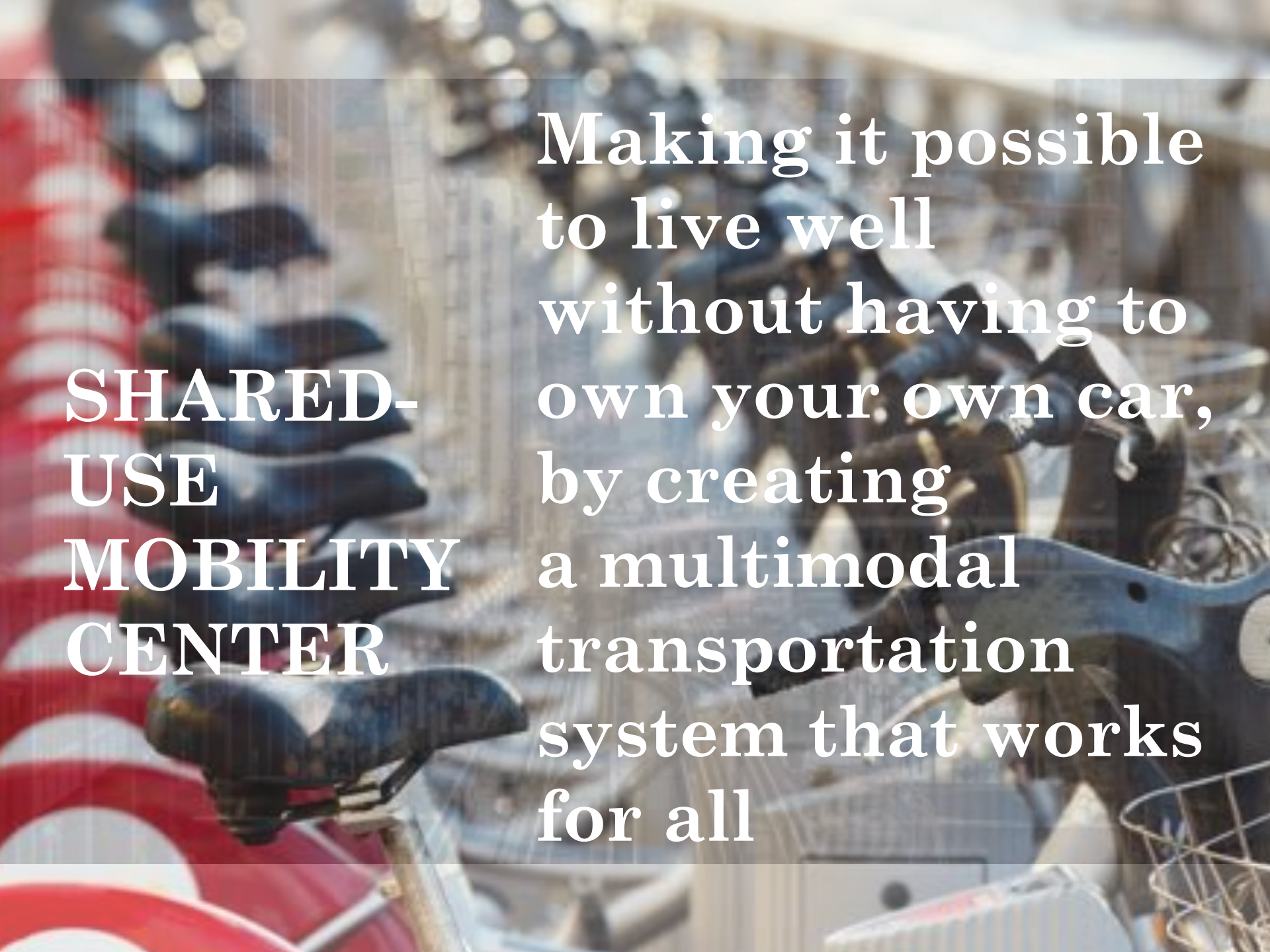# The Innovation Knowledge Accelerator: Tools for Mobility

Brian Holland
Shared-Use Mobility Center
February 2, 2018

SHARED-USE MOBILITY CENTER

Making it possible to live well without having to own your own car, by creating a multimodal transportation system that works for all

SHARED-USE MOBILITY CENTER

Connect public agencies and transit, community and private sectors to scale benefits of shared mobility for all

Create tools for cities to share policies and best practices

Serve as a clearinghouse through conducting innovative research with practical results

Provide technical assistance for cities creating & testing shared mobility pilot projects

Convene the public and private sectors through workshops and conferences

Putting transit at the center

"...public transit is the backbone of an efficient, equitable transportation system."
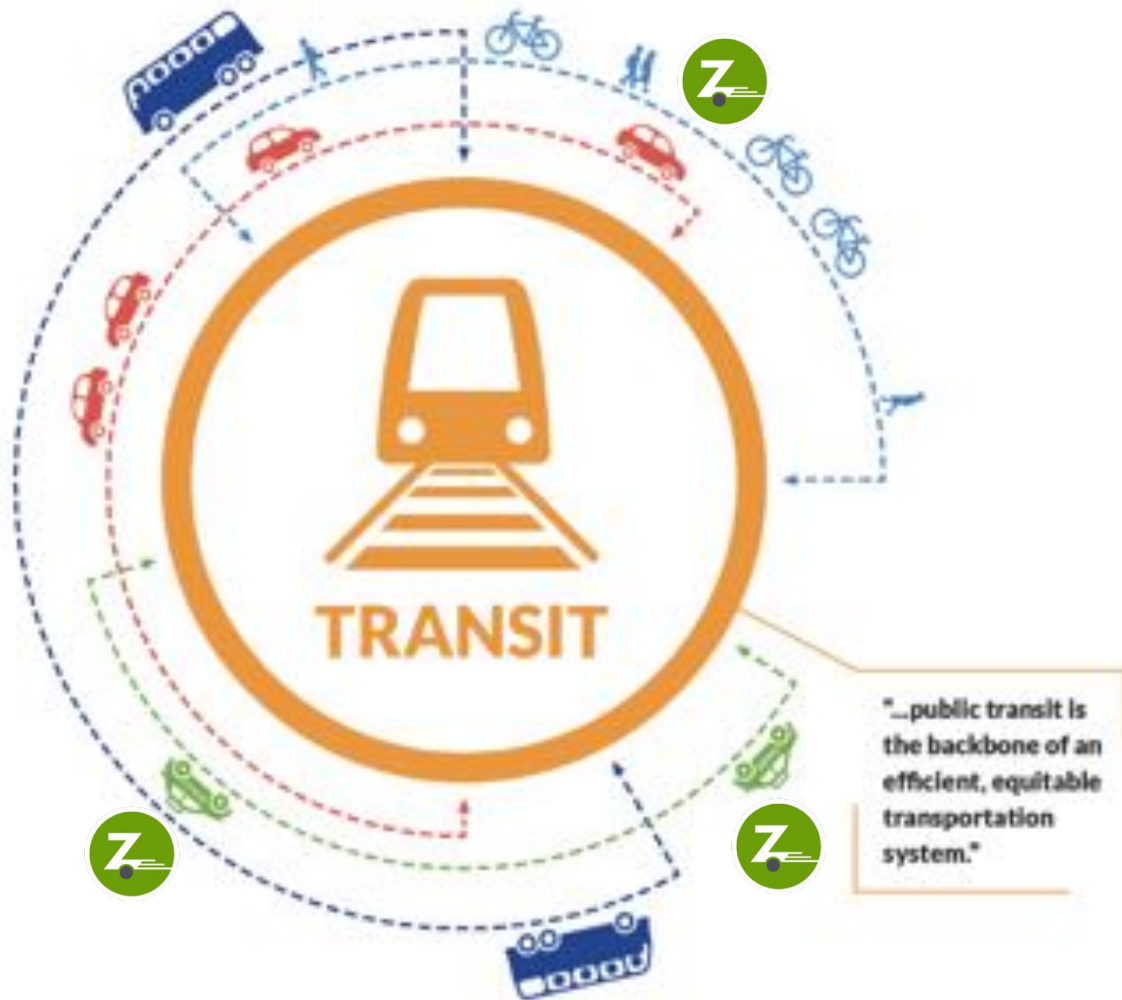
Big Investments & Convergence

in Carsharing, Ridesharing, and Autonomous Vehicles
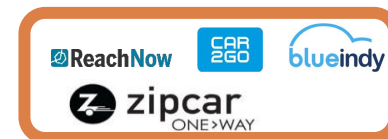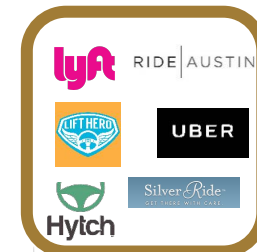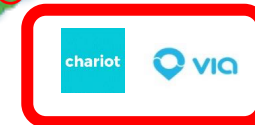
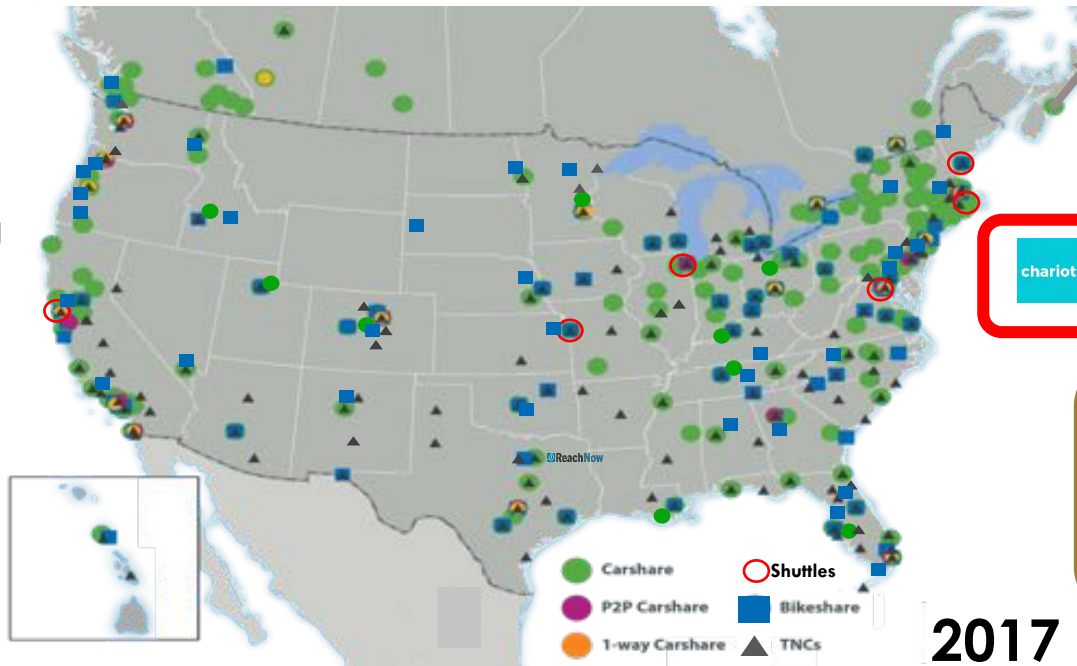SHARED-USE MOBILITY CENTER
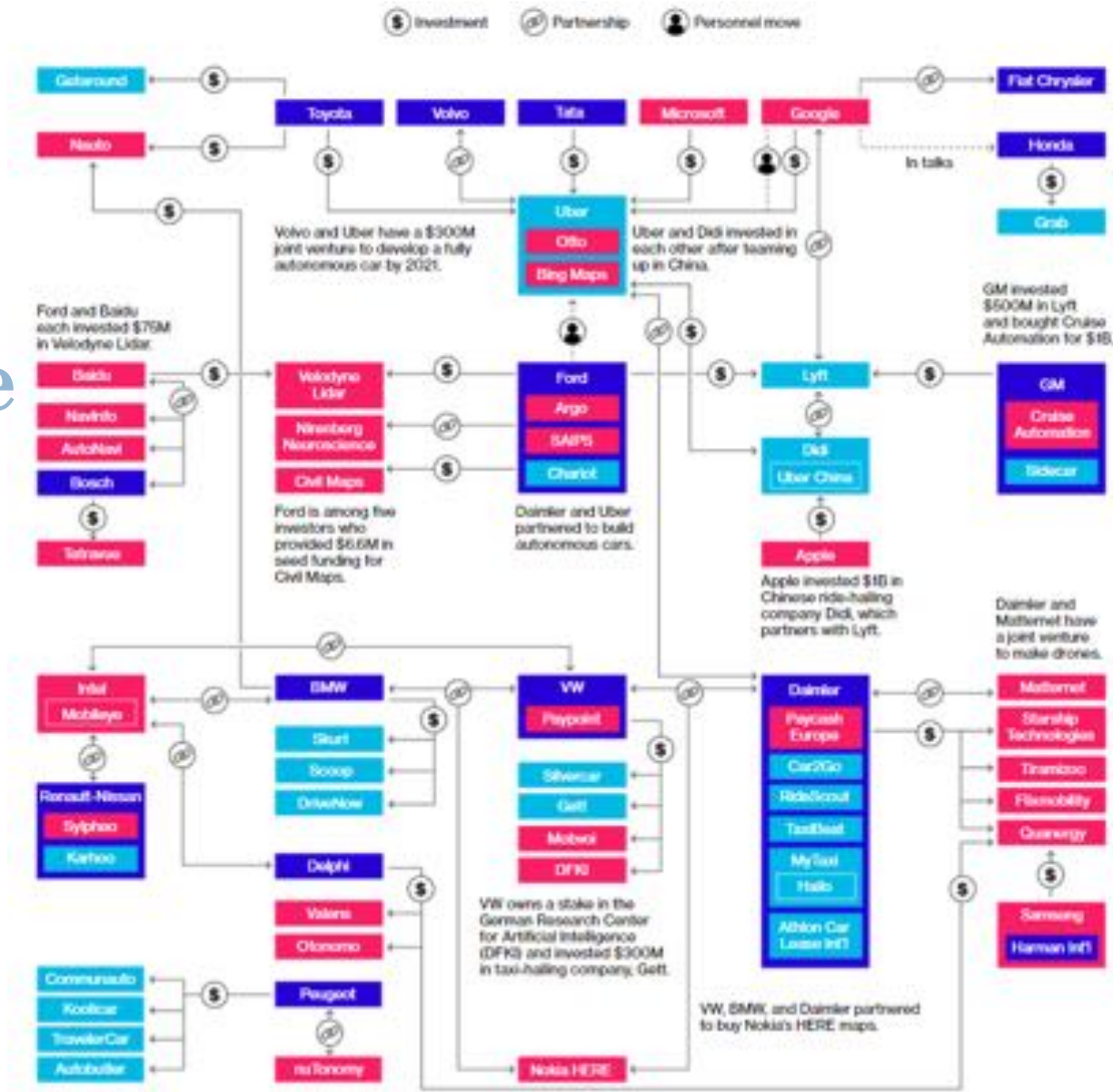
A Growing Number of Shared Mobility Companies

~400 Cities
with Carsharing

~300 Cities
with Bikesharing

~600 Cities
with TNCs

2017

Legend:
- 🟢 Carshare
- 🟣 P2P Carshare
- 🟠 1-way Carshare
- ⭕ Shuttles
- 🟦 Bikeshare
- ▲ TNCs

Key Findings: TCRP Report 188

- **The more that people use shared modes,** the more likely they are to use transit, own fewer cars, and spend less on transit overall

- **People that use 3+ shared modes ("supersharers")** report greater transportation cost savings, own half as many cars as people who use transit alone

Key Findings: TCRP TNC/Transit Study

- Evenings and weekends see heaviest TNC use across all regions

- Most TNC trips are short and concentrated in downtown cores

- But some level of use across all parts of all study regions: people of all incomes/backgrounds are using TNCs

- No clear relationship between peak-hour TNC use and changes in transit ridership but there is evidence that riders are substituting TNC's for certain transit trips, esp. later at night

Levers of Change

- **Pilots, Partnerships, and Best Practice Exchange**

- **Tools – Understanding Benefits and Opportunities**

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Pilots, Partnerships, and Best Practices

SUMC's FTA MOD "Innovation Knowledge Accelerator" Project

Compiling best practices and facilitating knowledge exchange between the MOD Sandbox grantees

Types of Public-Private Partnerships (P3's) include:
- **First/Last Mile**
- **Multi-Modal App/Payment Integration**
- **Carpooling/Ridesharing**
- **Demand Response and Paratransit**
- **Incentive Strategies**
- **Expanded Services**

MOD
MOBILITY ON DEMAND

MOD Sandbox At a Glance

Tracking Public Private Partnerships

Source: Mobility Rush and Shared Mobility Policy Database

Partnerships by Mode, 2002-2017

Shared Mobility Toolkit

SHARED MOBILITY TOOLKIT

SUMC's Shared Mobility Toolkit is designed to help cities and public sector leaders better realize the benefits of shared mobility.

Shared Mobility Policy Database

Features more than 700 of the most important shared mobility policies, studies and strategic plans in the United States. The database allows cities to access best practices and determine how other local governments are addressing new developments in shared mobility.

LAUNCH TOOL

Mapping & Opportunity Analysis Tool

Pinpoints shared mobility vehicle locations in more than 50 North American cities. The tool also incorporates census data, transit quality, and other information to help cities better understand where greater service is needed, and what shared modes the market can support.

LAUNCH TOOL

Shared Mobility Benefits Calculator

Models the impacts of shared mobility growth scenarios. Cities can use the calculator to assess potential decreases in greenhouse gas emissions, reductions in vehicle miles traveled and other benefits from implementing various transportation improvements

LAUNCH TOOL

Policy Database Content

Over 800 State and Local Policies related to Shared Mobility

Total Entries

Topic

SHARED-USE MOBILITY CENTER
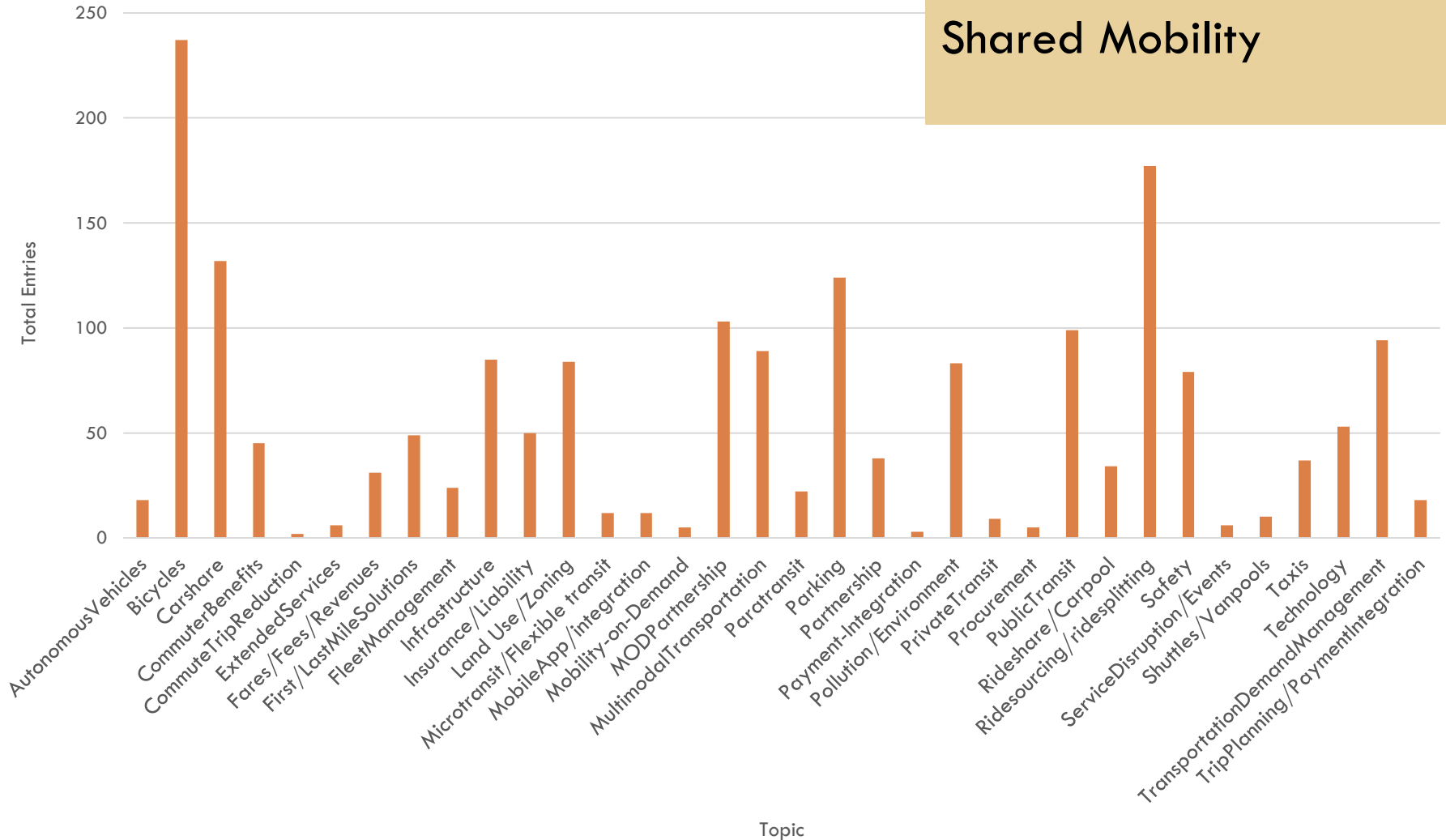
In Depth Case Studies & MOD Webinars

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LAUNCH TOOL

Shared Mobility Mapping Tool

G Sign in

Log in for market reports.

Choose a City

Shared-Use Mobility Modes

1 Mode   2 Modes   3 Modes   No Data   P3 by Tool   or   P3 by Purpose   Shared Mobility Part...

Contributing Partners

ITS AMERICA   MOD

Over 50 Across
North America

Scan of Existing Conditions &
shared Mobility Opportunities

Existing Shared Mobility Conditions & Opportunities

Current Shared Mobility & Opportunities	Comparing to Income Levels
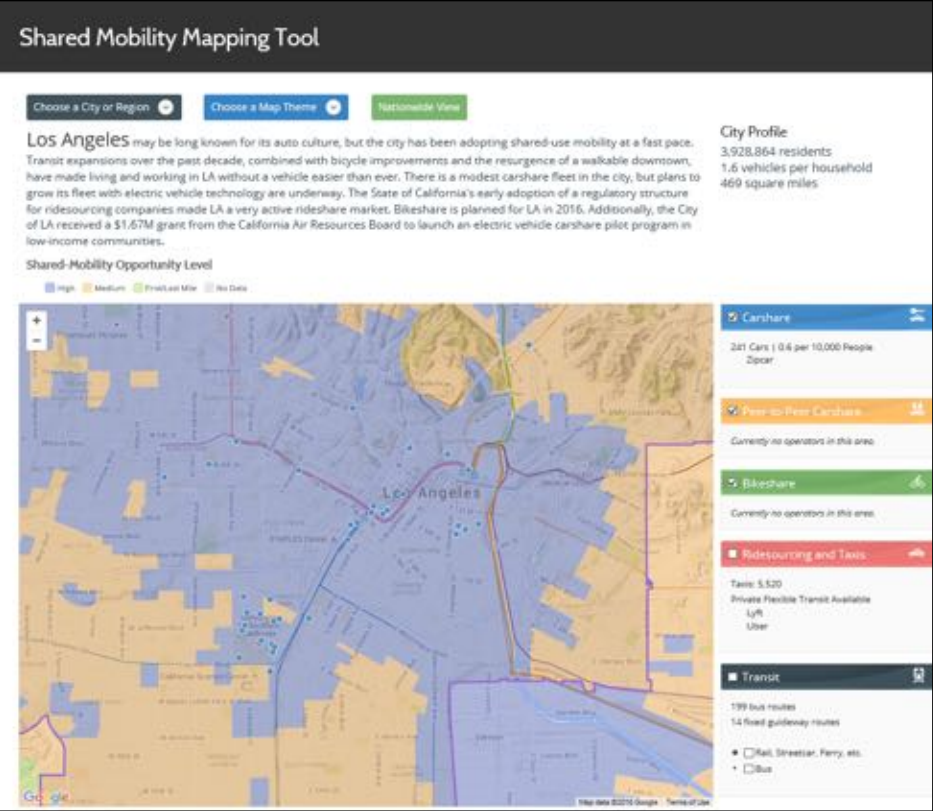
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LAUNCH TOOL

Benefits Calculator Overview

SHARED-USE MOBILITY CENTER

OUR WORK   ABOUT SUMC

Shared Mobility Benefits Calculator

Shared mobility is a powerful tool cities can use to reduce congest[ion] ... and household transportation costs.

Use the calculator below to explore the benefits of pursuing shared mobility. Simply select a personal target vehicle reduction goal, view or adjust the optimal mix of shared modes to account for your specific planning needs, and quickly assess the benefits of implementing transportation improvements.

To reduce personal vehicles by [5% ▾] (4,541 vehicles) in [Kansas City ▾]

Customize Target Vehicle Reduction Strategy

Adjust the Mix of Modes

Mode	Additional units	Adjust the mix
Transit commuters — Current units: 793	1,498	Optimal ⚪ Custom*
Carshare vehicles — Current units: 1	379	Optimal ⚪ Custom*
Shared bikes — Current units: 106	500	Optimal ⚪ Custom*
Ridesharers/carpoolers — Current units: 8,392	734	Optimal ⚪ Custom*

Results

🚗 **46,793,600** Fewer miles traveled by personal vehicles

🅿️ **16,800** Fewer metric tons of GHG emissions related to personal vehicle ownership

💲 **$16,496,900** Saved in personal vehicle transportation costs

See the Benefits

Shared Mobility Action Plans

The Toolkit and
Shared Mobility Action Plans
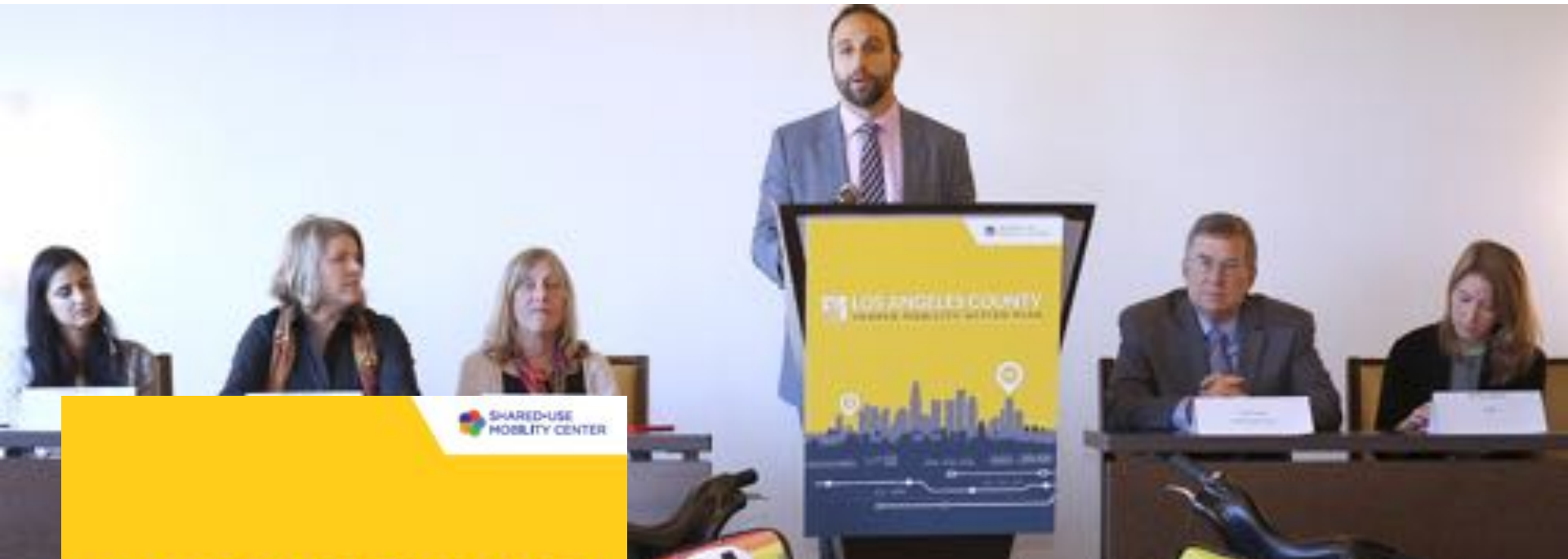
Minneapolis-St. Paul Action Plan

Remove **20,000** Cars from Minneapolis/St. Paul Cities

- ❖ 30k Transit Riders
- ❖ 600 Carshare Vehicles
- ❖ 800 Bikeshare Bikes
- ❖ 1,000 Vanpool Users
- ❖ 2,000 Microtransit & Ridesplitting Users

Could Save

- ❖ 200 million VMT
- ❖ 80,000 metric tons GHG
- ❖ $70 million annual household costs

20,000

CARS OFF THE ROAD

Austin Texas Shared Mobility Roadmap

SMART MOBILITY ROADMAP 2017

AUSTIN'S APPROACH TO SHARED, ELECTRIC, AND AUTONOMOUS VEHICLE TECHNOLOGIES

Shared Mobility Benefits Calculator

TO REDUCE PERSONAL VEHICLES BY 20% IN AUSTIN...

+

36,507 Transit Commuters

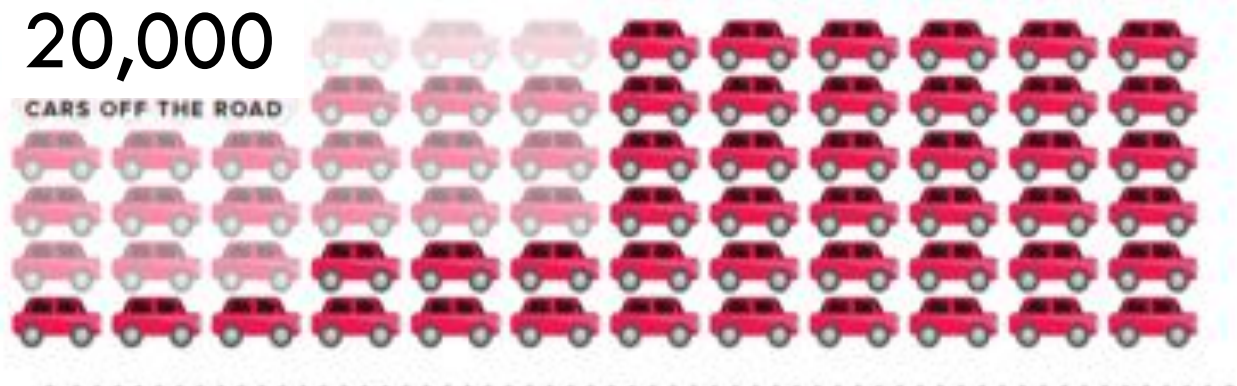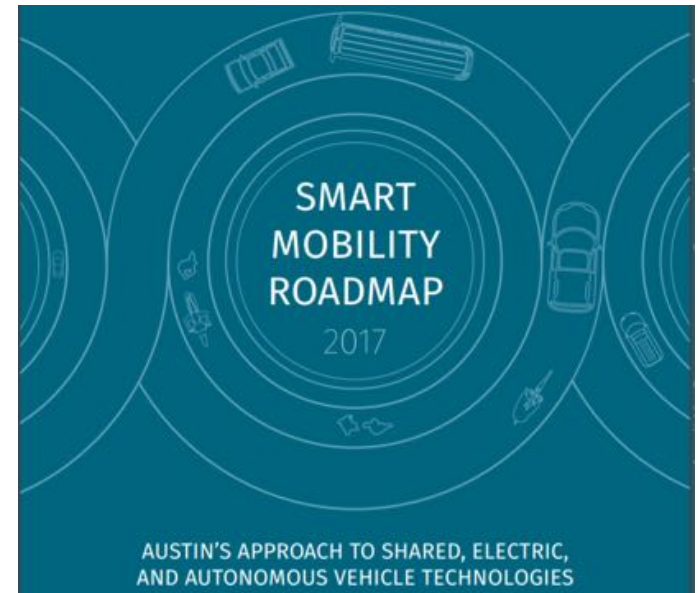**17,889** Rideshare/Carpoolers

9,238 Carshare Vehicles

6,748 Shared Bikes

=

1,140,027,400 Fewer miles traveled by personal vehicles

409,100 Fewer metric tons of GHG emissions related to personal vehicle ownership

$401,912,300 Saved in prsonal vehicle transportation costs

Graphic recreated, with permission, from "Shared Mobility Benefits Calculator," Shared-Use Mobility Center.

Prioritize People

Active transportation infrastructure

Remaking Parking Lots: No minimums

Pedestrian streets

BRT Lanes prioritize transit, active modes

Thank you!

Brian Holland
brian@sharedusemobilitycenter.org