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Public-Private Partnerships: An introduction to P3s

SPUR

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WORKING DRAFT
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What are Public Private Partnerships?

A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.

The PPP Knowledge Lab , World Bank

Public-private partnerships (P3s) are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects.

US Department of Transportation, FHWA

A public-private partnership (P3) is a contractual arrangement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.

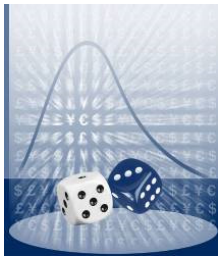
National Council for Public-Private Partnerships

SOURCE: World Bank, US DOT, NCPPP

Governments consider PPPs to deliver one or more fundamental benefits to generate significant value for money

Increased efficiency

- Private sector has **financial interest** to deliver on time and on budget
- **Optimize life-cycle cost**
- **Competition** between bidders drives price



Better risk allocation

- **Risk allocated** to party best able to manage it
- **Risk reduction** by redefining relationship between parties
- Maintains **quality** of service

Public sector reform

- Break up systems and **allocate parts to best owners**
- Circumvent need for **major transformation**
- **Separate regulatory oversight** from ops

New sources of financing

- Injection of **private capital**
- Makes projects **affordable** where borrowing is limited
- Project can be funded **off balance sheet**

A PPP project yields "value-for-money" if it provides a net positive economic gain greater than that of any alternative procurement route

Government to conduct value-for-money analysis to choose appropriate delivery model

Value-for-money analysis needs to consider both costs and benefits of available delivery modes

- Costs: Efficiency in investment, operations and maintenance (PPP typically better); financing costs, transaction and contract oversight costs (PPP typically worse)
- Benefits: Potential non-financial impacts such as accelerated and enhanced project delivery

Result of the value-for-money analysis typically depends on a number of factors

- Size of capital expenditure involved
- Project size relative to transaction costs
- Design/implementation expertise of private sector
- Feasibility of risk identification and allocation
- Specification of service needs as outputs
- Possibility to estimate long-term asset costs
- Stability of technological aspects

Possible options include public, PPP and private delivery

Public	▪ Civil works contract: DBB* & DB* ▪ Service contracts
Public-Private partnership	▪ Management contracts ▪ Lease ▪ Concession, BOT*, DBO*, DBFO*
Privatization	▪ Regulated privatization ▪ Liberalization and full divestiture

*DBB = Design-Bid-Build; DB = Design-Build; BOT = Build-Operate-Transfer; DBO = Design-Build-Operate; DBFO = Design-Build-Finance-Operate

SOURCE: World Bank

The 3 basic PPP models have numerous sub variants which vary in exact meaning by country and by asset class

Model types		Sub variants used
1 Management contracts		▪ Long-term lease ▪ Management contracts ▪ Maintenance contracts
2 Operational / service concessions		▪ PFI Concessions ▪ PSA concessions ▪ OM concessions
3 Construct-ion Concess-ions	A BOT type	▪ Build-Operate-Transfer (BOT) ▪ Build-Own-Operate-Transfer (BOOT) ▪ Build-Lease-Operate-Transfer (BLOT) ▪ Build-Own-Operate (BOO)
	B DBO type	▪ Design-Build-Finance-Operate (DBFO) ▪ Design-Build-Own (DBO) ▪ Design-Build-Finance-Operate-Maintain (DBFOM)

- Most of these type of contracts are **termed PPP projects** and involve:
  - Partial or full **private funding**
  - Private **delivery of a traditionally publicly provided service** or asset
  - **Sharing of risks** in at least one part of the value chain
- The models can be **consecutive** (e.g., in the case of Turkish airports which were first BOT deals and when constructed, tendered as OM-type concessions)

SOURCE: World Bank

Public-Private Partnership falls between public project delivery and privatization

Infrastructure asset procurement options

Public	Public-Private Partnership				Privatization
▪ Restructuring & corporatization ▪ Civil works contract: DBB & DB ▪ Service contracts	Management contracts	Operational/ Service concessions	Construction concessions		Full divestiture
			▪ BOT type	▪ DBO type	
Public ownership and finance			Mix of public and private ownership and finance		Private ownership and finance
Public operations	Private operations				

Extent of private sector participation

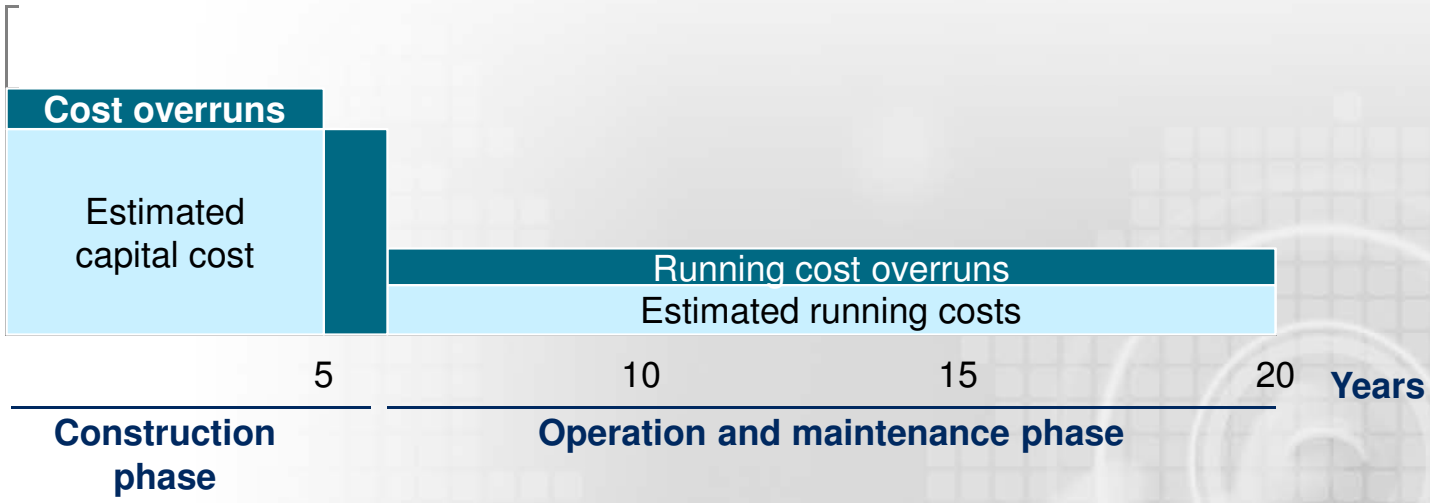
DBB: Design Bid Build
DB: Design Build
BOT: Build Operate Transfer
DBO: Design Build Operate
DBFO: Design-Build-Finance-Operate

SOURCE: United Nations, Press

PPPs have upfront milestone payments with ongoing performance and overall asset delivery, project management, and implementation

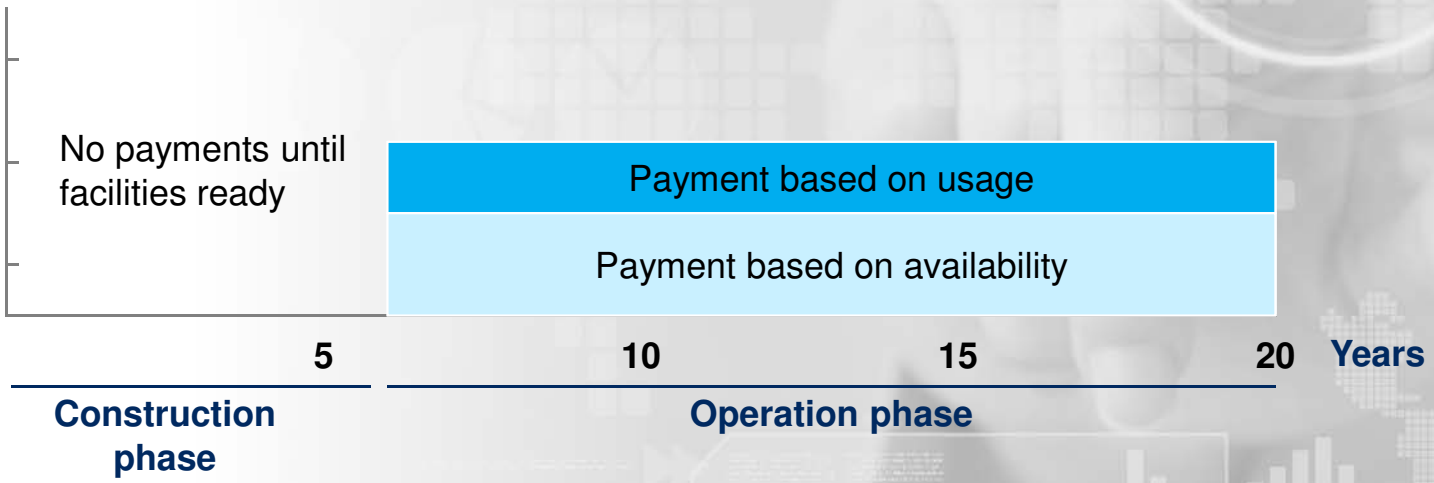
Payment profile

Conventional/Traditional Government procurement



- **Capital and operating costs are paid for by the public sector, who take the risk of cost overruns and late delivery**

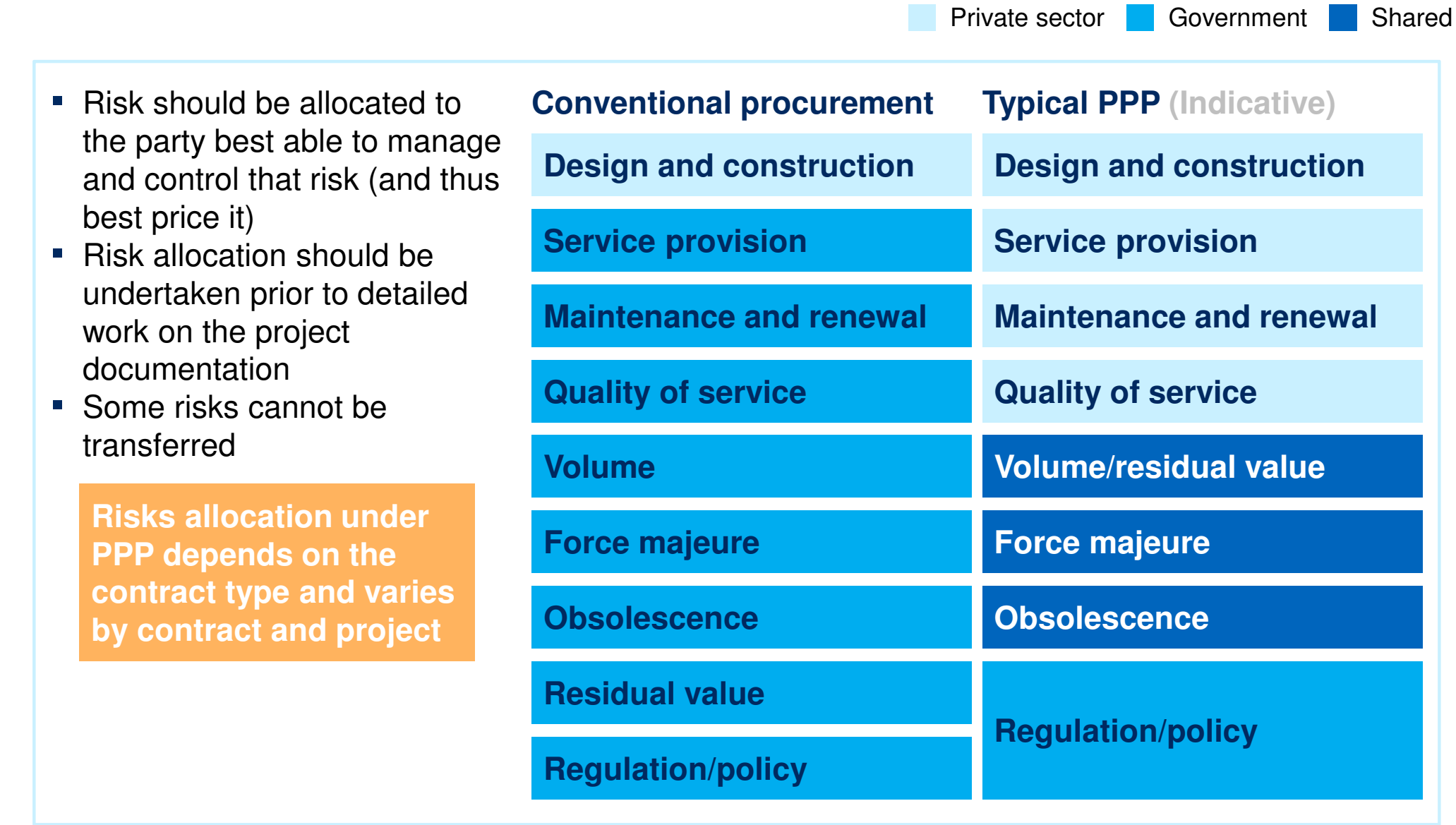
PPP procurement



- **The public sector only pays over the long term as services are delivered.**
- **The private sector is responsible for the funds**
- **The return on equity will depend on the quality of services**

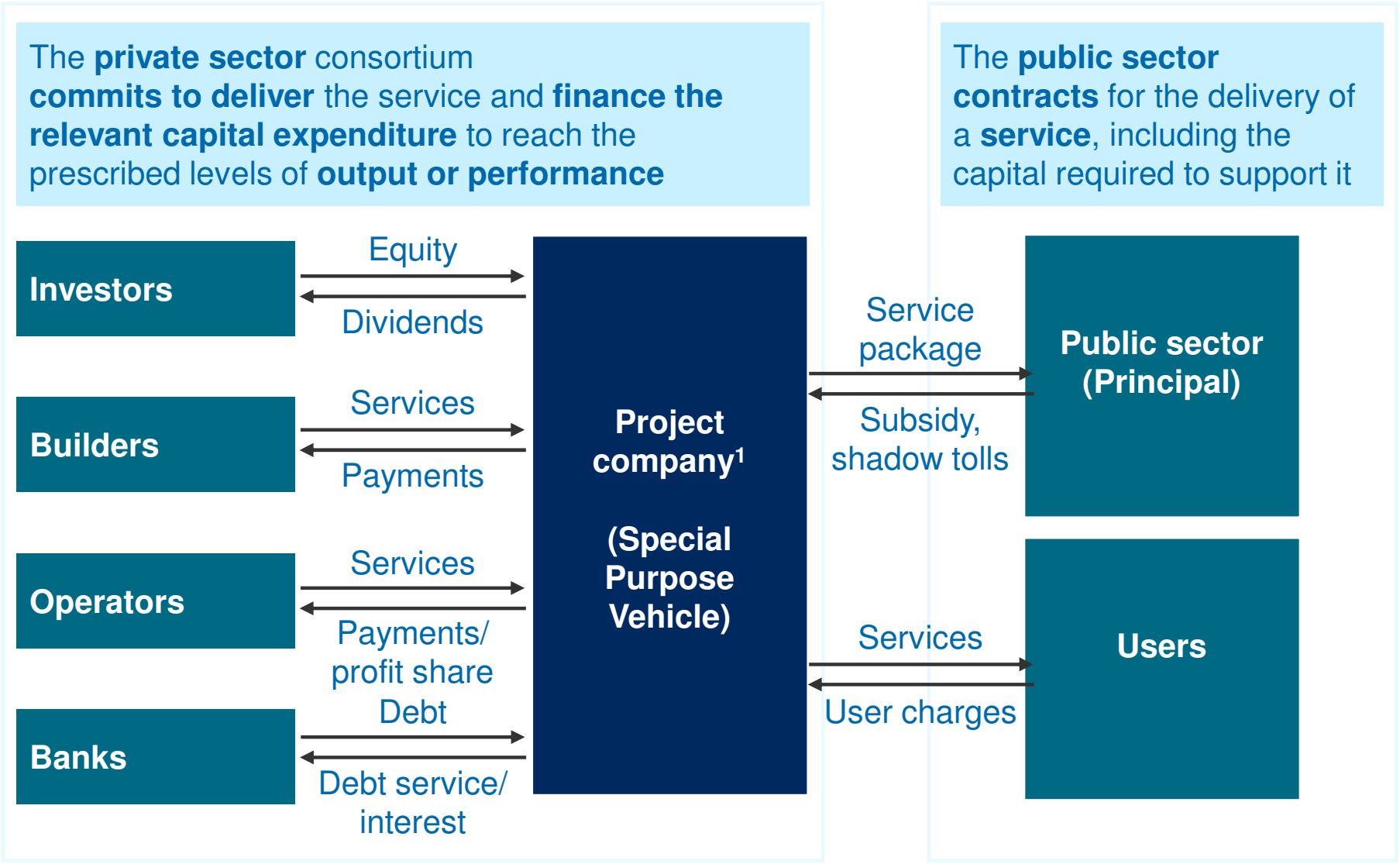
SOURCE: World Bank, Press

In PPPs, more risks associated with the ownership and operation of an asset are shared / transferred to the private sector



SOURCE: Ernst & Young, Press

In its most common form, PPPs typically look like this



1 Often a consortium of multiple other parties

Bike Share Public-Private Partnerships

with a focus on Ford GoBike / Bay Wheels

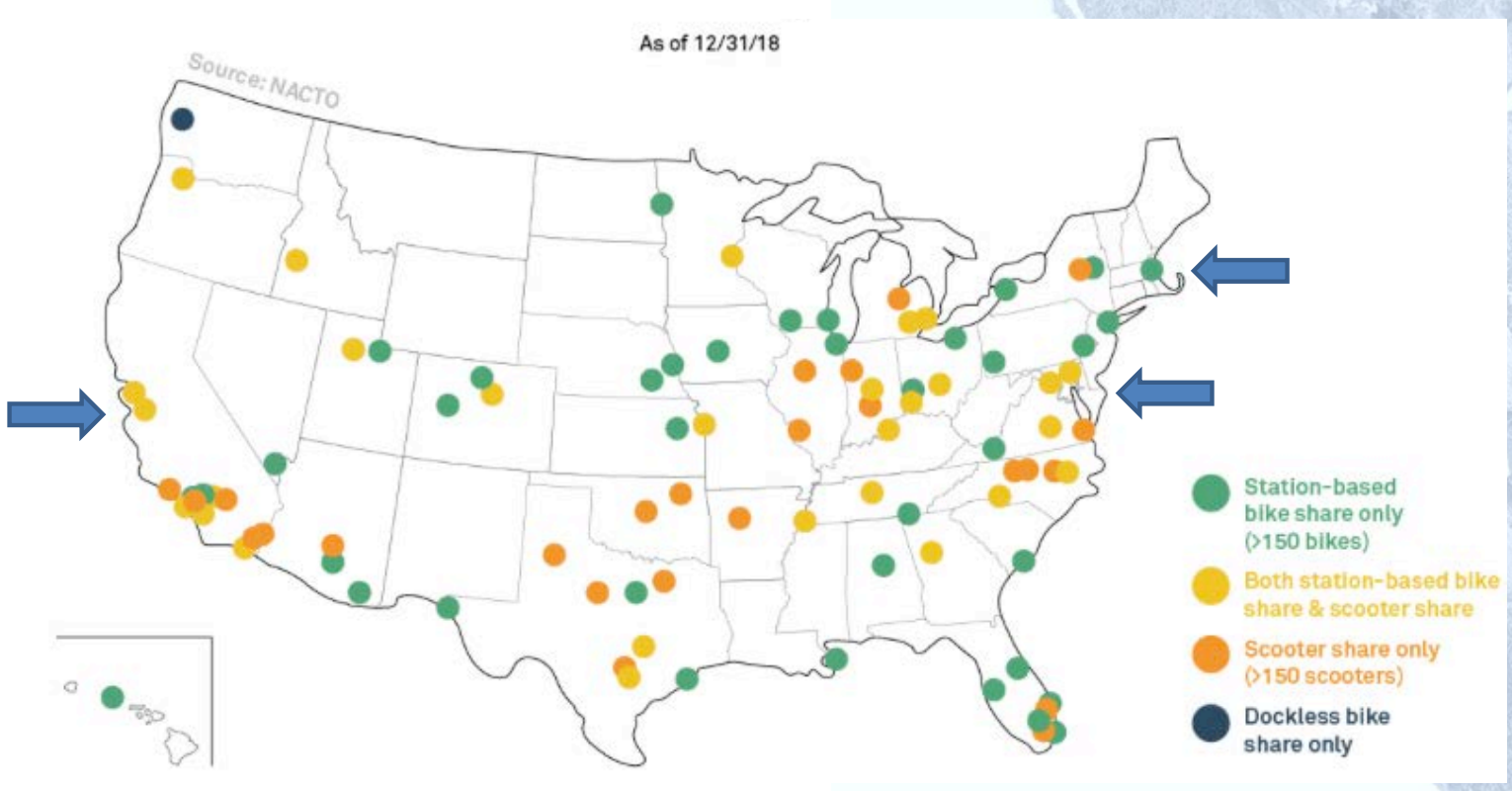
Transportation Funding 201, SPUR San Jose

August 6 ,2019

Overview

- Bike Share Public Private Partnerships
- Ford GoBike/ Bay Wheels Overview
  - Plan Bay Area 2040 Targets
  - Background
  - Public Benefits & Challenges to P3 (Contract)

U.S Shared Micromobility



U.S Bike Share Regional Examples

- Washington D.C Metro - City owned and publicly funded, non-exclusive agreement.
- Metro Boston – City owned and publicly funded. Today, city owned equipment, zero cost operations, exclusive agreement with title sponsor.
- Bay Area – Privately funded, exclusive agreement, with title sponsor. Today, VC funding for title sponsor.

Balance of Bike Share (Public-Private) Partnerships

Private Control, Risk & Responsibility

Private Control, Risk & Responsibility

Background

- 2013: Air District & Alta Bicycle Share launched five-city Bay Area Bike Share pilot
- Initial post-pilot plan, not pursued:
  - 2014: Commission approved $16.4 million for 2,500 bikes and up to $1.5 million in operating subsidy
- May 2015: Commission approved five-city, 10-year, zero cost, exclusive agreement with many public benefits for at least 7,000 bicycles. Management of bike share shifted from Air District to MTC
  - Estimated monetary savings/value – excess of $65 million
- December 31, 2015 agreement signed commitment with many public benefits
- June 28, 2017 San Francisco launch

Plan Bay Area 2040 Targets

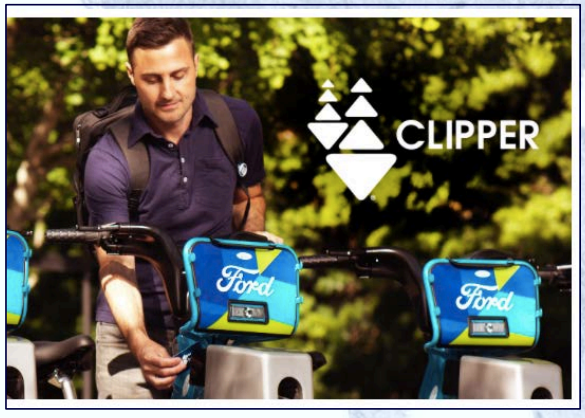
- Climate Protection: **Reduce CO_2**
- Healthy & **Safe** Communities: Reduce road crashes and increase physical activity
- **Equitable** Access: Reduce share of household income spent on housing and transportation
- Transportation Effectiveness: Increase non-auto **mode share**

Public Benefits to Bike Share P3 (Contract)

- Equity
  - $5 year membership
  - 20% stations in Communities of Concern
  - Cash payment
  - Community Outreach funded by operator
- Clipper as a membership identifier
- Revenue Sharing
- Key Performance Indicators with Liquidated Damages
- 10-year commitment with constantly changing industry
- Open data
- Larger system – minimum of 7,000 bikes and 320 stations
- Zero public funds outside of staff time

Clipper Access

- 45% of members use their Clipper card to unlock a bicycle
- This provides a more seamless transit transfer and non-smart phone option



10-year Commitment & Industry Update

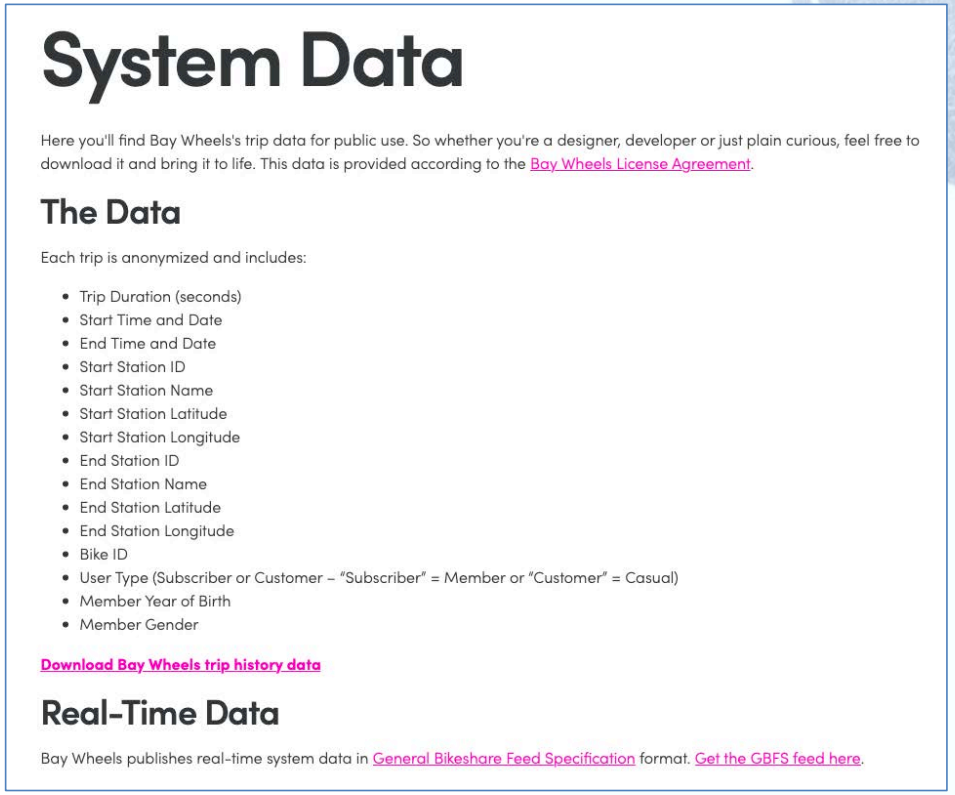
2017:

- Bluegogo
- Ofo
- Spin and LimeBike
- Motivate
- Social Bikes/JUMP

2019:

- ~~Bluegogo~~
- ~~Ofo~~
- Spin and Lime~~Bike~~
- Lyft
- Uber

Open-Data



System Data

Here you'll find Bay Wheels's trip data for public use. So whether you're a designer, developer or just plain curious, feel free to download it and bring it to life. This data is provided according to the Bay Wheels License Agreement.

The Data

Each trip is anonymized and includes:

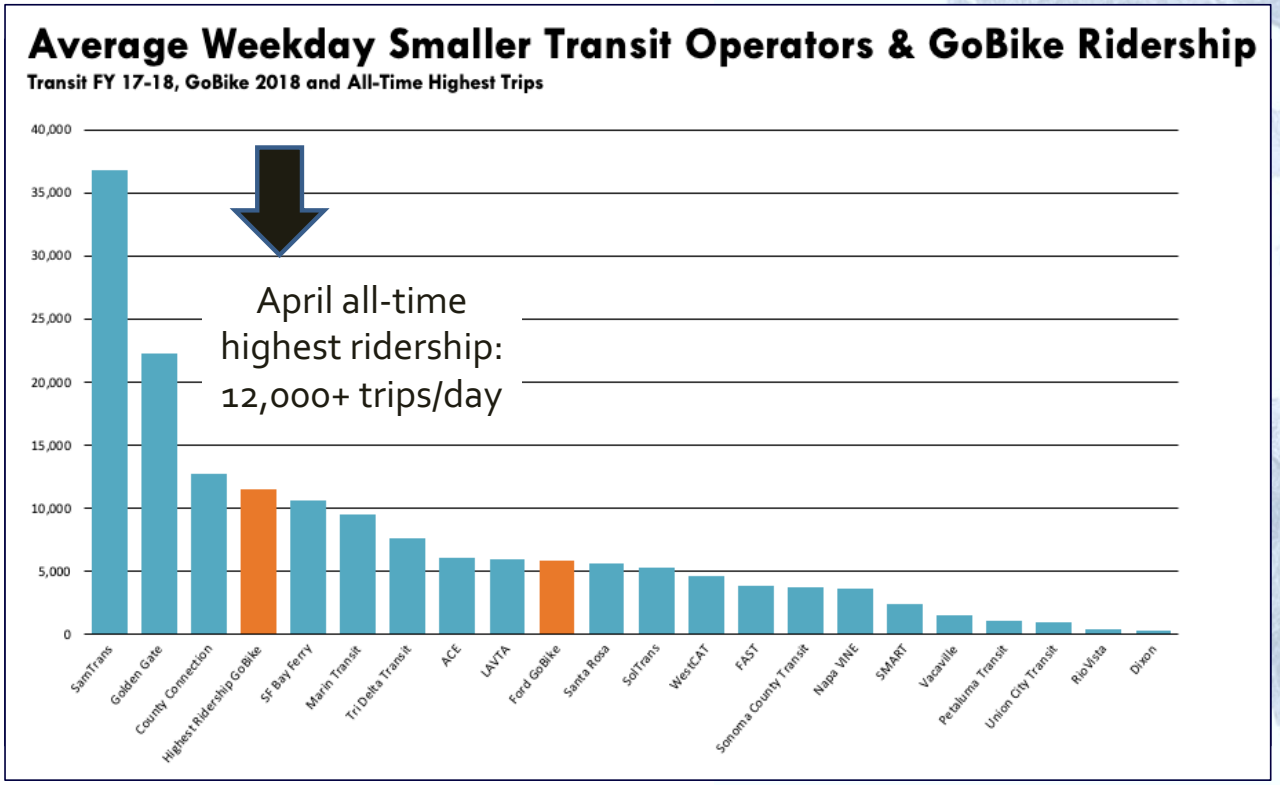
- Trip Duration (seconds)
- Start Time and Date
- End Time and Date
- Start Station ID
- Start Station Name
- Start Station Latitude
- Start Station Longitude
- End Station ID
- End Station Name
- End Station Latitude
- End Station Longitude
- Bike ID
- User Type (Subscriber or Customer – "Subscriber" = Member or "Customer" = Casual)
- Member Year of Birth
- Member Gender

Download Bay Wheels trip history data

Real-Time Data

Bay Wheels publishes real-time system data in General Bikeshare Feed Specification format. Get the GBFS feed here.

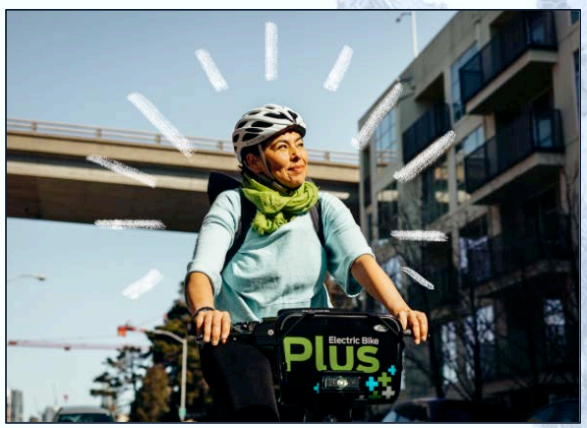
System Usage



Lyft Acquisition & Ebike Expansion

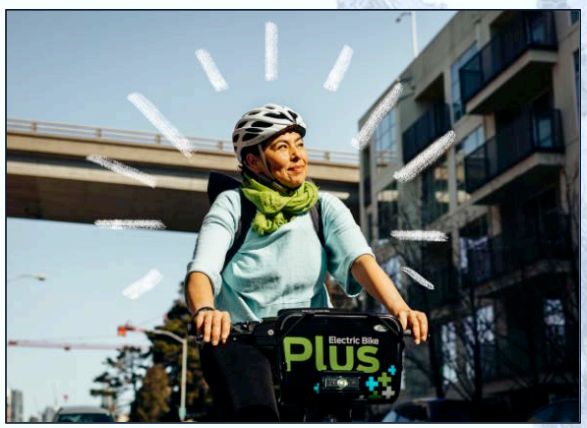
City	Planned Bikes*	New Ebikes** (Pending Final Approvals)	Total Bikes
Berkeley	400	850	3,700
Emeryville	100	100	
Oakland	850	1,250	
San Jose	1,000	1,000	2,000
San Francisco	4,500	4,000	8,500
Total	**7,000**	**7,200**	**14,200**

*150 unassigned planned bikes, were deployed in the East Bay.
** Up to.



Bikes Per Capita by City

City	Population	Total Ebikes (Pending Final Approvals)	Bikes Per Capita
Berkeley	122,000	1,250	1/97
Emeryville	12,000	200	1/60
Oakland	425,000	2,100	1/207
San Jose	1,000,000	2,000	1/500
San Francisco	885,000	8,500	1/104
(Paris)	2,150,000	18,200	1/118



Public Benefits to Bike Share P3

- Equity Measures
- Clipper as a membership identifier
- Revenue Sharing
- Key Performance Indicators with Liquidated Damages
- 10-Year Commitment with constantly changing industry
- Open data
- Larger System – minimum of 7,000 bikes and 320 stations
- Zero Public Funds outside of staff time

Public Challenges to Bike Share P3

- 10-Year Commitment with constantly changing industry
- Key Performance Indicators with Liquidated Damages
- Zero Public Funding outside of staff time

Thank you

Koberg@bayareametro.gov

415.778.6719

Bike Share Public-Private Partnership in San Jose

SPUR San Jose Forum
August 6th, 2019

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Background:
Bike Share in San Jose

Bay Area Bike Share

- Publicly-owned/operated
- Bay Area Air Quality Management District
- Regional – Caltrain corridor

Ford GoBike

- Public-private partnership
- Motivate Bike Share – exclusive operator
- Regional – Bay Area metros
- 7,000 bikes

Bay Wheels

- Public-private partnership with Lyft
- 7,000 “classic bikes”
- Commitment to 7,000 additional hybrid e-bikes

Bay Area Bike Share Pilot

Funding

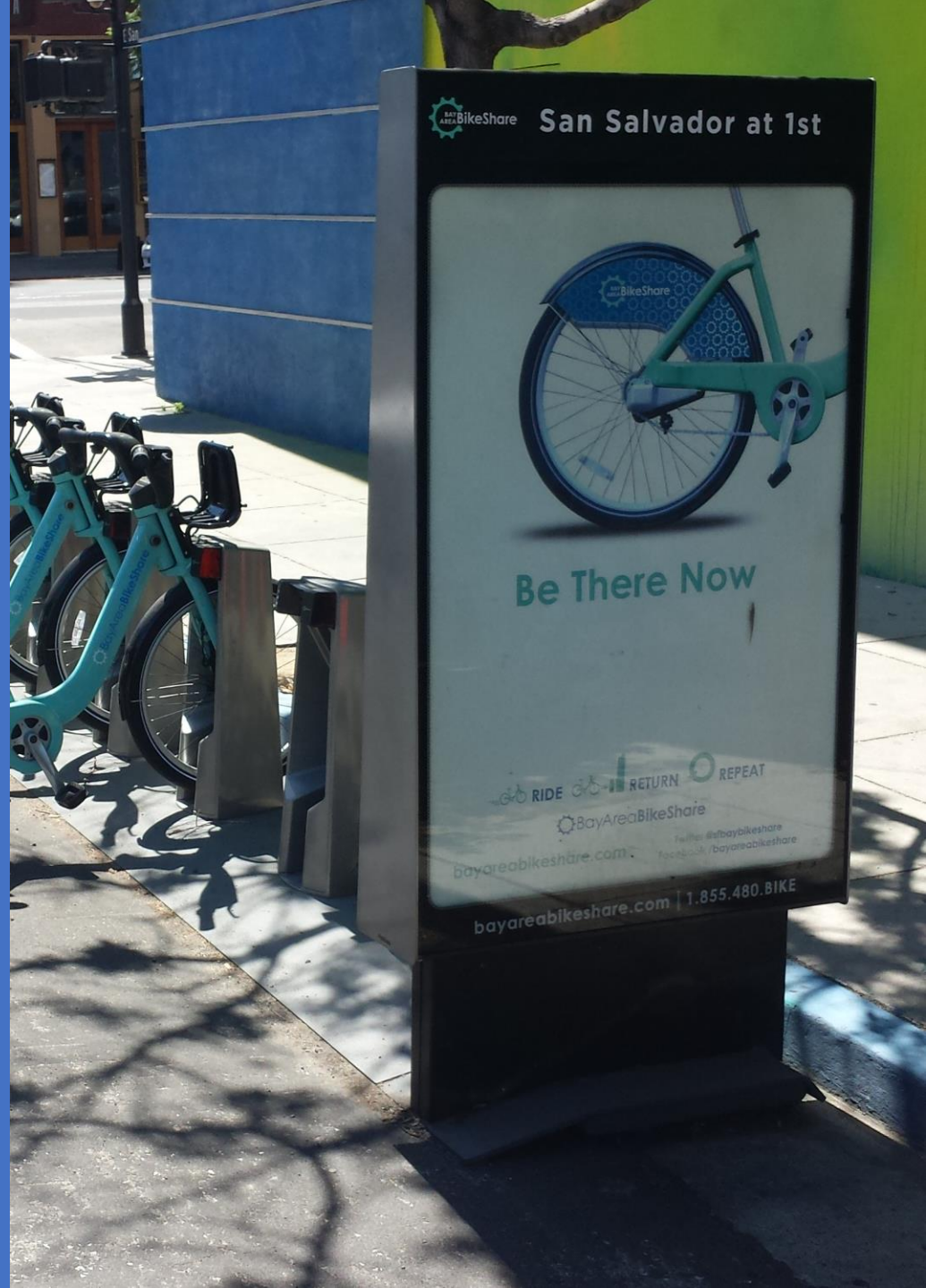
- CMAQ (Congestion Mitigation and Air Quality Improvement Program)
- Federal Grant Program

Planned scope

- 1,000 bikes
- 100 stations

Implementation

- 2013 launch
- 700 bikes
- 70 stations
- 16 out of approx. 20 in San Jose
- Difficult to sustain



Bike Share Public-Private Partnership

- Motivate as exclusive operator
- Motivate provides bike share at no cost to cities
- Cities waive permit fees, provide staff time to coordinate
- Costs covered through ridership and sponsorship
- 2015 – regional partnership begins
- 2017 – program launches
- 2019 – Lyft purchases, launches hybrid e-bikes

Benefits to San Jose

- Bike share at no cost to City
- Guaranteed operations
- Expanded operations
- Low-income program
- Bike share in Communities of Concern
- Commitment to new technology
- Tool to help achieve City goals

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

City Goals

Envision San Jose 2040 General Plan

- Reduce single-occupancy automobile trips to 40% by 2040
- Increase bike trips to 15% of all trips

Bike Plan 2020

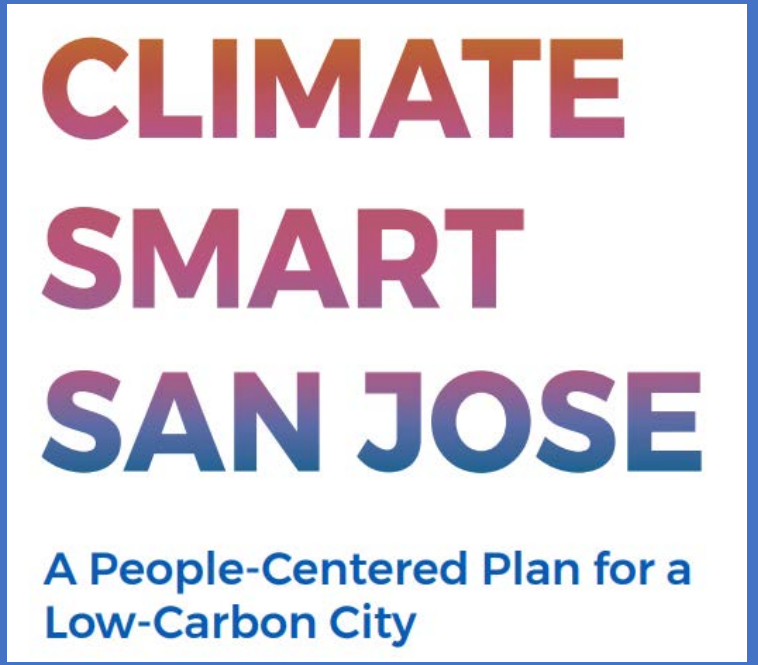
- Establish a bike sharing system

Climate Smart San Jose

- Create clean, personalized transportation options

Under Development

- Bike Plan 2025, Access and Mobility Plan



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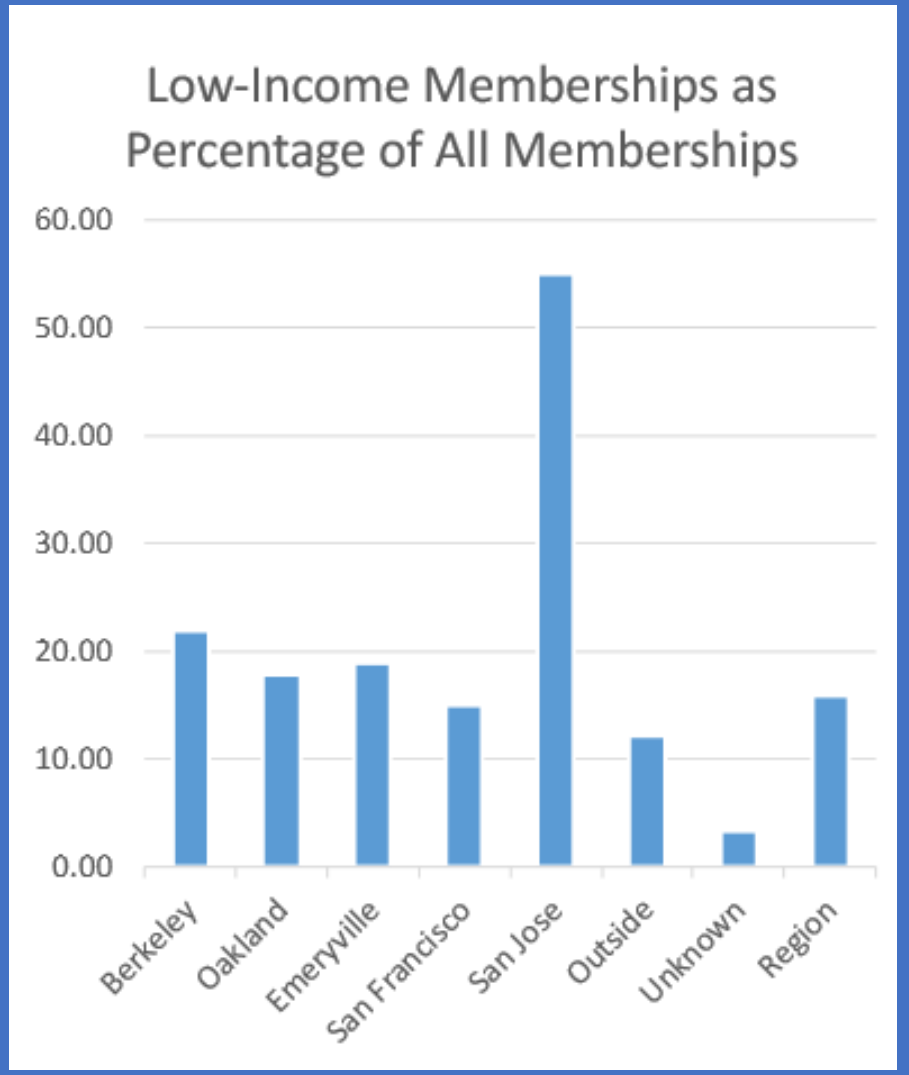
Low-Income Discount Program Success

- More than half of all members in San Jose participate in “Bike Share 4 All”
- 60% of all stations in San Jose are in “Communities of Concern”



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Challenges

- Single operator may slow growth, limit scope of program
- Contract can make it difficult to keep up with trends in technology, data sharing, and so on

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Ryan Smith
Transportation Planner
City of San Jose
ryan.smith@sanjoseca.gov

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P3 Business Models in an urban context

August 6, 2019

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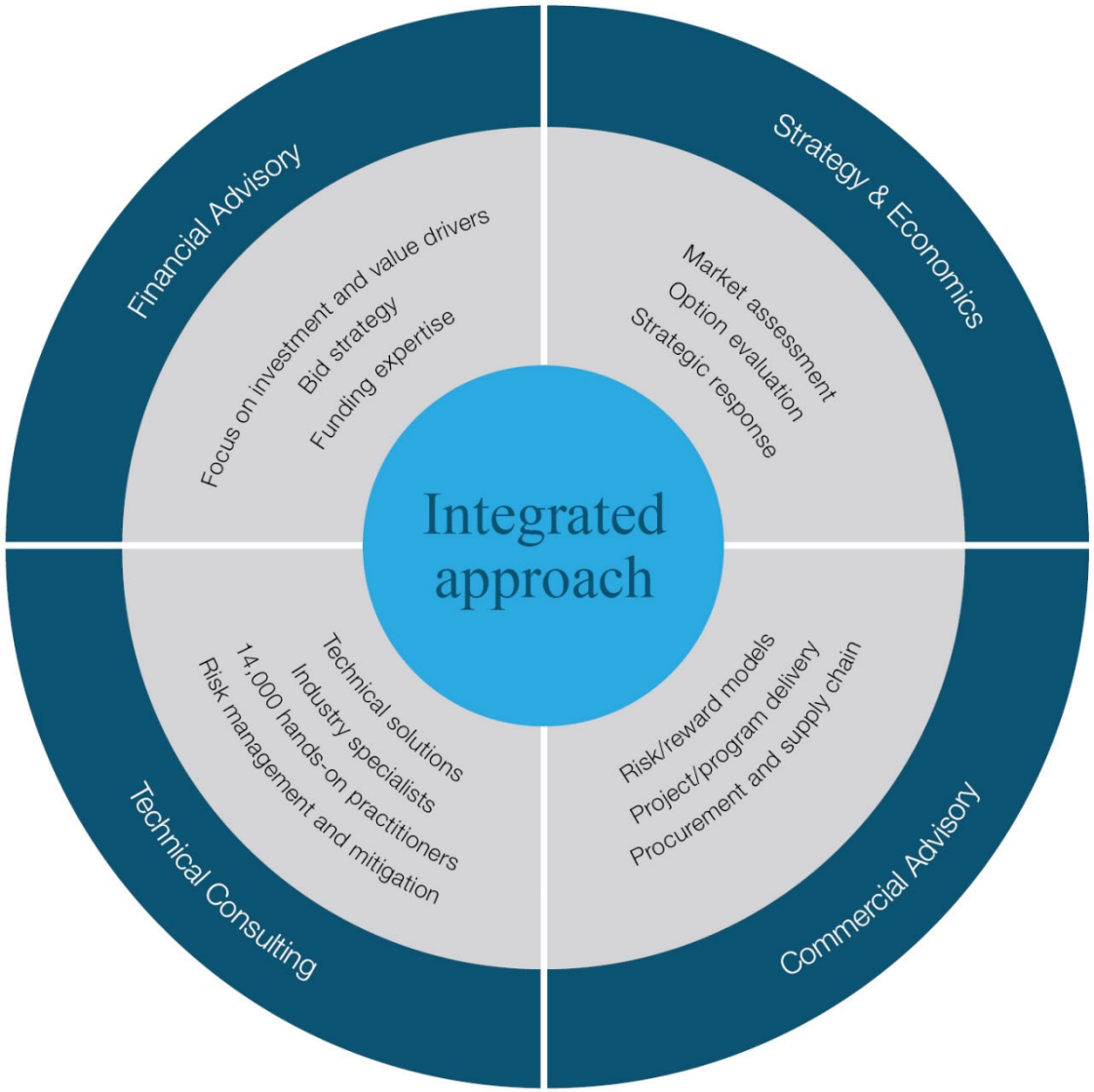
Arup Services

- Project strategy and business planning
- Development of "The Story" and project's Value Proposition
- Management, leadership, and coordination of the procurement process
- Financial, commercial, and technical consulting
- Internal and external stakeholder engagement
- Integration of team members into highly effective team



Presidio Parkway

ARUP

Why a P3 for Presidio Parkway

We struggle with major project delivery…

- SF Bay Bridge

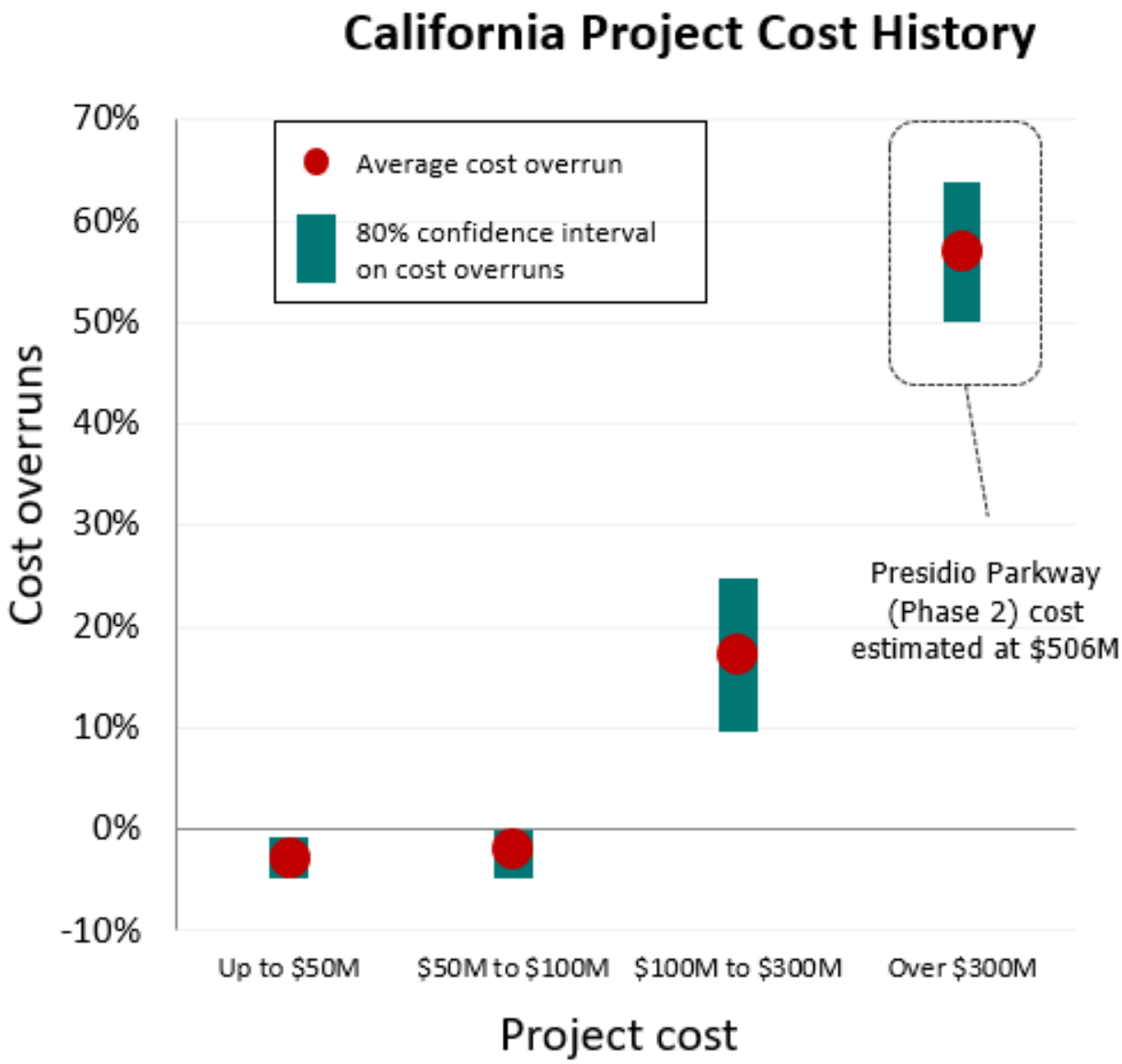
  200% over $2B budget

- Transbay Terminal

  50% over $1.6B budget

- Benicia-Martinez Bridge

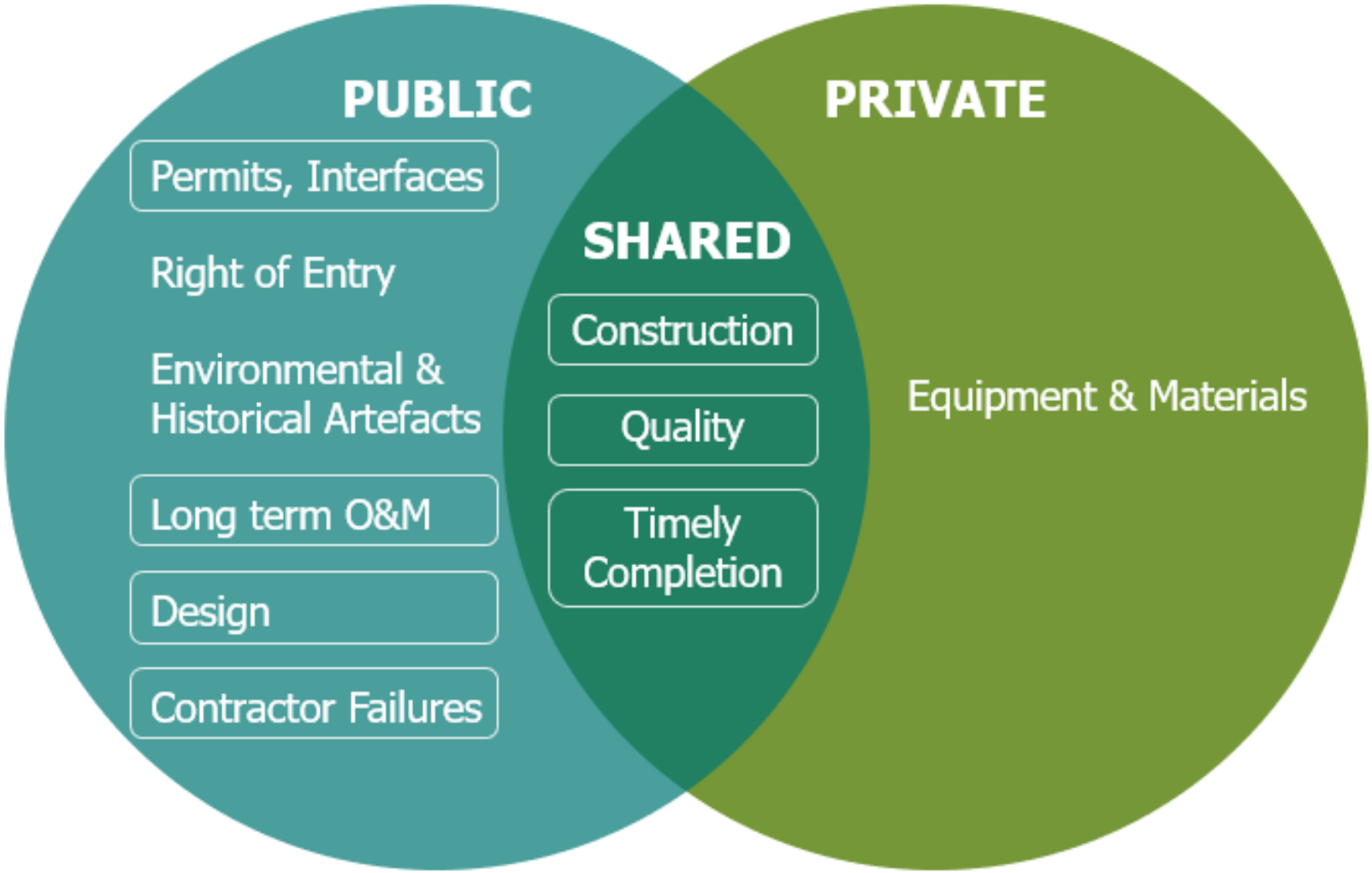
  100% over $1B budget



Source: Caltrans

ARUP

Traditional approach to deliver infrastructure



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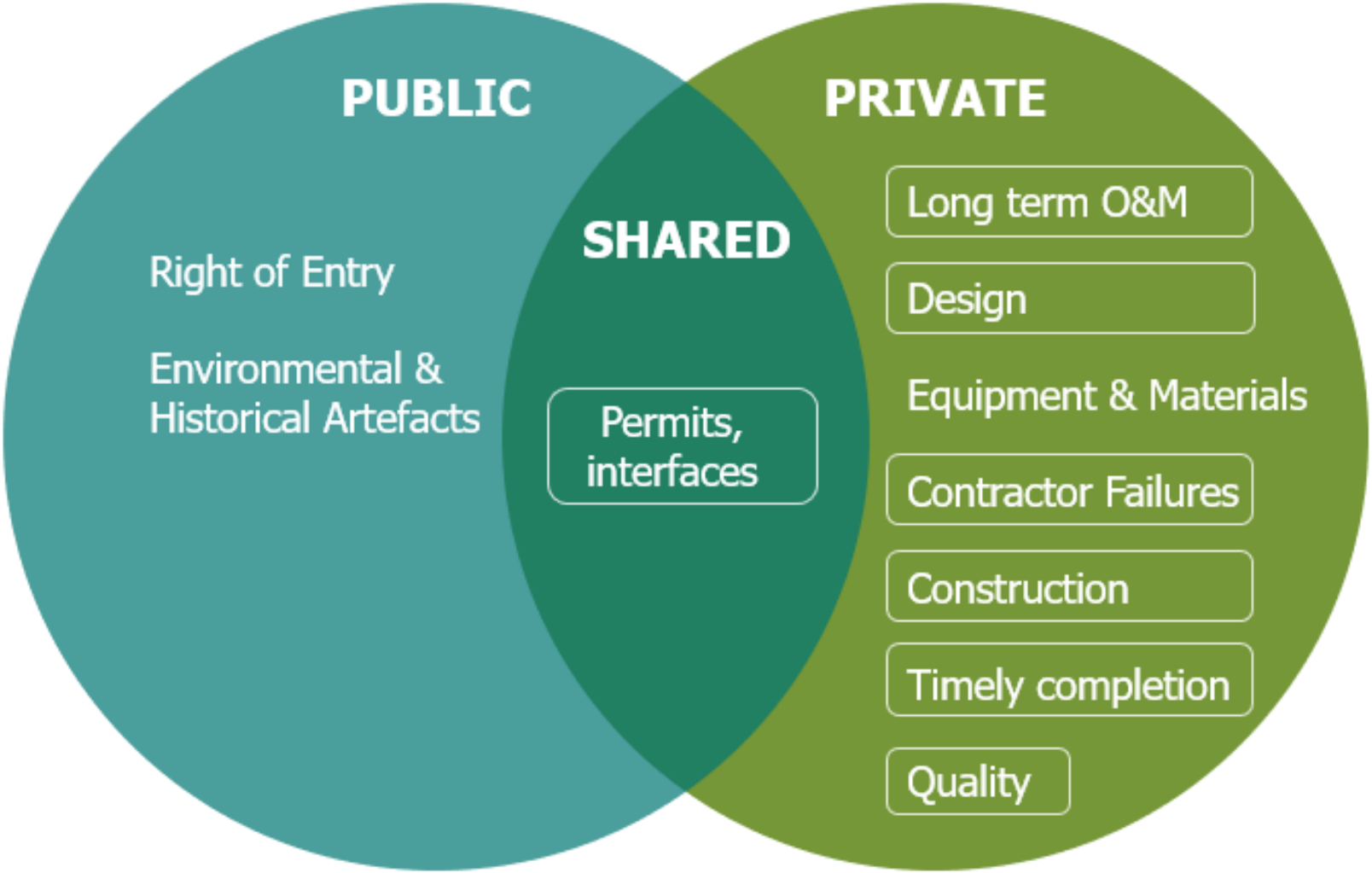
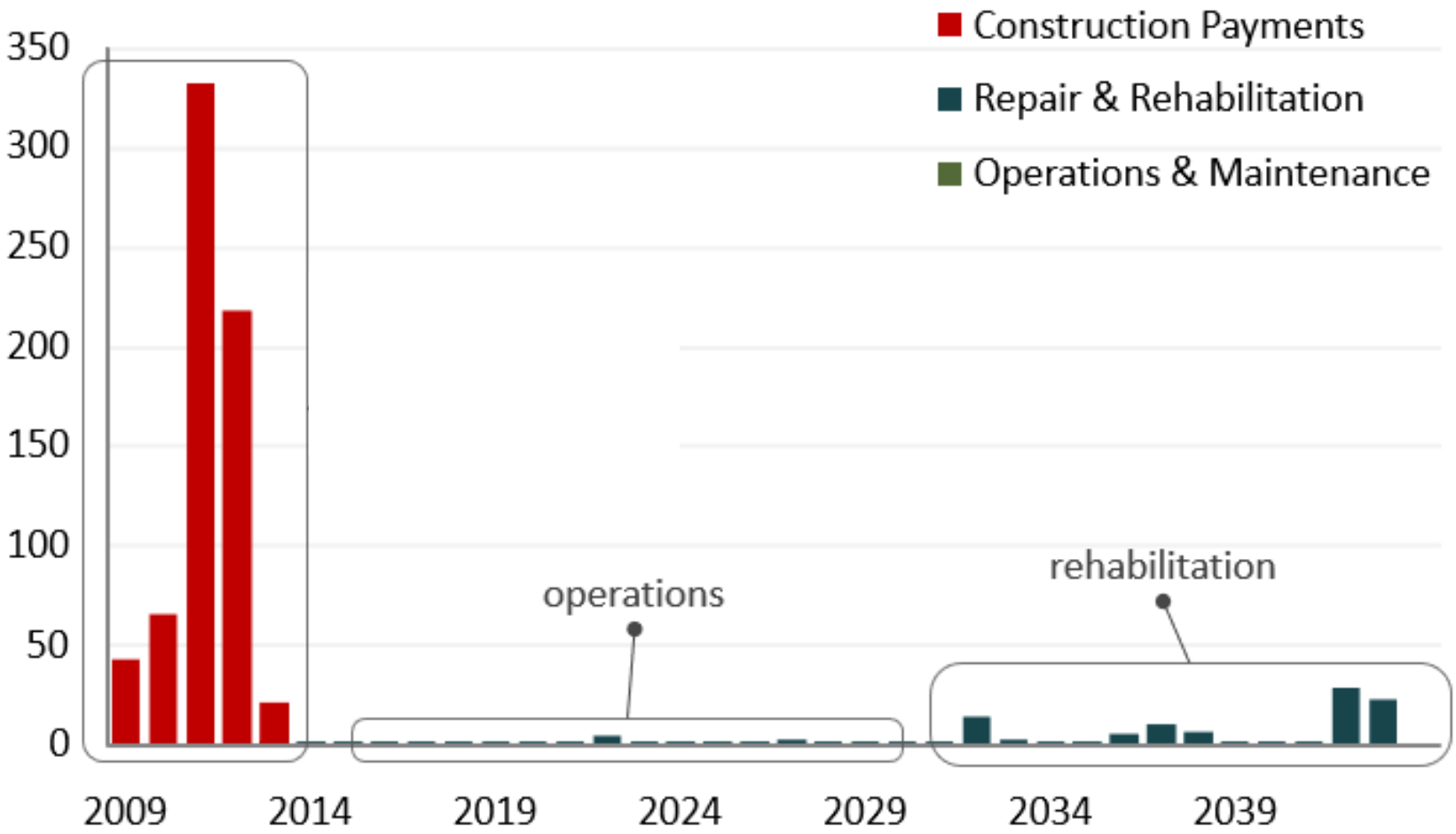
P3 approach to deliver infrastructure



Traditional approach to pay for infrastructure



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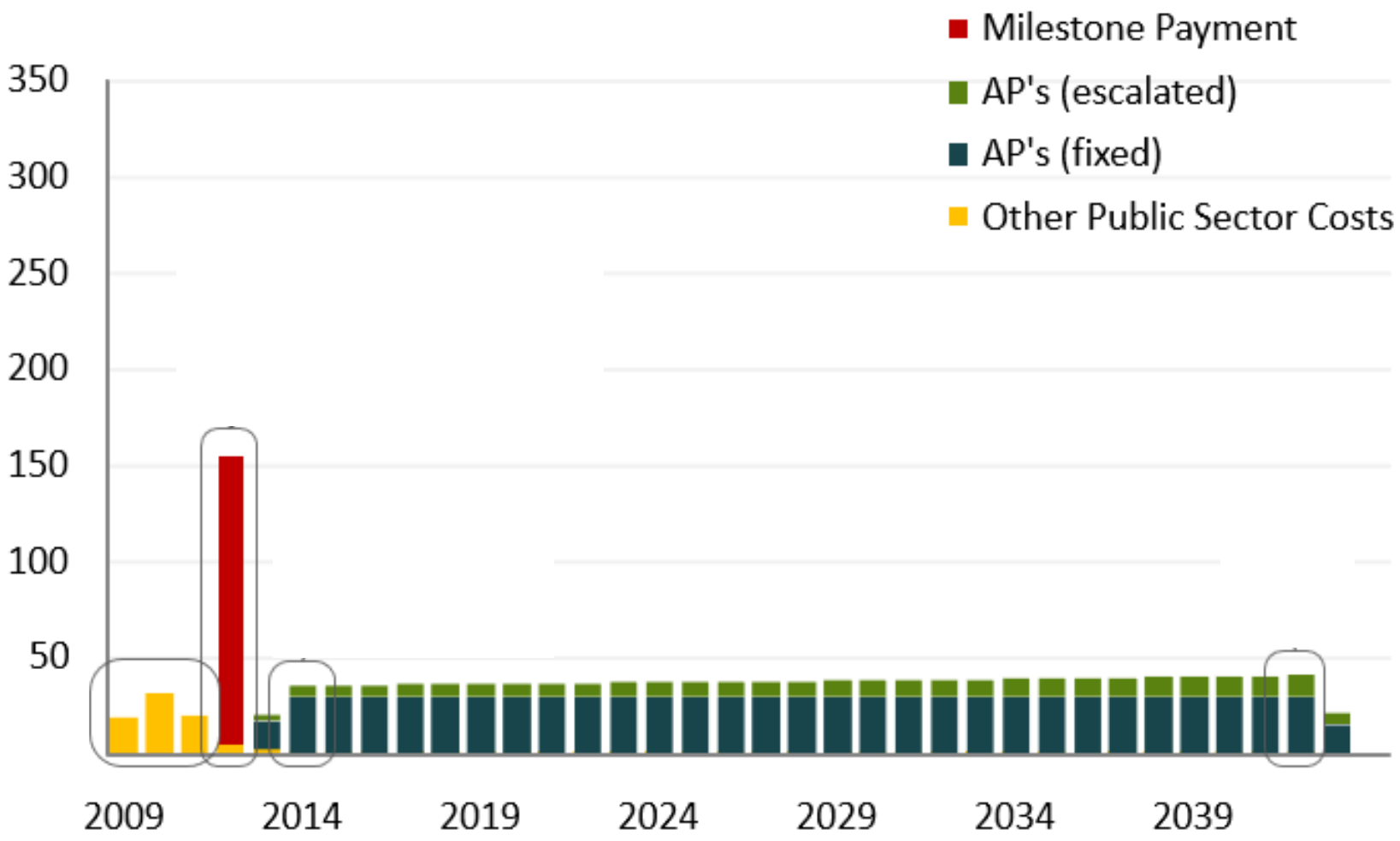
P3 approach to pay for infrastructure



Long Beach Civic Center

Source: SOM

The Opportunity

Image: Plenary-Edgemoor Civic Partners

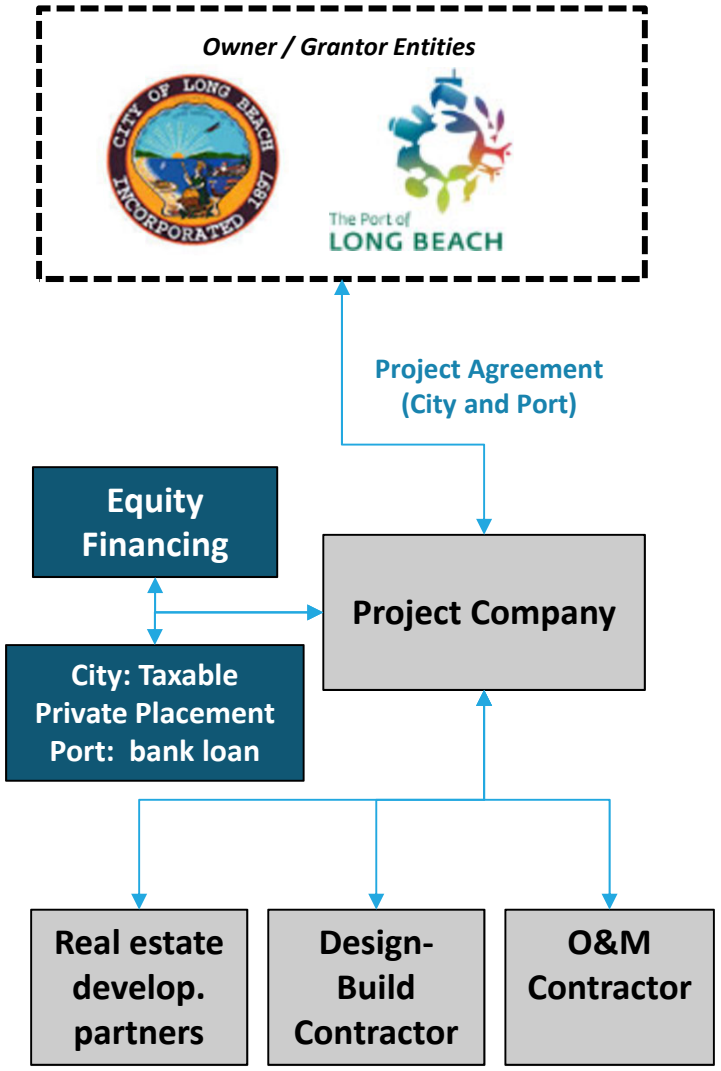
Public-Private Partnership Approach

City's financial objectives:

- Cost no more than $12.6M (2013$) per year, inflation indexed = ongoing O&M cost of existing facilities
- No new taxes, fees, or bond issuance
- No impact on City credit rating

Keys to success:

- Unlocking value of under-utilized land
- Assured delivery of civic center campus and park increases land value and mitigates market risk
- Economies of scale of City & Port shared facilities
- Construction and O&M cost-efficiencies from P3



Martin Place, Sydney, Australia

Ignacio Barandiaran
Principal | Advisory Services
ARUP
560 Mission Street Suite 700 San Francisco CA 94105 USA
c: 415 606 6584
ignacio.barandiaran@arup.com
www.arup.com