

Urban Mobility Observatory

3rd Edition



9 th ITF TRANSPORT
STATISTICS MEETING

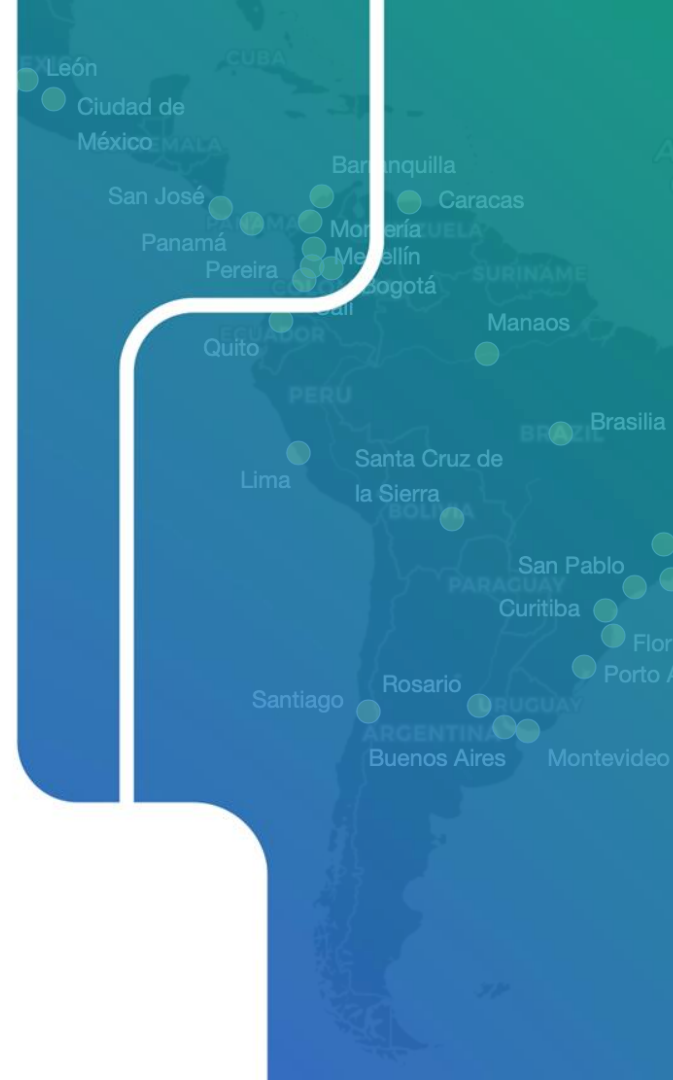
3-4 April 2023



since 2007...

Goal: “Respond to the lack of solid, reliable and up-to-date information on transport and mobility in the region”

A regional public good



OMU'S TIMELINE



2007



1st Report
15 cities

2010



2015



2020



3rd edition
Reformulation & Update

2023



OMU's
origin

Observatorio de Movilidad Urbana para América Latina
Información para mejores políticas y mejores ciudades

2nd Report
29 cities



omu-latam.org



3rd edition Reformulation & Update

Regional public good

12 countries, 29 cities



Support data-driven decision-making

Alignment with global agendas



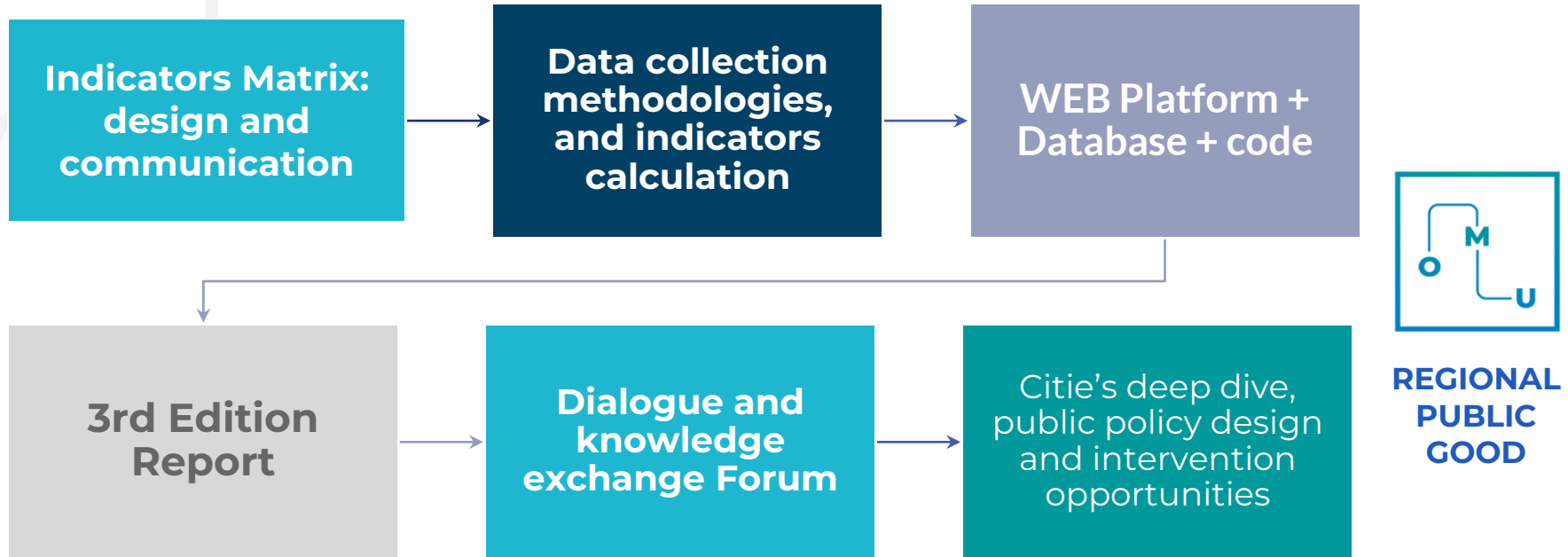
Incorporation of new technology

Promote cities' commitment

Discussion and cooperation networks



How will OMU contribute to the community?



Indicators Matrix: axes

AXES
THEMATIC



UNIVERSAL ACCESS

Achieve a transportation system that provides accessibility and mobility, enabling economic and social opportunities considering the needs of all members of society, with special emphasis on vulnerable minorities.



EFFICIENCY AND QUALITY

In the search for a sustainable transport system and network that respond to demand, optimizing the use of resources such as energy, technologies, spaces, institutions and regulations, to save costs and efforts that can be redirected towards new projects that continue to work. for inclusive, sustainable and resilient cities.



GENDER EQUALITY



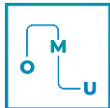
GREEN MOBILITY

Addressing the issue of climate change through the mitigation and adaptation capacity of cities, reducing sound and air pollution produced by transport.

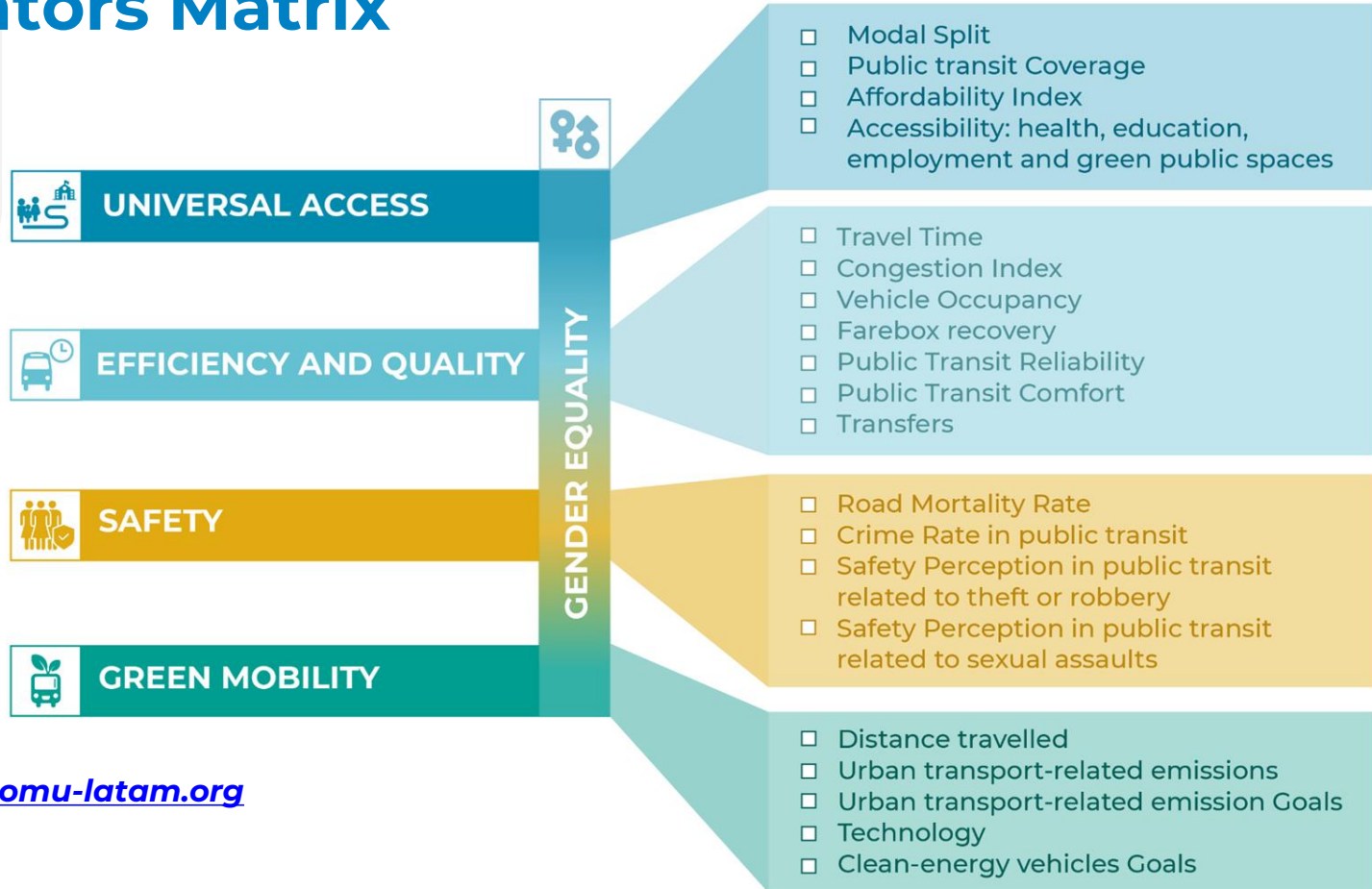
SAFETY



Avoid fatalities and serious injuries in all modes of transport, ensuring the circulation of all people through the implementation of measures on the behavior of demand and the characteristics of the transport systems.



Indicators Matrix





Our Toolbox:

Data collection, methodologies, calculations

Data Collection & alliances

- Desk research + data reported by cities
- 17 committed cities



Mobility Surveys
Public transit schedules
Public transit fares
Public transit subsidies and revenues
Road mortality
Sexual harassment in PT
Climate related goals: emissions and clean-energy fleet

alliances



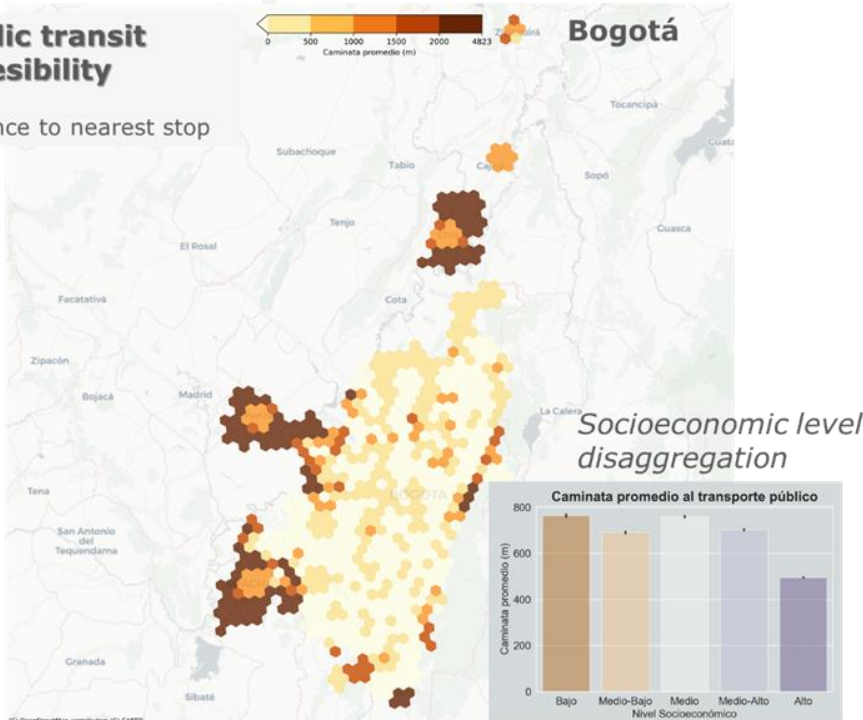
Methodologies: Data science

Accessibility study: Open data and machine learning open-source code

Python library: Pyomu
github.com/OMU-LATAM/Accesibilidad

Public transit accessibility

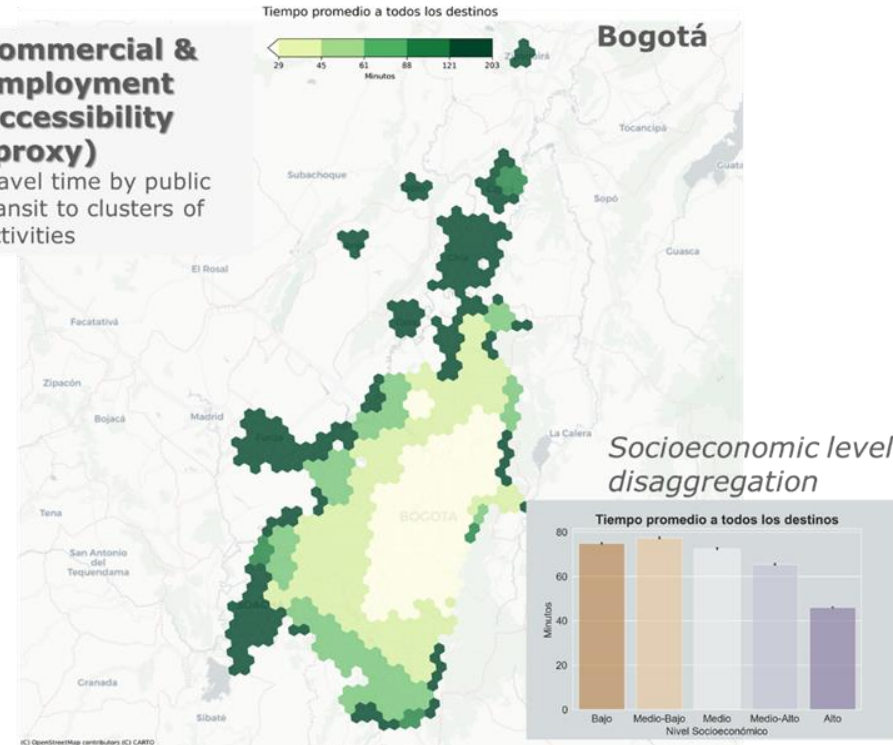
Distance to nearest stop



CC) OpenStreetMap contributors (C) CAPO

Commercial & employment Accessibility (proxy)

Travel time by public transit to clusters of activities



CC) OpenStreetMap contributors (C) CAPO

Methodologies: Data science

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Digital Surveys



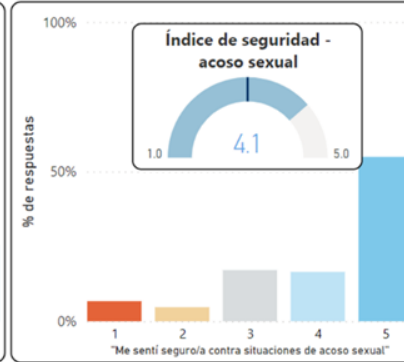
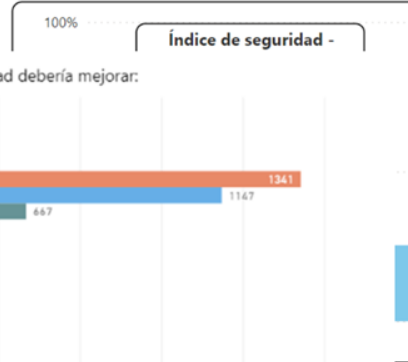
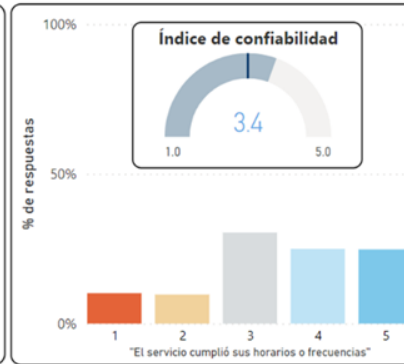
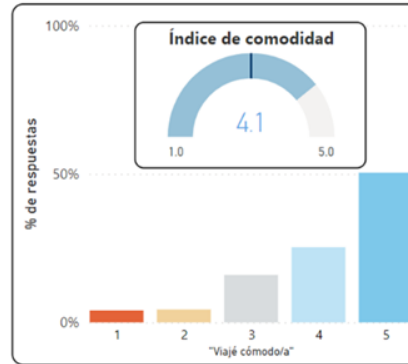
Users' perception of the public transport service

20 cities

45K responses

What aspects of the public transit should be improved?

- las frecuencias
- la seguridad en las paradas
- la seguridad dentro de los vehículos
- la capacidad
- el tiempo de viaje
- las condiciones de confort
- el costo
- la limpieza



Rango etario
All

Educación
All

Género
All

Nivel ingreso
All

Uso TP
All

Ciudad
Buenos Aires

Modo
All

Observatorio de Movilidad Urbana
CAF BID

moovit

Modo de transporte

- Colectivo
- Tren
- Subte
- Otro
- Metrobús
- Transfer/Combi

Colectivo 87%
Tren 8%
Otro 1%

Motivo de uso

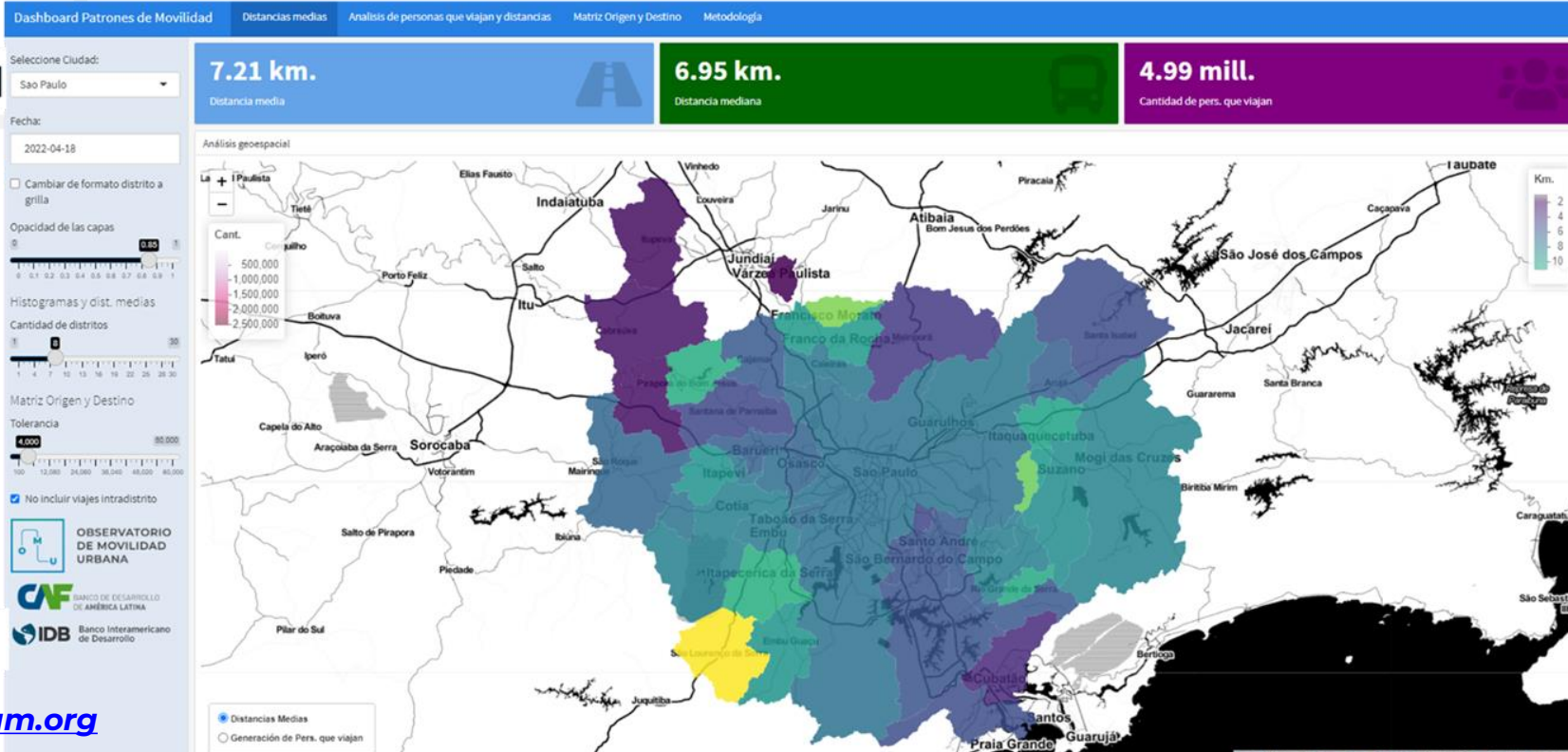
- Ir a trabajar
- Realizar compras del ...
- (Blank)
- Acompañar o dejar a ...
- Entretenimiento / ocio
- Ir a estudiar

Ir a trabajar 81%
Realizar comp... 5%
Acompañar... 4%

Methodologies: Data science

Code: github.com/OMU-LATAM/patrones_desplazamientos_Facebook

Data from mobile applications Travel patterns study with Facebook data.



Coverage:
20 cities

Methodologies: Data science



Data from smartphone location data

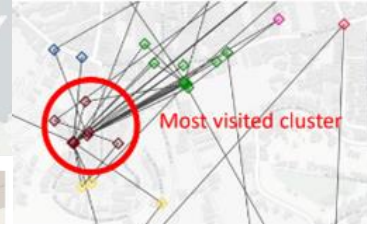
Travel patterns study with apps GPS data

Time frame: 3 months (2019, 2021 & 2022)

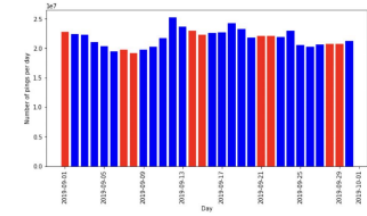
KPIs: Travel time, trip rate and modal split (!)

Challenge: modal split inference

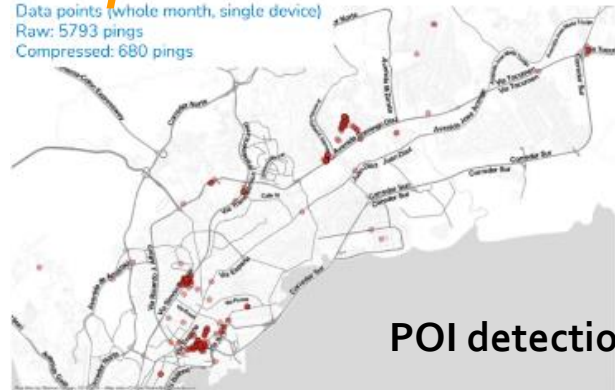
Pilots: 3 cities



• Number of pings per day



Data points (whole month, single device)
Raw: 5793 pings
Compressed: 680 pings



POI detection



DBSCAN applied



Check out our website: omu-latam.org



Logo: OBSERVATORIO DE MOVILIDAD URBANA

Logo: CAF BANCO DE DESARROLLO DE AMÉRICA LATINA

Logo: BID Banco Interamericano de Desarrollo

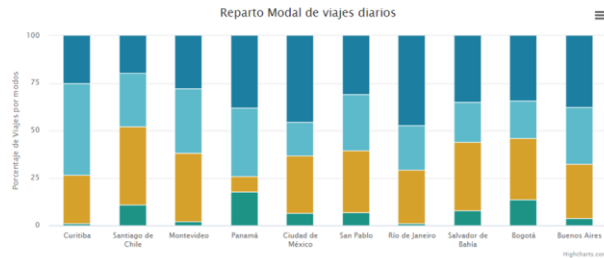
SELECCIONAR UNA CIUDAD ESP

Inicio Sobre el OMU Productos OMU LAB Aliados Blogs Contactanos

Acceso Universal

Lograr un sistema de transporte que brinde accesibilidad y movilidad posibilitando oportunidades económicas y sociales considerando las necesidades

Reparto Modal



- Explicación +
- Metodología +
- Descarga de Datos +

Stay tuned, there is more to come
THANK YOU!





URBAN
MOBILITY
OBSERVATORY

Una iniciativa de

CAF BANCO DE DESARROLLO
DE AMÉRICA LATINA



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