

# 2019 Project Delivery Symposium

## Part 2 Project Delivery Strategy



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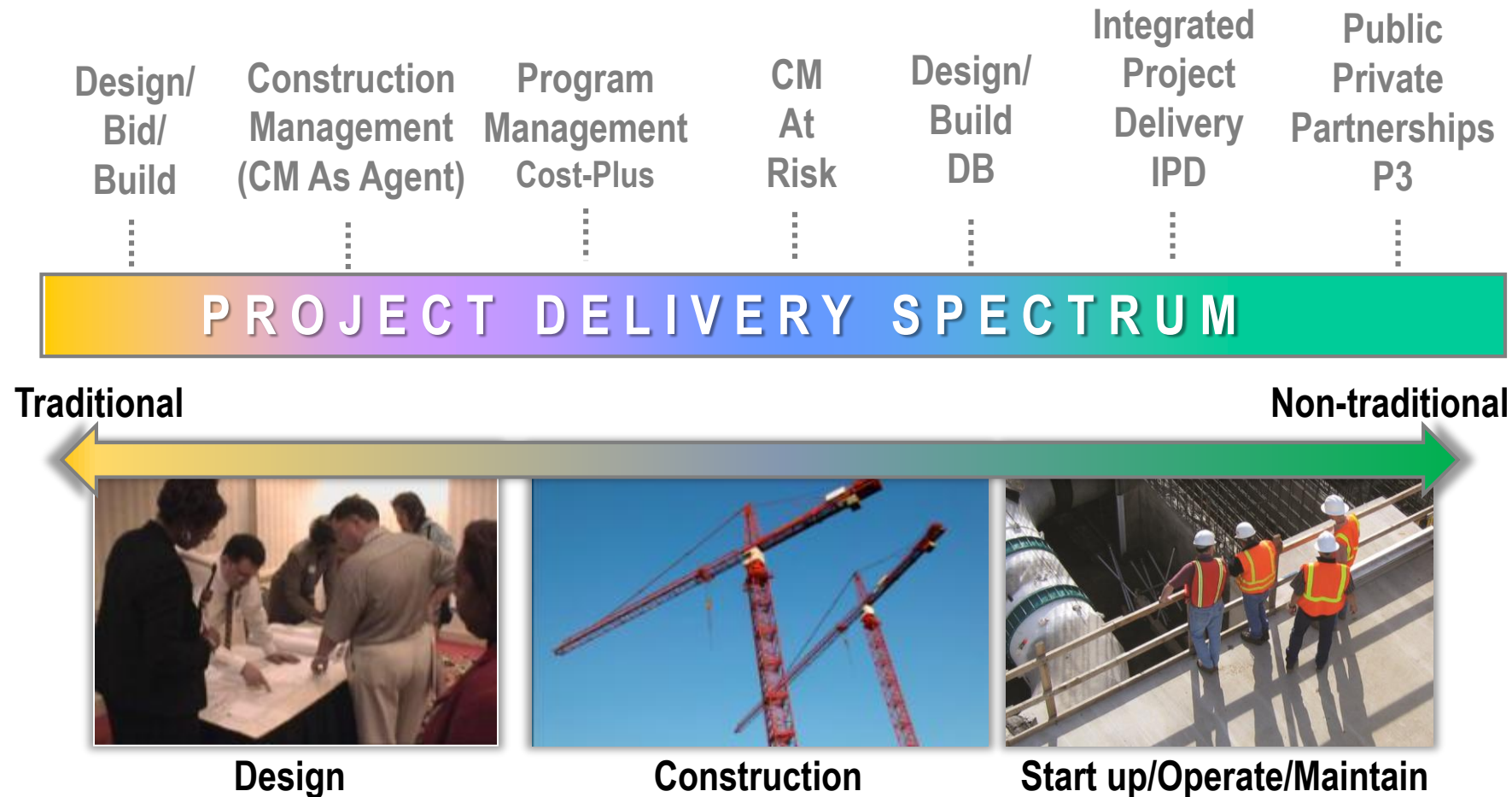
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# **From Design-Bid-Build, GC/CM (GMP), IPD, to P3 and a Contrastive Analysis of IPD and P3 as Opposed to Traditional Project Approaches**

**By: Timothy F. Hegarty, Esq.**

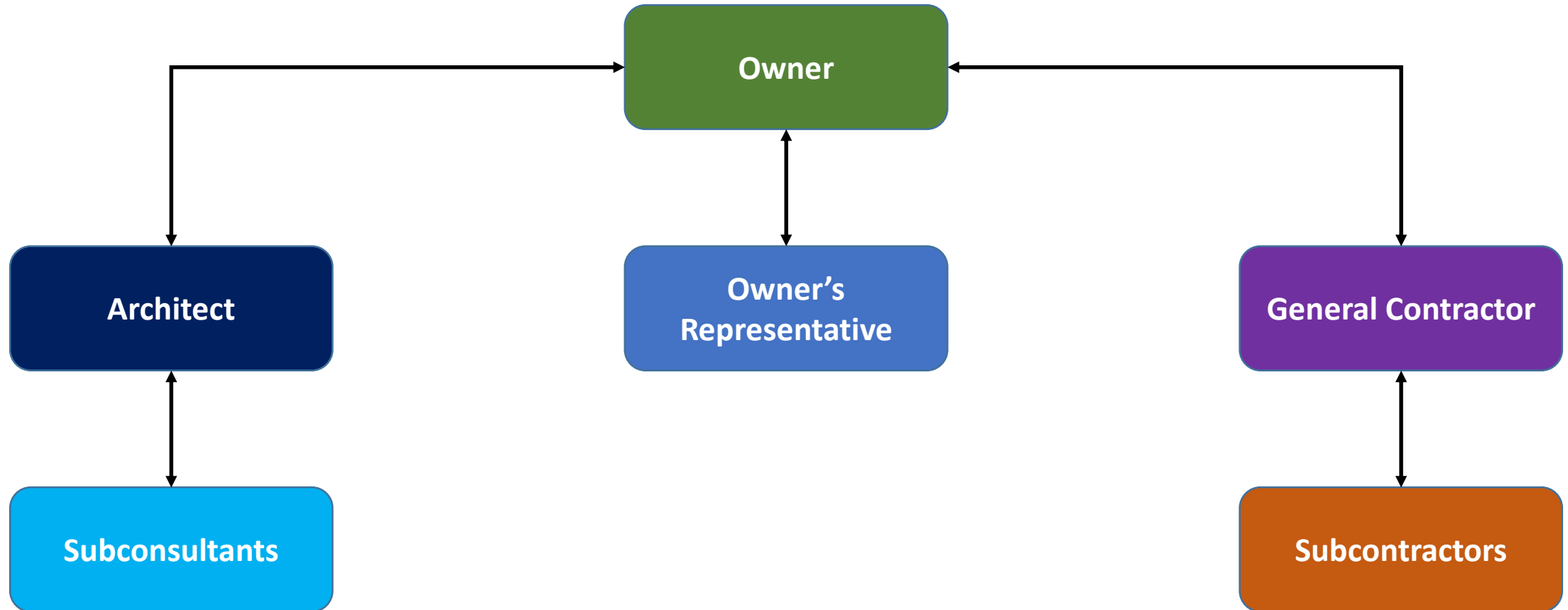
# Industry trends are forcing owners to think beyond traditional delivery



# TRADITIONAL APPROACHES

Delivery Method: Design-Bid-Build with Owner's Representative

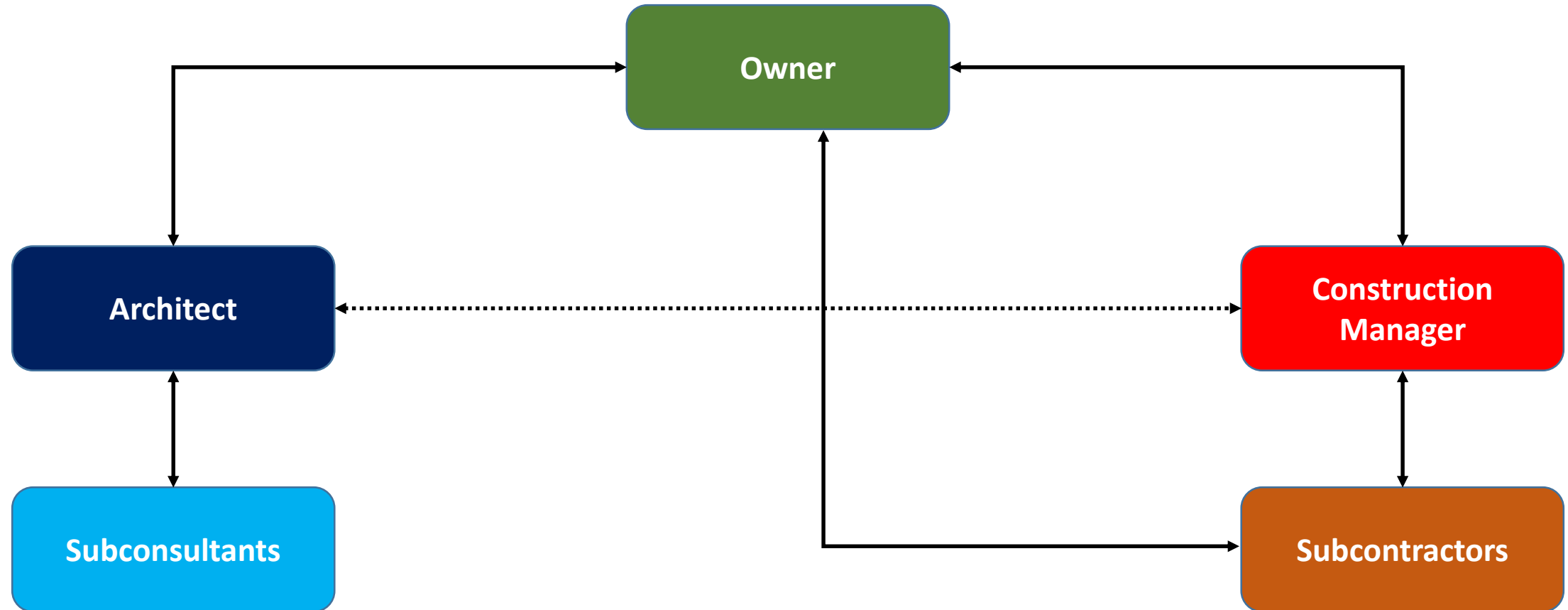
Contractual Privity: Two Prime Contracts



# Defining and Typical Characteristics of Design- Bid - Build

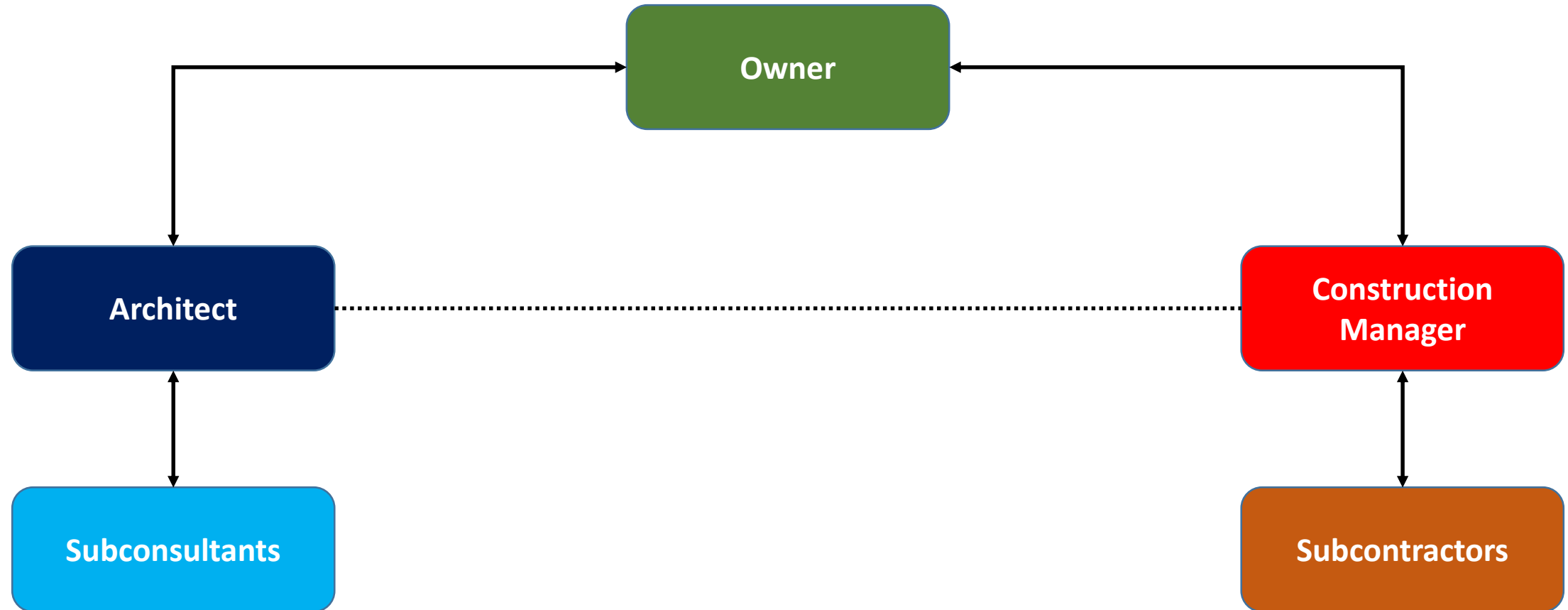
- Three prime players — owner, designer, contractor
- Two separate contracts — owner-designer, owner-contractor
- Final contractor selection based on Low Bid or Best Value measured by Total Cost
- Three phases — design, bid, build; these phases may be linear or overlapping if a project is fast-tracked or bid out to multiple prime contractors.
- Well-established and broadly documented roles
- Construction-related decisions required to be made in advance of actual execution
- Contract documents that are typically completed in a single package before construction begins
- Construction planning based on completed documents
- Complete specifications that produce clear quality standards
- Configuration and details of finished product agreed to by all parties before construction begins

Delivery Method: CM as Agent  
Contractual Privity: Multiple Prime Contracts



Delivery Method: CM-GMP / Constructor

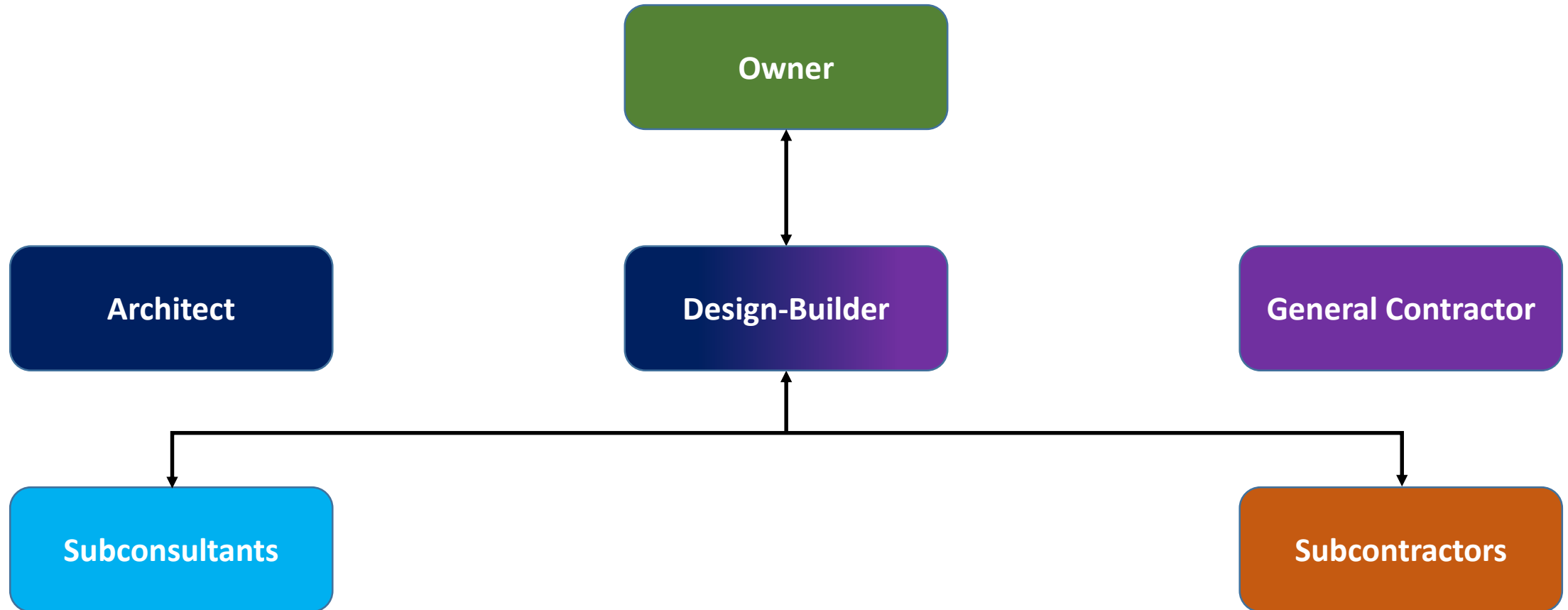
Contractual Privity: Two Prime Contracts with Preconstruction Phase



# Defining and Typical Characteristics of CM-AT-RISK WITH GMP

- Three prime players — owner, architect, CM at-Risk
- Two separate contracts — owner to architect, owner to CM at-Risk
- Final provider selection based on Qualifications Based Selection or Best Value measured by Fees
- Retention of the CM at-Risk during the design phase
- Clear quality standards produced by prescriptive specifications
- Establishment of a guaranteed maximum price
- GMP includes a contingency fund for use by CM to cover negligence/breach of contract

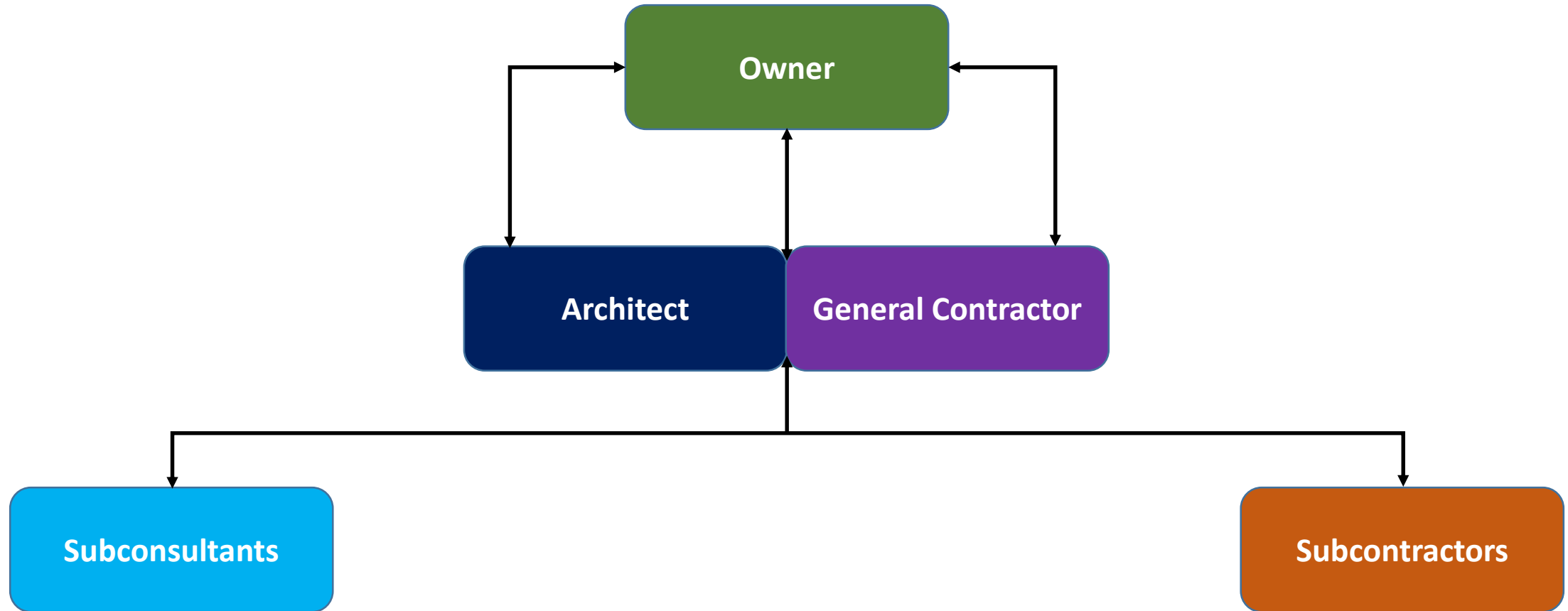
Delivery Method: Design Build  
Contractual Privity: One Prime Contract



# Defining and Typical Characteristics of Design-Build

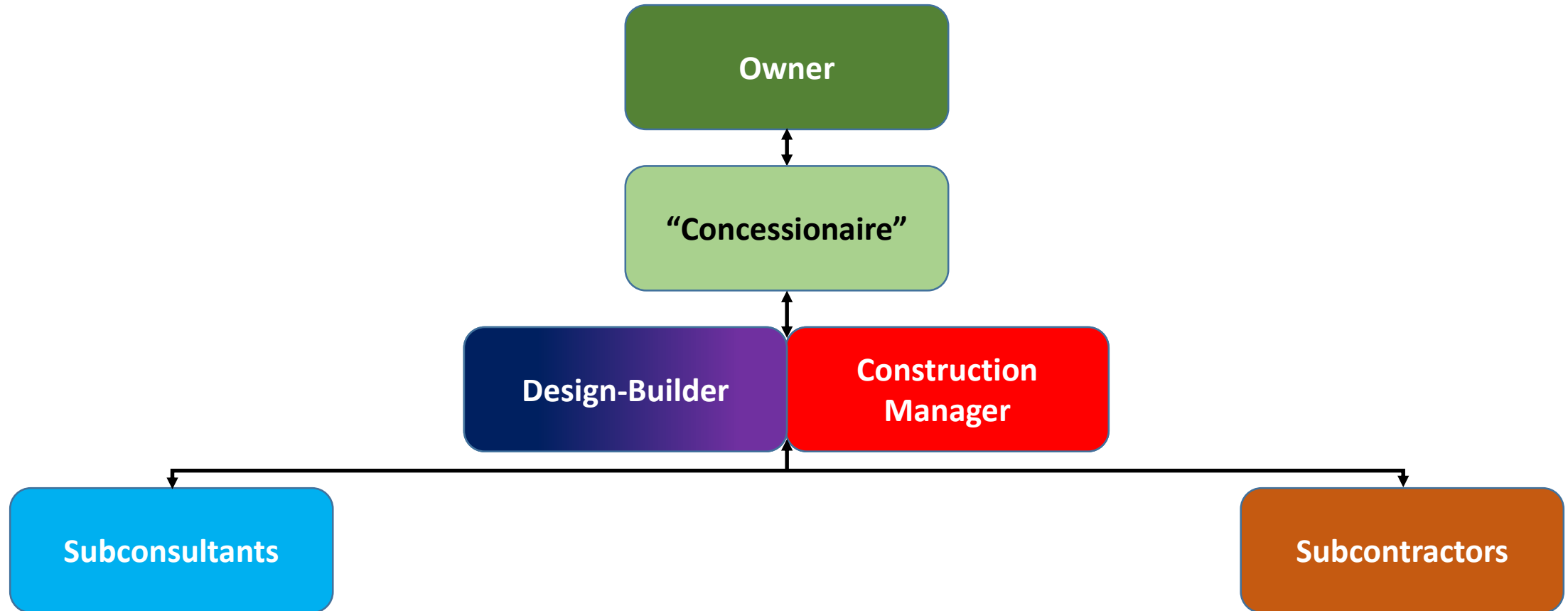
- Two prime players — owner, design-build entity
- One contract — owner to design-build entity
- Final design-builder selection may be based on any of the following: Direct Negotiation, Qualifications Based Selection, Best Value measured either by Fees or Total Project Cost, or Low Bid.
- Project-by-project basis for establishing and documenting roles
- Continuous execution of design and construction
- Overlapping phases — design and build
- Some construction-related decisions after the start of the project
- Overall project planning and scheduling by the design-build entity prior to mobilization (made possible by the single point of responsibility)

Delivery Method: Integrated Project Delivery  
Contractual Privity: One Tri-Party Prime Contract



Delivery Method: P3

Contractual Privity: One Prime Contract with a Twist

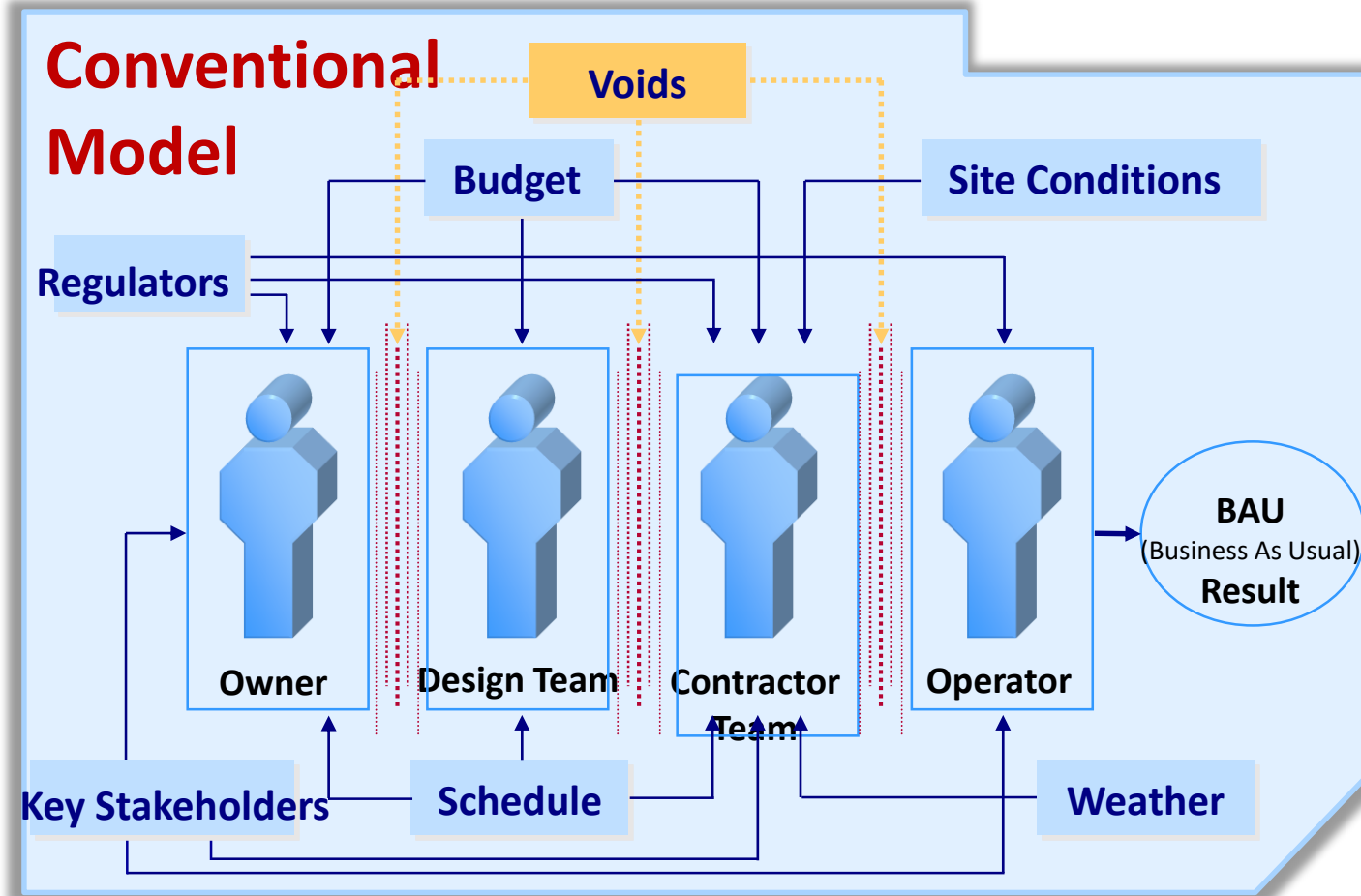


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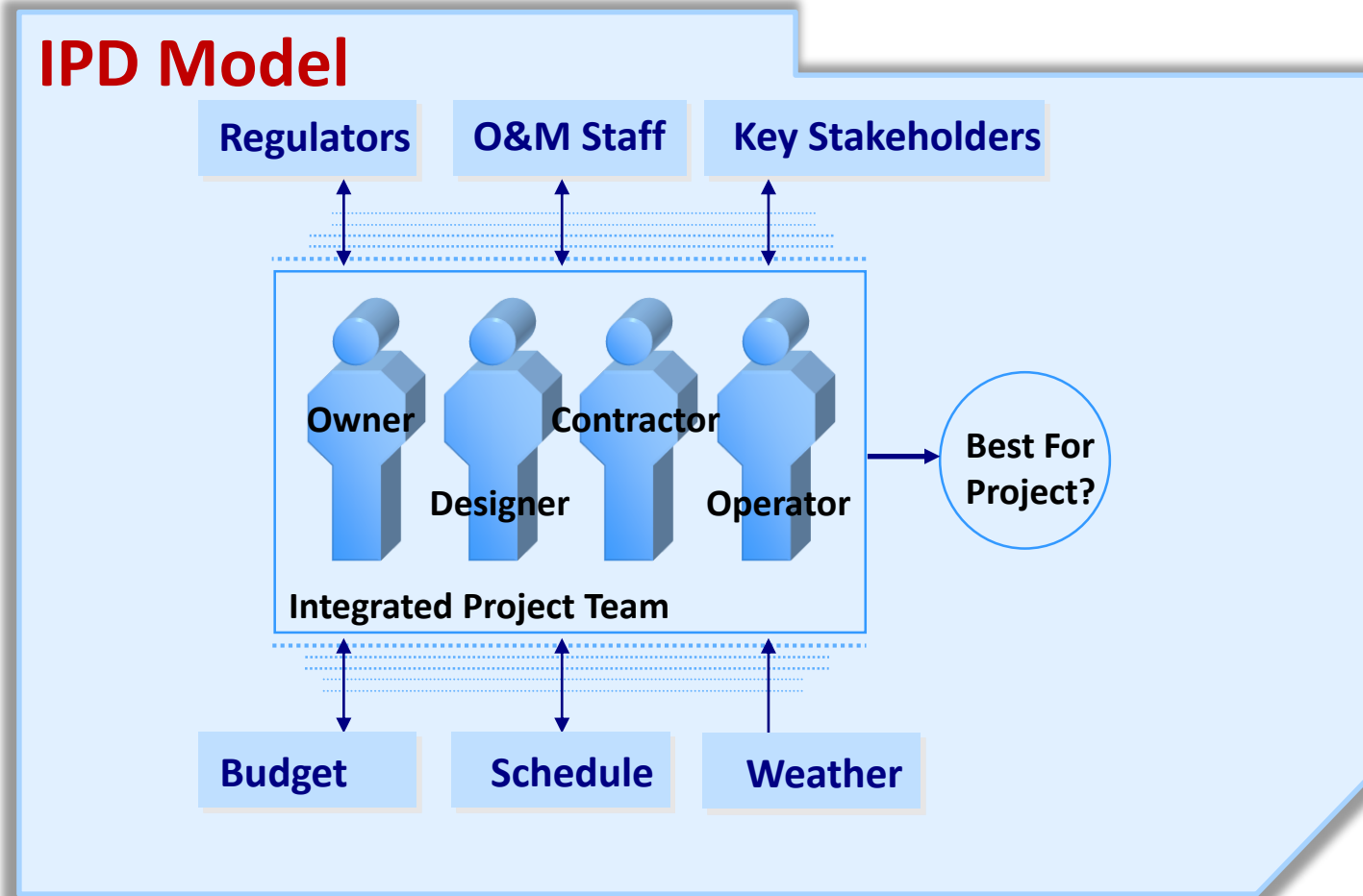
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# Conventional model includes potential engagement voids driving inefficiency



# IPD model provides an integrated platform to enhance efficiencies



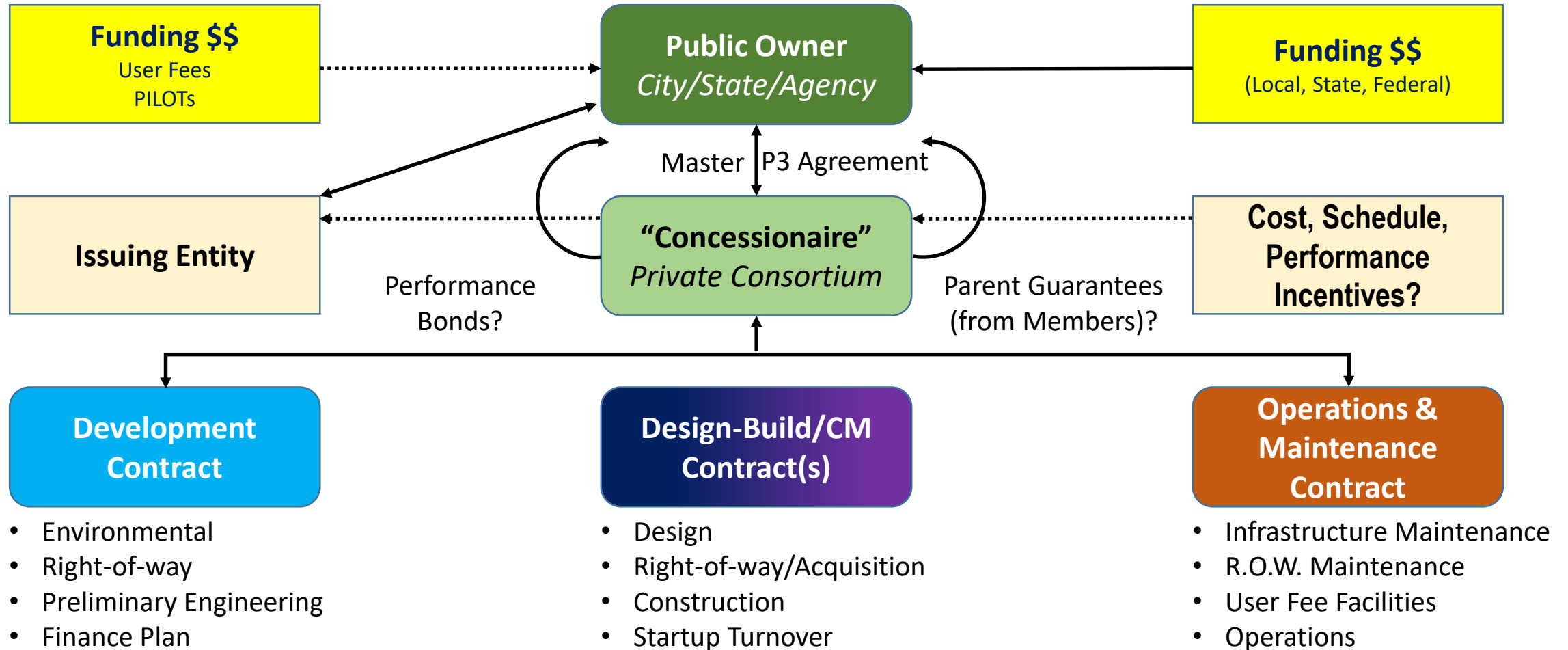
# Defining and Typical Characteristics of Integrated Project Delivery (“IPD”)

- Tri-Party Agreement between Owner, Architect and Contractor
- Most often the selection process is Qualifications-based (“QBS”)
- Behavioral alignment among all participants is key to the selection process
- Compensation is based on actual costs and overhead with profit/loos determined by a shared pain/share gain mechanism
- Waive Typical Negligence/Breach of Contract Type Claims
- Open Book Accounting

# Public Private Partnerships (or P3)

- Private investment in construction is essentially code for public-private partnerships (“P3s”), which can cover a broad range of innovative contracting, project delivery and financing arrangements, so a singular definition is difficult to establish.
- P3 is a type of project delivery method that involves an agreement between a public owner and a private sector group (often a consortium of entities that form a special purpose vehicle with particular skills and assets, financial or otherwise) for the design, construction, financing, and often long-term operations and maintenance of one or more infrastructure assets by the private sector partner over a specified term.

# Public Private Partnerships (or P3)



# Pros and Cons of PPPs

## Positive Side:

- New tool from financing perspective to kickstart projects
- Bring interested parties with perhaps innovative ideas
- Potentially expedited construction schedule
- Stipends/Reimbursement of short list candidates should encourage participation
- 30 year commitment to operate may encourage quality of design and construction

## Down Side:

- No Free Lunch! Not a funding source – it is financing, and the private side is here to make a profit
- Prevailing Wage/PLAs impact
- Small market of participants – may lead to little competition
- Risk of concessionaire failure during and after construction – payment/performance bond/maintenance bond

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# IPD Selection and Leadership Buy-in

- Time was a key factor!
- Use of target value design for fast track approval of the project.

# Challenges and Successes

IPD	WINS
<ul style="list-style-type: none"><li>- SHARED EXCAVATOR.</li><li>- ONE LABOR FORCE FOR SLEEVE INSTALL.</li><li>- SINGLE SOURCE LAYOUT, VS INDIVIDUAL TRADES (MEP and Carpentry)</li><li>- Single Source Insulator</li><li>- Co-locate Key Trades - Shared Rescues</li><li>- Over 80% pull planning success rate</li><li>- Pre-fabrication of Bathroom Pods</li></ul>	<ul style="list-style-type: none"><li>- SHARED EQUIP. FOR MATERIALS HANDLING.</li><li>- SINGLE SOURCE FIRESTOPPING.</li><li>- COORDINATE ALL OVERHEAD WORK TO WHAT IS BEST FOR THE PROJECT, NOT AN INDIVIDUAL TRADE, BY COORDINATED ACCESS POINTS THROUGH WALLS ALLOWING MORE TO BE INSTALLED WITHOUT IMPACTING MEP OVERHEAD.</li><li>- IMPLEMENTATION OF PERMANENT STAIR INSTALLATION EARLY, VS. TEMP. STAIRS.</li><li>- Improved Construction Sequence / Flow maximizing production with increased quality</li><li>- One Safety Team - Versus safety silos</li><li>- One clean-up Team - Maximize efficiency eliminate BC.</li></ul>

- “Heads in Beds in 27 months from construction start”
- Coordination of typical owner activities (medical equipment, IT)



# Last Planner/Co-location



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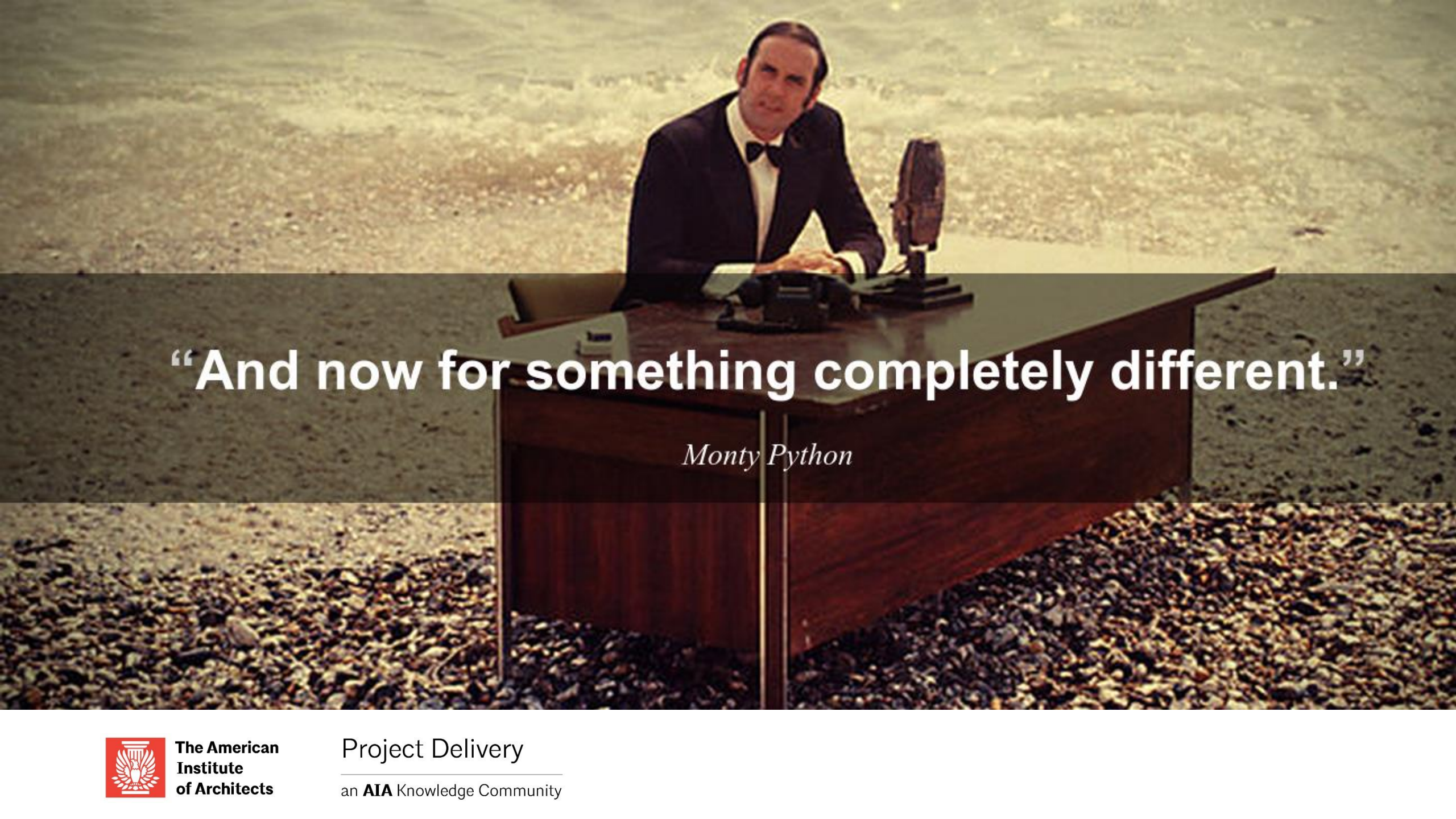


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A man in a tuxedo is seated at a wooden desk on a beach. On the desk is a typewriter and a vintage microphone. The background shows the ocean waves crashing onto the shore.

“And now for something completely different.”

*Monty Python*



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An aerial night view of a city skyline, likely New York City, with numerous skyscrapers illuminated. A white network of lines and dots is overlaid on the image, connecting various points across the city. Some of the dots are labeled with numbers: 631.87, 401.04, 239.94, 237.84, 231.04, 331.14, 402.54, and 231.04.

# High-volume Owners Driving Delivery Innovation



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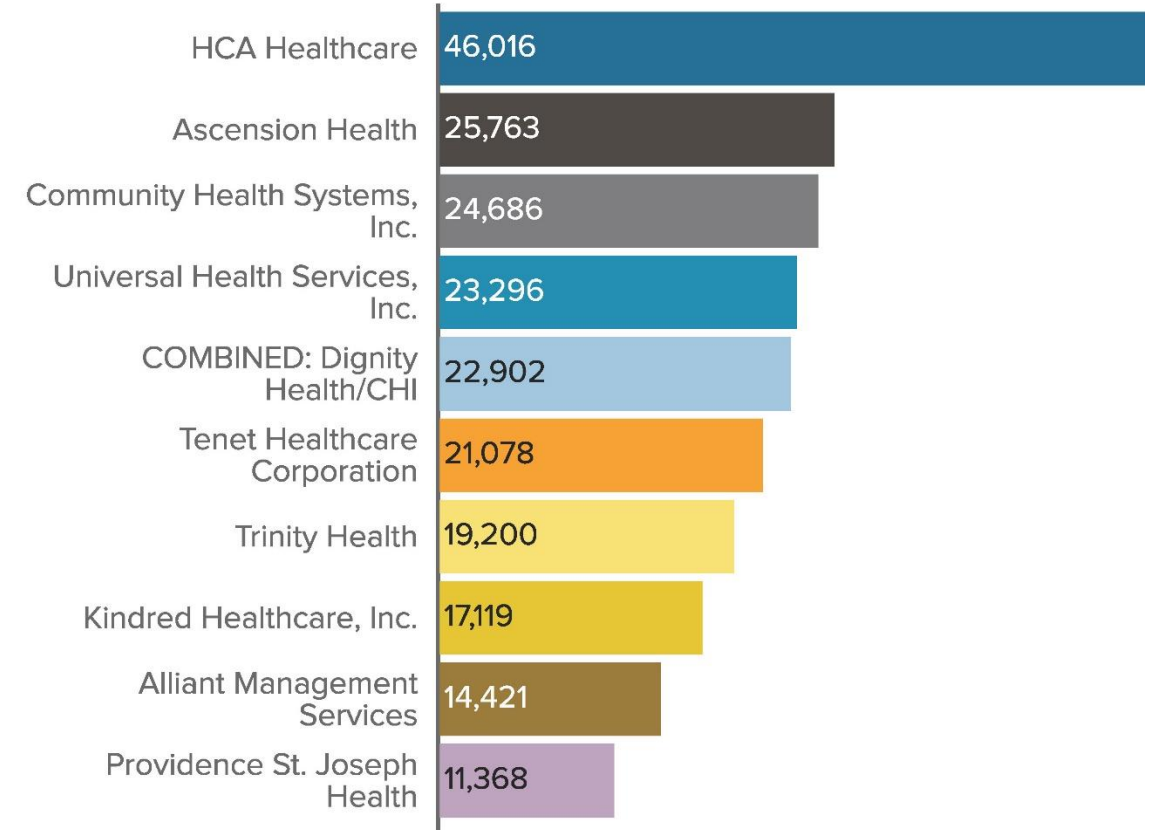
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# Top 10 Health Systems in the U.S. by Licensed Beds

By the numbers

Health System Name	# of Facilities	Licensed Beds
HCA Healthcare	1,025	46,016
Ascension Health	1,272	25,763
Community Health Systems, Inc.	937	24,686
Universal Health Services, Inc.	343	23,296
COMBINED: Dignity Health/CHI	1,039	22,902
Tenet Healthcare Corporation	420	21,078
Trinity Health	665	19,200
Kindred Healthcare, Inc.	588	17,119
Alliant Management Services	206	14,421
Providence St. Joseph Health	840	11,368





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Source: BLOX BUILT; BLOX.HCA; YouTube; Published 30 Jan 2017;; [retrieved](#) 29 Aug 2018

# Implications for Architects

1. Significantly shift your value proposition to leapfrog client needs.
2. Your “Problem Seeking” scope must include your client’s business.
3. Know your client’s business better than they do.
4. Aggressive clients will commandeer the process.
5. To remain relevant, you must lead your clients.
6. Consider well-designed, mass produced products.
7. Consider multi-parallel process along the entire value stream.
8. Invest beyond the scope of individual projects.



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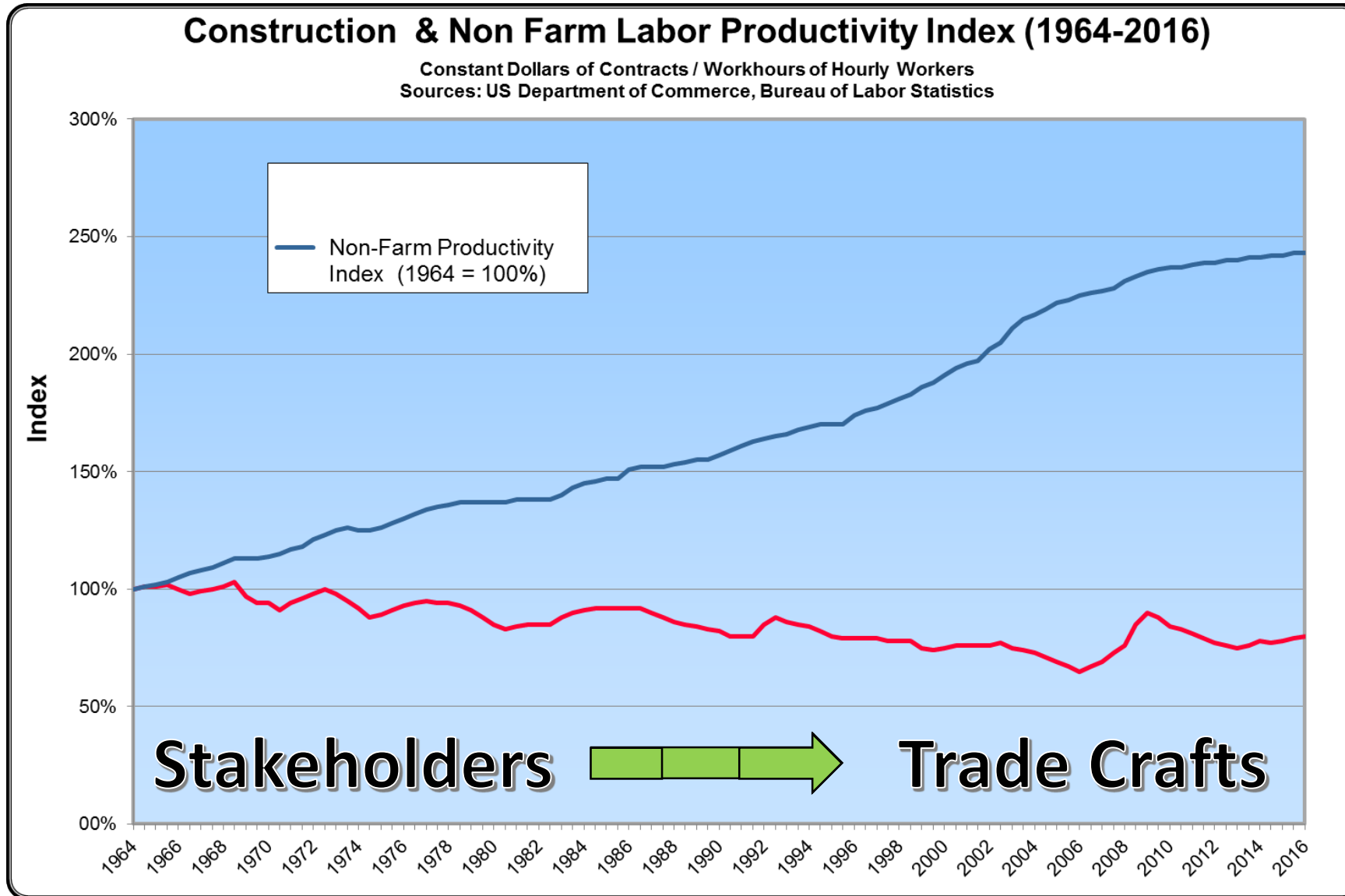
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# What Problem are we Fixing

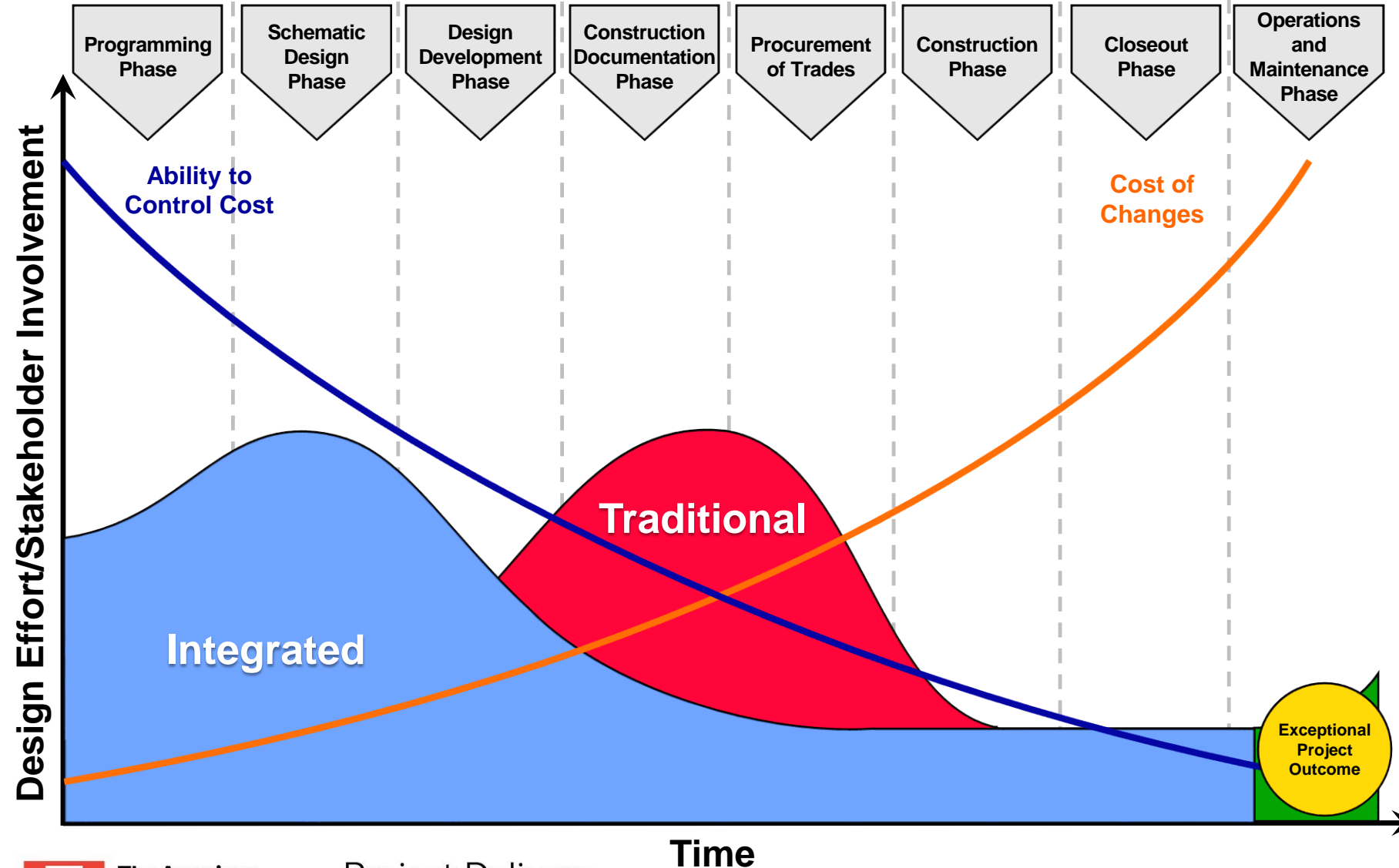


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# Integrated Project Delivery



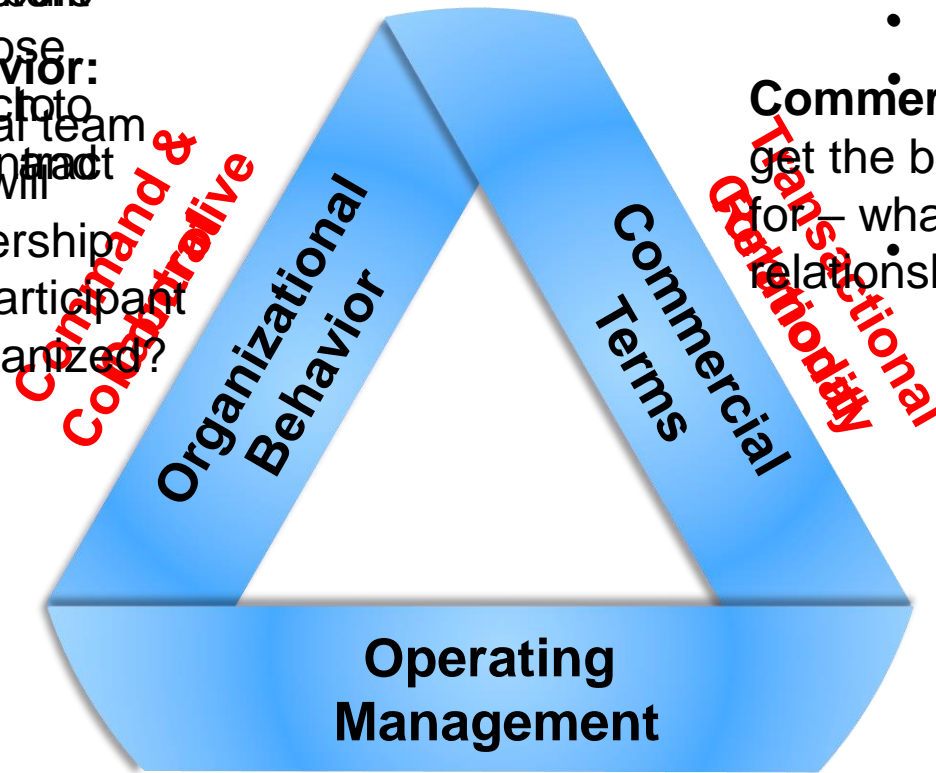
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# Domains of Project Delivery

- Project Alliance is built on a common purpose
- Organization Behavior: The project individual team members behavior will depend on the leadership style - How is the participant control structure organized?



- Terms of Bid in Scope and conditions are not considered prior to finalizing
- Qualifications are considered

- Operating Management:**  
Behavior will reflect the way the project is managed
- Project Management Plan
  - Fixed Fee based on low Bid
  - Target Value Budgeting



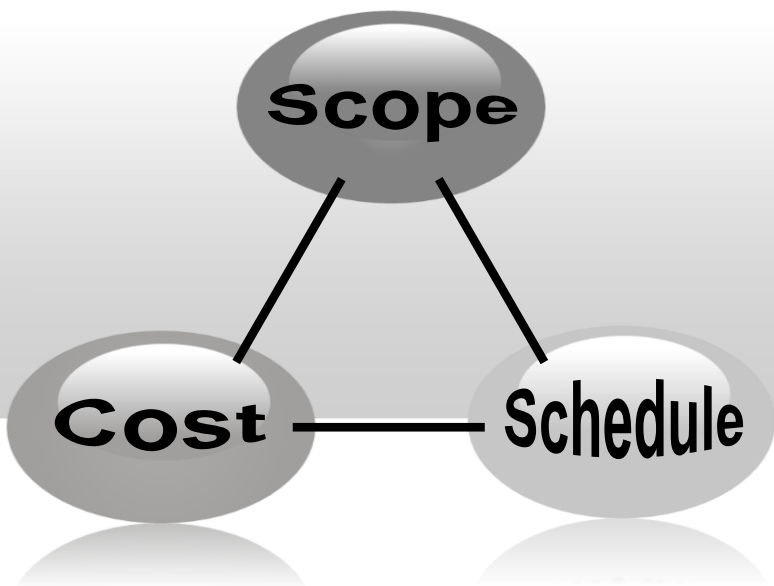
# Aligned Project Delivery

↔ Lines of Communication  
— Contractual Relationship

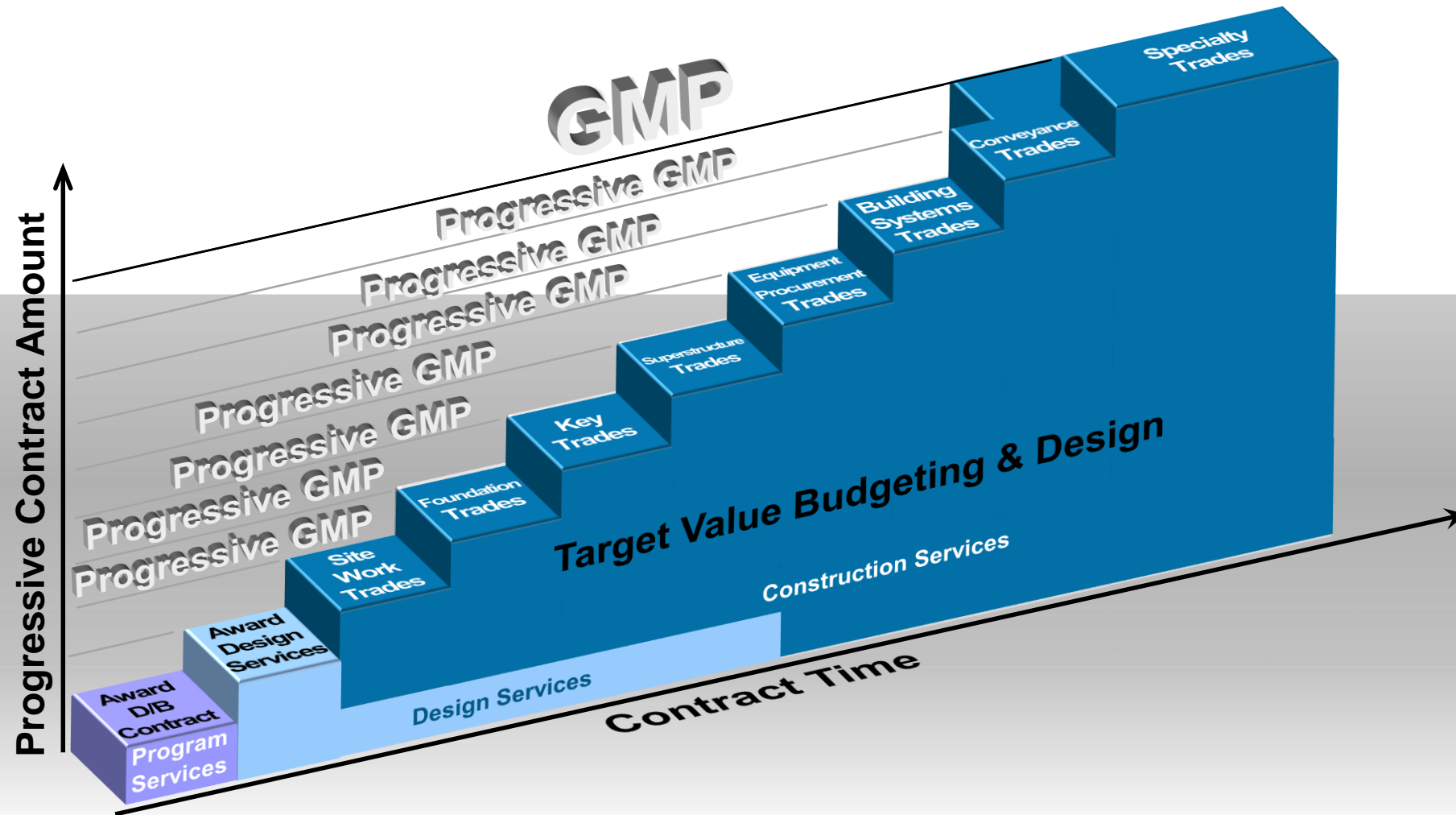
## The Project Team



## The Project



# Progressive Design Build



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