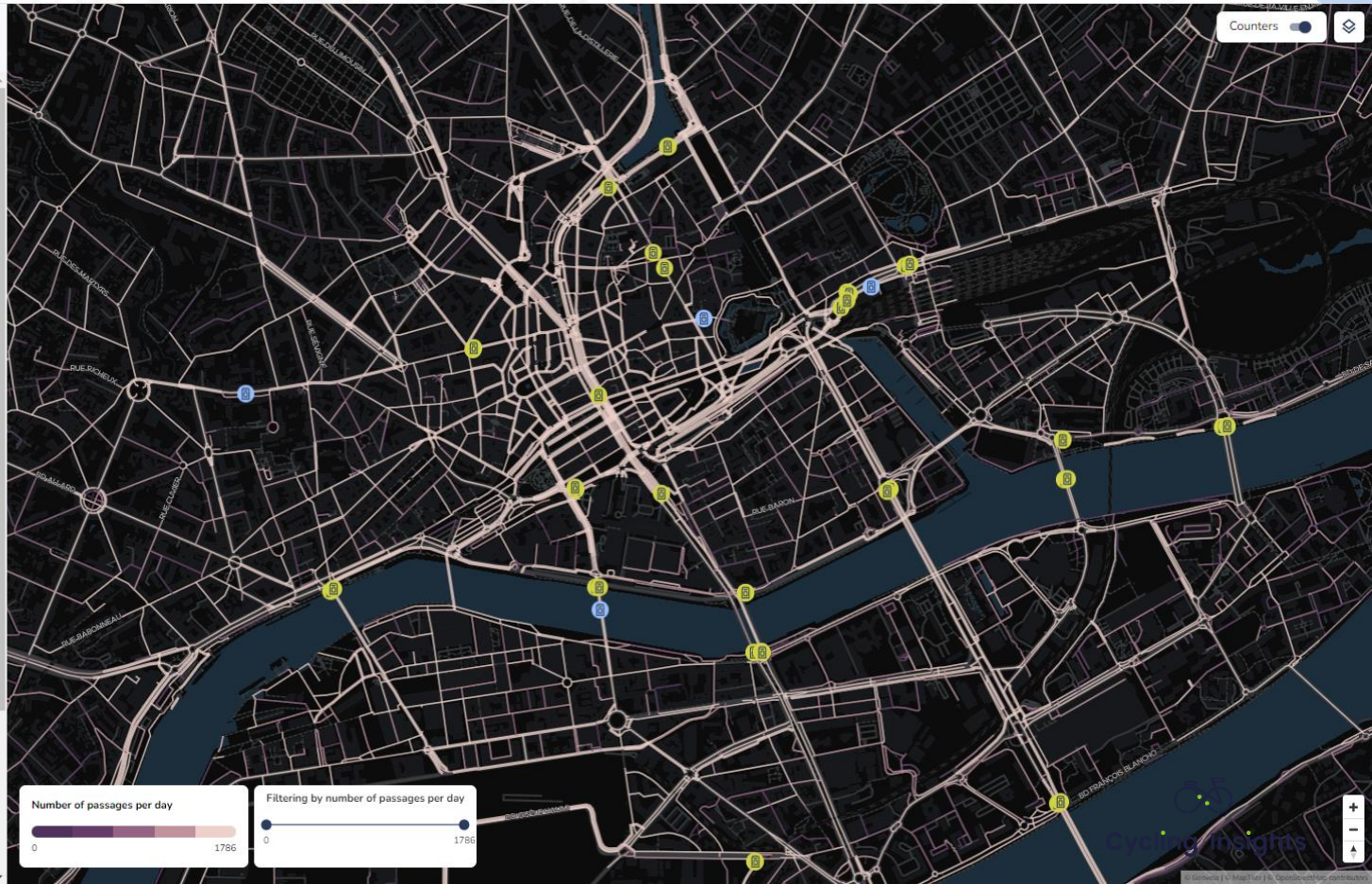
### Safety of the routes taken



### Busiest lanes

As a % of km traveled

|                            |        |
|----------------------------|--------|
| Cycleway - 11608557        | 1.26 % |
| Pont de Pirmil             | 0.53 % |
| Cycleway - 11575886        | 0.43 % |
| Cours des Cinquante Otages | 0.36 % |
| Cycleway - 11575884        | 0.36 % |



Counters



# Cycling Usage

## ORIGIN / DESTINATION

Identify and improve the connections between the municipalities of your territory by analyzing the organization of cyclist flows.

Filtering by period

Month < février 2023 >

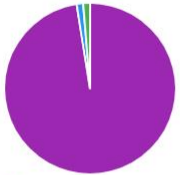
|                     |                      |          |     |
|---------------------|----------------------|----------|-----|
| AM peak<br>7h - 10h | PM peak<br>17h - 20h | Off-peak | All |
|---------------------|----------------------|----------|-----|

Week Weekend All

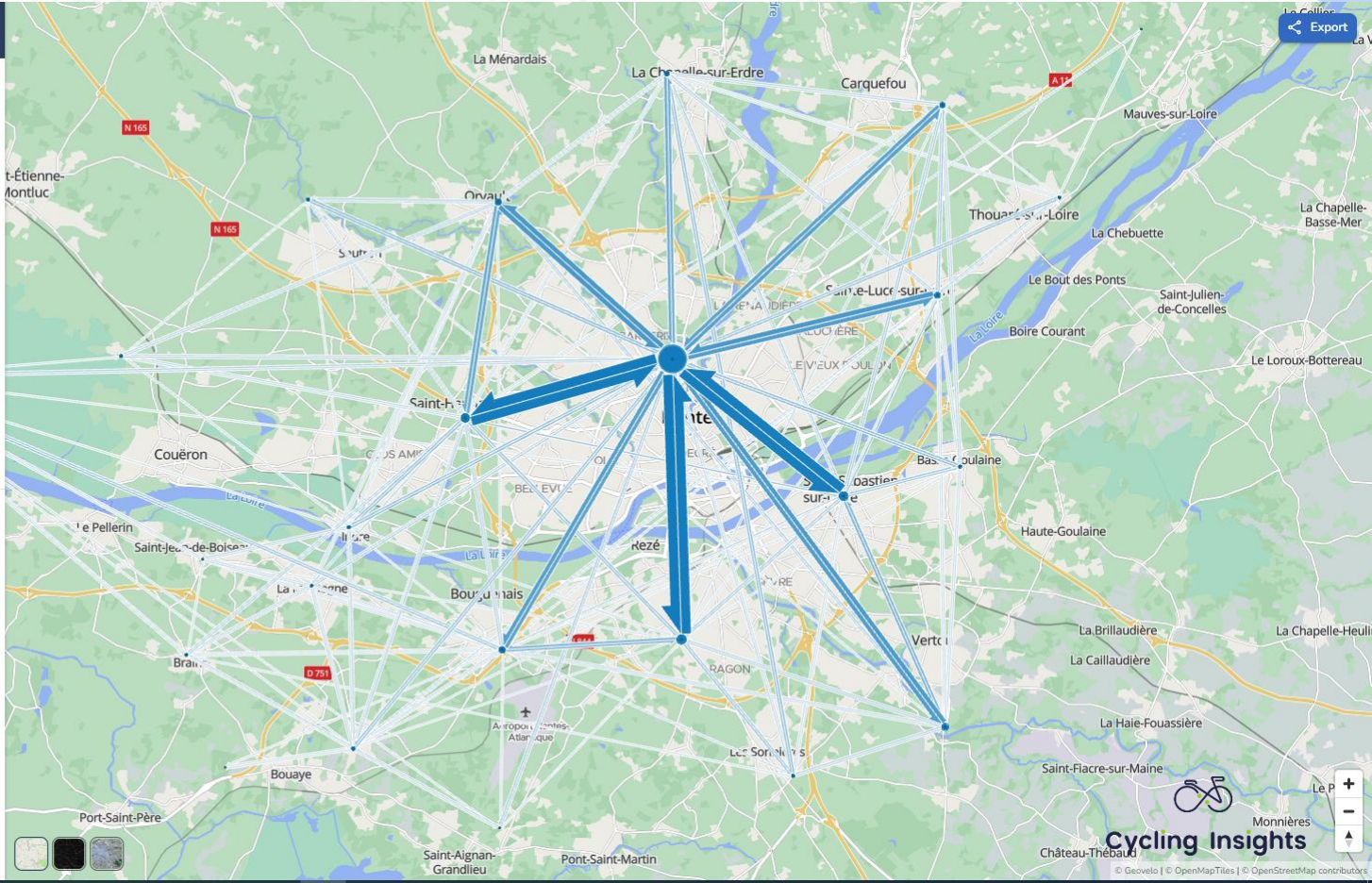
Filtering by count



Statistics



- Internal trips in Demo partner
- Trips from outside Demo partner
- Trips leaving Demo partner



Export

Cycling Insights

## — And go further

- + Safety
- + Stop time
- + Speed
- + Road Quality
- + Desire lines



A large group of cyclists is gathered outdoors at dusk. In the foreground, a person in a bright yellow jacket and a grey helmet is seen from behind, standing next to a bicycle. To their left, another cyclist in a blue long-sleeved shirt and blue pants is also seen from behind, wearing a black backpack. To the right, a person in a yellow high-visibility vest and a black backpack is visible. The background is filled with many other cyclists, some wearing helmets and jackets. Behind them is a modern building with large glass windows and a prominent glass skybridge connecting two parts of the structure. The sky is a deep blue, and some lights are visible in the distance, suggesting an evening event or gathering.

# Cycling Community

# Cycling Community



## Communication from the city

The screenshot displays a cycling community application interface. On the left, a vertical sidebar contains navigation icons: a bicycle, a list, a person, a location pin, a gear, and a profile. The main content area is divided into two sections. The top section, titled "Statistics", shows two data points: "In the last 30 days" with 297 new members and 0 posted messages, and "From the beginning" with 610 members and 1 posted message. The bottom section, titled "Post history", shows a list of posts, with the first one by Gaël Geovelo published 4 months ago. A "New post" modal is open in the foreground, featuring a rich text editor with bold, italic, and link options. The text in the editor reads "Hello ! We are happy to announce that we have a new bike infrastructure in town." Below the editor are fields for "Link url" and "Link label", and a "CHOOSE AN IMAGE" button with a file name "15342820821\_2a9155e96c\_b.jpg". At the bottom of the modal are "Close and lose changes" and "Post" buttons.

| Category            | Value | Unit            |
|---------------------|-------|-----------------|
| In the last 30 days | 297   | New members     |
| In the last 30 days | 0     | Posted messages |
| From the beginning  | 610   | Members         |
| From the beginning  | 1     | Posted message  |



# Cycling Community



Communication  
from the city



Challenges



# Cycling Community



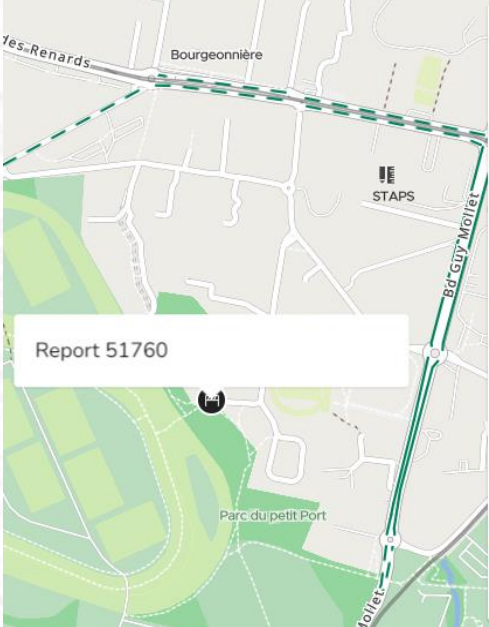
Communication  
from the city



Challenges




Contributions &  
Reports




Report 51760

**Blocked road #51760** Open

Created by Cycliste 1242565 on Sep 3, 2023 (Android)  
Last update on September 3, 2023

 Cycliste 1242565  
September 3, 2023 11:02 AM (Android)

Road blocked



Update See on... Respond





# Hints from City of Montpellier, France



**7.6% in 2020**  
**+3.6 pp between 2014 -2020**

*Data provide objective arguments to guide development choices*

Arnaud Grenier  
*Active modes infrastructures -Montpellier*

*A participative tool that relies on the OSM community and the municipality*

Thomas Lavaur  
*Bike plan manager - Montpellier*

