

# STATE STRATEGIES FOR CAV – SMART GROWTH, PLANNING & OPPORTUNITIES FOR COLLABORATION

Anuja Sonalker, PhD



# AGENDA

✧ Connected Autonomous Vehicles – **Hype**  
or **Happening?**

✧ What should the State be thinking about?

✧ What can state agencies do?

- ✧ Connected Autonomous Vehicles – **Hype or Happening?**
  - ✧ What is happening?
  - ✧ Where is it happening?
  - ✧ Where is it coming from?
  - ✧ Timelines
- ✧ What should the State be thinking about?
  - ✧ Smart Growth, Urban Planning & Infrastructure Inv
  - ✧ Testing sites
  - ✧ Data handling
  - ✧ New Revenue models
- ✧ What can state agencies do?
  - ✧ Identify Innovative technologies
  - ✧ Identify strategies to explore
  - ✧ Inter agency cooperation
  - ✧ Test and Understand!
  - ✧ Explore Incentives – there are many!



**Hype or Happening?**

# ✧ What is happening?

- ✧ Cars
  - ✧ Trucks
  - ✧ Shuttles
  - ✧ Ride sharing
  - ✧ Parking
  - ✧ Highway Autonomous
  - ✧ Intelligent Traffic Assist
- ✧ Where is it happening?
- ✧ Where is it coming from?



# Where?\*

- ✧ San Bernadino, CA
- ✧ Phoenix, AZ
- ✧ Nevada Highways
- ✧ Oregon
- ✧ Minnesota

Cars

Truck Platooning

Autonomous Shuttles



\*Non-comprehensive list of major sites only



# Over here too...

- ✧ Ann Arbor, MI
- ✧ M-city, MI
- ✧ Ohio Turnpike
- ✧ Pittsburgh, PA
- ✧ Boston, MA
- ✧ Columbia, Maryland

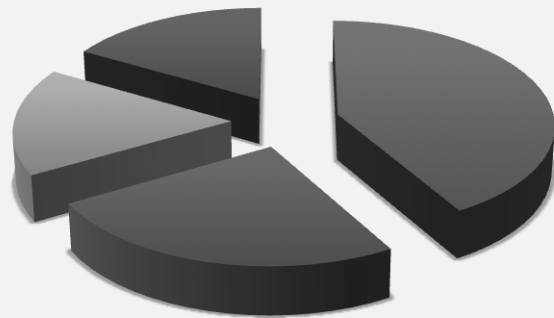


Cars  
Autonomous Shuttles



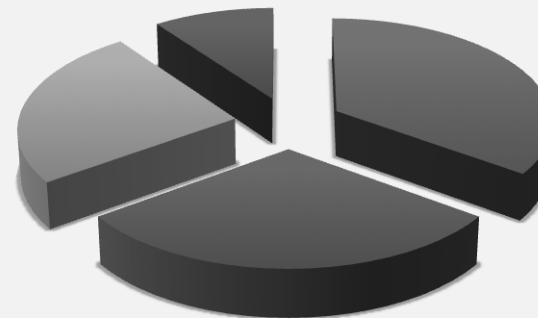
# ✧ Where is it coming from?

## Testing



- Google + Uber
- Tier-1s
- Startups
- OEMs

## Technology



- Google + Uber
- Tier-1s
- Startups
- OEMs

# ✧ What should the State be thinking about?

- ✧ Smart Growth (New centers of prosperity)
- ✧ Urban Planning for streets, cutouts, HAV only lanes, parking areas, charging pads for HAVs
- ✧ Infrastructure Investment in Wireless Access Points, RTK GPS, PKI Infrastructure
- ✧ Testing sites
- ✧ Data handling
- ✧ Transition planning
- ✧ New Revenue models

# ✧ What can state agencies do?

- ✧ Identify Innovative technologies
- ✧ Identify strategies to explore
- ✧ Inter agency cooperation
- ✧ Test and Understand!
- ✧ Explore Incentives – there are many!

**UP NEXT:**

**WHICH AGENCIES SHOULD  
COLLABORATE & REMOVE BARRIERS**

MDOT

CV|AV Spearhead  
Emergency Mgmt  
Multi modal  
transportation



DEPT OF PLANNING

Smart Cities  
Innovation District  
Reinvest MD



ECONOMIC DEV

Strategic  
redevelopment



DLLR

First & Last mile  
transit options  
OJT and Job  
Growth

MEDCO

Pilot ready sites



TEDCO

Innovation  
Entrepreneurship  
Innovation Testing  
Centers



## ✧ Which Agencies Should Collaborate to remove barriers?

### ✧ **Maryland Department of Transportation**

- ✧ Integrate transportation technology into long-term plans
- ✧ Complement existing transit systems
- ✧ Increased service and safety
- ✧ Traffic mitigation & Emergency Management
- ✧ Interconnectedness of modes (highway, aviation, rail, & port)
- ✧ Potential cost savings and decreased dependency on public transit financing (bonds, federal funding)

### ✧ **Maryland Department of Planning**

- ✧ Planning sees Maryland cities, towns and communities as attractive, vibrant places to live, work, play and learn (Zoning & Land Use)
- ✧ Increased investments in already developed areas using programs such as Reinvest Maryland
- ✧ Increased accessibility of rural areas
- ✧ Priority Specialized districts that support multiple uses such as Innovation Districts (i.e. Columbia Gateway & West Baltimore), Smart Cities

## ✧ Which Agencies Should Collaborate to remove barriers?

### ✧ **Economic Development (Commerce, TEDCO, & MEDCO)**

#### ✧ Commerce

- ✧ Retain, Grow, & Attract
- ✧ Partner with other agencies on redevelopment programs to include transportation and community development
- ✧ Strategic investments in the intelligent transportation industry
  - ✧ IT + Manufacturing + Cyber Robust
  - ✧ Incentivize enablement of access to jobs (commuter programs)
  - ✧ Incentivize local jurisdictions to embrace CV/AV

#### ✧ TEDCO

- ✧ Advance Innovation and Entrepreneurship
- ✧ Focus on flexible innovation testing centers
- ✧ Competitive innovation grants that are not tied to the University

#### ✧ MEDCO

- ✧ Leverage State owned properties for pilot-ready sites
  - ✧ Allow flexibility in ITS financing and implementation

## ✧ Which Agencies Should Collaborate to remove barriers?

### ✧ **Department of Labor, Licensing and Regulation**

- ✧ Transportation impacts jobs
- ✧ There is a mismatch of where entry level workers live and where the jobs are located
- ✧ AV allows for increased transit options and last mile (increased reliability)
- ✧ Enhance traditional “blue collar” jobs to adapt to technology. Increased skills = Higher Wages = Economic Prosperity (i.e. Maryland Tech Connection Work and Learn)



UP NEXT:

**DISCUSSION**