

Redefining Mobility – City 5.0



Randy Iwasaki
Executive Director
Contra Costa Transportation Authority
August 3, 2017





WHO WE ARE

- The Contra Costa Transportation Authority (CCTA) is a public agency formed by Contra Costa voters in 1988 to manage the county's transportation sales tax program and to lead the county's transportation planning efforts.
- CCTA is responsible for maintaining and improving the county's transportation system by planning, funding, and delivering critical transportation infrastructure projects and programs that connect our communities, foster a strong economy, increase sustainability, and safely and efficiently get people where they need to go.





WHAT WE DO

- **BUSES-** Invest in a reliable, comfortable and convenient bus network
- **LOCAL STREETS-** Smooth traffic flow on major roads and invest in neighborhood improvements such as repairing potholes and road surfaces
- **PEDESTRIAN** - Make improvements to sidewalks, crosswalks, trails, and paths
- **SAFE ROUTES TO SCHOOLS-** Focus on programs and projects aimed at bicycle and pedestrian safety for K-12 students
- **FERRIES-** Expand the Bay Area ferry system by looking to ferries as an alternate commute method between West County and San Francisco



- **BICYCLE-** Invest in safe routes and infrastructure improvements for bicyclists
- **BART-** Make improvements to BART service and stations, such as extensions to new routes and parking at stations
- **HIGHWAYS-** Complete Contra Costa's highway system, and improve air quality and noise protection along these corridors
- **CARPPOOL/RIDESHARE-** Implement programs aimed at reducing traffic congestion by encouraging carpooling and ridesharing
- **PROGRAMS FOR SENIORS AND PEOPLE WITH DISABILITIES-** Enhance transit options to improve mobility for seniors and people with disabilities





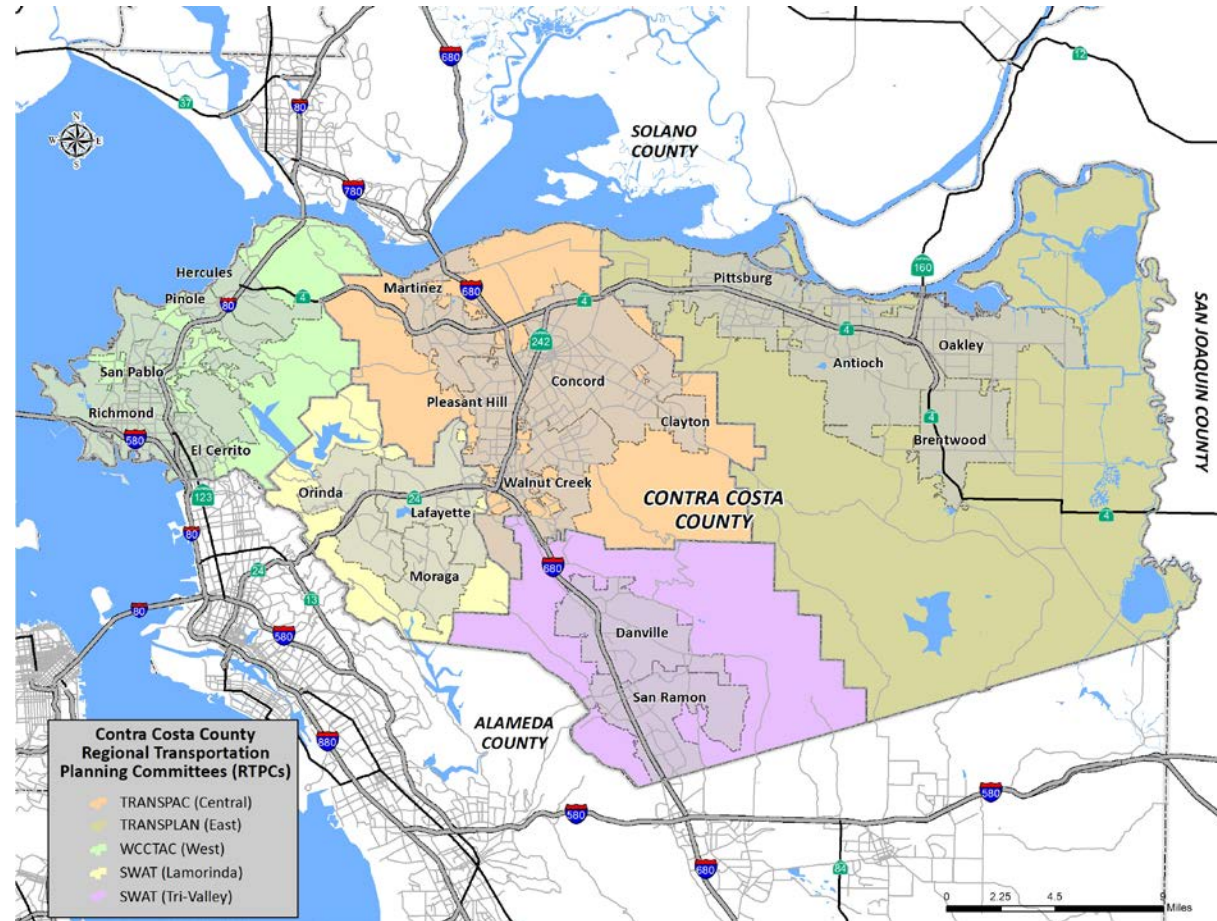
Transportation Planning





Regional Transportation Planning Committees

- Four Distinct Sub-regions
- Responsible for prioritizing local projects and programs
- Develop Action Plans for Routes of Regional Significance

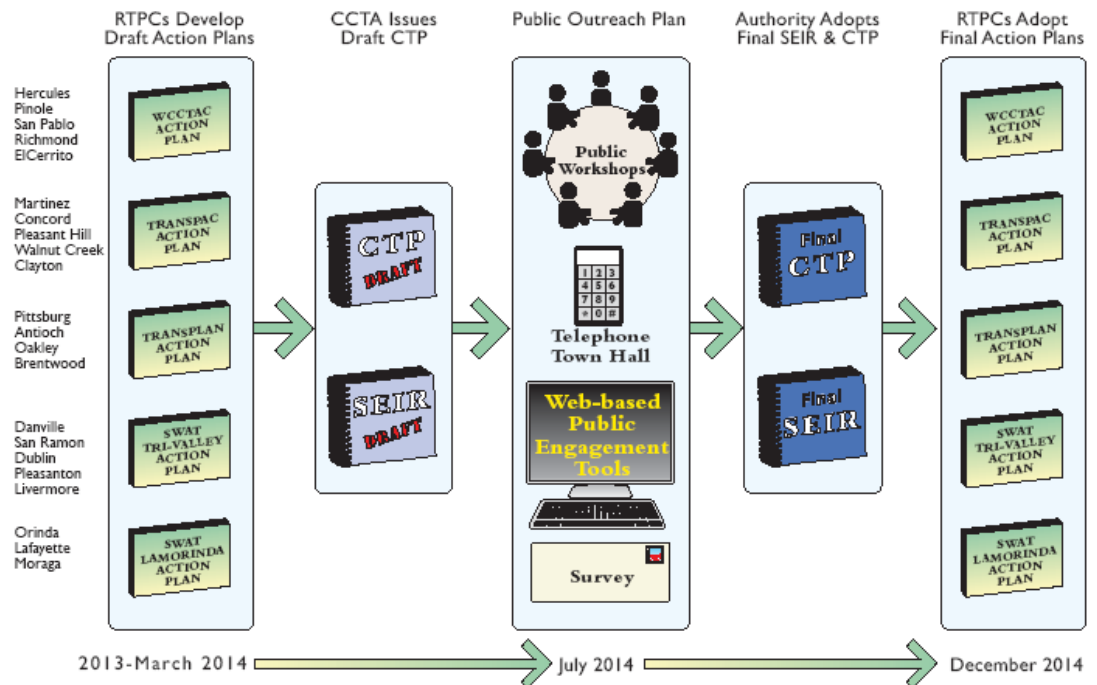




Long Range Planning – The Countywide Transportation Plan

- Updated Every 4-5 Years
- Documents the Authority's Goals, Vision, and Strategies
- Action Plans are Developed by the Regional Committees
- Includes 10- and 20-Year Financially Constrained Project Lists

Figure I-2: CTP Development & Adoption Process





Travel Demand Forecast Modeling

- Used to determine impacts of land use developments and transportation improvements through year 2040
- Model assumes increased capacity of existing roadways due to automated/connected vehicles
- Accounts for clean vehicle deployment over time
- Model provides future forecasts of GHG emissions, Vehicle Miles Traveled and Vehicle Hours of Delay under various scenarios



Implications of Urban Mobility Planning



6%

Consider impact of driverless car technology

50%

Consider explicit recommendations of or new highway construction

3%

Consider impact of Uber and Lyft

12%

Consider no new highway construction

20%

Consider impact of roadway diets

Source: League of Cities

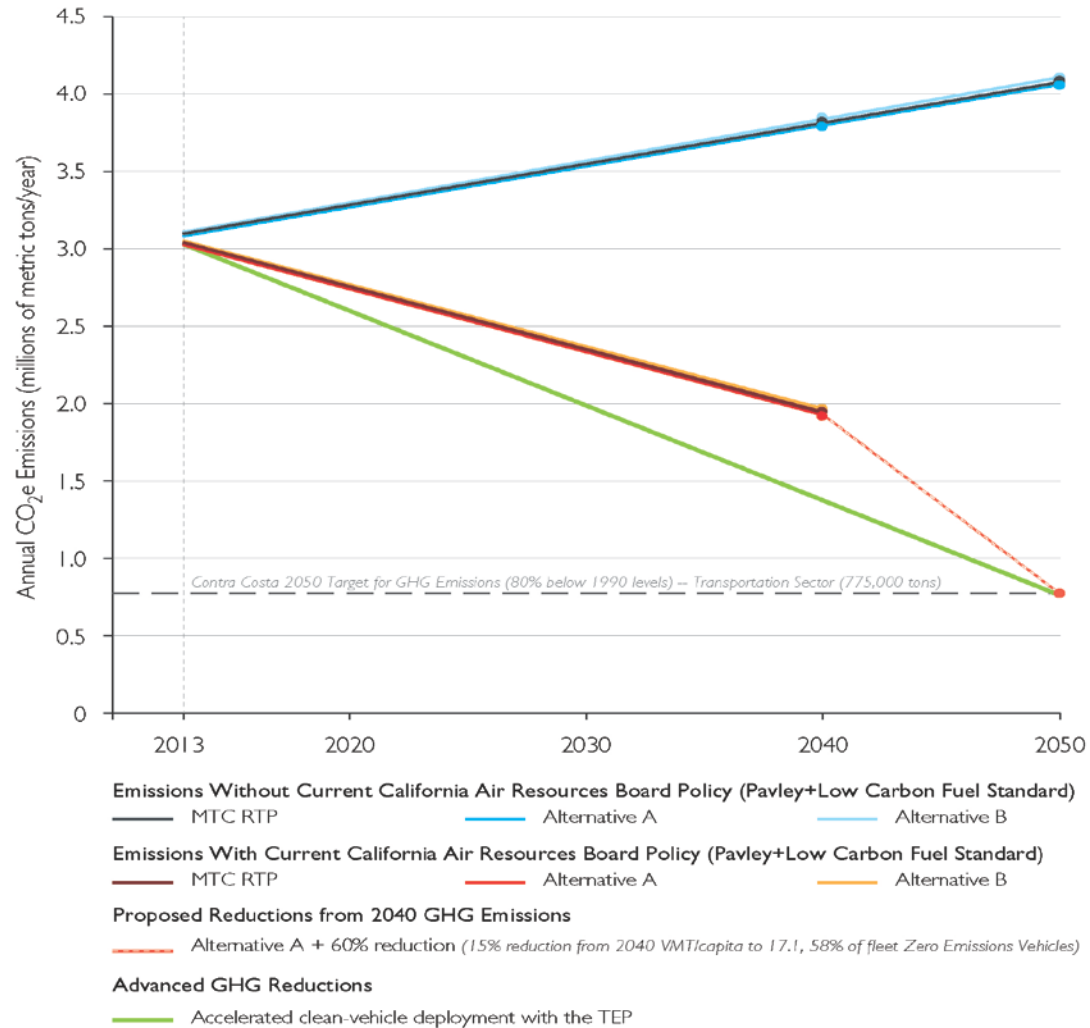


CONTRA COSTA
transportation
authority



Climate Change and Transportation

- Authority's plans build upon California's strong GHG emission reduction policies
- Includes accelerated clean vehicle deployment and automated vehicle technology





Introducing the GoMomentum Station Program



Connected Vehicle and Autonomous Vehicle (CV/AV)
Program and Test Facility

U.S. Department of Transportation Automated Vehicle Proving Ground



CONTRA COSTA
transportation
authority

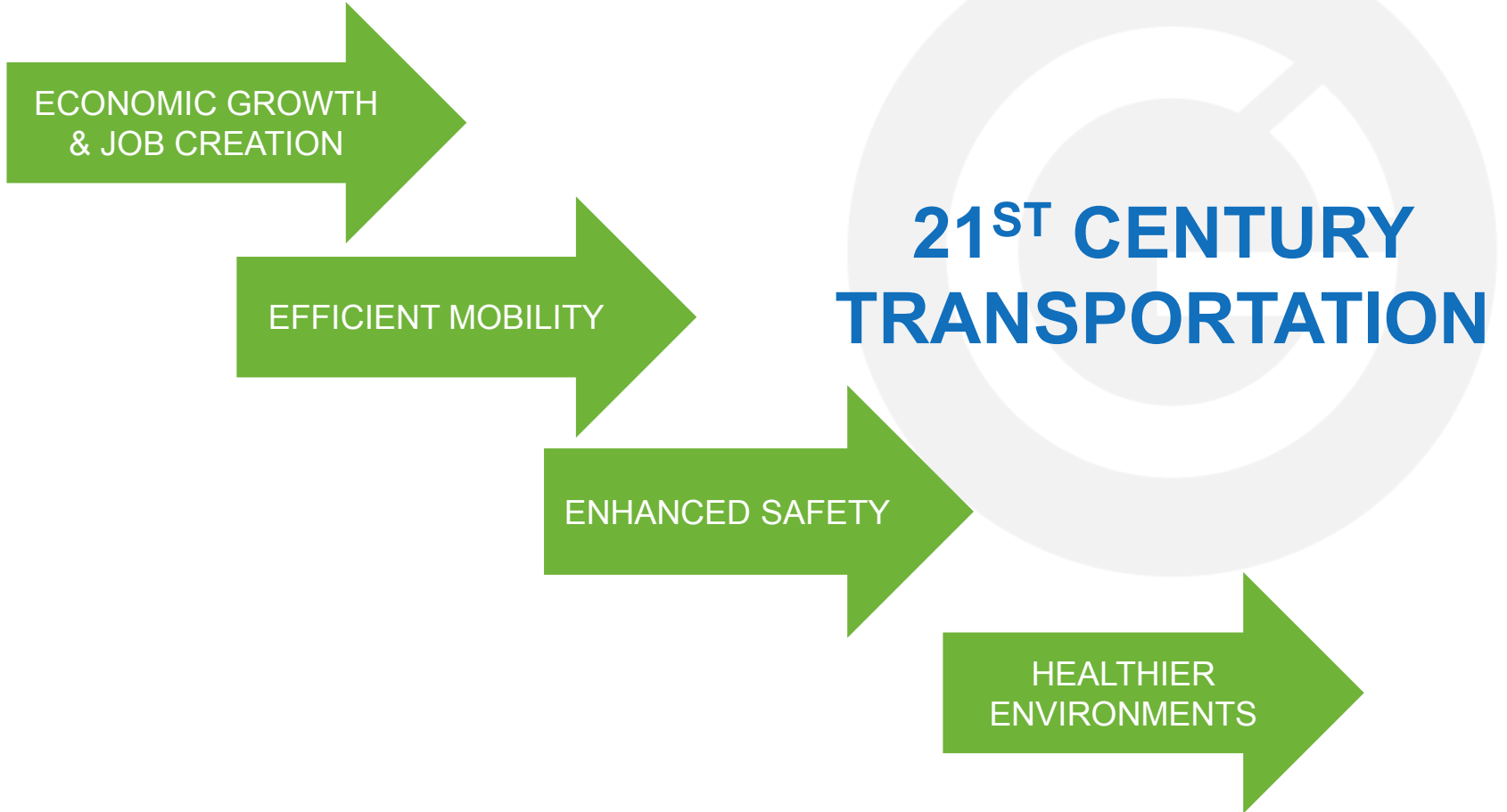


WE ARE GLOBAL





Overarching Goals



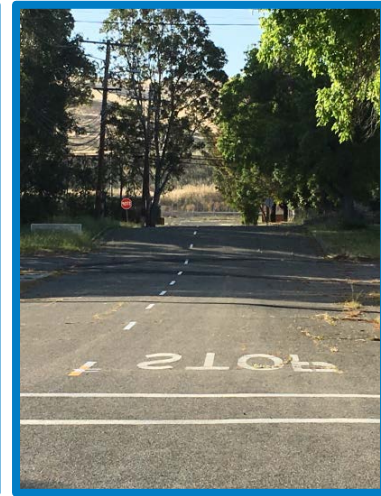
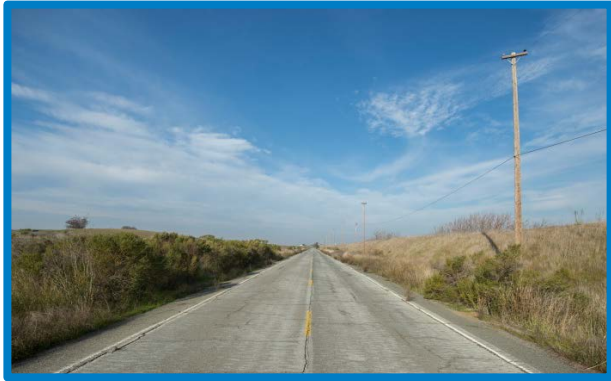
GoMentum Station



More than 5,000 acres with 2,100 acres currently available for testing



GoMentum Station



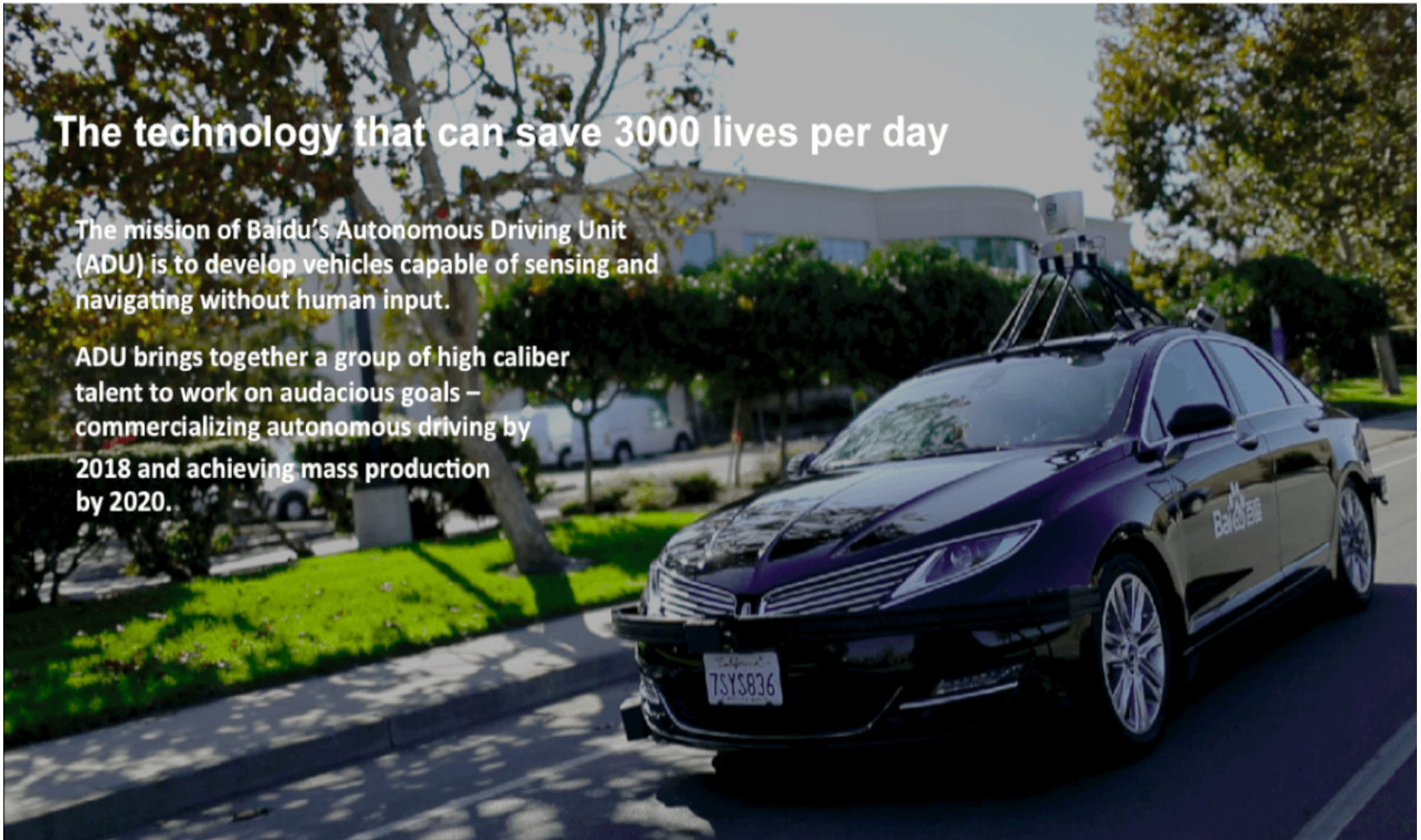




The technology that can save 3000 lives per day

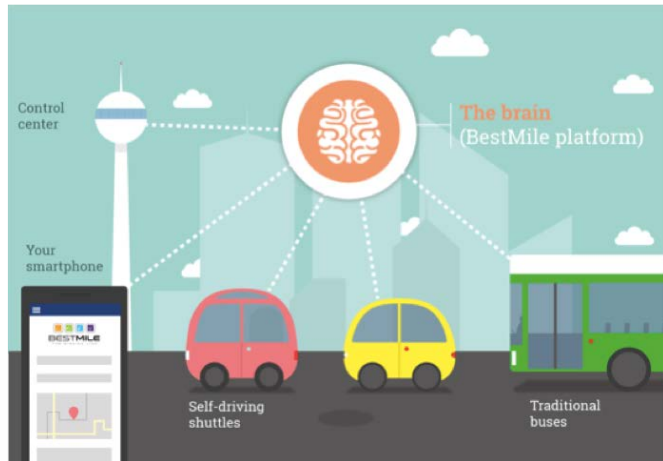
The mission of Baidu's Autonomous Driving Unit (ADU) is to develop vehicles capable of sensing and navigating without human input.

ADU brings together a group of high caliber talent to work on audacious goals – commercializing autonomous driving by 2018 and achieving mass production by 2020.



Shared Autonomous Vehicle Project

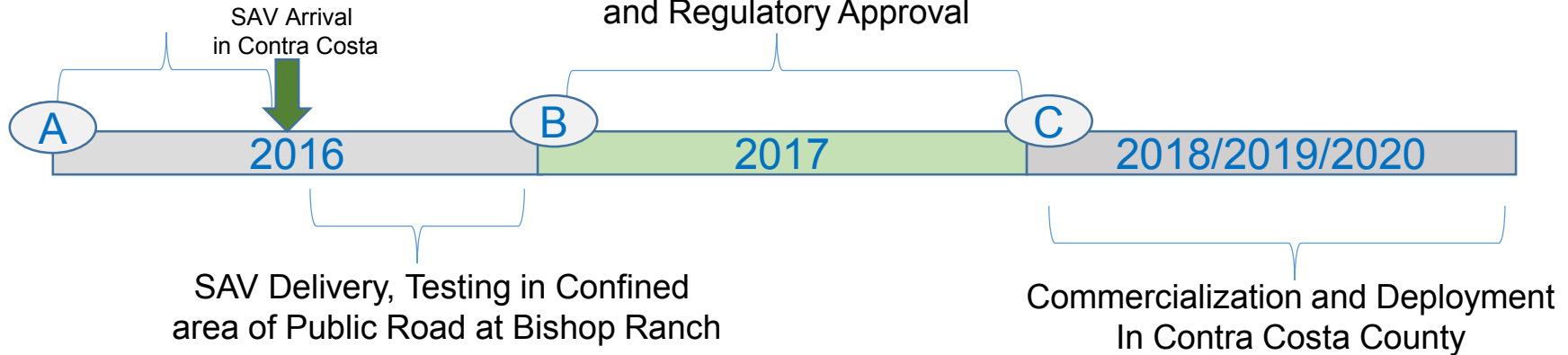




A HEALTHY BREATHING ENVIRONMENT FOR EVERY BAY AREA RESIDENT

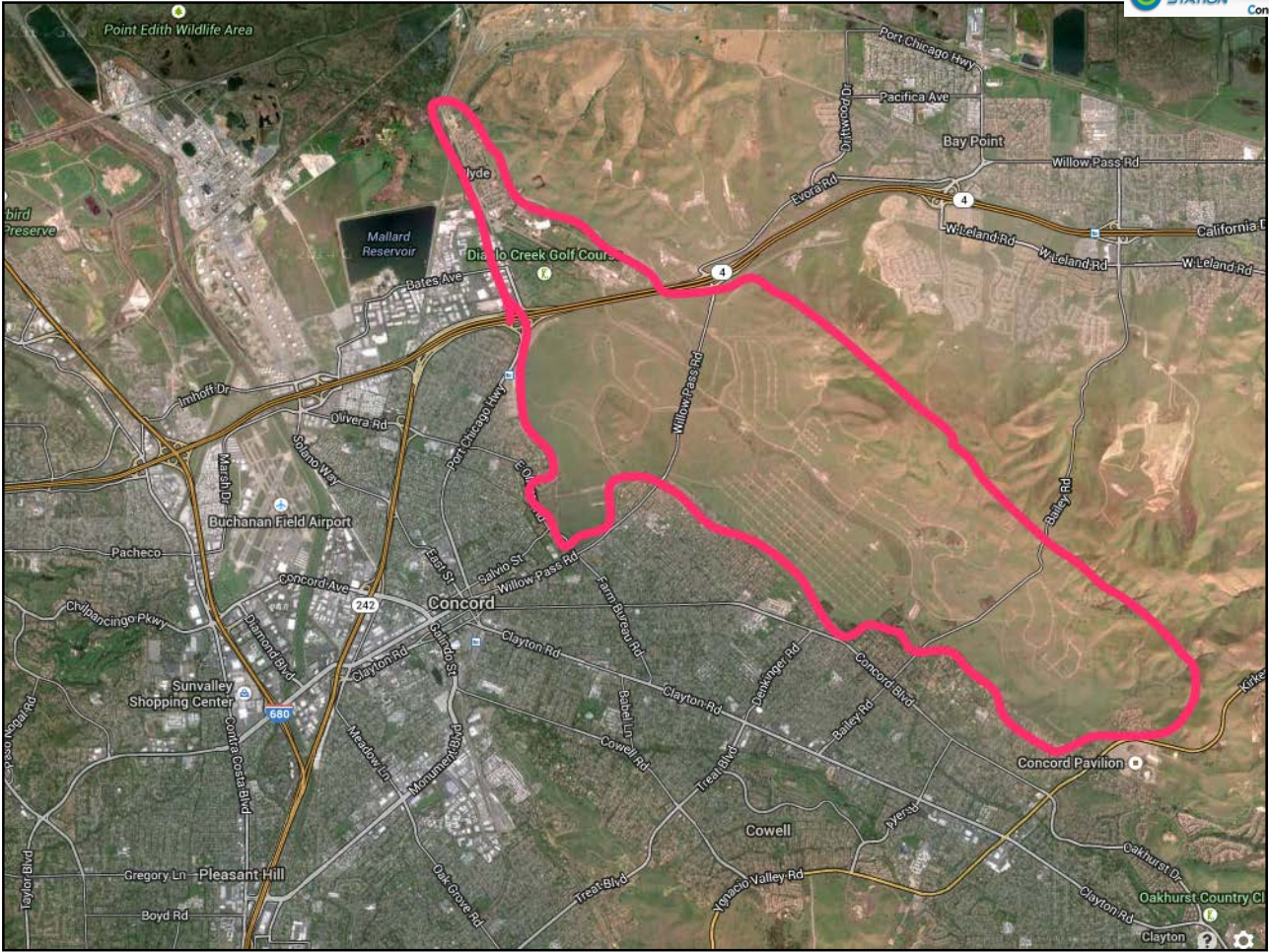
Procurement, Legislative Approval

Bench Testing, Field Operational Testing and Regulatory Approval



EasyMile SAV

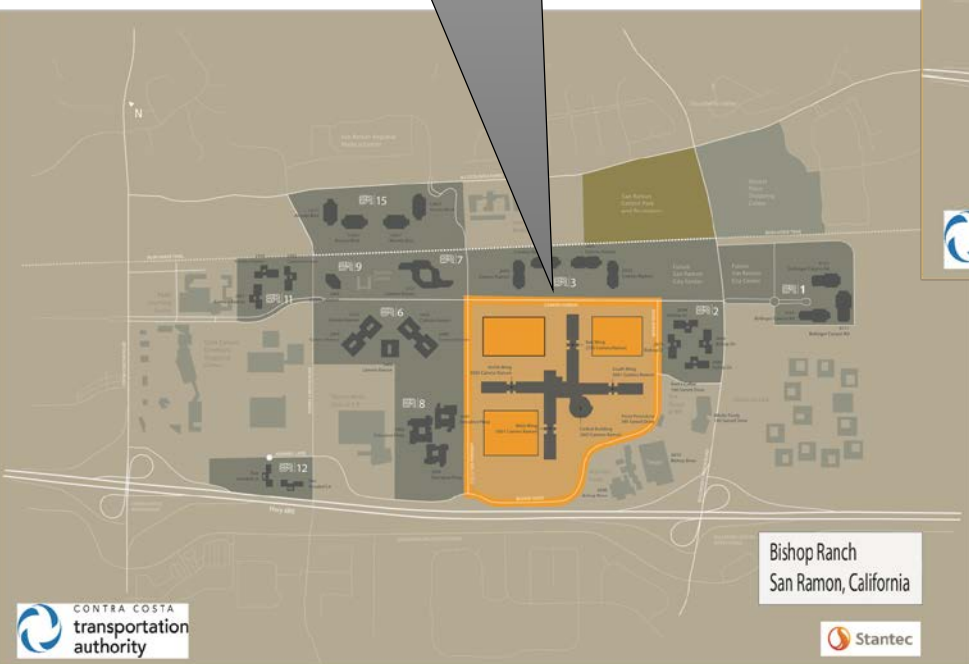
Phase I – SAV Testing Plan



Phase II – SAV Testing Plan



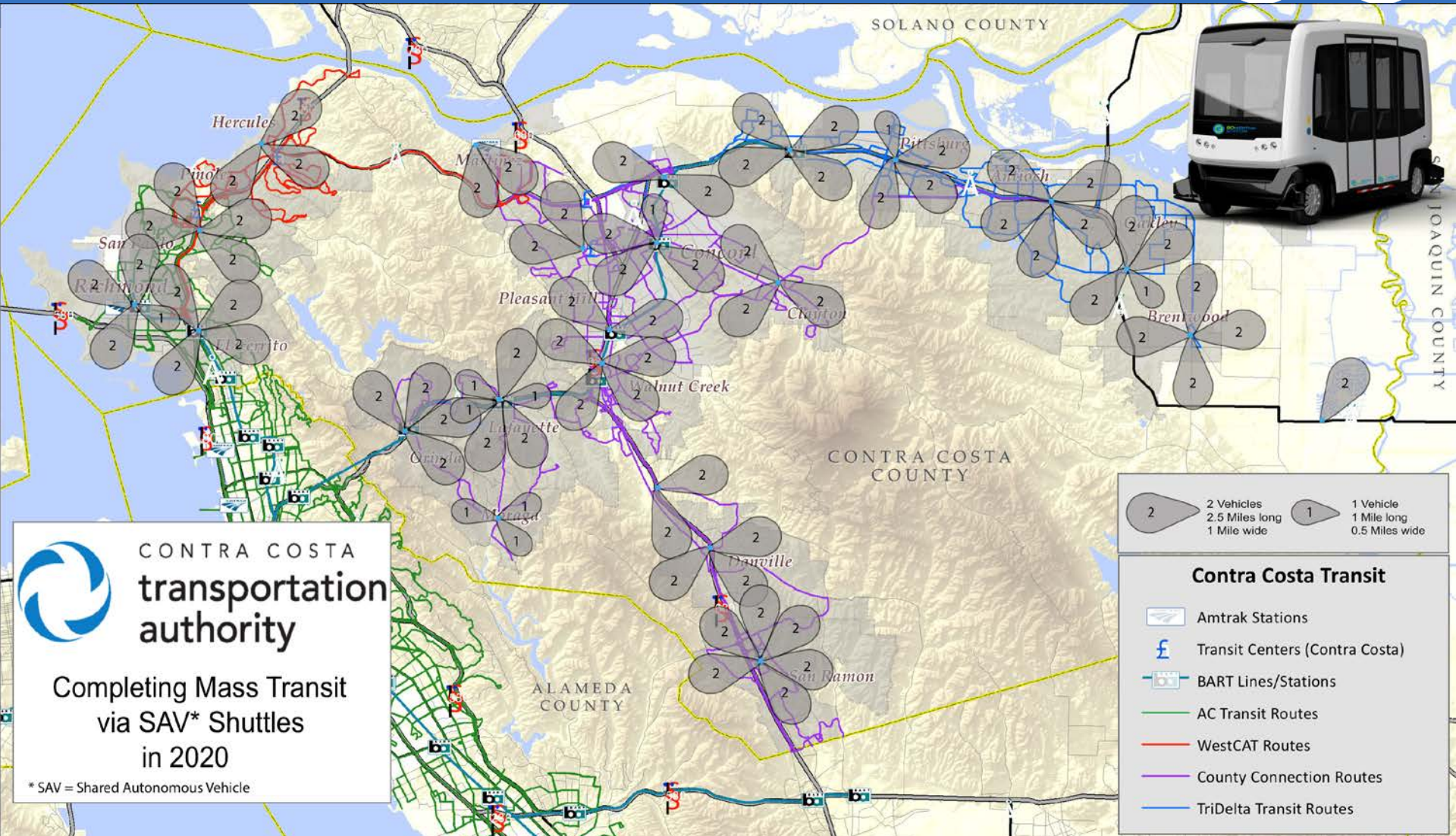
Phase II (a)
Confined
Environment of
Bishop Ranch



Phase II (b)
Public Roads of
Bishop Ranch



Phase III – Implementation



CONTRA COSTA transportation authority

Completing Mass Transit via SAV* Shuttles in 2020

* SAV = Shared Autonomous Vehicle

	2 Vehicles 2.5 Miles long 1 Mile wide		1 Vehicle 1 Mile long 0.5 Miles wide
Contra Costa Transit			
	Amtrak Stations		
	Transit Centers (Contra Costa)		
	BART Lines/Stations		
	AC Transit Routes		
	WestCAT Routes		
	County Connection Routes		
	TriDelta Transit Routes		





Impacted Industries





- Insurance
- Auto Repairs
- Professional Drivers
- Hotels
- Airlines
- Auto Parts
- TNCs
- Public Transit
- Parking lots
- Fast Food
- Gas Stations
- Real Estate
- Media
- Auto Industry

<https://www.cbinsights.com/blog/13-industries-disrupted-driverless-cars/>





How to prepare for the future!





- Education & Outreach
- Planning Process
- Engagement
- Flexibility
- Leverage
- Consistency
- Collaboration
- Partnerships





Thank you!

Randy Iwasaki

(925) 256-4724

riwasaki@ccta.net

 @riwasaki2

