

26TH ANNUAL



26TH LCI CONGRESS
OCTOBER 22-25, 2024

IPD Agreements Explained

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SURFING THE WAVE OF LEAN DESIGN AND CONSTRUCTION

October 23, 2024

IPD Agreements Explained

Contract

The objectives will be based on how you gain sales by acquiring and keeping customers. A marketing strategy helps on making good messages with the right twist of marketing approaches in order to have a good outcome of your sales and marketing activities. It is a process to allow an organization to focus resources on the greatest opportunities to increase sales and achieve the company's target. Marketing strategy's goal is to increase sales and achieve advantage over other competitors. It includes short term and long term activities of marketing that has to do with the analysis of a company's situation and contribute to it's objectives. Putting your strategy into action is how your marketing plan should work. Marketing budgets will be set, at the same time it will also show you how you're going to work with your targets, it maybe through networking, advertising etc.

Having the perfect timing with your activities to fit your customers buying cycles will help you saving money and maximizing sales. The marketing plan should be innovative. It should have the details on how your sales are followed up and the activities your doing to develop your offers. Branding is defined as the process of coming up or making a unique name or design for a certain product having a good brand strategy allows you to have a major advantage in getting a large increase in your market competition. Your brand tells your customers what they can have or expect from the products and services you offer. Are you innovative or are you the experienced type? or do you offer a high-end, high-quality product, or a low-cost, high-value products? It's impossible to be both. You should consider on thinking what your customers need you to be. Your brand is their main foundation of your brand. All the promotional materials should be connected with your logo to communicate with your customers. Brand messages are delivered and planned based on the questions how, what, when, to whom and where your brand strategy is.

The strategy of branding you have should be consistent, because it leads to a strong brand equity. Branding is defined as the process of coming up or making a unique name or design for a certain product. The strategy of branding you have should be consistent, because it leads to a strong brand equity. The objectives will be based on how you gain sales by acquiring and keeping customers. A marketing strategy helps on making good messages with the right twist of marketing approaches in order to have a good outcome of your sales and marketing activities. It includes short term and long term activities of marketing that has to do with the analysis of a company's situation and contribute to it's objectives.

(A) It is a process to allow an organization to focus resources on the greatest opportunities to increase sales and achieve the company's target. Marketing strategy's goal is to increase sales and achieve advantage over other competitors. It includes short term and long term activities of marketing that has to do with the analysis of a company's situation and contribute to it's objectives.

(B) Marketing strategy's goal is to increase sales and achieve advantage over other competitors. It includes short term and long term activities of marketing that has to do with the analysis of a company's situation and contribute to it's objectives.

(C) The objectives will be based on how you gain sales by acquiring and keeping customers. A marketing strategy helps on making good messages with the right twist of marketing approaches in order to have a good outcome of your sales and marketing activities. It includes short term and long term activities of marketing that has to do with the analysis of a company's situation and contribute to it's objectives.

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(E) Putting your strategy into action is how your marketing plan should work. Marketing budgets will be set, at the same time it will also show you how you're going to work with your targets, it maybe through networking, advertising etc. Having the perfect timing with your activities to fit your customers buying cycles will help you saving money and maximizing sales. The marketing plan should be innovative. It should have the details on how your sales are followed up and the activities your doing to develop your offers.

(F) Improvement should be measured regularly and assessed in order for you to know what's beneficial and what is not. This will help you set new targets.

(G) Brand messages are delivered and planned based on the questions how, what, when, to whom and where your brand strategy is. Advertising, visual communication and distribution channels are parts of brand strategy.

Signature 1

OBJECTIVES

- IPD Vs. Traditional
- Comparing Delivery Models
- Types of IPD Contracts
- The IPD Team & Example
- Validation & Examples



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SIX TENETS OF LEAN CONSTRUCTION

- 1 Respect for People
- 2 Optimize the Whole
- 3 Generate Value
- 4 Eliminate Waste
- 5 Focus on Flow
- 6 Continuous Improvement



Lean Integrated Project Delivery

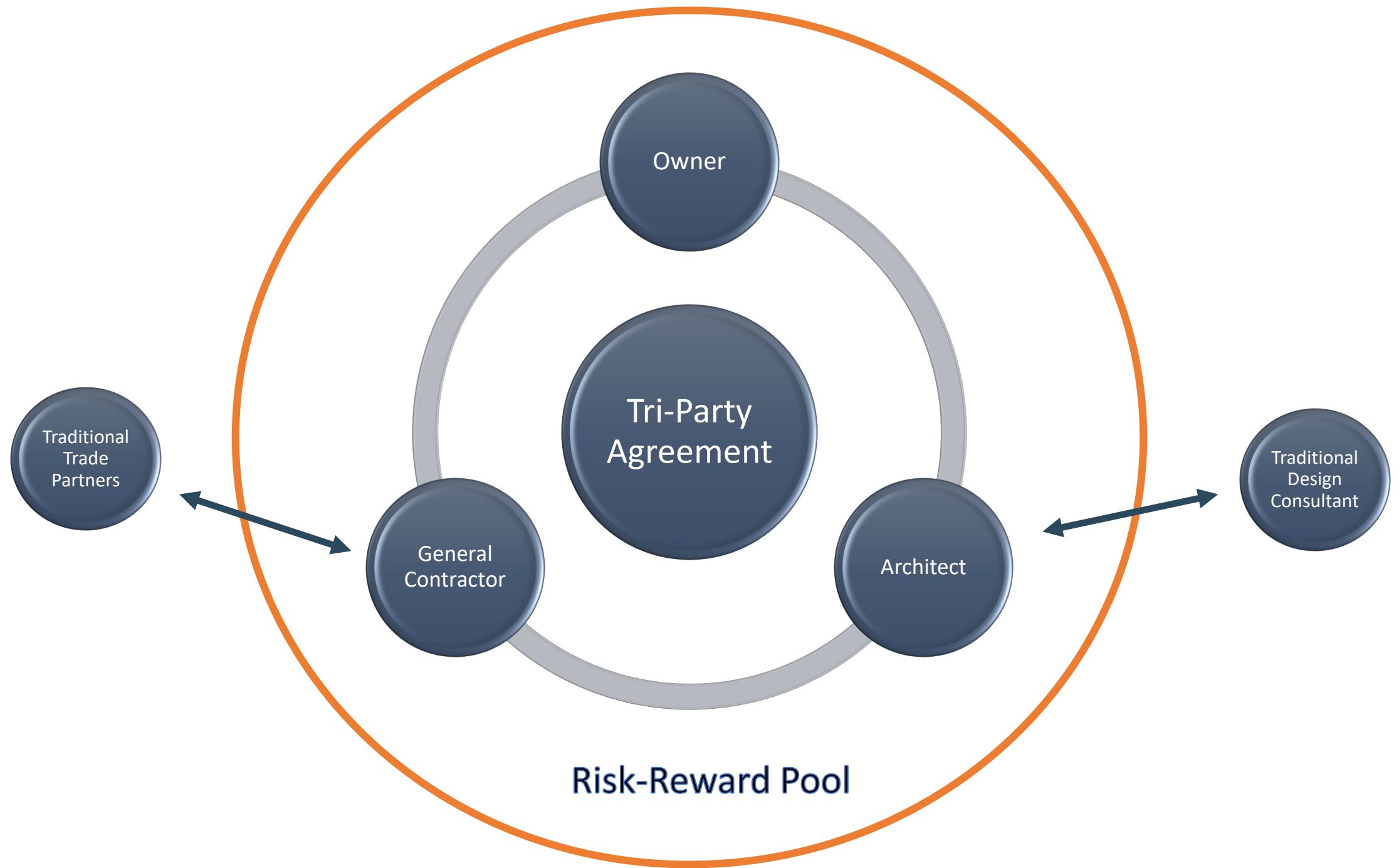
Traditional Project Delivery		Integrated Project Delivery
Fragmented, assembled on “just-as-needed” or “minimum-necessary” basis, strongly hierarchical, controlled	TEAMS	An integrated team entity composes key project stakeholders, assembled early in the process, open, collaborative
Linear, distinct, segregated; knowledge gathered “just-as-needed”; information hoarded; silos of knowledge and expertise	PROCESS	Concurrent and multi-level; early contributions of knowledge and expertise; information openly shared; stakeholder trust and respect
Individually managed, transferred to the greatest extent possible	RISK	Collectively managed, appropriately shared
Individually pursued; minimum effort for maximum return; (usually) first cost based	COMPENSATION/ REWARD	Team success tied to project success; value-based
Paper-based, 2 dimensional; analog	COMMUNICATION/ TECHNOLOGY	Digitally based, virtual; Building Information Modeling (3, 4 and 5 dimensional)
Encourage unilateral effort; allocate and transfer risk; no sharing	AGREEMENTS	Encourage, foster, promote and support multi-lateral open sharing and collaboration; risk sharing

Source: AIA 2007

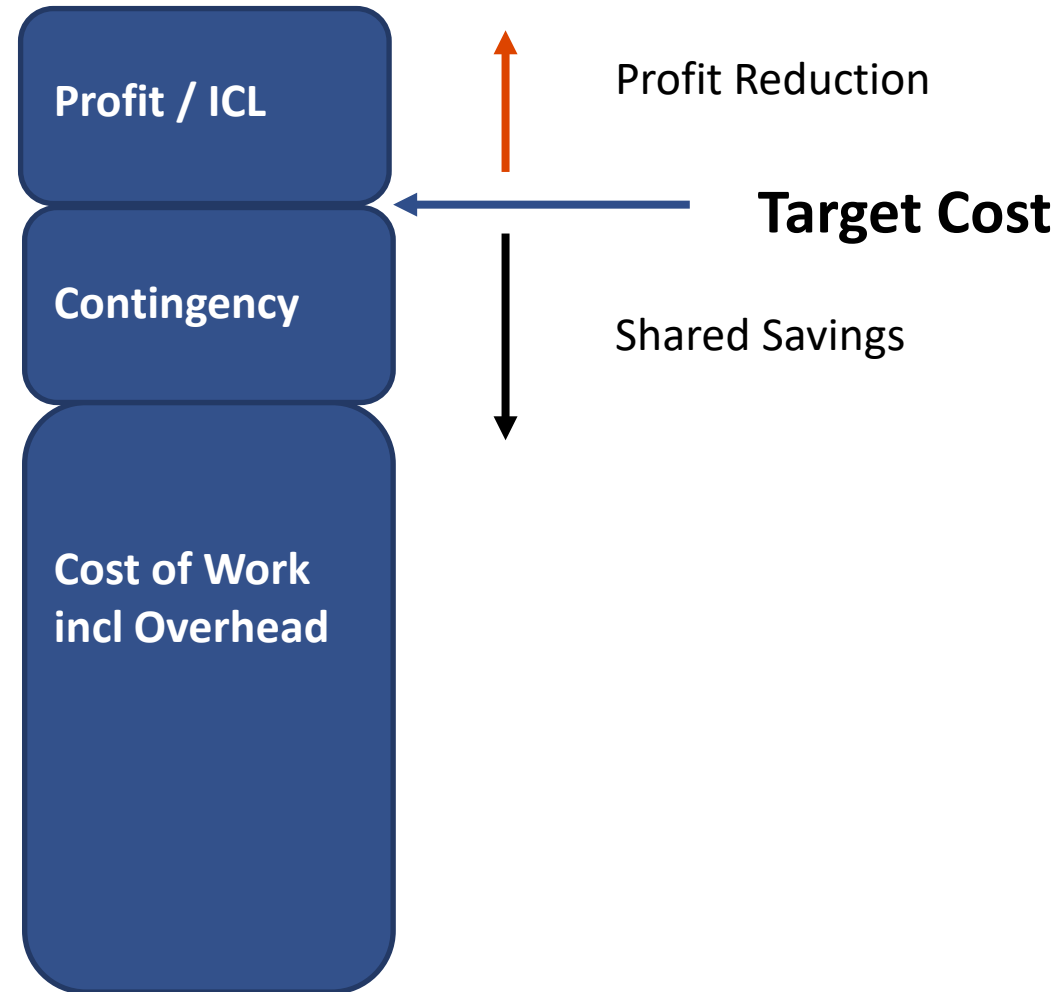


Comparing Delivery Models

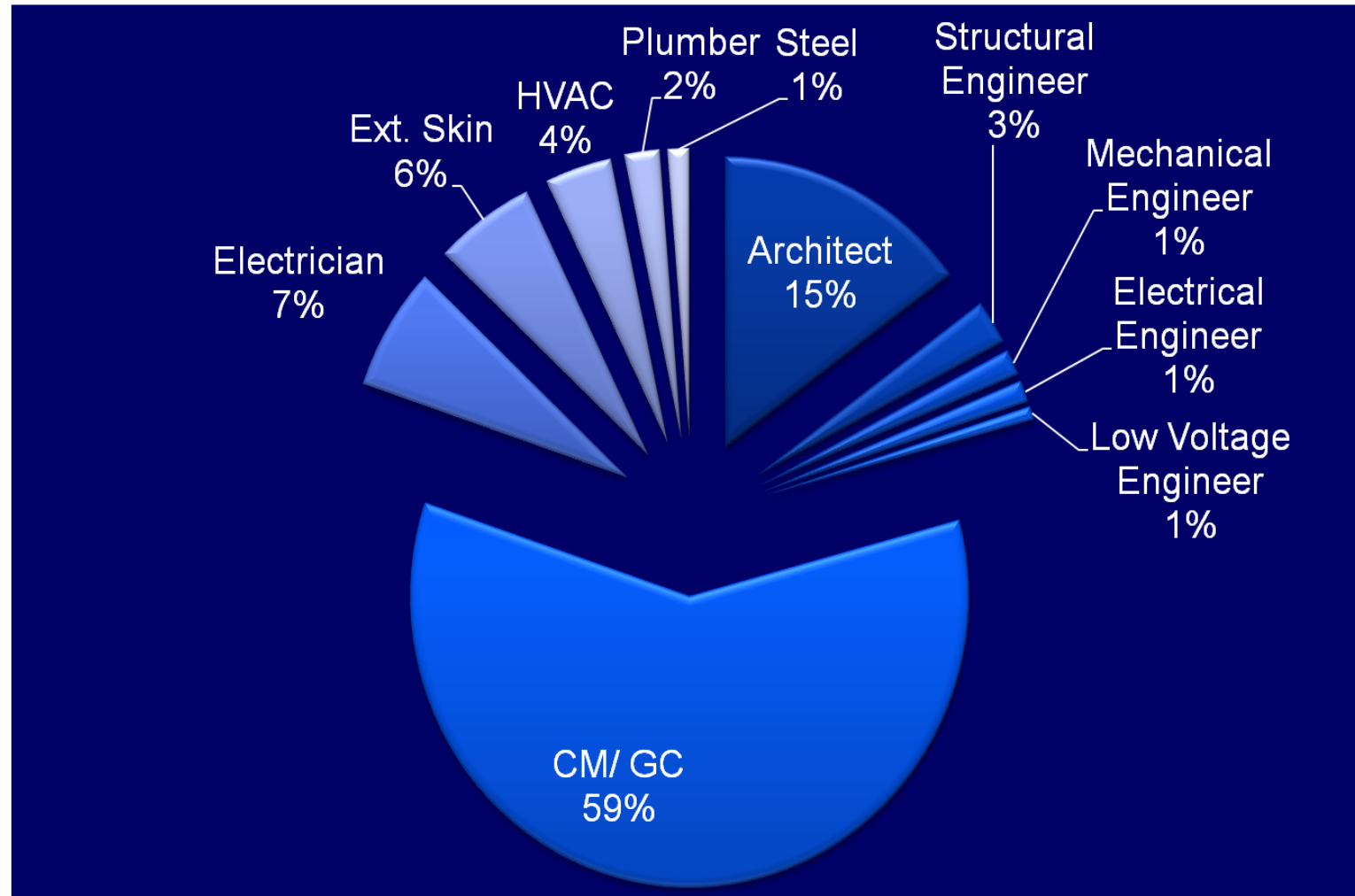
Model	Design-Bid-Build	Construction Manager at Risk	Design-Build	Integrated Project Delivery
Claims	High Likelihood	Moderate Likelihood	Low likelihood (with no major changes)	Lowest Likelihood
Open Book	No	Partially	Partially	Yes, for all major partners
Risk/Reward	No	Potentially	Potentially	Yes
Ability to Make Changes to Scope in Construction	Low	Moderate	Low	High
Reliability of Cost	Low	Medium	High	Highest
Timing of Budget Certainty	End of Project	Middle of Project	At Completion of Design	Early in Design Phase



Contract – Risk / Reward Structure



Contract – Risk / Reward Pool



The image is a full-page background photograph. It shows a construction site at sunset or sunrise. In the foreground, two construction workers are silhouetted against the bright, orange and yellow sky. The worker on the left is holding a smartphone. In the background, there are several large tower cranes and complex scaffolding structures. The sun is low on the horizon, creating a strong backlight effect. The overall mood is industrial and professional.

When to use the IPD Contract

PROJECT CHARACTERISTIC		HIGH	LOW
Level of Ambition	Technical Innovation	<input type="radio"/>	<input type="radio"/>
	Creative Innovation	<input type="radio"/>	<input type="radio"/>
	Other Areas of Innovation	<input type="radio"/>	<input type="radio"/>
	High Sustainability Goals	<input type="radio"/>	<input type="radio"/>
Stressors	High Value to Budget	<input type="radio"/>	<input type="radio"/>
	Challenging Schedule	<input type="radio"/>	<input type="radio"/>
Level of Clarity¹	Current Scope Development	<input type="radio"/>	<input type="radio"/>
	Expected Time for Future Scope Development	<input type="radio"/>	<input type="radio"/>
Probability of Change	Expected Change in Building Technology	<input type="radio"/>	<input type="radio"/>
	Expected Change in Business Case	<input type="radio"/>	<input type="radio"/>
	Expected Stakeholder / Public Driven Change	<input type="radio"/>	<input type="radio"/>
Complexity of Interaction	Level of Interdependency of Systems	<input type="radio"/>	<input type="radio"/>
	Level of Interdependency of Participants	<input type="radio"/>	<input type="radio"/>

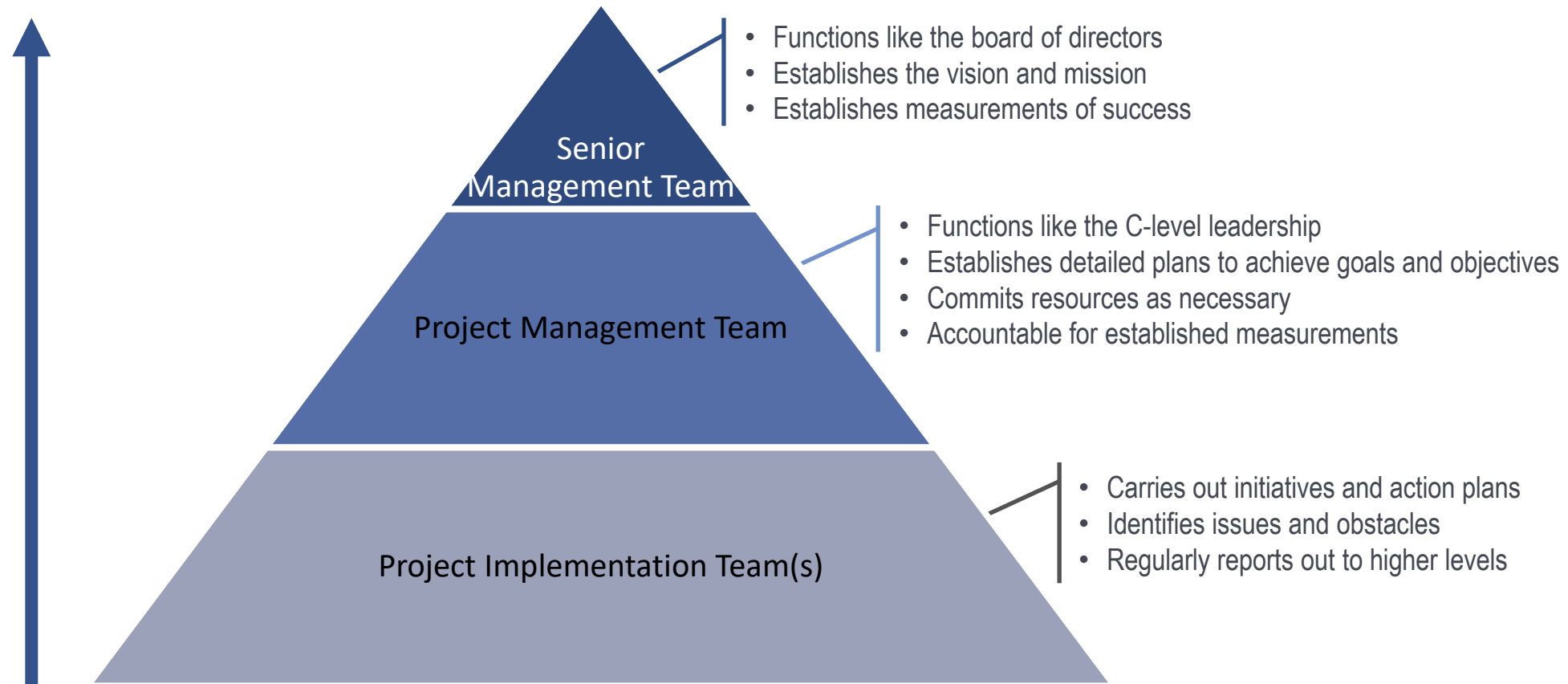
¹ IPD is a good choice when managing projects with scopes that are not initially clear, but it will require a more extended validation period before setting targets



AIA Contract Documents



Developing a “Project Organization”

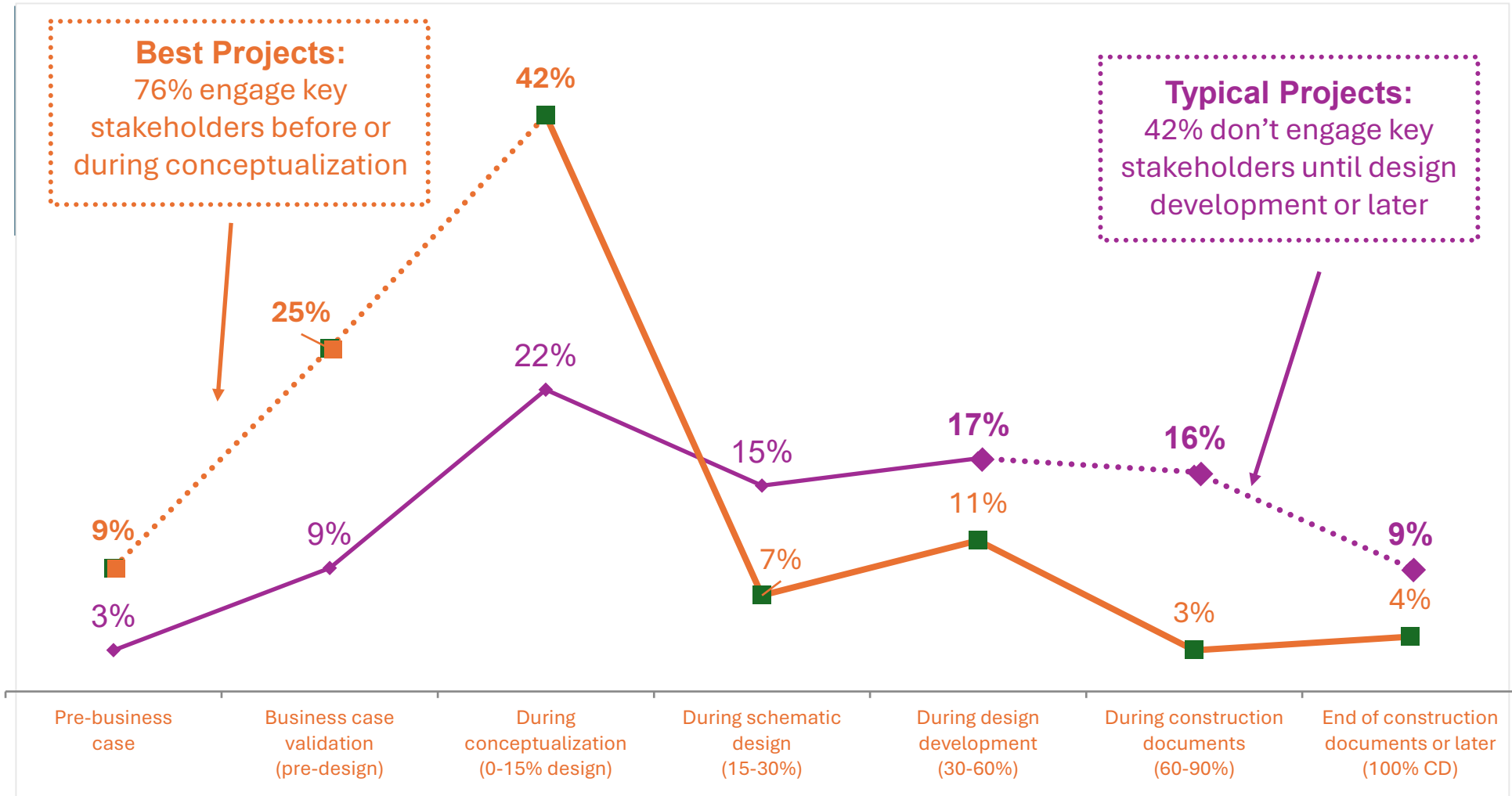




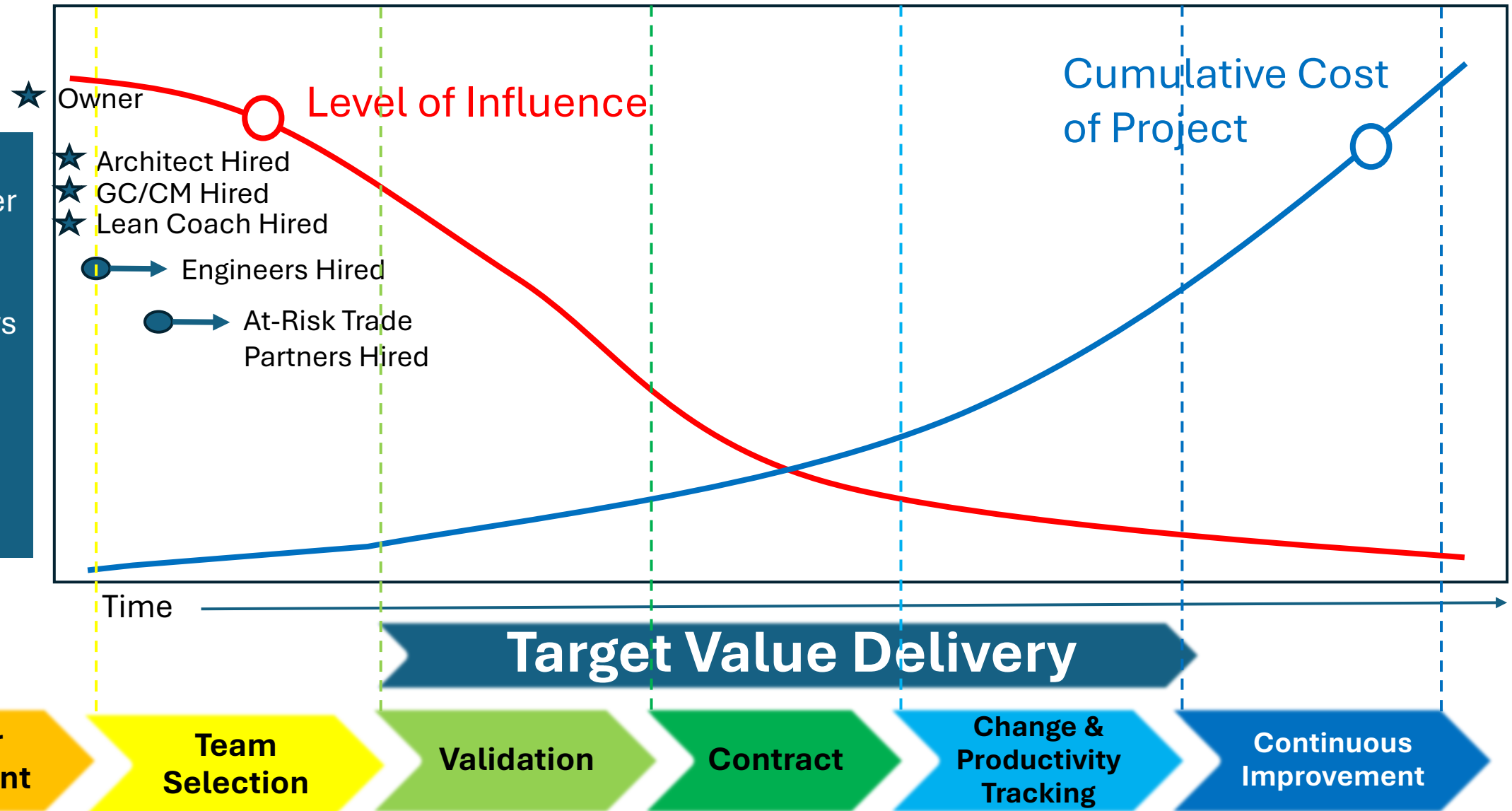
The Owner

- Role Model
- Leadership
- Internal Alignment
- Model Transparency
- Upper Management Support

Timing of Key Stakeholder Engagement



Integrated Project Delivery Implementation Plan



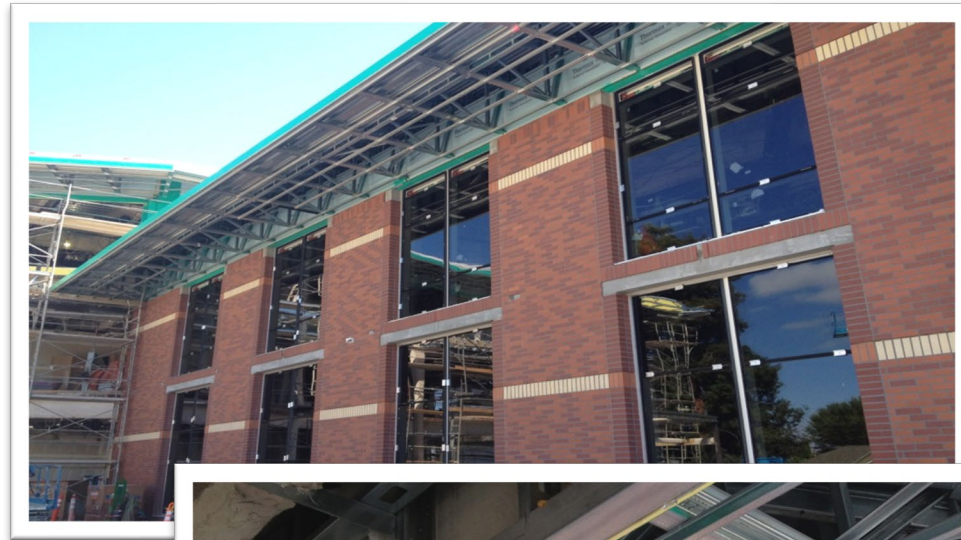
Nothing is Perfect – Roof Truss Example



Prefab Truss Installation



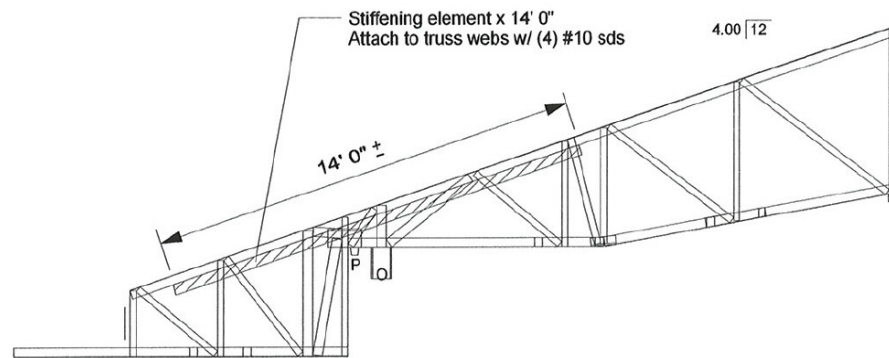
Truss Deflection



Truss Supplier Response

At this point, we cannot explain the truss deflections reportedly observed in the field at the Sunnyvale Clinic, which are reportedly about three times the magnitude of the deflections calculated for full design loading. It is possible such field deflections could have resulted from truss damage, improper installation and/or overloading, but we have no evidence of any of these events having occurred.

Truss Fix



Truss Fix Outcome

- **\$250,000 Cost (design/construction)**
- \$40,000 recovered from withheld retention
- \$210,000 cost to IPD Team
 - Loss of \$70,000 in shared savings
 - Owner paid \$140,000 in cost
- **No Lost Time!**



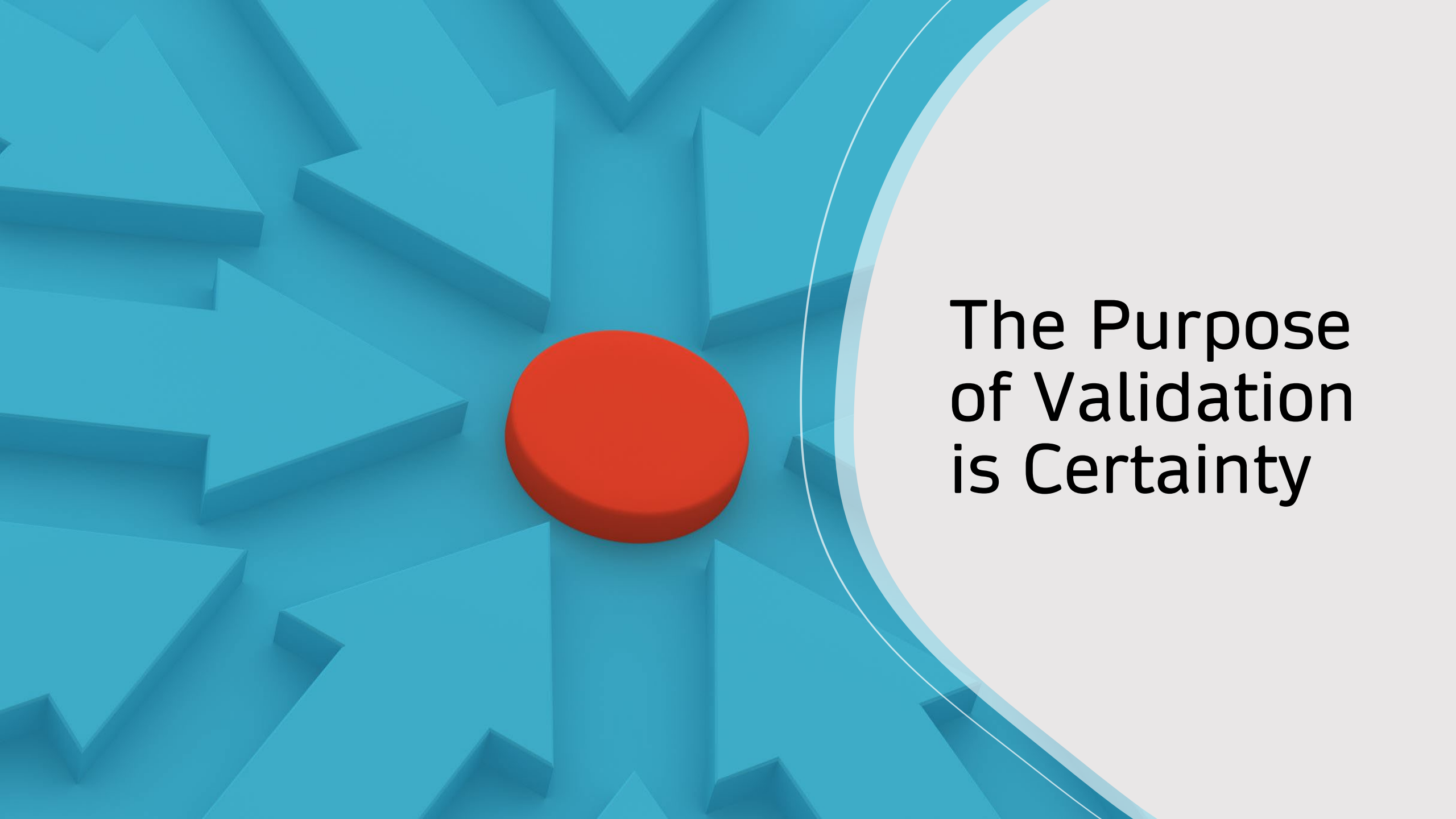
The background features three target boards. The central board is the largest and has a red bullseye, while the others are smaller and have grey bullseyes. A green arrow with three fletchings is shown hitting the red bullseye of the central target. The text is overlaid on the central target.

What is Validation and
Why is it Important?

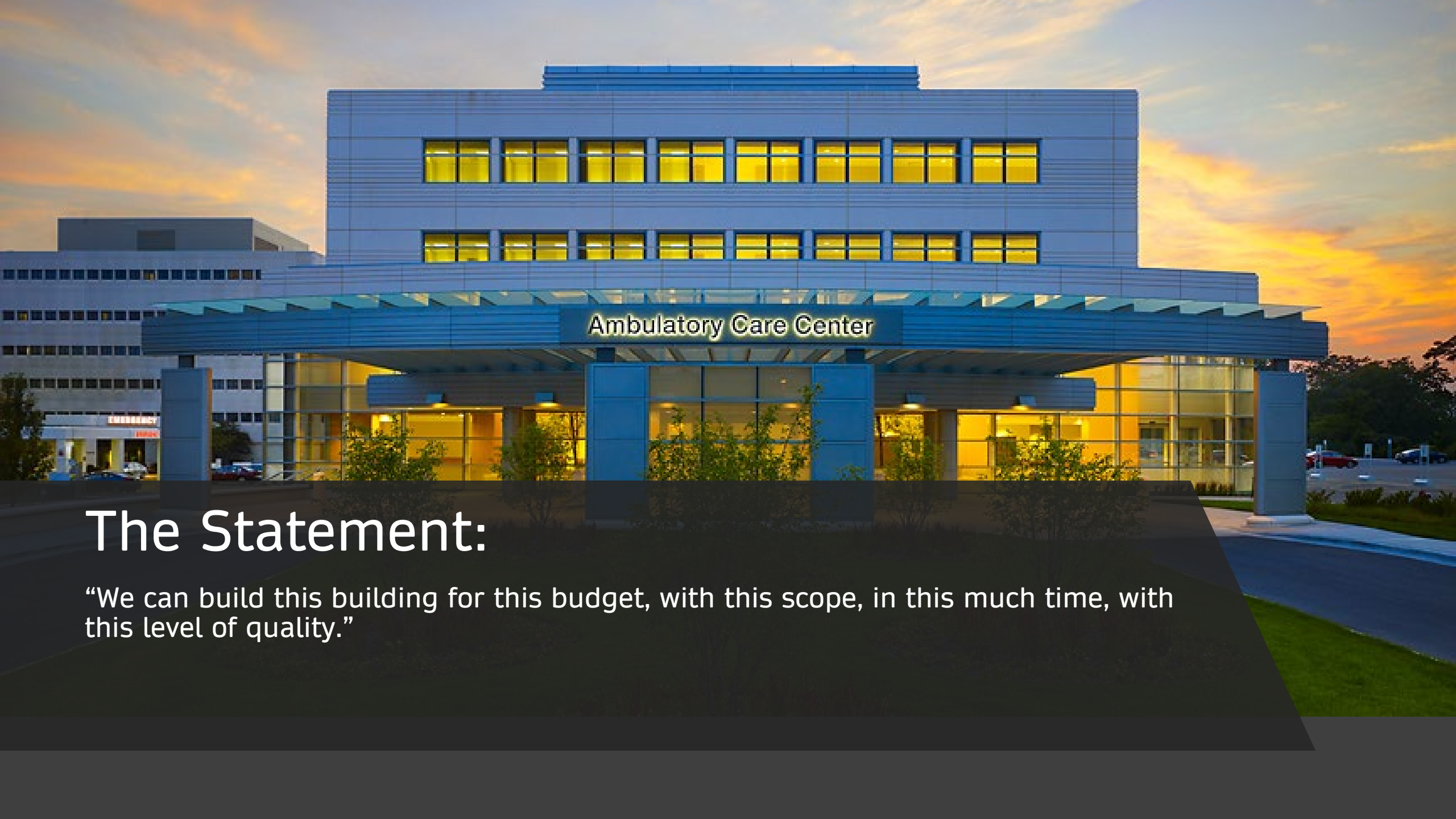
Traditional is broken

Value Engineering
becomes Scope
Reduction Tool

VALUE
Engineering

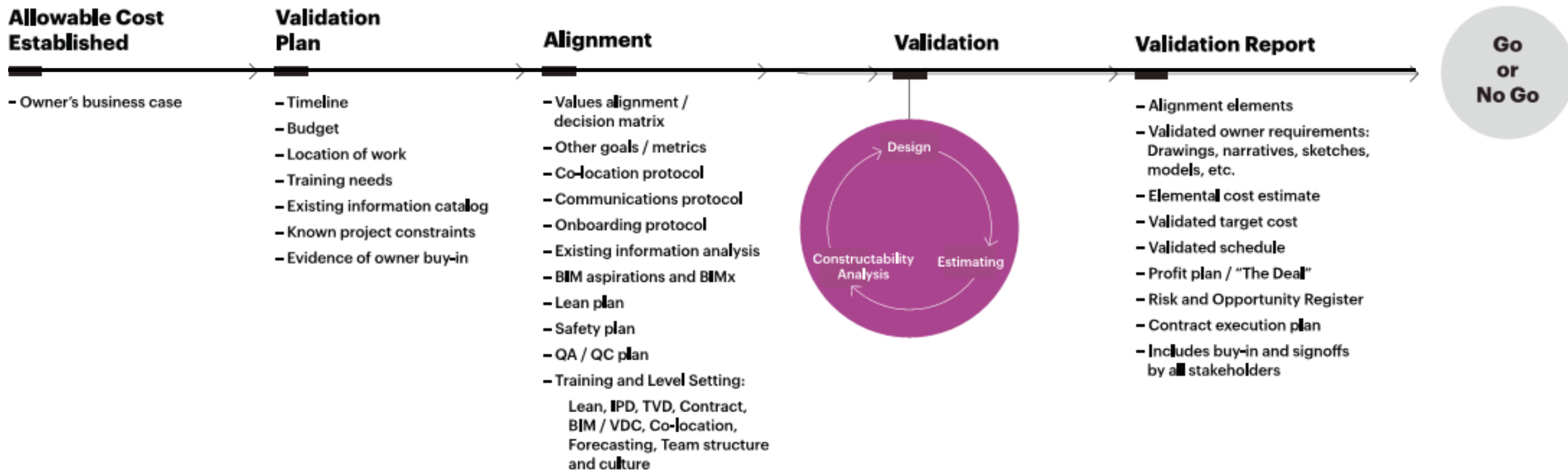
A 3D blue gear with a red center. The gear is composed of many teeth, and the center is a solid red circle. The gear is positioned on the left side of the image, and a white curved line separates it from the text on the right.

The Purpose
of Validation
is Certainty



The Statement:

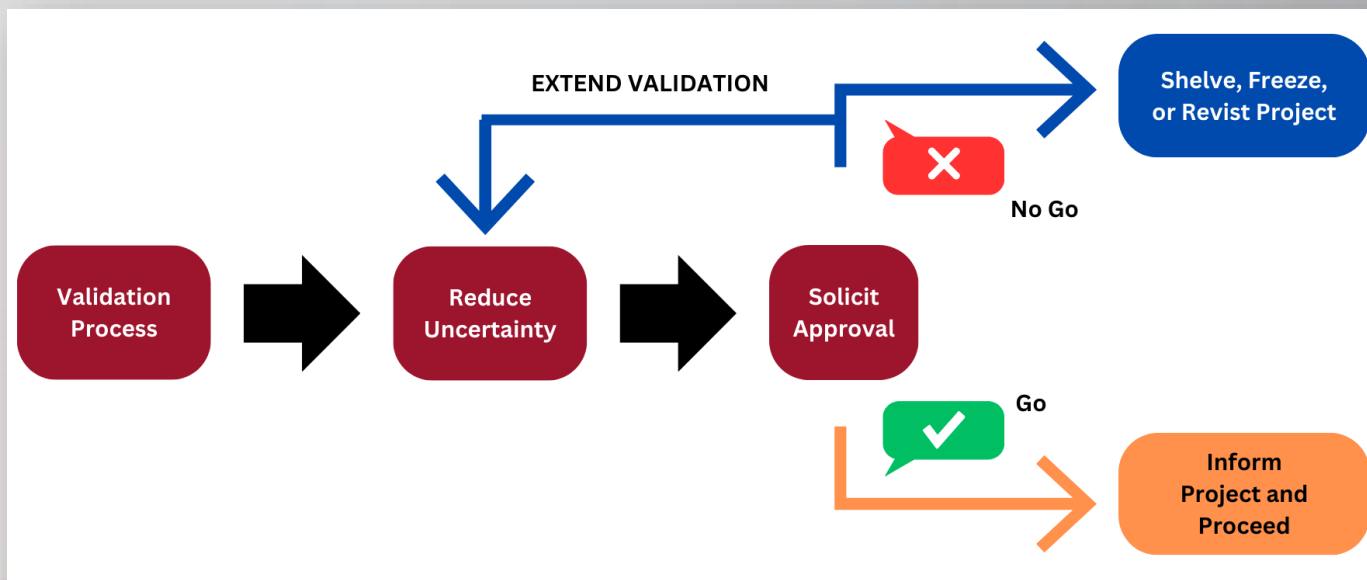
“We can build this building for this budget, with this scope, in this much time, with this level of quality.”



A person's hands are shown counting gold coins on a table. The left hand is holding a coin, and the right hand is reaching towards it. There are three stacks of coins on the table. The background is a blurred blue pattern.

Allowable Cost Established*

*subject to change



Examples



New Helen Diller Hospital in San Francisco



Rebar Assumption in Validation Phase

Lbs / Cubic Yard

Actual Footing Mock Up





Office Building in Wisconsin (IPD)

- Developer Provides Budget for Renovation at \$30M
- Owner Hires Lean Coach
- Conditions of Satisfaction Established
- Owner Selects IPD contract
- Architect and General Contractor Hired For Validation Process
- THE ISSUE: Validation Process completes with a Target Value of \$60M
- THE SOLUTION: Owner Can Now Make a Good Business Decision For Next Step
- RESULTS: Validation: 3 Months at 1% of Budget Cost vs. Traditional: 12 Months at 15% of Budget





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In the spirit of continuous improvement, we would like to remind you to complete this session's survey! We look forward to receiving your feedback.



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Thank you for attending this presentation. Enjoy the rest of the 26th Annual LCI Congress!