

# Shared, Electric, and Autonomous, Vehicle Roadmap

## Update

Rob Spillar, P.E., Director  
Austin Transportation Department

June 16, 2017



Council Resolution  
March 2017

**Develop Nation-  
leading plan on  
Shared, Electric and  
Autonomous  
Vehicles and  
Services**





# The Plan is a Roadmap

Capital Metro and others are key to ensuring a successful, collaborative, regional plan

# Shared, EV and AV Benchmarks in US Cities

**Seattle**  
Metro to have 120 all-electric buses by 2020

**Portland**  
Replace 10,000 gas or diesel vehicles with EVs by 2020

**San Francisco**  
Testing AV shuttles on open road by 2018

**Los Angeles**  
Eliminate 100,000 vehicles by 2025

**Denver**  
Add 200 EVs to city Fleet by 2020

**Columbus**  
Winner of the AV testing occurring Smart City Challenge

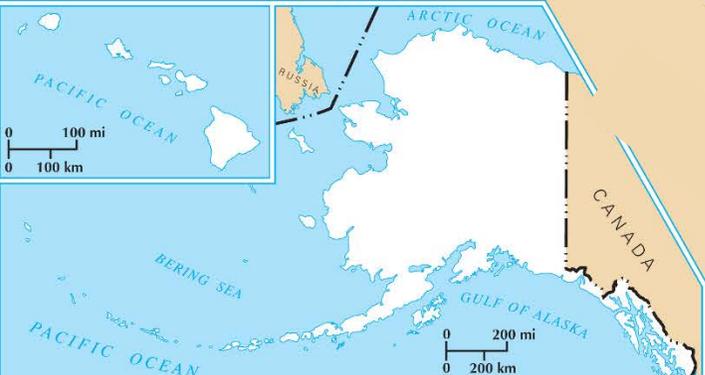
**Pittsburgh**

**Boston**  
Testing AVs in closed and open environments

**New York City**  
1,000 EVs in city fleet by 2017

**Austin**  
Google's 1<sup>st</sup> live AV test in October 2015

**Tampa**  
First/Last Mile AV pilot from transit stops



# Convergence of services yields best results

*It is the **convergence** of shared, electric and automated vehicles together, guided by policy, which holds the greatest promise of simultaneously reducing congestion, emissions, and improving safety, access and affordability.*

# Connecting People, Technologies and Policies



**Shared  
Mobility**

+



**Electrification**

+



**Connected and  
Autonomous Vehicles**

+



**Land Use**

# Mobility at your Fingertips

*Travelers no longer think of themselves as users of a network, and instead have adopted an **app-oriented mindset**. They want to be able to know .. with the touch of their fingers ... how to get from Point A to Point B.*



- City of the Future- Technology and Mobility  
National League of Cities – Jan 2015

# Smart Cities Run on Data



## Connected & Automated Vehicles



## Packaged Mobility & Mobility-as-a-Service



## Electric Vehicles



# Engage the Public



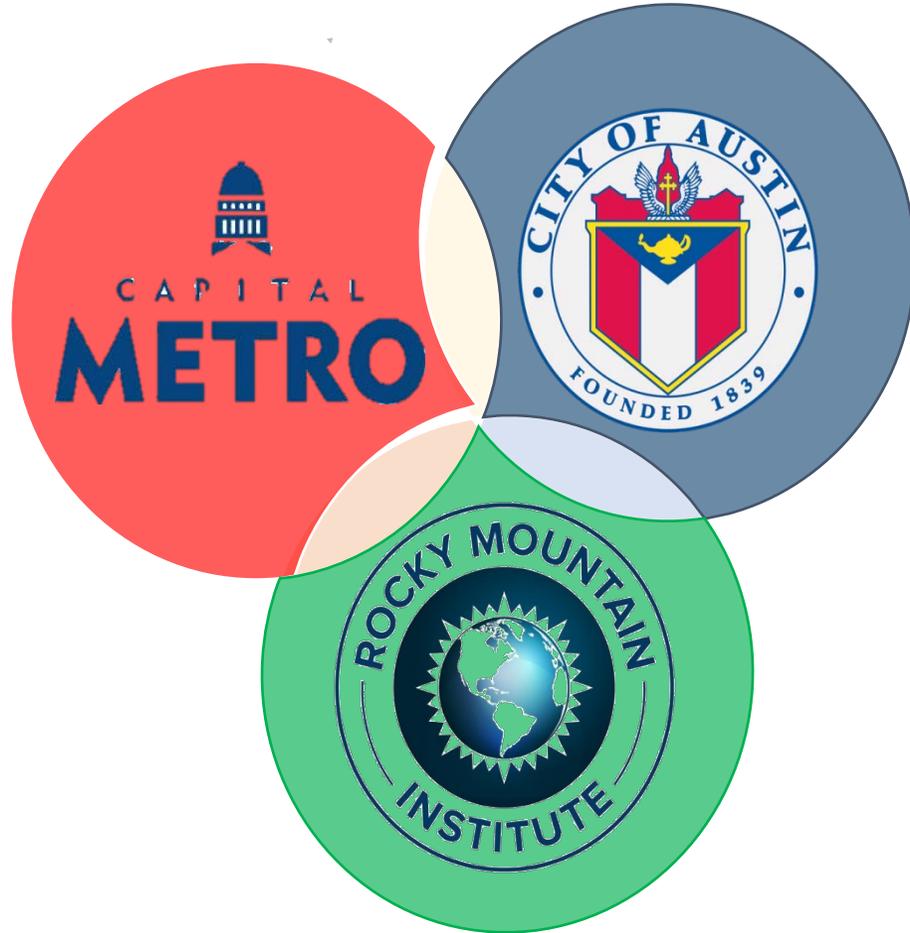
Source: Viral Hot News

NEO EP9: Electric Concept Car Sets COTA Lap Records, With And Without A Driver

# State Legislation affecting AV operations

- SB 2205, effective Sept. 1, pre-empts a municipalities' ability to regulate AV operations on city streets, including collecting data or fees. The state now assumes authority to register vehicles and operators, but there is no notice to cities.
- HB 100, effective May 29, pre-empts a municipalities' ability to regulate TNC operations on city streets, including collecting data or fees.
- TNCs are widely expected to use autonomous vehicles within 5 -7 years
- There are likely to be modified AVs used on vehicles for hire on our streets with no municipal oversight

# A Regional, Collaborative, Sustained Effort



Austin Energy

Economic Development

Planning and Development

Neighborhood Housing and Cmty Dev.

Health

Sustainability

Fleet Services

Office of Innovation

Communications and Technology Mgmt

Communications and Public Information

University of Texas – Center for Transportation Research

Central Texas Regional Mobility Authority

Texas Department of Transportation

Austin Residents

Public and Private Sector

**and many more**