transform
transport

Transform Transport, Systematica's Research Foundation
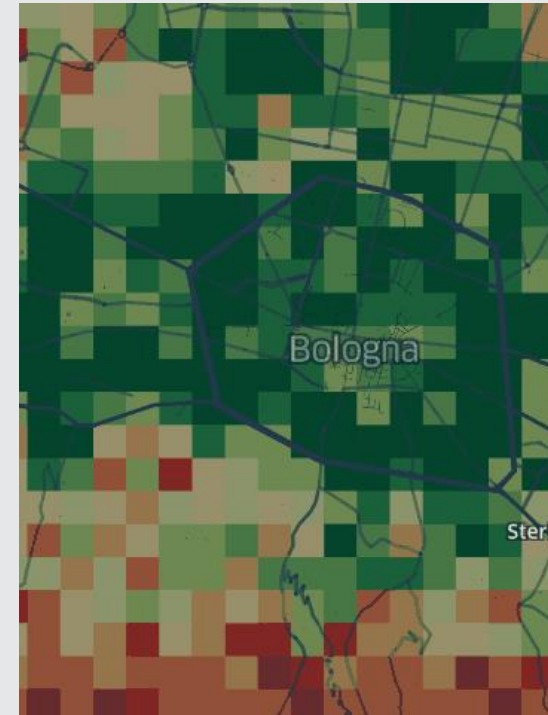
□ Systematica

We focus on:

+ Urban Mobility Metrics
+ Livable Streets
+ Inclusive Mobility

Shifting Paradigm
the impact of Covid-19 on transport planning
SECOND EDITION

TeMA
Special Issue 1.2022
New scenarios for safe mobility
in urban areas

Fondazione Transform Transport Launch
May 11th at 6:30 pm

RESEARCH AND INNOVATION IN MOBILITY
AND TRANSPORT PLANNING

Social Involvement

Worldwide Commitment

Collaborative Approach

We are a non-profit organization established to improve the quality of our cities and people's lives. We are committed to exclusively focus on research initiatives that can have a positive impact on our society and environment.

We acknowledge the complexity and

diversity of mobility challenges in different environments. Our team has extensive experience in a wide array of different social, geographical and climate contexts around the globe.
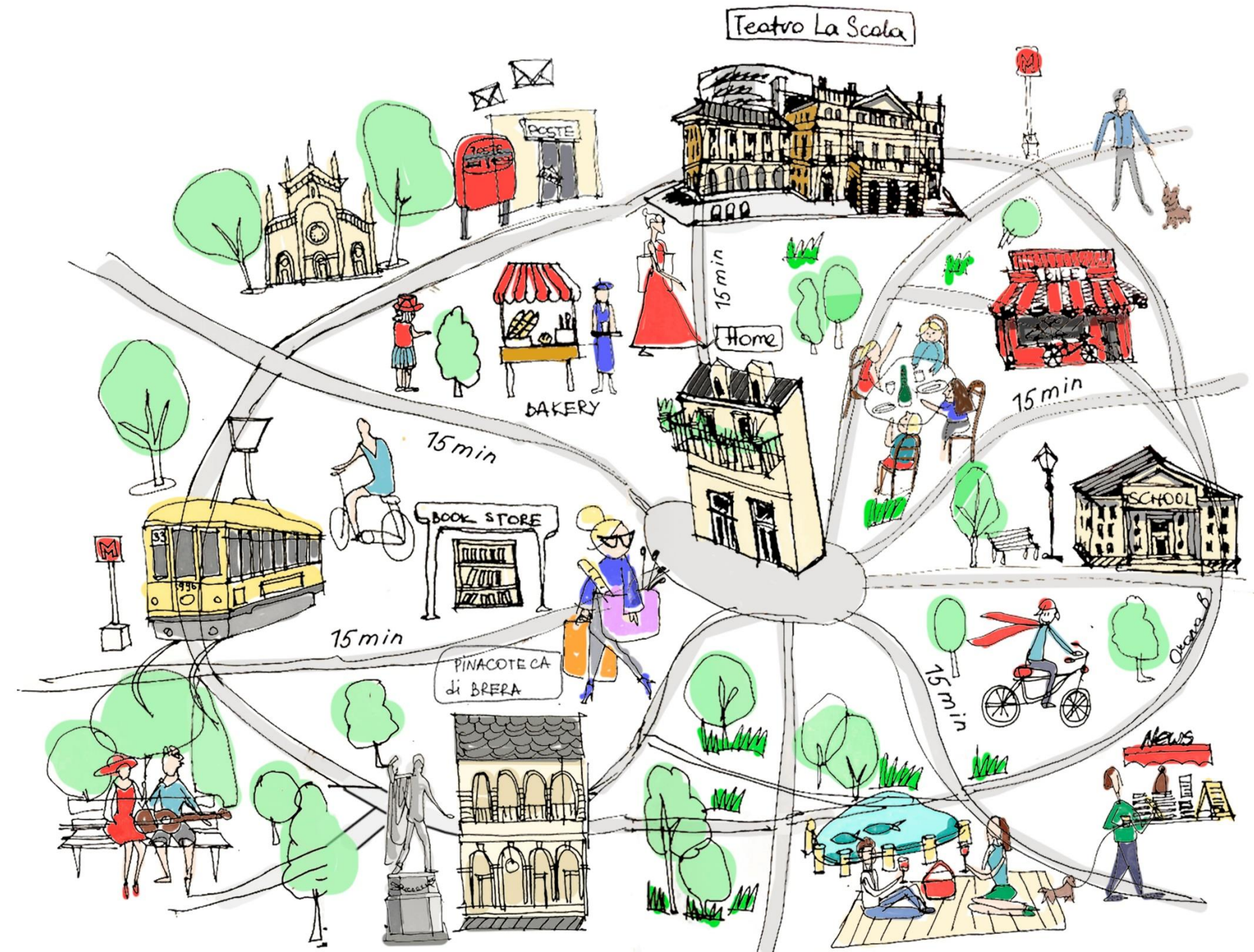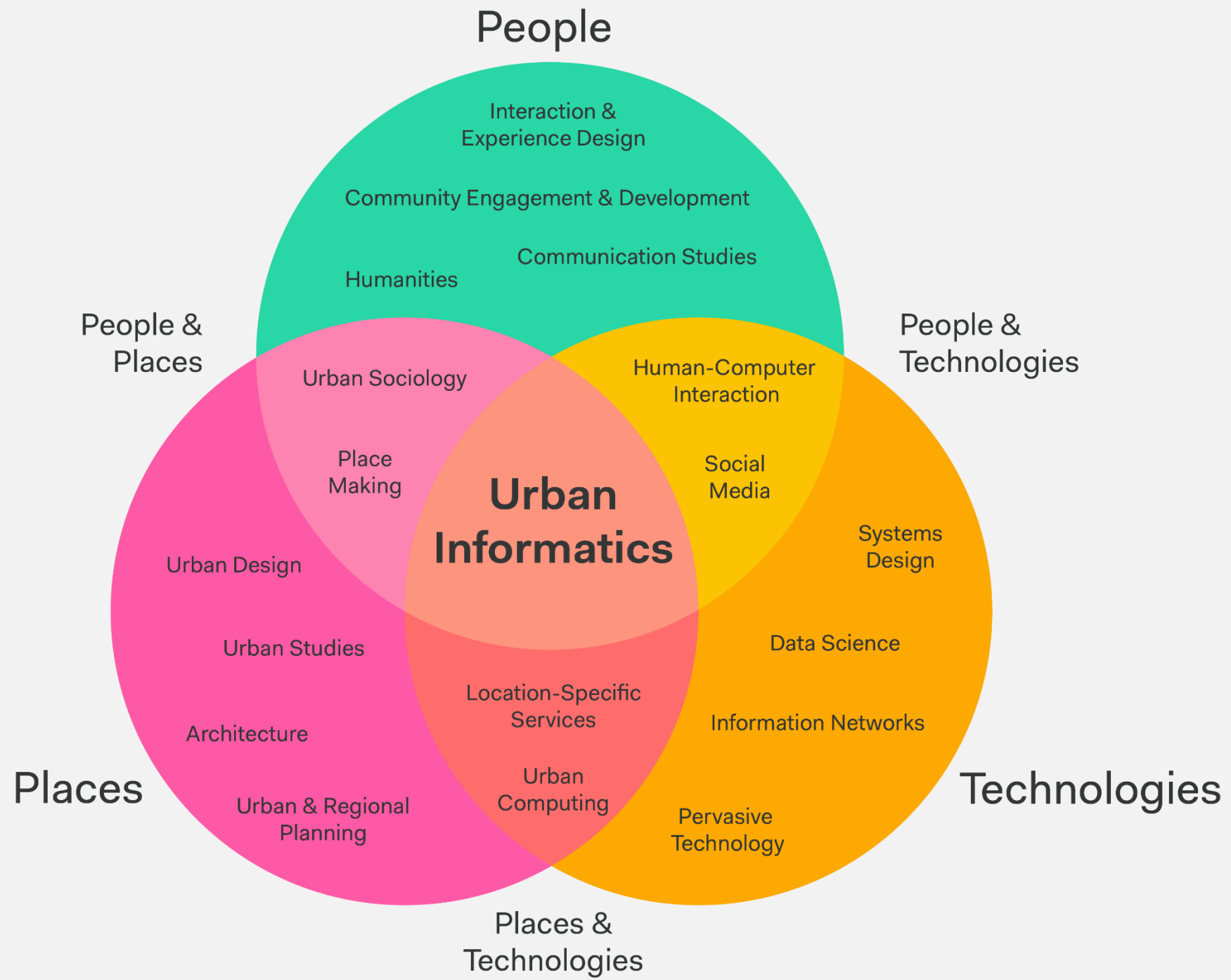
We tackle complex challenges through an

experimental approach, including multidisciplinary expertise within the process. We collaborate with Universities, research centers, innovation hubs, and technology providers.
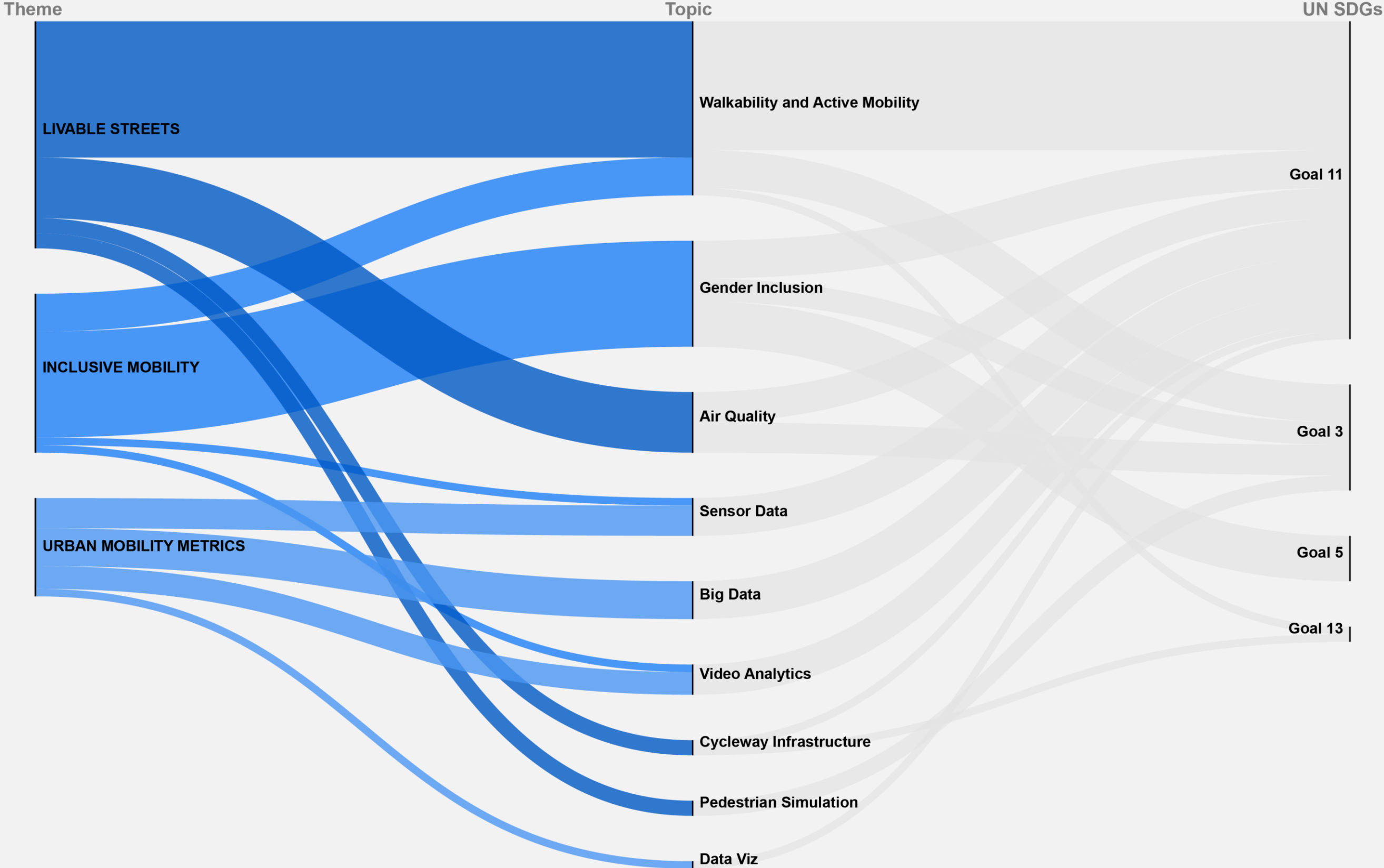
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Multidisciplinary toolkit

Urban Informatics

People

- Interaction & Experience Design
- Community Engagement & Development
- Communication Studies
- Humanities

People & Places

- Urban Sociology
- Place Making

People & Technologies

- Human-Computer Interaction
- Social Media

Places

- Urban Design
- Urban Studies
- Architecture
- Urban & Regional Planning

Technologies

- Systems Design
- Data Science
- Information Networks
- Pervasive Technology

Places & Technologies

- Location-Specific Services
- Urban Computing

Urban Informatics

Research Themes and Topics

UN SDGs tackled through our research activities

+ Sustainable Cities and Communities
+ Good Health and Well-Being
+ Climate Action
+ Gender Equality

+ Books
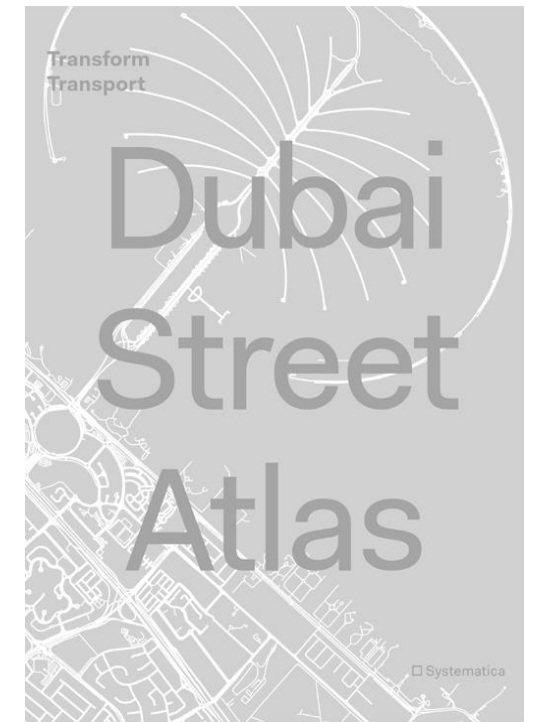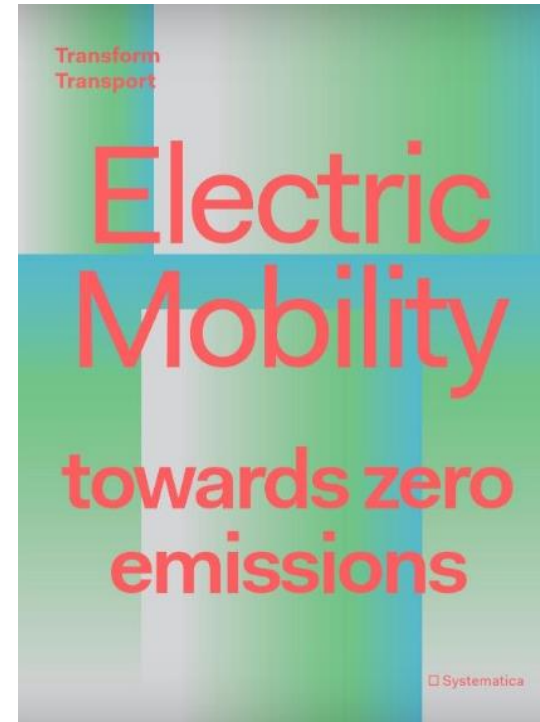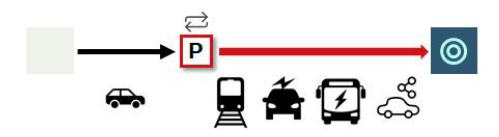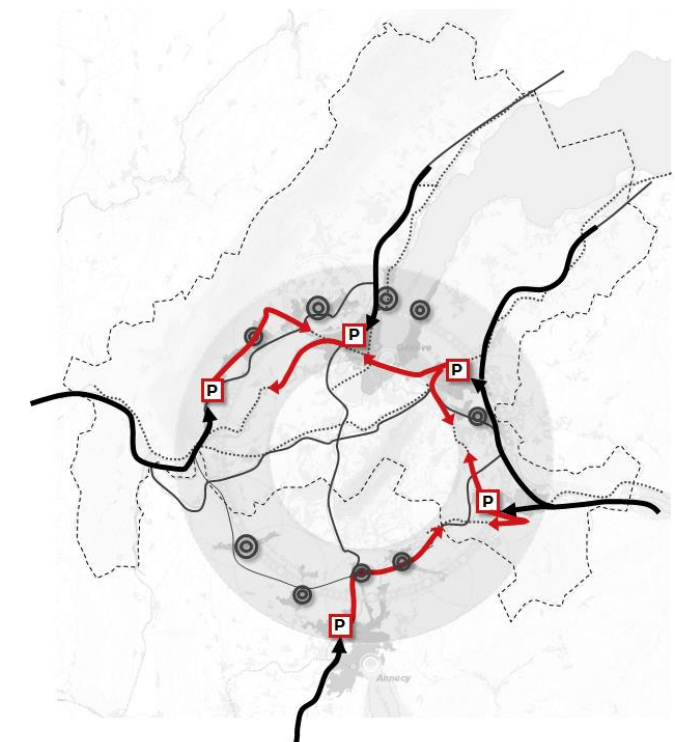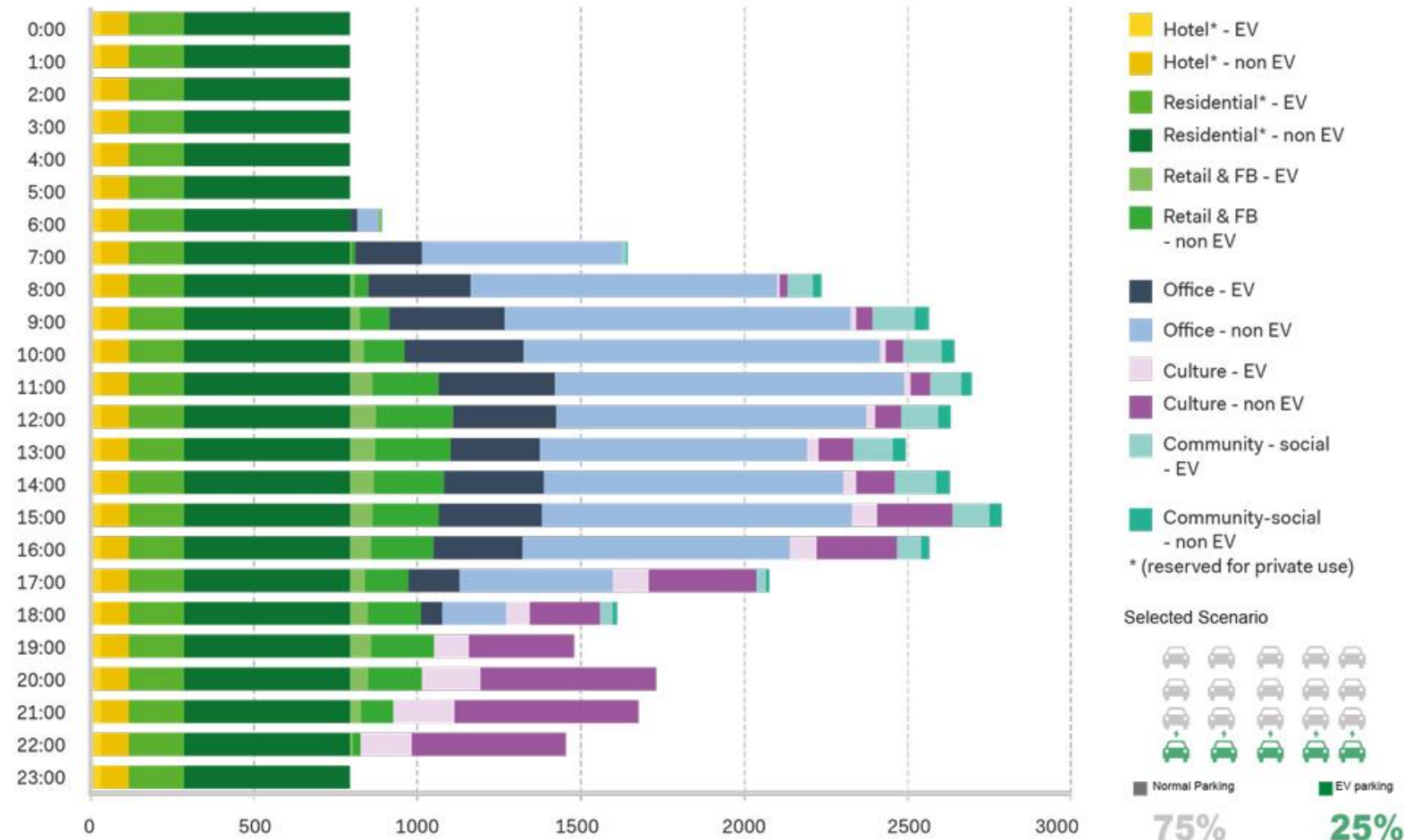
Electric Mobility

In this publication we take a look at the electric mobility uprising and how it is poised to change the cities we live in and plan for.
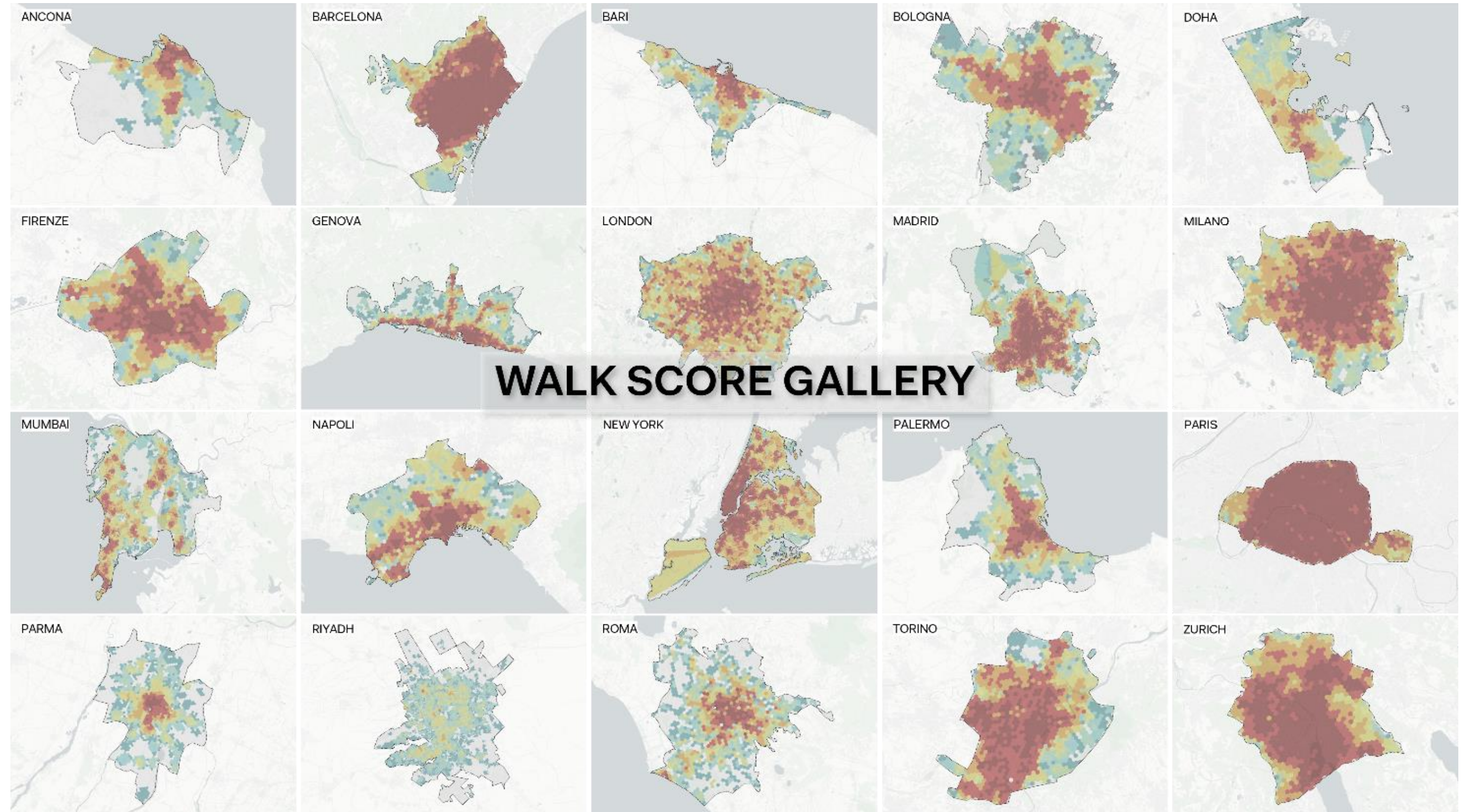
+ Urban Mobility Metrics

Walk Score Toolkit

Transform Transport
2024

Case Study: 100+ NET ZERO CITIES

Walk Score Toolkit is a python tool to quickly assess the Walk Score, a widespread walkability measure, identifying the availability of proximity essential services in urban areas.
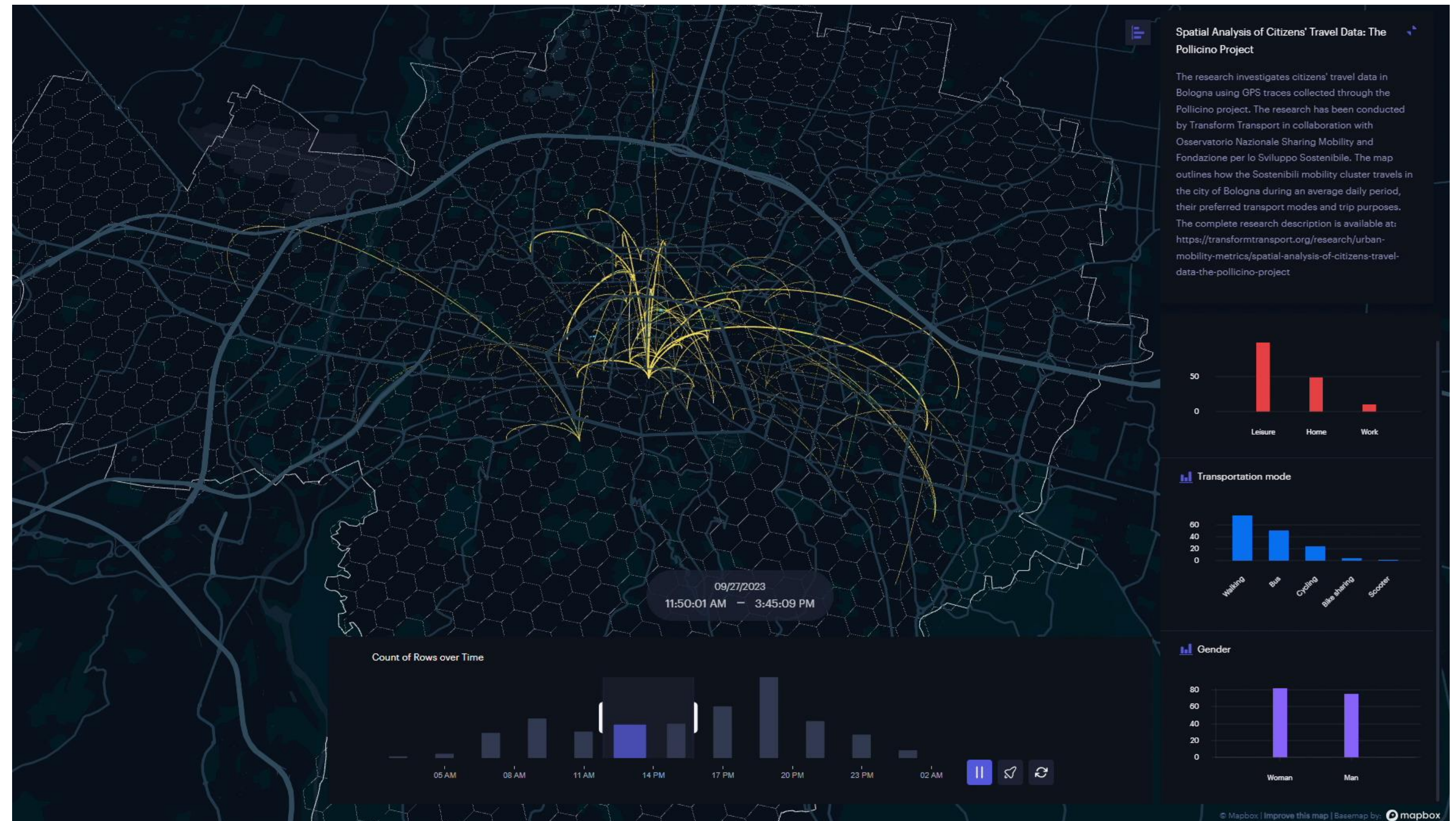
▶ **LEARN MORE**

WALK SCORE GALLERY

Spatial Analysis of Citizens' Travel Data

Transform Transport & Osservatorio Nazionale Sharing Mobility & Fondazione per lo Sviluppo Sostenibile
2023

Case Study: Bologna, Italy

The goal of this study was to extract the main spatial mobility patterns in the city of Bologna relying on the GPS data to support the decision-making process of local administrations in the field of sustainable mobility

▶ LEARN MORE

Deep Learning Video Analytics

Transform Transport
2022

Case Study: Milan, Italy

Video analytics reveal pedestrian dynamics in Milan's main square, distinguishing tourists from commuters in the popular Piazza Duomo

▶ **LEARN MORE**

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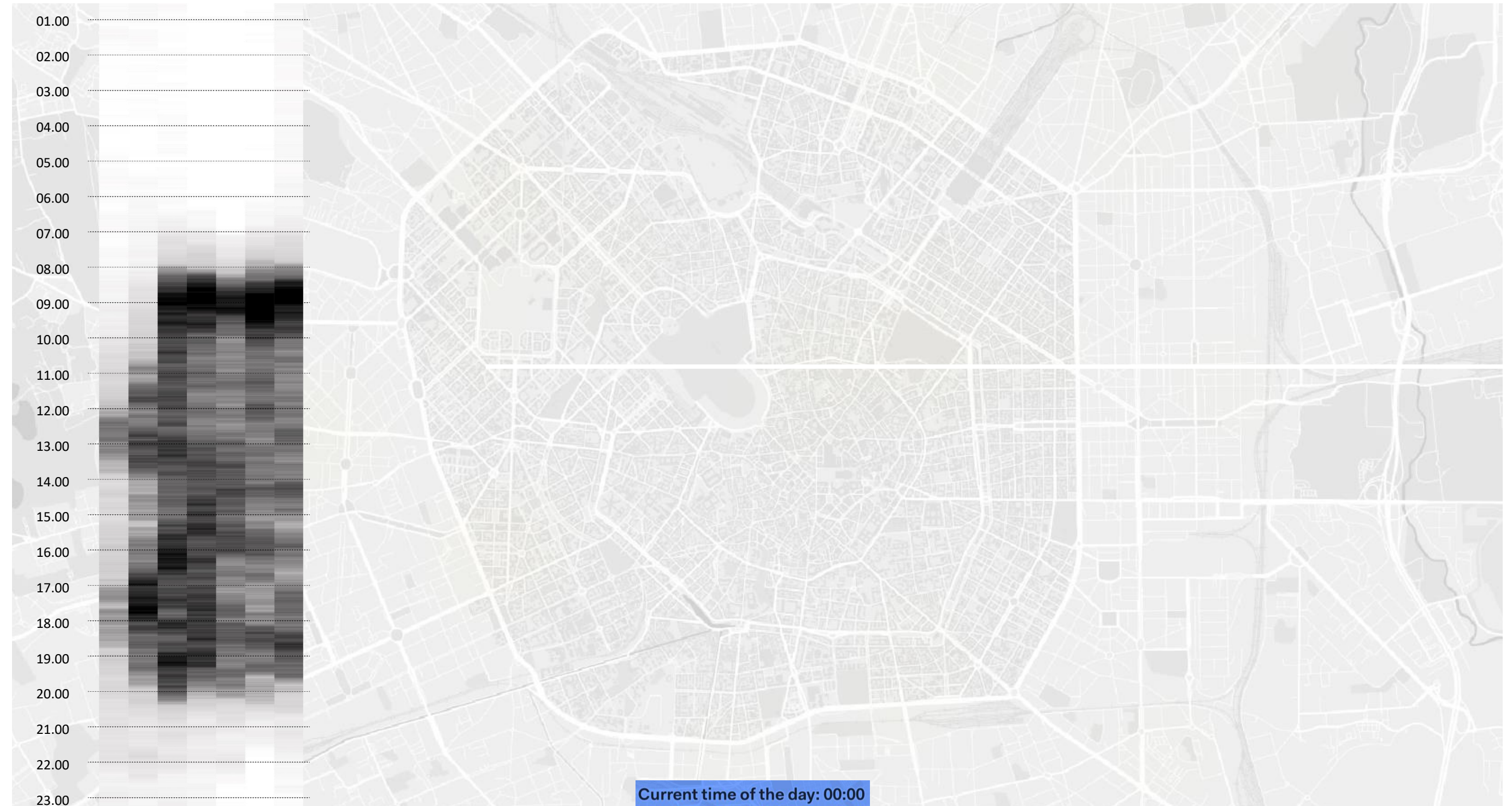transport

Carsharing Data

Transform Transport
2021

Case Study: Milan, Italy

Carsharing data analysis reveals the occasional mobility nature of carsharing in Milan and its non-competitiveness with public transport options

▶ **LEARN MORE**

Current time of the day: 00:00

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+ Livable Streets
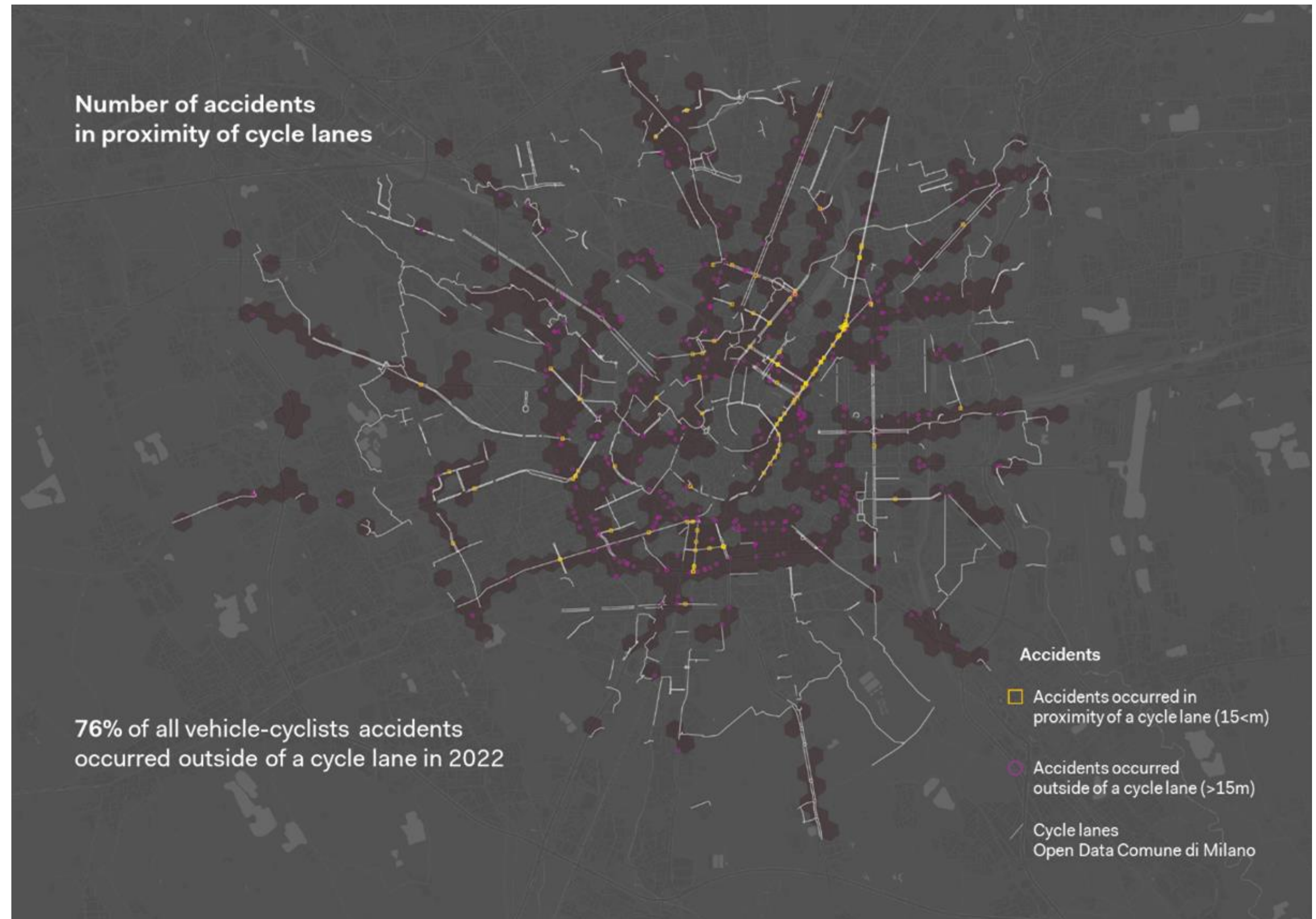
Cycle Safety in Milan

Transform Transport
2024

Case Study: Milan, Italy

**Cycling volumes increased by 56% in Milan between 2019 and 2022.
This study aims at investigating the relation between vehicular traffic, cycling volumes, and proposes possibilities for new cycle infrastructure.**

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Number of accidents
in proximity of cycle lanes

76% of all vehicle-cyclists accidents
occurred outside of a cycle lane in 2022

Accidents

□ Accidents occurred in
proximity of a cycle lane (15<m)

● Accidents occurred
outside of a cycle lane (>15m)

Cycle lanes
Open Data Comune di Milano

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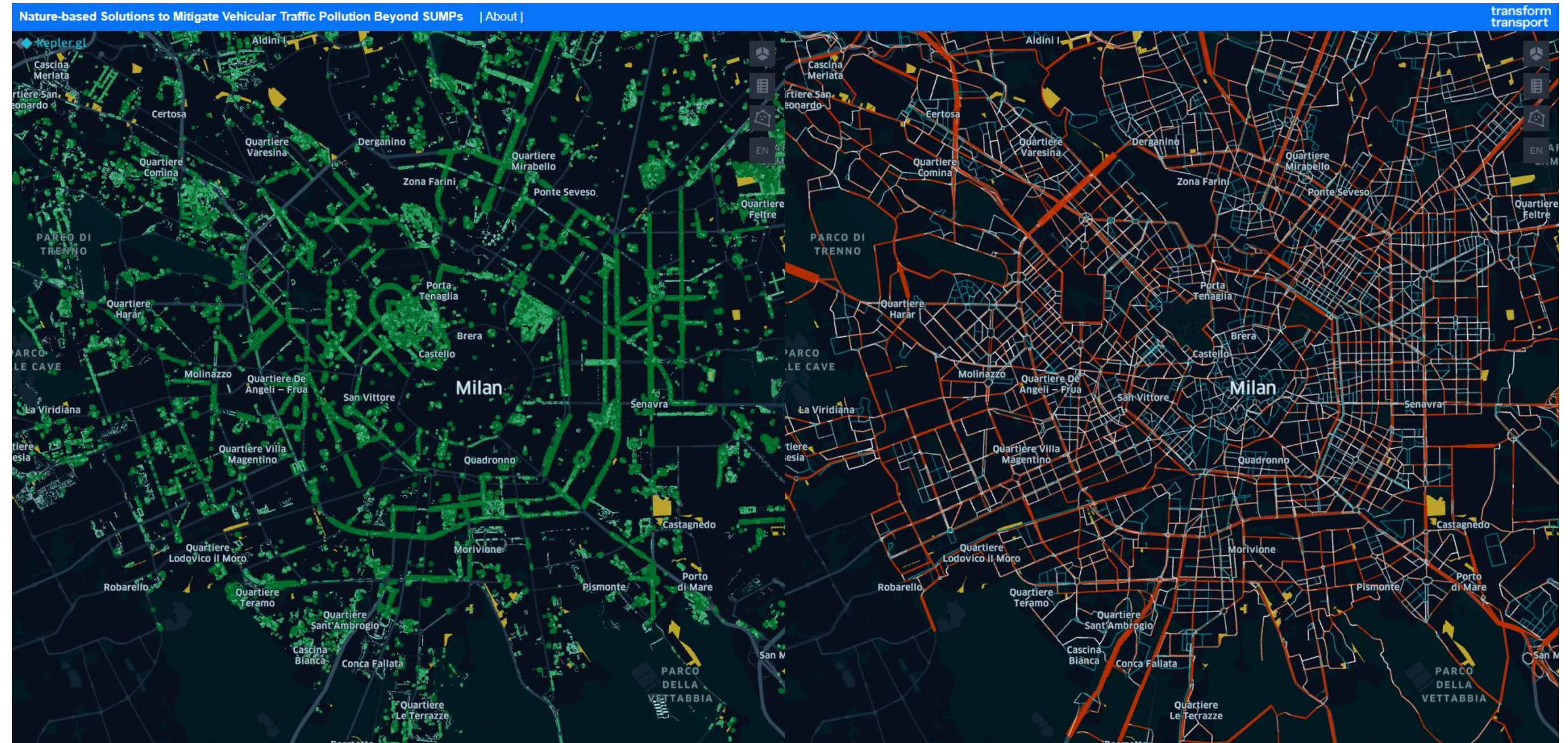transport

Nature-based Solutions

Transform Transport & LAND Research Lab® 2022

Case Study: Milan, Italy

An innovative nature-based approach to effectively tackle vehicle emissions by considering the role of urban green areas, relying on the capacity of trees to absorb pollutants

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Milan Sidewalks Map

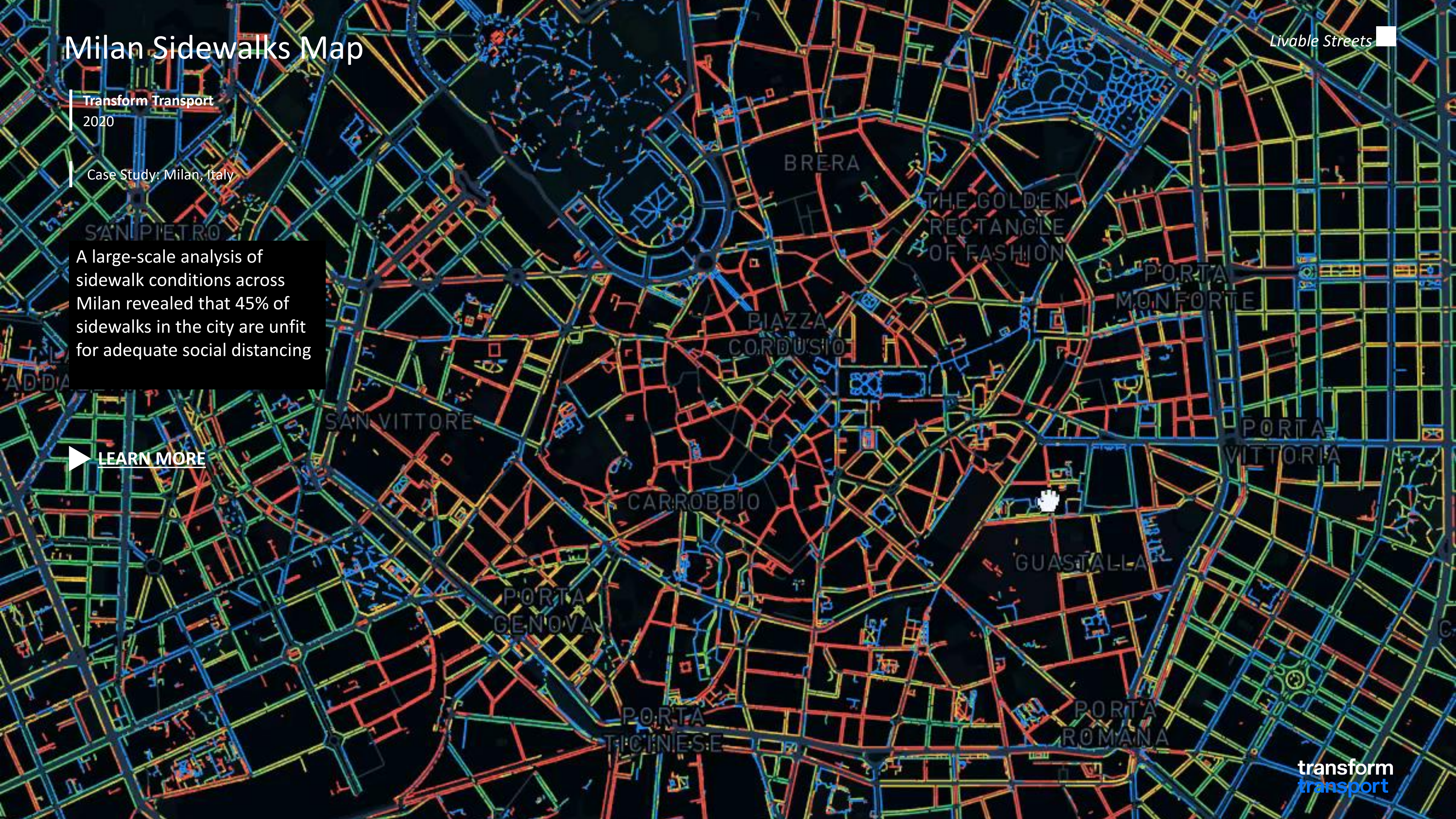**Transform Transport**
2020

Case Study: Milan, Italy

A large-scale analysis of sidewalk conditions across Milan revealed that 45% of sidewalks in the city are unfit for adequate social distancing

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Livable Streets ■

BRERA

THE GOLDEN
RECTANGLE
OF FASHION

PORTA
MONFORTE

SAN PIETRO

PIAZZA
CORDUSIO

PORTA
VITTORIA

SAN VITTORE

ADDA

CARROBBIO

GUASTALLA

PORTA
GENOVA

PORTA
TICINESE

PORTA
ROMANA

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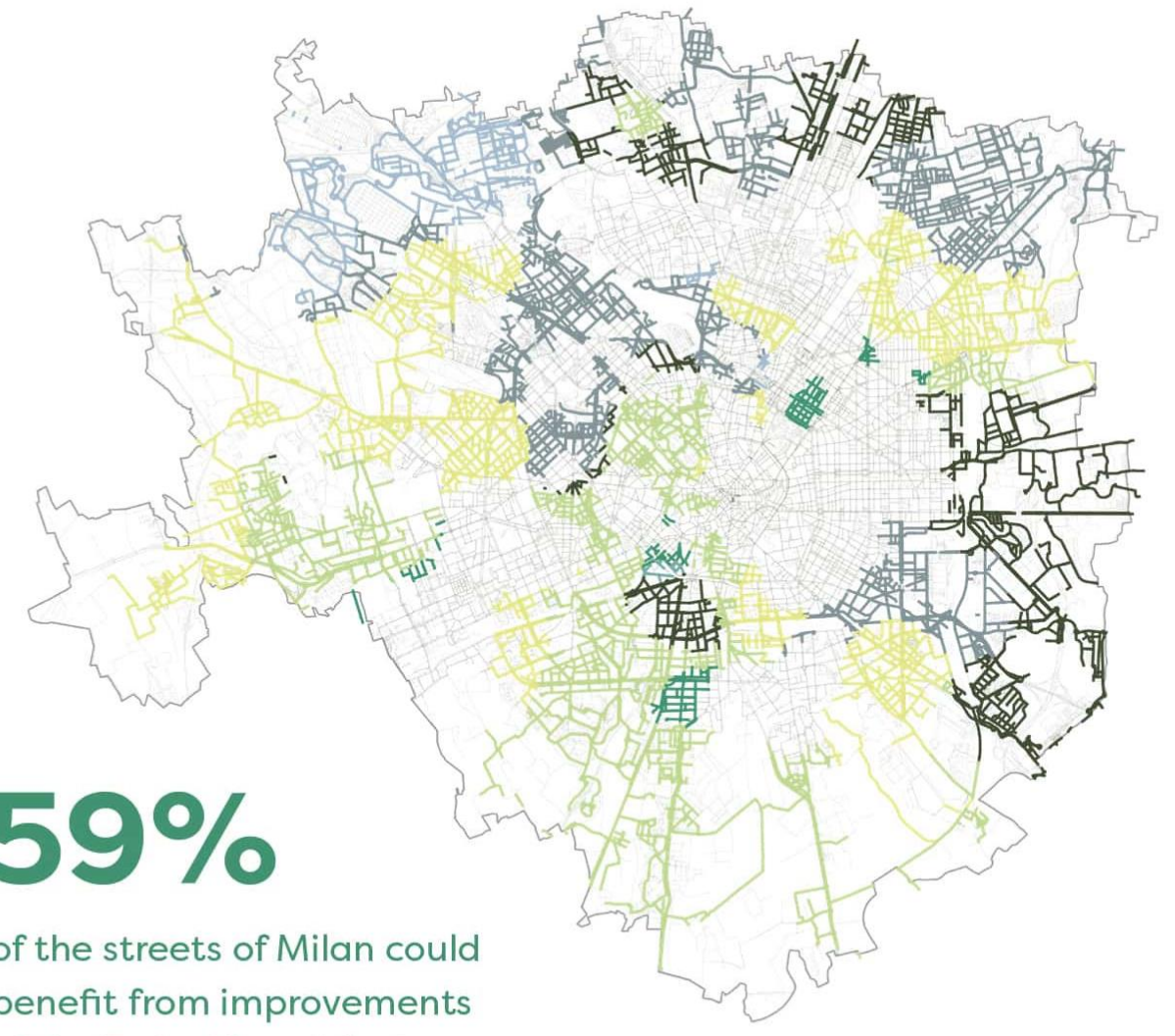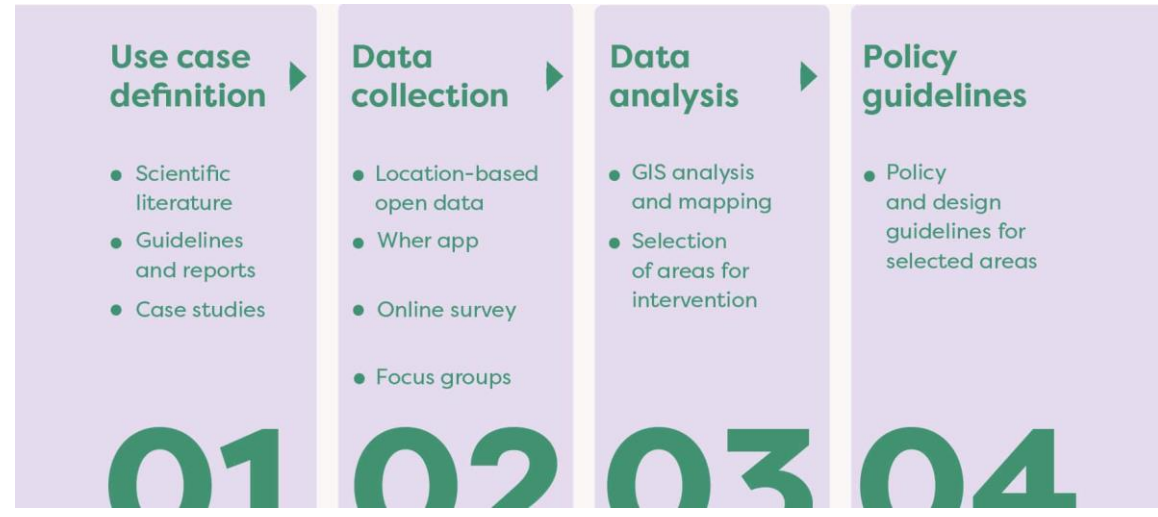
+ Inclusive Mobility

STEP UP – Walkability for Women in Milan

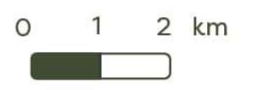**Transform Transport, TeMA Lab, Sex & the City, Walk21**
2024

Case Study: Milan, Italy

This project aims to study women's perceptions of safety while walking at night in the city of Milan in relation to the urban characteristics of its public spaces
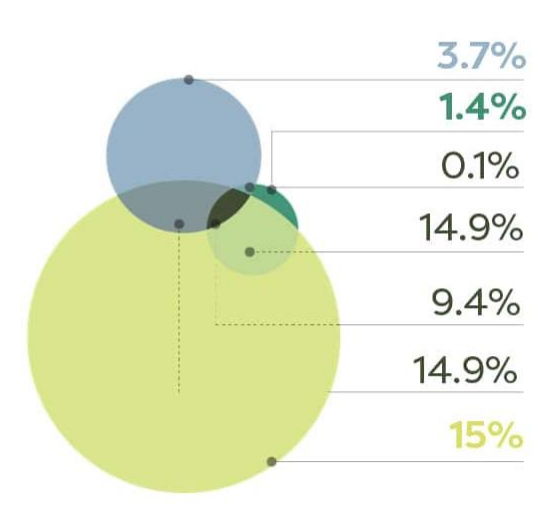
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Gender

Age

Sexuality

Ethnicity

Disability

59%

of the streets of Milan could benefit from improvements of the **3 significant factors**

0   1   2   km

Food & Beverage   Public Lighting   Public transport

Use case definition	Data collection	Data analysis	Policy guidelines
• Scientific literature • Guidelines and reports • Case studies	• Location-based open data • Wher app • Online survey • Focus groups	• GIS analysis and mapping • Selection of areas for intervention	• Policy and design guidelines for selected areas
01	**02**	**03**	**04**

Percentages of network

- 3.7%
- 1.4%
- 0.1%
- 14.9%
- 9.4%
- 14.9%
- 15%

Streets kilometers

- 280 km
- 277 km
- 276 km
- 174 km
- 68 km
- 26 km
- 2 km

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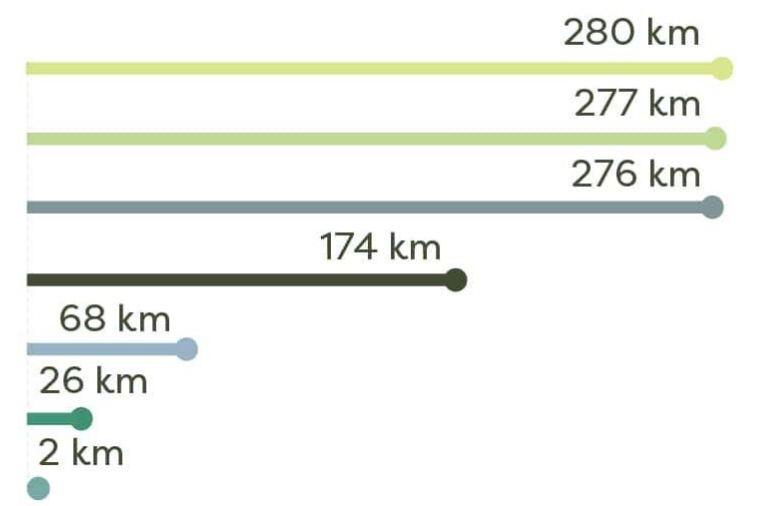
Walkability for Children

Transform Transport & Fondazione Innovazione Urbana
2022

Case Study: Bologna, Italy

The impact of a tactical urbanism intervention in the city of Bologna is studied through the analysis of public space use using video analytics
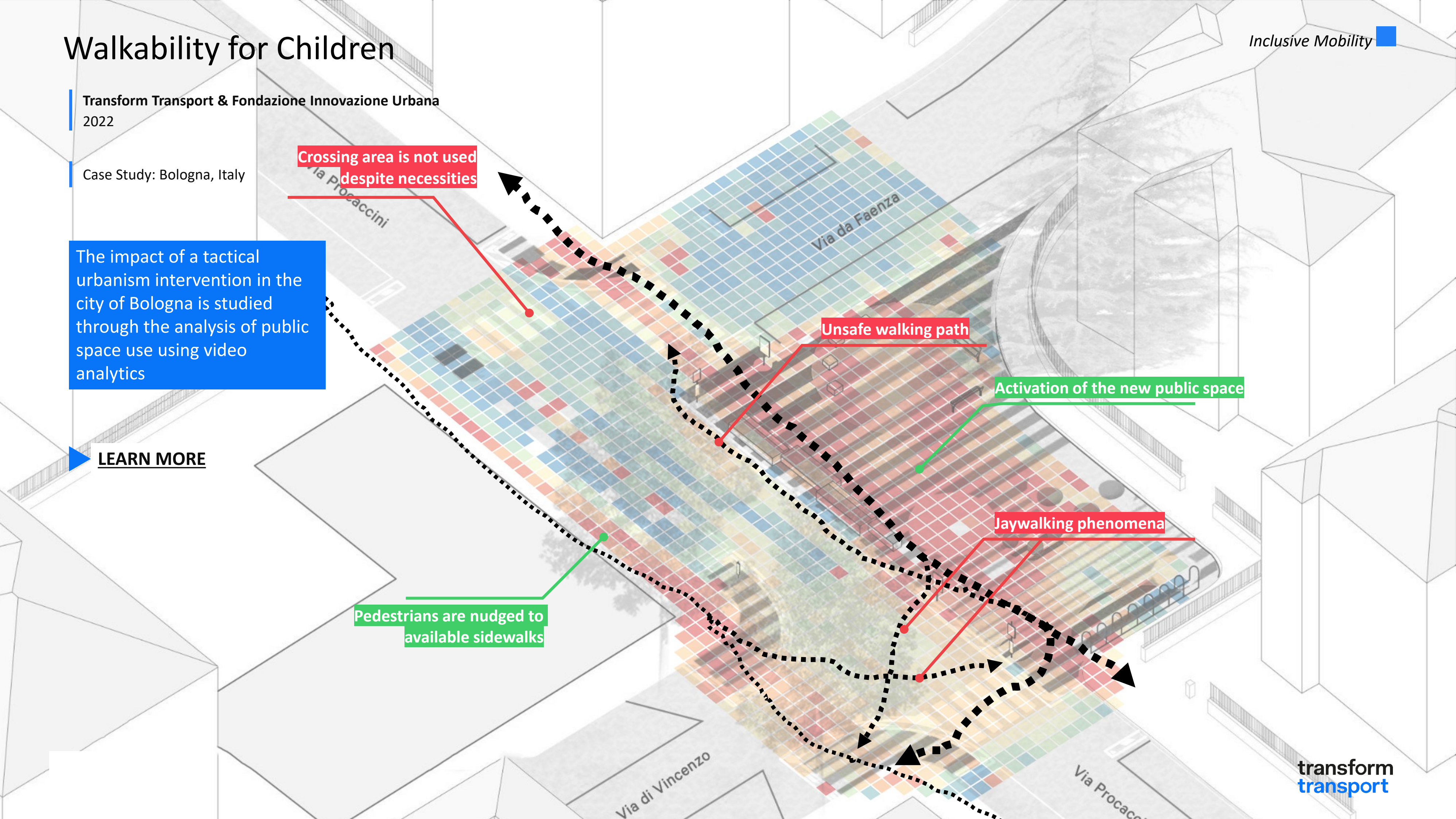
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Crossing area is not used despite necessities

Unsafe walking path

Activation of the new public space

Jaywalking phenomena

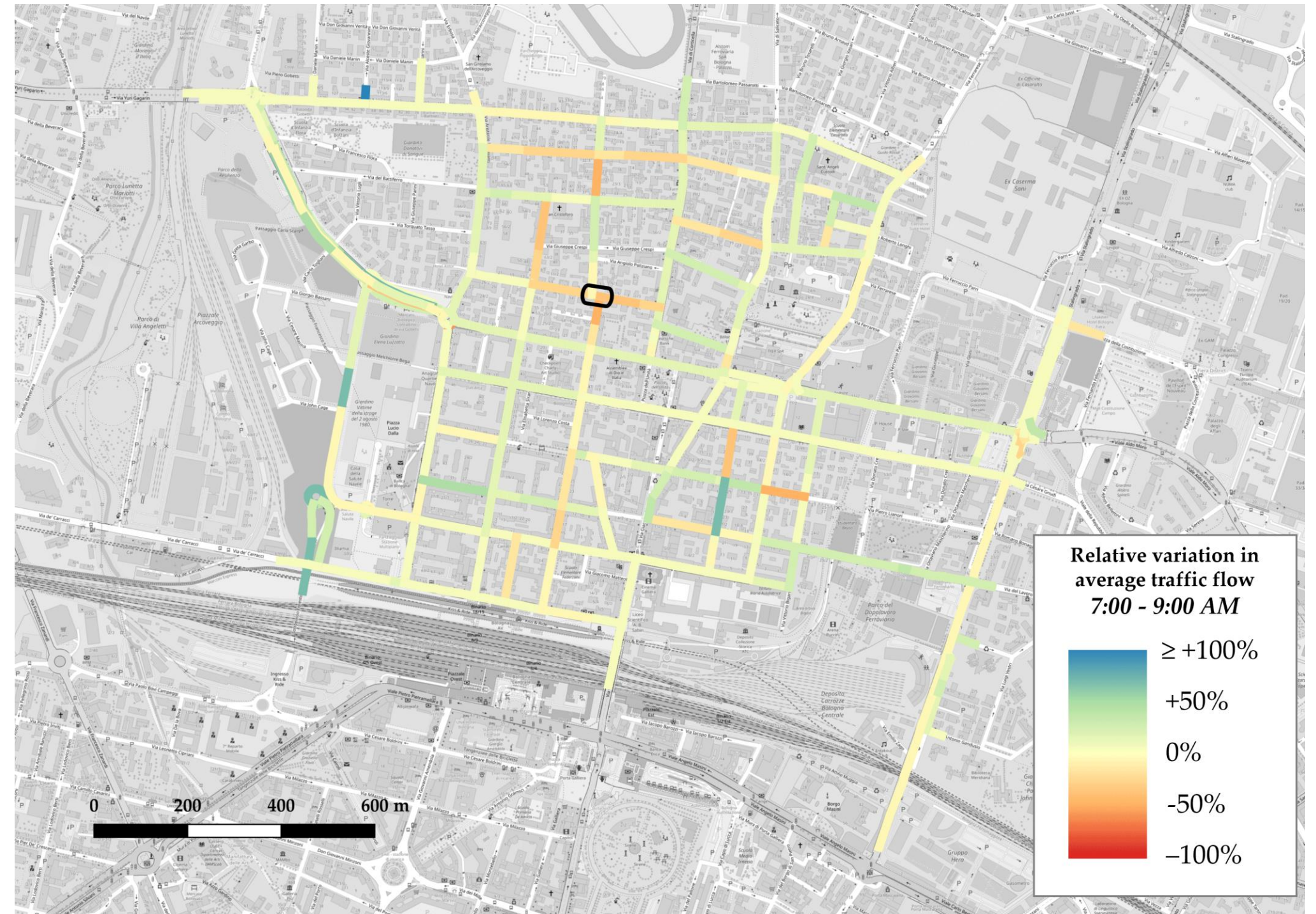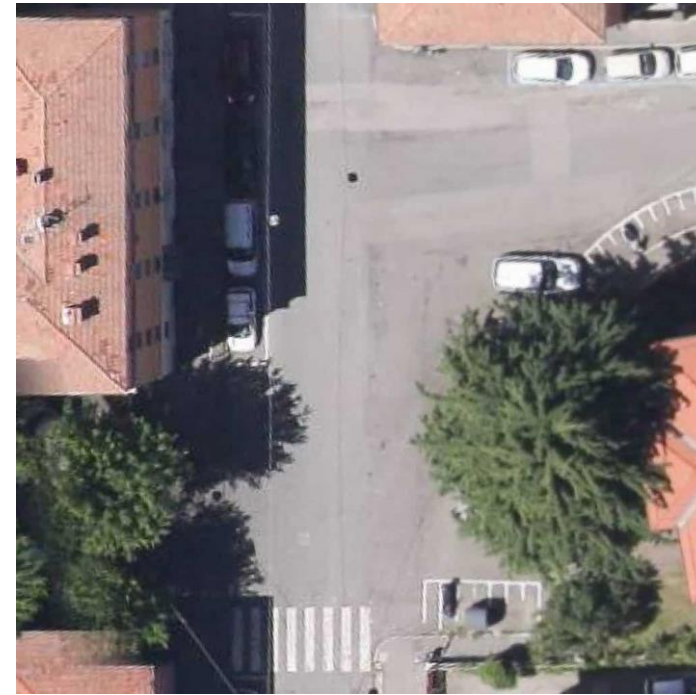Pedestrians are nudged to available sidewalks

Via Procaccini

Via da Faenza

Via di Vincenzo

Via Procac...

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Tactical Urbanism

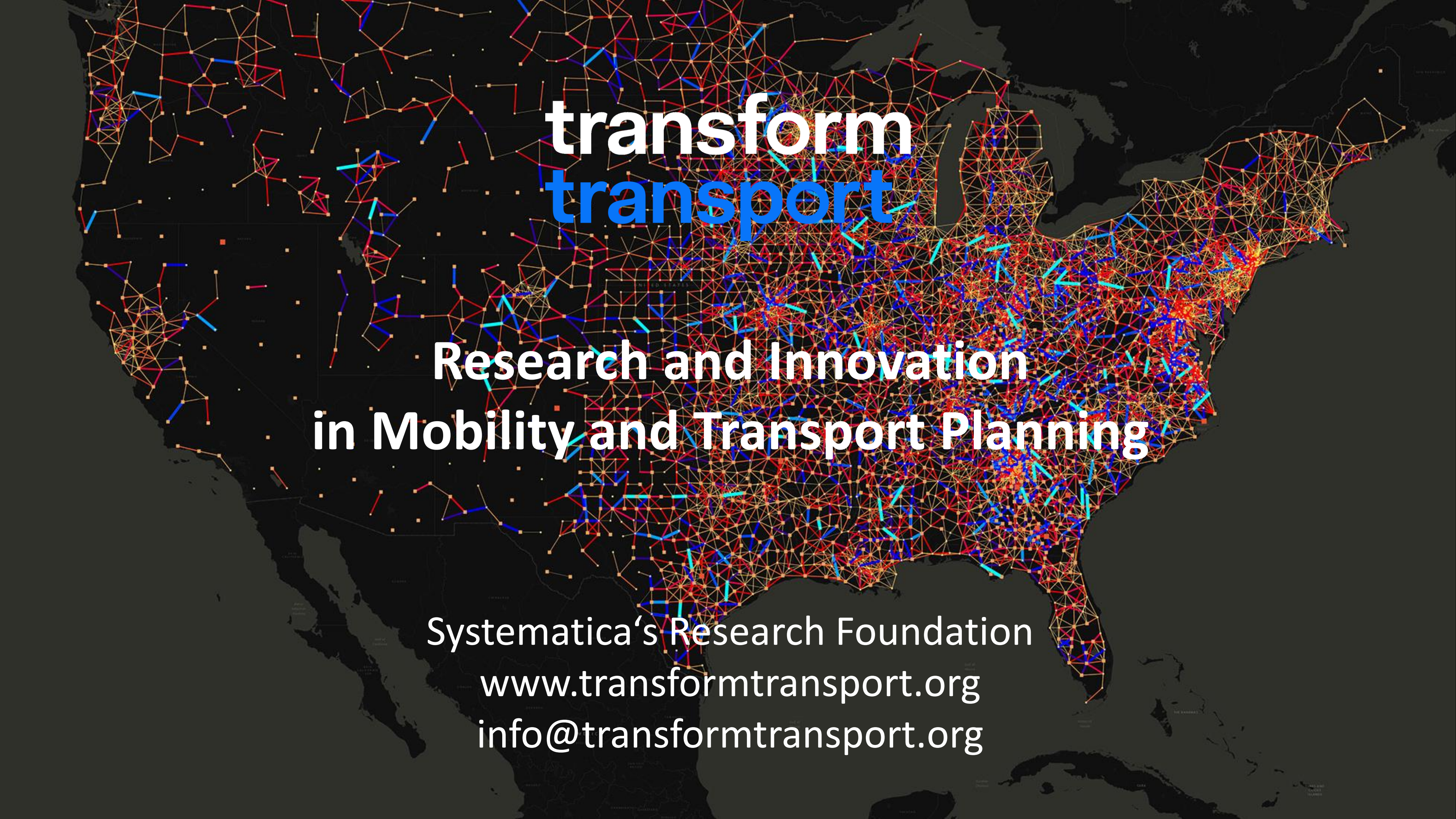**Transform Transport & Politecnico di Milano**
2023

Case Study: Bologna, Italy

This study aims at assessing the effects on private vehicular patterns in the neighborhood of Bolognina, following the implementation of a temporary square dedicated to young students, under the principles of tactical urbanism approach

▶ **LEARN MORE**

Relative variation in average traffic flow
7:00 - 9:00 AM

≥ +100%
+50%
0%
−50%
−100%

0   200   400   600 m

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**Research and Innovation
in Mobility and Transport Planning**

Systematica's Research Foundation
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