



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Agenda Item 4b  
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## *Memorandum*

TO: Planning Committee

DATE: December 4, 2015

FR: Executive Director

RE: Regional Goods Movement Collaborative and Plan

### **Background**

Plan Bay Area identified goods movement as a key implementation item and an area to develop further for Plan Bay Area 2040. In late 2013, MTC and the Alameda County Transportation Commission (ACTC) embarked on the Regional Goods Movement Collaborative, a two year process of technical analysis, strategy evaluation, and extensive stakeholder engagement with business, labor, public health, environment, shippers, carriers, and regulatory agencies. The major milestone of this effort - the Regional Goods Movement Plan – is available for public comment at <http://files.mtc.ca.gov/pdf/rgmdraftplan.pdf> and will be presented at your meeting.

### **Plan Overview**

The draft plan is organized into seven sections. These are summarized below.

1. *Background and Policy Context.* As the Bay Area's economy and planning priorities have evolved, so too must its approach to considering goods movement's role in the regional transportation system. This includes changes in industry mix and downward pressure on middle wage jobs, changes in land use development patterns and the location of distribution facilities, and the urgency to address environmental justice issues while reducing greenhouse gas emissions.
2. *Challenges and a Vision for the Future.* The Plan's vision states that the system will be safe and efficient, provide seamless connections to international and domestic markets to enhance economic competitiveness, create jobs, and promote innovation while reducing environmental impacts and improving local communities' quality of life.
3. *Goods Movement and the Economy.* A significant share of the regional economy- roughly one third of the region's jobs- is associated with goods movement-dependent industries. This section also describes the dynamics of the region's freight flows.
4. *Components of the Goods Movement System.* The Bay Area goods movement system consists of a series of interconnected infrastructure components including highways, rail lines and rail terminals, airports, ports, and warehouse and distribution facilities.

5. *Gaps, Needs, Issues, and Deficiencies.* The Bay Area goods movement system supports a vibrant economy. However, a number of system performance gaps and deficiencies must be addressed in light of the various growth trends discussed in earlier sections.
6. *The Regional Goods Movement Plan- Opportunities for the Bay Area.* A wide variety of strategies – projects, programs, and policies – were proposed and evaluated using the performance measures developed for this plan. Highly rated strategies were then combined into “opportunity packages” (Attachment 1) to organize and articulate the core priorities of the Plan and show how different strategies can be coordinated during implementation.
7. *Moving Forward- Implementation, Funding, Programs, and Partnerships.* Implementation of the Regional Goods Movement Plan will require that the region address a number of wider policy and governance issues, including institutional arrangements, public-private collaborations, and funding to deliver new projects and programs. This section provides a roadmap for how to move the opportunity packages forward within this wider regional context.

### **Stakeholder Engagement Process**

MTC used a Regional Technical Advisory Committee (RTAC) to guide the Goods Movement Planning process. The RTAC was comprised of representatives from Caltrans, Congestion Management Agencies (CMAs), regional agencies, ports, transit operators, and representatives from business and the public health communities. In addition, Goods Movement Roundtable meetings have served as forums and information-exchange opportunities to discuss the benefits of efficient goods movement, hear the concerns of stakeholders, and receive input on the policy, planning, prioritizing and financing discussions around goods movement. A final roundtable in January will focus on near-term advocacy efforts on funding and implementation.

### **Next Steps**

Staff will recommend approval of the Regional Goods Movement Plan in February. Additionally, staff believes there is a shared interest across transportation, business, environment, and public health stakeholders to develop an implementation strategy and policy commitment for many of the projects and programs included in the Plan’s opportunity packages. This strategy is timely given the development of Plan Bay Area 2040; the upcoming California Sustainable Freight Action Plan, which may set statewide priorities for future state funding opportunities; and the federal transportation bill, which in its conference report form, includes both a major new formula program and a competitive program for freight projects.

Staff will continue working with the CMAs, Air District, Ports, representatives from business, equity and public health organizations, and partners from the wider California mega-region (including San Joaquin Council of Governments (SJCOG) and Sacramento Area Council of Governments (SACOG) to develop this implementation strategy. Staff will provide more details on the implementation strategy in mid-2016 to align with the adoption of Plan Bay Area 2040’s preferred scenario.

Lastly, MTC received a FY 2015-16 Caltrans Sustainable Transportation Planning grant to partner with SJCOG and SACOG on development of a mega-regional plan to improve goods movement and industrial lands access in northern California. Following the adoption of the Regional Goods Movement plan in February, staff from MTC, SJCOG and SACOG will initiate this work.



Steve Heminger

Attachments: Opportunity Packages  
Presentation Slides

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## Attachment 1: Regional Goods Movement Plan Opportunity Packages

**Table 1 Opportunity Package 1: Sustainable Global Competitiveness Strategies**

ID	Project Name	Project Description	Performance Across Goal Areas				
			Interconnected/ Multimodal	Safe and Reliable	Innovative	Economic Prosperity	Improved Quality of Life
C1	7 <sup>th</sup> Street Grade Separation Projects (East and West)	These projects will grade separate 7th Street to eliminate the at-grade railroad crossings, which cause significant traffic backup throughout the port area.	●	◐			◐
C2	Oakland Army Base Phase 2 improvements (Port Development)	This project includes building of new warehouses, upgrade of utility infrastructure, access road, gates and intersection improvements at Maritime Street and 14th Street.	●			●	⊙ <sup>a</sup>
C3	Oakland Army Base Phase 2 Intermodal Rail Improvements	This project will increase yard trackage to provide annual capacity of 900,000 TEU.	●			●	⊙ <sup>a</sup>
C4	Truck Services (including truck parking) at Oakland Army Base	This project will include additional parking beyond those mentioned as part of the Army Base Phase 2 project. It will only be implemented after reassessment.	◐			●	●
C5	Replace Adeline overpass at 3rd Street in Oakland to Accommodate Overweight Trucks	This project will reconstruct the Adeline Street bridge to upgrade it to current seismic standards, reduce its grade to allow for better truck operations, and provide a separate bicycle path.	◐	○			
C6	ITS Improvements to Address Queuing at Interchanges along I-880 and on Local Streets to Port of Oakland	This include freeway reductions strategies around I-880 near the Port of Oakland along Local Streets to reduce queuing.	●		●		○
C7	Airport Perimeter Dike (OAK)	This project provides flood and shoreline protection to the Airport's main passenger and cargo runway, parts of which are below sea-level.	●	●		◐	◐

**Table 1 Opportunity Package 1: Sustainable Global Competitiveness Strategies**

ID	Project Name	Project Description	Performance Across Goal Areas				
			Interconnected/ Multimodal	Safe and Reliable	Innovative	Economic Prosperity	Improved Quality of Life
C8	Rail Quiet Zone Program	This program will assess the suitability of locations, prioritize locations, design, and address implementation of quiet zones.	●		○		●
C9	An Initial Demonstration Followed by Targeted Incentives to Promote Adoption of Zero and Near-Zero Emissions Truck Technology for Port Drayage	The program will initial conduct feasible applications of zero emission trucks with an intent to identify incentives for market development.	○		●	●	●
C10	Rail and Terminal Emission Reduction Program	This program will assess rail and terminal emissions, including potential voluntary adoption of Tier 4 standards for locomotives by railroads, as well as incentives for using low emission switching locomotives.	●				●
C11	Freight Corridors Community and Impact Reduction Initiative	This new program would help to fund impact reduction in neighborhoods immediately adjacent to freight facilities, where buffers and freight hub relocation are not possible.	●				●
C12	Develop/Support Workforce Training Programs for Goods-Movement-Related Jobs (especially transloading and logistics jobs)	This program will support workforce training for goods movement-related jobs in logistics and transloading, especially for residents of areas most affected by goods movement projects.			○	●	
C13	A Program of Rail Crossing Improvements	<p>This include the following projects:</p> <ul style="list-style-type: none"> <li>• Berkeley Rail Road Crossing Improvements;</li> <li>• Grade Separation over Decoto;</li> <li>• High St/Davis St/Hesperian Blvd Grade Separation; and</li> <li>• Tennyson Rd grade separation.</li> </ul>					

**Table 1 Opportunity Package 1: Sustainable Global Competitiveness Strategies**

ID	Project Name	Project Description	Performance Across Goal Areas				
			Interconnected/ Multimodal	Safe and Reliable	Innovative	Economic Prosperity	Improved Quality of Life
C14	A Program of Track Additions, Sidings, and New Connections	This program includes the following projects:					
a.	Hayward Double Track (Elmhurst to Industrial Parkway 2nd Track)	This project involves adding a second track on Niles Subdivision between Elmhurst and Industrial Parkway	○				⊙ <sup>b</sup>
b.	Niles Junction Bypass	This involves building a new rail bridge over Alameda Creek in Niles Junction to allow movement from Oakland Subdivision at mouth of Niles Canyon to Niles Subdivision.	◐				⊙ <sup>b</sup>
c.	Improvement on the Oakland Subdivision East of Niles Junction.	This program involves improvements on the Oakland Subdivision pending approval of ACEforward projects.	Unknown				

Key: ● – High positive Impact; ◐ – Medium positive Impact; ○ – Low positive Impact; ⊙ – Negative Impact

<sup>a</sup> This project was included in the Oakland Army Base 2002 EIR and the 2012 EIR Addendum and mitigation measures were identified for air quality and traffic-related impacts on neighboring communities. These mitigations measures are currently being implemented by the Port of Oakland and the city of Oakland's developer. In some cases mitigation measures are only necessary when construction activities or port/logistics activities grow to certain levels and the measures will be implemented as necessary in the future.

<sup>b</sup> This project was not subject to environmental review. Impacts associated with increased rail traffic on this line will be reduced through the adoption of the rail crossing improvement and rail quiet zone programs included in this package.

**Table 2 Opportunity Package 2: Smart Operations and Deliveries Strategies**

ID	Project Name	Project Description	Performance Across Goal Areas				
			Interconnected/ Multimodal	Safe and Reliable	Innovative	Economic Prosperity	Improved Quality of Life
S1	Off-Peak and Novel Delivery Policy Guidance and Demonstration Program	This program is built to demonstrate off-peak delivery policy and incentives building on New York City research and results of FHWA off-peak delivery demonstration.	●		◐	●	◐
S2	Port of Oakland ITS including FRATIS	This ITS project will leverage the existing communications infrastructure to implement various projects in a phased deployment, appointment-based arrival system.	●		●		●
S3	Oakland Airport Area ITS Project	ITS at OAK will include design and implementation of ITS along 98th Ave and Hegenberger Rd from I-880 to OAK.	○	○	●		◐
S4	Freight Guidelines for Complete Streets Initiative	This program will develop policy, funding, and recommended guidelines design of especially complicated projects in urban centers.	◐	○			○
S5	I-880, I-580 and U.S. 101 Integrated Corridor Management (ICM) Project	This will be similar to the I-80 ICM project and will design and implement Adaptive Ramp Metering (ARM) and Active Traffic Management (ATM) strategies to reduction congestion and provide incident management capabilities.	◐	●	●		◐
S6	Arterial Smart Corridor Program	This is a new program to identify focused truck corridor ITS projects along arterials. ITS applications will be coordinated with existing and other planned local and regional programs.	●	◐	●		○
S7	Strategies to Improve Port Operations Including Night Gates and Weekend Operations	This program includes adding more shifts, automation of terminal operations, and/or other gate management practices while mitigating any potential community impacts.	●		◐		◐

**Table 2 Opportunity Package 2: Smart Operations and Deliveries Strategies**

ID	Project Name	Project Description	Performance Across Goal Areas				
			Interconnected/ Multimodal	Safe and Reliable	Innovative	Economic Prosperity	Improved Quality of Life
S8	Clean Truck Policy & Program Collaborative (Joint Working Group with Regulatory Agencies, Freight Industry Representatives, and Public Agencies)	This program will include potential local or state policy, such as fleet emission standards, emission trading programs, and other incentives to encourage adoption of clean truck technologies and alternative fuels.	○		◐		●
S9	Near-Zero and Zero-Emission Goods Movement Technology Advancement Program	This is a program to fund and demonstrate Near-Zero and Zero-Emission goods movement technologies. Program could include incentives for engine retrofits to low emission and ZEV technology.	○		●	◐	●

Key: ● – High positive Impact; ◐ – Medium positive Impact; ○ – Low positive Impact



**Table 3 Opportunity Package 3: Modernizing Infrastructure Strategies**

ID	Project Name	Project Description	Performance Across Goal Areas				
			Interconnected/ Multimodal	Safe and Reliable	Innovative	Economic Prosperity	Improved Quality of Life
E1	Land use guidelines and incentive programs to cities that reduce land use conflicts	This program will coordinate with regional and state efforts to address land use conflicts.	●				●
E2	A program of freeway interchange and auxiliary lane projects	<p>These Projects Include:</p> <ul style="list-style-type: none"> <li>• Improve I-80/I-680/Route 12 Interchange – All Remaining Phases;</li> <li>• Add auxiliary lanes on U.S. 101 between Rowland Blvd and North San Pedro Road, near Port of San Francisco, near SFO, and segments between San Mateo and Dumbarton Bridge;</li> <li>• I-580/Vasco Road interchange improvements in Livermore;</li> <li>• I-880 NB and SB auxiliary lanes between West A and Winton in Hayward; and</li> <li>• I-880/A St interchange improvements in Hayward.</li> </ul>					
E3	A program of freeway corridor capacity enhancement or operations improvement projects	<p>These projects include:</p> <ul style="list-style-type: none"> <li>• Construct a lane on southbound U.S. 101 using the existing median from south of Story Road to Yerba Buena Road and modify the U.S. 101/Tully Road Interchange to a partial cloverleaf; and</li> <li>• Widen U.S. 101 from Monterey Street to Route 129 – project development</li> </ul>					
E4	Local road and county road access and safety program on truck routes	This program would provide funding and guidance to address safety and speed issues along rural truck routes. Program should be coordinated with maintenance, rehab, and bridge programs.	●	●			○
E5	Truck Route Coordination Planning/Guidance, Technical Assistance, and Information to Address Truck Route Connectivity, Health and Community Impacts	This program will allow counties to provide planning and technical assistance on truck route planning, and allow MTC to provide coordination to enable that.	●	○	○		●

**Table 3 Opportunity Package 3: Modernizing Infrastructure Strategies**

ID	Project Name	Project Description	Performance Across Goal Areas				
			Interconnected/ Multimodal	Safe and Reliable	Innovative	Economic Prosperity	Improved Quality of Life
E6	Development of public or public-private truck parking and full-service truck service facilities near major industrial centers (most likely in the Hayward, Union City, Fremont area)	This program will update the findings from the 2008 study on truck parking in Alameda County and extend it to the rest of the region. It will then implement the findings to provide parking in major industrial centers.	●				●
E7	Targeted Programs to Encourage Use of Zero-Emission Trucks and Cargo Handling Equipment Particularly in the I-80, I-880, I-580, and SR 4 Corridors	This program extends from the Technology Advancement program and targets freight corridors and facilities in communities with greatest adverse impacts from freight emissions.	○		●	◐	●
E8	Develop/Support workforce training programs for goods-movement related jobs (industry-focused logistics jobs)	This program will support workforce training for goods movement-related jobs that are focused on logistics.			○	●	
E9	Regionwide Freight Signage Program	This program includes signage to encourage the use of designated truck routes and display route choices for specific destinations.	◐	○			
E10	At-Grade Crossing Safety and Grade Separation Policy and Program	This is a program to identify the grade crossings with the highest priorities and seek funding to upgrade them.	◐	●	○		●
E11	Industrial Rail Access Program	A program to support industrial rail users to improve industrial spurs to allow for increased rail usage along locations where there are industrial or agricultural activities.	◐	○			○

Key: ● – High positive Impact; ◐ – Medium positive Impact; ○ – Low positive Impact

# Goods Movement Collaborative and Goods Movement Plan *Draft Plan*

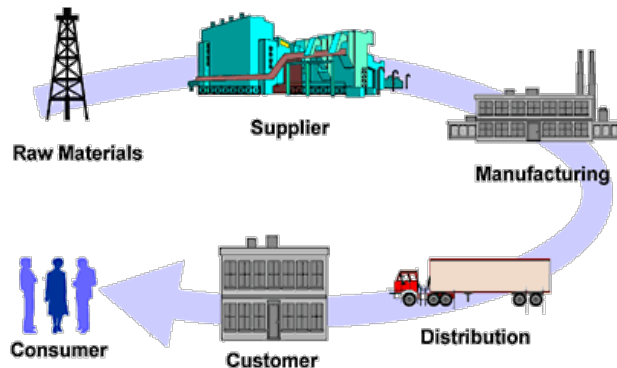


**MTC Planning Committee**

December 11, 2015

# Why Goods Movement?

- One third of the region's jobs are in goods movement dependent industries;
  - Key source of regional job diversity - middle-income jobs
  - Heavily reliant on transportation system
  - Nation's 5<sup>th</sup> largest marine port and major cargo airport
- Future trends creating opportunities
    - *Changing trade logistics and supporting rail demand*
    - *Core and emerging industry base with needs for modernized infrastructure*
    - *New land use approaches creating challenges on local roads*
    - *New technologies and operational practices can improve efficiency and reduce impacts*

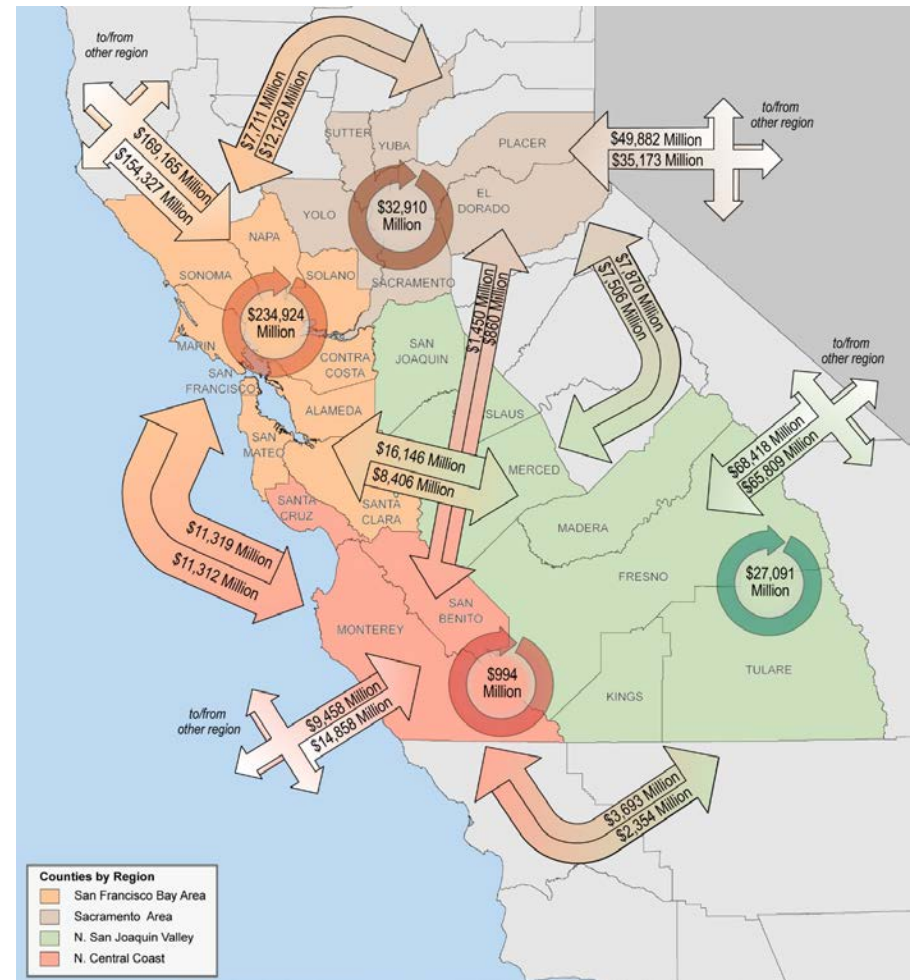


*The goods movement system provides connections between each of these steps in this conceptual supply chain.*

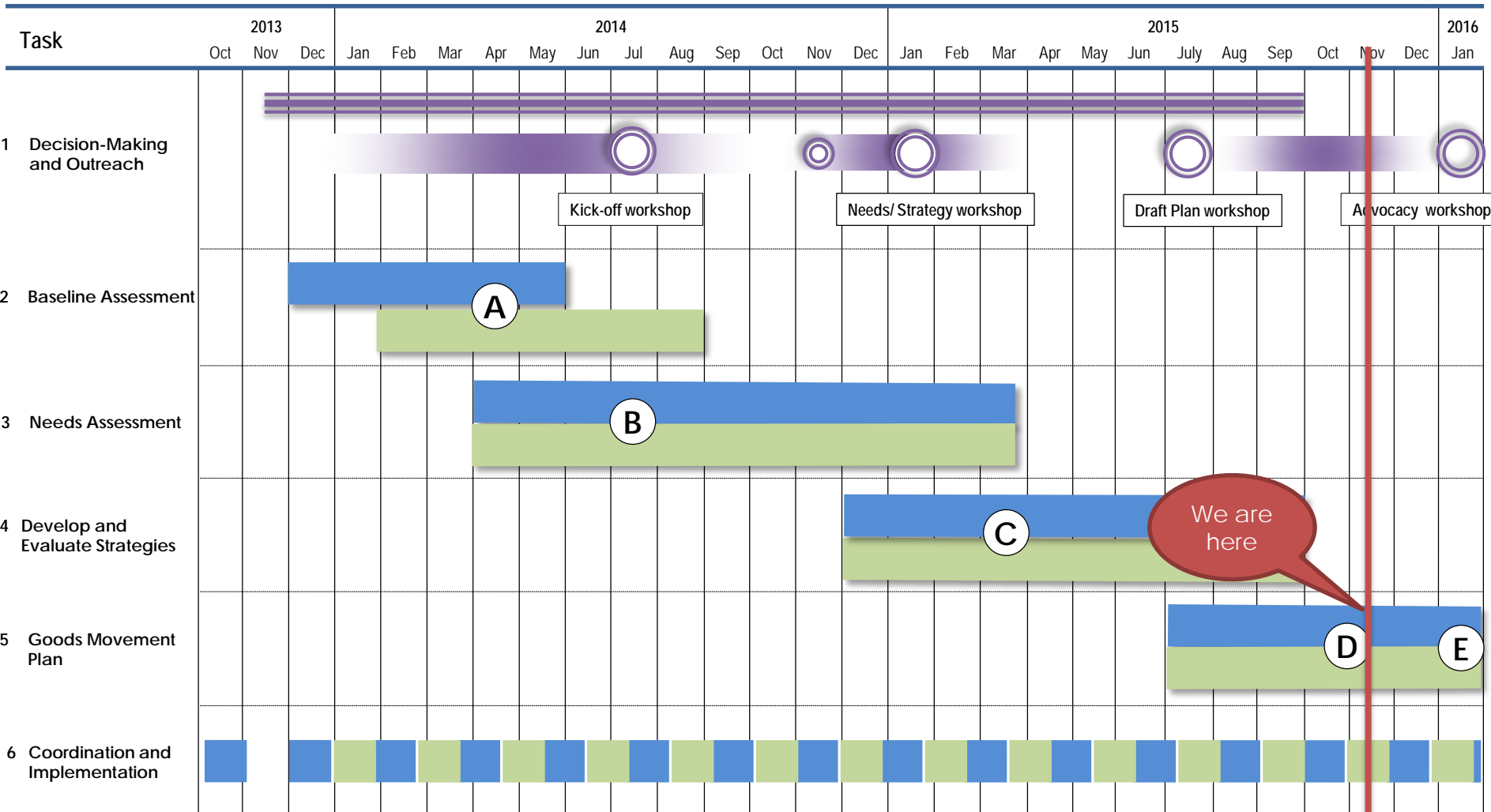


# The Center of Goods Movement in Northern California

- Nearly \$1 trillion in freight flows in Northern California in 2012
  - 40% moves entirely within the mega-region
- The Bay Area and Alameda County provide most of mega-region's critical goods movement infrastructure



# Alameda County Transportation Commission and Metropolitan Transportation Commission Goods Movement Collaborative and Goods Movement Plans



- Executive Team/Tech Team/Regional Advisory Group Meetings
- Stakeholder Roundtables (Broad and topic-based)
- Interest Group Meetings and Outreach

- ACTC Activity
- MTC Activity

- (A) Vision and Goals
- (B) Performance Measures
- (C) Strategy Development
- (D) Strategy Evaluation Results
- (E) Final Plans

# Opportunity Package 1: Sustainable Global Competitiveness

Support environmentally sustainable investments at key global gateways that create local jobs, protect the community and attract international commerce.



Graphic source: Worker: <https://www.port.venice.it/en/2011-safety-day.html>; Truck: <https://www.gobytrucknews.com/carb-ups-grant-budget/123>  
Rail: [https://en.wikipedia.org/wiki/Double-stack\\_rail\\_transport#/media/File:Cajon\\_Intermodal.jpg](https://en.wikipedia.org/wiki/Double-stack_rail_transport#/media/File:Cajon_Intermodal.jpg)

# Rail Investments – Increasing Competitiveness, Creating Jobs, Reducing Congestion

- Critical to creating a world class logistics hub
  - *Capacity needed on both northern and southern route to Oakland*
  - *Public investment to achieve public benefits*
  - *Benefits other Bay Area ports*
- Promote transload intermodal in Oakland
  - *Shifts truck to rail*
  - *Creates local jobs*

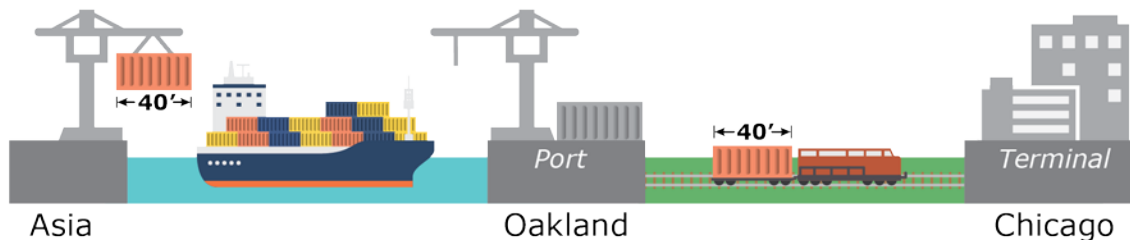
Source of graphic: Cambridge Systematics.





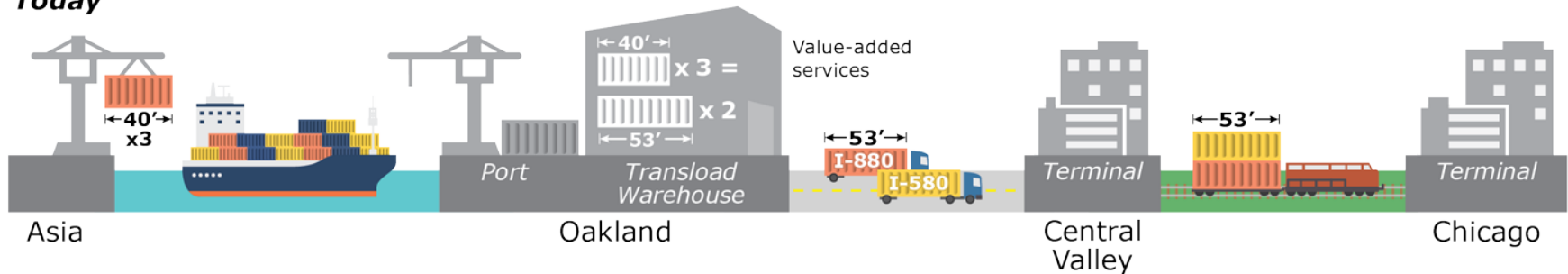
# New Approach to Rail/Port Operations – Transloading and Rail in Oakland

## IPI Import

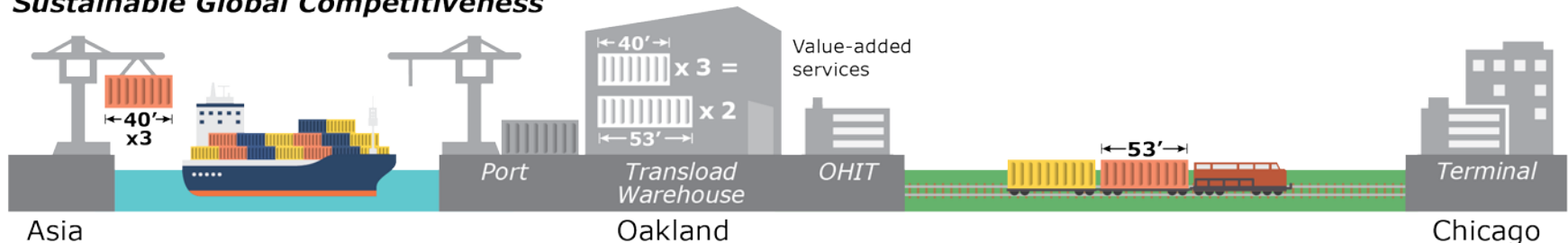


Overall strategy to eliminate 1,280 truck trips per day on I-580 and I-880

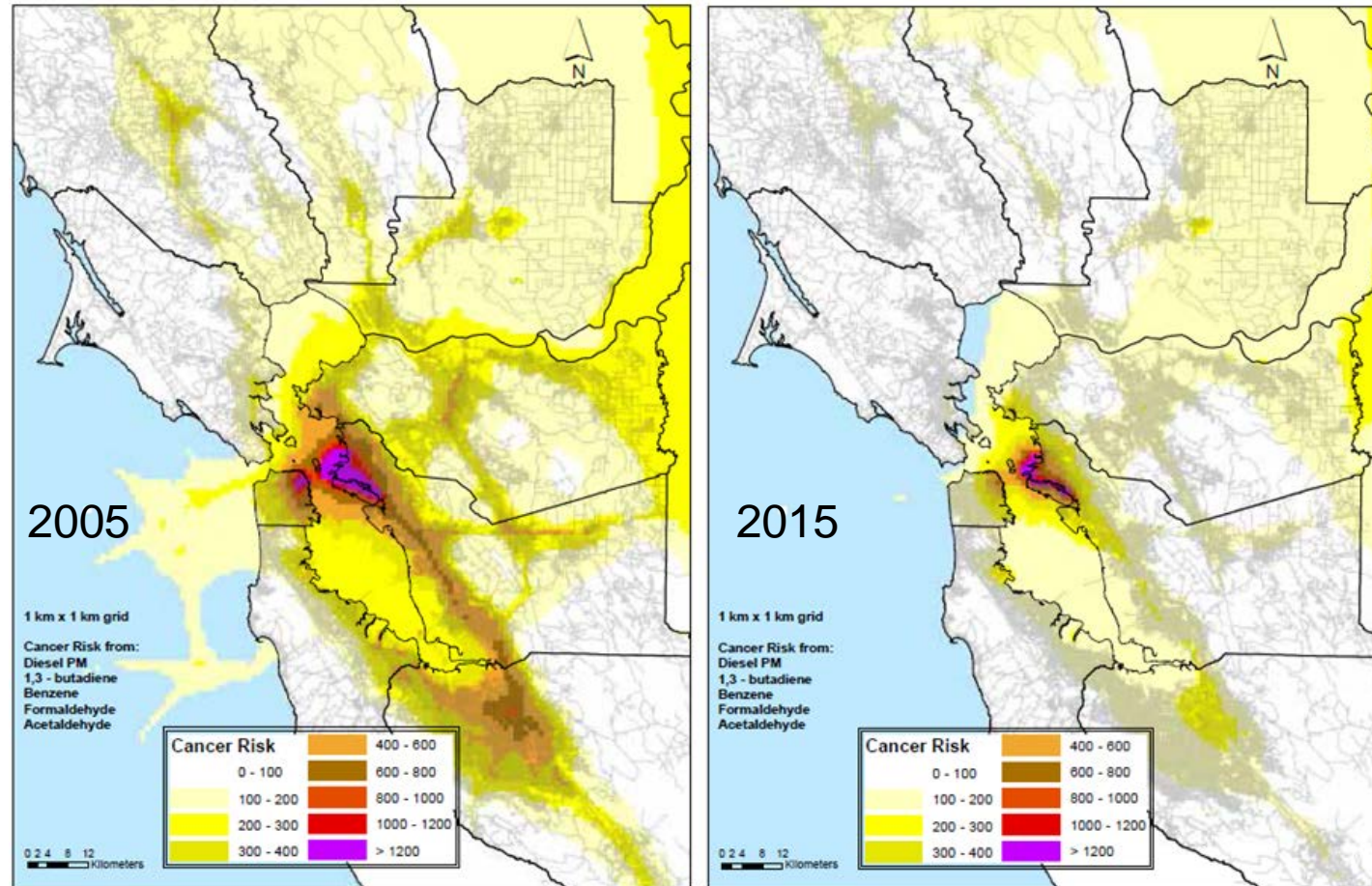
## Transload Import Today



## Transload Import Sustainable Global Competitiveness



# Air Pollution Improving- but Localized Impacts Require Additional Intervention



Source: Bay Area Air Quality Management District.

# Opportunity Package 2: Smart Operations and Deliveries

Support technology and innovative operations strategies to improve goods movement, reduce congestion and increase safety on urban and rural roads.

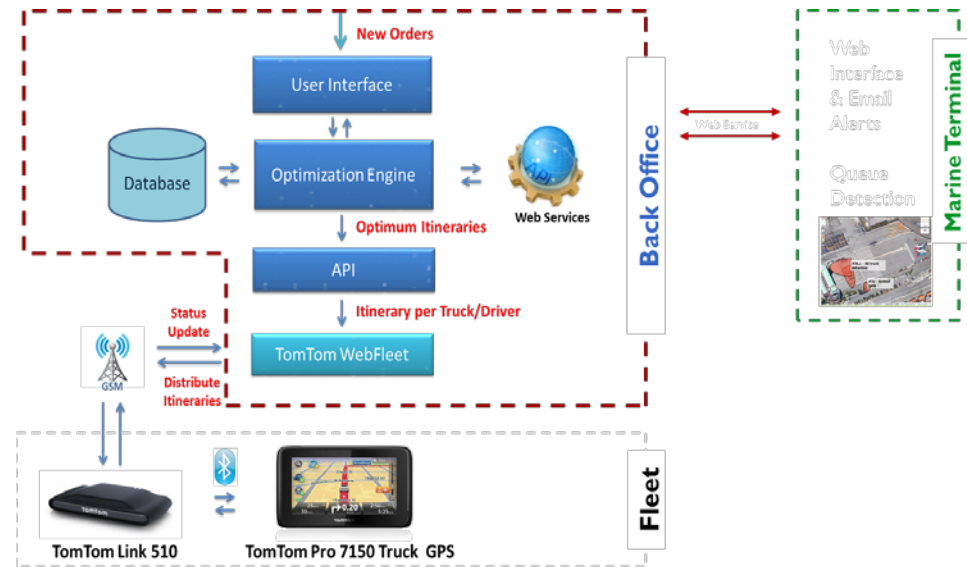


Graphic source: Nighttime Delivery: <http://blog.tstc.org/2011/05/06/better-faster-smarter-off-peak-deliveries-in-nyc/>; Other graphics from Cambridge Systematics.

# Off-Peak Deliveries and FRATIS

## Concepts show significant benefits

- Pilot Off-peak delivery program in NYC saw up to 75% reduction in travel time for carriers
- Analysis of potential Alameda County program (shifting 20% trucks to off-peak) shows 10.5% reduction in truck delay and 14.7% in total vehicle delay.
- New pilots planned for Pensacola, FL and is being considered in Chicago.
- Freight Advanced Traveler Information System (FRATIS) was demonstrated at Port of LA.
- It consists of 2 parts: Advanced travel information for trucks, and drayage optimization.
- Demonstration program showed 34.7% reduction in daily miles traveled, and 15.3% reduction in time it takes per order → significant emission and cost savings. (data as of June 2014)



Graphic source: Nighttime delivery: Jose Holguin Veras, Talking Freight webinar, 09-17-11; FRATIS: Cambridge Systematics. FRATIS data source: USDOT-FRATIS, Ken Troup, NRCG



# Opportunity Package 3: Modernized Infrastructure

Supporting growing sectors of the Bay Area economy by modernizing the road network, improving safe access, reducing land use conflicts and improving last-mile truck routes and rail connections.



Modernizing Core  
Freight Highway  
Network



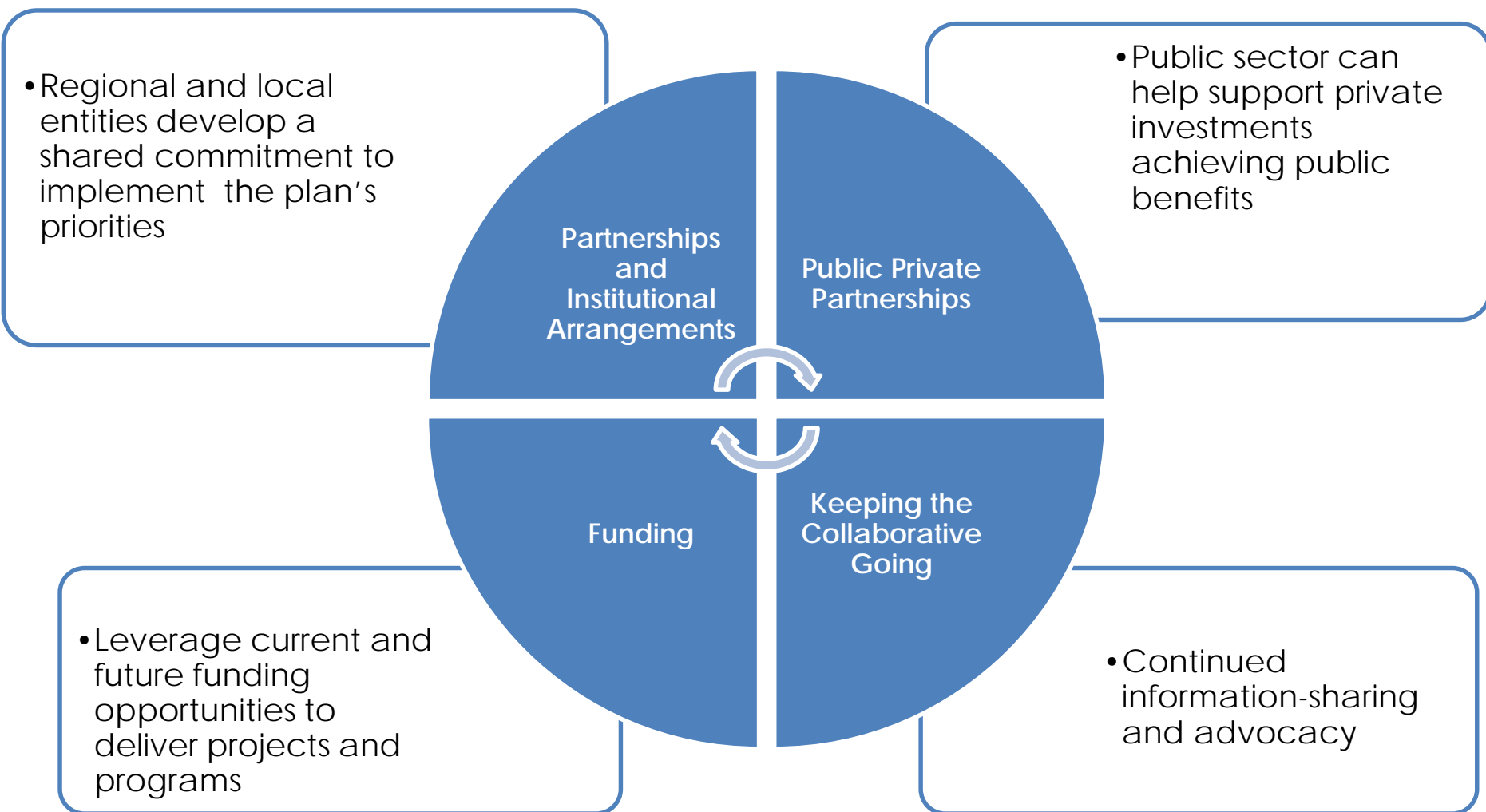
Improving Safety and  
Reduce Conflicts



Improve Last Mile Rail  
and Highway  
Connectivity

Graphic source: US101 Congestion: <http://www.sfchronicle.com/multimedia/item/Boeing-777-Crashes-at-SFO-22447.php/>; Traffic accident: [http://www.syracuse.com/opinion/index.ssf/2014/07/cyclists\\_and\\_motorists\\_need\\_to\\_do\\_more\\_to\\_prevent\\_bike-car\\_accidents\\_your\\_letter.html](http://www.syracuse.com/opinion/index.ssf/2014/07/cyclists_and_motorists_need_to_do_more_to_prevent_bike-car_accidents_your_letter.html) ; Rail: [https://en.wikipedia.org/wiki/California\\_Northern\\_Railroad](https://en.wikipedia.org/wiki/California_Northern_Railroad)

# Moving Forward



# Next Steps

- Comments due to MTC by December 30, 2015
- Roundtable #5 on January 22, 2016
  - *Topic = advocacy*
- Final plan to Commission in February 2015 for adoption
- Develop implementation strategy and policy commitment to inform Plan Bay Area 2040 investment strategy
- Upcoming partnership with SACOG, SJCOG to support mega-regional goods movement planning

# Thank You