

TOWARDS AN AUTONOMOUS FUTURE IN SAN MATEO COUNTY VIRTUAL WORKSHOP

NOVEMBER 17, 2021

Hosted by:



SAN MATEO COUNTY
Transportation
Authority



TOWARDS AN AUTONOMOUS FUTURE IN SAN MATEO COUNTY

Introduction

On November 17, 2021, the San Mateo County Transportation Authority (TA) and SamTrans jointly hosted the Towards an Autonomous Future in San Mateo County workshop. The first of its kind workshop in San Mateo County focused on bringing attention to the advent of autonomous vehicles (AV) to our communities and to help San Mateo County local jurisdictions better understand the impact AV's may have on our local roads and streets.

TA Board member Emily Beach and SamTrans Chair Charles Stone respectively co-chaired the workshop and provided opening remarks.



Emily Beach
TA

“Our goal for today is to think about what is it that our cities, our agencies and the county should be doing to prepare for this new technology in terms of adapting our infrastructure, our policies, our land uses decisions and our transit systems for this autonomous future.”



Charles Stone
SamTrans

“That’s why we’re here today, to learn from pilot programs and peer agencies about what could be implemented by us such as connected transit and how local jurisdictions can help pave the way for this future. And while we know this isn’t going to be here tomorrow, it’s probably not going to be here in the next 5 years, as Emily said, we’ve got to be thinking down the road, how this is going to look and how we’re going to deal with it.”

Keynote Speaker



Billy Riggs
University of
San Francisco

Moderators



Virginia Lingham
WSP



Steve Kuciemba
WSP

Panelists



Imran Ali
Via



Adam Burger
Santa Clara Valley
Transportation Authority



Jose Alvarado
Cruise



Peter Calcaterra
Connecticut Department of
Transportation



Dan Mitchell
Nuro



Jack Hall
Contra Costa
Transportation Authority



Mark Rosekind
Zoox



Shaina Quinn
Utah
Transportation Authority

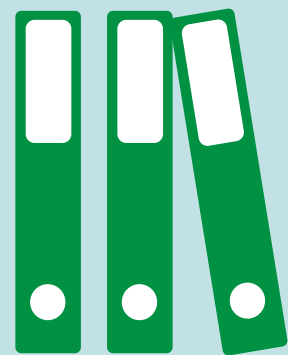
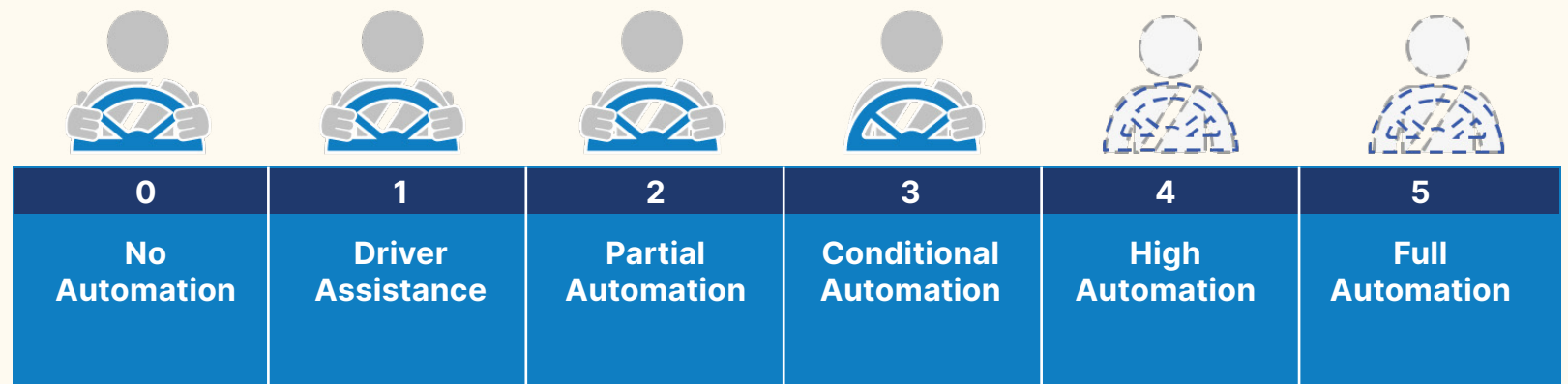
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Following the keynote speech by Professor Billy Riggs, Virginia Lingham from WSP moderated two panels of invited speakers. Panel 1 contained speakers from AV related companies, sharing insights on the state of AV in the marketplace. Panel 2 contained speakers from public sector agencies who are currently deploying AV pilot projects in their respective areas. These speakers shared their insights and lessons learned from their pilot project experiences. Following the panels, the workshop members divided into small groups to discuss possible applications of AVs in San Mateo County, initial steps to developing pilots, and concerns regarding safety and equity with AVs. Steve Kuciemba from WSP closed out the workshop by summarizing the issues discussed and led the group in a series of survey questions to highlight the audiences reactions to next steps. All of the key issues, topics, and survey findings are presented in the following pages.

Introduction to AVs

Automation

Automation has generally been divided into five levels: Level 1 (no driving automation) to Level 5 (full driving automation). Today, Level 3 is the frontier – it has been introduced in limited situations with pilot testing for Level 4 (vehicle automation). It is anticipated the next five years will focus on pilot projects testing vehicle fleets with the following five years seeing more deployment of AVs, both by public and private entities.

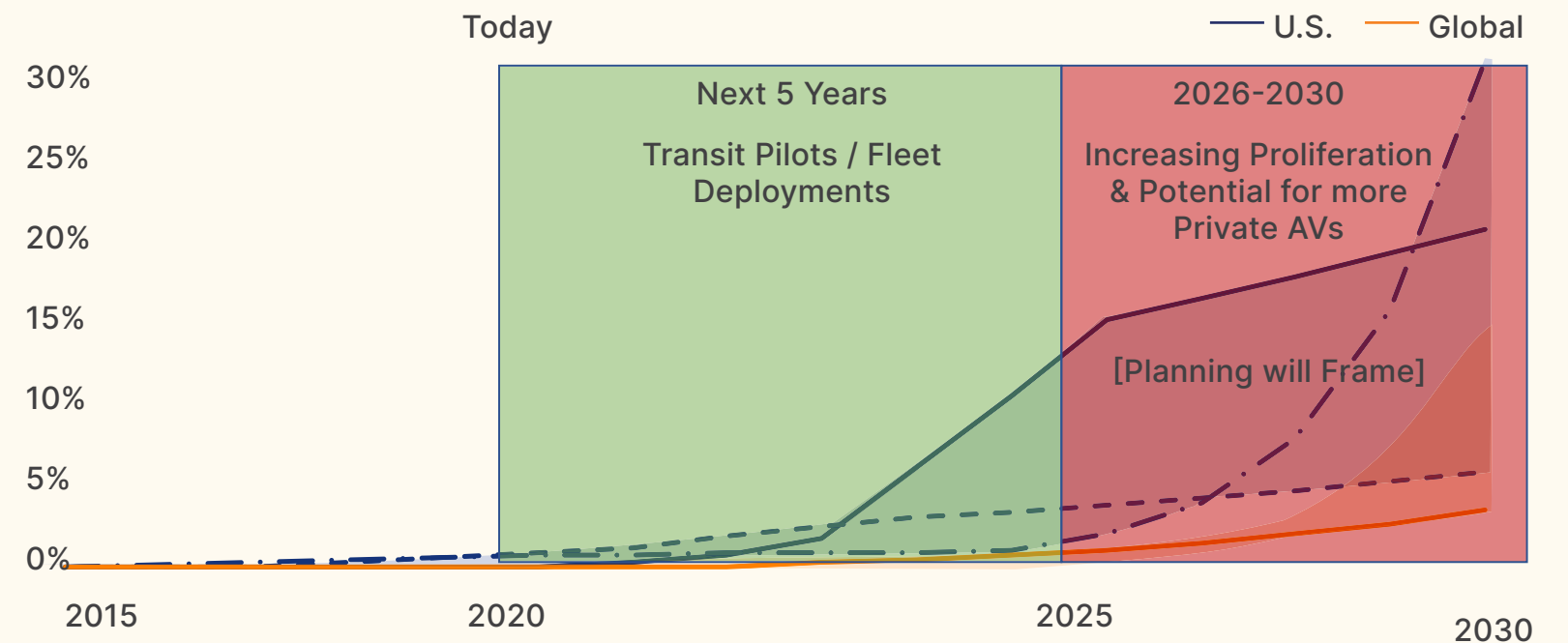


Regulation

If AVs follow Transportation Network Companies' (ex: Uber and Lyft) regulatory history, then the regulatory environment will be mostly state-driven rather than federal.

- Operational Design Domain from Federal guidance
- Operational Permit from California Department of Motor Vehicles (DMV)
- Passenger Service regulation from the California Public Utility Commission (CPUC) for both Drivered and Driverless AV passenger service

Projections for autonomous vehicle¹ new sales share as published by different analysts



¹autonomous (SAE L4-5)

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Key AV Discussion Topics Applicable to San Mateo County Agencies



Safety

- Safety is of paramount importance and is a primary concern
- Safety is multidimensional, with universal agreement it should be incorporated into every level of progression



Policy

- Pilot projects must serve a specific need - not technology for technology's sake



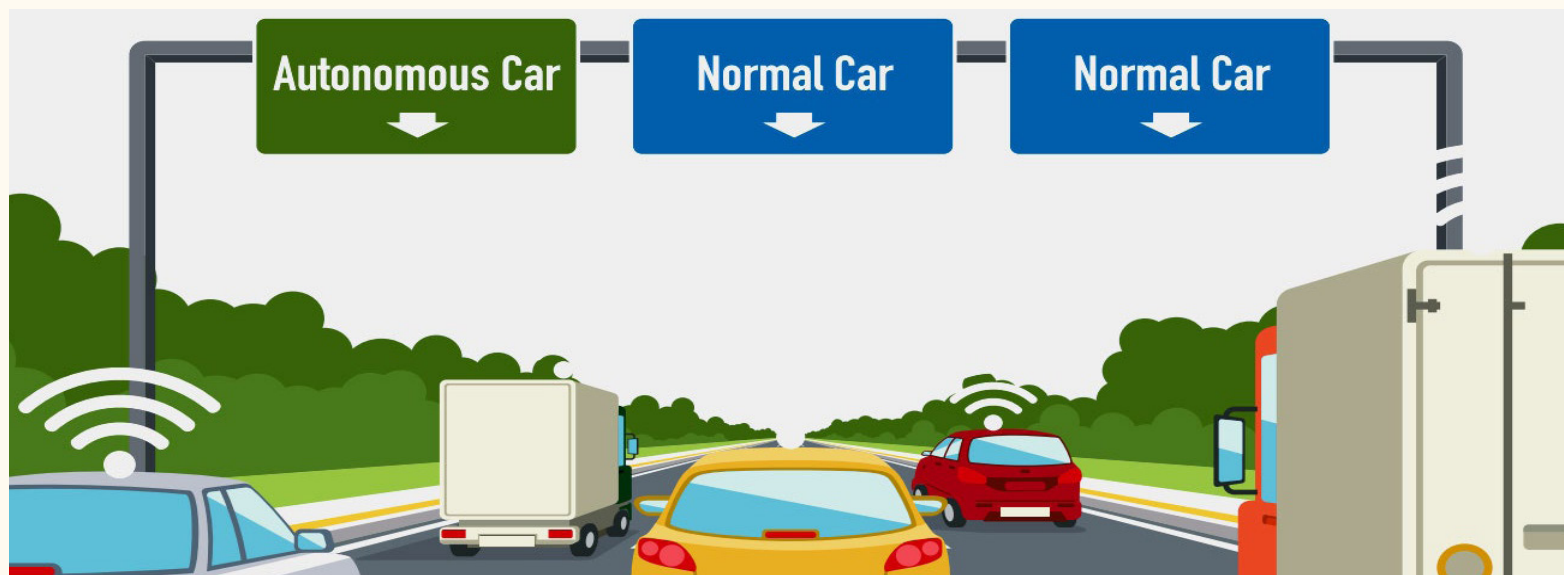
Engagement

- Community and stakeholder outreach and trust building is key - with law enforcement, with city council, and local communities
- A pilot project must include constant communication with the community
- A continuing conversation with local unions is needed to address concern about lost job opportunities



Vulnerable Populations

- AVs should be deployed to serve seniors in all living situations
- AVs are a prime opportunity to provide paratransit service



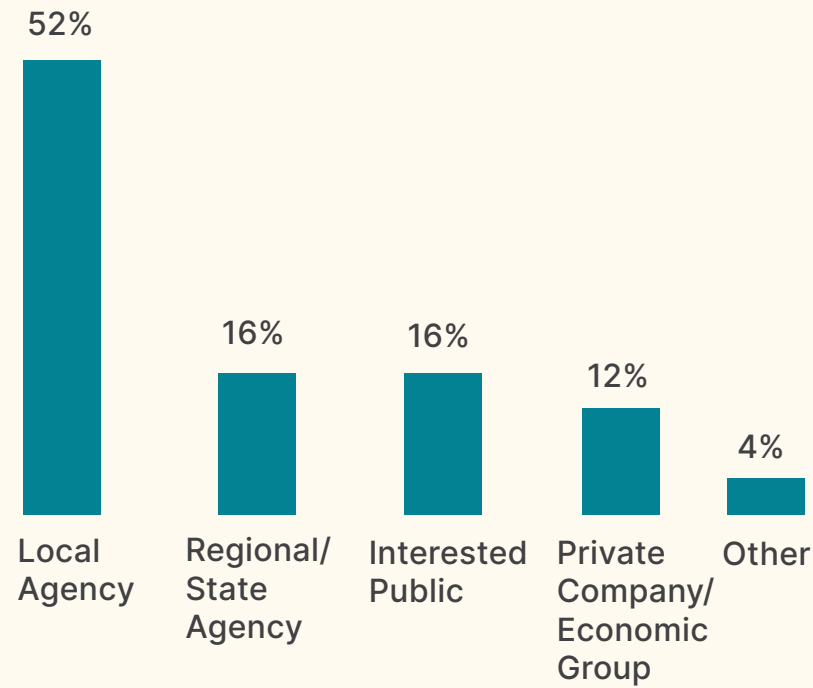
Implementation

- Pilot projects are an easier way to test the technology due to regulation and procurement requirements for full program implementation
- Proximity to Silicon Valley makes San Mateo County jurisdictions attractive to companies
- Funding challenges remain for pilots
- Simple infrastructure maintenance such as good striping and clear signs is the best way for cities to prepare for AVs
- Fixed guideways are easy low-hanging fruit to test out AVs

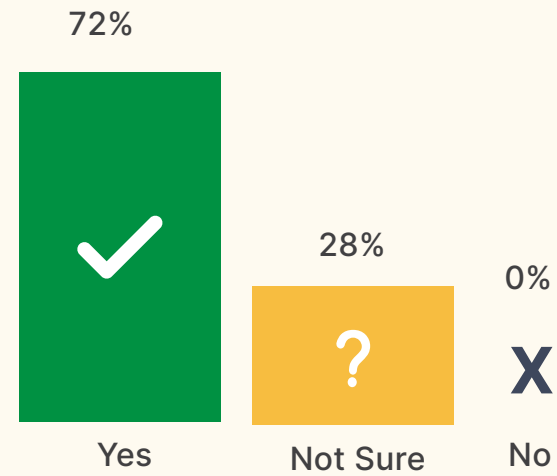
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Survey of Workshop Participants

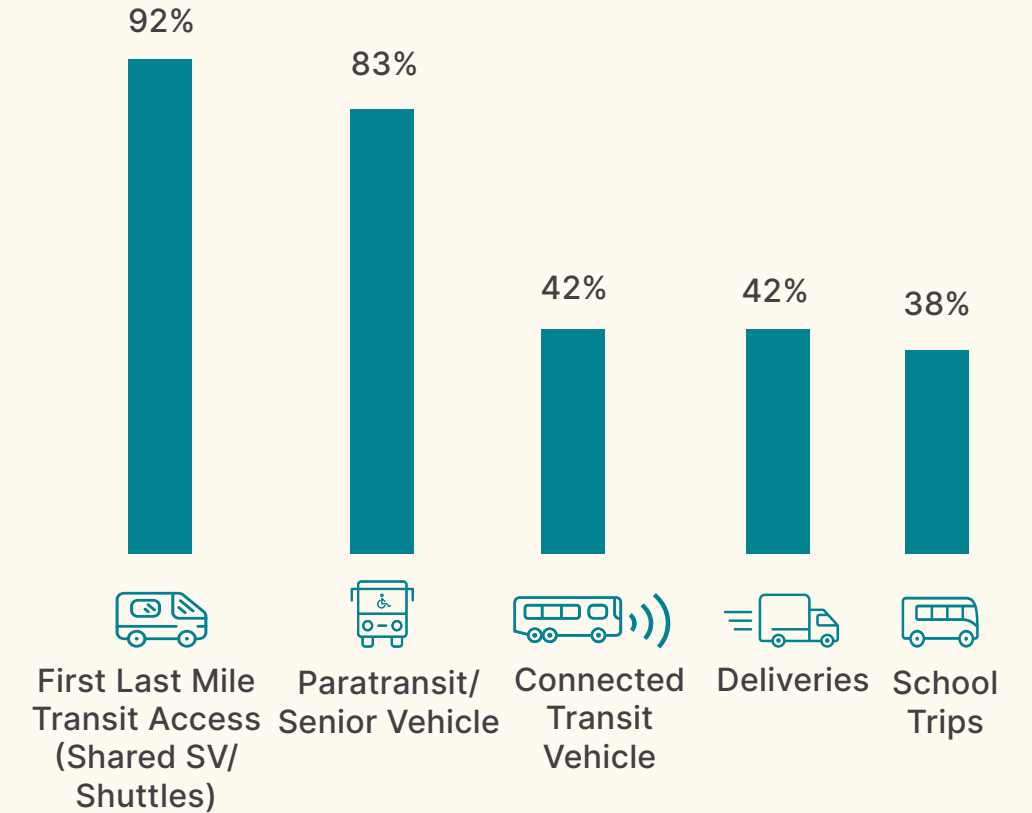
Type of Participant



Interest in Developing Pilot



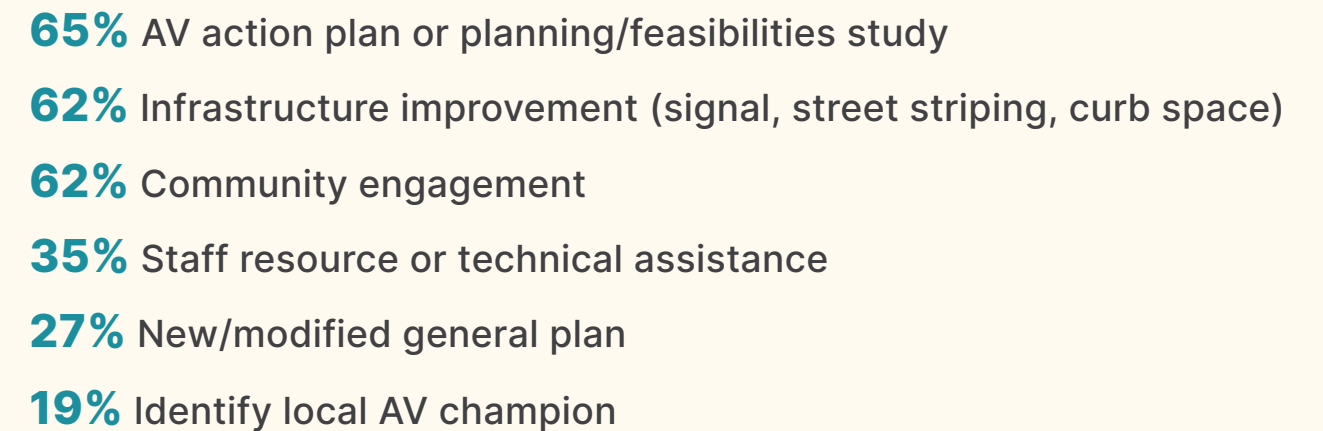
AV Opportunities/Applications for your City/Town



What Countywide Support or Coordination would be Beneficial?



Short Term Local Actions Needed first to Prepare for AV Deployment/Pilot

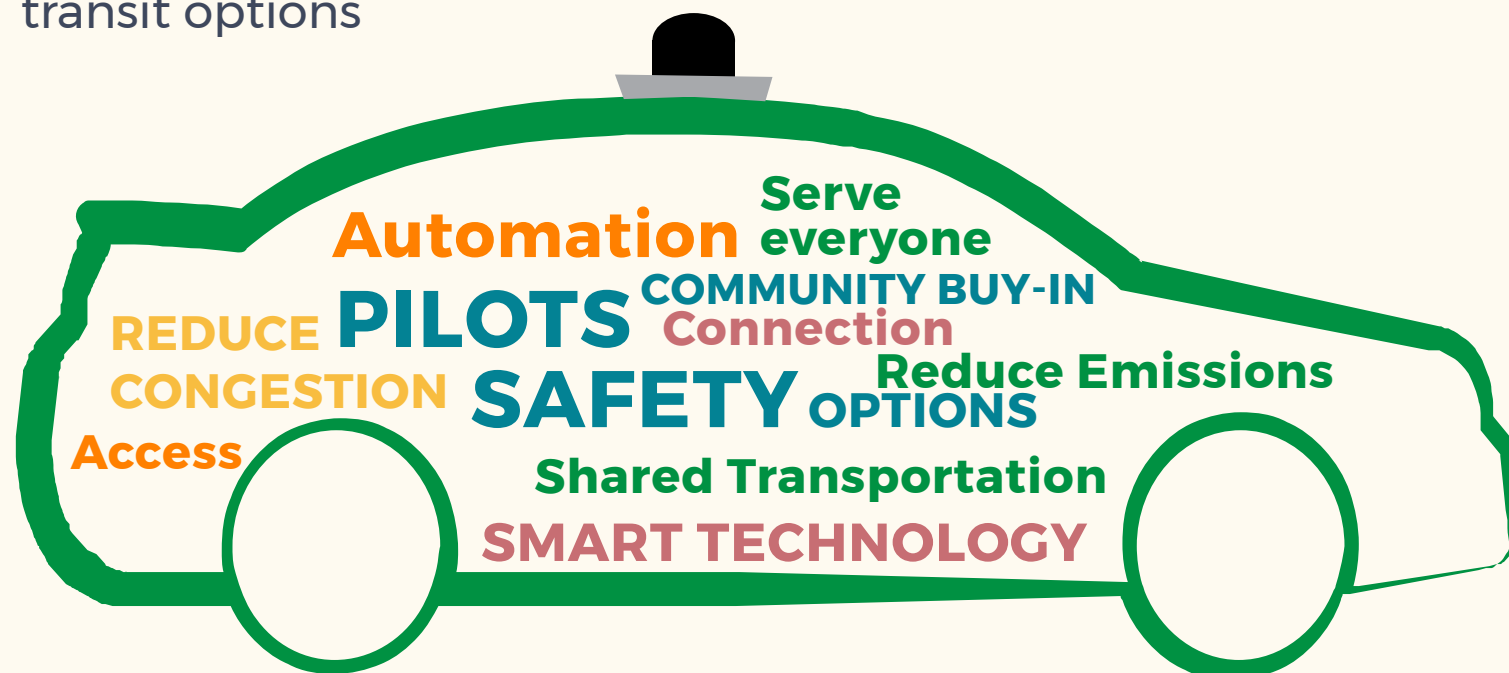


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Workshop Summary

Key Themes from Participants

- Safety is paramount
- Shared transportation is important to our future and reducing congestion
- Pilot Shared Autonomous Vehicles (SAV) or microtransit projects that address specific first-/last-mile or mobility problem
- When talking about transportation and automation it is not just about dense cities
- There are many other special needs beyond single occupancy personal AVs: movement of goods, Paratransit, and helping connect everyday commuters to more regional transit options



Participant-identified Priority Next Steps

- Organize an AV Task Force or Working Group to meet periodically to share lessons learned on local projects and help guide future countywide efforts
- Develop a San Mateo Countywide AV Strategic Plan that identifies the regulatory framework for AV/SAVs in San Mateo County, creates a shared vision for AV/SAV deployment, and outlines near-term and long-term strategies to preparing for a safe, equitable, and seamless transition to an AV future
- Plan for and fund SAV pilots that prioritize first-last-mile connections and serve people with disabilities or other under served communities