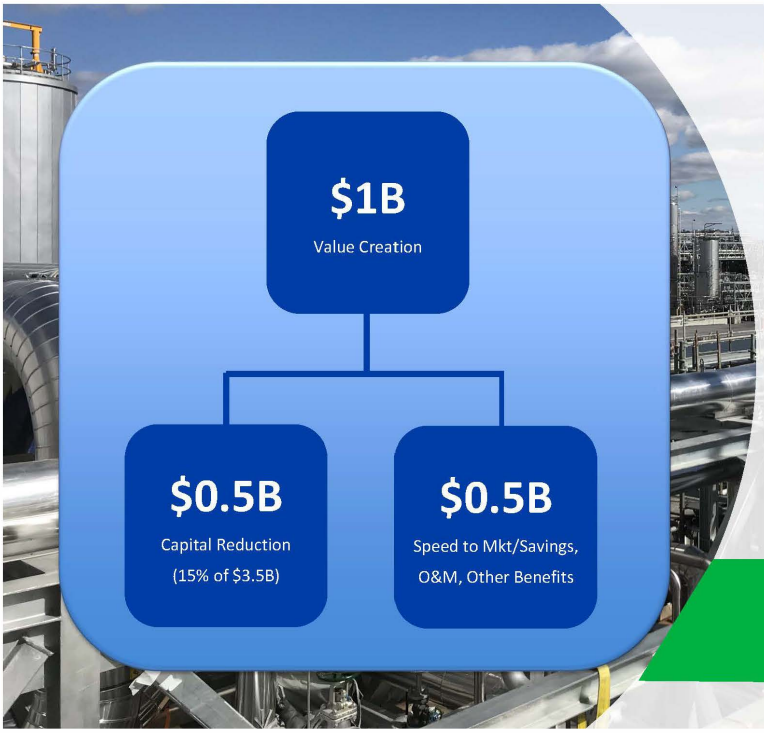
Lean Contracting Strategy
The Procter & Gamble Way:
Deriving the Target Cost

Why is P&G doing Lean IPD?

- ✓ Value
- ✓ Cost
- ✓ Schedule
- ✓ Quality
- ✓ Safety
- ✓ Culture
- ✓ Capability



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It's a Better Way!

Lean IPD Journey Map

Year 0 15/16

Learning Phase

- ✓ Developed Business Case
- ✓ External Benchmarking (Intel, Disney, BMW)
- ✓ Initiated Pilot Projects
- ✓ Partnered with Purchases

Years 1 – 3 16/17 thru 18/19

Transition Phase

- Expand Pilots x-BU and Regions
- Develop Capability via Boot Camps and Global Cap Mgmt CoP
- Define 7 Essential Practices & Key Metrics
- Integrate with Digital Platforms
- Integrate into Capital Mgmt training
- Establish Board of Directors

Years 4 + 2019/20 →

Full Adoption

- Global Systemic Implementation
- Master IFOA with Strategic Partners
- Full Integration with all PS disciplines

Product Supply Engineering
Lean IPD
Value from Collaboration & Flow

Team Integration Practices

The Target Cost:

July 27, 2018

What's the right number and when should it be set?

An Owner's Perspective

When done right, a magical moment occurs when all parties sign an IPD Agreement. ***It's game-on!*** The owner feels great that the team has taken on the challenge and the Engineering & Construction (E&C) partners feel great to take it on. The focus immediately moves from agreeing to a Target Cost to executing against it … from "What" needs to be executed to "How" it's going to be executed.

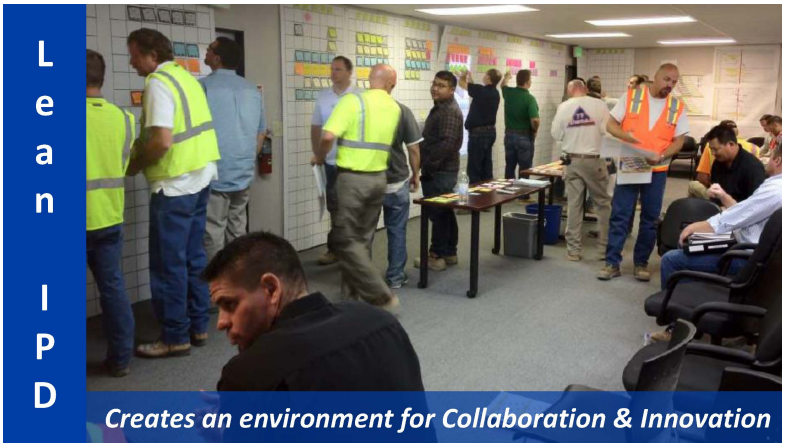
No other step in Lean IPD causes more consternation. The owner worries about giving money away if it's set too high, and the E&C partners worry about losing money if it's set too low. A classic win-lose proposition. This is unlike most situations in Lean IPD where win-win is the norm. Then how do we set the Target Cost so it's a win-win for everyone?

Win-win

First, let's define win-win. Most importantly, everyone wants to meet their Conditions of Satisfaction. At this point, the owner's Conditions of Satisfaction for the project have been captured, shared, and bought-in by the project team. The final sticking point (in most cases) is getting to the Target Cost. All parties have an acceptable range, but that elusive single number that is "the" Target Cost remains. Our E&C partners have Conditions of Satisfaction as well. They include the project's, but also their internal ones: profit, opportunity cost, and impact on future work with this owner or others. There's a lot to consider. And most fall under one of the 7 Benefit Areas of Lean IPD.

<u>7 Benefit Areas of Lean IPD</u>

1. Value
2. Cost
3. Schedule
4. Quality
5. Safety
6. Culture
7. Capability



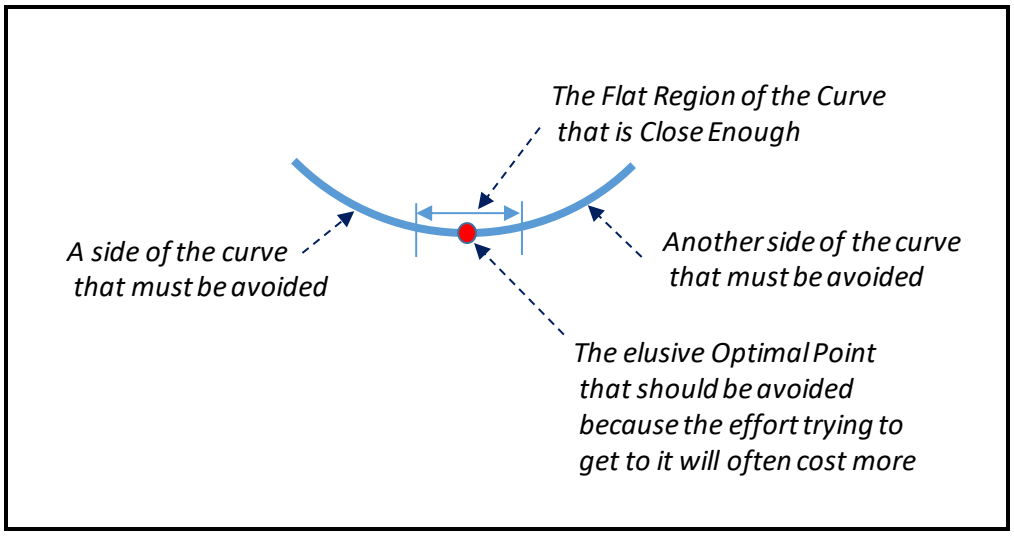
Focus on Creating Value Together

It's important for all parties to step back and see the big picture in the final days of negotiating this single number. Too often, getting the other side to break becomes the goal. This reminds me of the lawyer who spent his entire career negotiating joint venture contracts. It was only at the end of his career that he realized he'd have been more effective by focusing on creating value with these partners. By trying to squeeze out every nickel and dime, he effectively sucked the life out of these relationships. If only he had focused on creating value, the pie would have been bigger for all to share. We don't want to make this same mistake.

Sooner Beats Later

It's important to remember that time is money and that a delay in signing the IPD Agreement will waste both. So when is close enough, good enough? I'd argue that sooner beats later every time, and greater value would be created if teams could finalize the Target Cost as soon as they find themselves in the flat region of the optimization curve. An optimization curve exists whenever there are multiple costs impacting a decision. Any place on the flat region (instead of a single point at the bottom of this "U"shaped curve) is almost always close enough and good enough because of our inability to accurately determine true costs. By definition, every estimate is wrong. Some are just less wrong.

The Optimization Curve



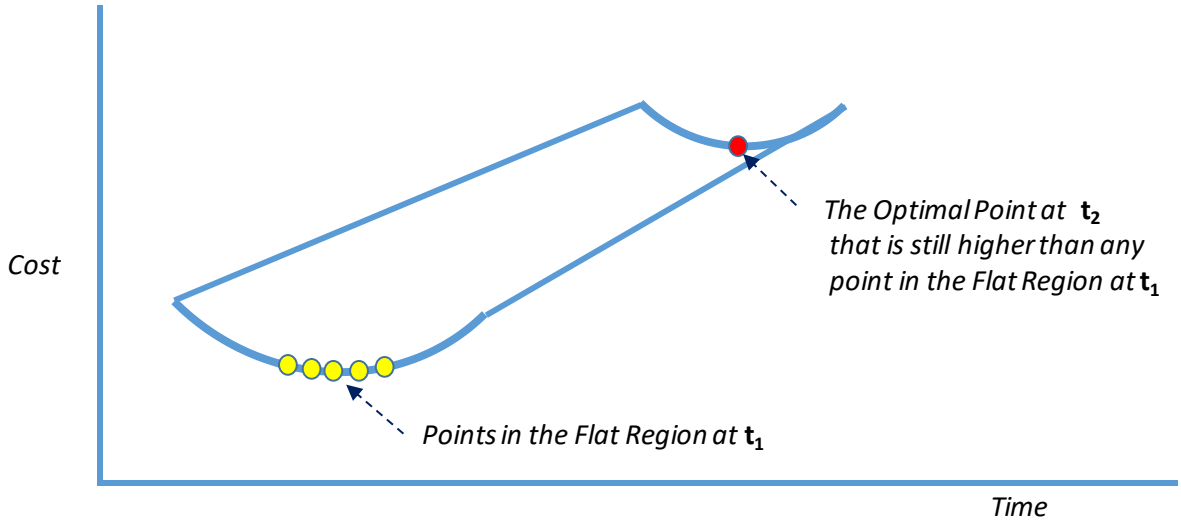
Key Points from The Optimization Curve

- A single point does exist at the bottom of the curve, but typically it's an illusion because of the accuracy of the estimates and underlying assumptions used to derive it
- It's important to avoid the steep sides of the curve
- If you're in the flat region, you're close enough and good enough!

When you delay setting the Target Cost, you almost always lose value. And it's easy to do. The quest to find the absolute minimum point on the optimization curve is enticing. The owner hopes the team will find lower cost solutions or eventually break and agree to a lower number. But delaying the signing delays the magic moment when the team turns their focus away from agreeing to a Target Cost to delivering the Target Cost. The owner and the E&C partners would be better off setting the Target Cost as soon as they find themselves in the flat region of the optimization curve. Close enough is good enough. Or as Google preaches, "Done beats perfect."

Another thing to realize is that this curve represents a single moment in time. But in the real world, time matters and the curve is three dimensional, so it's really a half-pipe that rises with time.

3D Optimization Curve



For this reason, any point in the flat region of the curve at t_1 will be less than the absolute minimum point on the curve at t_2. This argument can be made for most management decisions. Think "paralysis analysis". And, it's especially relevant with time sensitive decisions like the signing of an IPD Agreement.

Worst Case

What's the worst that can happen if the owner agrees to too high a Target Cost? The quick answer is that the owner is out 50 cents for every dollar the Target Cost is set too high. For example, if set $2 million too high and the team beats the Target Cost by this amount, the owner is out $1 million and the E&C partners split an extra $1 million. By the way, there are worse things than your partners making more money … your competitors making more money for one. They are your partners.

See Exhibit A for what makes up the Target Cost at signing and the different scenarios that can occur at the end of the project.

The reality is that companies overpay some of their partners just like they overpay some of their employees. When we overpay our partners, they can invest all or some of it back into their business. This could be capabilities in the form of new technology and equipment, or in their people to attract, train, and retain top talent. Remember, we want partners that are profitable. This tells us they know how to be cost effective and efficient, and they know how to invest in their future. Should we regularly overpay our partners? Absolutely not! I'm just pointing that there are worse things we can do.

How low should they go?

Why should our E&C partners go with a low Target Cost? First, the Target Cost should always be set below the Expected Cost to create a Challenge for the project team. This Challenge creates "Creative Tension" that motivates the project team to collaborate and innovate like their life depends upon it … at least their business life. "Standing on a burning platform" is the analogy often used to capture the feeling the project team should experience at signing. It tells them, "Doing things the same old way ain't gonna cut it." They're going to have to find new and better ways of doing things.

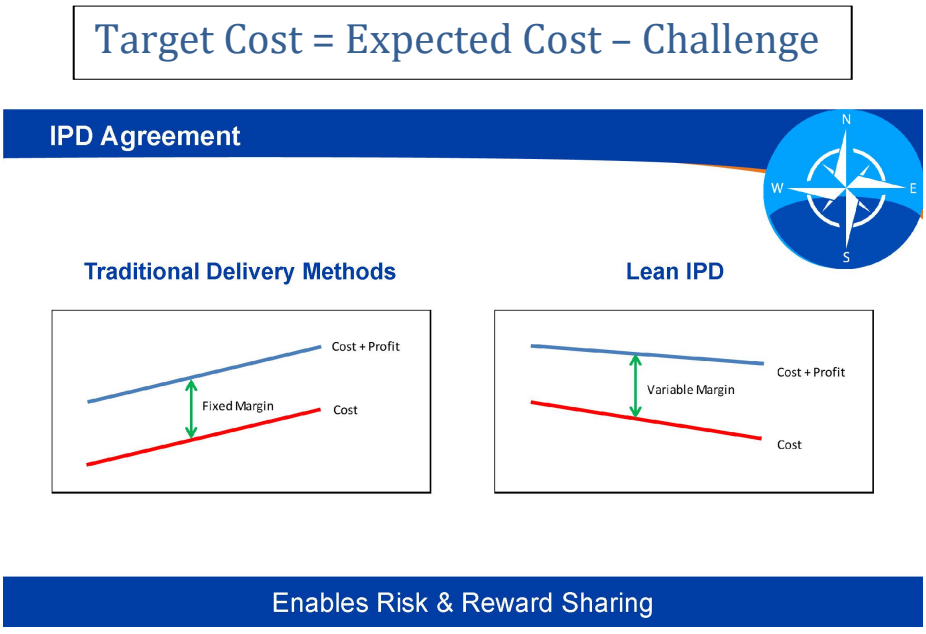
Howard Ashcraft, a partner with Hanson Bridgett LLP, was the first person I heard use the term "Creative Tension". He pointed out that in the 100 plus IPD Agreements he's negotiated and seen to completion, that teams with a larger gap to overcome (between their Expected Cost and Target Cost) made more profit than teams with a smaller gap. Without enough tension, teams are less driven to collaborate and innovate. The right amount of tension creates a motivated team. And once a motivated team gets their mojo going, they'll generate solution after solution to beat the Target Cost and then some. Howard will argue that not giving the team a healthy challenge will keep them from achieving their full potential and reduce the profit they'll make for their respective companies.

Can you go too low?

Yes, you can set the Target Cost too low. Just like stretching a rubber band too far will cause it to snap, setting the Target Cost too low will break the team. So what's the right amount of Challenge to motivate the team without breaking its spirit? This is where our EQ (Emotional Intelligence) comes in. Leaders from all sides need to help identify this breaking point and realize it's a range rather than a single point. Each E&C partner will have a different level of comfort with a given Challenge.

What's needed to set the Target Cost?

The simple answer is that the team needs to complete the Validation Phase and agree to the Challenge. The Expected Cost is a primary outcome of the Validation Phase. The Target Cost is just the Expected Cost minus the Challenge.



Validation Phase

The purpose of the Validation Phase is to quickly validate the base cost of the project using largely design/ construction methods. Estimating or costing is done based on a conceptual level design and using conceptual estimating methods. Note, not every contractor has this capability, so it's important to select partners that do.

Expected Cost

Allowances, contingencies, and risks are all factored into the Expected Cost. The goal is for the entire team to agree to a number that they are reasonably confident they can deliver. With the Expected Cost determined, it's just a matter of agreeing to the Challenge to get to the Target Cost. As discussed, too much Challenge will take away the Team's Spirit, and too little will take away the Team's Motivation. The right amount gets you a highly motivated team that will lower the project's cost and increase their companies' profits … a true win-win!

A Wrong Approach

While it sounds simple, the reality is that on most projects the Expected Cost is above what the owner wants or can afford. Too often, the owner will send the Project Team back to "sharpen their pencils" or take some value engineering approach. This turns into weeks or even months of engineering, pricing, and bidding to get the number down. Conceptual estimates become highly detailed, yet are still based on preliminary engineering and design. The team remains focused on pricing instead of delivering the project. Valuable time that could be spent on creating value from "How" the project gets delivered is lost.

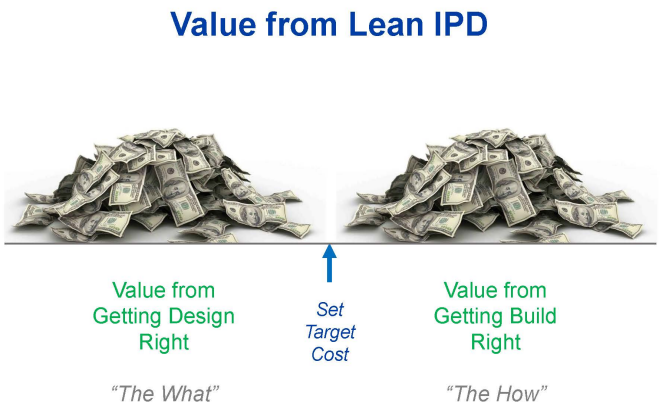
An undesirable consequence of this is that the E&C partners feel the owner is trying to get every single idea out ahead of setting the Target Cost, thus leaving little time and room for additional innovation. The owner senses the E&C partners frustration and interprets it as holding back or gaming the system. This destroys a lot of the trust developed in the early phases of the project and puts the project at risk.

A Better Approach

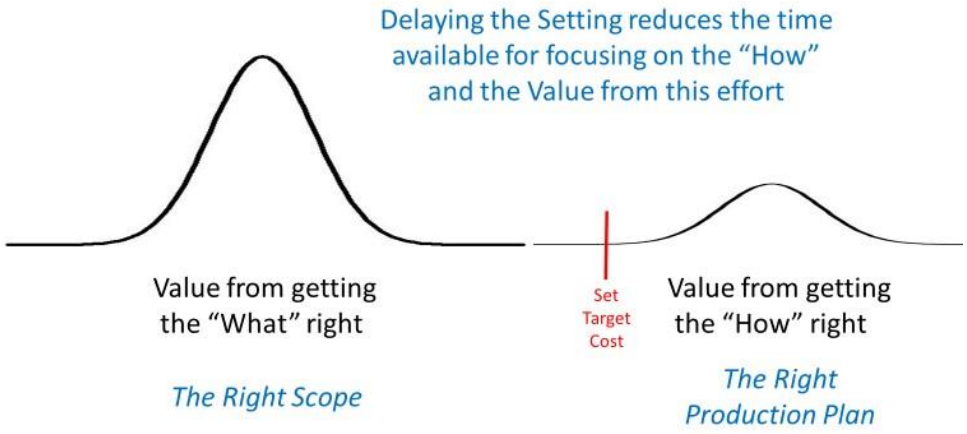
A better approach is for the team to take the initial Expected Cost, understand it completely, and then have a mature conversation about the art-of-the-possible to set a Target Cost with an appropriate amount of Challenge. A Challenge that can be achieved … and even beaten … if they really work well together as One Team. This creates the win-win that Lean IPD is designed to deliver.

Value from the "What" and the "How"

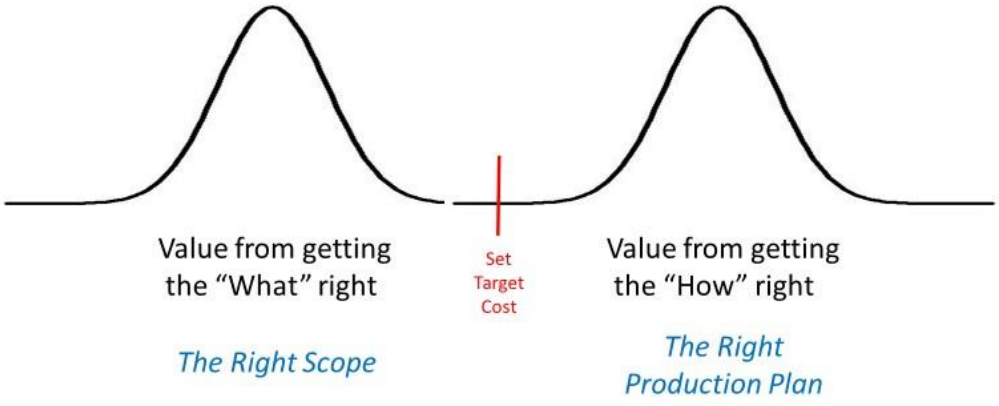
A key insight from Lean IPD practitioners is that there is tremendous value from both the "What" and the "How" of delivering projects**.** While scope is the primary determinant of project cost, there's plenty of value that can be gained from the execution. This, of course, is due to the tremendous amount of waste, rework, inefficiencies, integration errors, change orders, and other losses inherent in traditional



delivery approaches. Lean IPD was designed to address all of these losses. When we spend too much time in setting the Target Cost, we lose valuable time that could be spent on the "How".



When we set the Target Cost in a timely manner, we get tremendous value from both the "What" and the "How."



The Role of Leaders

The role of the Senior Management Team (SMT) is to help the Project Management Team (PMT) set the Target Cost in a timely fashion. Note the emphasis on it being the team's Target Cost. For it is the team that needs to buy into this number. More than any other number on a project, it will define success for everyone involved. Leaders need to see the big picture and ensure this view is included throughout the life of the project and other projects that will follow.

Mike Staun

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Procter & Gamble

Exhibit A: What's in the Target Cost? and What happens at the end?