

San Francisco Transport Strategy: Partnerships & Pilots



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[in](#) [t](#) @tpap_

Baby Boomers



Millennials/Gen X



**Drop in Licenses
& Revenues**



**Ubiquitous
Connectivity**



**Work Anywhere
Everywhere**



**Changing
Preferences**



Big Trends

Major societal and system changes



The Sharing Economy



BookMooch

New life for Old books

Cookening




RelayRides



taskrabbit
Life is busy. We can help.



NeighborGoods



lyft

 **LendingClub**



ParkatmyHouse.com

zipcar
wheels when you want them



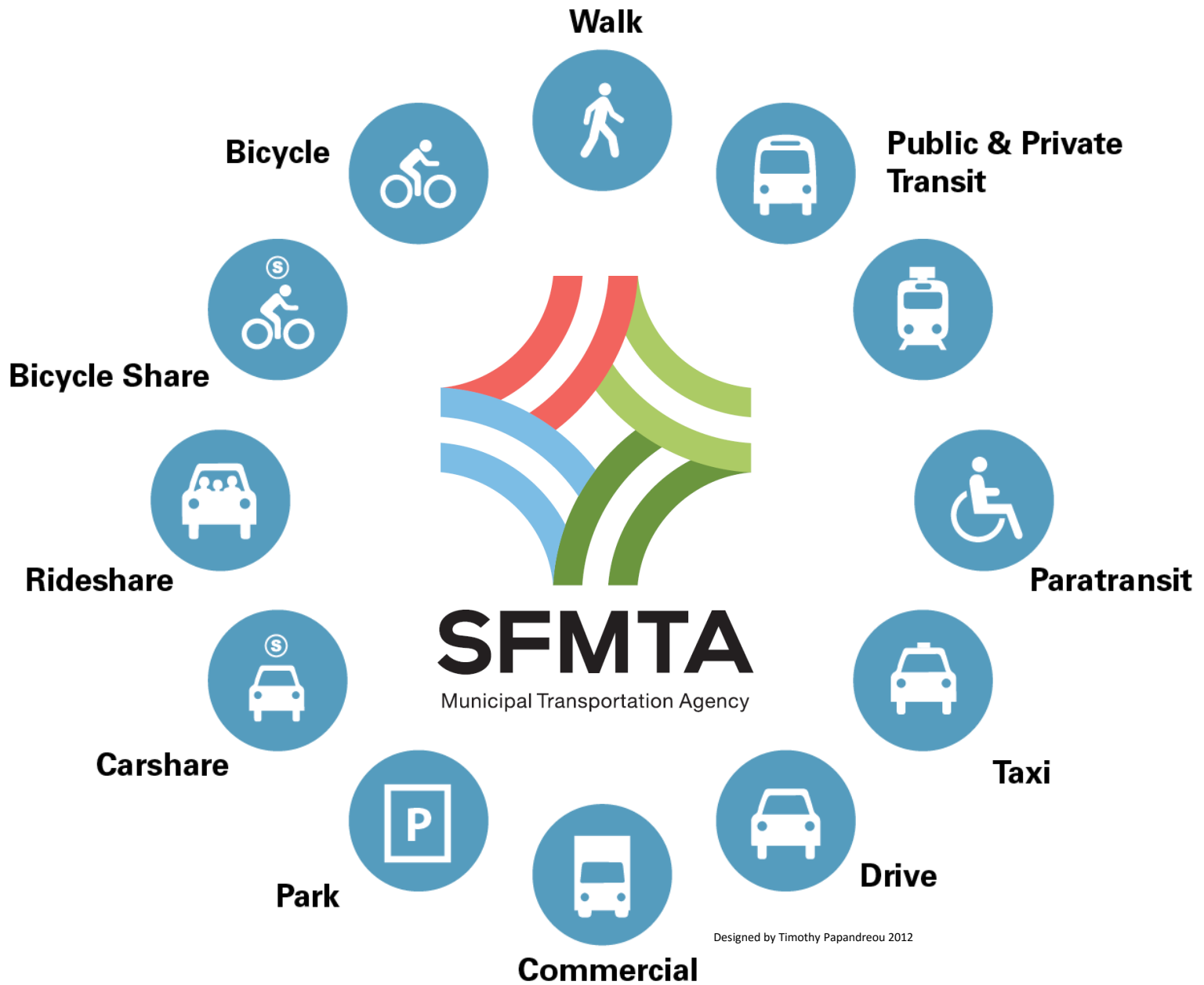
**Sharing
Economy**

Access is more important than ownership



Big Trends

Major changes in people and goods movement



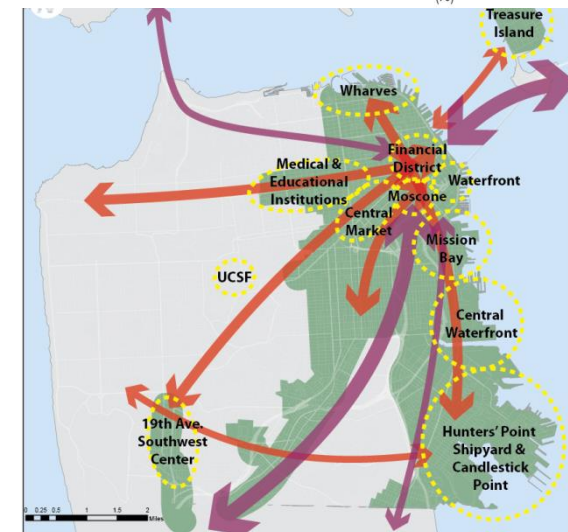
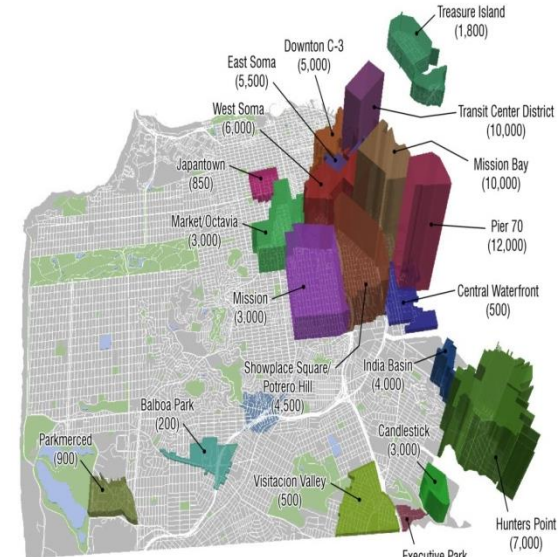
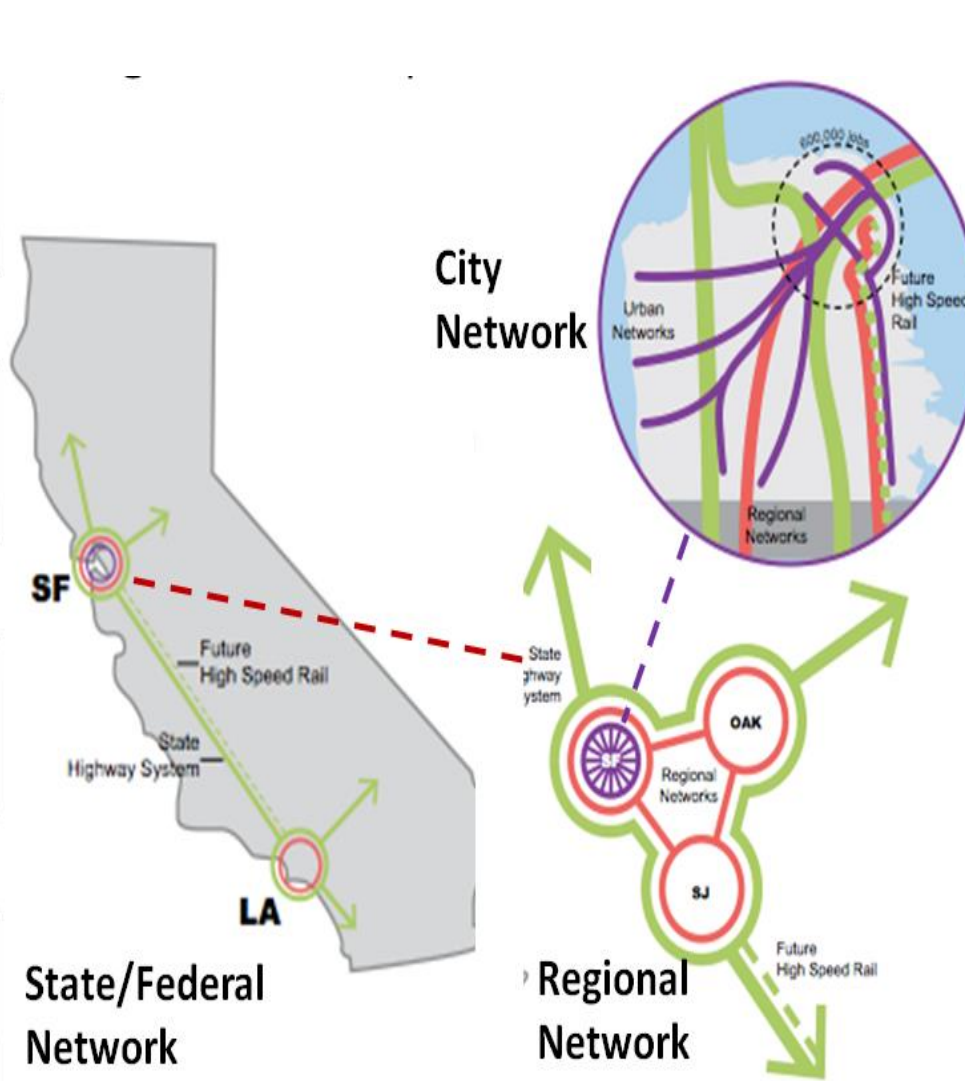
Designed by Timothy Papandreou 2012

Citizen led process

**All-in-one
Agency**

**Focus on
People**

California Integrated Transportation Policy



**Transport
Policy**

**Integration of transportation at all levels
local, regional and state**

Single Occupant Vehicles



80% Empty

95% Stationary

100% Owned



SFMTA Vision

*San Francisco:
great city,
excellent
transportation
choices.*



Mixed-Use Land Use Plans
Travel Demand Management
Parking & Traffic Management



Walkable
Streets &
Spaces



Local &
Regional
Transit Network

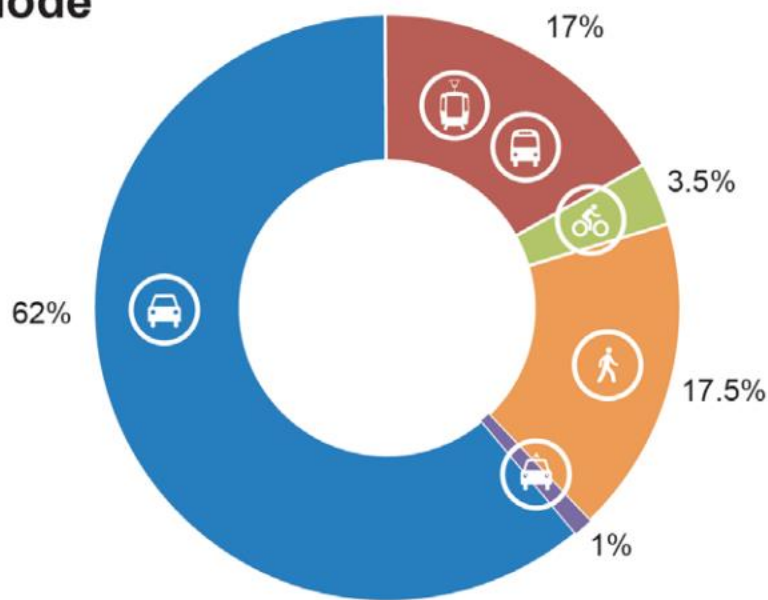


Bicycle
Network &
Facilities

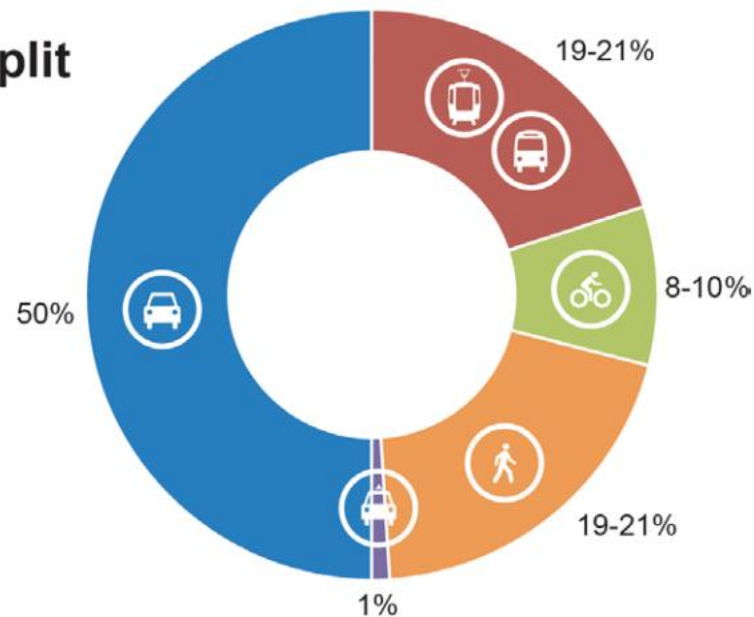


Vehicle Sharing
& Shuttle
Partners

2011 Mode Split:



FY2018 Mode Split Goal:



Shared Mobility is key to SF success

Traditional

I own and use
my own
transportation

Urban
Suburban
Rural

Trending

I own my
transportation
and/or access
shared mobility
options

Urban Core

Future

I access a menu
of mobility
options to meet
my needs

Urban Core
Suburban
Rural

Leverage developer agreements to manage parking supply, shared mobility + pay for infrastructure delivery



Candlestick/Hunters Point Shipyard



Park Merced



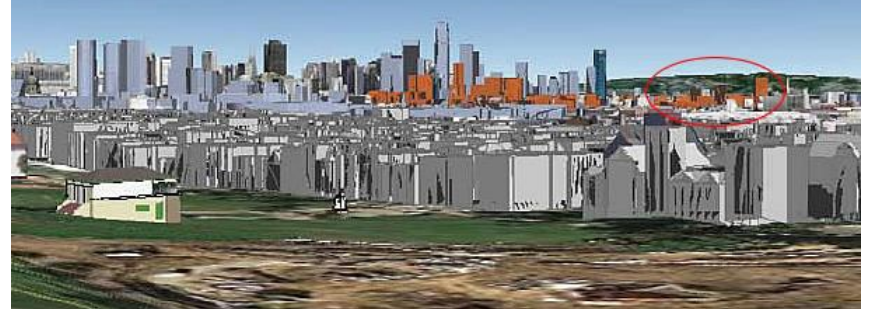
Treasure Island



California Pacific Medical Center



Transit Center District



Central SoMa

Development
Agreements

Leverage agreements to pay for transportation

Manage
Existing
Demand

Manage
New
Demand

Mode Shift
Strategies

**Demand
Management**

**Manage Demand & Supply with Mode Shift
before any expansion**

Customers

Mobility
Providers

Integrating
Technology

Street
Space

Residents
Workers
Visitors

Public
Private
Employer

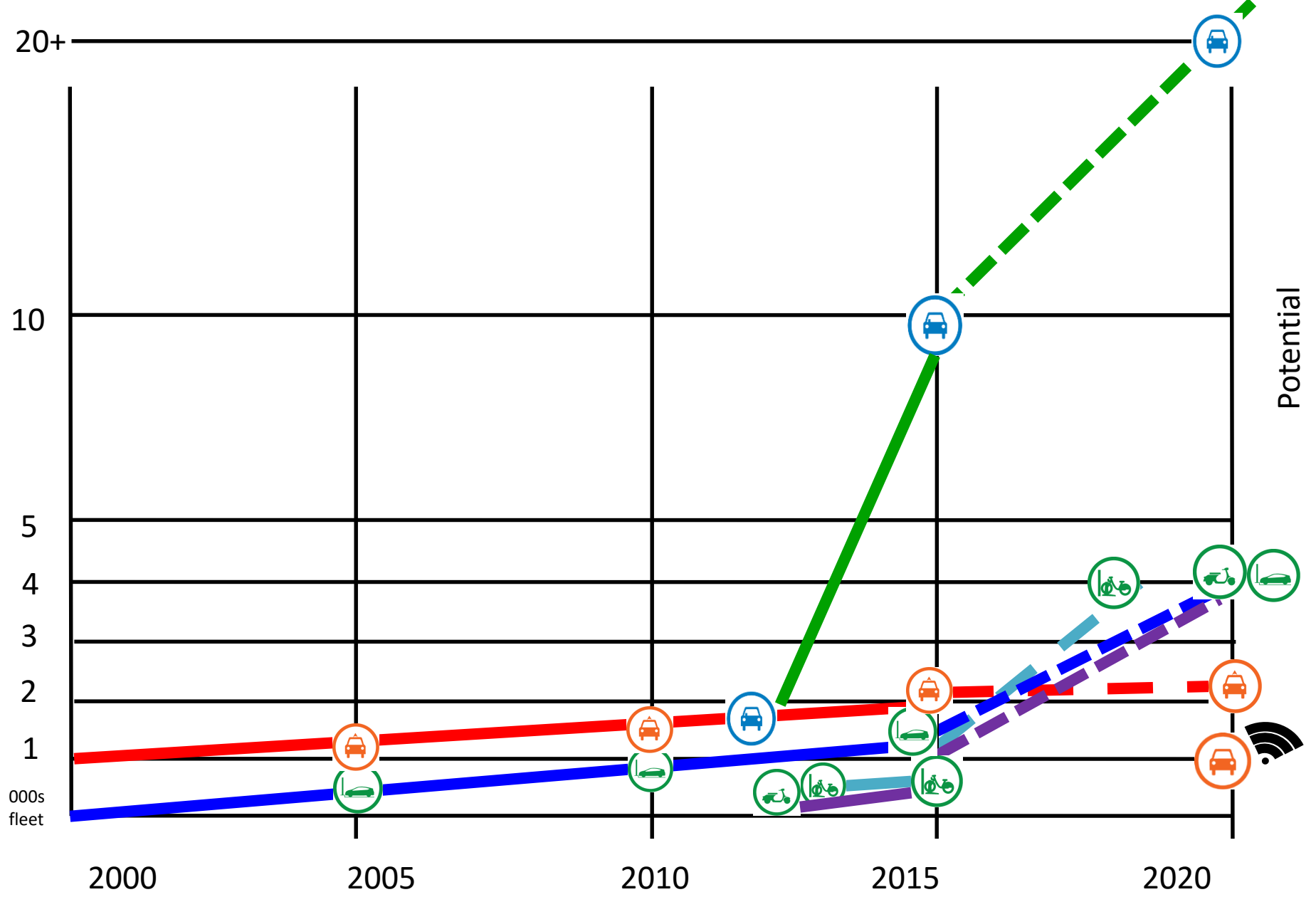
Routing
Booking
Payment

Stations
Spots
Docks

Shared Mobility

Public Private Partnerships key to success

Timothy Papandreou @tpap_



5 year Potential Growth Shared Mobility market in SF



Public Transit



Shuttle services



Taxis & Limos



Bike sharing



Ridesharing



**Transportation
Network Companies**



Carsharing



Jitneys



Scooter Sharing

Definitions

Evolving, blurring distinctions, varying benefits



Shared Mobility Market is rapidly diversifying

Shared Mobility is used by more people more often

2014 Survey All Trips to, From & Within San Francisco



**20% of San
Franciscans
use taxis at
least monthly**



**25% of San
Franciscans
use TNCs at
least monthly**



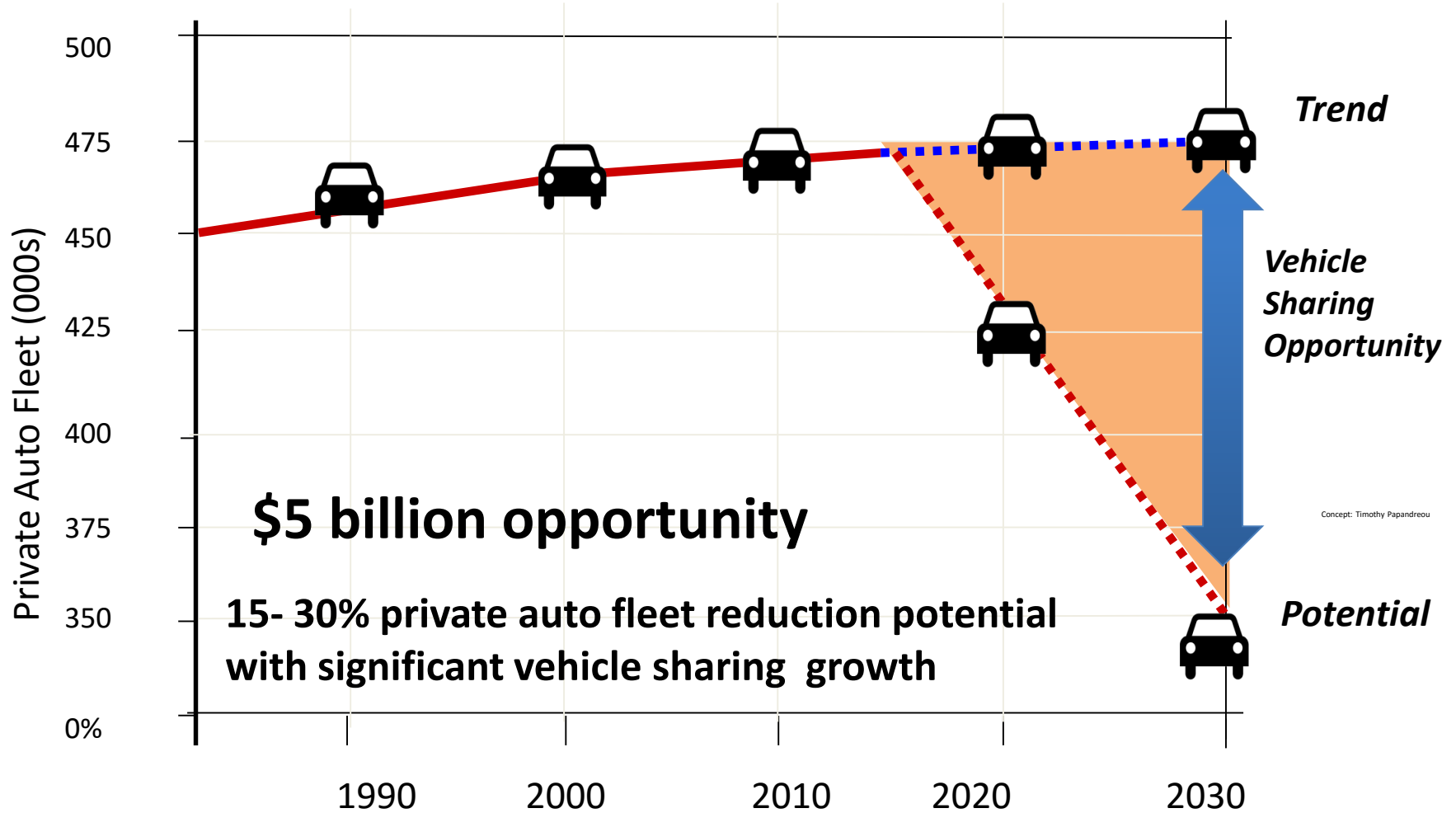
**6% of San
Franciscans
use carshare at
least monthly**



**4% of San
Franciscans
have tried Bay
Area Bike Share**

Scaling up and across is essential to move beyond 5% of citizens

SF Private Auto Fleet Trends



Shared Mobility growth can offset vehicle ownership



Governance: Transport system is safe, accessible & affordable for all users, reaches all n'hoods, streets prioritized for sustainable modes



Customer Focused: Universal design, reliable service, simple & integrated payment system (options for unbanked/without smart phone)



Availability/Scalability: Visible & legible hubs/routes/networks, available throughout the city, enhances public transport stops



Performance Outcomes: reduces car ownership & use, uses greenest/quietest fleets and fuels, safety focused, adds public transport network capacity

Concept: Timothy Papandreu

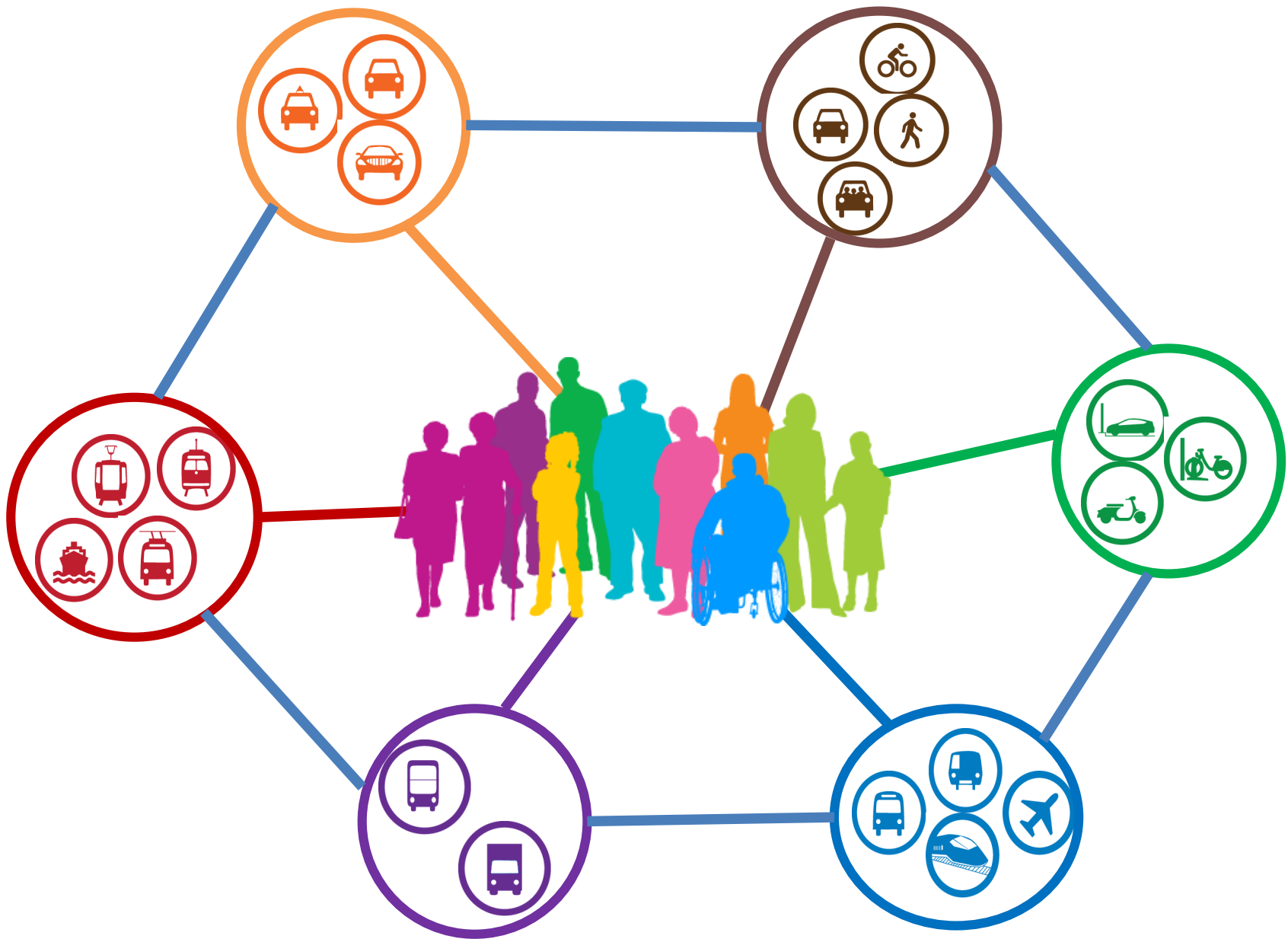
**Transport
Outcomes**

Policy priority for Shared Mobility providers



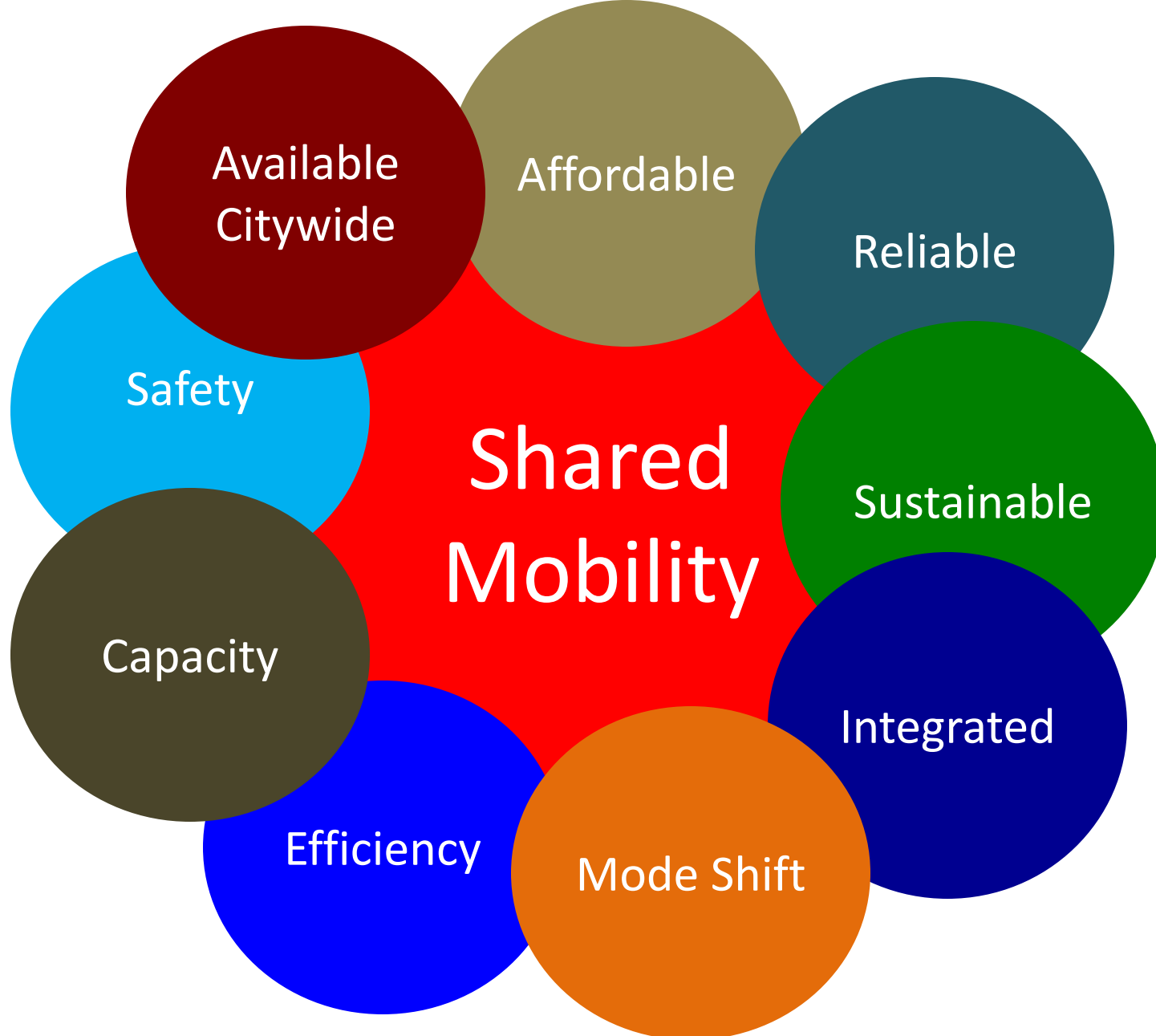
Shared Mobility
Innovations

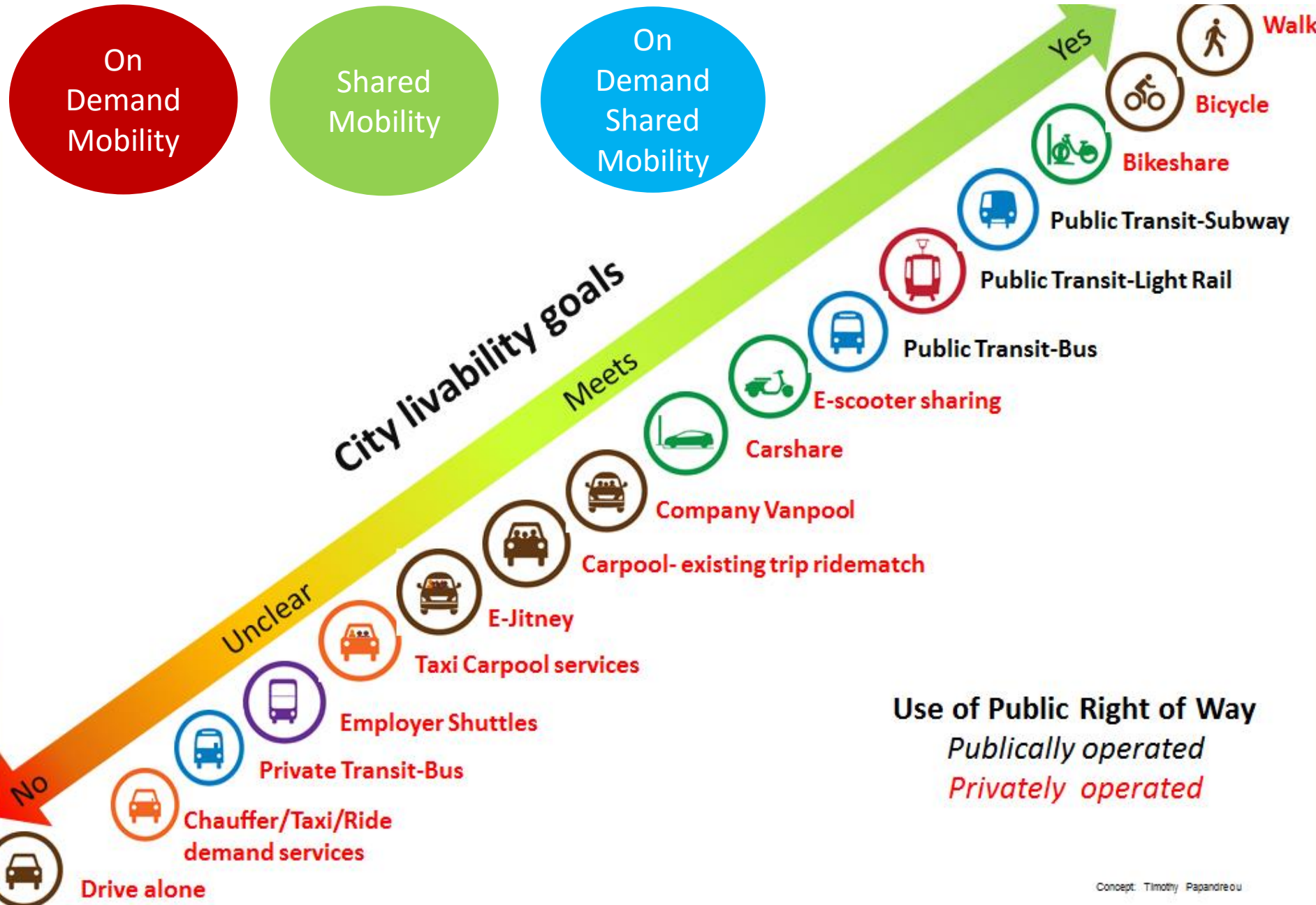
Cities can get into policy “tug of wars”



Governance

Join the dots, make it fair, balance goals





Concept: Timothy Papandreu

Transport Ecosystem **Transportation options ranked among city livability goals (safety, sustainability, affordability, accessibility)**

Privately-Owned Vehicles



Public Transit, Rail, Bus, Ferry



**Regional & Intercity
Services: Rail, High-Speed
Rail, Air**



Shared Fleet Vehicles



**Employer Shuttles, Jitneys
Commercial Deliveries**



**Taxi, Limousine & Transportation
Network Companies**



**Transportation
Today**

Multiple modes, little or no integration



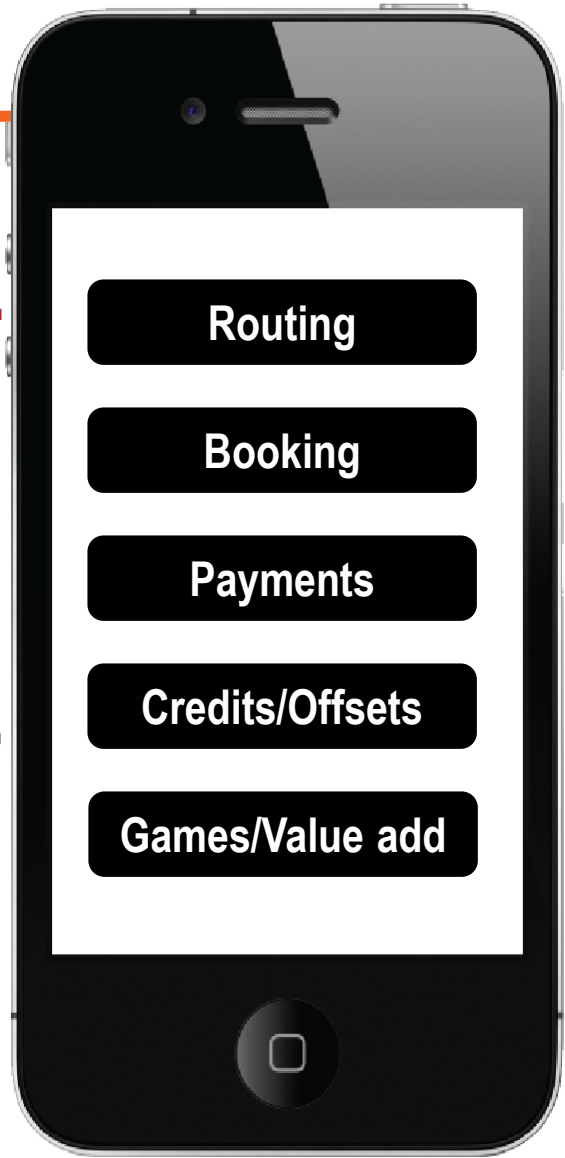
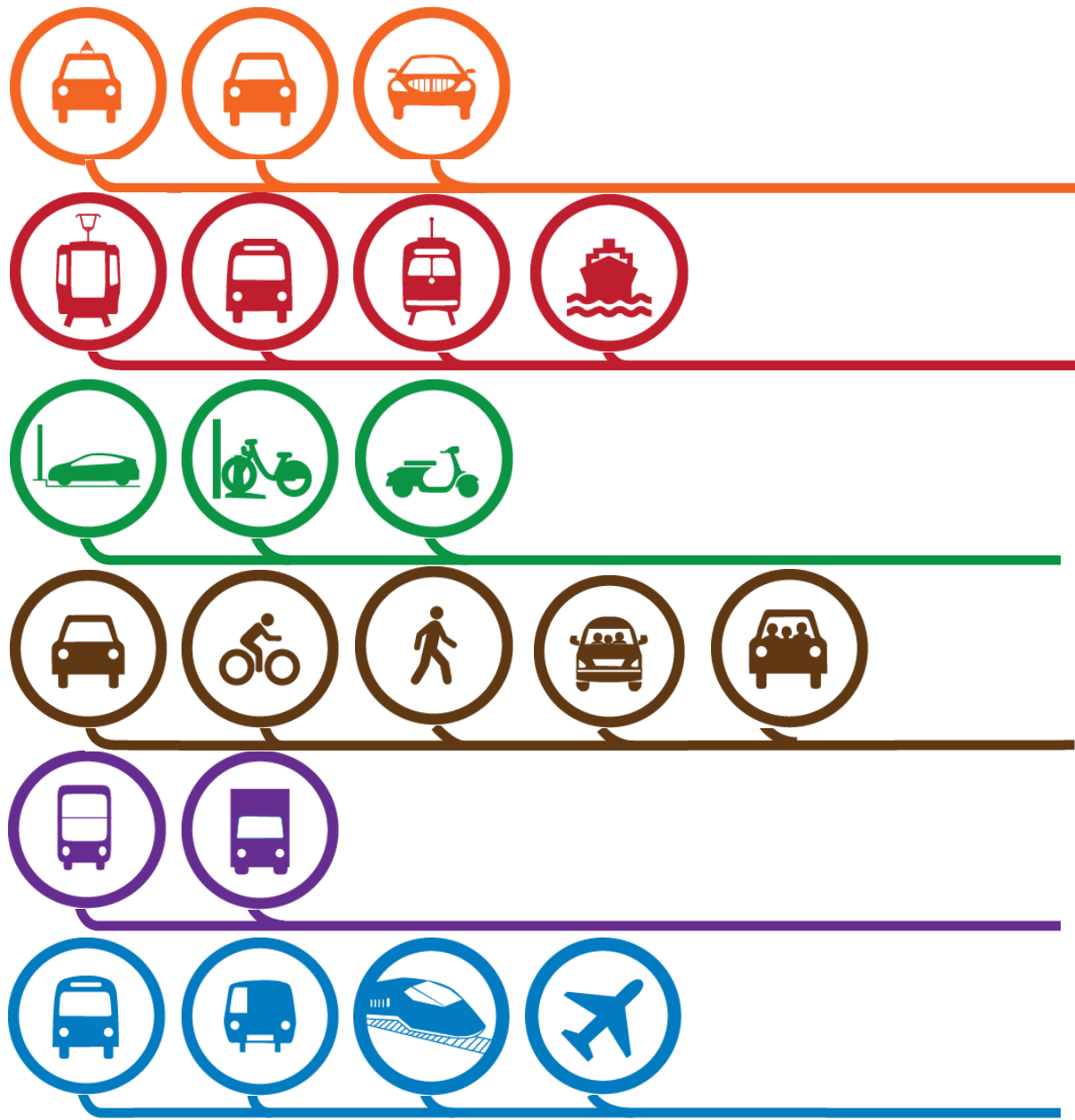
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**Transportation
Today**

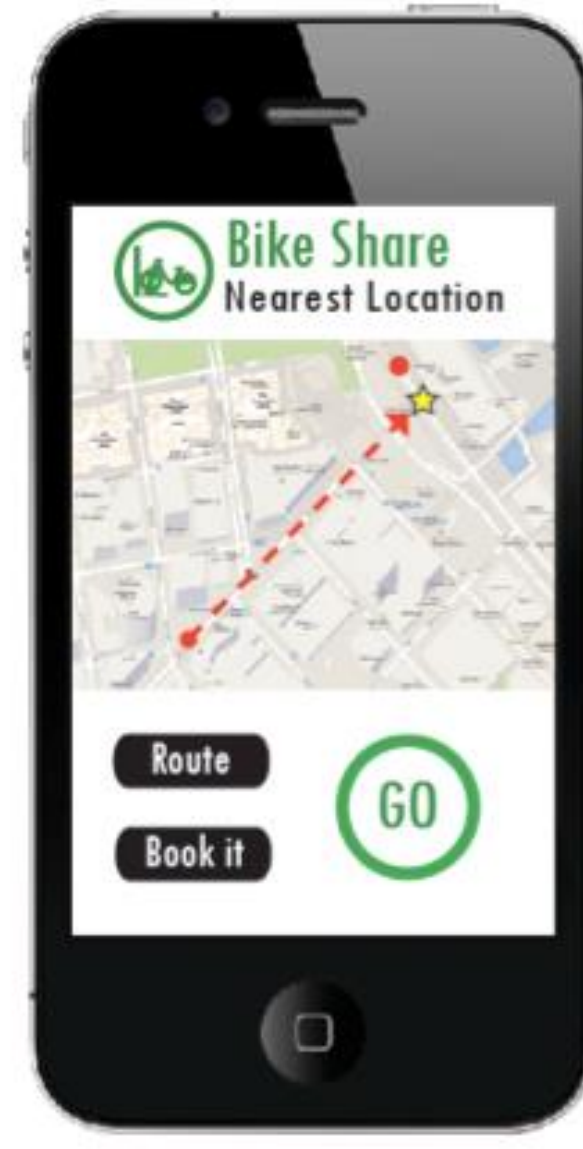
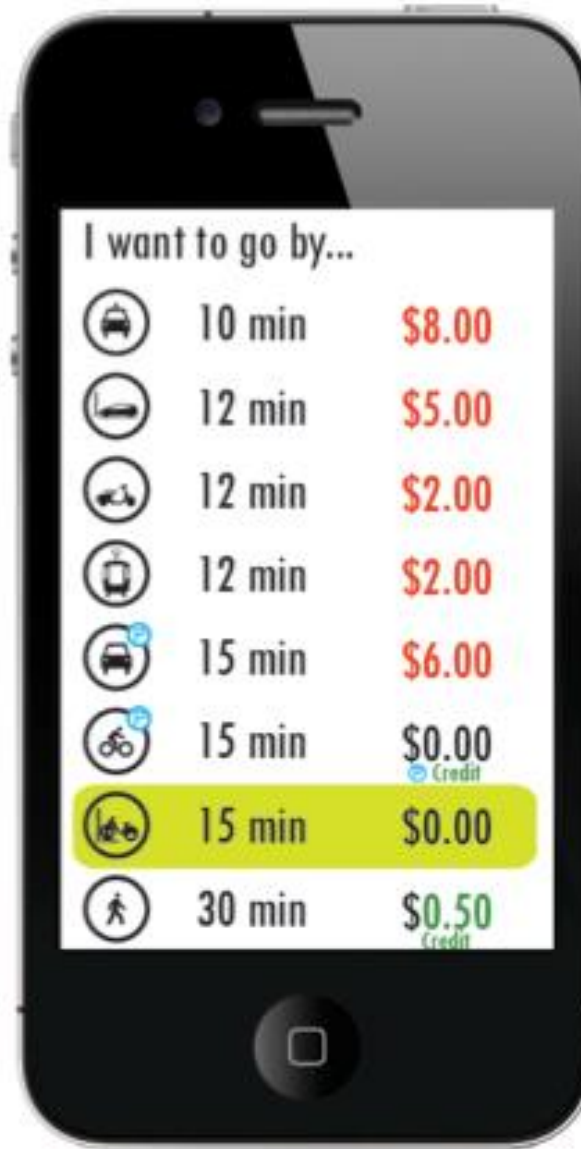
**Multiple providers, agreements, insurance,
payments, routes, booking = headaches!**

Customer Experience



**Integration
Vision**

Integrated for the customer experience



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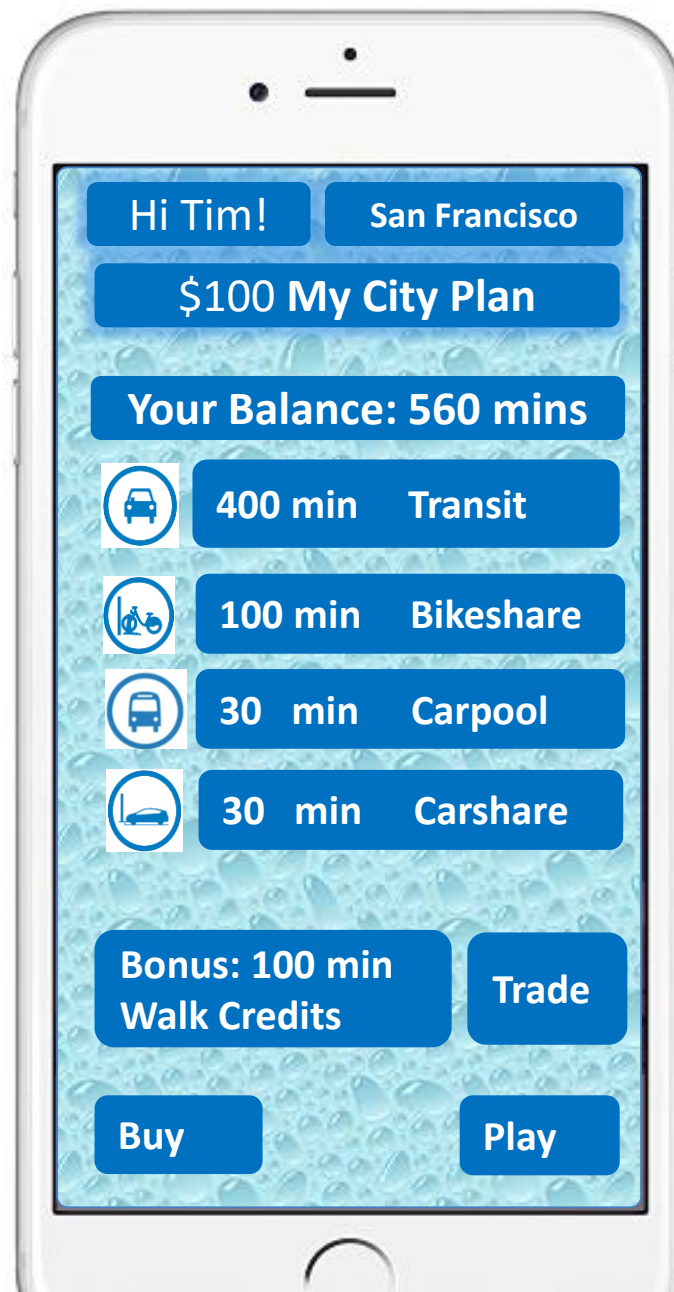
Mobility Options for a Mobility Menu



A complete customer focused experience

2.0 Mobility Minutes local,
regional, international travel

Mobility Package of options
tailored to individual
preferences



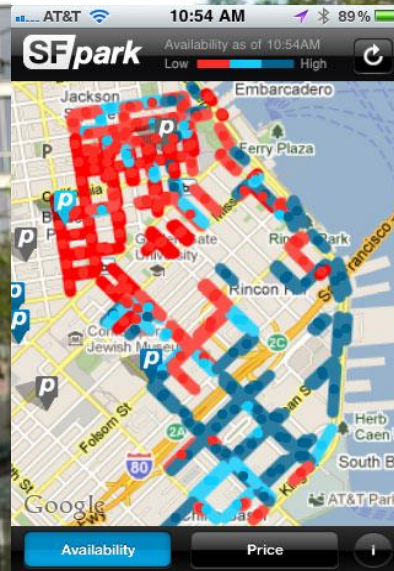
Concept: Timothy Papandreou



**Mobility
Packages**

Personalized Mobility for citizens

Timothy Papandreou @tpap_



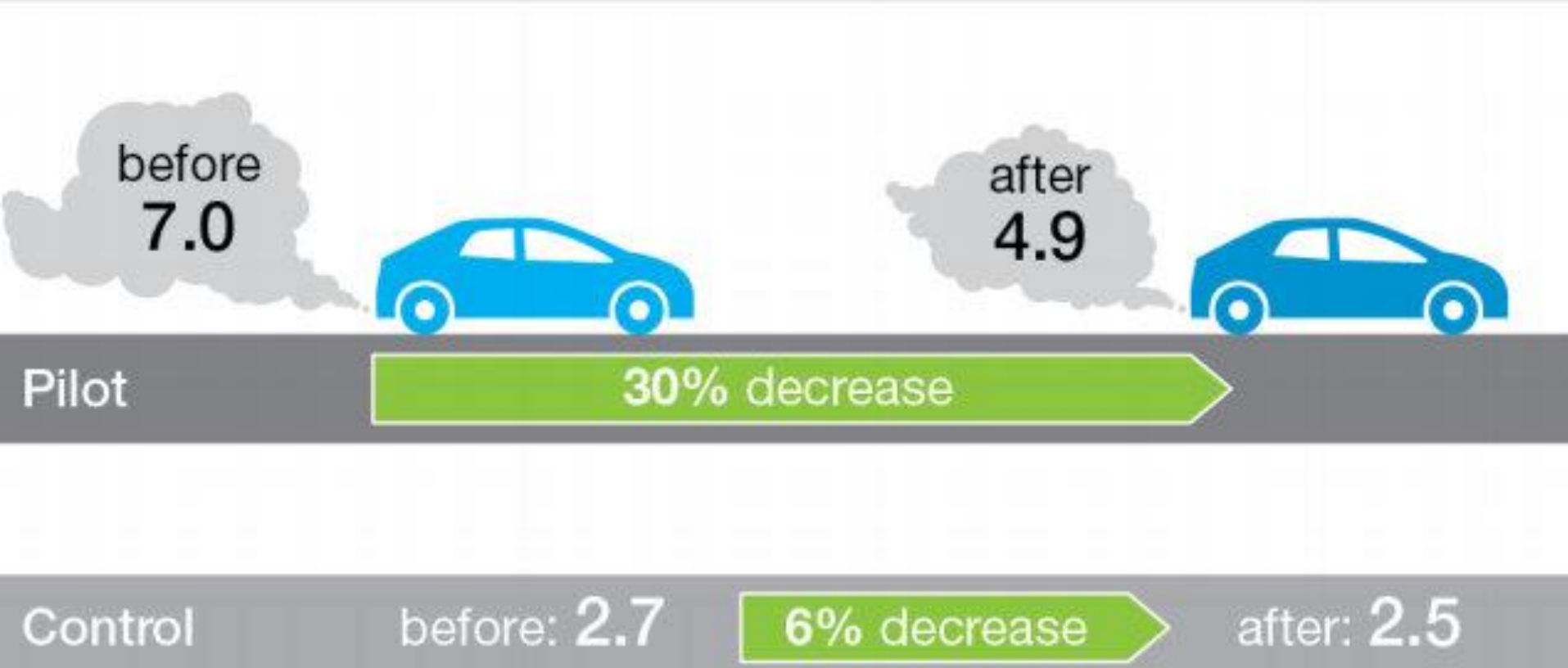
Connectivity

Sensors used for data analytics/demand management

Daily greenhouse gas emissions (metric tons)

Before vs. after

Pilot vs. control areas | Weekdays 9am to 6pm



Transport
Strategies

Parking Demand Management reduced GHGs

3 BIGGEST FEARS OF OUR GENERATION

1

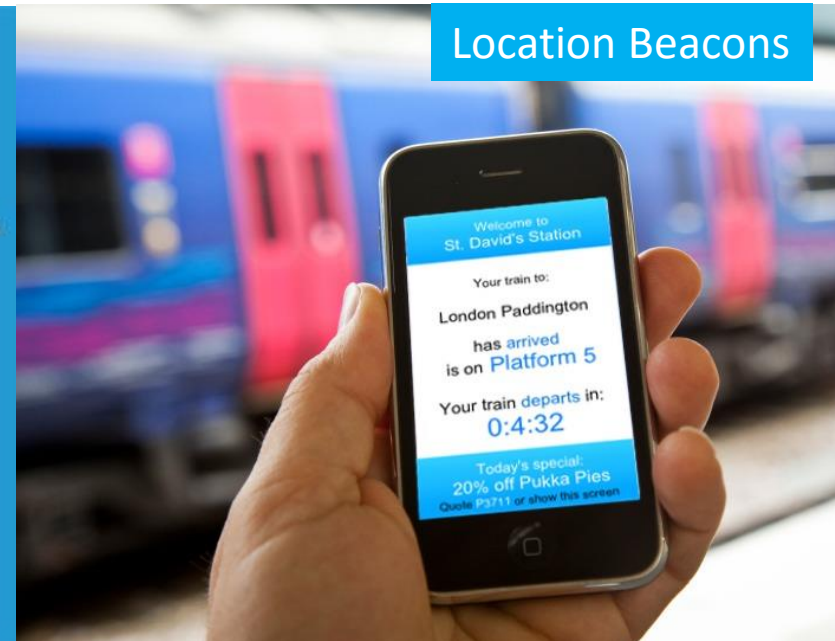
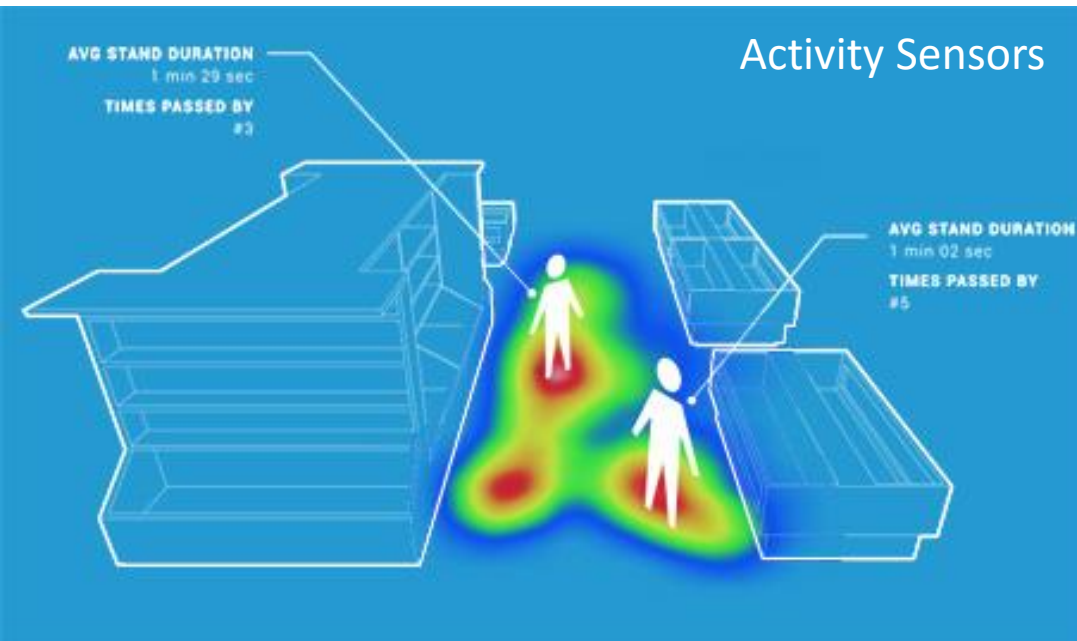
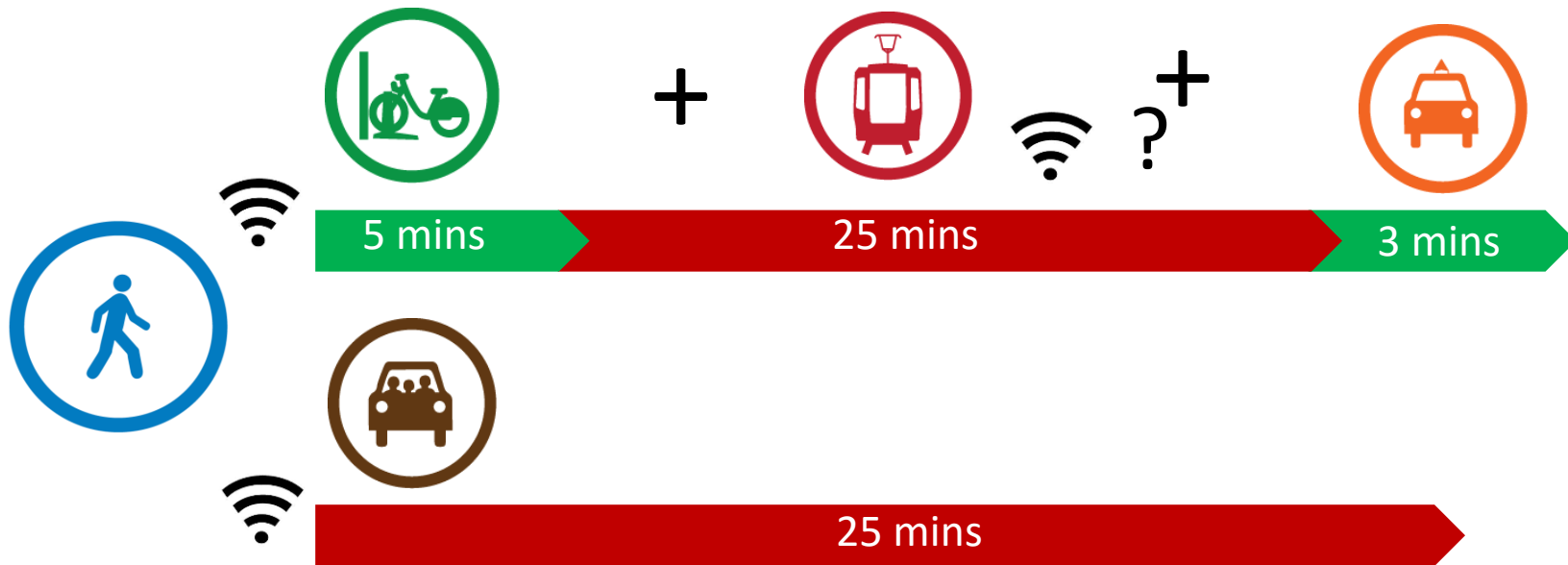


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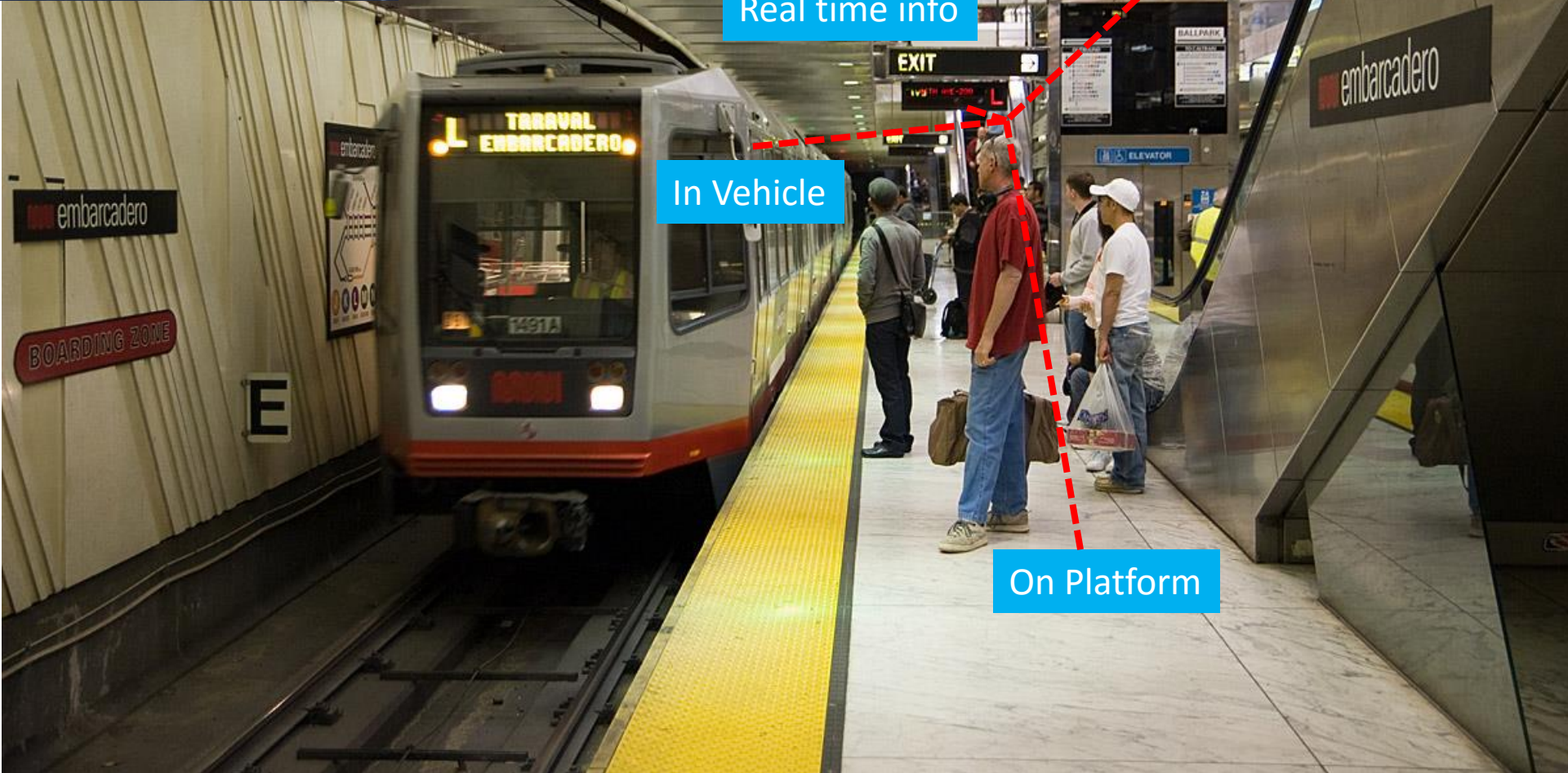


3





Ubiquitous Connectivity **Pervasive Connectivity & Navigation from beginning to end of trip defines travel**



Real time info

Elevator

In Vehicle

On Platform

Customer
Experience

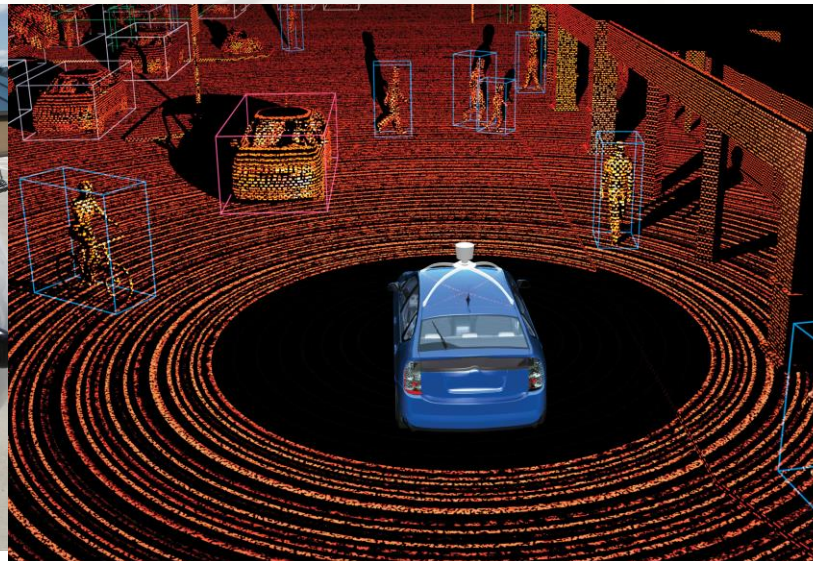
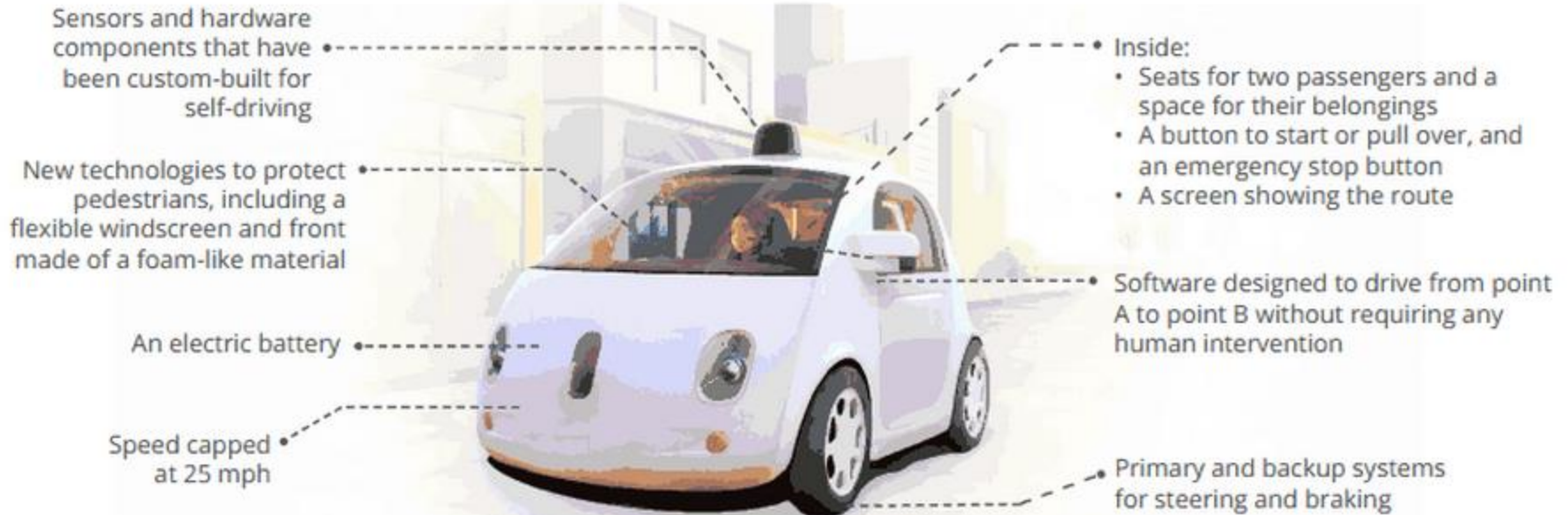
Mesh network on station entrance/platform,
elevators, in vehicles for continuous connectivity



**Connected
Systems**

**Transportation Networks rely on stable &
reliable WiFi/GPS/4G to be effective**

Key facts about the vehicle



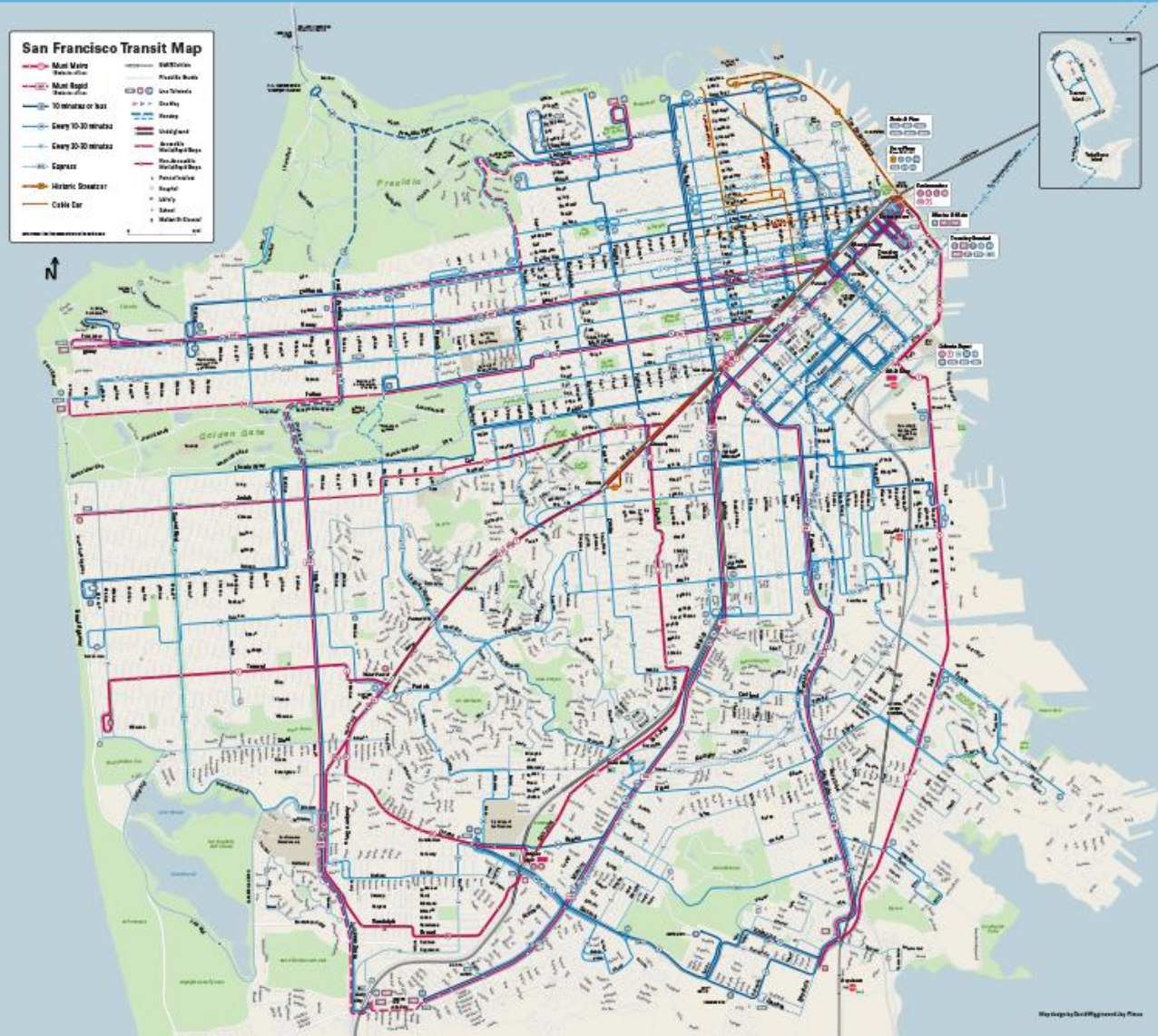
**Self-Driving
Systems**

LIDAR technology is key to self-driving system



Shared
Mobility

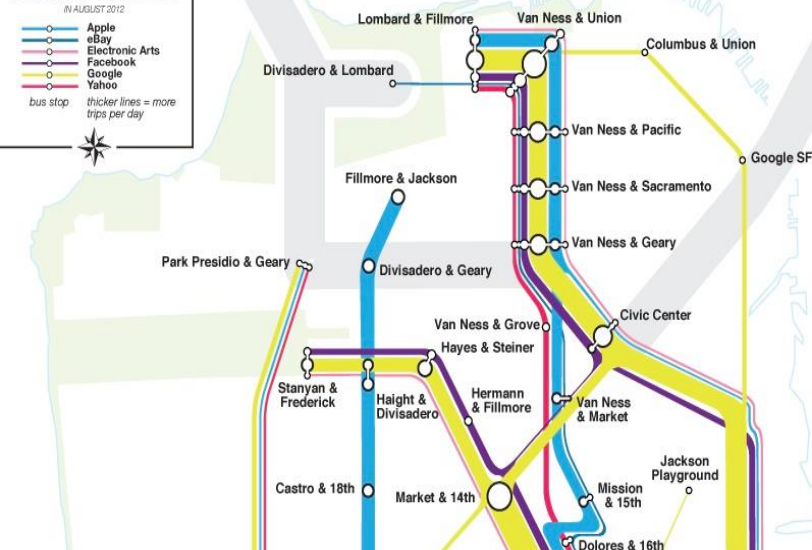
Public Transit Backbone of city



Shared Mobility

New map based on frequency + capacity

PRIVATE BUS LINES IN SAN FRANCISCO TO SILICON VALLEY AS SURVEYED BY STAMEN DESIGN



Housing Impacts

Frequency of higher rents within ¼ mile of shuttle stops

70% areas surveyed

% surveyed shuttle riders who would move closer to workplace if no regional shuttles

40%

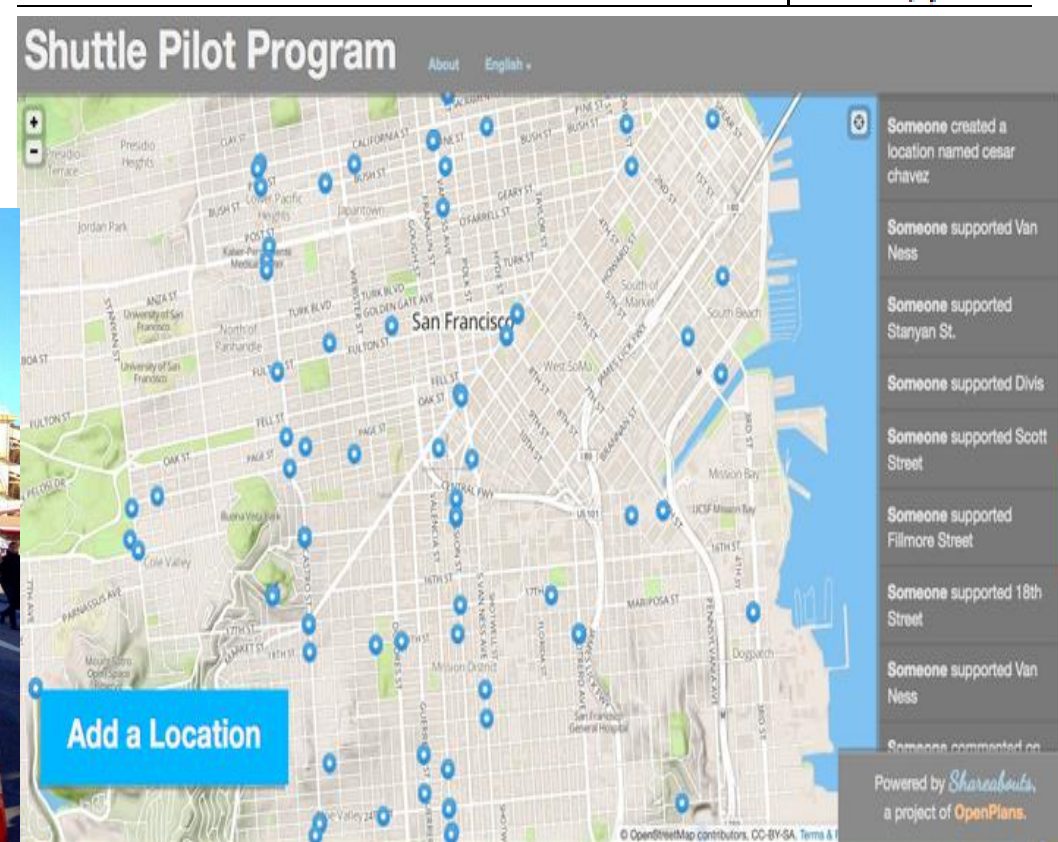
Regional Shuttle Benefits:

Reduction: Vehicle Miles Travelled

43 million/year

Reduction: Greenhouse Gas Emissions

8,500 metric tons/year



Shared
Mobility

Employer shuttle buses-pilot stop fees



21

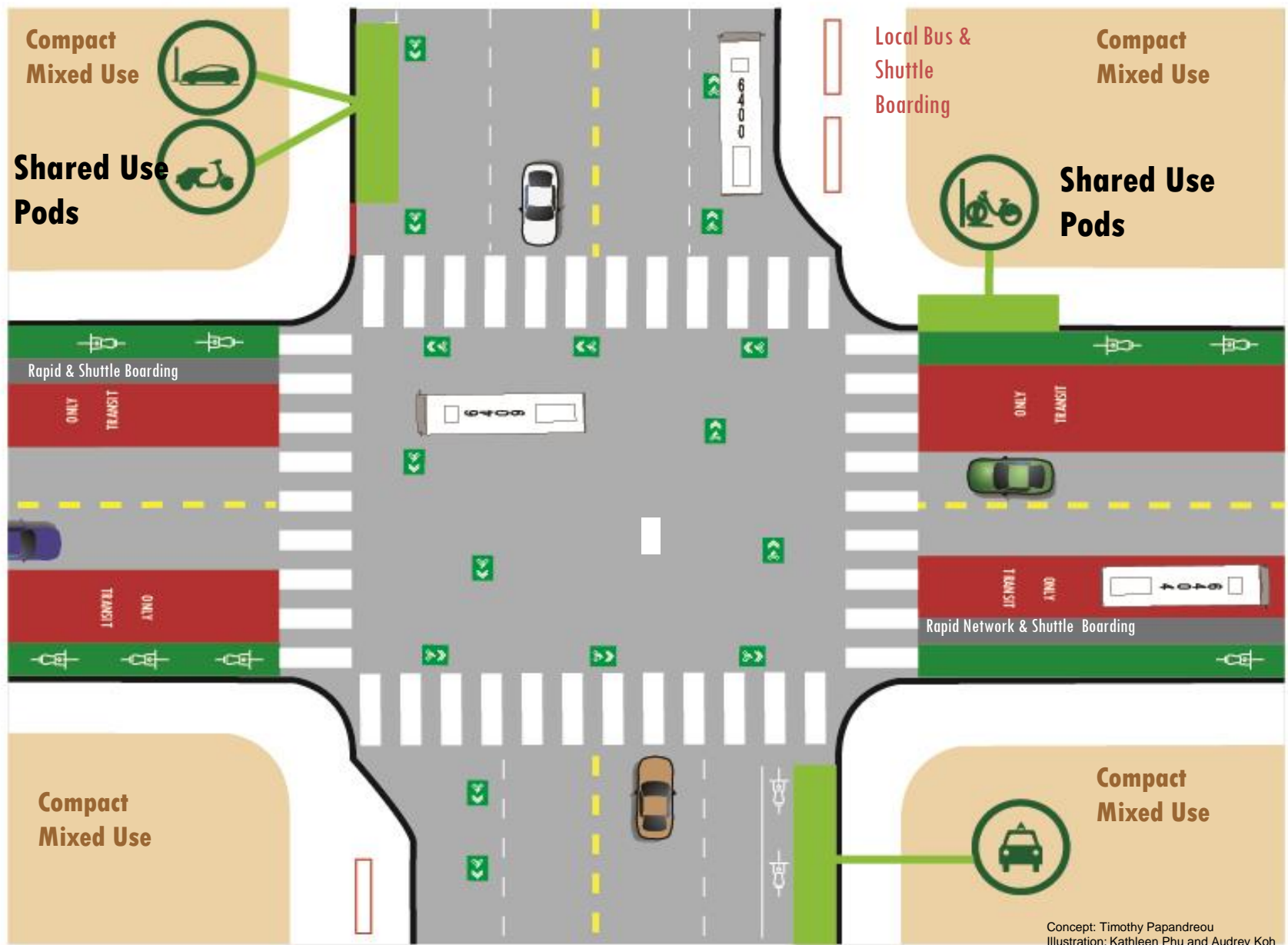
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65

265

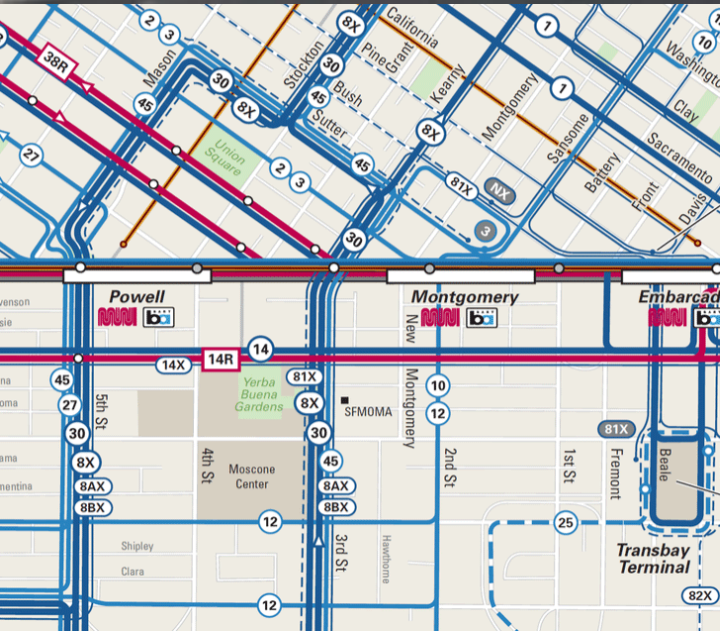
2004: Market Street 3 Cars for every 1 Bicycle
2014: Market Street 1 Car for every 3 Bicycles





**Complete
streets**

**Redesign streets to focus on shared mobility
tied to mixed use % prep for Driverless tech**



Transit
Strategy

MUNI FORWARD: Priority Network
Enhancements



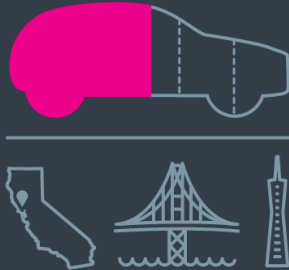
Paving the Way for Greener Cities

LIMITED TIME ONLY

Lyft Lines make
up more than

50%

of Lyft rides in
San Francisco



**\$2.25 Lyft Line Rides.
That's Right.**



More than

20%

of Lyft rides in the
SF Bay Area start
or end near a BART
or Caltrain stop



Shared
Mobility

Ridesharing concepts testing





- **Strategic Plan: 10 miles of bike lanes a year**
- **100% growth in bicycle trips since 2006**
- **\$15 million investment in network resulted in bicycle mode share from 1.9% to 3.5%**
- **Market St 3:1 Bicycle/Car ratio (was 1:3 in 2004)**

LTS 1 Everyone feels comfortable to ride



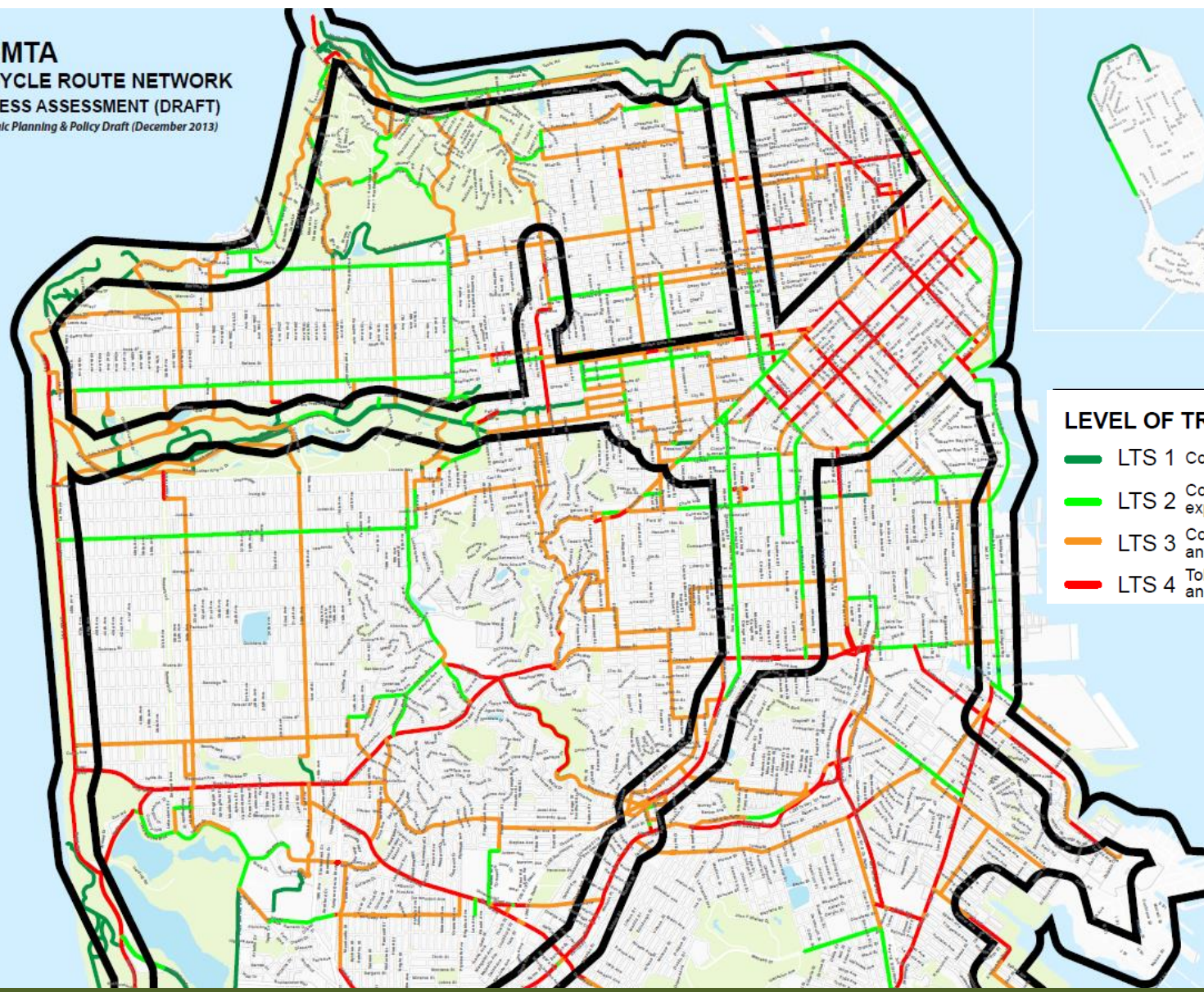
LTS 3 "Enthusied and Confident" will ride

LTS 2 Adults feel comfortable to ride



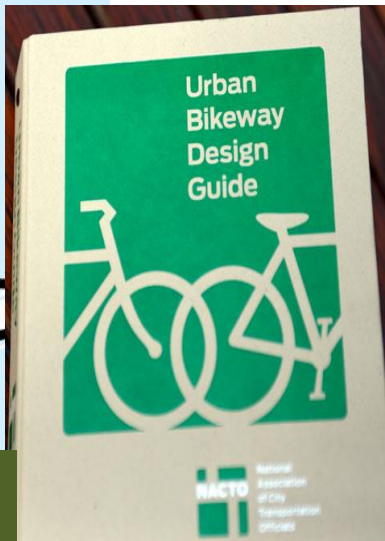
LTS 4 Only "Strong and Fearless" will ride

**SFMTA
BICYCLE ROUTE NETWORK
STRESS ASSESSMENT (DRAFT)**
Strategic Planning & Policy Draft (December 2013)



LEVEL OF TRAFFIC STRESS

- LTS 1** Comfortable for all user groups
- LTS 2** Comfortable for most adults, experienced children & youths
- LTS 3** Comfortable for intermediate and experienced adults
- LTS 4** Tolerated only by the "strong and fearless"

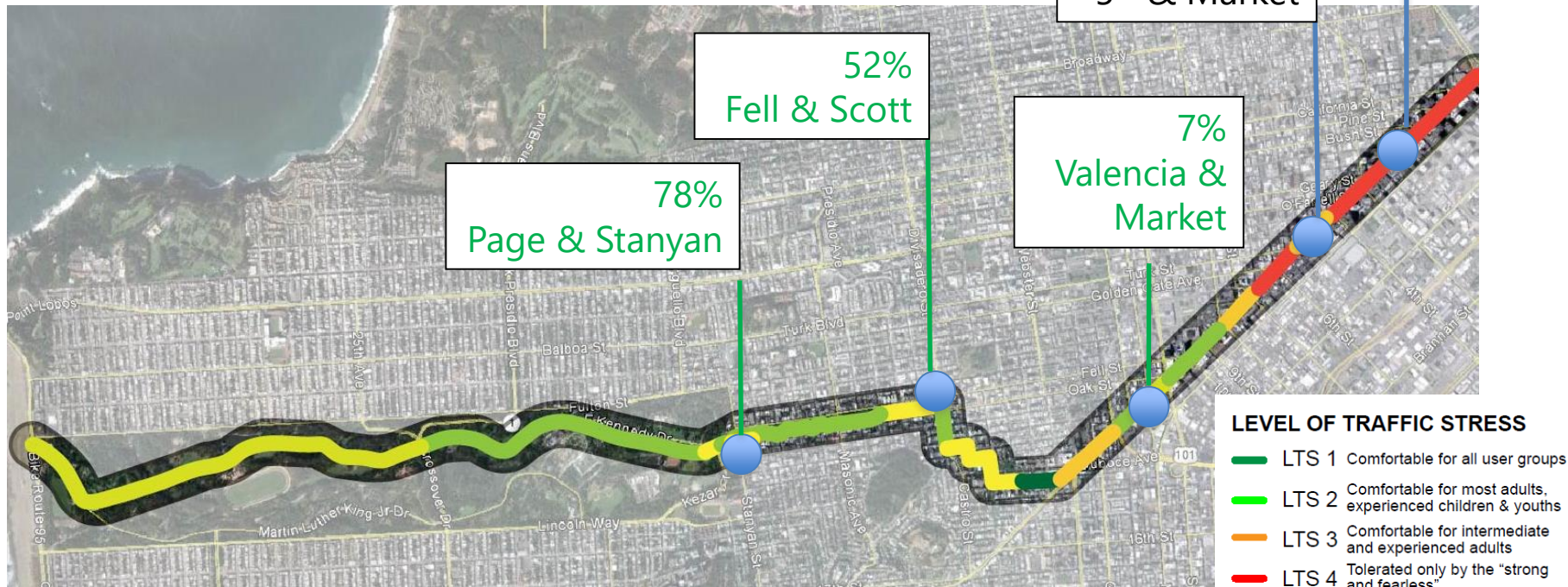


Only 10% of network comfortable & connected

Gap Closures- An Effective Return on Investment



- Bicycle improvements made between 2011-2013 at:
 - Page & Stanyan (signal)
 - Fell & Scott (bikeway)
 - Valencia & Market ("Jug-handle")
- Parallel bicycle facilities augment transit peak capacity for a low cost



33% average on corridor, with even higher growth at locations with improvements



On-street car sharing rate pricing zones



Shared
Mobility

Carshare pilot 900 on street spaces

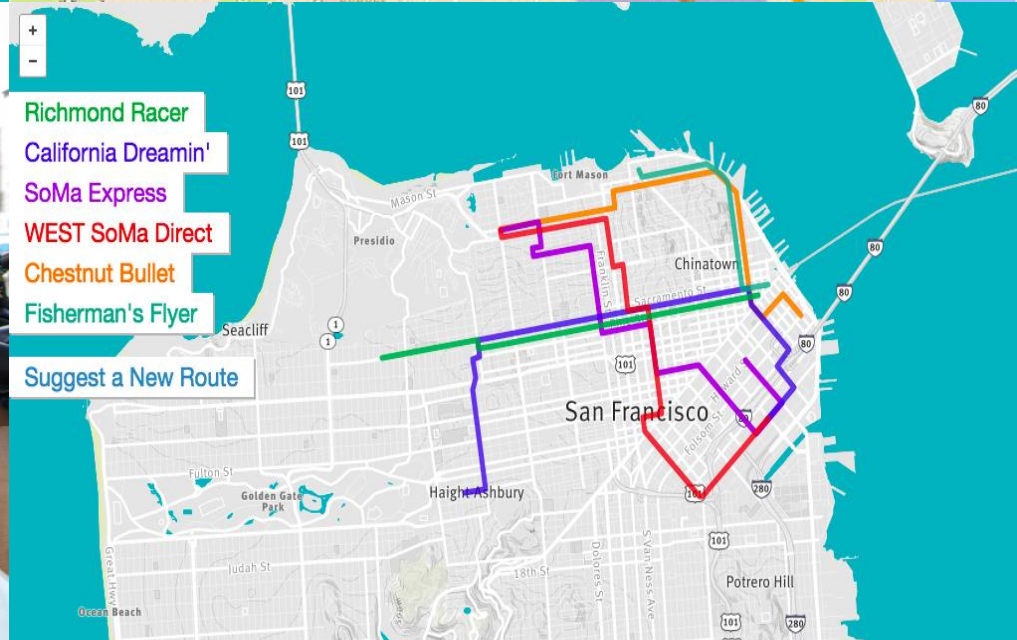
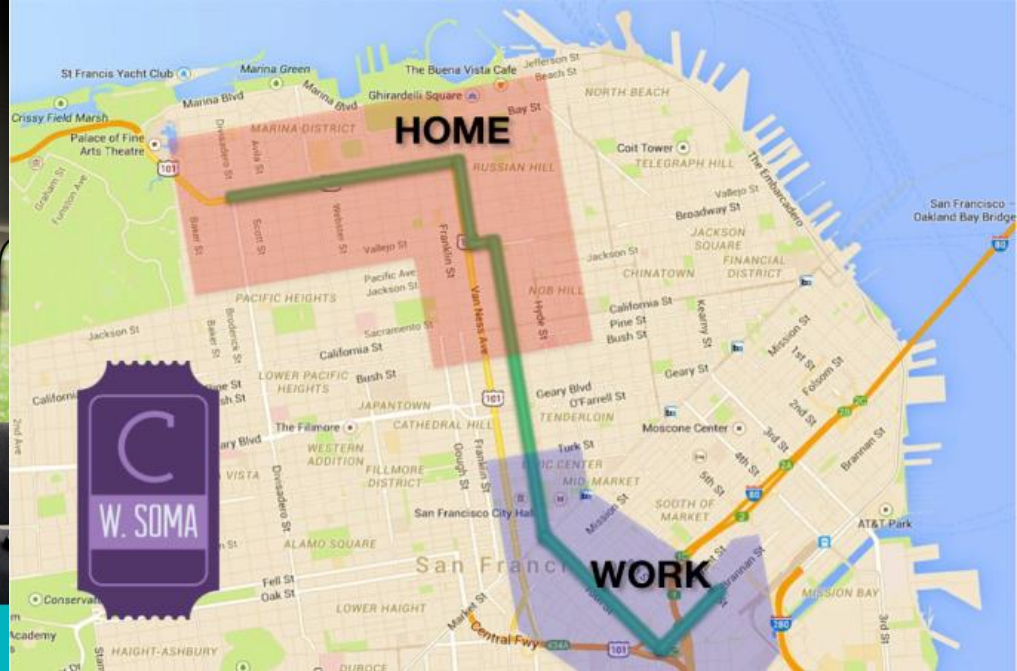


**Integrated
Streets**

**Redesign streets to focus on shared mobility
tied to mixed use**



chariot



Shared
Mobility

E-jitneys-compliment or duplication?



2014: Market Street 1 Car for every 3 Bicycles



Smart City

**Redesign streets to focus on shared mobility
tied to mixed use**



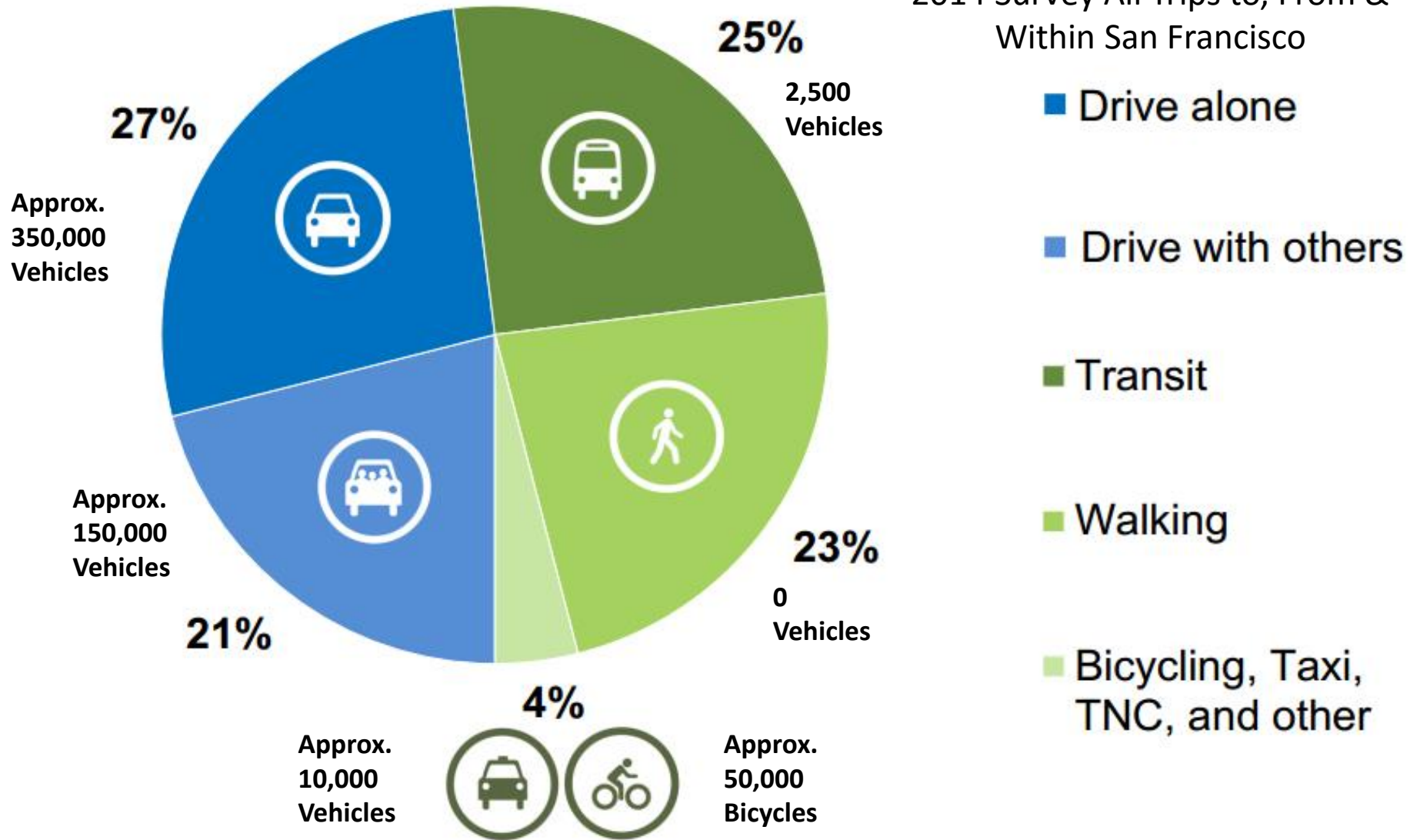


**Pedestrian
Strategy**

**Short Term: Temporary Innovative people
spaces tested for n'hood economic benefits**

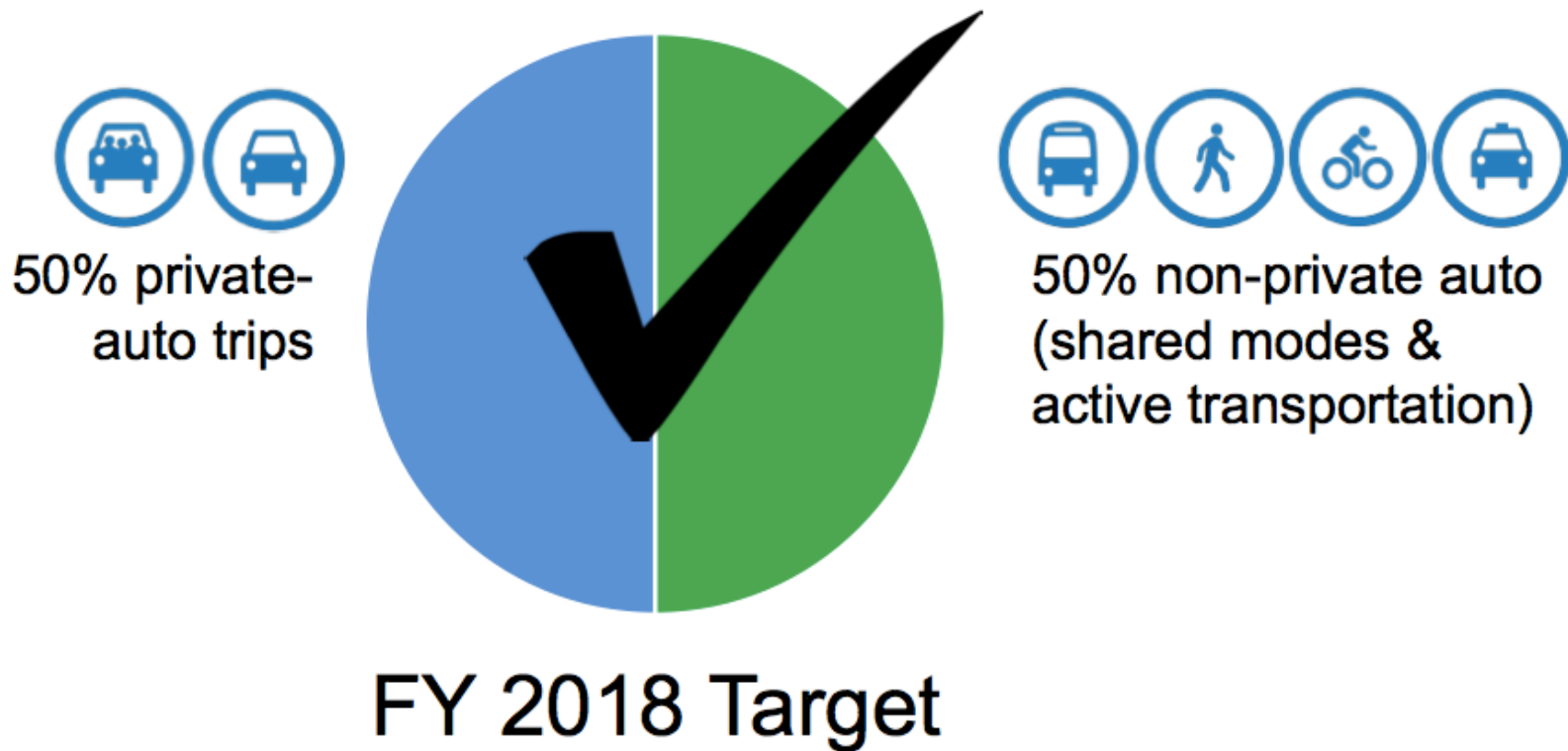
Opportunity

2014 Survey All Trips to, From & Within San Francisco



Shared Mobility moves more people with less vehicles

San Francisco is at the target mode share level



Target set in 2012, Target met in 2015!



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