

•DBIA presents:

## Integrated Project Delivery For Design-Build



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### The Practical Application of IPD and IPD Principles

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- February 7, 2013
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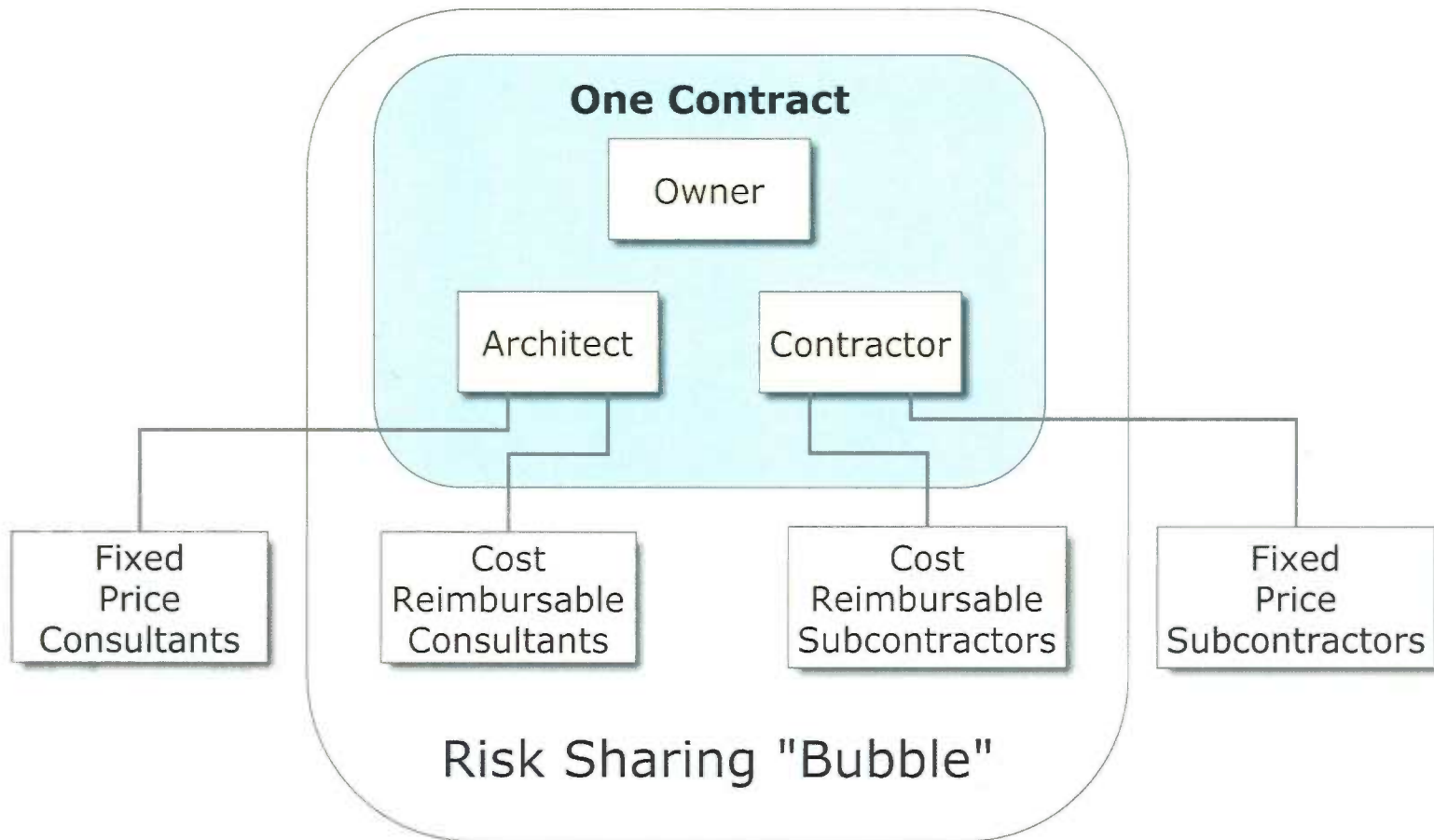


# IPD is a delivery method

- *Value Based*
- *Virtual Organization*
- *Aligned to the Project*



# Multi-Party Integrated Agreement



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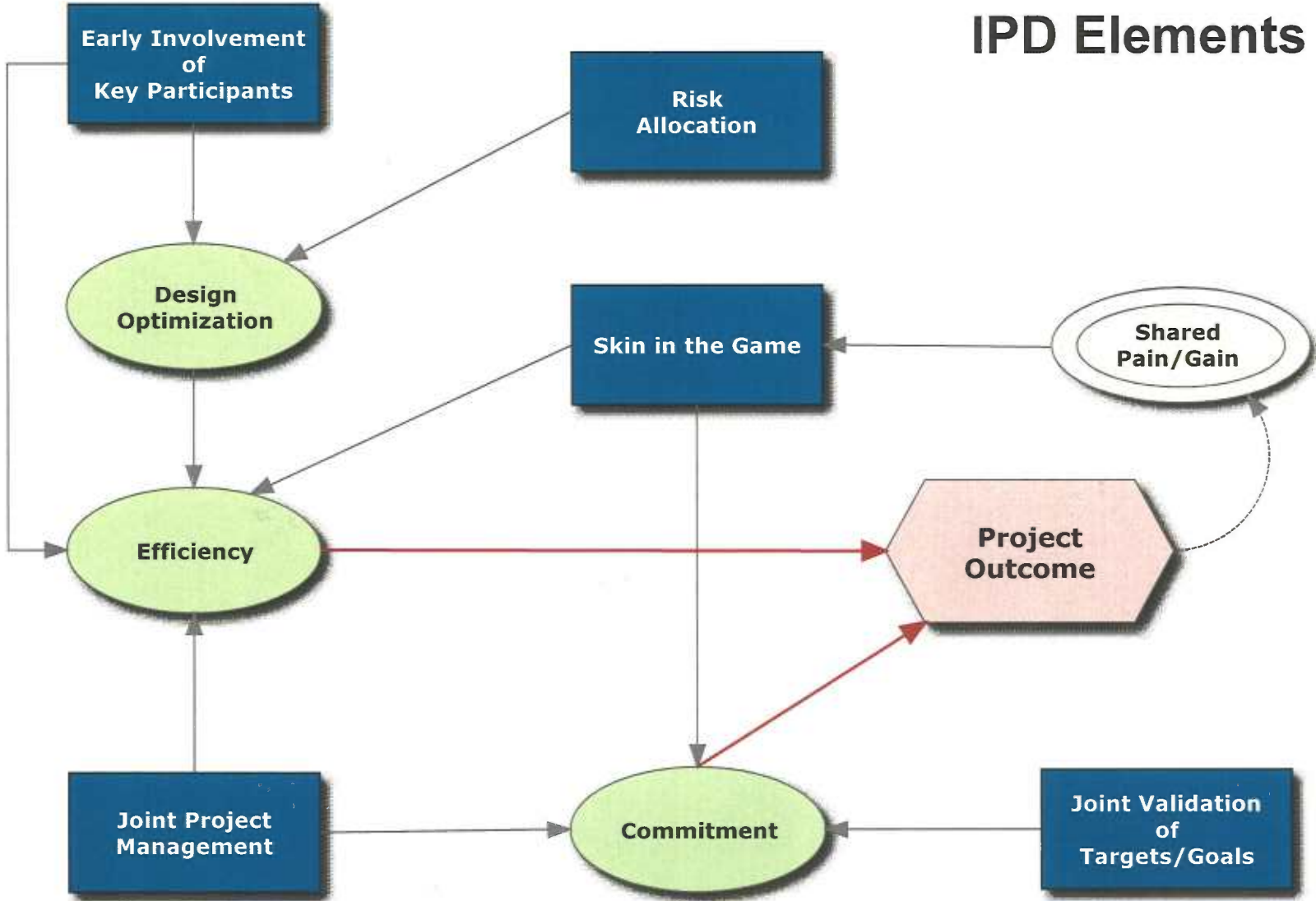
# IPD Elements



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# IPD Elements



# Selecting the Correct Project Delivery

Traditional vs. Collaborative

Comparison of Contracting Structure

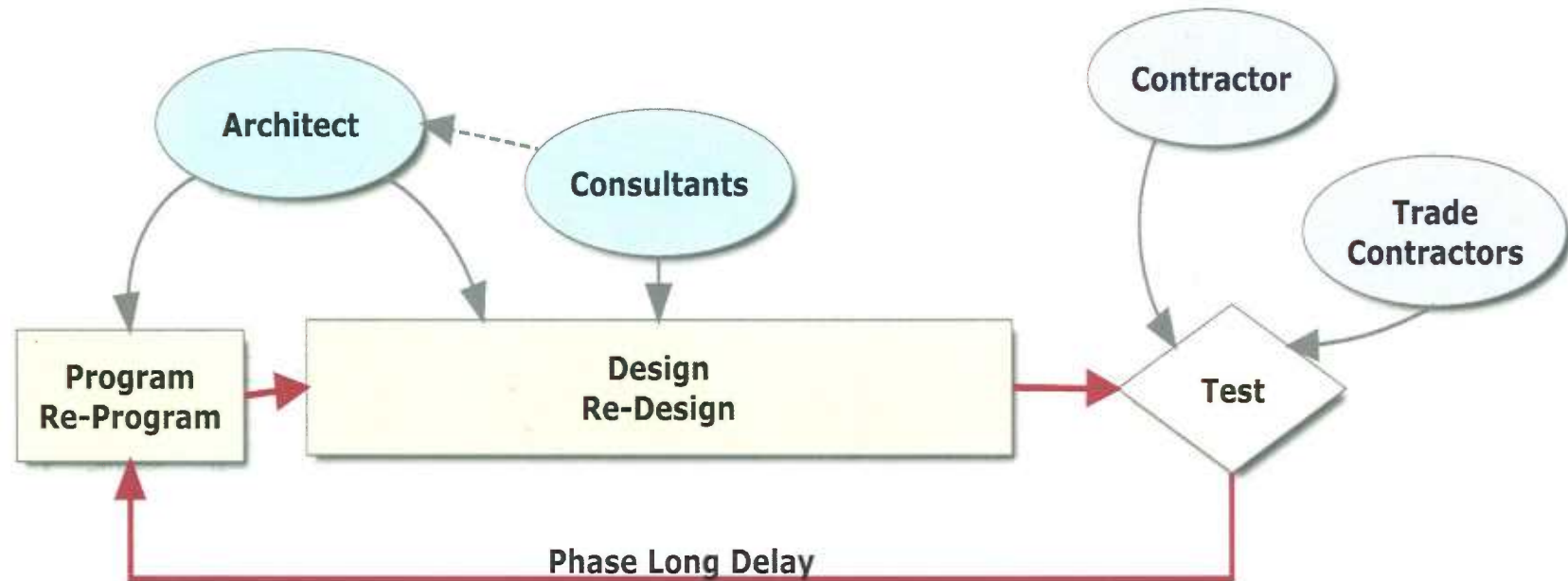
Considerations



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# Feedback in Traditional Projects



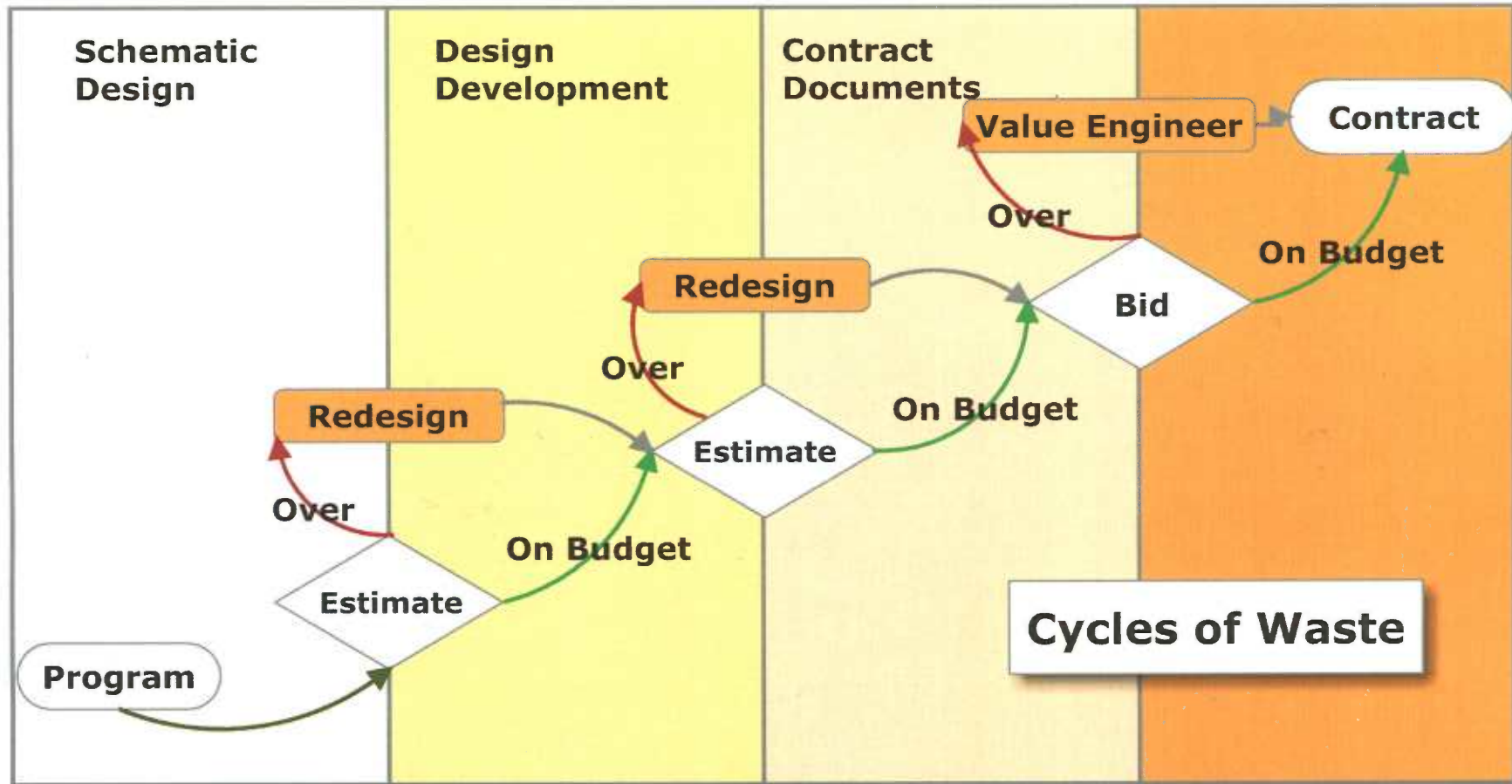
## Effect of Delayed Feedback

- Design Effort Wasted
- Design/Project Schedule Extended
- Options Constrained
- Upward Drift in Project Cost



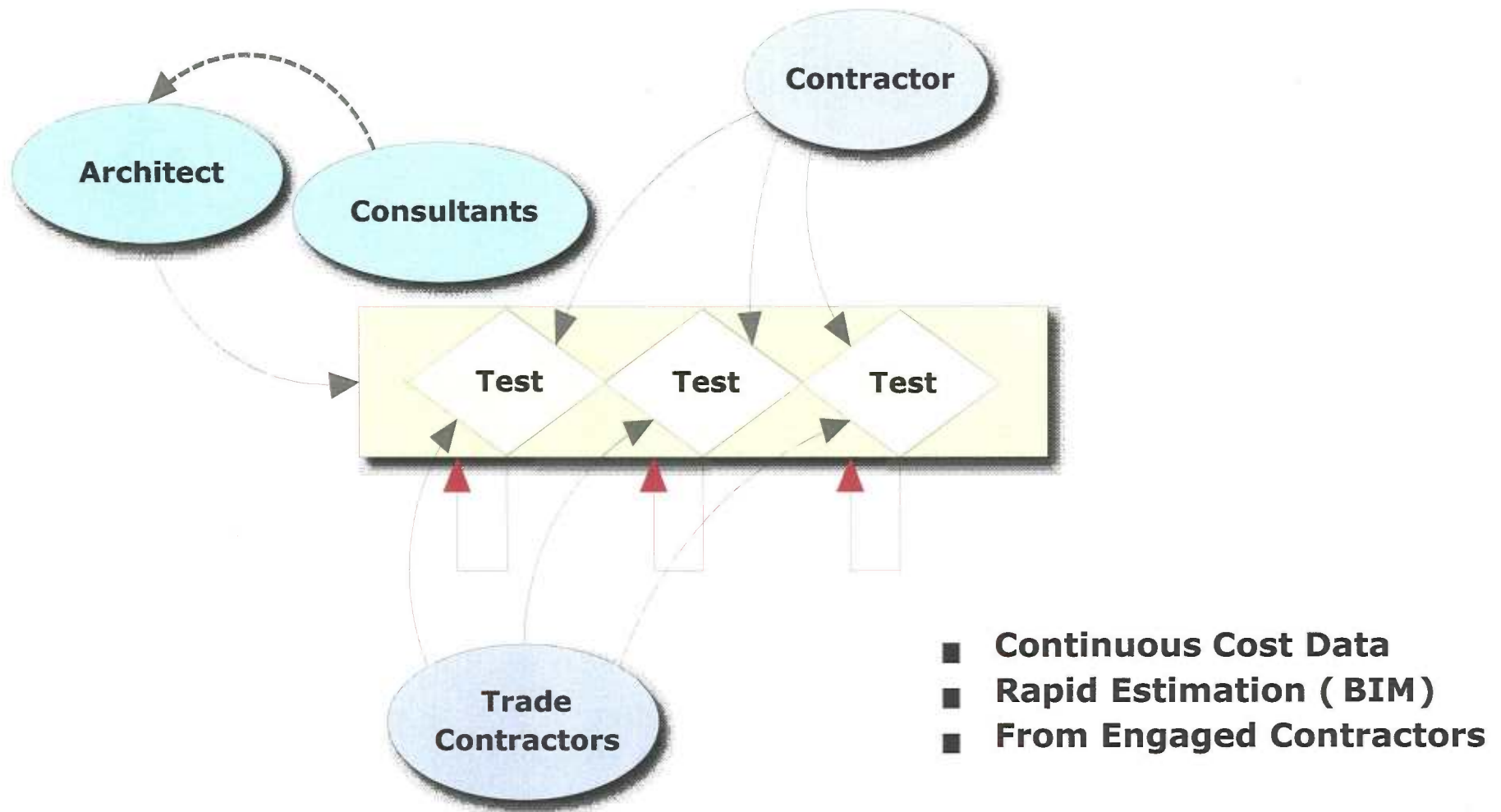
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# Feedback in Collaborative Projects



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# Project Delivery Comparison

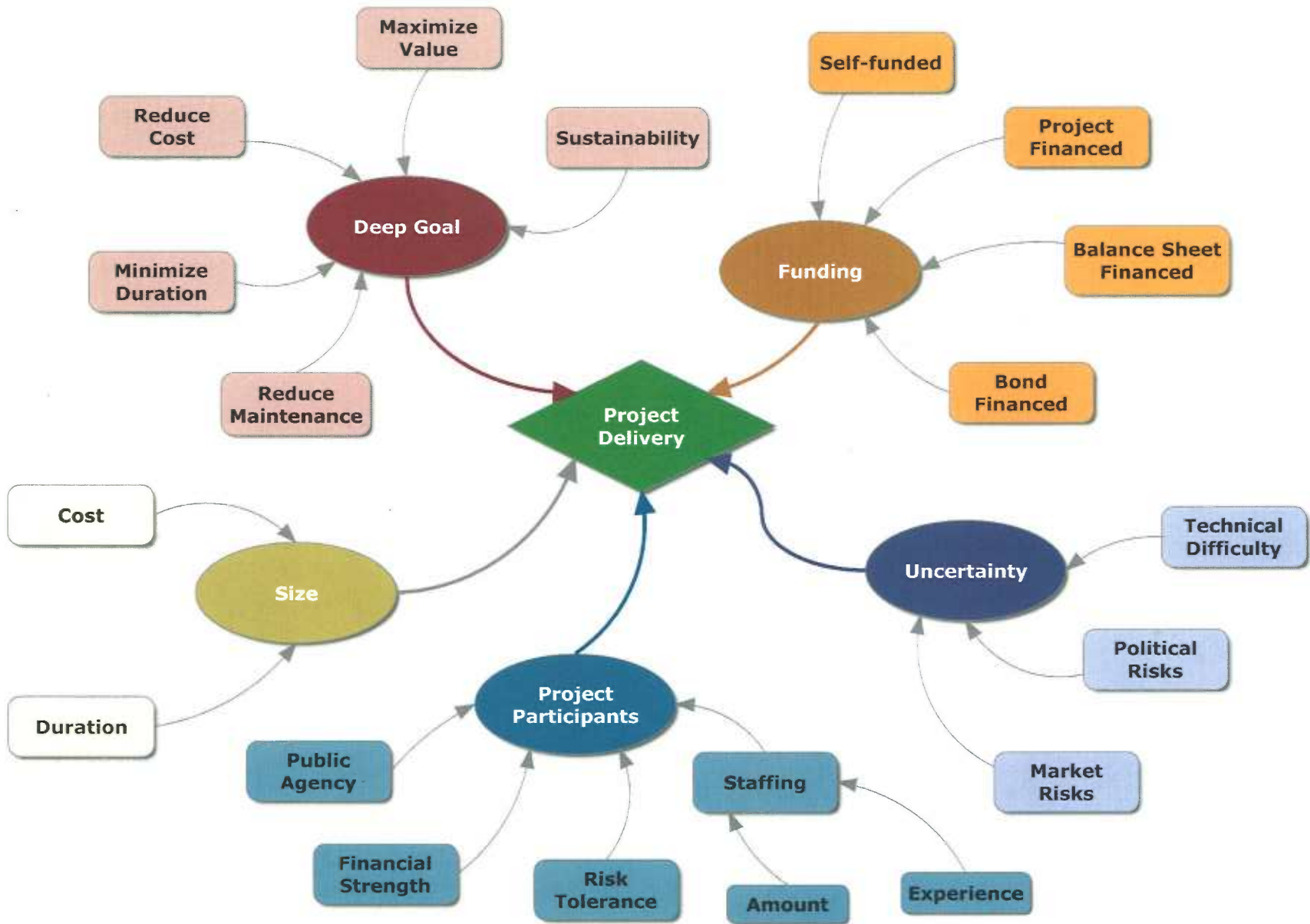
Integration 

	CMAR	Design Build	IPD
Contract	Owner Architect Contractor	Owner DB Contractor	Multiparty Agreement
Project Management	Contractor	DB Contractor	Project Management Team
Cost Control	GMP	GMP	Cost Sharing based on Target Cost
Subs	Lump Sum	Generally Lump Sum	Key Team Members with Cost/Risk Sharing
Risk	Contractor cost/schedule risk Architect (e&o)	DB Contractor has cost/schedule risk and most liability risk	Risk is Shared



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# Practical Application of IPD to Design-Build

Common Principles

Common Objectives

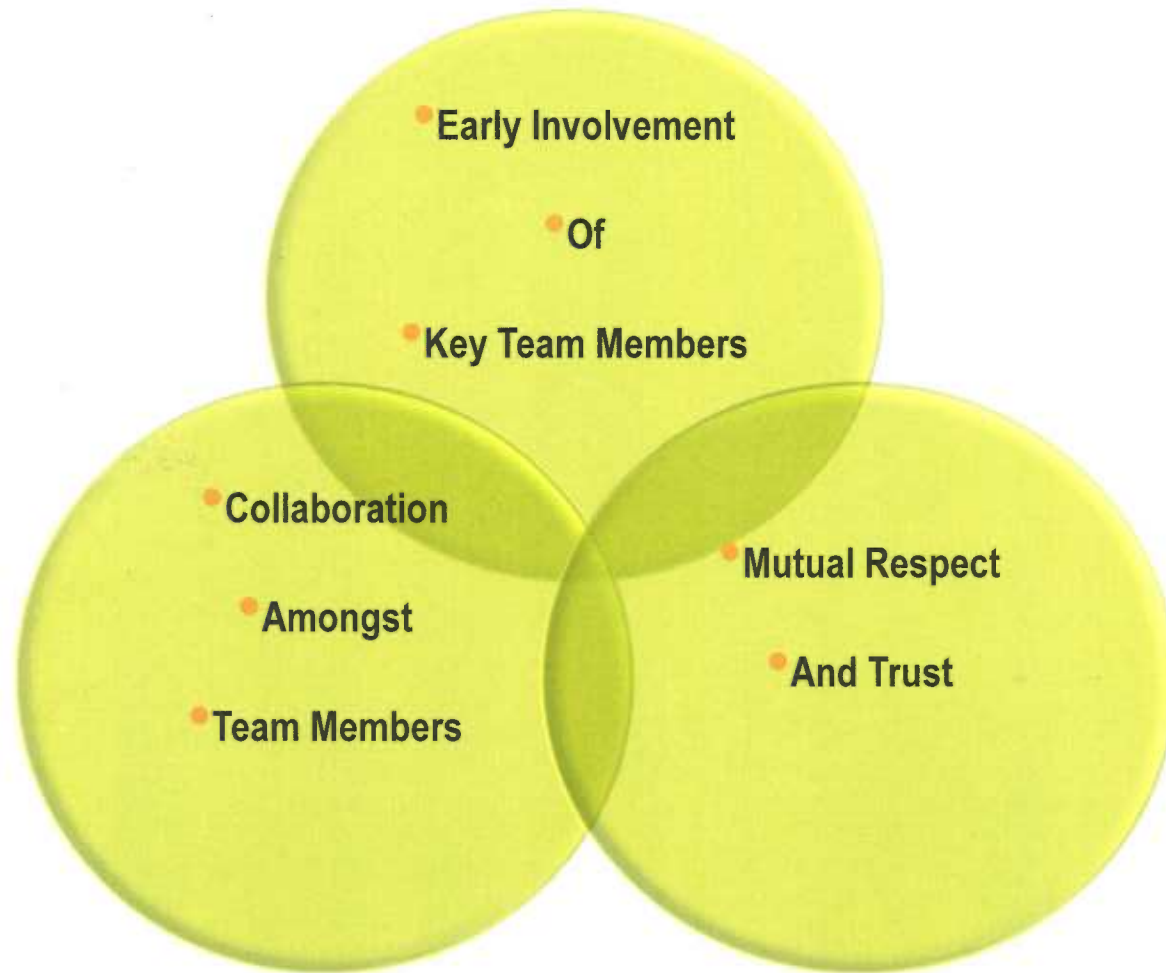
Potential IPD Elements



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# Common Principles



# Common Objectives

- Provide Design that Meets Owner's Program
- Deliver Project Within Owner's Budget
- Meet or Exceed Milestone Schedule Dates
- Meet or Exceed Quality and Aesthetic Expectations
- Meet Sustainability Requirements
- Reduction of Waste
- No Change Orders
- No Claims



# Potential IPD Principles for Design-Build

- Collaborative Decision Making
- Joint Development of Targets
- Joint Risk/Reward Compensation
- Behavioral Change



# Contracting

- Structure
- Negotiations
- Key Deal Points
- Contingency



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# Contract Negotiations

- Find Intersecting Interests
- Deal Lives in Intersection
- Deal First, Language Second
- Deal Point Summary
- Aligning Project Interests, Key To Outcome
- Negotiation Is The First Collaborative Act



# IPD Key Deal Points

- At Risk Profit
  - Amount
  - Distribution & Milestones
- Target Cost
  - When Set
  - Adjustments & Changes
  - Contents & Contingency
- Decision Authority & Process
- Liability Waivers

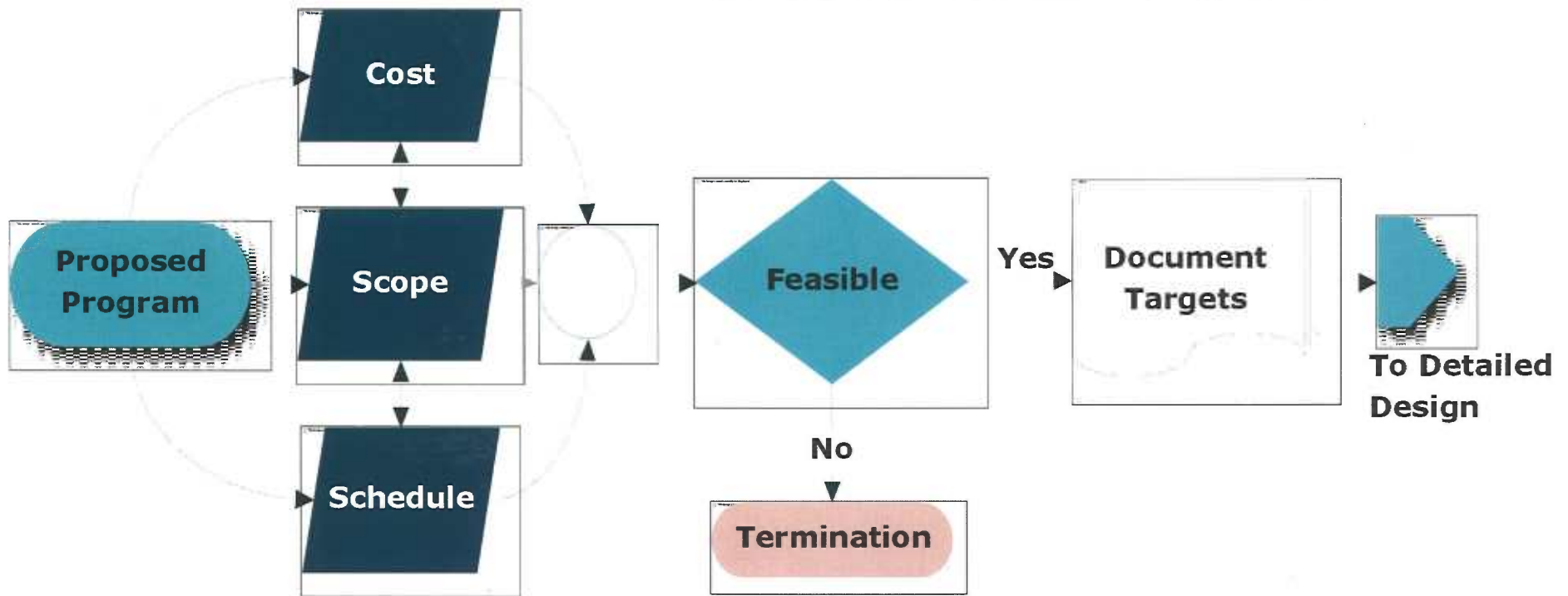


# Potential Design-Build Deal Points

- Early Target Price and Contract Time
- Line Item Guarantees
  - Allowable Costs for Design & Preconstruction
  - General Conditions
  - General Requirements
  - D/B Key Trades based on criteria (GMPs)
- Contract Price set at 100% Construction Document
- Determine Treatment of Contingency
- Determine Risk/Incentive Structure



# Validation Process



**Non-Owner Participants are paid their direct costs without profit for IPD.**

**Design-Builder would be paid for services up to Allowable Costs for Design and Preconstruction.**



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# Target Cost

- Issues
  - Risk/Contingency
  - Material & Labor Escalation
  - Aggressiveness
  - Bases for Changing Target
- Process
  - Business Case/Budget
  - Program Validation
  - Target Cost Validation



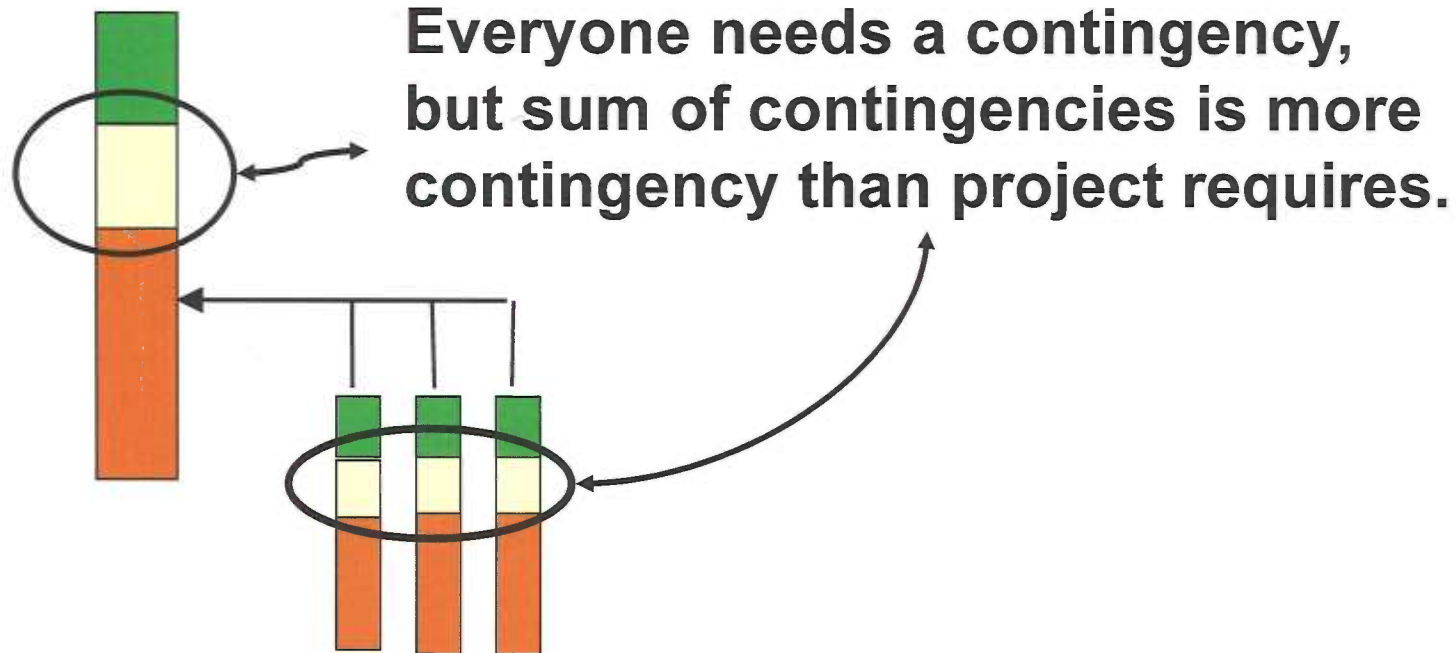
# Contingency

- Owner's Reserve
  - Scope Enhancement
- Design Contingency
  - Scope Definition
- Construction Contingency
  - Errors & Rework
  - Scope Gaps
  - Material Escalation



# Traditional Approach

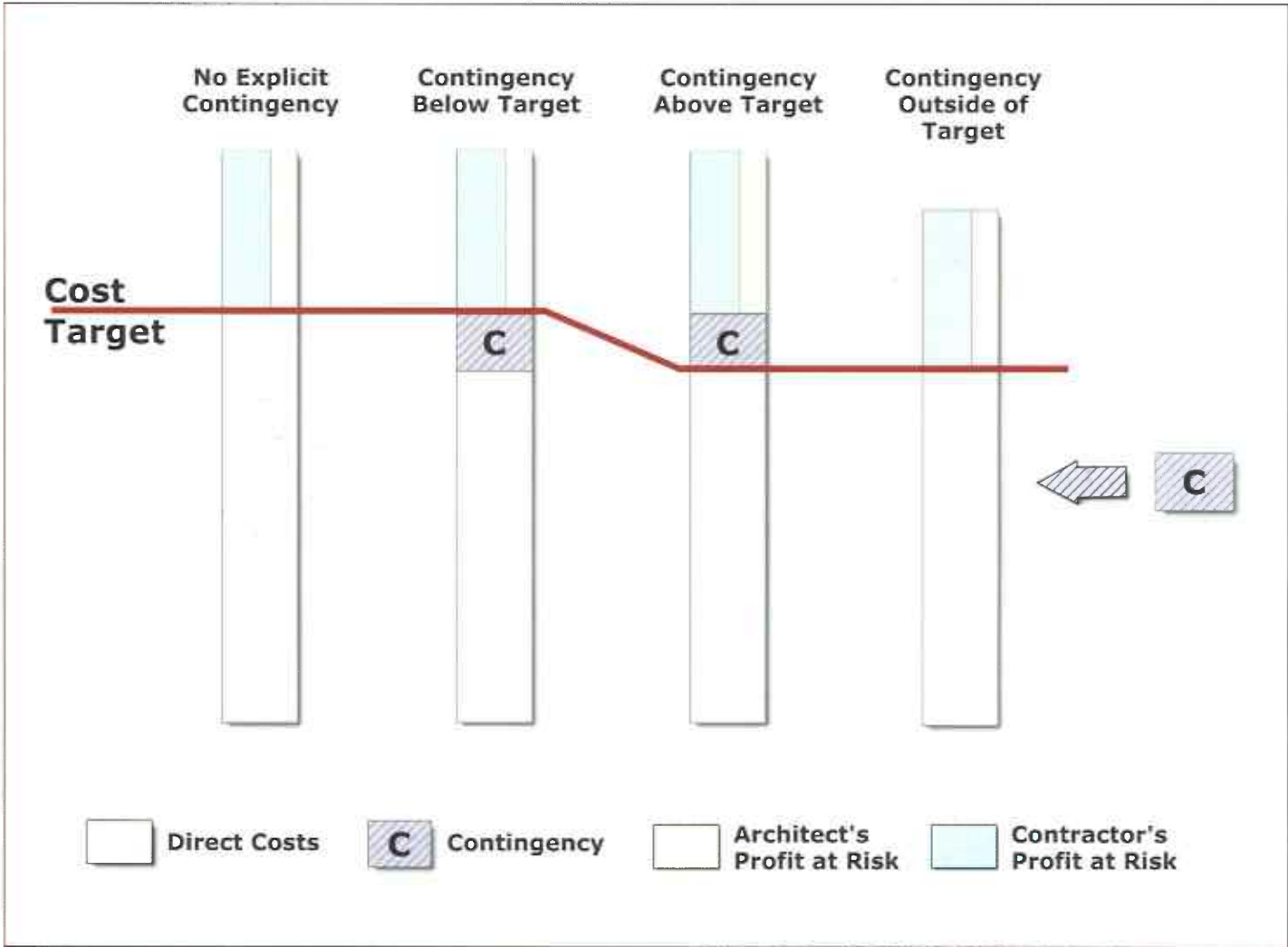
## GMP or Lump Sum



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# Contingency Options for IPD





# Simplified IPD Compensation Model



- ◆ **Costs Guaranteed**
- ◆ **Profit Based on Project Outcome**



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# Design-Build Risk/Reward

## Completion of Design

- If  $CP < TP$  then difference to incentive
- If  $CP > TP$ , then 100% risk on DB or potential for shared risk, if private work.
- Determine How to Treat Contingency
- Determine % split Owner vs. DB Team
- Milestone distribution or retain until later.

## Final Completion

- If Final  $CP < TP$ , then incentive earned.
- If Final  $CP > TP$ , then overrun risk on DB or potential for shared risk, if private work.
- Determine How to Treat Contingency
- Determine % split Owner vs. DB Team
- Distribution in Final Payment



# Metrics For Success

- Cost
- Schedule
- Performance
  - At Project Completion
  - Delayed Measurement
- Quality
- Value



# Take Away

Choose Project  
Team Early

Select Best Project  
Delivery Method

Team Building  
Workshop



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