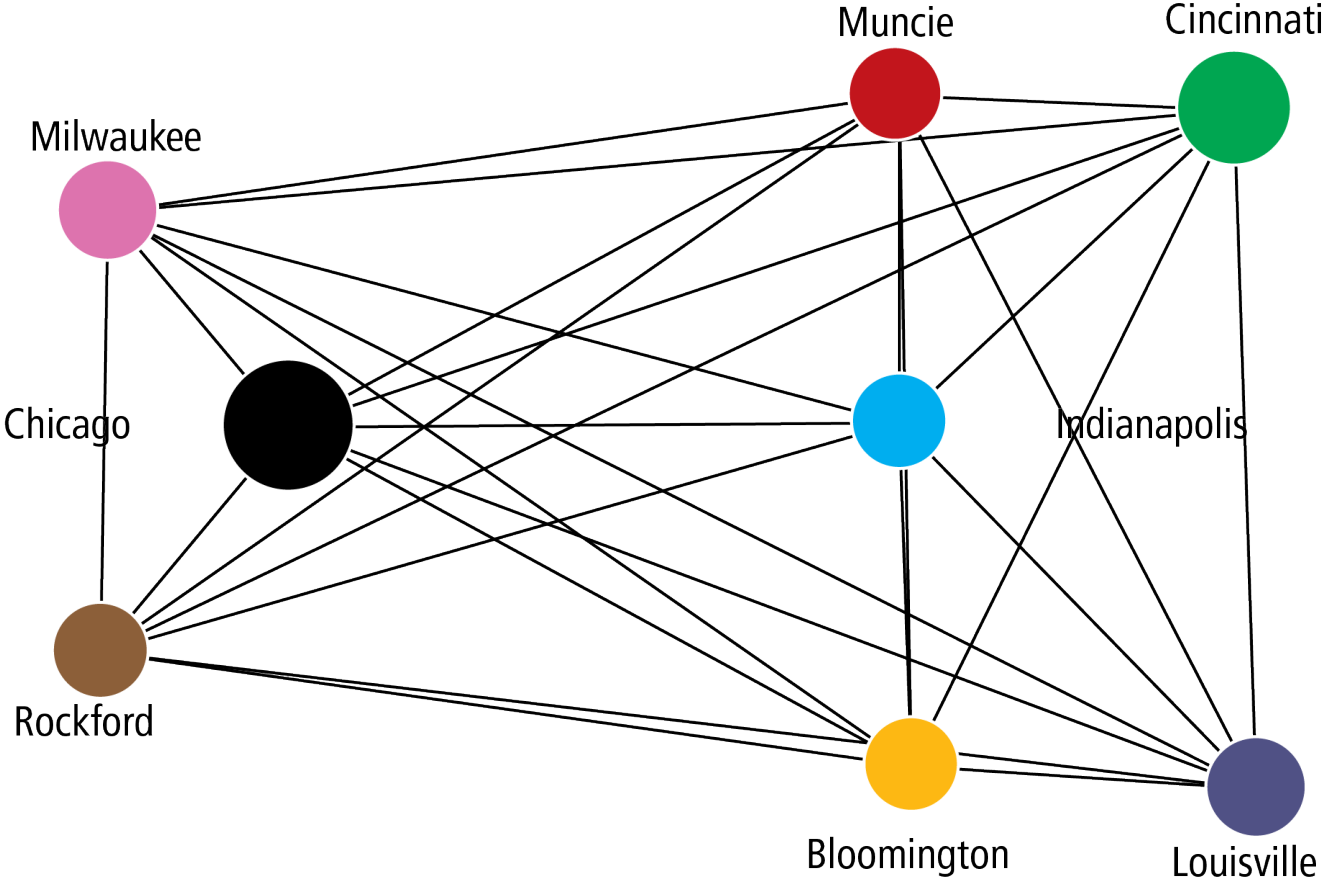
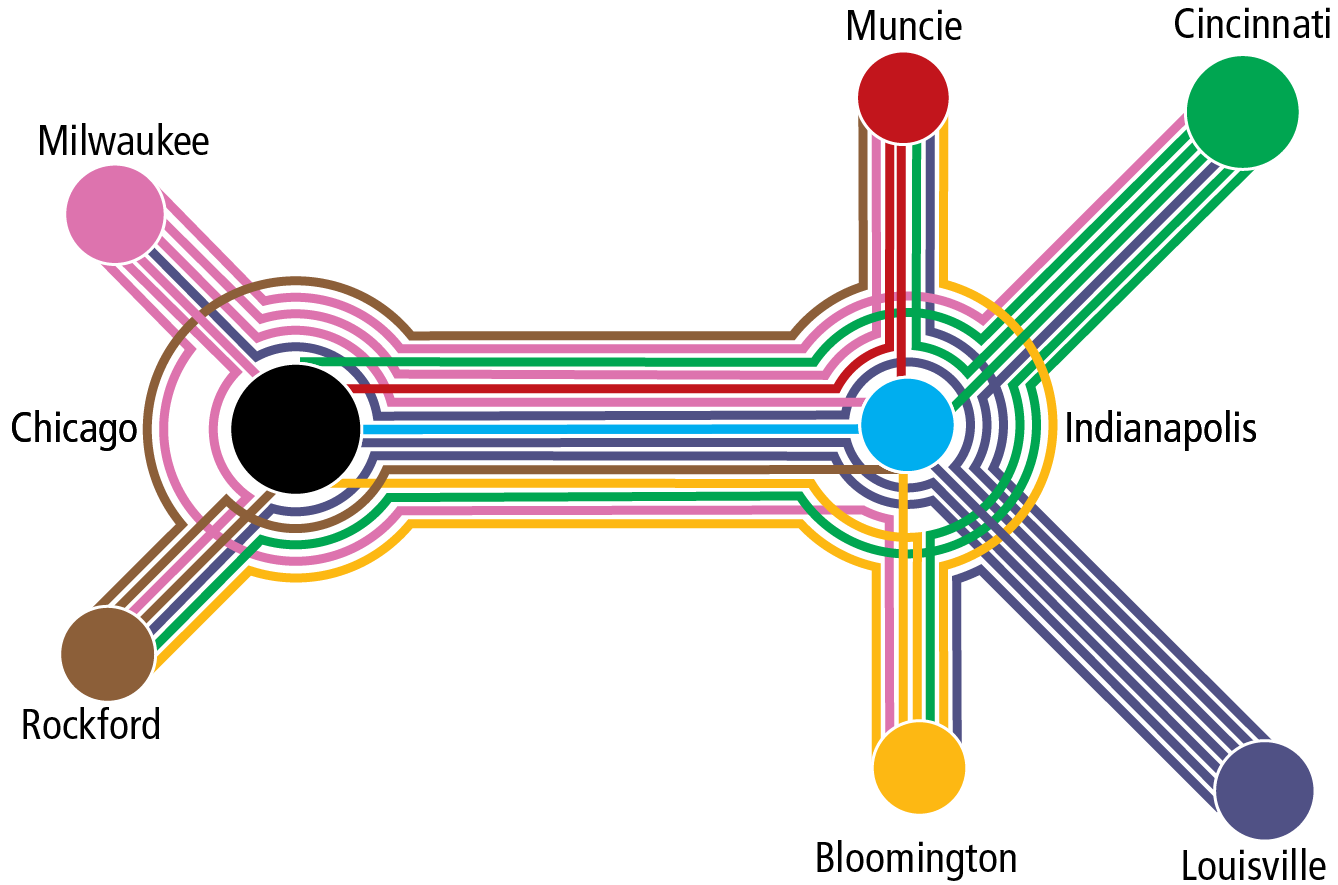


# Herding Many Cats



# Networks, Many Paths to Success



Midwest  
High Speed Rail  
Association

# 2018 California State Rail Plan

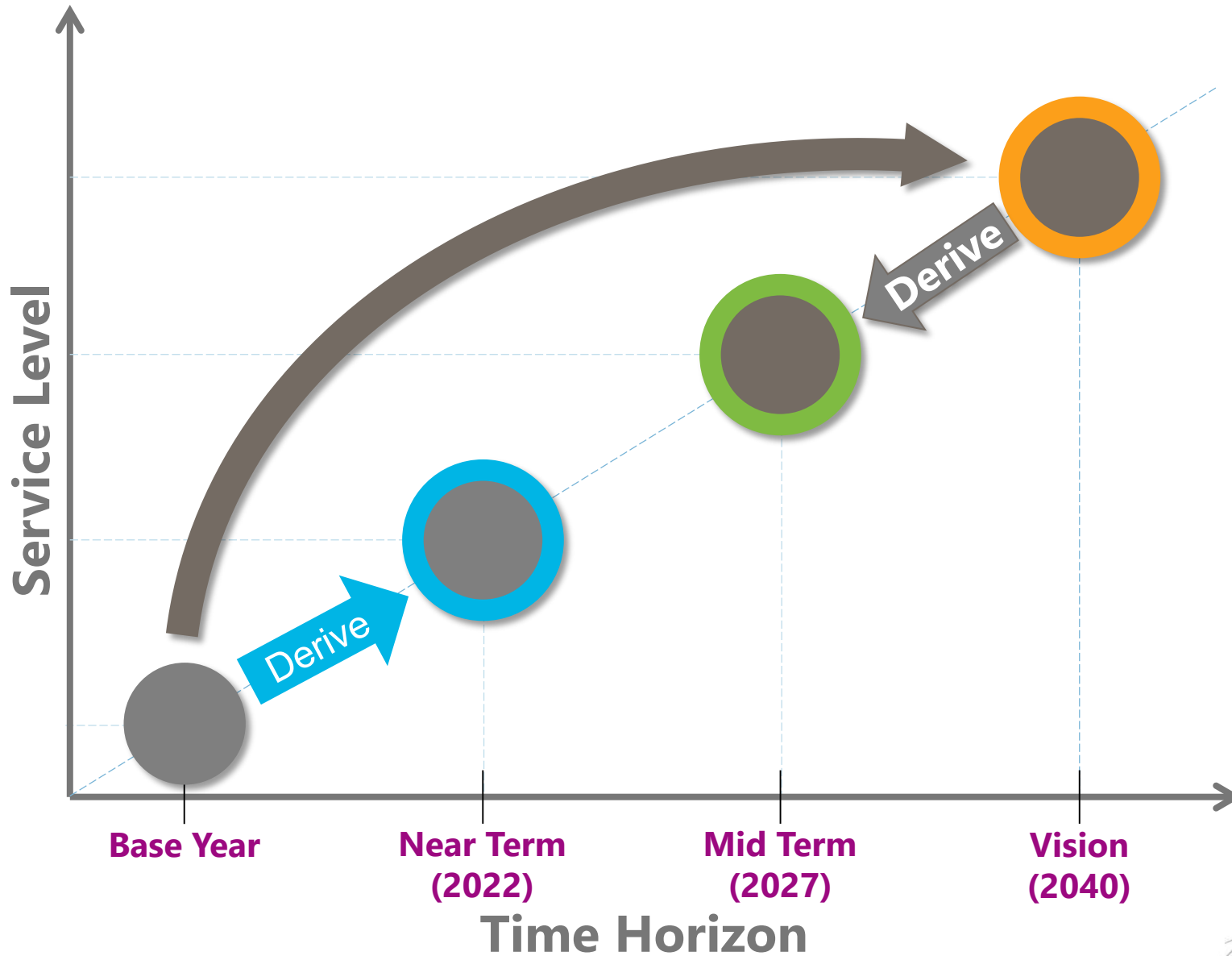
*Connecting California*



# California Rail Services: Both Regional and High Speed



# Investment Strategy: Phasing of the Vision Plan



# 2040 Vision for Passenger Rail

## » Integrated Statewide Network

- » High Speed Rail
- » Intercity and Regional Services
- » Integrated Express Bus

## » Coordinated Schedules

- » Regular pulsed service
- » Key transfer hubs
- » Public Transit Connections

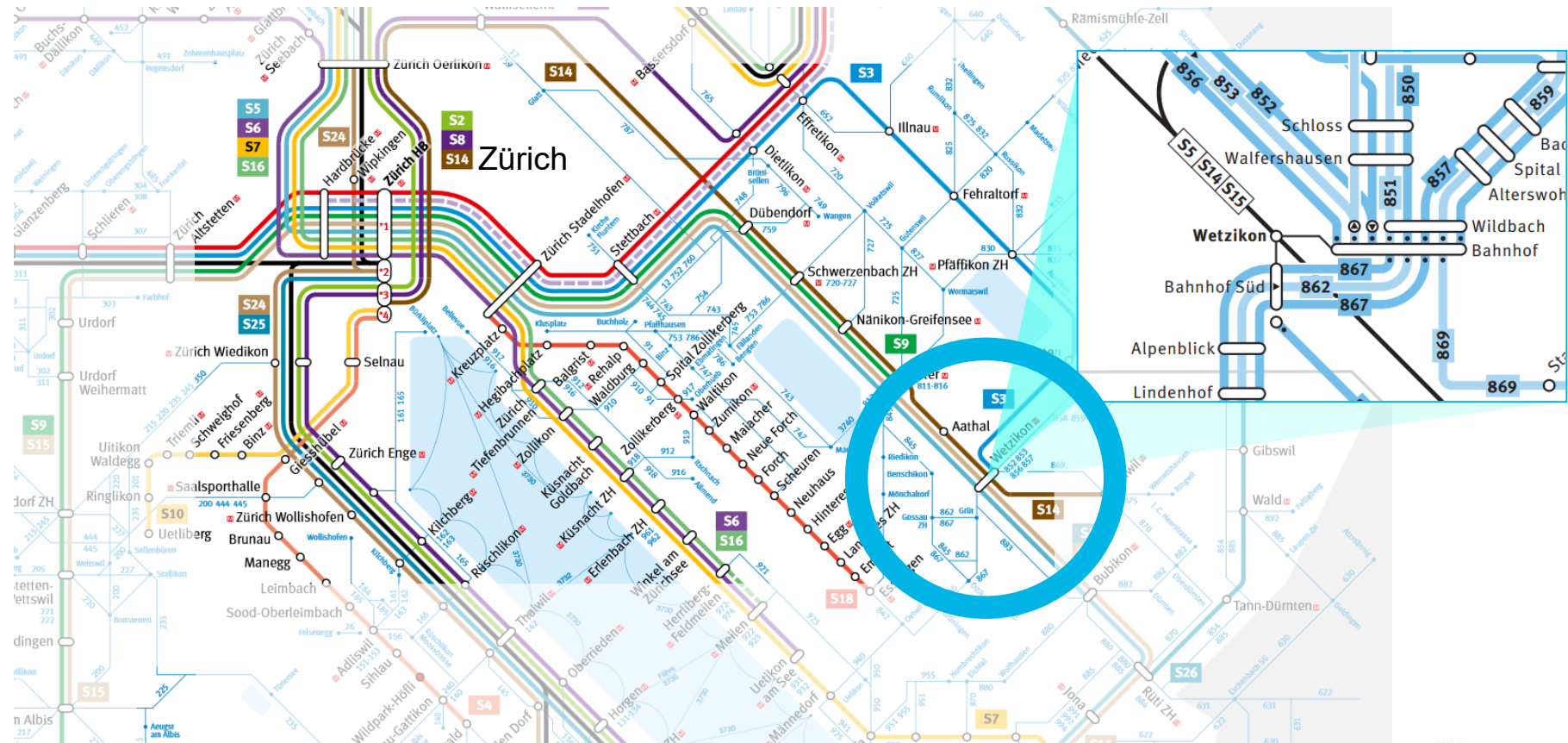
## » Customer Focus

- » Seamless First/Last-Mile Access
- » Integrated Ticketing
- » Auto and air competitive



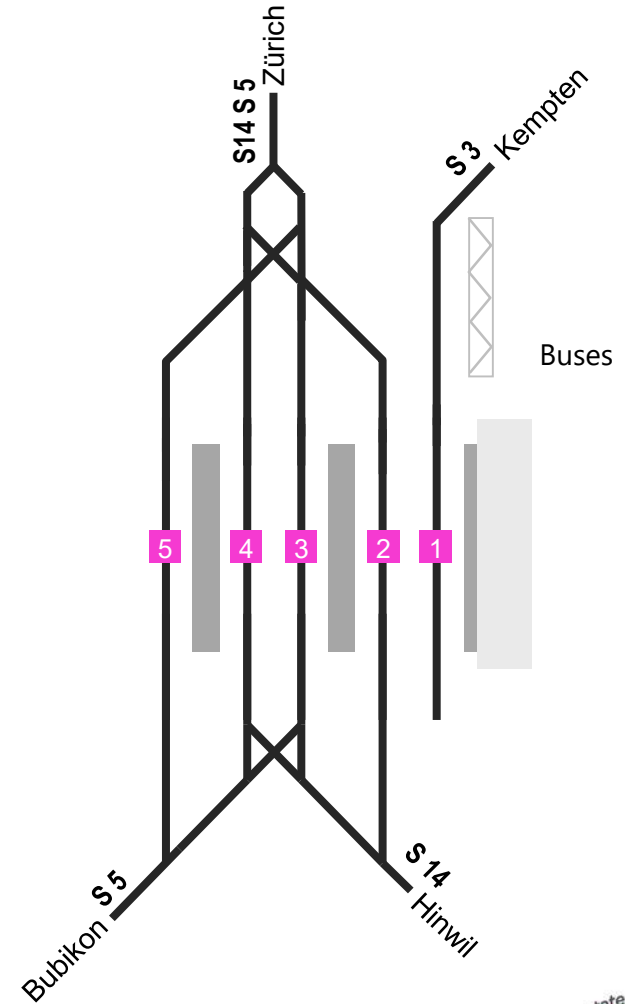
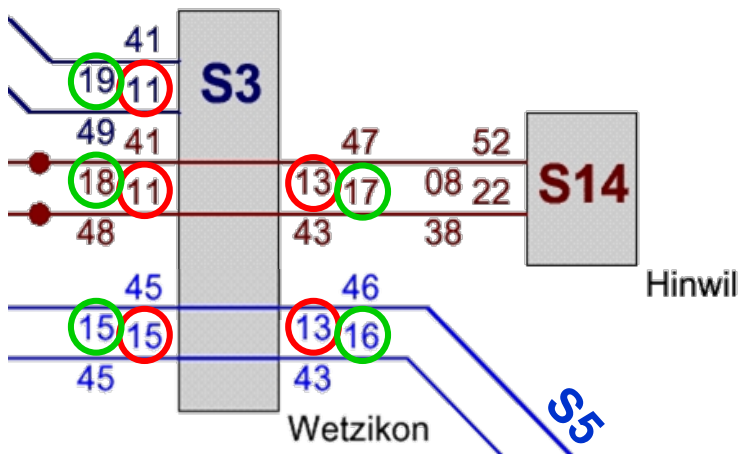
# Example of an Integrated Network - Wetzikon

## – Network Map



# Example of an Integrated Network - Wetzikon

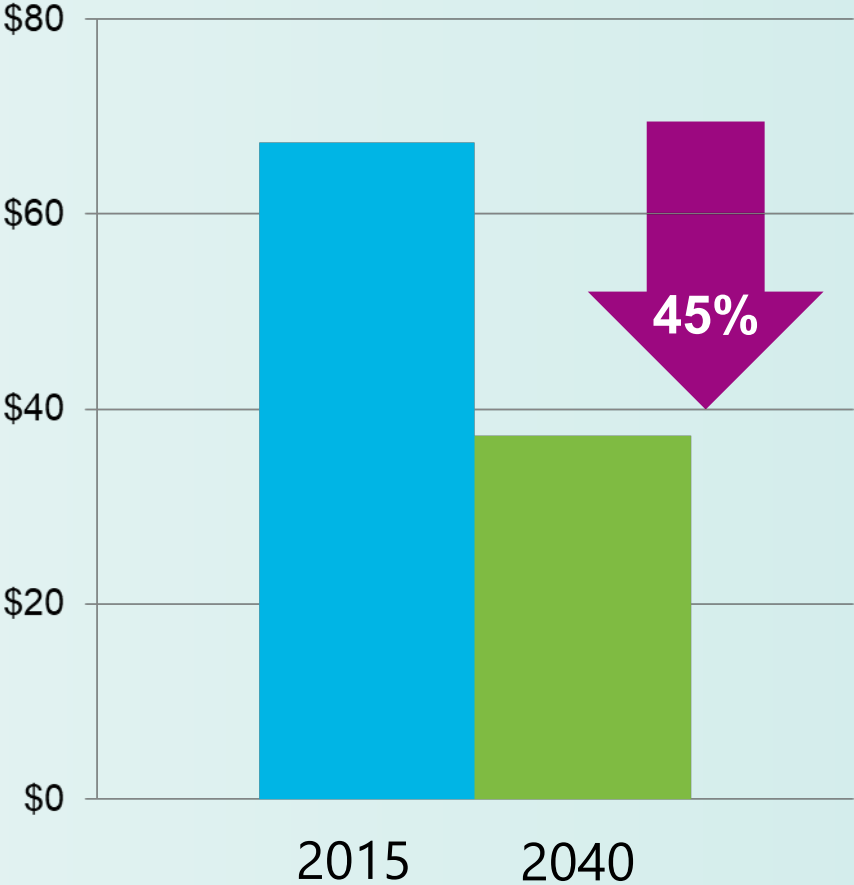
1. Buses arrive in advance of the trains
2. Trains arrive in the station
3. All services are in the station
4. Trains depart from the station
5. Buses depart from the station



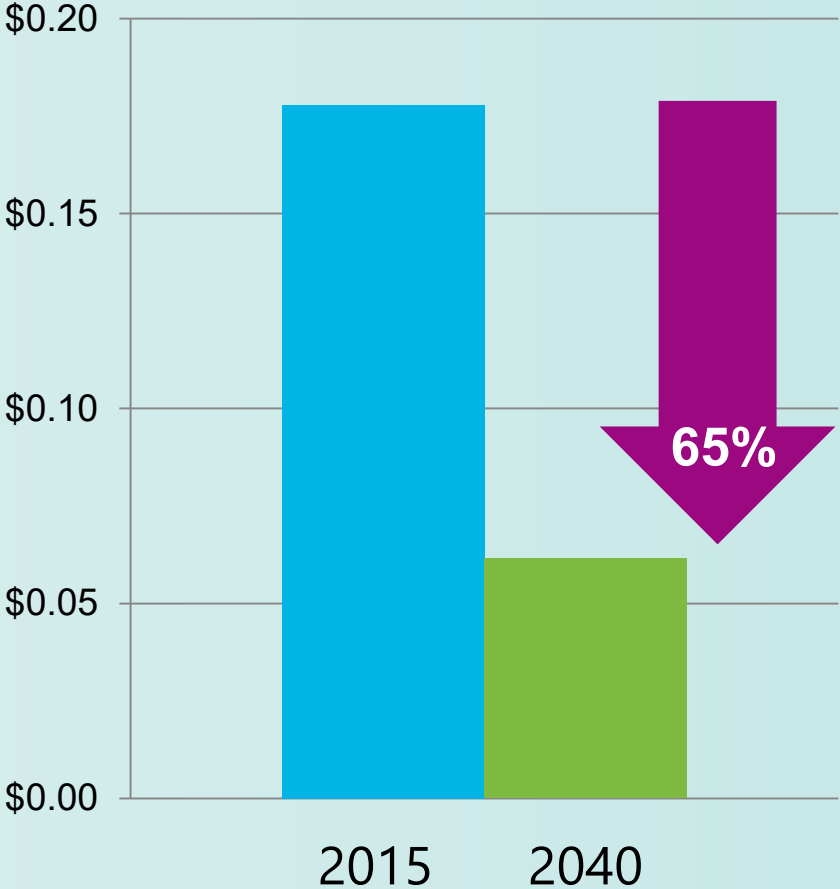


# Comparing Metrics – Existing v. 2040

### Cost per Train Mile



### Cost per Seat Mile



*All costs are in 2015\$*

# Driving Operating and Maintenance Costs Down



Changes in rolling stock



Changes in speed



Changes in turnaround time

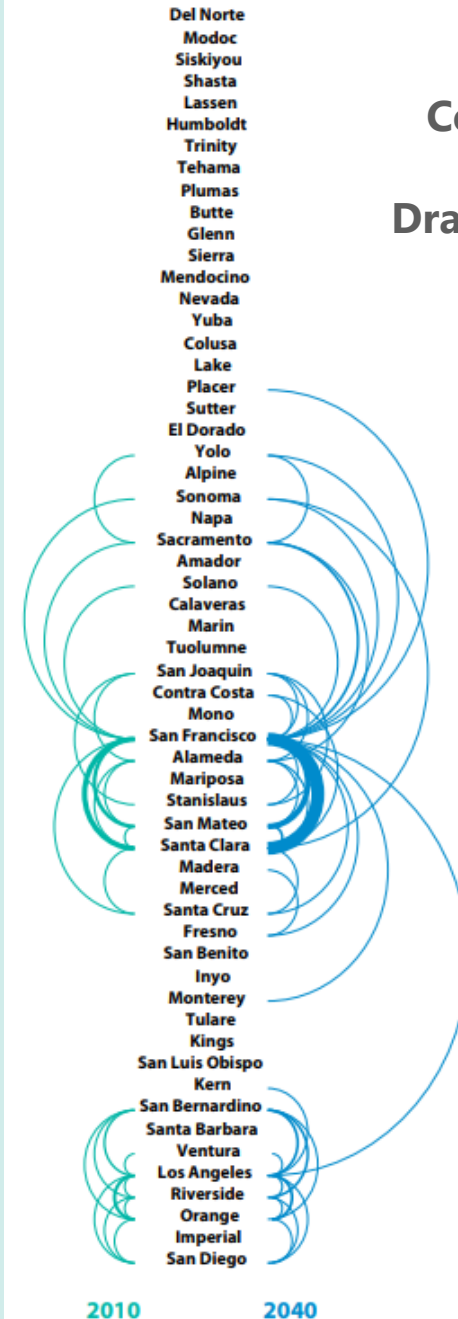


Changes in travel distances

# Rail Plan Vision: Ridership

- » Results show moderate increase in rail ridership demand due to **population growth**
- » However, market potential for networked services is **unrealized**

## No Build Scenario



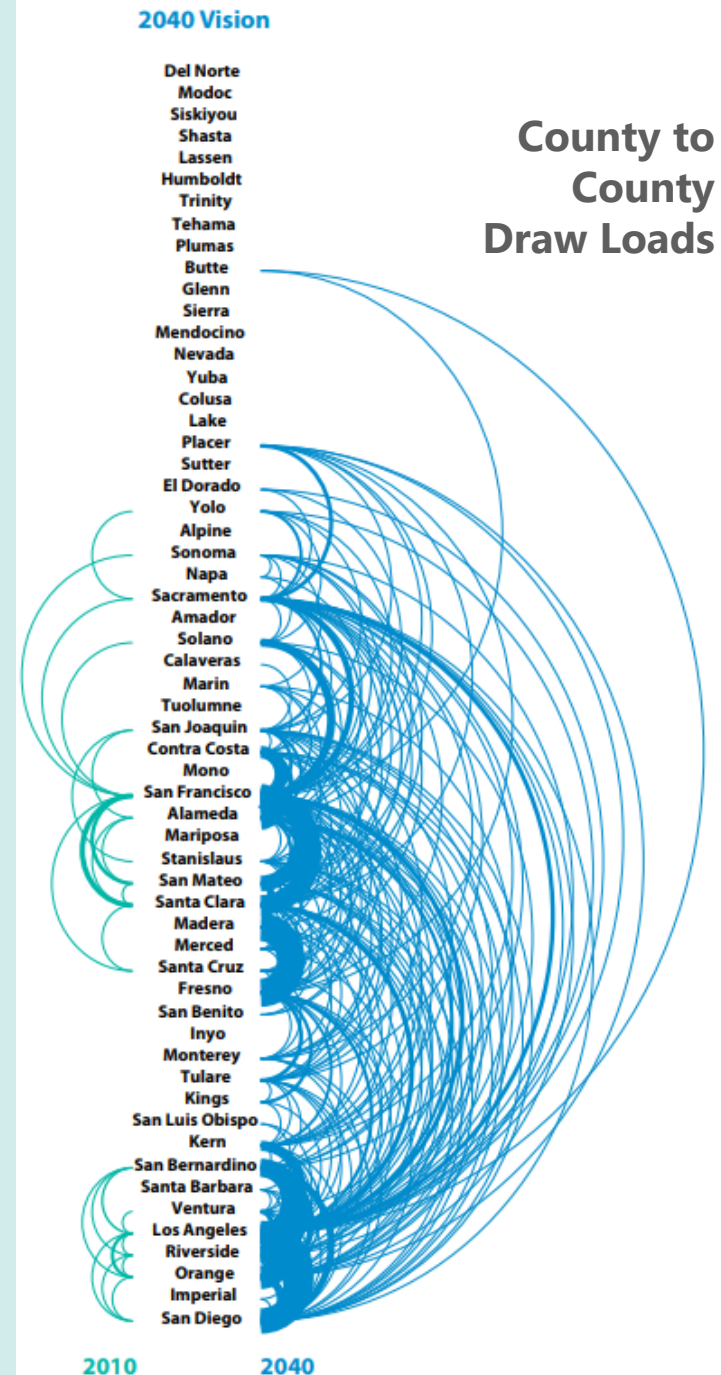
County to  
County  
Draw Loads

2010

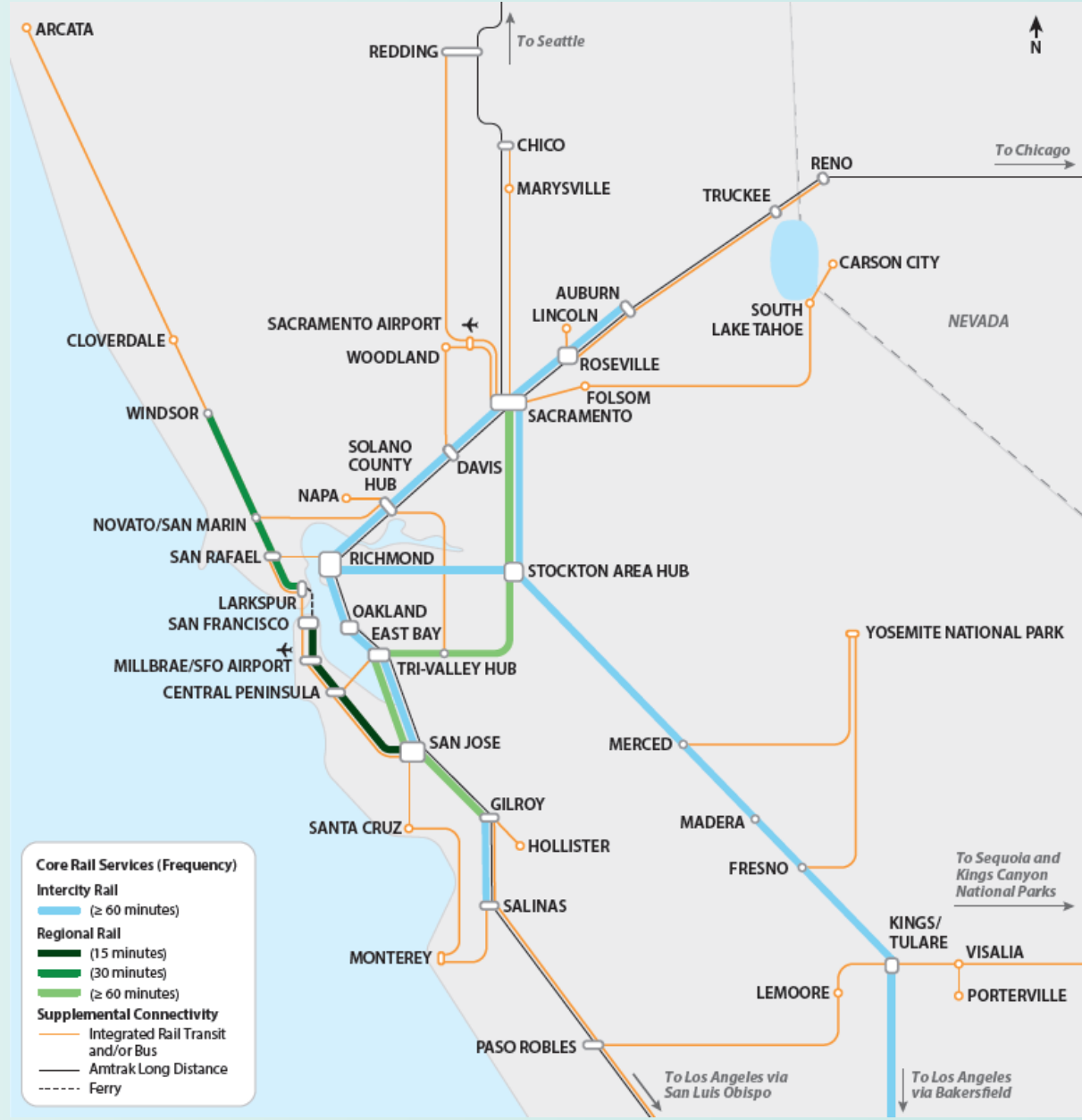
2040

# Rail Plan Vision: Ridership – Market Potential

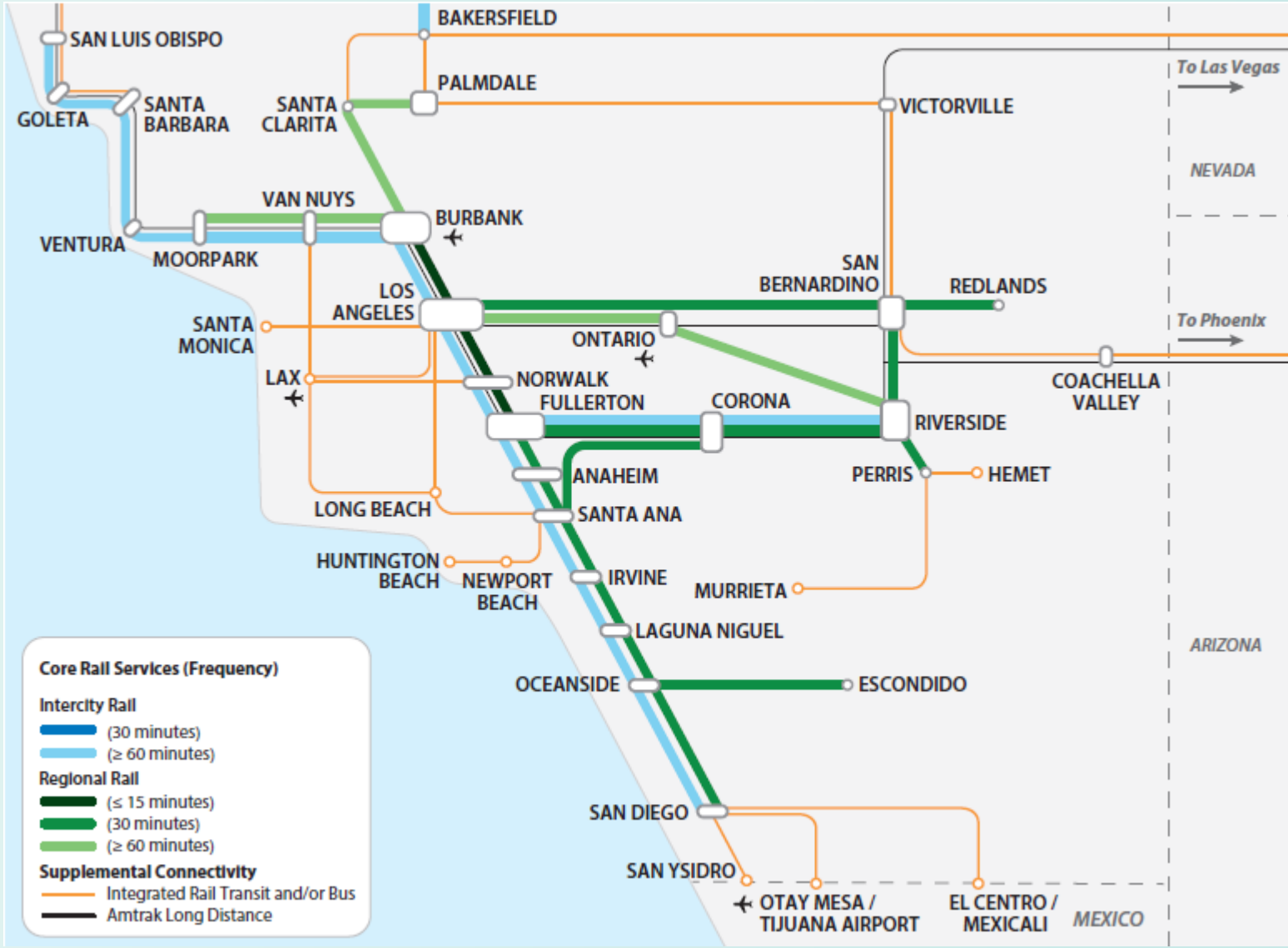
- » Result of integration and HSR shows **huge increase** in rail ridership demand
- » Satisfies a **large market potential for networked services**



# 2022 Vision: Northern California



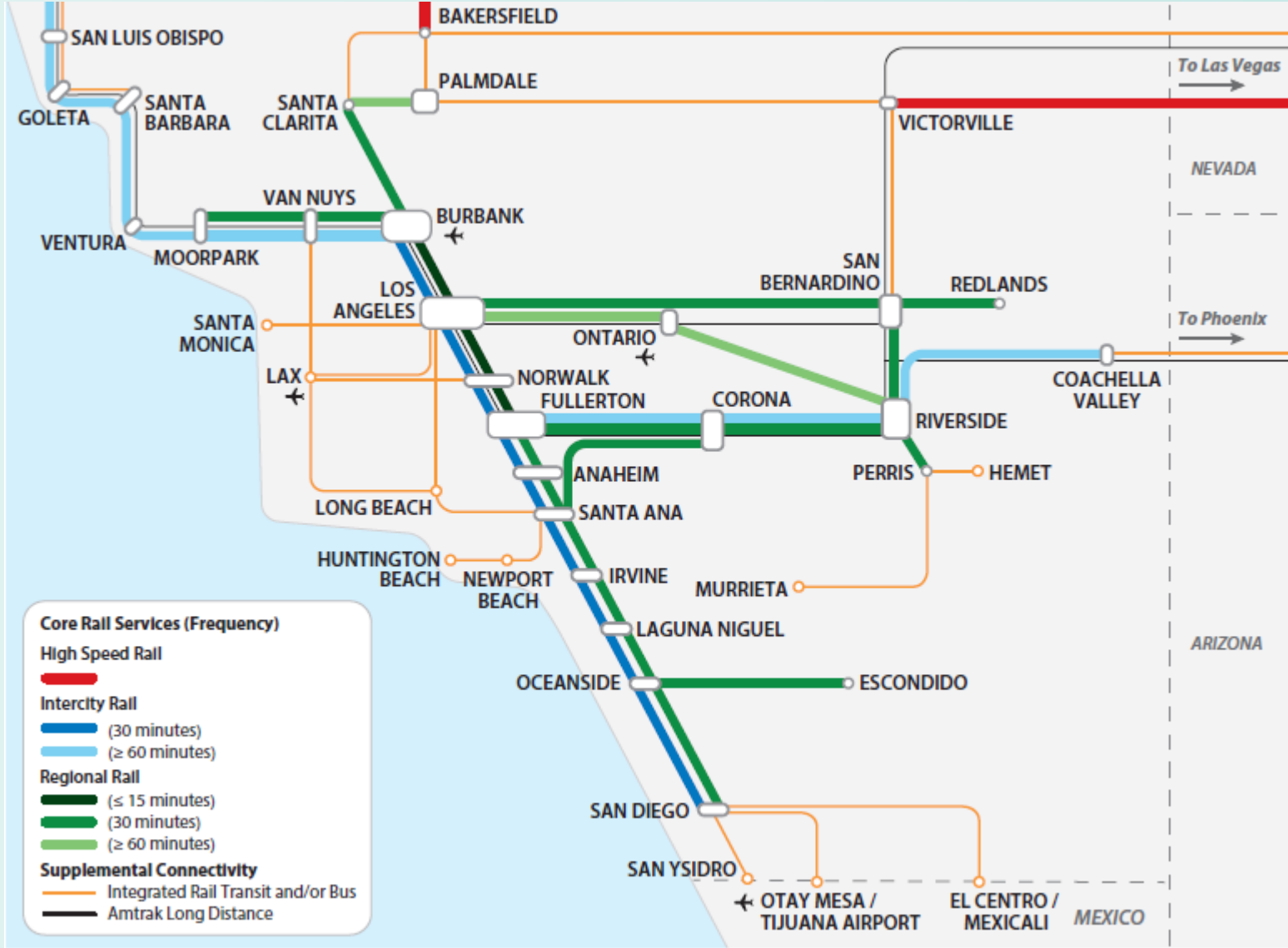
# 2022 Vision: Southern California



# 2027 Vision: Northern California



# 2027 Vision: Southern California

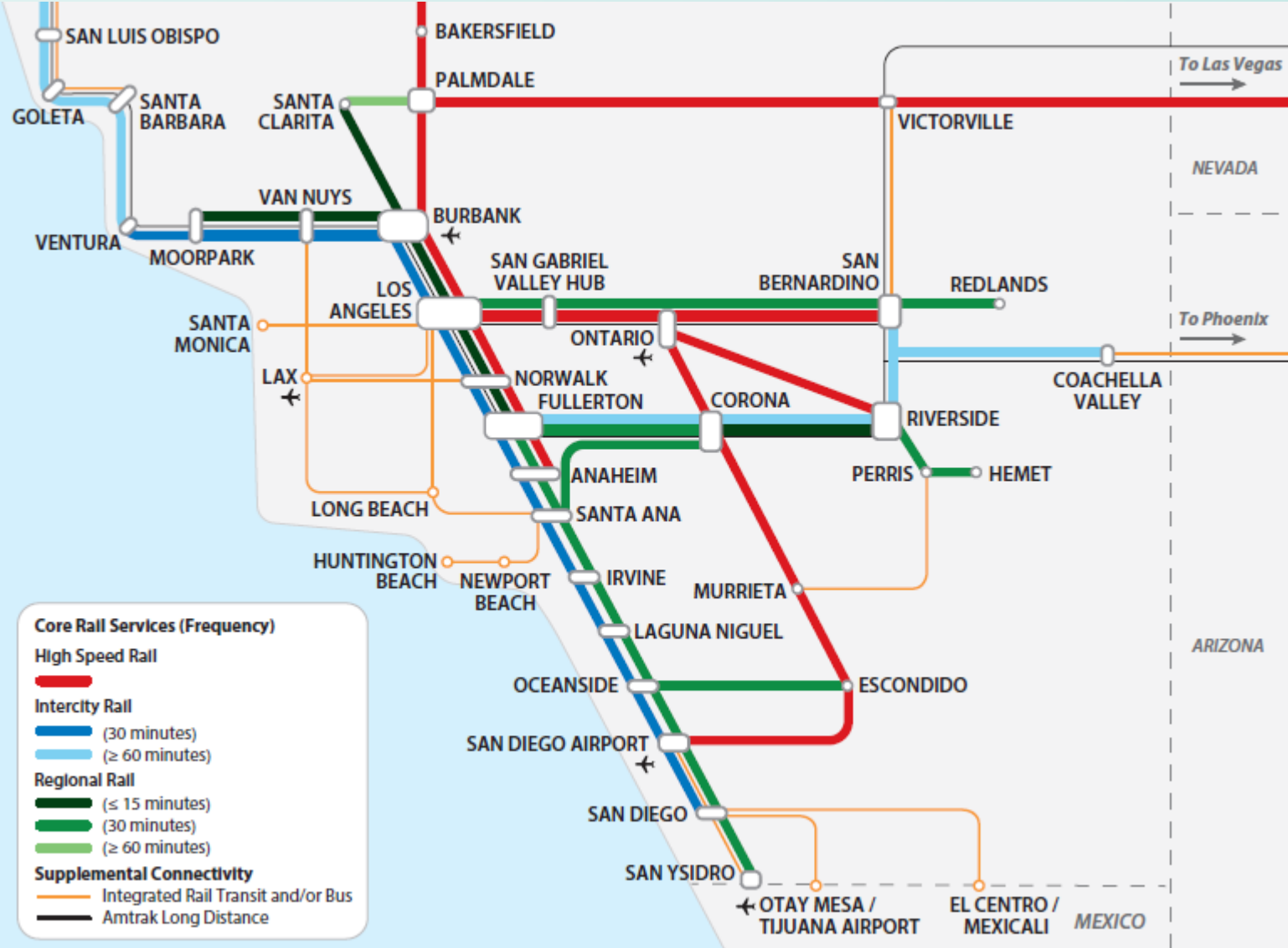




# 2040 Vision: Northern California



# 2040 Vision: Southern California



**Core Rail Services (Frequency)**

- High Speed Rail**
- Intercity Rail**
  - (30 minutes)
  - (≥ 60 minutes)
- Regional Rail**
  - (≤ 15 minutes)
  - (30 minutes)
  - (≥ 60 minutes)
- Supplemental Connectivity**
  - Integrated Rail Transit and/or Bus
  - Amtrak Long Distance

# Historical Funding

## ▶ **State Public Transportation Account**

- ▶ Intercity Rail Operating, Equipment and Administration (from 2.375% diesel sales and use tax)
- ▶ State Transit Assistance (STA) (4.125% diesel sales and use tax)

## ▶ **Local Transportation Fund for Transit** (0.25% general sales tax)

## ▶ **State Transportation Improvement Program**

- ▶ Interregional (rail minimum 15% of state 25% share)
- ▶ Regional (75%, sometimes partnered with interregional)

## ▶ **Transit and Intercity Rail Capital Program**

- ▶ 10% Cap and Trade Auction Proceeds (continuous; amount varies)
- ▶ One-Time Budget Appropriations (\$144 million in 2016)

## ▶ **High Speed Rail Funding** (see 2016 Business Plan for details)

## ▶ **Local Measure Funding** (most between 0.25% and 2% general sales tax, with a portion to transit)

## ▶ **Federal Grants and FTA Formula Funds**

# New Funding in 2017

## ▶ SB 1 of 2017

- ▶ Augments STA, STIP and TIRCP, Commuter/Intercity
  - ▶ 3.5% diesel sales and use tax for transit (\$3.1B over 10 yrs.)
  - ▶ 0.25% diesel sales and use tax for commuter rail (\$220M over 10 yrs.)
  - ▶ 0.25% diesel sales and use tax for intercity rail (\$220M over 10 yrs.)
  - ▶ About \$1.1 billion in new STIP capacity over 10 years
  - ▶ \$25-175 per year Transportation Improvement Fee (per vehicle; indexed)
    - ▶ \$105 million (indexed) to Transit SGR (\$1.2B over 10 yrs.)
    - ▶ \$245 million (indexed) to TIRCP (\$2.7B over 10 yrs.)
  - ▶ \$236 million one-time funding to TIRCP from debt repayment
- ▶ Solutions for Congested Corridors Program (\$250 million/yr)
- ▶ Trade Corridor Enhancement Account (10 cents per diesel fuel gallon (CPI-indexed); about \$3 billion over first 10 years)