

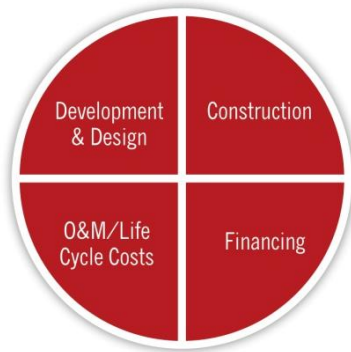
Canadian P3 Model – Will it Work in the U.S.?

2014 ULI
SPRING
MEETING
VANCOUVER, BC
APRIL 9–11, 2014



Facility Delivery & Long Term Operations

T	DEVELOPMENT ACTIVITIES	DB	DESIGN & CONSTRUCTION	F	FINANCING	OM	OPERATIONS & MAINTENANCE/ LIFECYCLE COSTS
	<ul style="list-style-type: none"> Owner-Rep Delivery End User Coordination Site Entitlement Permits Utilities Inspections Quality Control FF&E Leasing Accounting Risk Management Community Relations 		<ul style="list-style-type: none"> Builder Designer Engineers Lump Sum Fixed Price Code Compliance Tenant Work/Finishes Guaranteed Schedule LEED Requirements Insurance Geotechnical/ Environmental Move-in Coordination Life Cycle Cost Studies Commissioning 		<ul style="list-style-type: none"> Capitalization Plan Investors Debt (Banks/Bonds) Legal Structuring Legal Agreements <ul style="list-style-type: none"> - Owner - Development - Design-Build - Facility Management Collateral Agreements Builder/Lender Facility Manager/Lender 		<ul style="list-style-type: none"> Owner Rep-Operations Life Cycle Cost Analysis Building Management Operating Cost Management Licensing/Permits Lease Management Tenant Service LEED Requirements Risk Management Insurance Move-in Coordination Repairs & Maintenance Equipment and Component Replacements

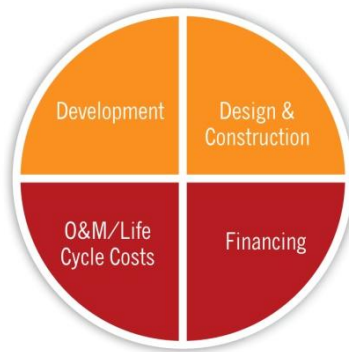


DBB

DESIGN-BID-BUILD

Traditional DBB Risks

In traditional DBB, the Agency retains all risk of development, design and construction, financing and operations & maintenance/life cycle costs

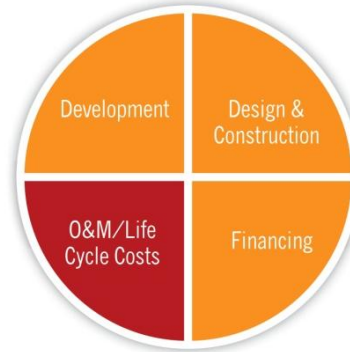


TDB

TURNKEY-DESIGN-BUILD

Development, Design and Construction Risks Transferred Under Turnkey Approach (Cost)

- Entitlement Delays
- Permit Delays
- Utilities (Cost & Schedule)
- Site Issues
- Attracting Third Party Tenants
- Change Orders
- Schedule Delays
- Scope Creep
- Code Compliance

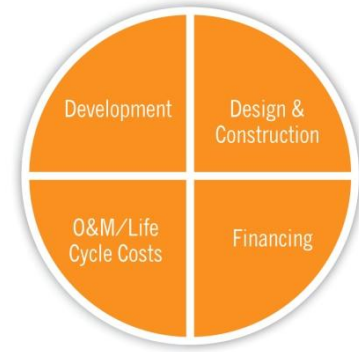


TDBF

TURNKEY-DESIGN-BUILD-FINANCE

Financing Risks

- Alternative Private Financing
- Limited Debt Capacity



TDBFOM

TURNKEY-DESIGN-BUILD-FINANCE-OPERATE-MAINTAIN

O&M/Lifecycle Risks

- Baseline Operating Costs
- Uncontrolled Operating Cost Escalations
- Energy/Performance
- Deferred Maintenance
- Deferral of Major Equipment and Component Replacements

Project Case Studies

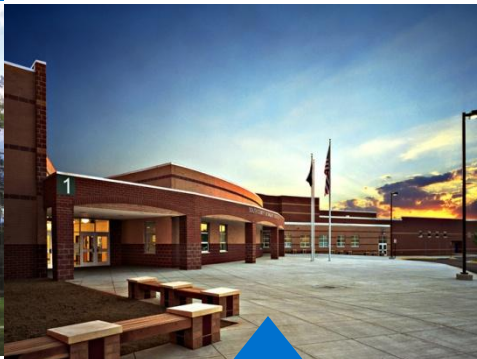
TDB

GMU Long & Kimmy
Nguyen Engineering
Building



TDBOM

UCSF Sandler
Neurosciences Center



South County
Secondary School

TDBF

Governor George
Deukmejian
Courthouse



TDBFOM

GMU Long & Kimmy Nguyen Engineering Building

Fairfax, Virginia



TDB

Motivator & Solution

Motivator:

“In 10 years we have never had a project on time or on budget.”

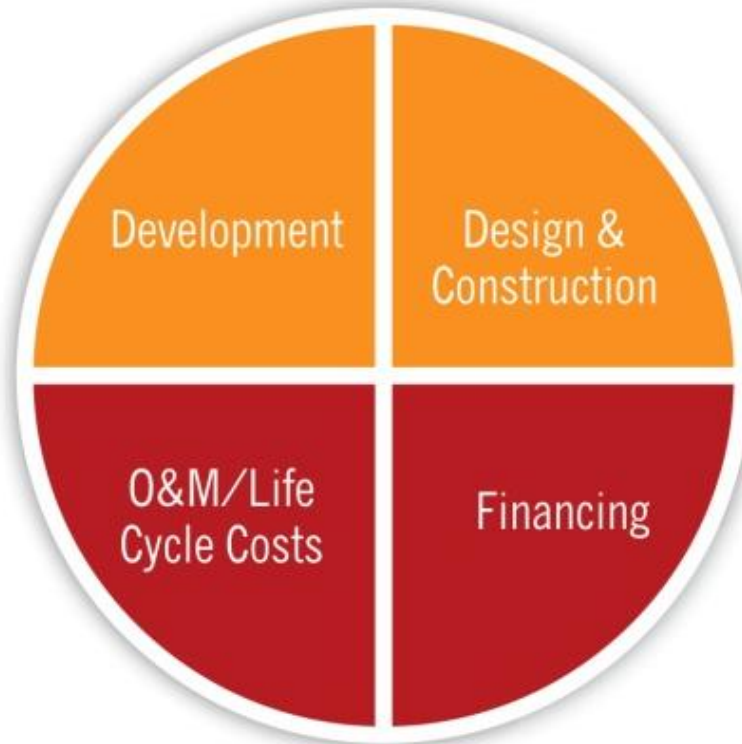
Turnkey Solution:

Provide turnkey development services while coordinating design and construction to ensure on time and on budget delivery.

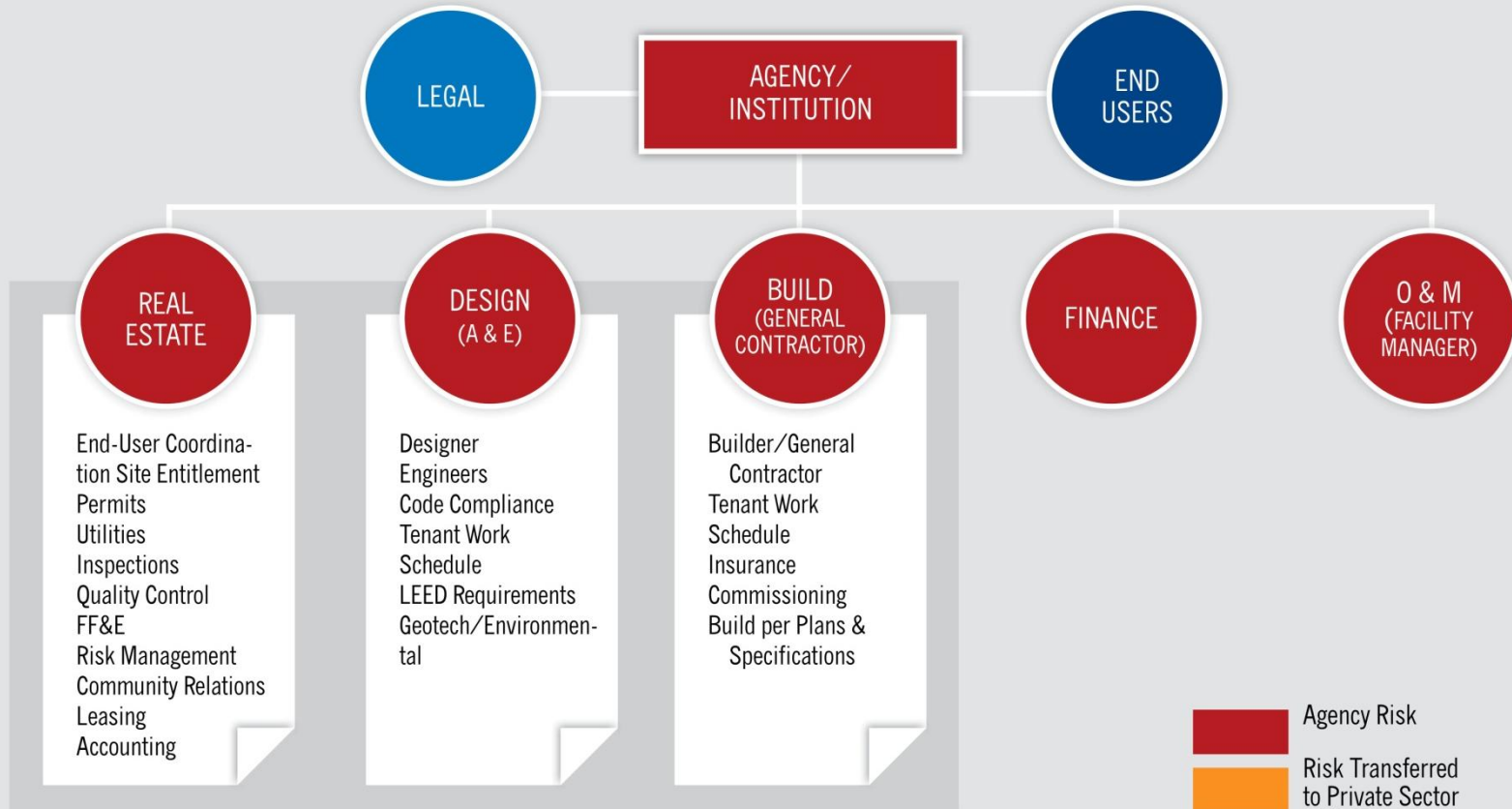


GMU Long & Kimmy Nguyen Engineering Building

Fairfax, Virginia

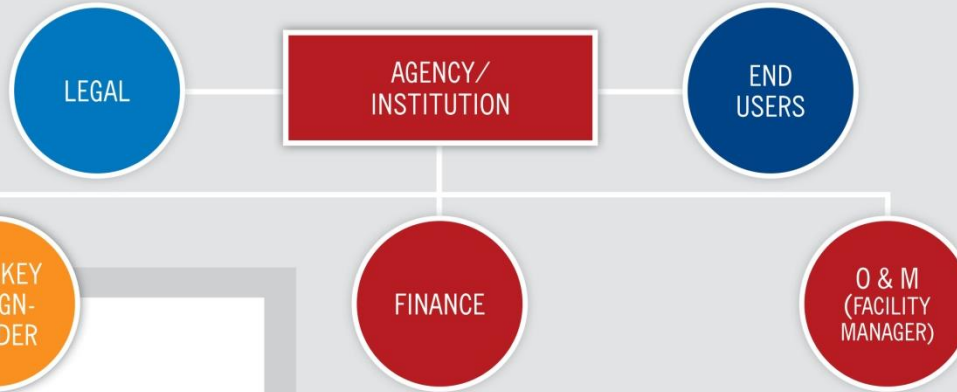


Traditional Design-Bid-Build (DBB) Structure



Turnkey-Design-Build (TDB) Structure

RISK
TRANSFER-
ENCE WITH
SINGLE POINT
OF
ACCOUNTABILITY



Real Estate Activities
Owner-Rep Delivery
End-User Coordination
Site Entitlement
Permits
Utilities
Inspections
Quality Control
FF&E
Risk Management
Community Relations
Leasing
Accounting
Design-Build Activities

Builder
Designer
Engineers
Lump Sum Fixed Price
Code Compliance
Tenant Work
Guaranteed Schedule
LEED Requirements
Insurance
Geotech/Environmental
Move-in Coordination
Commissioning

 Agency Risk
 Risk Transferred to Private Sector

South County Secondary School

Lorton, Virginia



Motivator & Solution

Motivator:

Capital constraints require new project finance strategies.

Turnkey Solution:

- Financing structure allowed delivery three years ahead of schedule
- \$25M in savings from monetization of county land



South County Secondary School

Lorton, Virginia



UCSF Sandler Neurosciences Center

San Francisco, California



TDBOM

Motivator & Solution

Motivator:

Managing project complexity.

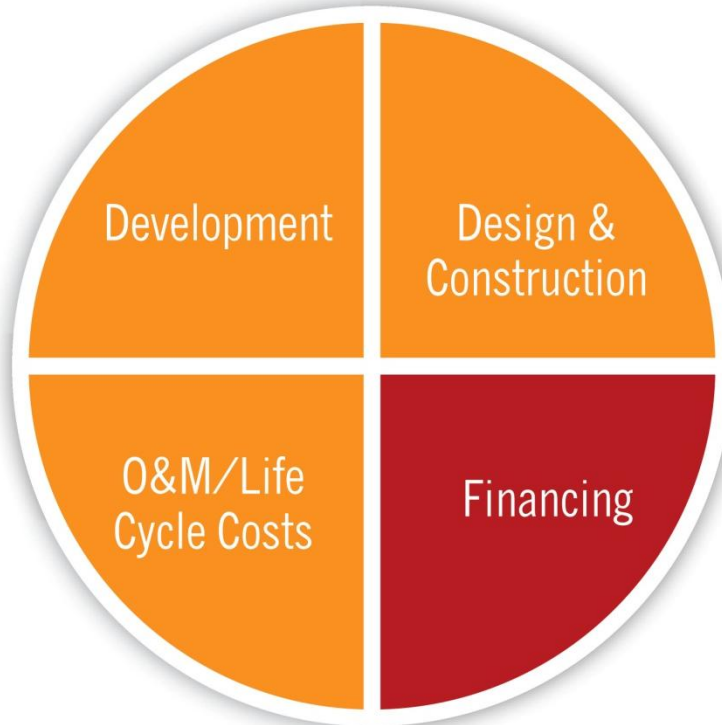
Turnkey Solution:

Integrated TDB contractually aligned and accountable for schedule and cost. O&M included and at risk for major capital repairs for 15 years.



UCSF Sandler Neurosciences Center

San Francisco, California



Governor George Deukmejian Courthouse

Long Beach, California



Project Details

- First Performance Guaranteed Facility in the United States
- \$490M DBFOM project
 - 31 courtrooms, 161 holding cells, jury rooms, 2nd party lease space
 - 535,000 SF
 - 35-year term



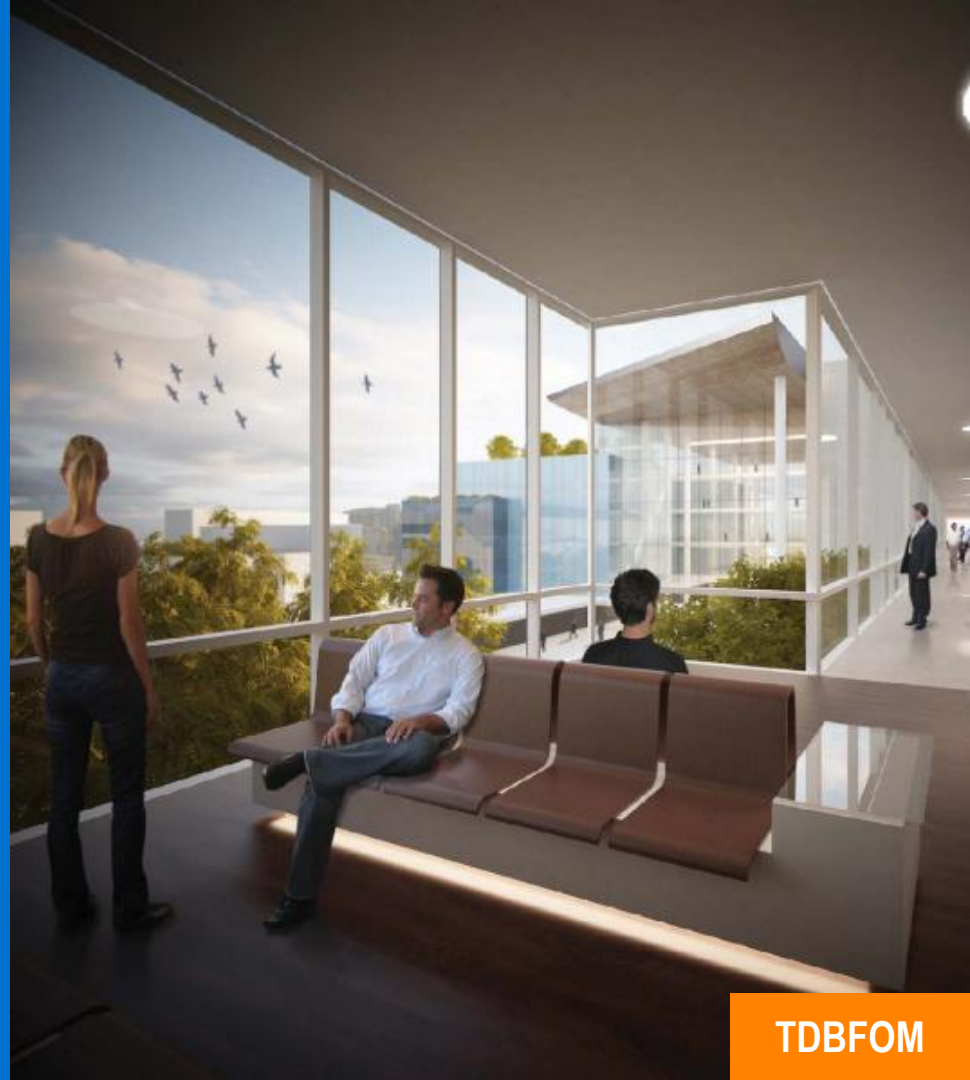
Motivator & Solution

Motivator:

Long-term performance of facility with identified cost structure.

Turnkey Solution:

PBI model provided a consortium with a resume of success in applicable fields of building design, construction, development, and long-term operations.



Governor George Deukmejian Courthouse

Long Beach, California



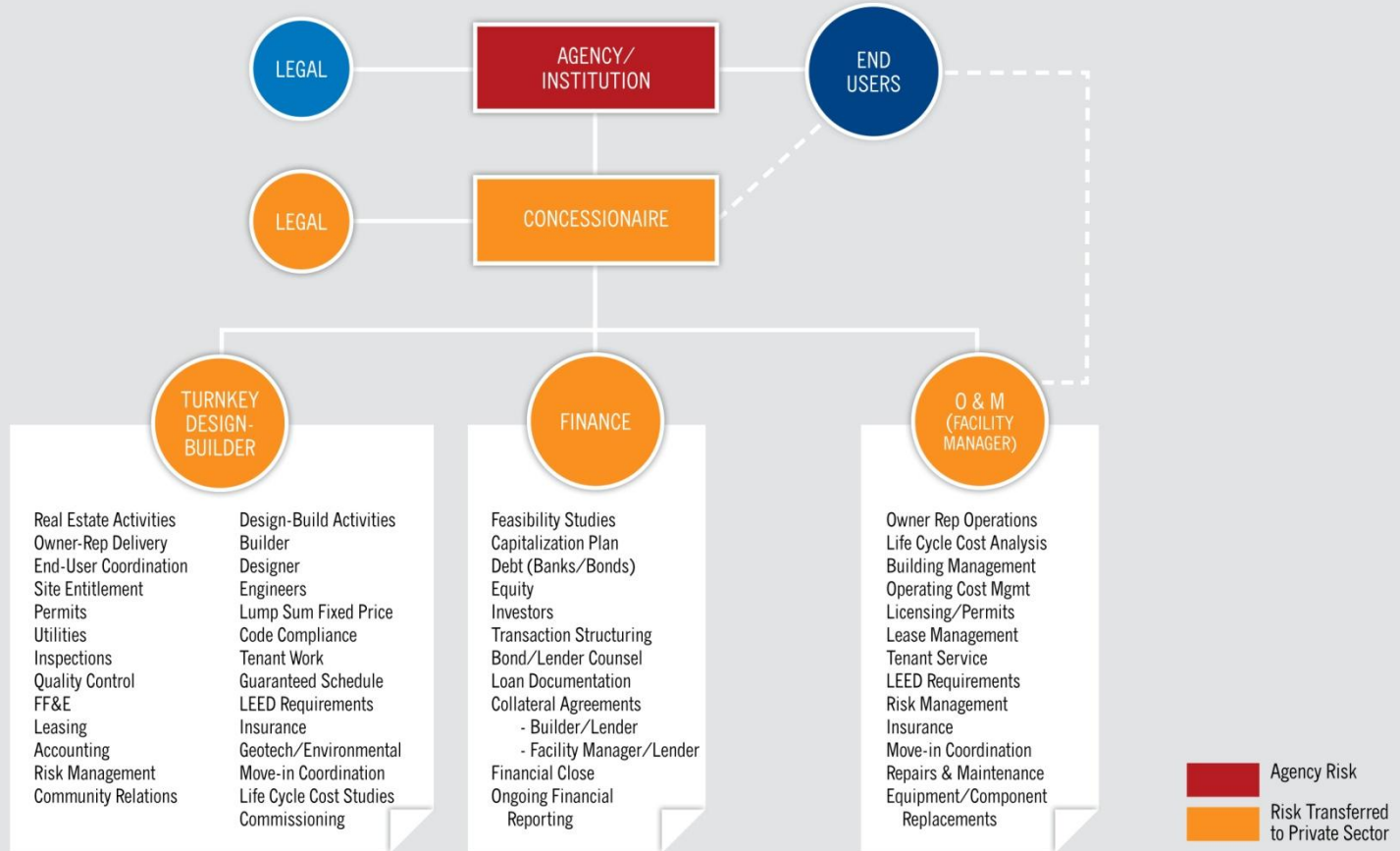
AGENCY RISK



PRIVATE RISK



Long Beach Court Building PBI: (TDBFOM)



PGF = Unavailability Deductions

Service Fee: Fixed Capital Charge + Operating Charge (CPI Indexed) – Availability Deduction *Example: One courtroom detention elevator is unavailable for one full day*

Functional Unit	Linked Functional Unit	Deduction Value	# of Units	Sessions Unavailable	Total Deduction
Trial Courtrooms	✓	\$384	8	2	\$6,144
Attorney Client Rooms	✓	\$96	16	2	\$3,072
Holding Cells between Courtrooms	✓	\$96	28	2	\$5,376
Interview Room @ Courtroom	✓	\$96	8	2	\$1,536
Detention Elevator	✓	\$5000	1		\$5,000

Total Unavailability Deduction

\$21,128

PGF Influence on Design – More Elevators



PGF Influence on Design – LED Fixtures



PGF Influence on Design



Future of PGF in the U.S. ?

Motivator #1: Urgency & Need

AMERICA'S INFRASTRUCTURE G.P.A.

Each category was evaluated on the basis of capacity, condition, funding, future need, operation and maintenance, public safety and resilience.

METHODOLOGY >

AVIATION	D	PORTS	C
BRIDGES	C ⁺	PUBLIC PARKS AND RECREATION	C ⁻
DAMS	D	RAIL	C ⁺
DRINKING WATER	D	ROADS	D
ENERGY	D ⁺	SCHOOLS	D
HAZARDOUS WASTE	D	SOLID WASTE	B ⁻
INLAND WATERWAYS	D ⁻	TRANSIT	D
LEVEES	D ⁻	WASTEWATER	D

D⁺

A = Exceptional
B = Good
C = Mediocre
D = Poor
F = Failing

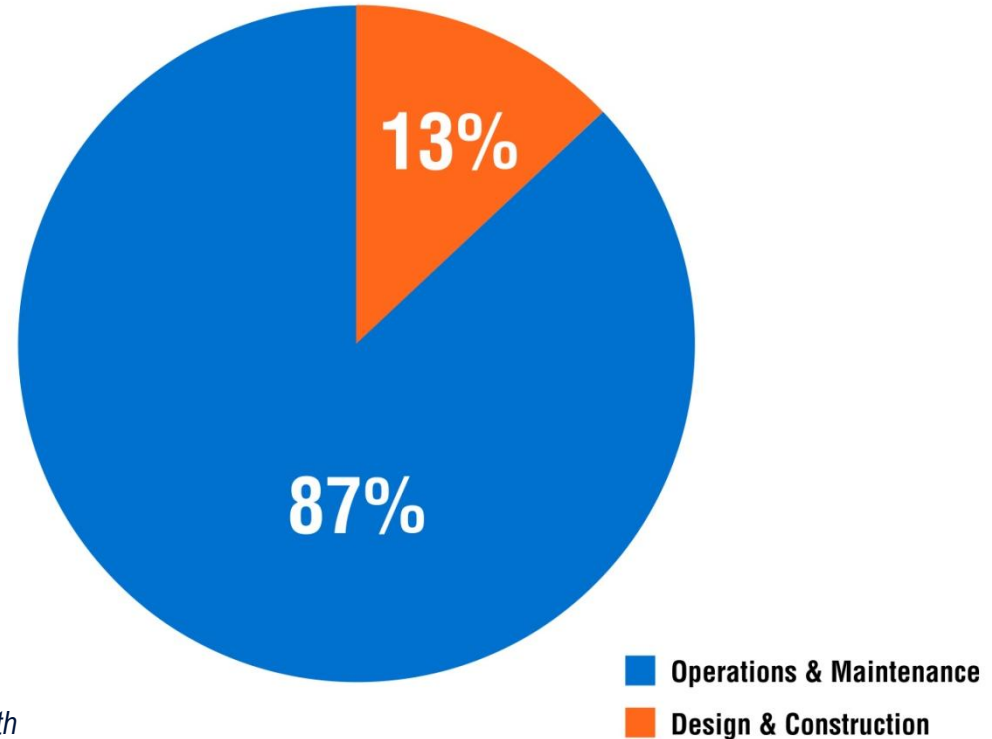
ESTIMATED INVESTMENT
NEEDED BY 2020:

\$**3.6**
TRILLION

LEARN MORE >

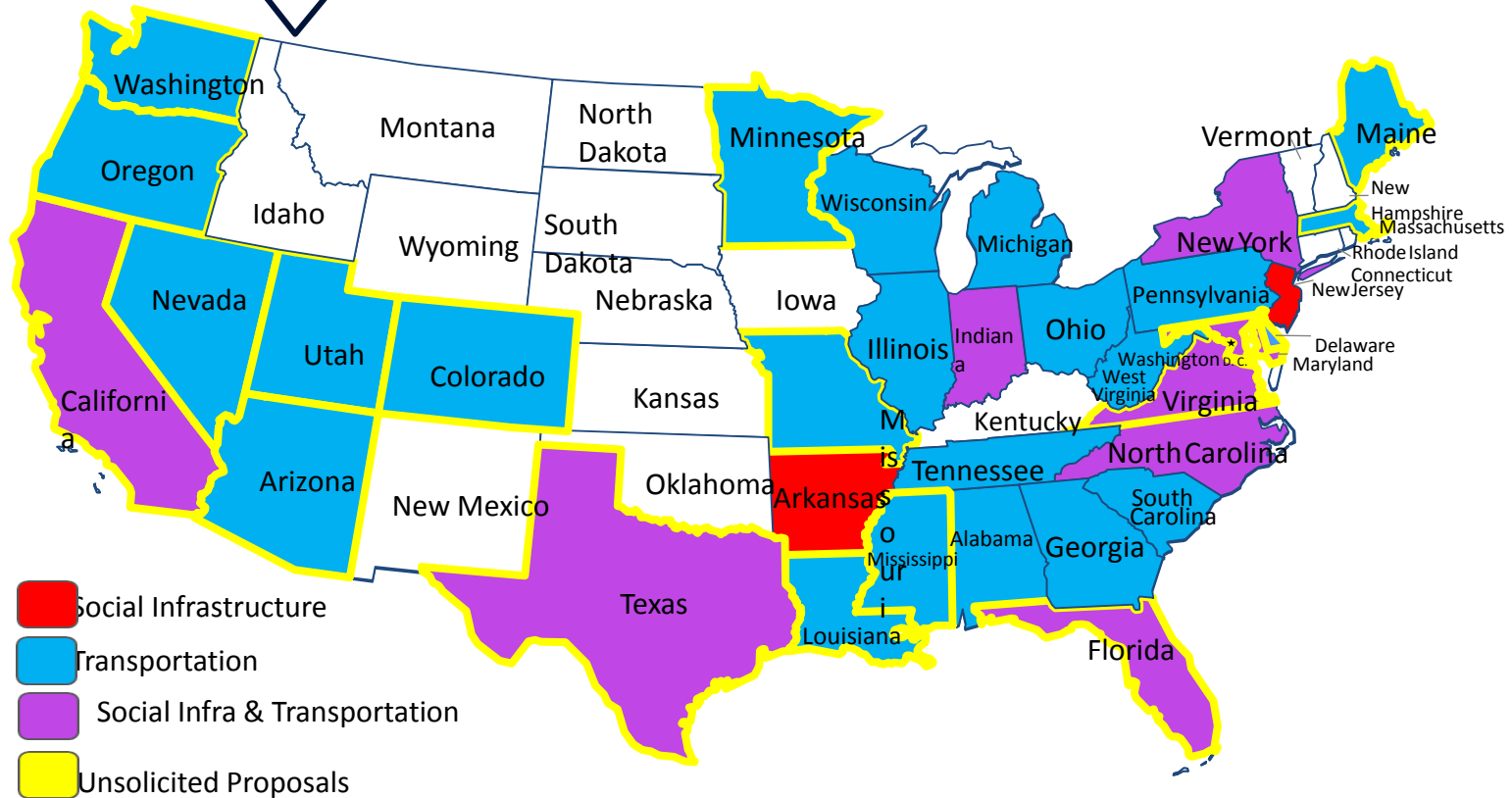
Motivator #2: It makes sense

40 Year Healthcare Facility
Cost of Operations &
Maintenance



*From July 2010 Healthcare BIM Consortium, Consisting of
Department of Defense Military Health System (DoD MHS),
Department of Veterans Affairs, Kaiser Permanente, and Sutter Health*

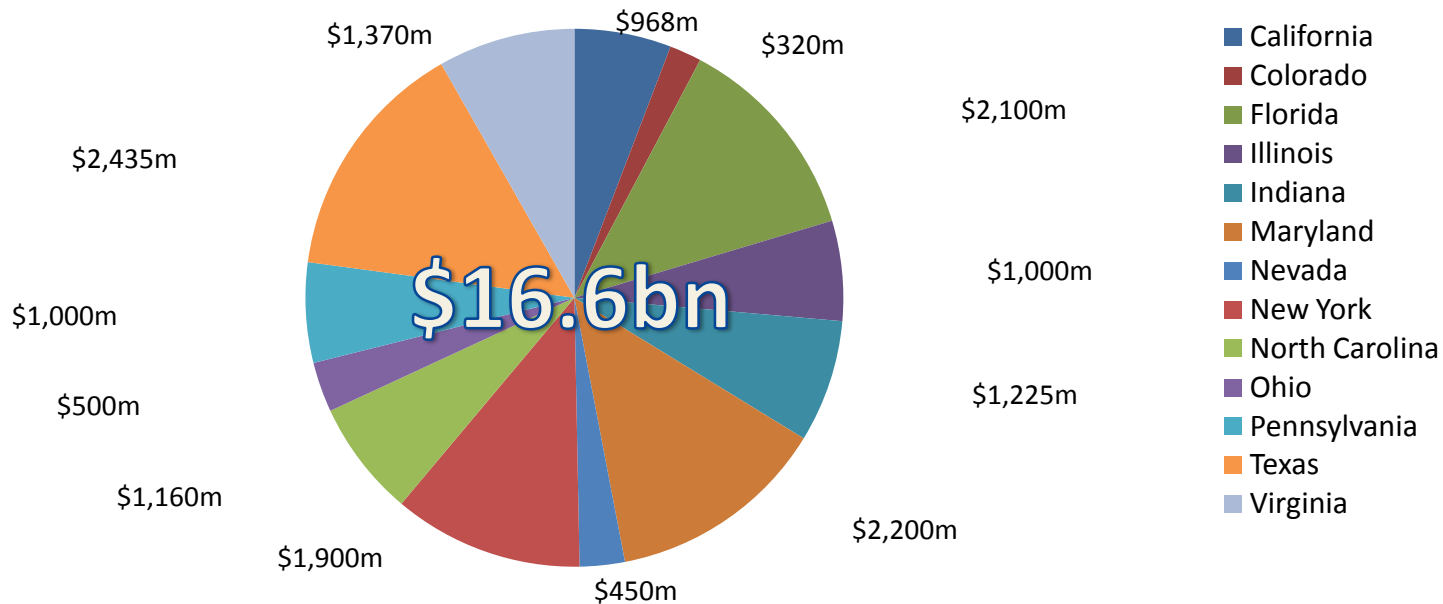
States with P3 legislation



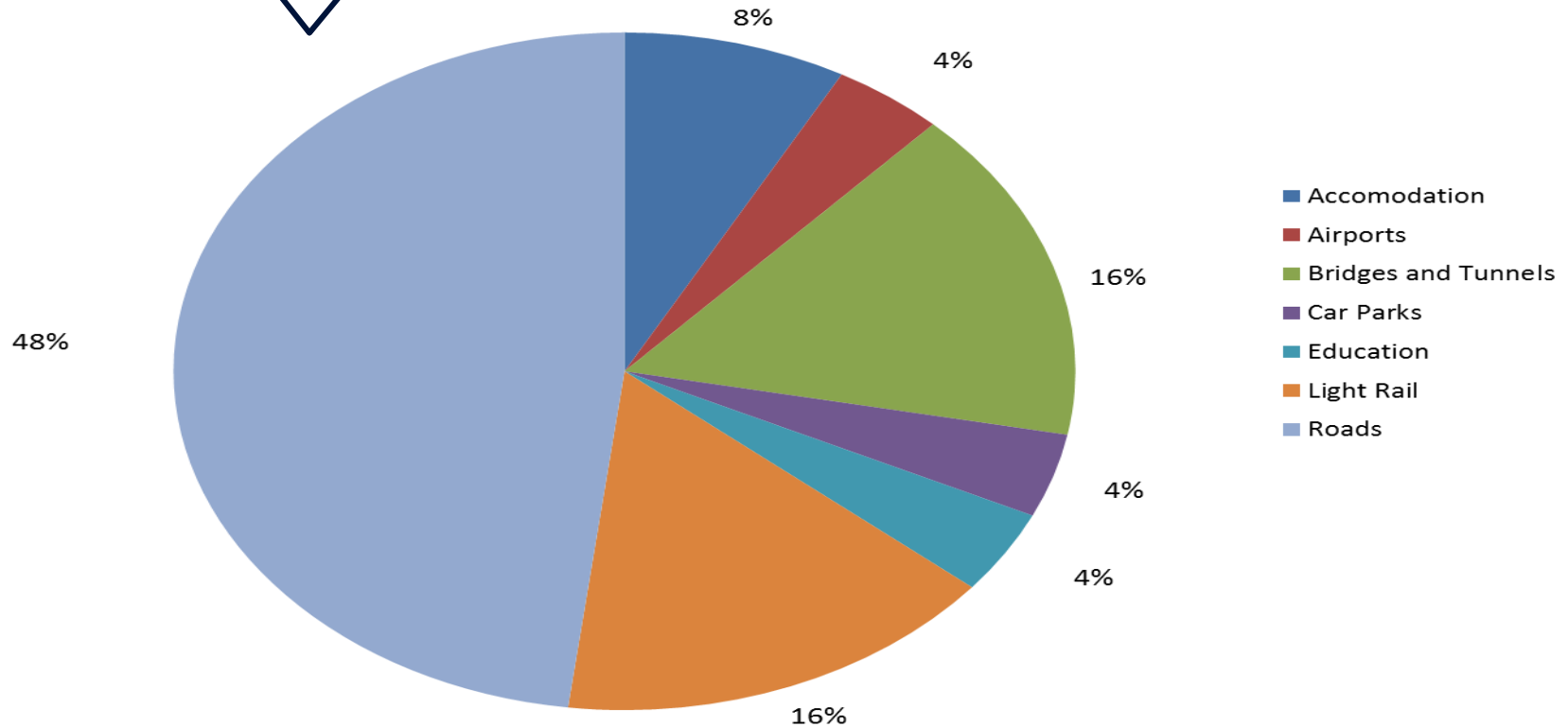
Overview of US P3 market

- **100+ different infrastructure markets**
- Huge variation in the development of these very diverse infrastructure markets which are currently underperformed their enormous potential
- Recent legislation has helped facilitate a steady growth of projects.
 - *More than 10 separate authorities are procuring projects. For those projects already in procurement, getting to financial close in a timely and cost efficient manner is the challenge.*
 - *Half of the 25 P3 projects reaching close since 2008 in the US were at least partially funded by PABs, all of which were fully or oversubscribed.*
- **2014 is shaping up to look like the best year ever in the US**
 - *Over 100 Projects in some stage of procurement*

US P3 Deals in Active Procurement by State



US P3 Pre-Launch Projects by Sector



US P3 Market Challenges

- PPP terminology is used to describe numerous structures
- A misconception that P3's a source of funding
- Low cost tax exempt financing for state and local governments
- No appreciation of value of money
- OMB "scoring" rules
- Bureaucracy, politics or lack of understanding of the expertise required
- Few Centers of Excellence