



H O R I Z O N

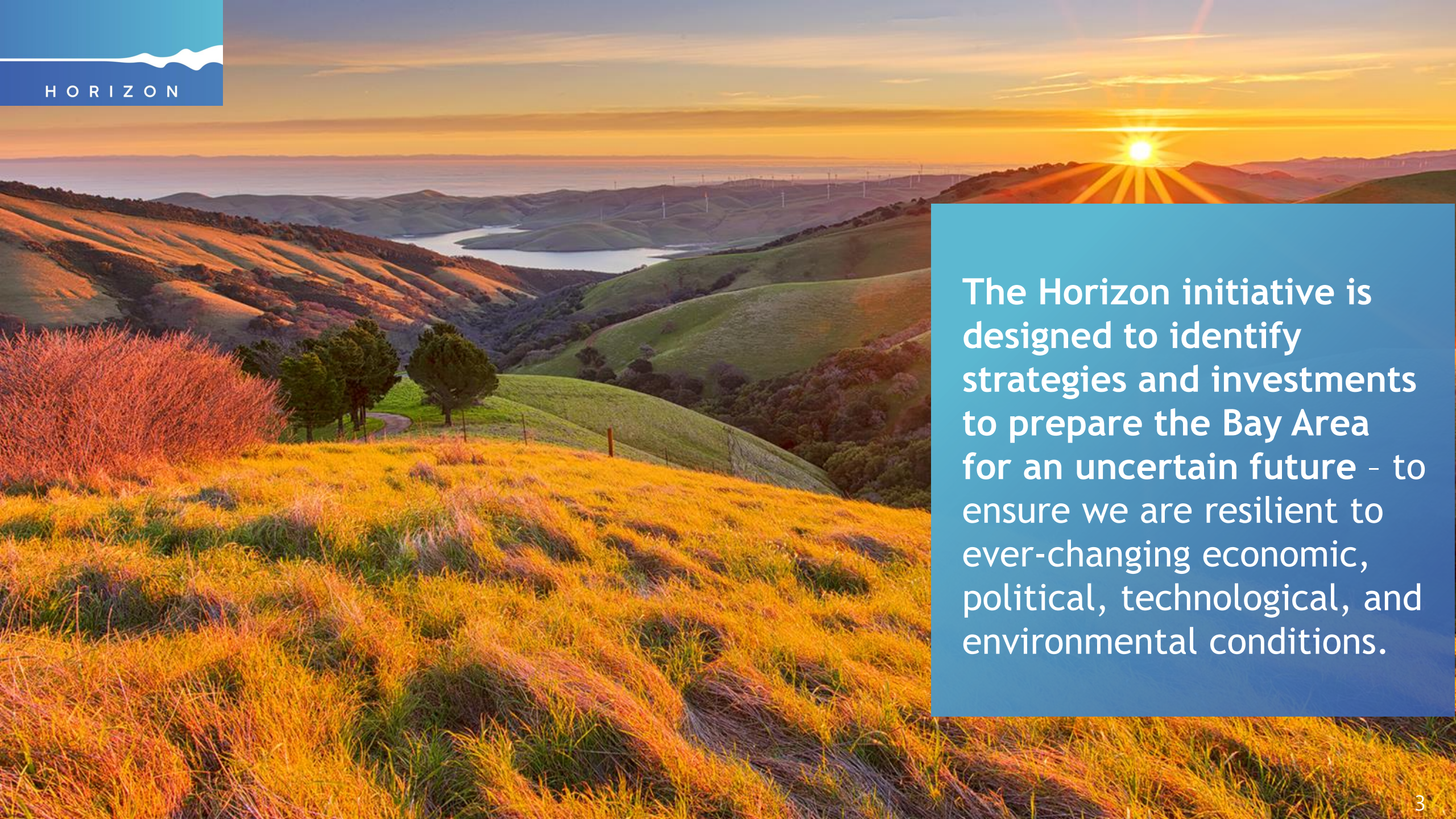
Transformative Projects & Project Performance Assessment

Horizon & Plan Bay Area 2050

Anup Tapase, MTC/ABAG - November 15, 2018

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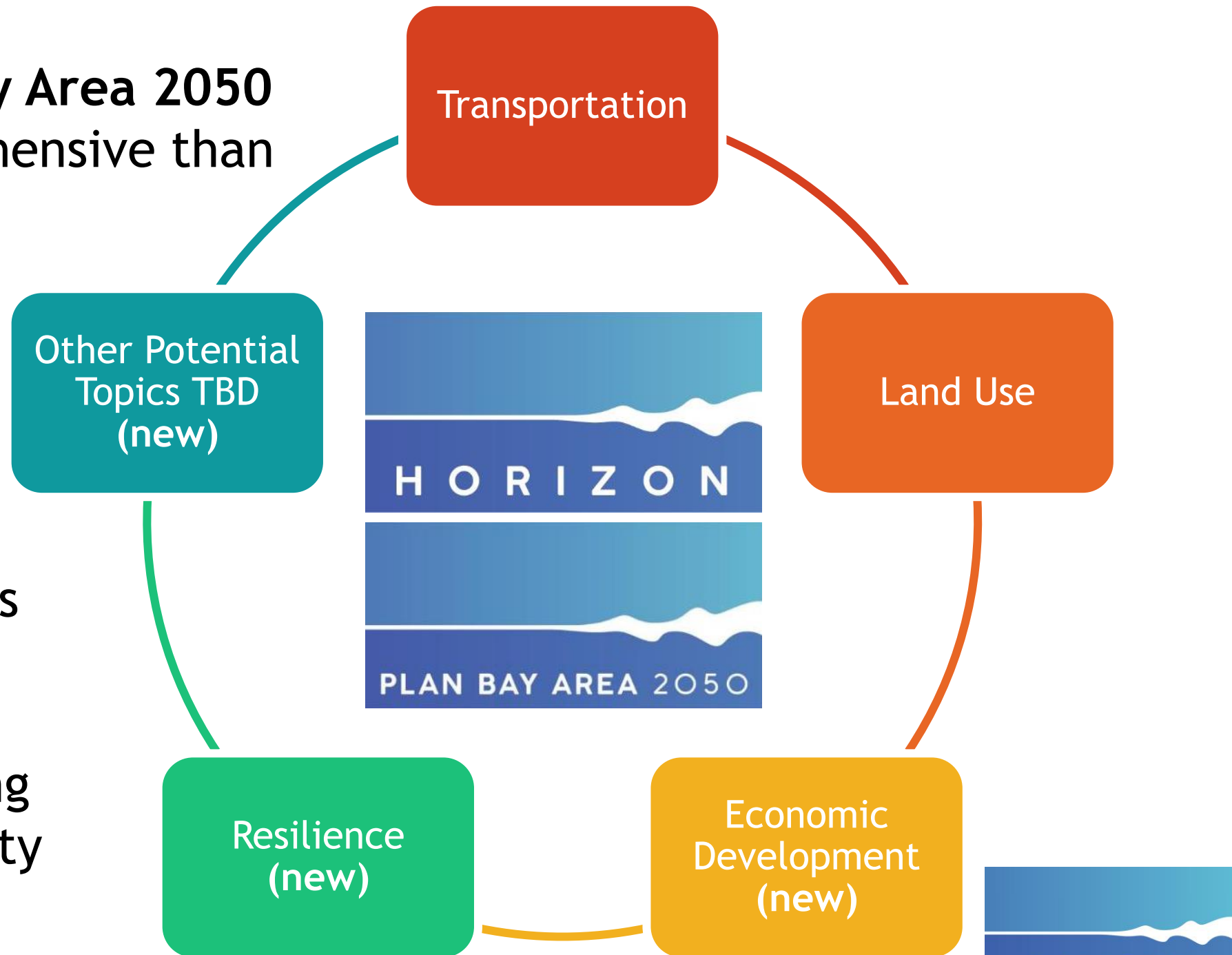
Horizon Overview: Preparing for an Uncertain Future



The Horizon initiative is designed to identify strategies and investments to prepare the Bay Area for an uncertain future - to ensure we are resilient to ever-changing economic, political, technological, and environmental conditions.

Horizon and Plan Bay Area 2050 will be more comprehensive than past RTP/SCS cycles.

Horizon's Guiding Principles and Plan Bay Area 2050's goals & targets will guide decision-making and integrate cross-cutting issues, including equity and sustainability.



Key Components of Horizon



Outreach



**Perspective
Papers**



Futures



**Project
Performance**

Three Futures – “What If?” Scenarios

A



Clean
and Green

What if... new technologies and a national carbon tax enabled greater telecommuting and distributed job centers?

B



Rising Tides,
Falling
Fortunes

What if... the federal government cuts spending and reduces regulations, leaving more policy decisions to states and regions?




C



Back to
the Future

What if... an economic boom and new transportation options spur a new wave of development?

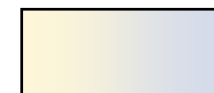
Futures - External Forces

#	FUTURE NAME	IMMIGRATION AND TRADE	NATIONAL TAXES AND FUNDING	NATIONAL GROWTH	LAND USE PREFERENCES	NATIONAL ENVIRONMENTAL POLICY	NEW TECHNOLOGIES	NATURAL DISASTERS
A	 Clean and Green	Similar to today	Higher funding via carbon tax	Similar to today	Housing: more urban	Stricter regulations (1' SLR)	Widespread	Magnitude 7.0 Hayward Fault earthquake
					Jobs: more dispersed			
B	 Rising Tides, Falling Fortunes	Reduced	Lower funding due to tax cuts	Limited	Housing: more urban	Relaxed regulations (3' SLR)	More limited	Magnitude 7.0 Hayward Fault earthquake
					Similar to today			
C	 Back to the Future	Increased	Similar to today	Rapid	Housing: more dispersed	Similar to today (2' SLR)	Widespread	Magnitude 7.0 Hayward Fault earthquake
					Jobs: more urban			

For more information on the Horizon futures, visit bayareametro.gov/horizon.




COLOR LEGEND

Lower value



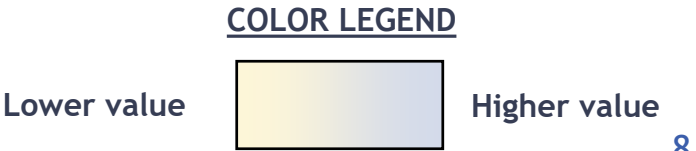
Higher value

Futures - Population and Jobs

#	FUTURE NAME	2050 POPULATION	2050 JOBS	2050 INCOME DISTRIBUTION	2050 RACIAL DISTRIBUTION	2050 AGE DISTRIBUTION	2050 INTERREGIONAL TRAVEL	2050 TRANSPORTATION REVENUES
A	 Clean and Green	10.9 million	5.4 million	21% low-income	73% minority	41 median age	↔	\$\$\$
B	 Rising Tides, Falling Fortunes	8.6 million	4.7 million	31% low-income	71% minority	43 median age	↑	\$\$
C	 Back to the Future	13.8 million	7.2 million	21% low-income	77% minority	38 median age	↑↑↑	\$\$\$\$

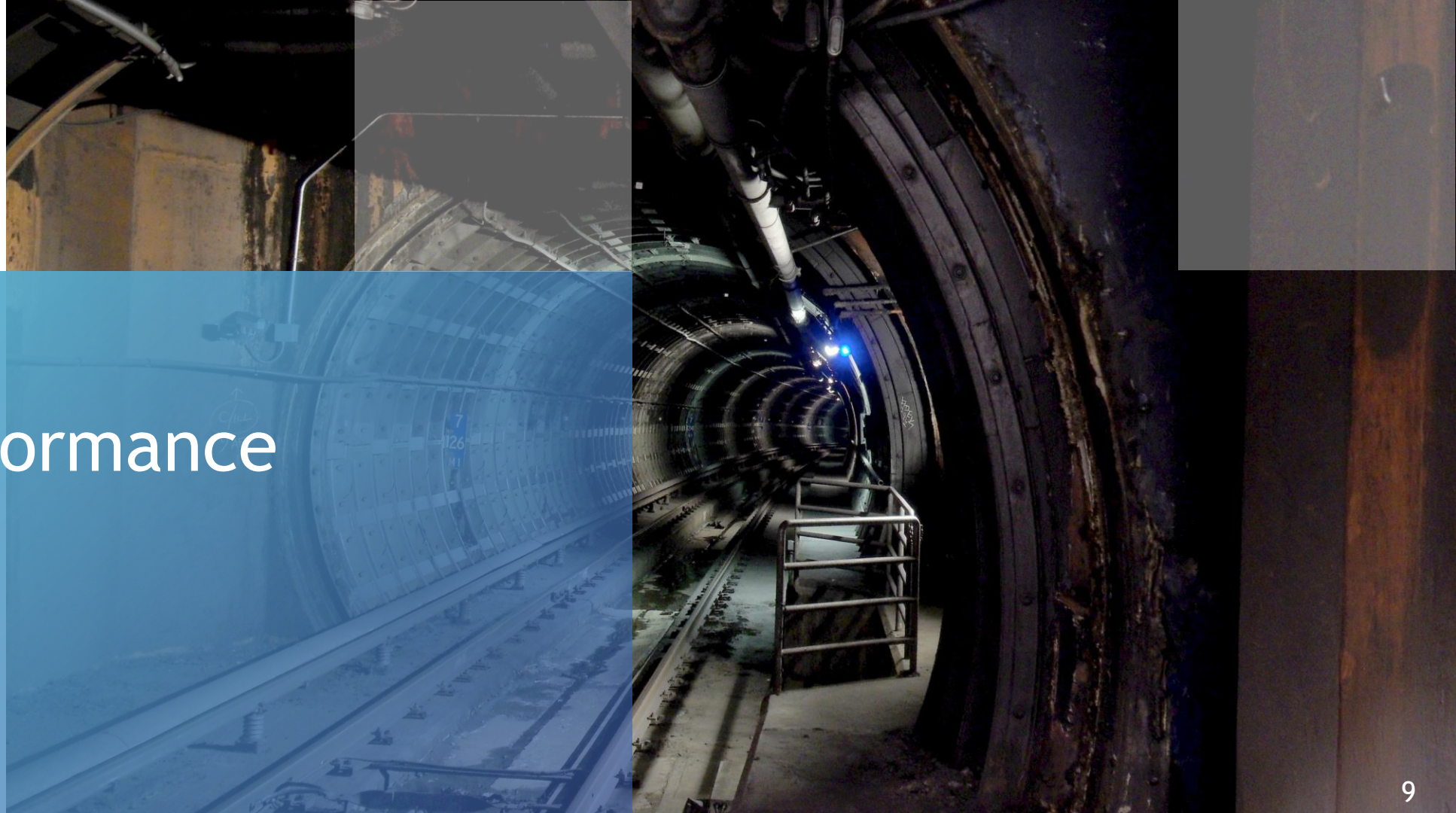
Plan BayArea
2040

Year 2040 Forecasts (for reference)
9.6 million residents and 4.7 million jobs



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Project Performance Assessment





The Project Performance Assessment evaluates major transportation investments for the Bay Area, through a primary benefit-cost assessment and secondary assessments that study impacts with respect to Guiding Principles and equity.



**Spring 2015 to
July 2017**



**February 2018
to August 2019**



**September 2019
to June 2021**

High-performing projects from *Horizon* – those that are resilient to uncertainties – **will be recommended for inclusion in the Preferred Plan Bay Area 2050 (RTP/SCS).**

Project Performance Assessment:

Projects Slated for Assessment - Total: ~94

Capacity Increasing Projects	Major Projects (>\$250M) from PBA2040 (31)
	Bay Crossing Alternatives (7)
	Transformative Projects (>\$1B) from Partner Agencies (37)
	Transformative Project Finalists from Public/NGOs (6)
Operational Strategies	Transformative Project Finalists from Agencies/Public/NGOs (6)
Resilience Projects	Resilience Projects (7)

Selected by Jury

Full list available at:
<https://mtc.ca.gov/our-work/plans-projects/horizon/project-performance-assessment>

Transformative Projects Online Submission Process

Major Project Examples (Total: 31)

Bus



- AC Transit Frequency Increases
- Muni Forward
- San Pablo BRT
- El Camino Real BRT

Pricing



- Express Lanes
- Downtown SF Congestion Pricing
- SR-239 Tollway

BART and Commuter Rail



- BART Core Capacity
- BART to Silicon Valley Phase 2
- Caltrain Modernization Phase 2
- SMART to Cloverdale

Freeways and Interchanges



- I-680/SR-4 Interchange + Widening SR-4 Widening

LRT



- Downtown San Jose LRT Subway
- Stevens Creek LRT

Other (Ferry, Bicycle, etc.)



- WETA Ferry Expansion
- Bay Bridge West Span Bike Path
- Better Market Street

Transformative Project Examples (Total: 37)

Bus/LRT



- AC Transit Transbay Improvements
- Muni Metro Southwest Subway
- Fremont-Newark LRT

BART and Commuter Rail



- BART Evening Service Frequency Increase
- Caltrain Grade Separation Program
- Dumbarton Rail

Freeways



- SR-37 Widening + Resilience
- I-580/I-680 Corridor Enhancements
- SF Freeway GP to HOT Lane Conversions

Bridges and Tunnels



- Richmond-San Rafael Bridge Replacement
- Webster/Posey Tube Replacements
- SR-87 Tunnel

Networks



- South Bay Rail + Resilience
- Megaregional Rail Network
- Oakland/Alameda Gondola Network

Multimodal / Next Generation



- Alameda County BRT Network + Connected Vehicle Corridors
- Contra Costa AV Shuttle Program

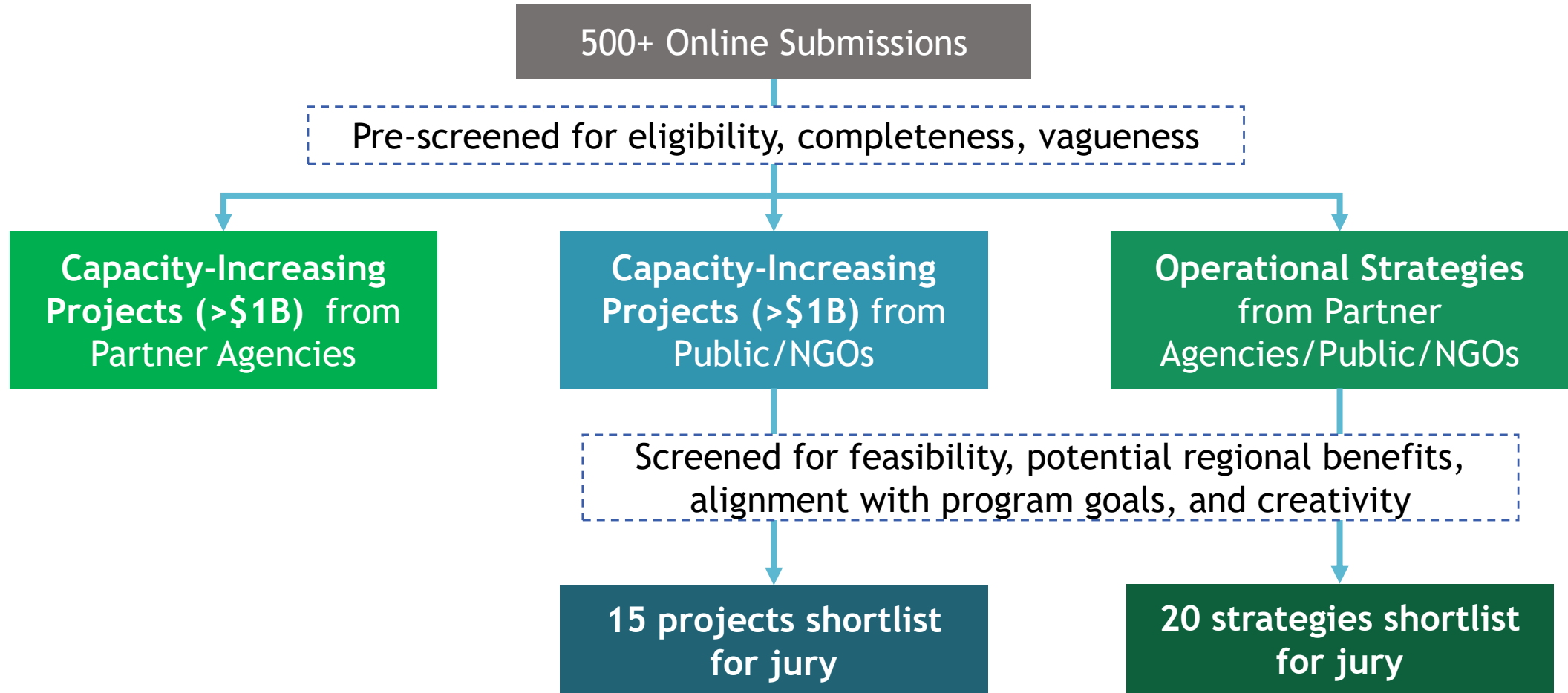
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Transformative Projects

Transformative Projects

500+
big ideas to improve
Bay Area transportation

Filtering Process from Online Submissions



Jury selection process

Packets provided to Jury

15 projects
shortlist

P4

BRT on 19th Ave/Park Presidio/Lombard

Location: San Francisco, Daly City

Project purpose

Project details

Potential Benefits

Potential Risks

P13

Private Mini-Ferry Network

Location: All over Bay

Project purpose

Project details

Potential Benefits

Potential Risks

P14

AV Shuttle System at BART Stations

Location: All BART stations in low-density areas

Project purpose

Project details

Potential Benefits

Potential Risks

Provide effective last-mile transit option that improves BART utilization and increases public transit usage

- BART and AV shuttles operate as single unified system
- Small electric AVs, operate within 1-mile radius (can be eventually increased)
- Pickup/drop-off area in existing BART parking lots
- Fee for usage; subsidized use for at-risk groups and shared use

Decreases congestion; serves at-risk populations; non-disruptive

Labor issues; new technology adoption



20 strategies
shortlist

S3

Skinny Lanes for Motorcycles / 3-Wheelers

Along major highways

Project purpose

Project details

Potential Benefits

Potential Risks

S4

Flexible Right-of-Way for Buses on Arterials

Dynamic lane prioritization for buses on arterials

Project purpose

Project details

Potential Benefits

Potential Risks

S11

Eliminating Free Employer Parking

Fund pricing infrastructure; recycle revenues; provide alternate transportation

Project purpose

Project details

Potential Benefits

Potential Risks

Address congestion and encourage SOV drivers to carpool or switch modes

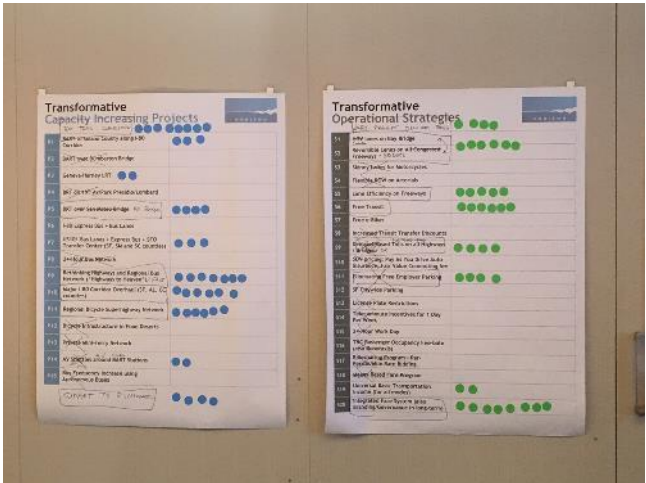
- Provide infrastructure to employer parking properties - ticketing machines, entry/exit arms - funded by expected revenue
- Aggregate revenue to help finance smaller employers
- Recycle parking revenues back to employees by subsidizing travel alternatives
- Develop software or smartphone applications to track / enforce employer parking pricing

Decreases congestions; new revenue source

Opposition from employers and employees; lack of authority to mandate parking pricing



Jury Voting



Finalists - Transformative Projects (1 of 2)

Finalists: 6 Capacity-Increasing Projects



Optimized Express Lane Network + Regional Express Bus Network

(SPUR and TransForm)



I-80 Corridor Overhaul

(Arup)



Bus Rapid Transit (BRT) on All Bridges

(Tony Breslin)



Regional Bicycle Superhighway Network

(Arup)



SMART to Richmond via New Richmond-San Rafael Bridge

(William Manley, Joseph Naujokas, Christopher Sork and
Sonoma County Transportation & Land Use Coalition)



Bay Trail Completion

(Jim Stallman)

Finalists - Transformative Projects (2 of 2)

Finalists: 6 Operational Strategies



Integrated Transit Fare System

(Eddy Ionescu & Jason Lee, Seamless Bay Area and SPUR)



Demand-Based Tolls on All Highways

(Jeremy Besmer and City of San Jose)



Free Transit

(Mark Apton, Christian Rodgers, Danielle Venton and Gabriela Zuniga)



Reversible Lanes on Congested Bridges and Freeways

(City of San Jose)



Higher-Occupancy HOV Lanes

(3 Revolutions Book Club)



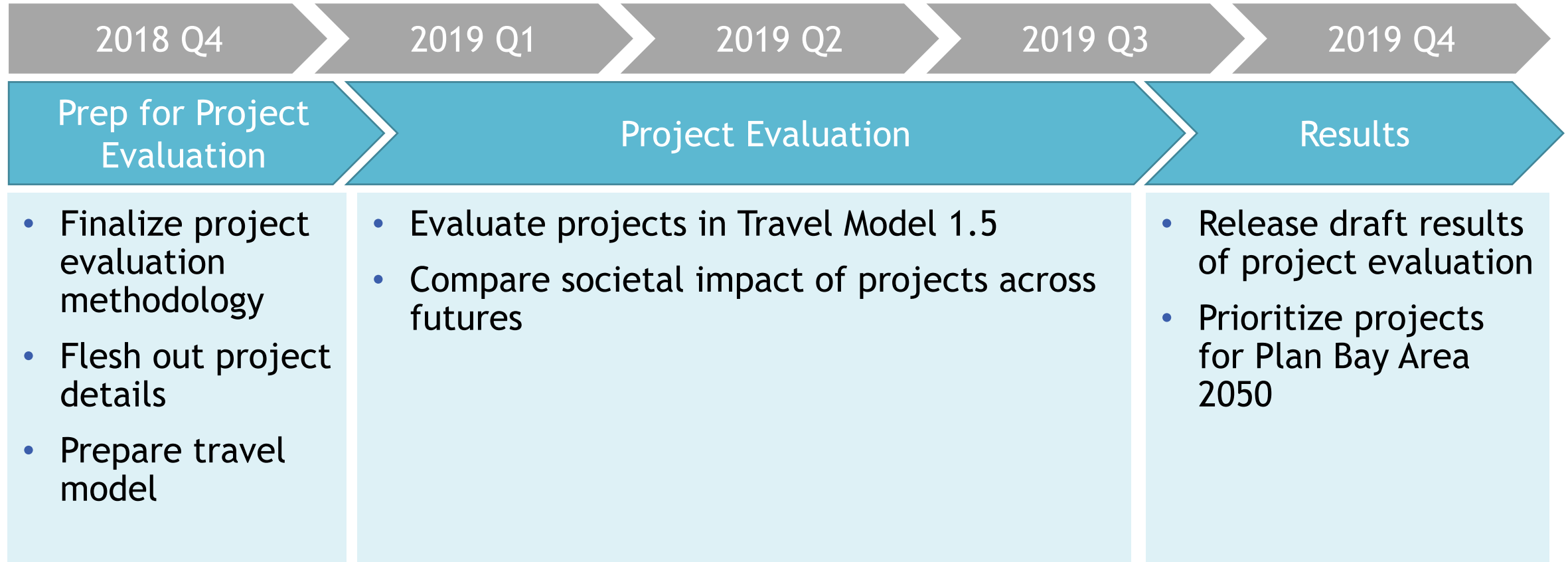
Freight Delivery Timing Regulation

(Daniel Ayers, Marc Brenman, Kevin Brooks and Cesar Plata)

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Next Steps

Project Performance Assessment Timeline



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Questions?

For more information:
<http://bayareametro.gov/horizon>

