



## M E M O R A N D U M

### Agenda Item 7a

TO: Joint MTC Planning Committee with the ABAG Administrative Committee      DATE: September 7, 2018

FR: Executive Director

RE: Perspective Paper #2 Preview: *Toward a Shared Future: Strategies to Reduce Congestion*

### Background

This paper is the second in a series of Perspective Papers contributing to Horizon, a regional initiative exploring how the Bay Area can thrive in an uncertain future. The Horizon initiative is a comprehensive Bay Area planning effort to go beyond transportation and housing policies and consider economic development, resilience and the effects of emerging technologies for the next long-range transportation and sustainable communities strategy, Plan Bay Area 2050. Each Perspective Paper seeks to identify strategies to improve regional outcomes under a wide range of future conditions. This paper identifies high-impact policies to support Horizon's Guiding Principles and help to achieve vehicle miles traveled (VMT)<sup>1</sup> per capita reduction targets.

### Priority Strategies

The San Francisco Bay Area is a global center for technological innovation and a region of rich natural beauty. It is a desirable location to live, work and play, and as a result, has been growing and thriving economically. The transportation system, however, has not kept pace with this growth mainly due to limited land availability and financial resources, leading to growing traffic congestion that has negative impacts on health, productivity and climate. Looking to 2050, the need to reduce traffic congestion, relieve transit crowding, and improve mobility is critical.

This paper, *Toward a Shared Future: Strategies to Reduce Congestion*, proposes seven strategies for a more mobile Bay Area by 2050, a place where everyone has a suite of travel options to consume on demand, regardless of where they live, work and play. This is primarily achieved by building on and supporting changing travel and ownership preferences arising from new mobility services and technological innovation.

These strategies have traditionally been called "Transportation Demand Management" as they focus on reducing the demand for vehicle travel by improving the reliability, flexibility, convenience and cost of other modes. The strategies were chosen for their potential to reduce congestion or VMT, and their ability to achieve *Horizon's Guiding Principles* to make the Bay Area more Affordable, Connected, Diverse, Healthy and Vibrant.

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<sup>1</sup> VMT is a basic measure of the amount of vehicle travel generated in a specified geographic area. One vehicle traveling one mile constitutes one vehicle mile, regardless of its size or the number of passengers. VMT refers to the number of vehicle miles traveled within the region during a typical weekday. VMT is a common measure of roadway use and economic activity and has a strong correlation with congestion.

The seven priority strategies work together to achieve a vision for 2050 when all transportation, regardless of mode or roadway used, can be consumed on a per-use basis (where transportation is provided as a service rather than having to be owned), with incentives supporting active or multi-passenger options:

1. Multi-Service Trip Planner and Transportation Wallet
2. Free Feeder Services to High Capacity Transit
3. Tolling All Highways and Bridges
4. Cordon Pricing
5. Parking Tax
6. Vehicle Trip Reduction Requirements on Development
7. Parcel Lockers and Freight Consolidation Centers

Together, the strategies promote choice, better connectivity, and improved interoperability between all services, public and private. These strategies rely on each other to achieve this vision by 2050; without better services that are easy to access, pricing cannot be introduced to effectively reduce VMT.

### Next Steps

This *Perspective Paper* introduces a set of priority strategies for the region to consider. It is important to emphasize that the paper is intended to serve as an interim deliverable of the overall *Horizon* process. The strategies described in the Paper serve as a starting point for a more robust discussion this fall, when MTC and ABAG staff will engage stakeholders on strategies that can overcome various challenges facing the region across multiple *Futures*. This process will identify a narrowed-down list of strategies most effective in multiple Futures to carry forward into Plan Bay Area 2050.

MTC/ABAG will hold a public event releasing this Perspective Paper on Wednesday, September 26, 2018, 6:00PM – 8:00PM, at WeWork Valley Towers in downtown San Jose. The event will highlight a similar presentation of the material and engage experts and the audience in a panel discussion about these topics.



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Steve Heminger

### Attachment:

- Presentation

SH:ks

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The background of the slide is a collage of images showing a busy urban environment. It includes a wide street with cars, buses, and a median with greenery. Overlaid on this are several images of large crowds of people walking on sidewalks and crossing streets, all with a motion blur effect to convey a sense of high traffic volume and congestion.

H O R I Z O N

# Toward a Shared Future: Strategies to Reduce Congestion

Perspective Paper #2  
Joint MTC Planning Committee with the  
ABAG Administrative Committee  
September 14, 2018



*Horizon* is exploring how economic, environmental, technological, and political uncertainties may create new challenges - or exacerbate existing ones - for the Bay Area over the coming decades.

H O R I Z O N

Futures Planning

Perspective Papers

Project Performance

For more information, go to:  
[mtc.ca.gov/horizon](https://mtc.ca.gov/horizon)

PLAN BAY AREA 2050

# *The San Francisco Bay Area aspires to be:*



## AFFORDABLE

All Bay Area residents and workers have sufficient housing options they can afford - households are economically secure.



## CONNECTED

An expanded, well-functioning transportation system connects the Bay Area - fast, frequent and efficient intercity trips are complemented by a suite of local transportation options, connecting communities and creating a cohesive region.



## DIVERSE

The Bay Area is an inclusive region where people from all backgrounds, abilities, and ages can remain in place - with access to the region's assets and resources.



## HEALTHY

The region's natural resources, open space, clean water and clean air are conserved - the region actively reduces its environmental footprint and protects residents from environmental impacts.



## VIBRANT

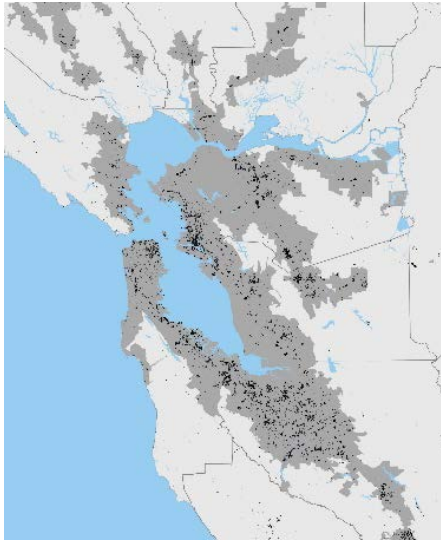
The Bay Area region is an innovation leader, creating quality job opportunities for all and ample fiscal resources for communities.

# Guiding Principles



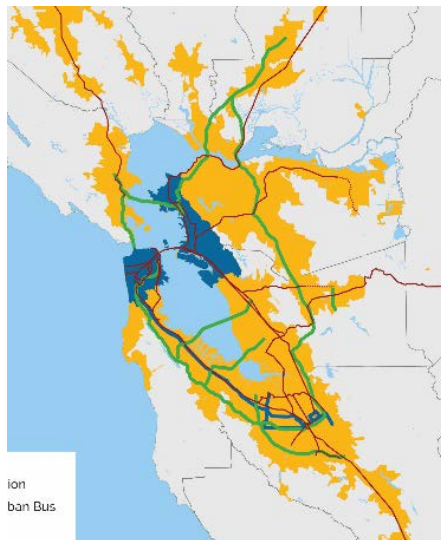
# Perspective Paper #1: Autonomous Vehicle Priority Strategies

 Affordable



Housing  
Opportunity  
Sites

 Connected



Fair Pricing  
Autonomous  
Transit

 Diverse



Equitable  
Outcomes

 Healthy



Vision Zero 2.0

 Vibrant



New Deal for  
Mobility



# Overview

- Background
- Strategies
  - Best Practices
  - Guiding Principles
  - Priority Strategies
- Next Steps





The sales pitch

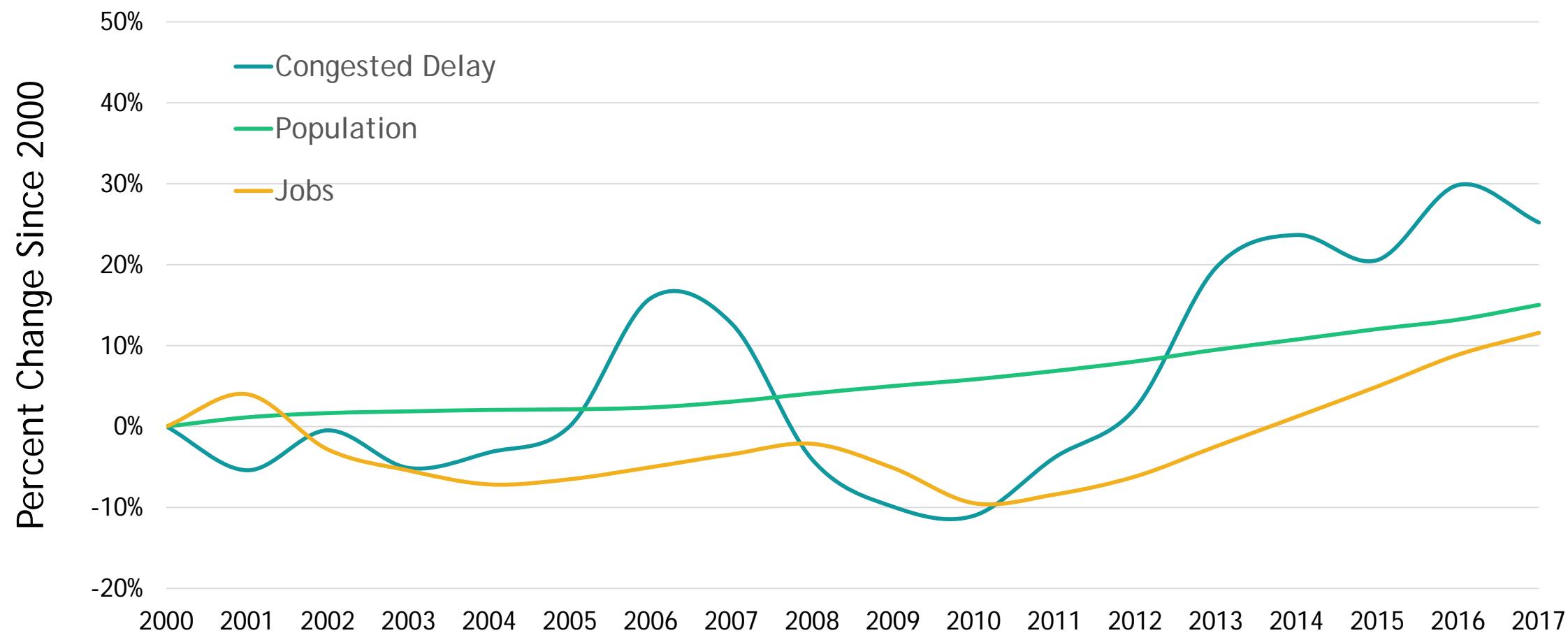




The reality

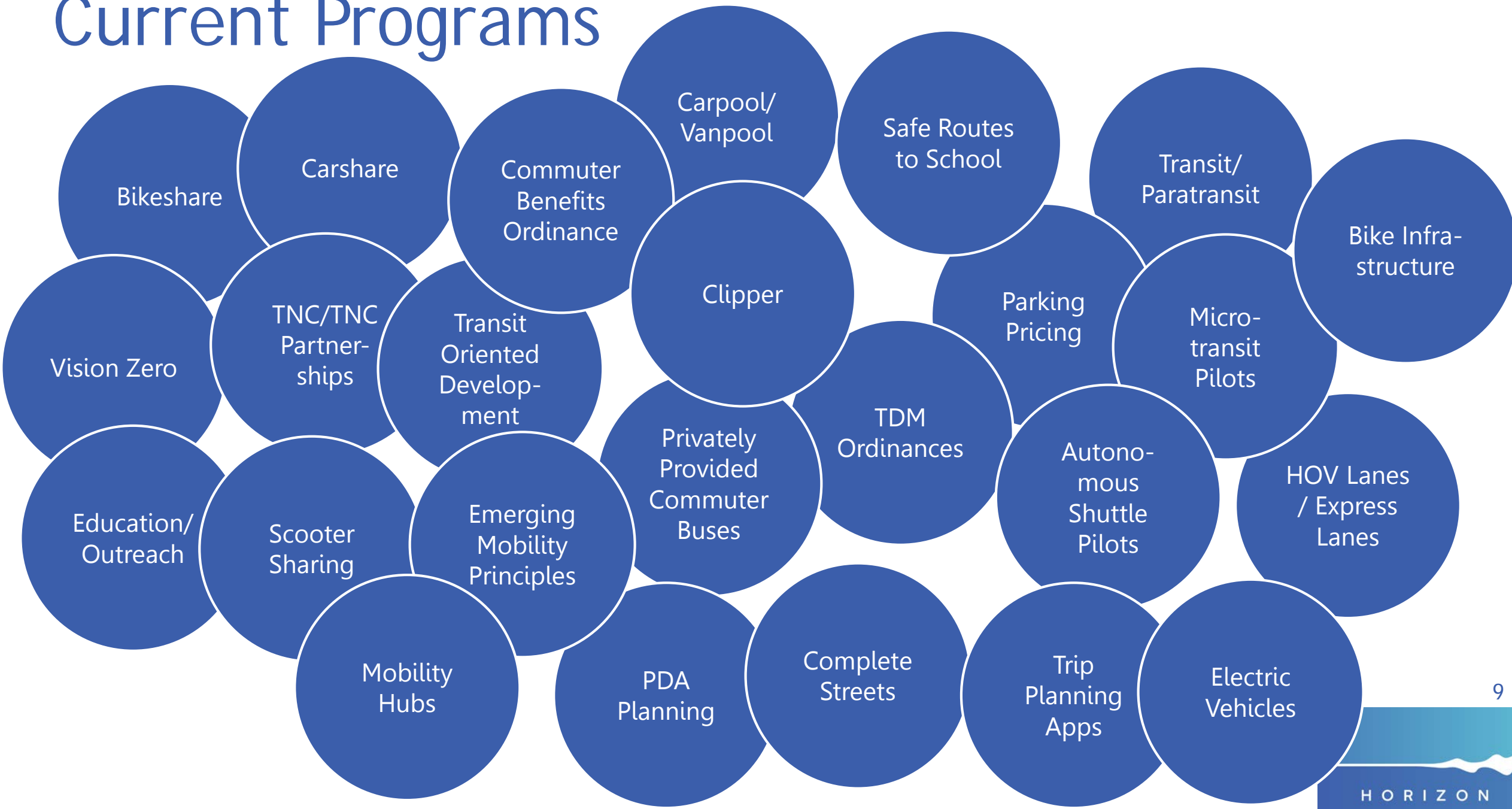


# Congested delay has grown 25% since 2000



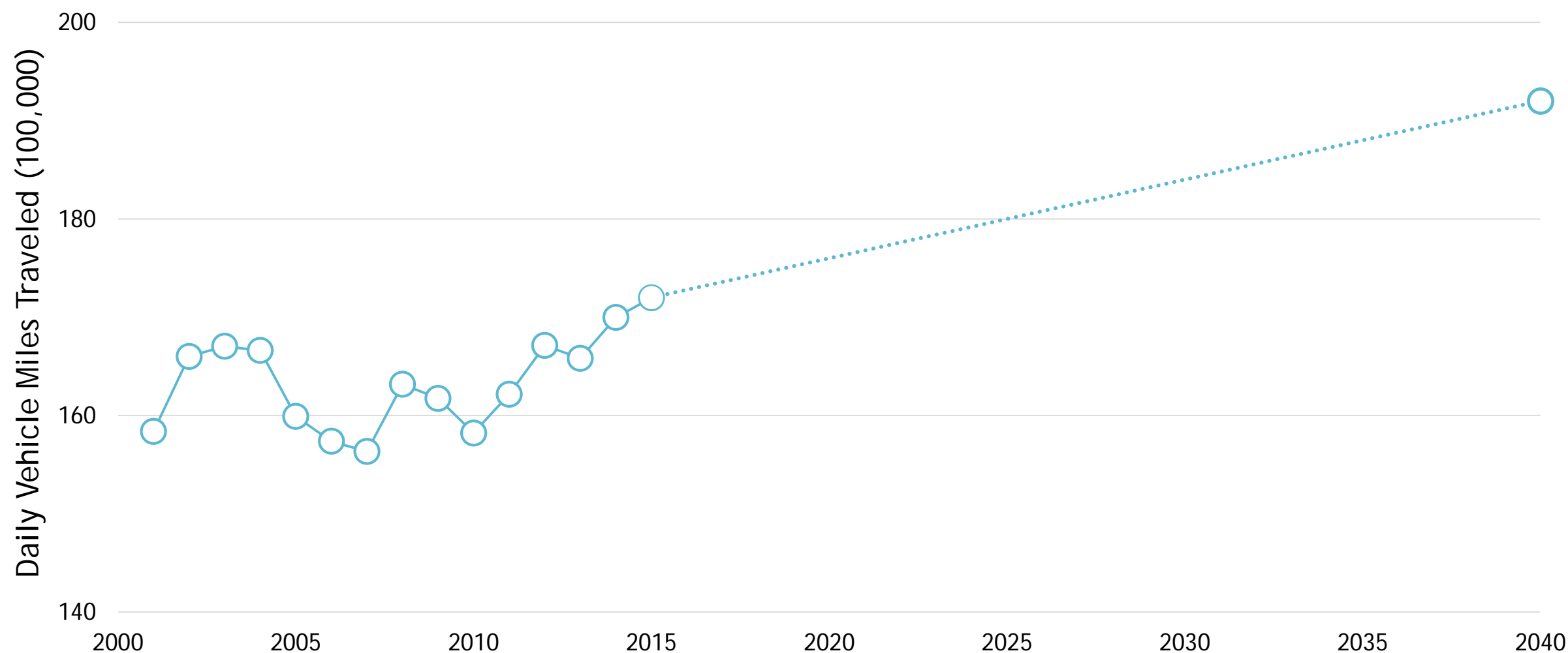


# Current Programs





# VMT is expected to continue growing even under Plan Bay Area 2040



# Examples from Around the World





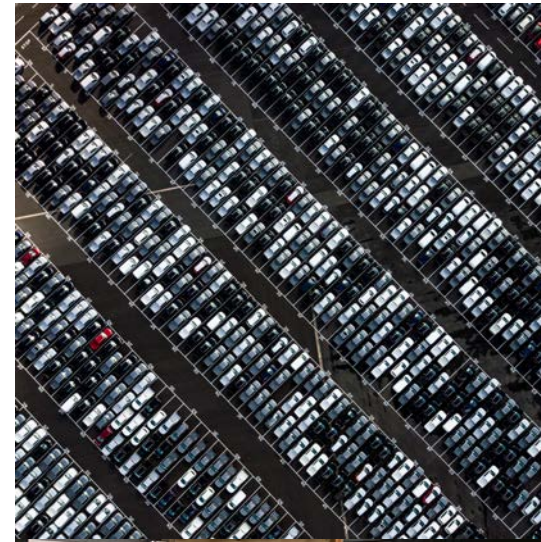
# Perspective Paper #2: VMT Reduction Strategies



Free Feeder Services  
to High Capacity  
Transit



Mobility as a Service  
Tolling All Bridges &  
Highways  
Cordon Pricing



Required TDM for New  
Development  
Parking Tax



Parcel Lockers &  
Freight Consolidation  
Centers





AFFORDABLE



DIVERSE

# Free Feeder Services to High Capacity Transit

## Examples

Chapel Hill, North Carolina

Seattle, Washington

Tallinn, Estonia

## VMT Reduction Potential

50% reduction in fares  
could lead to a 15% increase  
in transit ridership

Not all new riders will be  
from single-occupant  
vehicles







CONNECTED

## Mobility as a Service

*A multimodal on-demand service providing regionwide access to travel options and payment via a single platform.*

### Examples

Houston, LA Metro, Phoenix  
*(in development)*  
Helsinki, Finland  
*(pilot with Whim)*  
Hannover, Germany  
*(pilot with Mobil)*  
Vienna, Austria  
*(pilot with SMILE)*

### VMT Reduction Potential

Among users, private car use  
and auto ownership **could be  
halved**

Among users, transit  
ridership **could increase by  
roughly 50%**



## Tolling of All Bridges and Highways

*Tolls on all bridges and freeways in the Bay Area based on distance traveled or demand.*

### Examples

Austria

France

Switzerland

### VMT Reduction Potential

Doubling the cost of driving could reduce VMT per capita by 10%





## Cordon Pricing

*A fee based on the distances traveled in a car, often in place of fuel taxes.*

### Examples

London  
Milan  
Singapore  
Stockholm

### VMT Reduction Potential

Traffic congestion in  
central city areas could  
decrease by 30%





## Parking Tax

*A tax on off-street parking facility owners or users.*

### Examples

San Francisco: 25% tax

Oakland: 18% tax

Los Angeles: 10% tax

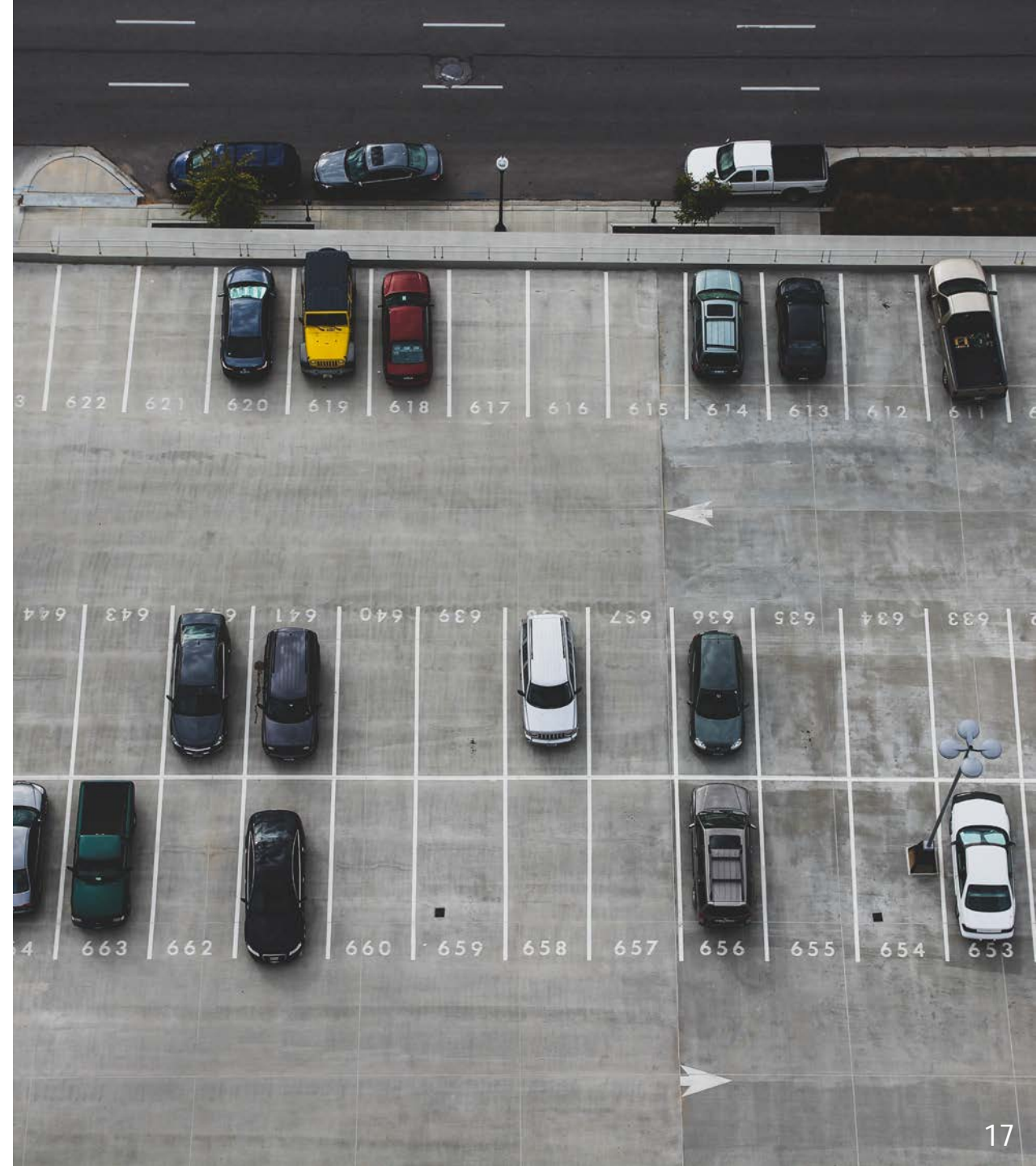
Chicago: 18-20% tax

Pittsburgh: 34% tax

### VMT Reduction Potential

A 25% parking tax could  
reduce parking demand by  
7.5%

Free to priced parking  
typically reduces solo  
commuting by 10% to 30%







## Required TDM for New Development

*Reducing single occupancy vehicle trips with developer provided programs that could include transit passes, bike/carshare on site and real time transportation information displays.*

### Examples

San Francisco

Oakland

Buffalo, NY

Fairfax County, VA

Arlington County, VA

### VMT Reduction Potential

Potential depends on TDM programs implemented and enforcement

From program research on similar programs, solo commuting could decrease by 34%



## Parcel Lockers and Freight Consolidation Centers

*Reduction in delivery VMT by collecting and storing freight at central locations.*

### Examples

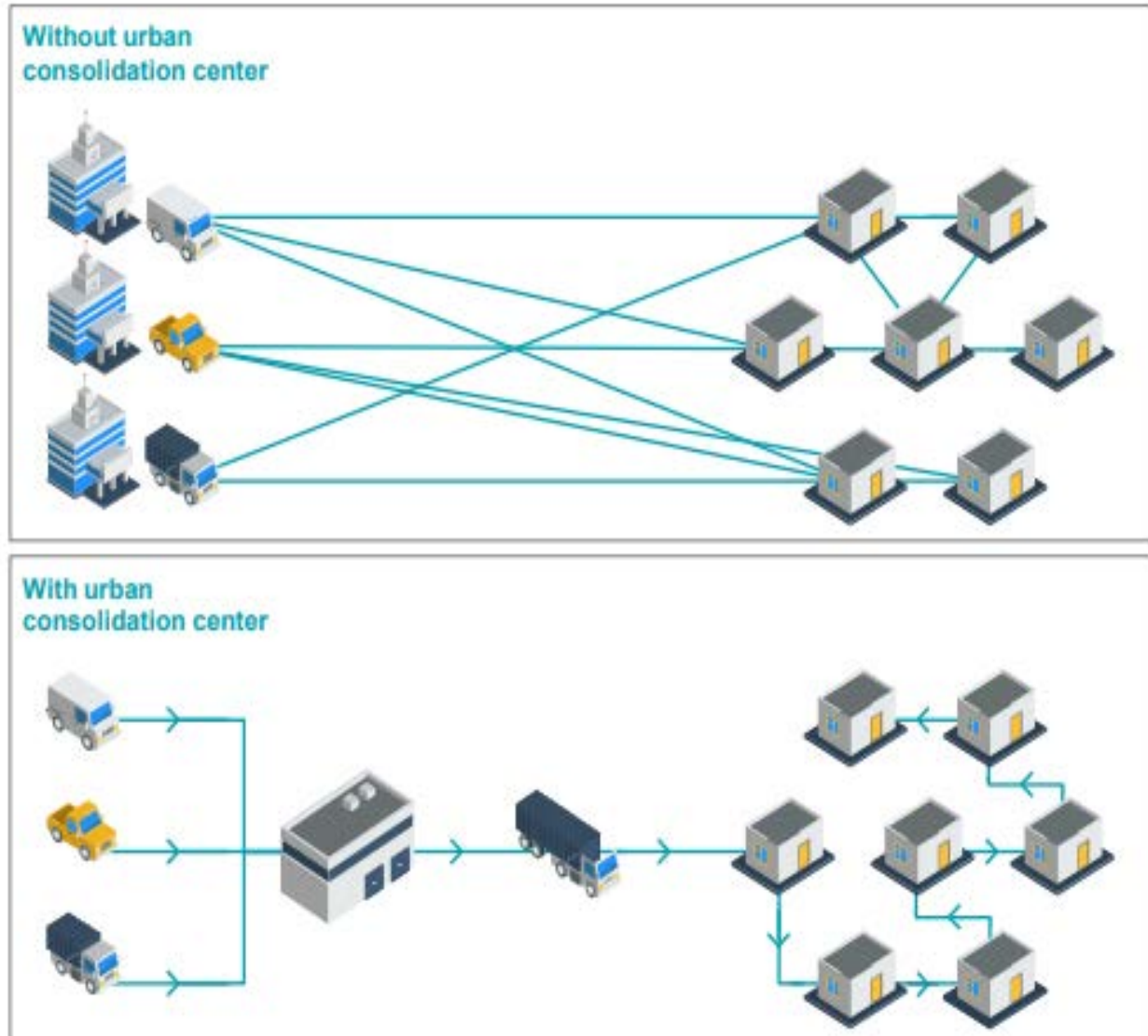
London

West Sussex, UK (*pilot*)

### VMT Reduction Potential

Consolidation centers could reduce mileage by 45% to deliver the same amount of goods

Parcel lockers could reduce emissions per parcel by over 66%

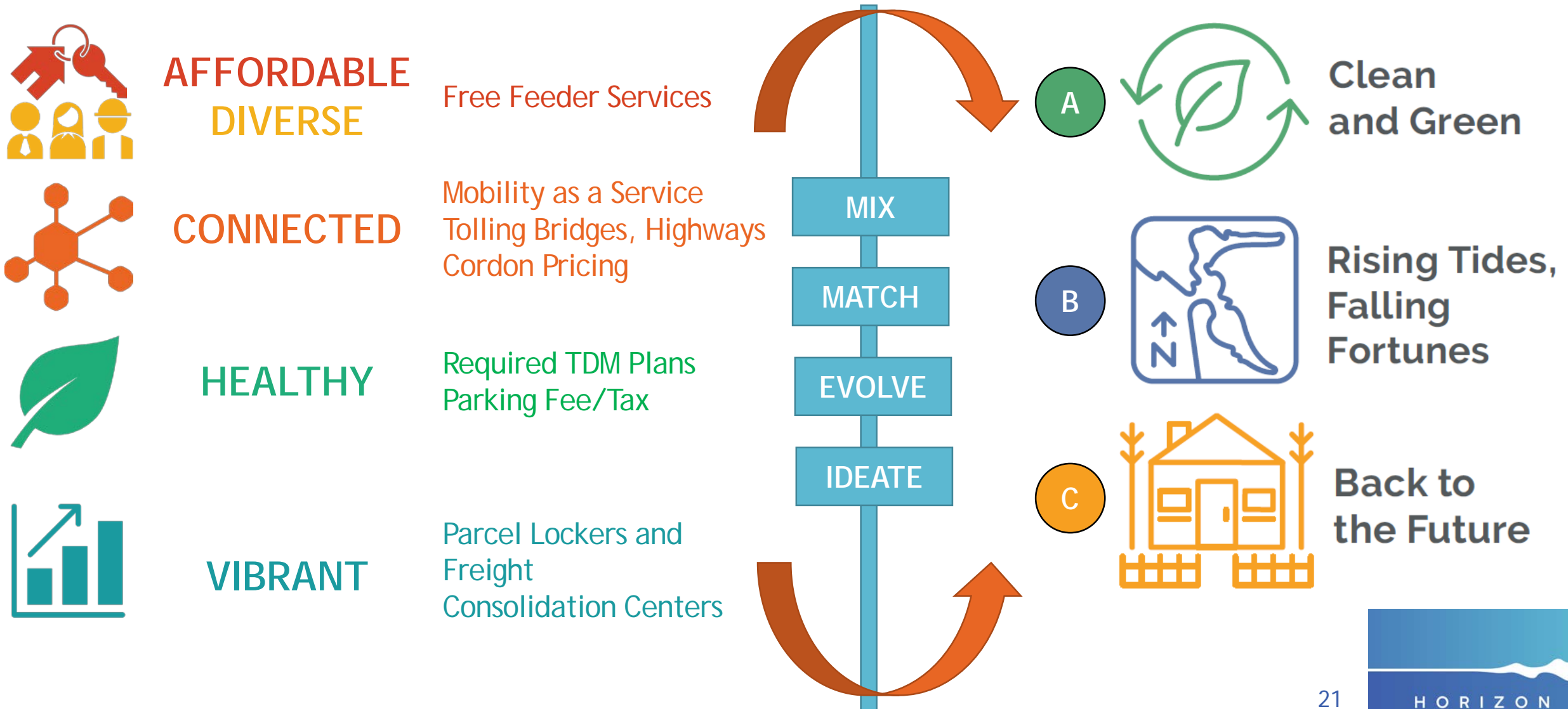




## Next Steps

Paper Release Event - September 26th, 6pm  
WeWork Valley Towers, Downtown San Jose

# Aligning Specific Strategies with Futures





# What's Next for Strategies Identified?

Strategies will undergo further review and consideration in the months ahead, as we work with stakeholders & the public to consider the benefits of a particular strategy alongside its impacts.



## FOR EXAMPLE:



**Free Feeder  
Services to High  
Capacity Transit**





Questions?