



A Decade of Shared Autonomous Vehicle Deployment

Lessons learned from CCTA's Shared Autonomous Vehicle Program

Advanced Mobility Group (AMG) - NextGen Mobility
San Francisco Bay Area, California, U.S.A

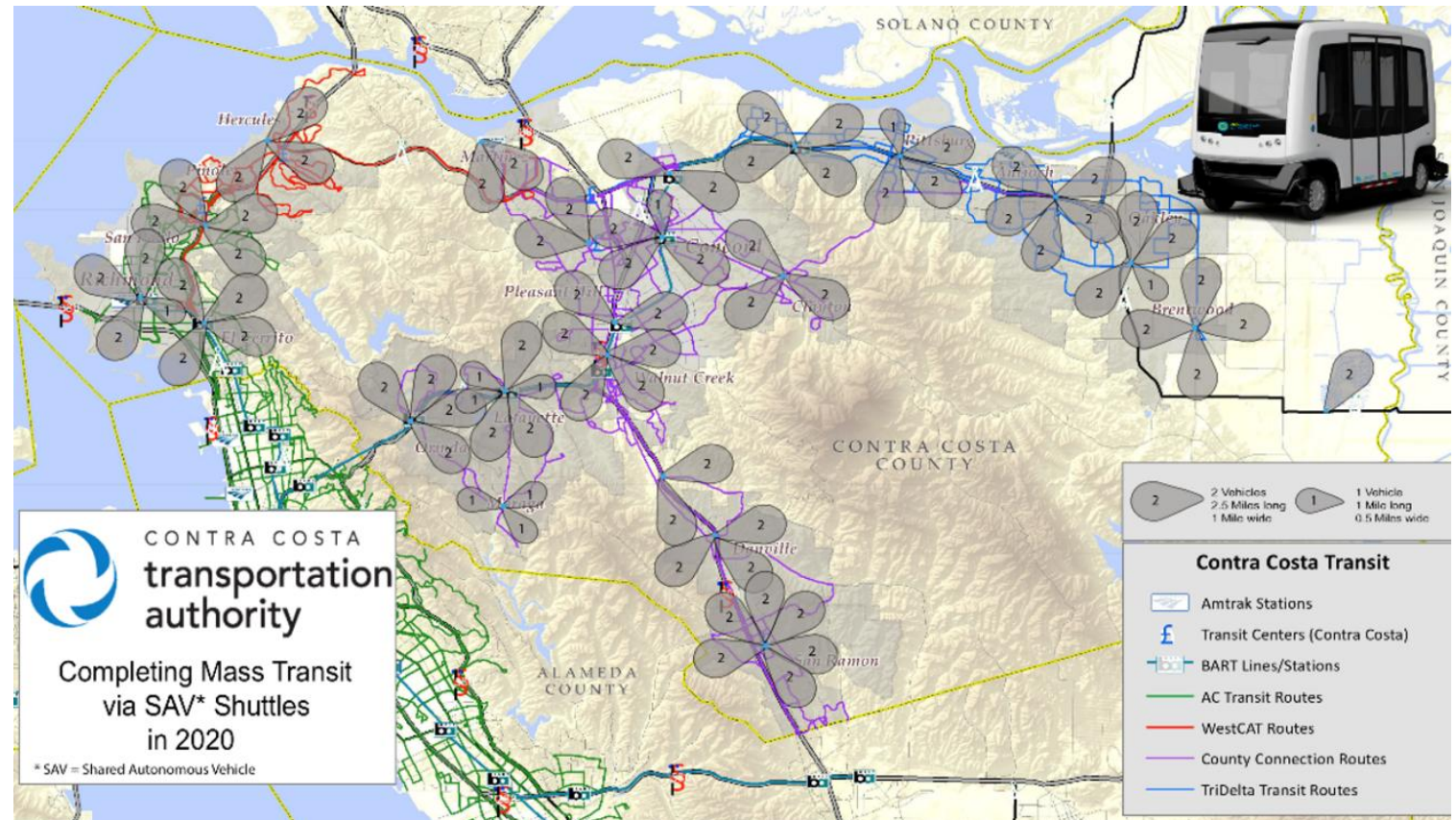
Why CCTA started the SAV program

The SAV program started as a mobility and access strategy.

First / last mile gap to connect to the regional transit rail - BART

Low-speed Automated Shuttle as a SAV transit system to cover the gap

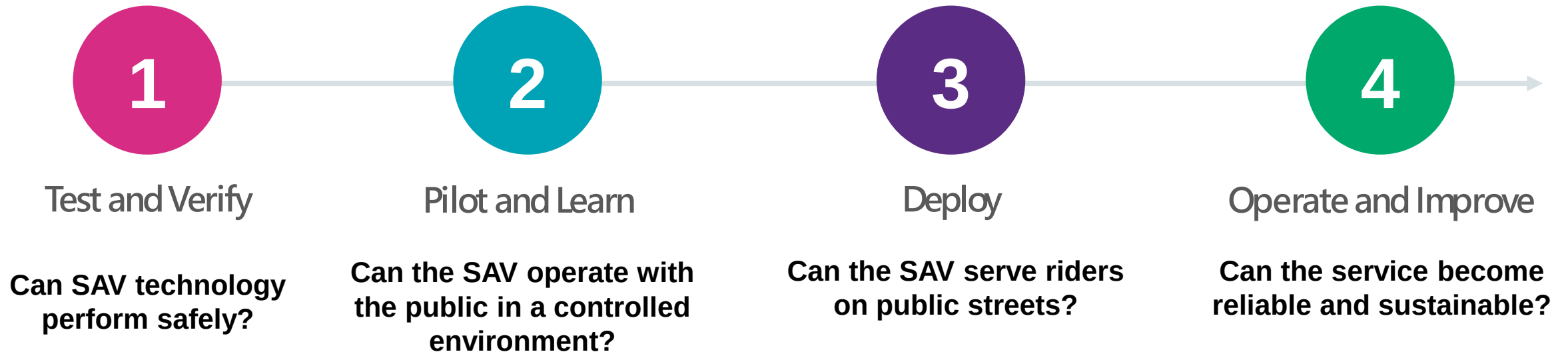
Public-Private Partnership to fund the projects



Takeaway Note: We started with a transportation problem, not technology for technology's sake.

Our SAV deployment basic strategy

Each phase answered a different deployment question.

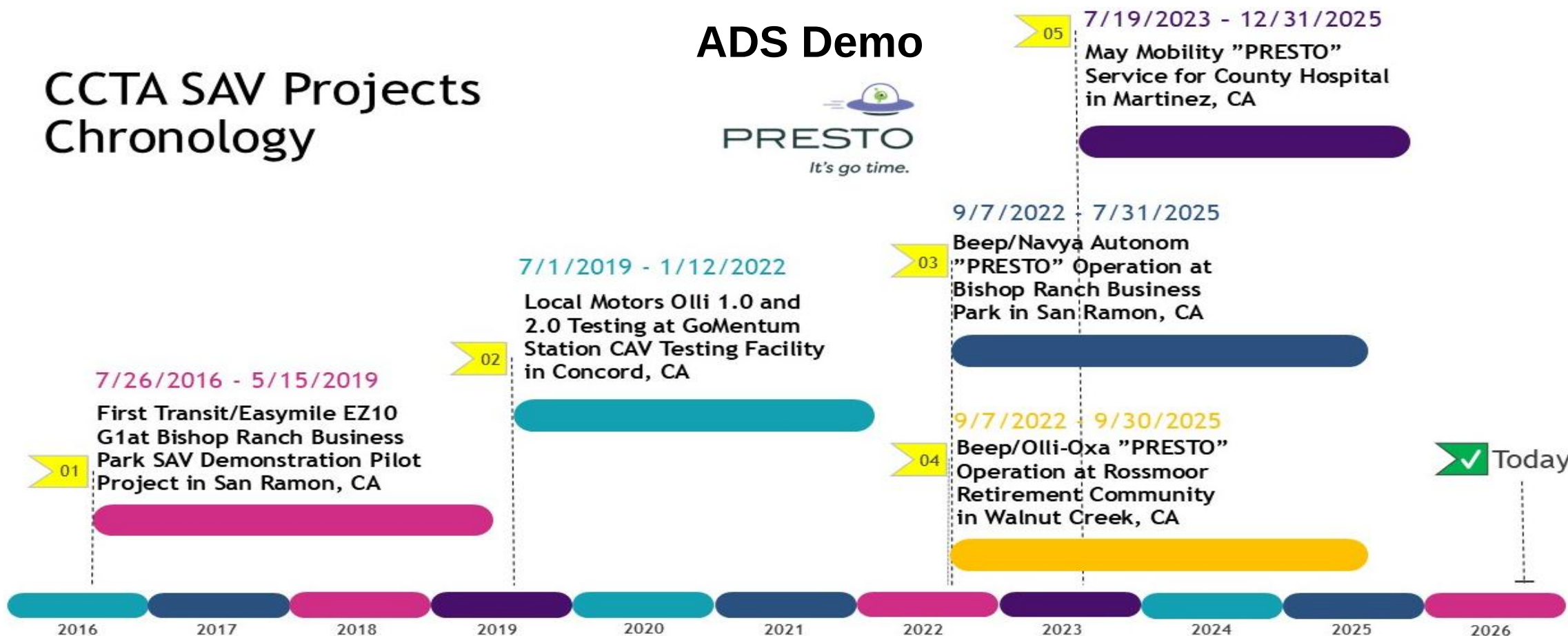


Takeaway Note: Progress came through small steps, not one big leap.

The journey: from pilot to sustained operations

CCTA SAV Projects Chronology

ADS Demo



Takeaway Note: Each deployment built on the lessons of the one before it.

The journey: from pilot to sustained operations



Core Question:

Can SAVs safely improve first/last-mile access to regional transit?

Chapter 1: From GoMentum to Bishop Ranch

From controlled testing to real riders

GoMentum Station Testing Facility:

- Controlled testing
- Proof of concept
- DDT/OEDR verification
- V2X add-ons
- Readiness decision

Bishop Ranch Business Park:

- Define route
- Public-private setup
- Real riders
- Rider education/expectations
- Real-world operating experience

Takeaway Note: Test. Validate. Then deploy. The first pilot established a safe learning model, not a final operating model.

Chapter 2: PRESTO and real service operations

Moving from pilots to service required operational maturity.

Business Park • Retirement Community • Hospital Access

Multiple service environments

More partners and approvals

Focus on rider experience

Measure, learn, adjust



Takeaway Note: Scaling was less about adding vehicles and more about maturing the operation.

From validation to public streets

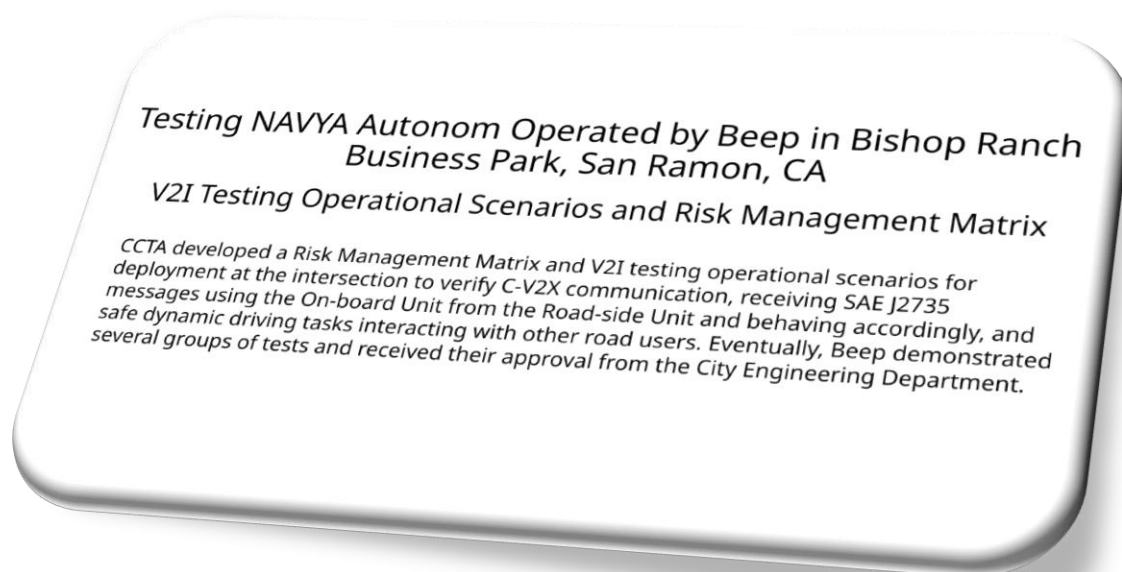
The question changed from “Can it drive?” to “Can it serve safely?”

Real intersections

Mixed traffic

Local approvals

Passenger expectations



Scenario design

Risk matrix

City review

Public operation

Takeaway Note: Public service is harder than technical demonstration.

Beyond SAV Technology Testing

Public service introduces operational, human, and service-delivery challenges.

Passenger & security: physical security, passenger behavior, cabin condition, emergency response

Fleet & operations: charging, storage, fleet management, demand management

Public acceptance: rider education, expectations, trust

Takeaway Note: A safe vehicle is only the beginning — successful SAV deployment requires a safe, reliable, and trusted service.

Five lessons learned

Successful SAV deployment is more than a technology challenge.

- Start with the problem. Define success.
- Validate before public deployment.
- Align partners around clear goals.
- Prepare and protect riders.
- Run a service, not a demo.

Deployment discipline:

- **Validate**
- **Operate**
- **Govern**
- **Earn Trust**

Takeaway Note: If you remember nothing else, remember these five.