



# Countywide Automated Vehicles (AV) Strategic Plan

SMCTA Board of Directors

October 10, 2024



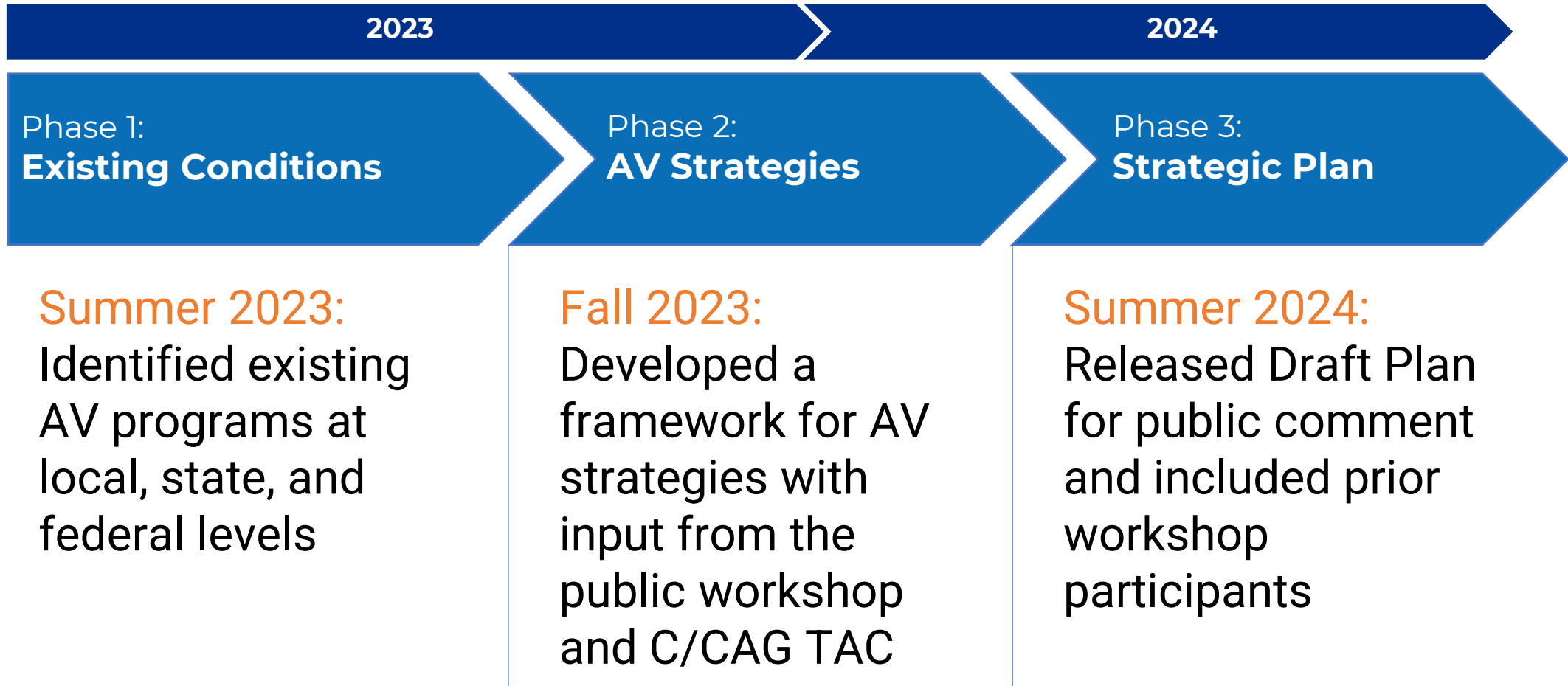
# PROJECT BACKGROUND

## *Why an AV Strategic Plan?*

- To identify current policy and regulatory framework for AVs at the federal, state and local levels.
- To prepare the county and cities for AV deployments that are already happening throughout the county and the region.
- To conduct community and stakeholder outreach to understand what types of AV strategies to prioritize.
- To ensure the TA & C/CAG's policies and funding programs are prepared to support future locally-driven AV strategies.
- To understand opportunities and best practices for AV pilots and programs.



# PROJECT TIMELINE



# ABOUT THE AV STRATEGIC PLAN



## Contents:








- Purpose & Background
- Vision & Guiding Principles
- State of AVs in San Mateo County
- Stakeholder & Public Engagement
- AV Strategies
- Roadmap for the Future
- Funding Opportunities

# AV STRATEGIC PLAN GUIDING ELEMENTS

## Vision Statement

SMCTA and C/CAG will support strategic measures toward implementing automated vehicle technologies that promote equitable levels of access, safety, reliability, and sustainability in San Mateo County.

## Guiding Principles

-  Accessibility & Equity
-  Community Engagement
-  Connectivity
-  Workforce Development
-  Safety
-  Support Local Agencies
-  Sustainability



# EXISTING CONDITIONS

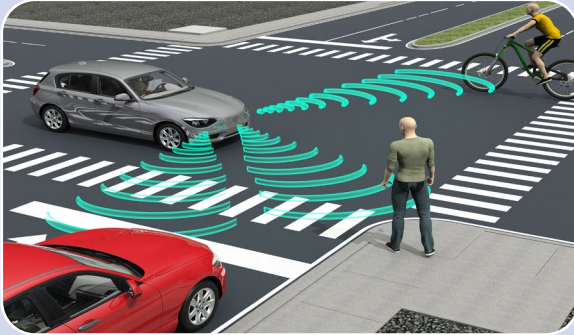
## Key Findings:

- AV testing and services are happening in San Mateo County
- Varying roles and responsibilities at different levels of government and private sector
- We are the first county-level strategic plan in the state
- AVs are not just robotaxis but also include shared shuttles, transit, freight, deliveries, connected personal vehicles, etc.





# ABOUT THE TECHNOLOGY: OVERVIEW



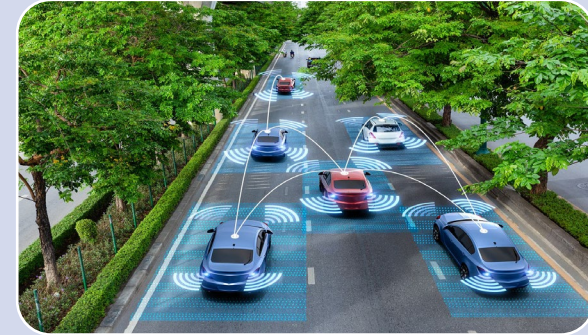
## Automated Vehicles:

- Use internal sensors to interpret the environment
- Range from assistance to full automation



## Connected Vehicles:







- Use information received from external systems
- Information can come from other vehicles or infrastructure like traffic signals



## Connected Automated Vehicles:

- Use both sensors and external communication technology

# LEVELS OF AUTOMATION

0	1	2	3	4	5
 <p><b>No Automation</b> Zero autonomy, the driver performs all driving tasks.</p>	 <p><b>Driver Assistance</b> Vehicle is controlled by the driver, but some driving assist features may be included in the vehicle design.</p>	 <p><b>Partial Automation</b> Vehicle has combined automated functions, like acceleration and steering, but the driver must remain engaged with the driving task and monitor the environment at all times.</p>	 <p><b>Conditional Automation</b> Driver is necessary, but is not required to monitor the environment. The driver must be ready to take control of the vehicle at all times with notice.</p>	 <p><b>High Automation</b> The vehicle is capable of performing all driving functions under certain conditions. The driver may have the option to control the vehicle.</p>	 <p><b>Full Automation</b> The vehicle is capable of performing all driving functions under all conditions. The driver may have the option to control the vehicle.</p>

Society of Automotive Engineers (SAE) Automation Levels Full Automation





# ENGAGEMENT & PUBLIC OUTREACH

Engagement Method	Participants	
Advisory Committee	<ul style="list-style-type: none"> <li>• C/CAG Technical Advisory Committee (TAC)</li> </ul>	
One-on-One Interviews	<ul style="list-style-type: none"> <li>• California DMV</li> <li>• CPUC</li> <li>• Caltrans</li> <li>• MTC</li> <li>• Commute.org</li> </ul>	<ul style="list-style-type: none"> <li>• City of Burlingame</li> <li>• City of Hillsborough</li> <li>• May Mobility</li> <li>• Beep</li> <li>• Undisclosed ridesharing provider</li> </ul>
Peer Exchange	<ul style="list-style-type: none"> <li>• SFCTA &amp; SFMTA</li> </ul>	
Roundtable	<ul style="list-style-type: none"> <li>• SamTrans</li> </ul>	
Public Meetings	<ul style="list-style-type: none"> <li>• Virtual Public Workshop w/ Focus Groups</li> <li>• C/CAG Board</li> <li>• SMCTA Board &amp; CAC</li> </ul>	



# FEEDBACK FROM PUBLIC ENGAGEMENT



Safety and accessibility is a top priority



Partnership with the private sector should be mutually beneficial (e.g., data sharing)



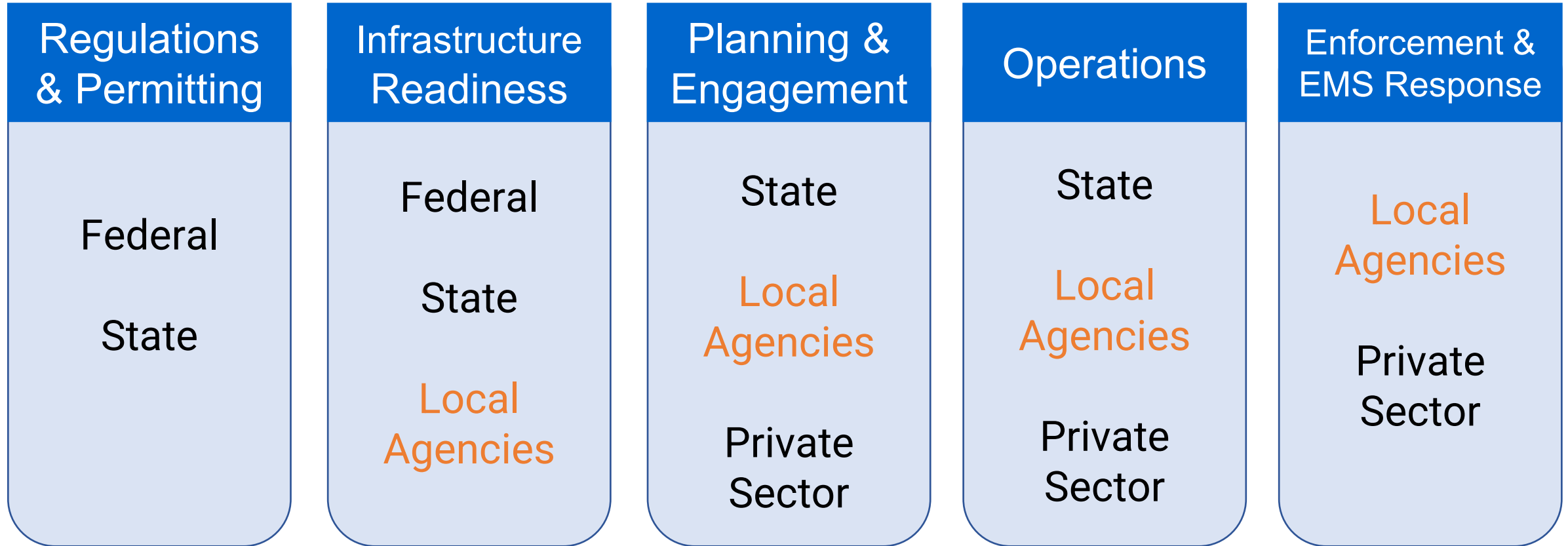
First-last mile solutions should be prioritized to schools, medical facilities and business parks. Also, serve non-commute activities.



Automated shuttle services are the preferred type of AV pilot or application by most participants



# ROLES & RESPONSIBILITIES



# WHAT CAN LOCAL AGENCIES INFLUENCE?

Infrastructure Readiness	<ul style="list-style-type: none"><li>• Road maintenance, traffic signals</li><li>• Upgrades to curbs, striping, bus stops, etc.</li></ul>
Planning & Engagement	<ul style="list-style-type: none"><li>• Community engagement and stakeholder outreach</li><li>• Coordination with local and regional planning</li></ul>
Operations	<ul style="list-style-type: none"><li>• Curbside access &amp; traffic management</li><li>• Shared automated shuttles for first-last mile connections</li></ul>
Enforcement & EMS	<ul style="list-style-type: none"><li>• Emergency response operations</li><li>• Traffic enforcement</li></ul>



# STRATEGIES IN THE AV STRATEGIC PLAN

*Menu of options including 22 strategies to support local agencies*



Agency Readiness



Infrastructure Readiness



Public Outreach and Partnerships



Policy

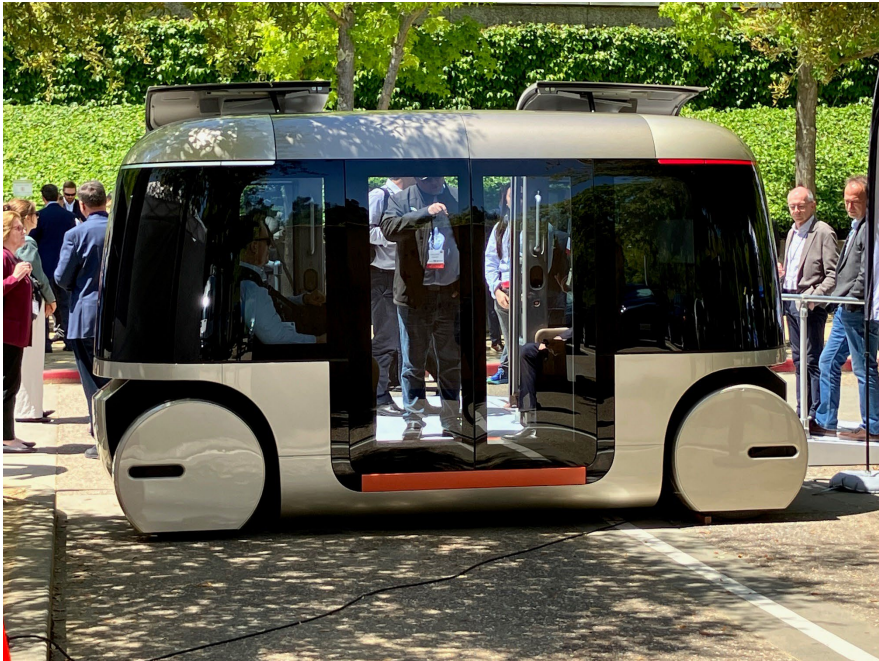


Pilots and Testing





# COMMUNITY FEEDBACK: PREFERRED STRATEGIES

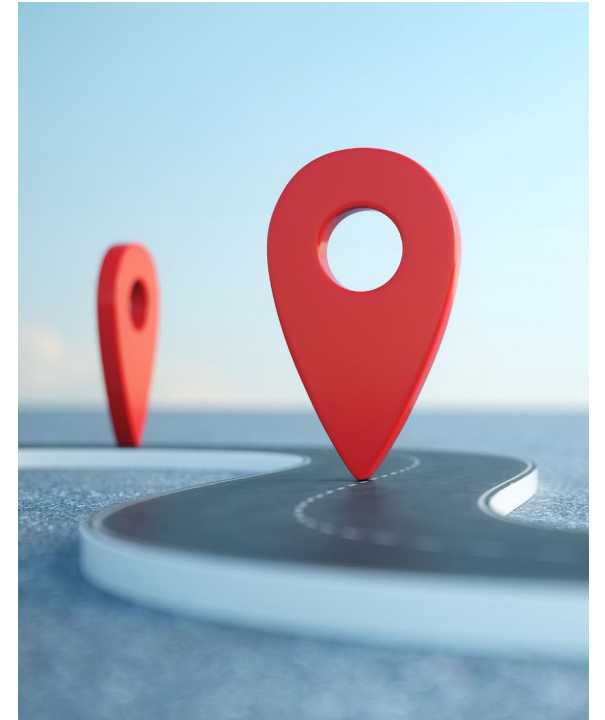


- AV Pilot Planning
- Shared AV Shuttle Pilot
- Transit Advanced Driver Assistance Systems (ADAS) Pilot
- AV Data Sharing Pilot

# ROADMAP FOR THE FUTURE

## *Short Term Actions for SMCTA & C/CAG*

- Ensure TA Strategic Plan and C/CAG Countywide Transportation Plan address AVs
- Assess the feasibility of AV shuttle pilots in equity priority communities with a focus on more community outreach



# NEXT STEPS

- TA Board and C/CAG Board acceptance in November 2024
- The Final Plan will be posted on the project website at:  
<https://www.smcta.com/planning-projects/SMCAVPlan>



# THANK YOU

