THE OPEN MOBILITY FOUNDATION

Andrew Glass Hastings, Executive Director
March 14, 2023

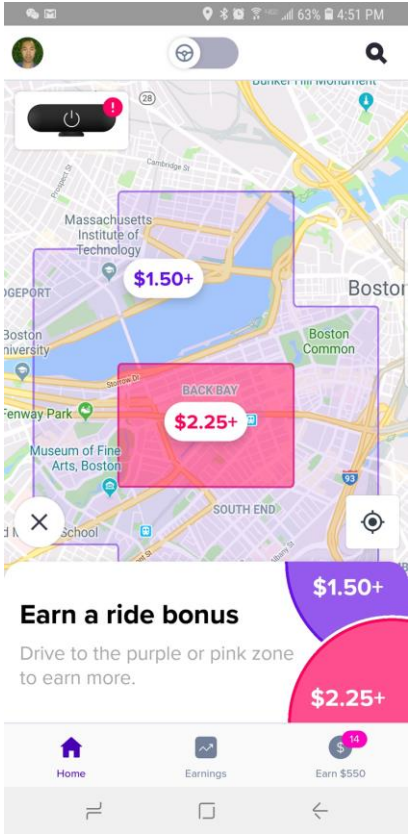
THE CHALLENGE

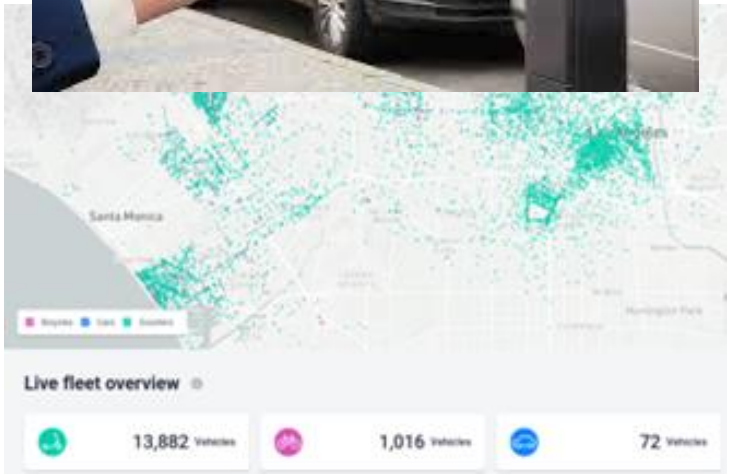
NEW TOOLS FOR A CHANGING WORLD

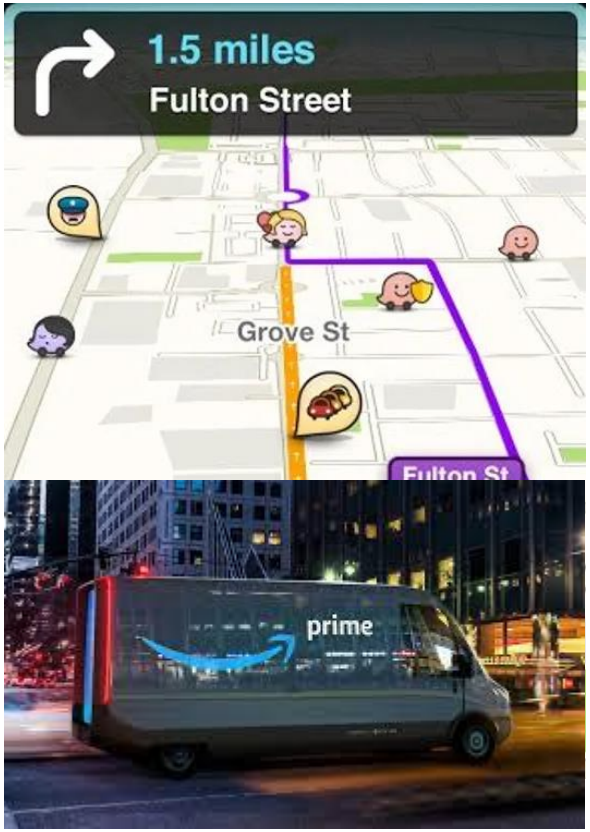
The way we move around our cities is changing fast. Public agencies need to manage streets, sidewalks, and other public spaces that are more complex and dynamic than ever before.

1900s-2000s: PHYSICAL INFRASTRUCTURE

2010s –: THE NEED FOR DIGITAL INFRASTRUCTURE



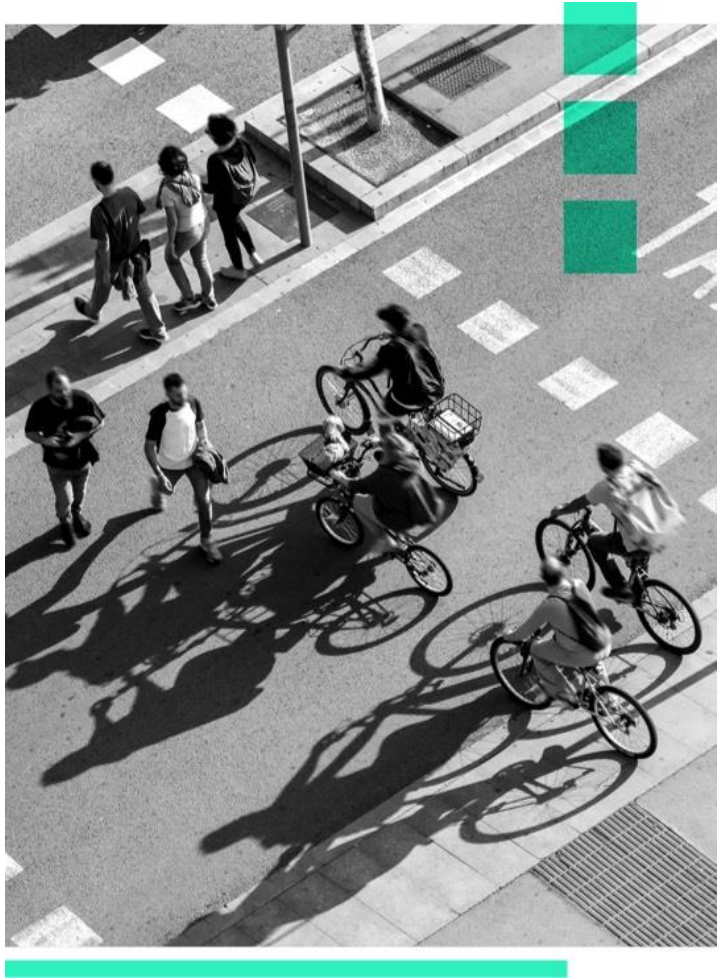




OUR APPROACH

THE OMF VISION

- Digital infrastructure to manage public space for the public good
- Data standards and open source tools
- Public/private collaboration that encourages responsible growth of new mobility services
- Cross-sector relationships and a shared vision for mobility
- Building toward the city transportation operating system of tomorrow



A NON-PROFIT, OPEN SOURCE FOUNDATION

Public/private partnership to create **common standards for digital governance** that transform the way cities manage transportation in the modern era and **support a business ecosystem**.

OMF MEMBERS

60+ members and counting. Complete list:
openmobilityfoundation.org/members

LOS ANGELES, CA

LOUISVILLE, KY

MIAMI, FL

BOGOTÁ COLOMBIA

BOSTON, MA

CAMBRIDGE, MA

PITTSBURGH, PA

PORTLAND, OR

PORTLAND, OR (METRO)

MIAMI-DADE COUNTY, FL

MIAMI PARKING AUTHORITY

MINNEAPOLIS, MN

CHICAGO, IL

COLUMBUS, OH

CONTRA COSTA TRANSPORTATION AUTHORITY

PROVIDENCE, RI

SAN DIEGO ASSOCIATION OF GOVERNMENTS

SAN FRANCISCO, CA

NEW YORK, NY (TLC)

NEW YORK CITY, NY

CITY OF OMAHA PARKING & MOBILITY

DENVER, CO (DOTI)

DENVER REGIONAL COUNCIL OF GOVERNMENTS

DETROIT, MI

SAN JOSE, CA

SANTA MONICA, CA

SEATTLE, WA

OPEN MOBILITY DATA IN THE NORDICS

OSLO NORWAY

PHILADELPHIA, PA

DUBLIN IRELAND

KELOWNA, BC – CANADA

LONG BEACH, CA

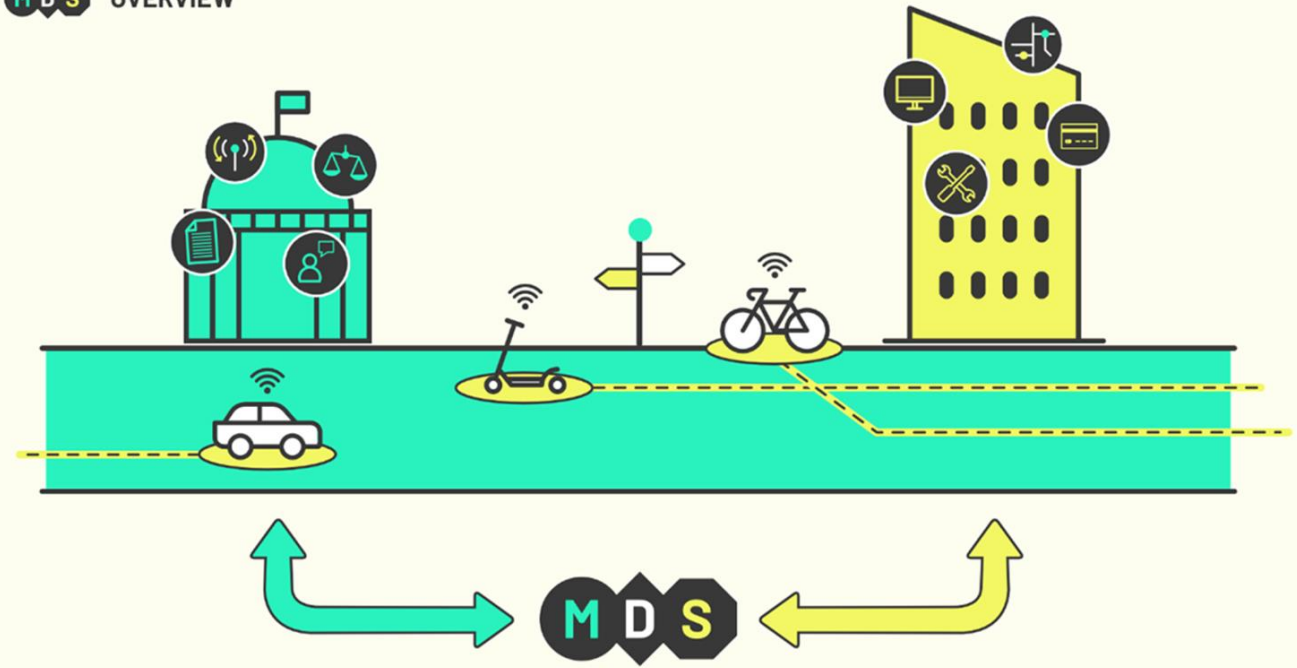
SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

TAMPA, FL

TOOLS FOR DIGITAL INFRASTRUCTURE

MDS OVERVIEW



CITIES

Manages the street and right of way. Responsible for policy, equity, resident feedback and issues, and MDS Agency.

MDS

The digital infrastructure that lets cities and companies share information and manage devices together.

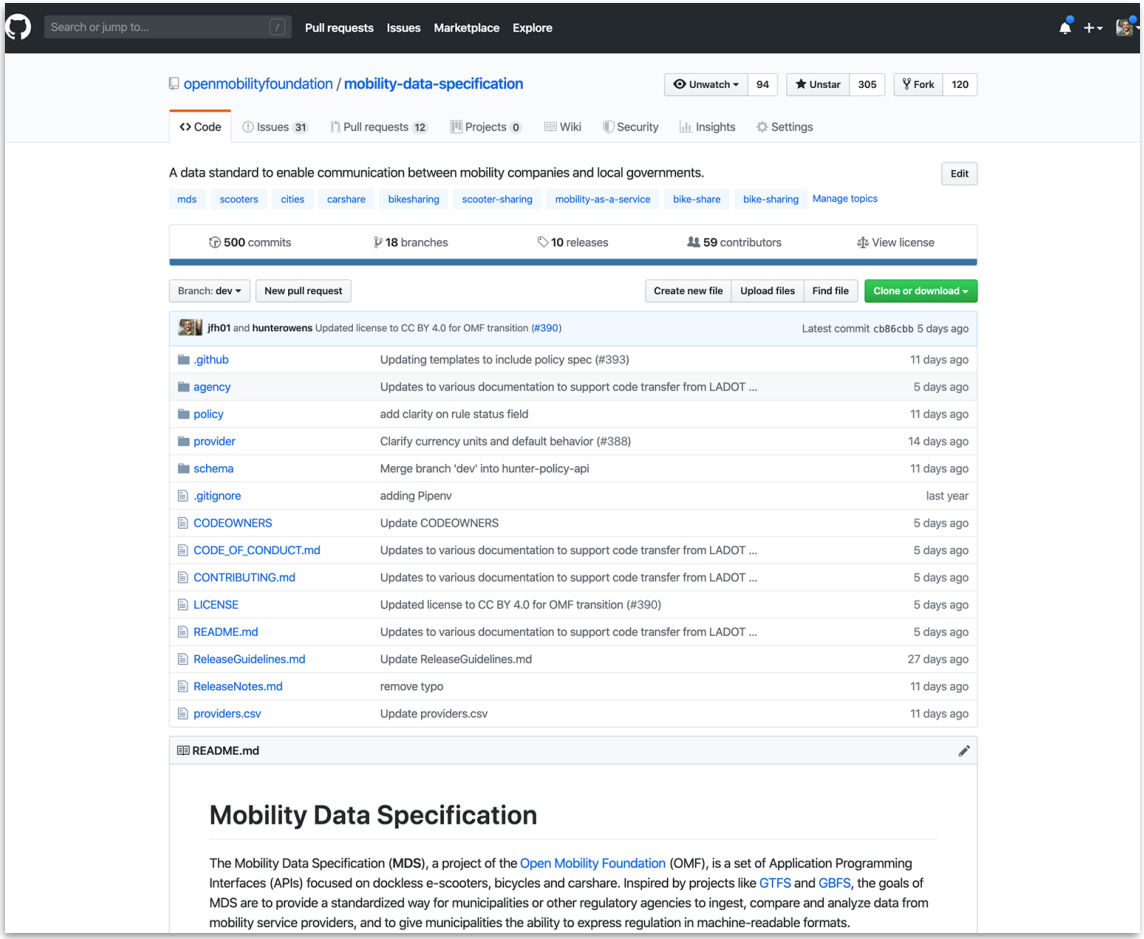
COMPANIES

Manages devices. Responsible for maintenance and repairs, billing, remote monitoring, and MDS Provider.

MOBILITY DATA SPECIFICATION

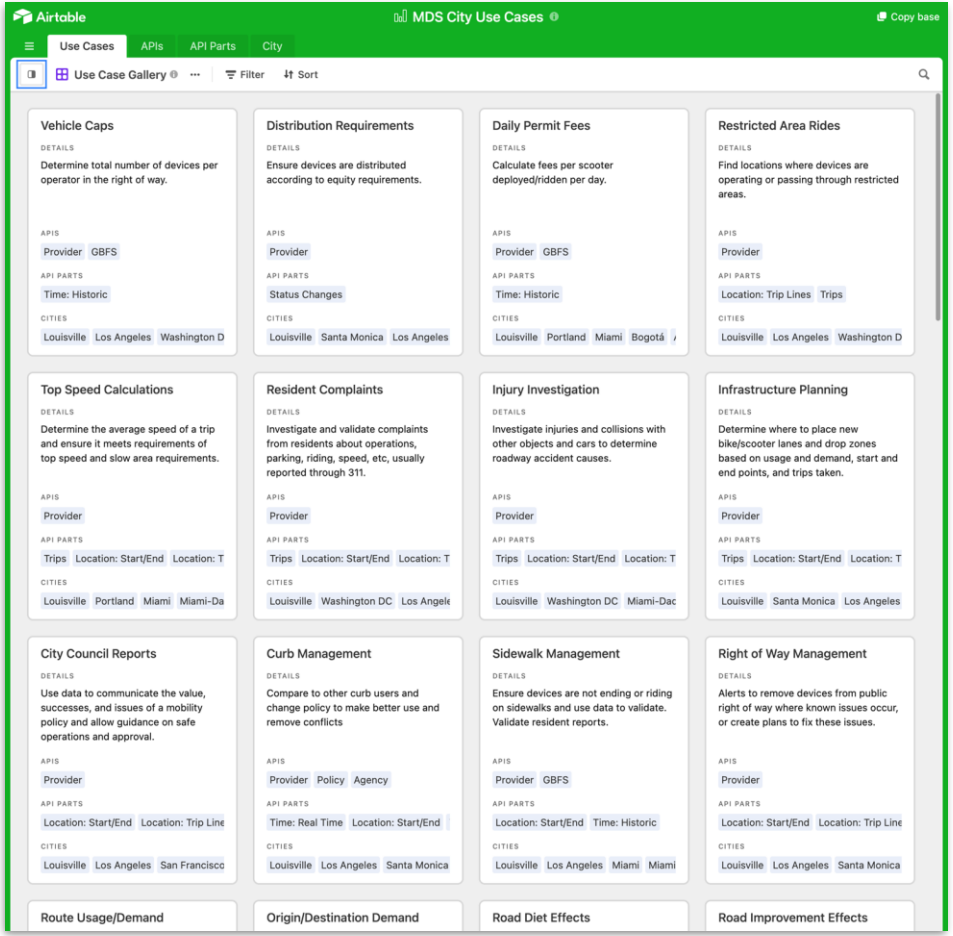
AN API CONNECTING MOBILITY COMPANIES WITH LOCAL GOVERNMENTS

- 160+ cities in 21+ countries
- Marketplace of tools for cities built on MDS
- Now: e-scooters, mopeds, bikes
- Soon: Taxi, TNC, delivery bots, car share



MDS USE CASE DATABASE

- Actual use cases from cities using MDS
- Identifies specific MDS APIs and endpoints used to achieve goal
- ~15 cities

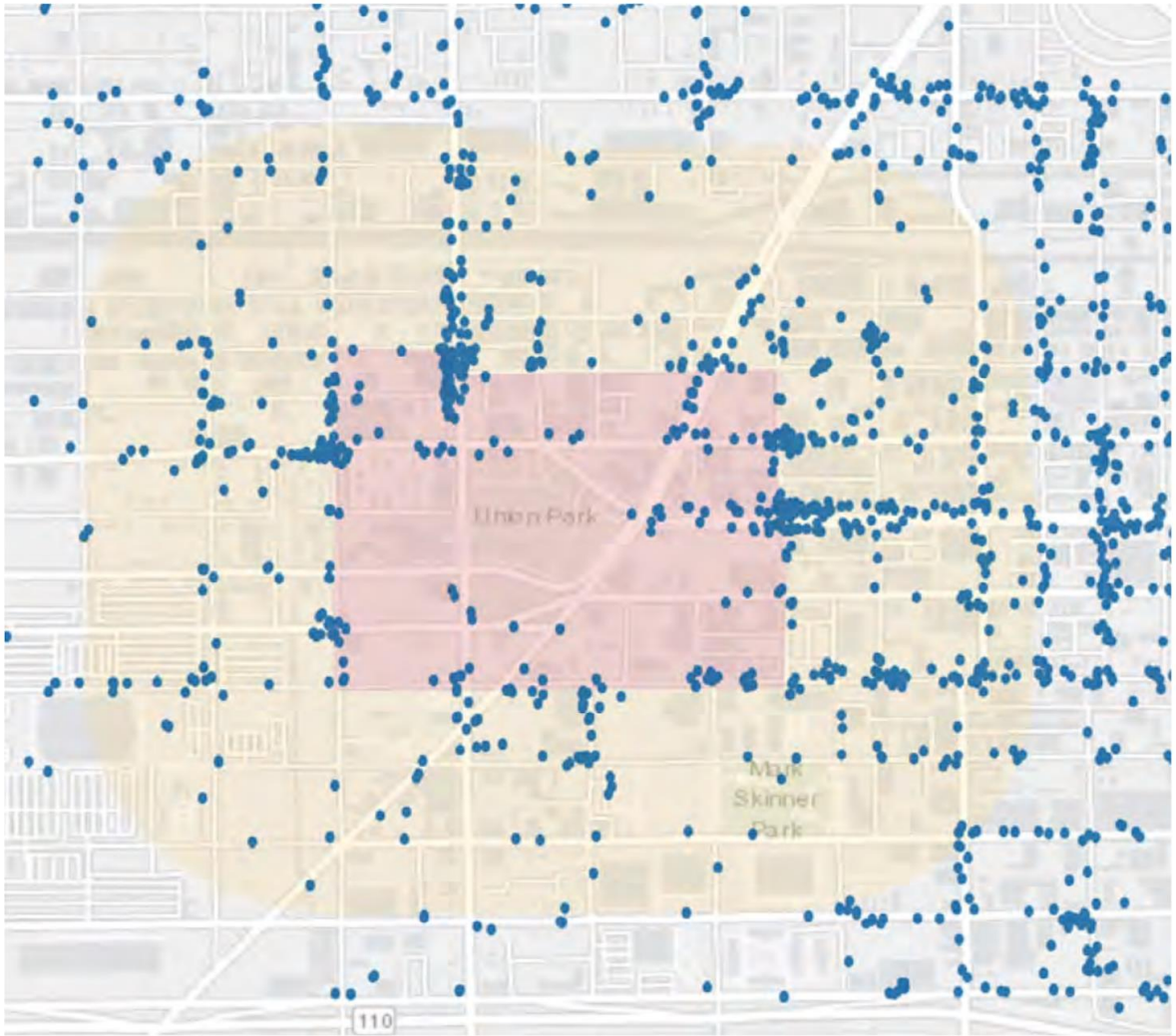


https://www.openmobilityfoundation.org/whats-possible-with-mds/

USE CASES

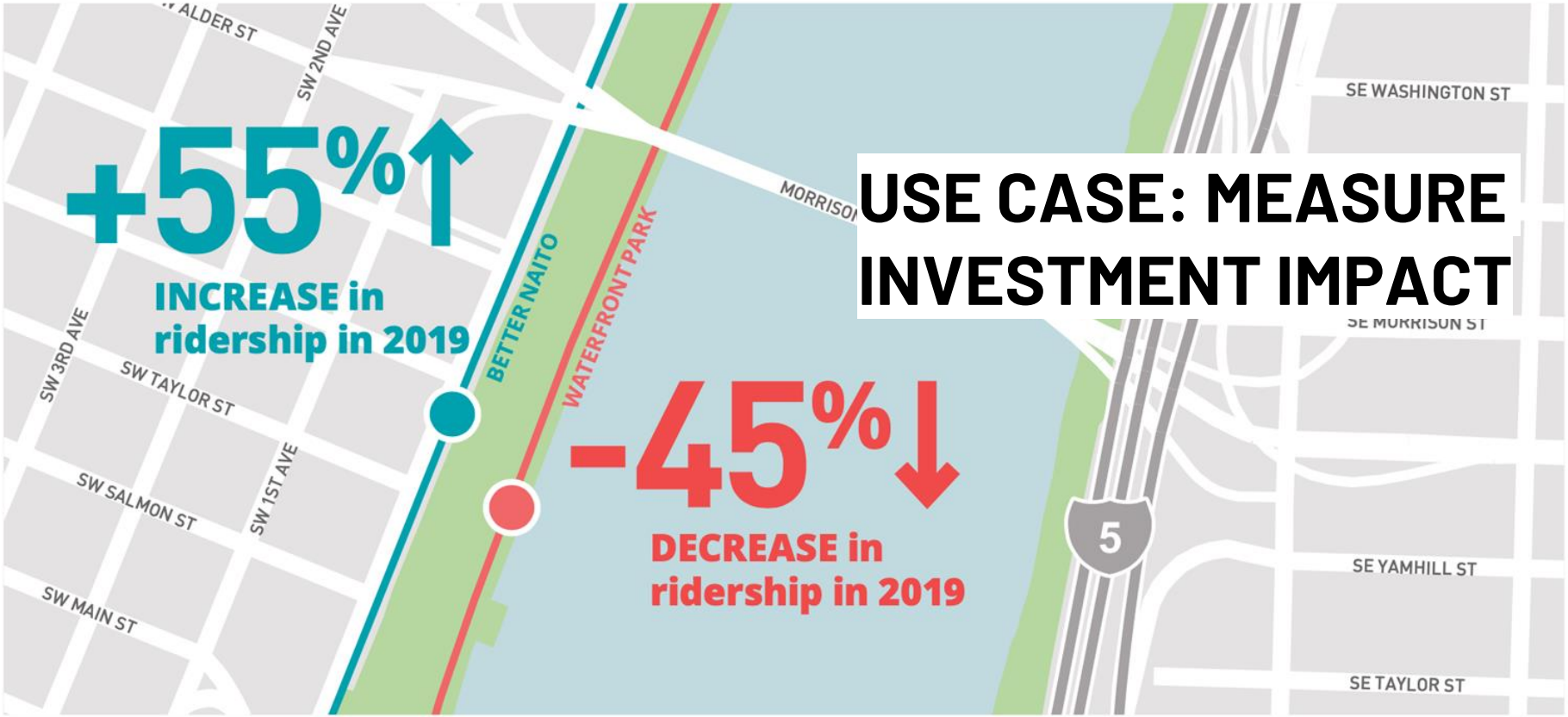
USE CASE: MAJOR INFRASTRUCTURE PROJECT PLANNING

USE CASE: OPERATOR COMPLIANCE



Source: [Chicago E-Scooter Pilot Evaluation]

2018 vs. 2019 ridership on
Better Naito and Waterfront Park

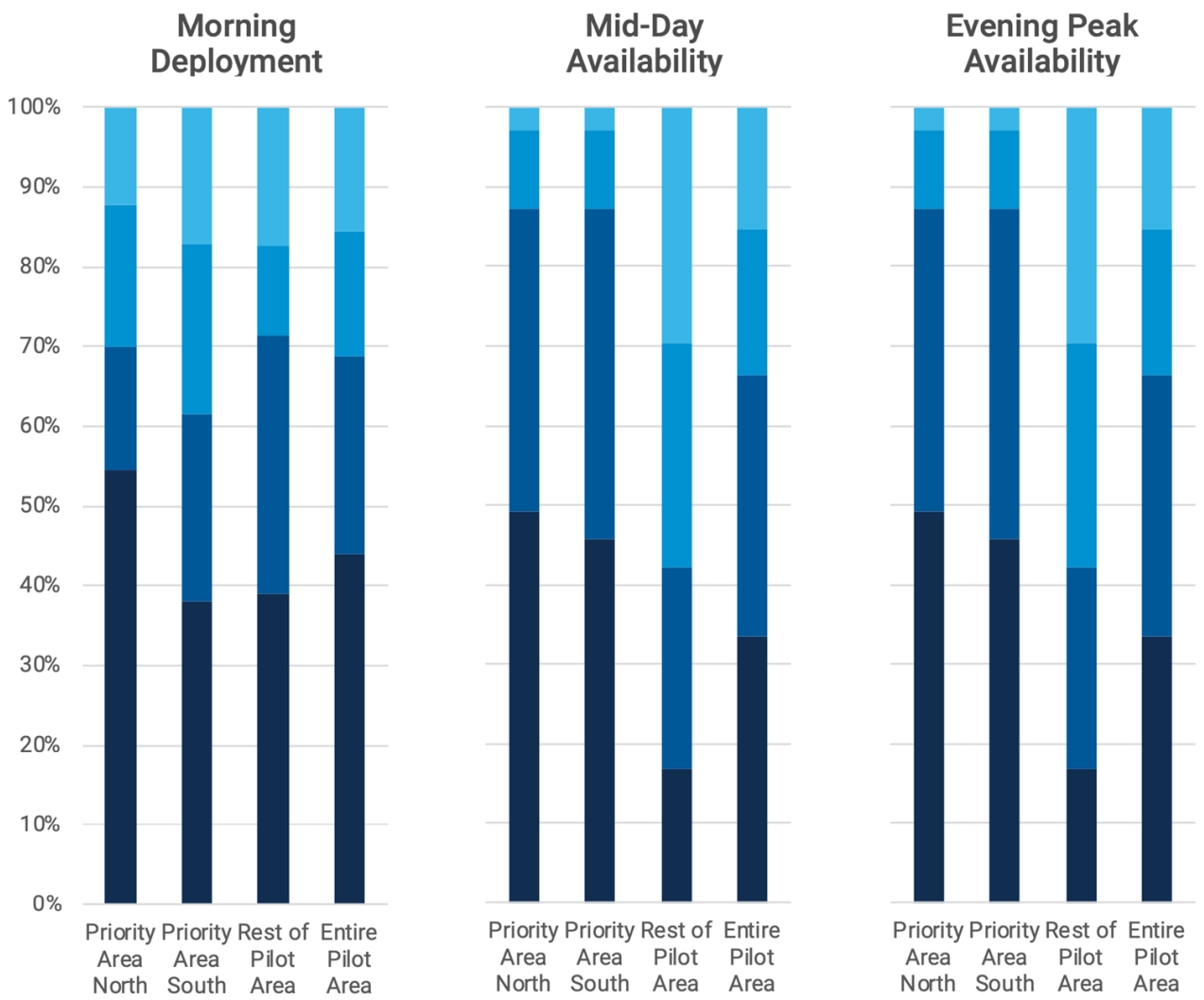


Better Naito saw about 148,600 rides in 2018 and about 231,000 rides in 2019. Waterfront Park saw about 55,900 rides in 2018 and about 30,500 rides in 2019.

Source: PBOT 2019 E-Scooter Findings Report

USE CASE: EQUITY ANALYSIS

Figure 27: E-scooter Availability in the Priority Areas Throughout the Day



Source: Chicago E-Scooter Pilot Evaluation

USE CASE: TRANSIT CONNECTIONS

Source: [LADOT Dockless Vehicle Pilot One-Year Report]

MDS

VERSION 2.0.0

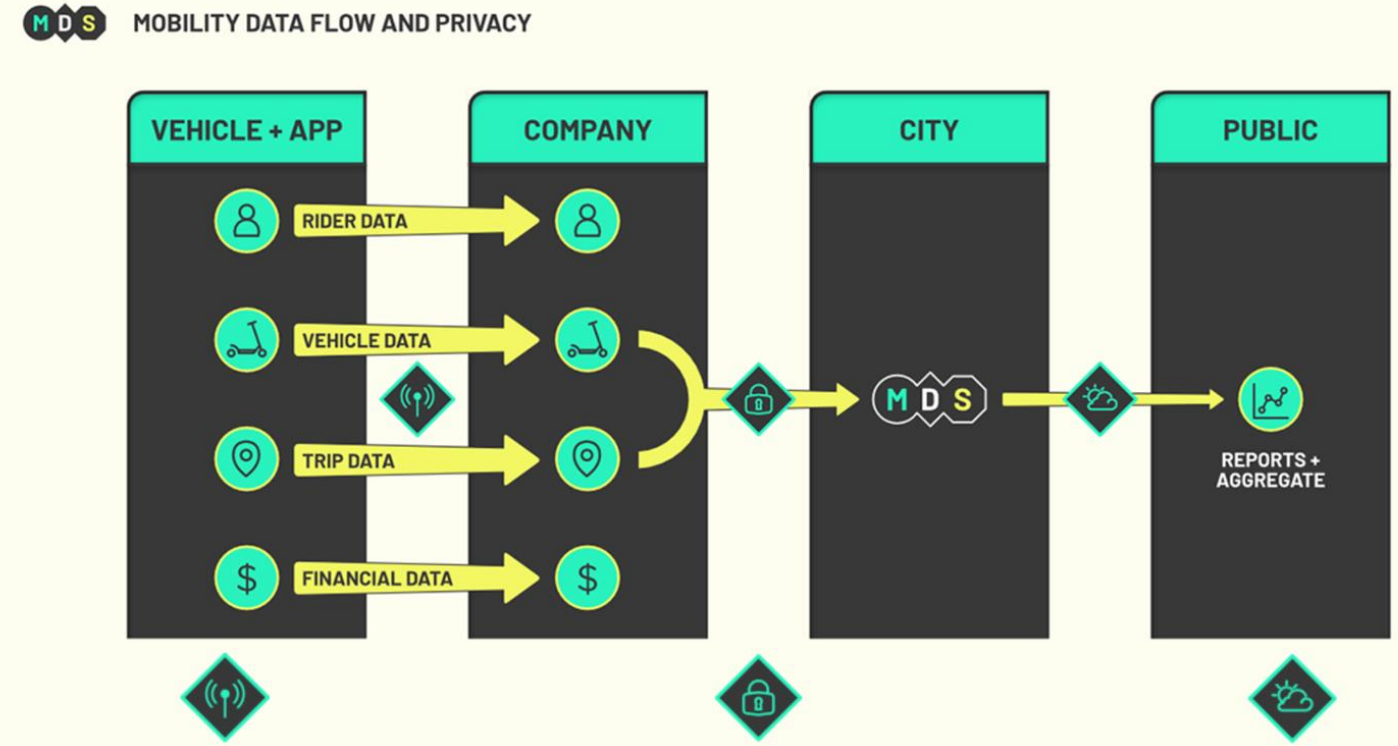
MICROMOBILITY

PASSENGER SERVICES

CAR SHARE

DELIVERY ROBOTS

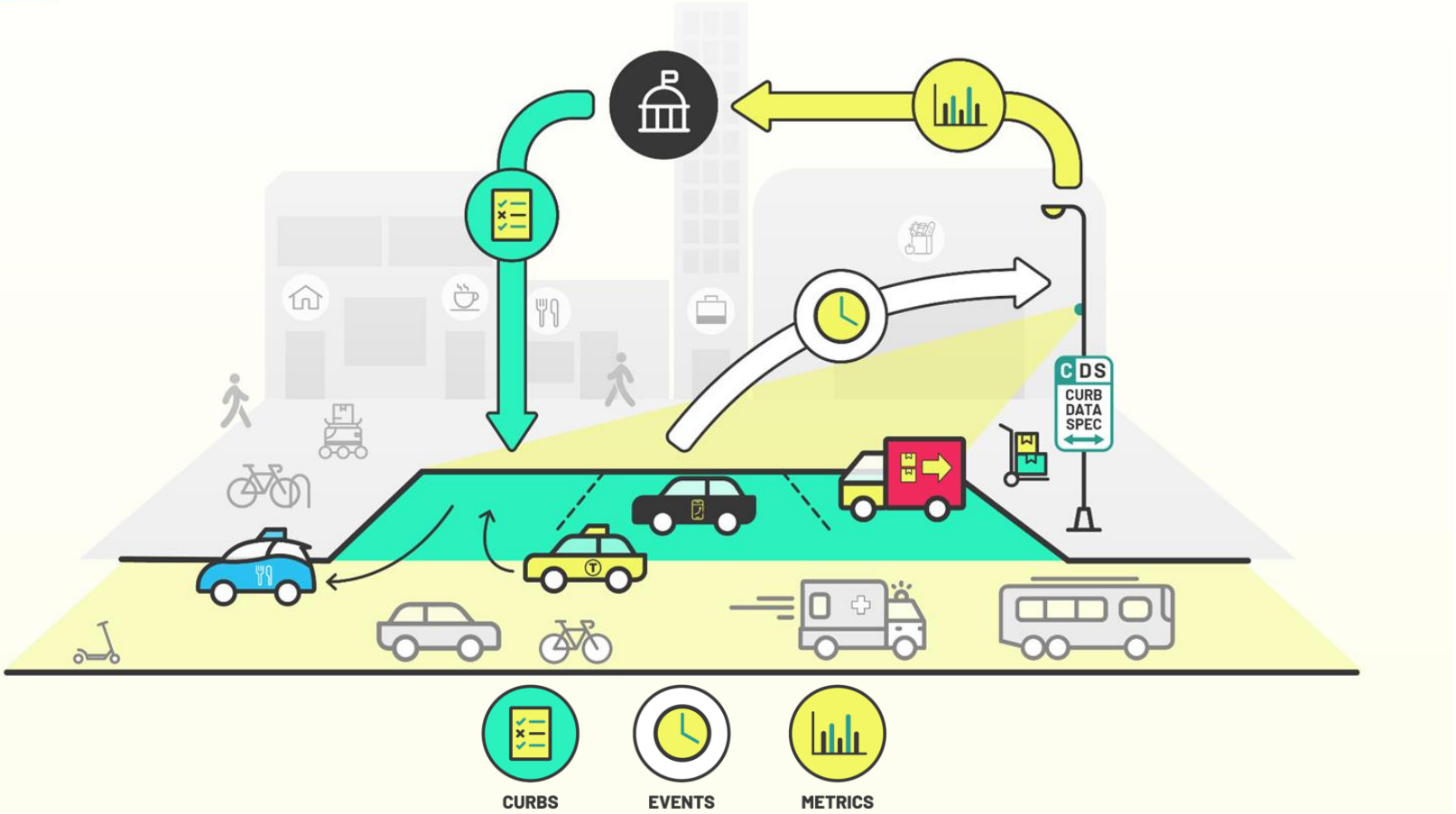
OMF OPEN MOBILITY FOUNDATION



PRIVACY RESOURCES

- MDS Privacy Guide for Cities
- Mobility Data State of Practice

CDS OVERVIEW



CURB DATA SPECIFICATION

A NEW STANDARD THAT HELPS PILOT AND SCALE DYNAMIC CURB ZONES

- Allows cities to digitally express regulations, measure activity at the curb, and develop dynamic policies
- Developed through contributions from 160+ individuals from dozens of public agencies, curb users, and technology companies
- Early adopters include dozens of cities and companies

CDS IN PRACTICE: USE CASES

Pittsburgh pilot includes local Amazon affiliate and offers incentives for zero-emission delivery vehicles

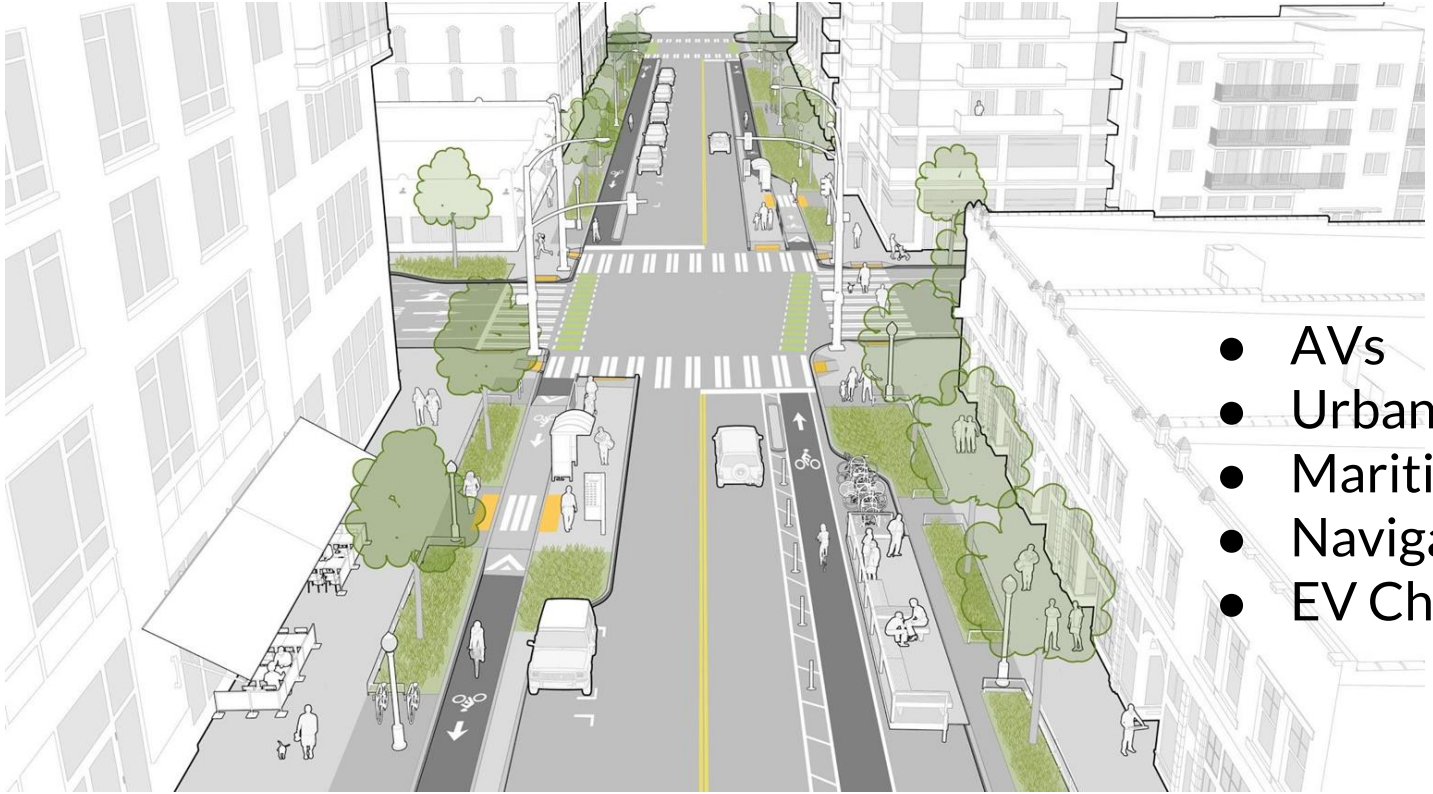
See more use cases here

CDS' flexibility means it can be used in many scenarios, including:

- Digitally sharing regulations, including loading zone rules and locations
- Determining real-time curb status
- Tracking and analyzing curb usage
- Responding to curb violations and improving curb enforcement
- Optimizing curb usage and access to meet policy goals

WHAT’S NEXT?

SUPPORTING CITIES TRANSITION TO DIGITAL INFRASTRUCTURE

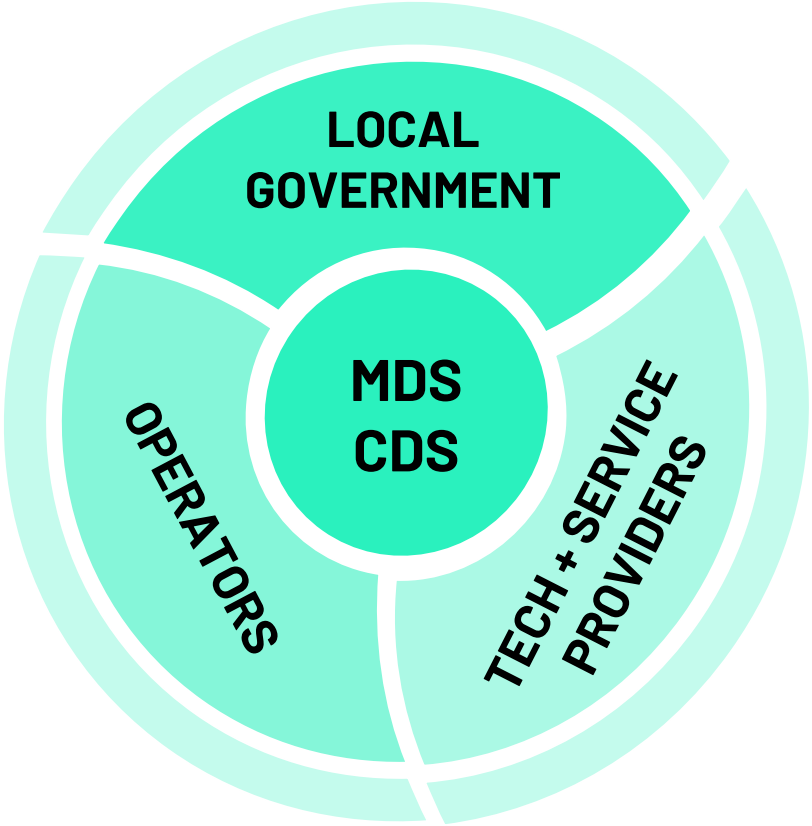


- AVs
- Urban aviation
- Maritime
- Navigation
- EV Charging

GETTING INVOLVED

HOW WE WORK

- Led by cities w/ strong private sector governance participation
- Working groups and GitHub repositories open-to-all
- Technology built through public and private sector collaboration
- Open-source licensing
- Members drive our work



GET INVOLVED

CONSIDER CDS IN YOUR WORK

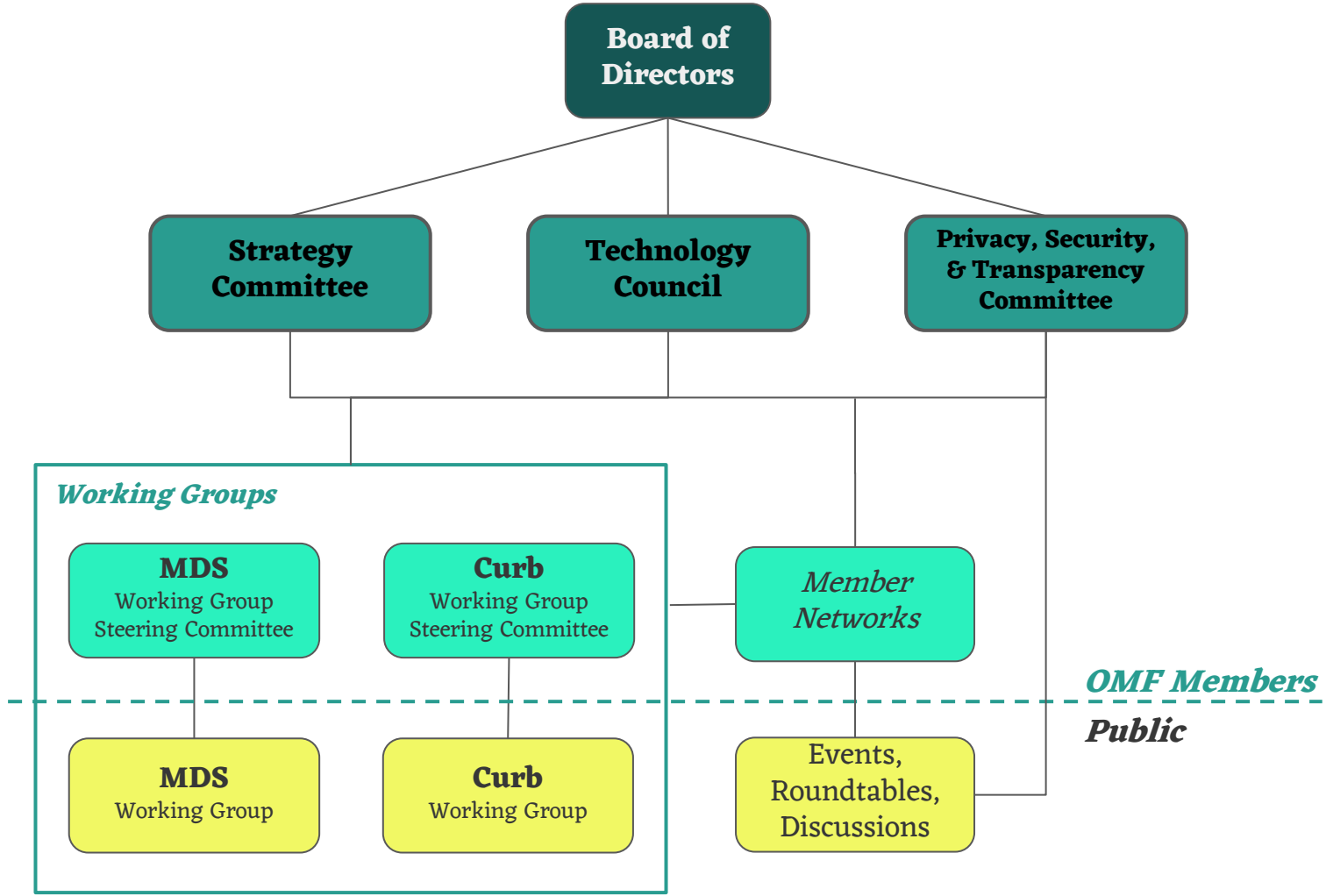
- ➔ Get to know MDS and CDS
- ➔ Speak with your team or your customers on how MDS and CDS might be useful in upcoming projects

PARTICIPATE IN THE WORKING GROUP

- ➔ Curb Working Group will start gathering feedback for the next CDS release
- ➔ Sign up to get announcements from the Curb Management mailing list
- ➔ Attend bi-weekly meetings to discuss issues and hear from other contributors.
  - ◆ 9am PT/Noon ET/6pm CET on Tuesdays (details on OMF public calendar).

JOIN THE OMF

- ➔ Get in touch with the OMF and learn how to become a member


Board of Directors
Strategy Committee
Technology Council
Privacy, Security, & Transparency Committee
Working Groups
MDS
Working Group
Steering Committee
Curb
Working Group
Steering Committee
Member Networks
OMF Members
Public
MDS
Working Group
Curb
Working Group
Events, Roundtables, Discussions

INDIVIDUAL CONTRIBUTORS

- Participate in software development and bring their priorities and ideas to development
- Join working group meetings and engage on GitHub
- Part of a thriving community working to build a more uniform regulatory environment and technology marketplace

CONNECT WITH US

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github.com/openmobilityfoundation

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