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21<sup>st</sup> Century Mobility Solutions  
Climate Change, Travel Efficiency and  
Technology

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LGC Livable Communities-Yosemite

# California Political Landscape

- **AB 32: Global Warming Solutions Act**
  - Mandates GHG reductions (1990 by 2020 and beyond).
  - Active discussions about 2030 and 2050 targets
- **SB 375: Sustainable Communities**
  - Mandates regional GHG targets adopted by CARB and regional development of sustainable community strategies to achieve targets
- **SB 391: California Transportation Plan**
  - Mandates Caltrans develop CTP and update every 5 years. Primary goal of reducing GHG to 80% below 1990 levels by 2050
- **SB 743: Environmental Quality, Transit Oriented Infill**
  - Mandates evaluation of alternatives to “level of service” for evaluating transportation impacts of development projects. Alternatives include VMT and VMT/capita
- **SB 1077: Vehicle Road Charge Pilot Program**
  - Mandates evaluation of alternatives to motor vehicle fuel tax and development of road charge pilot program
  - Active discussions about new funds for transportation maintenance/infrastructure

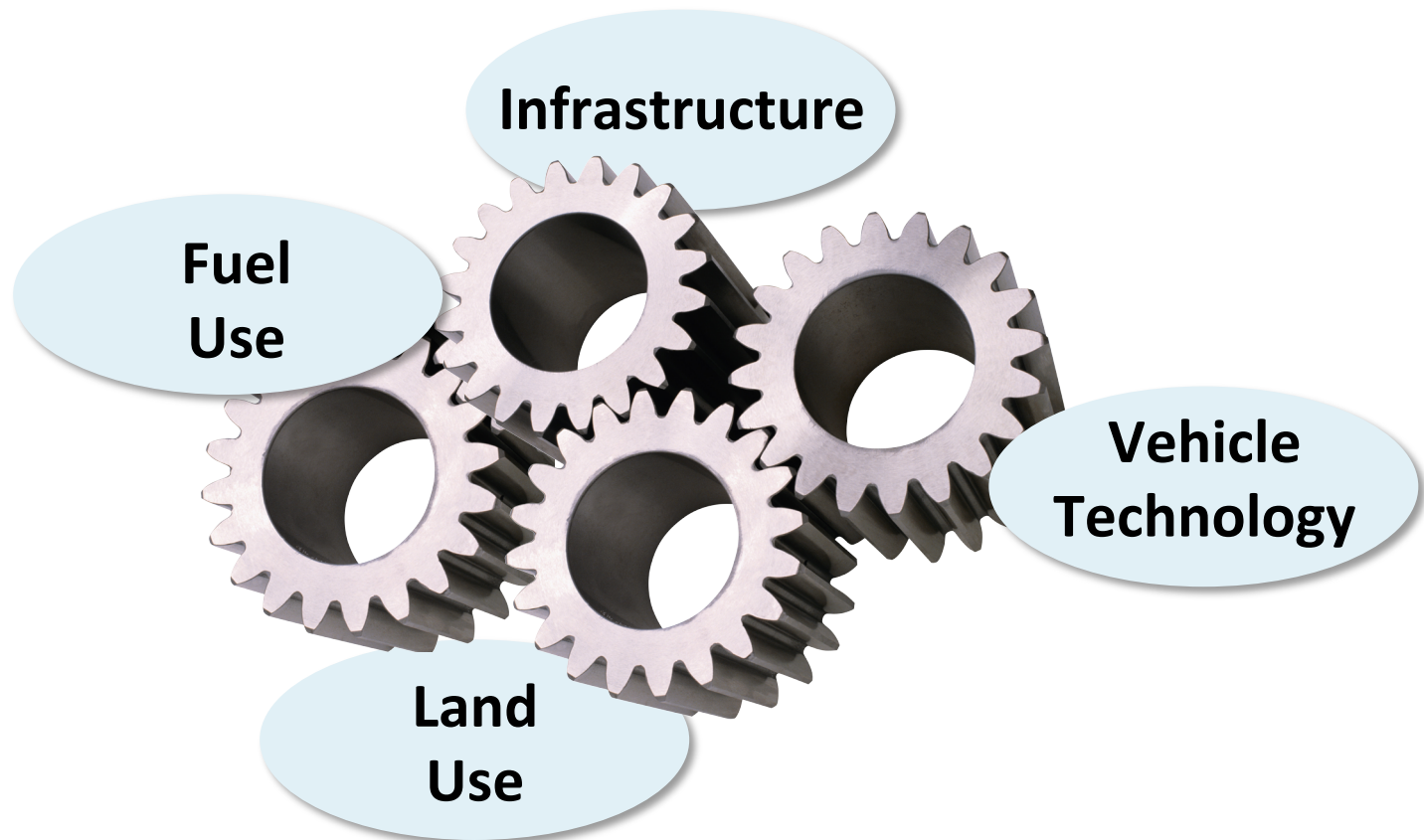
# State Requirements

- **Caltrans 2015-2020 Strategic Management Plan**
  - 15% emissions reduction from 2010 levels to achieve 1990 levels by 2020
- **Executive Order B-30-15**
  - GHG reduction target of 40 percent below 1990 levels by 2030
  - ultimate goal of reducing emissions 80 percent under 1990 levels by 2050
  - LCA that considers climate change for infrastructure investments
- **Executive Order B-32-15**
  - develop an integrated action plan by July 2016 that establishes clear targets to improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system
- **2015 State of the State -5 pillars** : next 15 years, California will
  - increase one-third to 50 percent electricity derived from renewable sources;
  - reduce today's petroleum use in cars and trucks by up to 50 percent;
  - double efficiency savings from existing buildings & make heating fuels cleaner;
  - reduce release of methane, black carbon & other pollutants across industries;
  - manage farm & rangelands, forests & wetlands so they can store carbon.



Transportation and Land  
Use

# The Transportation Sector



***An Interwoven Transportation “System”***



# Caltrans Strategic Management Plan



**Mission:**  
Provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability.

What we do

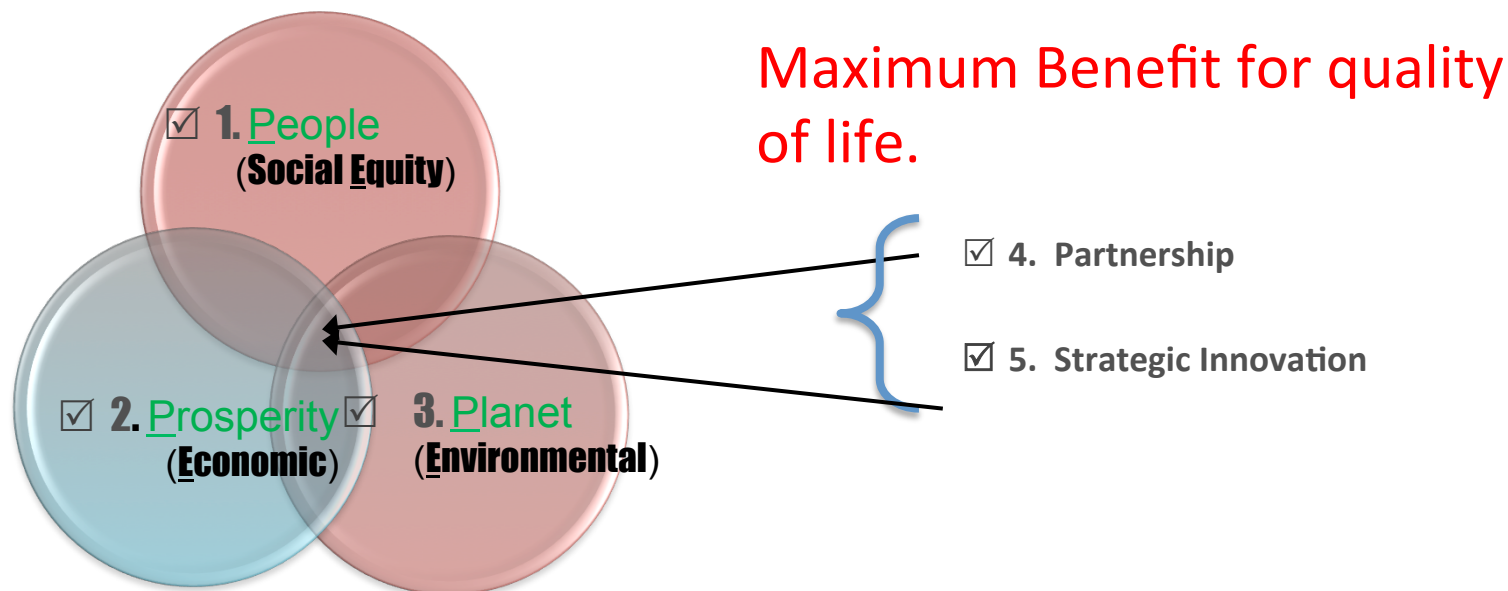
Why we do it

- GOAL 1: Safety and Health
- GOAL 2: Stewardship and Efficiency
- ➔ GOAL 3: Sustainability, Livability & Economy
- GOAL 4: System Performance
- GOAL 5: Organizational Excellence



# Sustainability, Livability, and Economy Goal

Make long-lasting, smart mobility decisions that improve the environment, support a vibrant economy, and build communities, not sprawl.



# Performance Measures

## People

- Bike, Pedestrian & Transit Increase
- Accessibility
- Livability
- Sustainable Corridors

## Planet

- ▣ Per Capita VMT Reduction
- ▣ System emissions reduction
- ▣ Operational emissions reduction
- ▣ Improve Green Infrastructure

## Prosperity

- ▣ Prosperity
- ▣ Freight Efficiency
- ▣ Resiliency
- ▣ Resources Consumption reduction



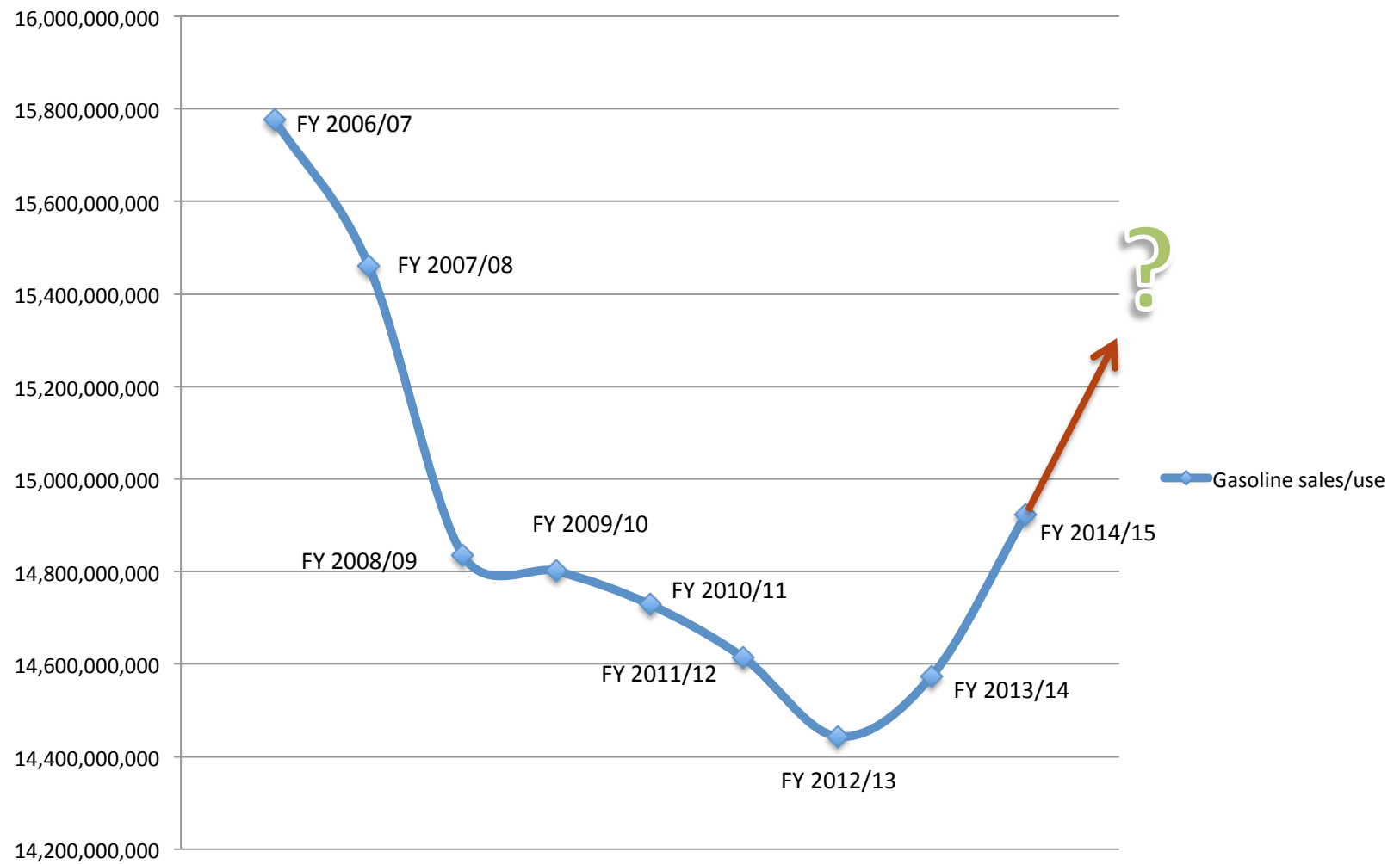








## California Gasoline Sales/Use



200 People can commute in:





# 177 Cars, or better...



# Three Buses, or...





# One Light Rain Train, or...



# Their Bikes





# Vision for 2030 and 2050



Image Credits- Urban Advantage, Roma Design Group, City of Dana Point



# Vision for 2030 and 2050



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# Vision for 2030 and 2050



Image Credits- Urban Advantage, Roma Design Group, City of Davis, Port...



# History of Automated Vehicles





# Automated Buses and Trucks too!



2003 Bus Automation Demonstration  
in San Diego

2009 Truck  
Automation  
Testing in Nevada



# Safe and Efficient Transit Operations

Lane County Transit District  
Bus in Eugene, Oregon



Alameda County Transit Bus at the  
San Mateo Bridge Toll Plaza

# Moving Goods Quicker and Cheaper!

