



The Integrated Project Leader

The Secret Ingredient to Design-Build Done Right!

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Leadership Makes a Difference!

Where's the
Captain???

I'm sure glad the
hole isn't in our end...



The Leadership Imperative

- Common denominator for all integrated project approaches
 - The expectation for the team to act “AS ONE”
 - Capturing the “collective knowledge and expertise of the multi-discipline perspective
 - To deliver comprehensive, integrated solutions



Tall Order for This Industry

- Traditional mentality of segregated services
- Low bid environment
- Short term thinking
- Isolated and independent perspectives
- Competing agendas

Busted Process and Approach

- Design-Bid-Build and the Low Bid mentality that it embraces, drives distrust and conflict
- 70% of construction projects finish late and over budget
- Up to 50% of the cost of projects is consumed in inefficiencies and waste
- These inefficiencies and waste adds \$500 BILLION of unnecessary costs to projects every year

Who is Best Qualified to Lead the Team?

Show of hands please



Answer

**Perhaps none of
the above...**

Who is Best Qualified to Lead the Teams

- Contractor, architect, or engineer credentials do not prepare you for leading multi-discipline teams with different skills and motivations...
- If all any one discipline can contribute is there single discipline perspective:
 - Won't be able to develop integrated solutions
 - The project will suffer
 - The owner will sacrifice achieving the full potential that design-build offers

Tug-a-War Approach to Project Leadership

- Each individual discipline presses for its own viewpoint and agenda:
 - Architects press for enhanced design, while discounting budgets and schedules
 - Contractors press for budgets and schedules, while discounting design enhancements



Owner wants it ALL !

Tug-a-War Approach to Project Leadership



- **Power struggle begins**
 - Each party feels threatened by the other
 - It becomes a clash as to whose point of view wins
- The “viewpoint” of the discipline “leading” the team will typically trump all the other viewpoints

What the Owner Gets

- Such discipline bias results:
 - Compromised solutions
 - Missed opportunities
 - Inefficiencies
 - Waste
- Traditional design-build produces better results than DBB...
- But who wants good when you could have GREAT !



Project Leadership

- The Owner is the ultimate leader of the project...
 - Sets the goals, objectives, program, and purpose for their projects
 - Indeed, owner would plan, design, construct, and commission their projects by themselves...
 - But they can't !

So they hire us...



- 56% Contractor-led
- 12% Designer-led
- 27% Integrated Firms

56% of all DB projects are "led" by contractors

New Mental Model for Leading Project Teams

The Integrated Project Leader

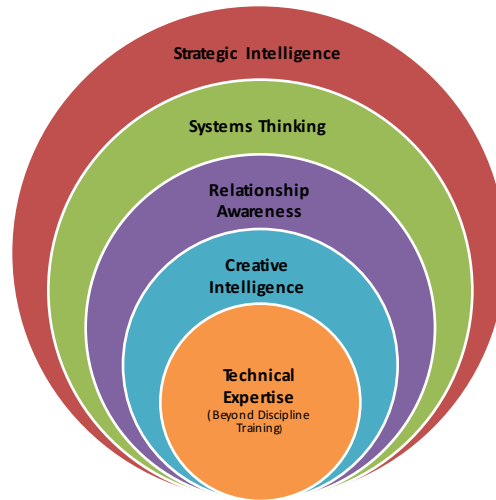


- *A uniquely qualified and able individual*
- *Much more than a CM, PM, or DM*
- *Should be identifiable in the marketplace as a distinct professional*
- *An IPL MUST be more*

What do they have that I don't have?

- Management – Doing things right
 - Deals with the **HOW**
 - Mitigates risk
- Leadership – Doing what's right
 - Deals with the **WHY**
 - Accepts risk

Great Question !



Integrated Project Leadership

What Does an IPL Need to Know?

• **Process Part**

- Technical competencies beyond discipline expertise that **support** collaboration and integrated problem solving
- Must have competence in the tools and techniques to manage the design and construction as an “integrated” process

• **People Part**

- Affective skills and talents that **inspire and enable** collaboration and integrated problem solving
- Must move the team members from compliant (or defiant) participants to willing collaborators
- Responsible for creating a shared vision and identity

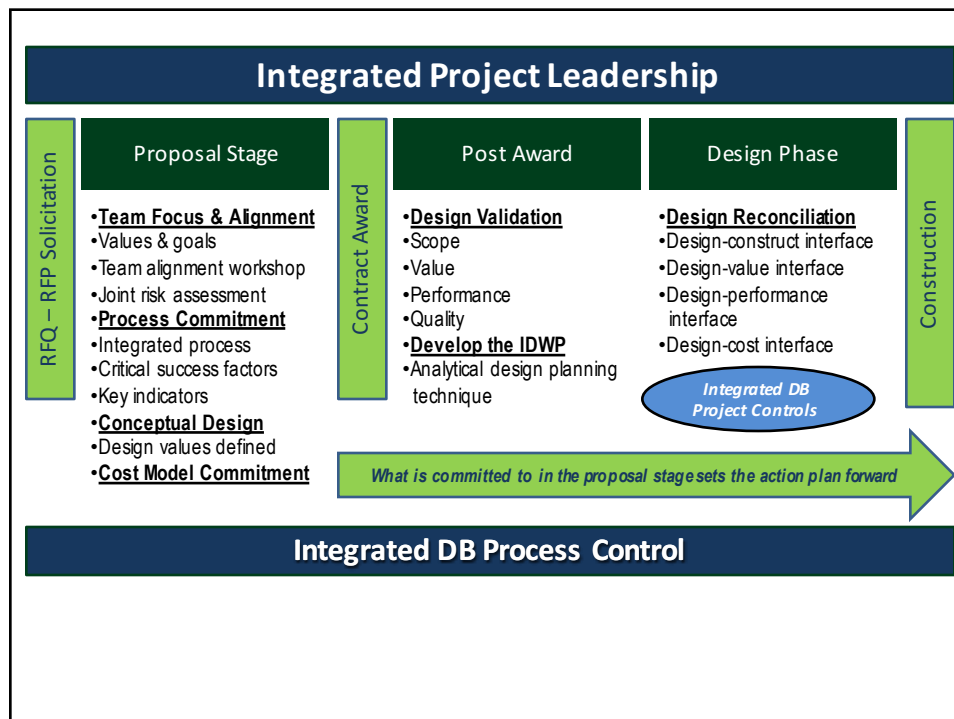
IPL Competencies Process Tools and Techniques

Design Management Tasks

- Design-Value Interface
- Design-Cost Interface
- Design-Schedule Interface
- Design-Construct Interface
- Design-Performance Interface

Design Management Tools

- VALiD (Value in Design)
- Trend Management
- ADePT (Analytical Design Planning Technique)
- BIM (clash detection, sub-coordination, etc.)
- BIM analytics



VALiD

Courtesy: AML Technologies

Tools to Measure Value

VALiD: Value in Design

A stakeholder value assessment system

1 Understand Values
 ► Stakeholder
 ► Project

2 Define Value
 ► Goals
 ► Targets

3 Assess Value Proposition
 ► Benefits
 ► Sacrifices
 ► Resources

VALiD - Stakeholder Dashboard

Whitbury	Project Status	<p>Whitbury Nursery: Dashboard for Chris Benson (Modern Nurseries Limited) Customer</p> <p>Project Status:</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> Your: 1.01 The Project: 1.00 </div> <div style="display: flex; justify-content: space-between;"> Customers: 1.08 Providers: 0.85 </div>
Your Benefits	Your Benefits	<p>Your Benefits:</p> <p style="text-align: right; font-size: 0.8em;">See below for your Sacrifices and Resources</p>

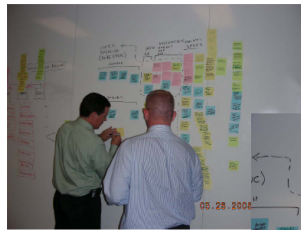
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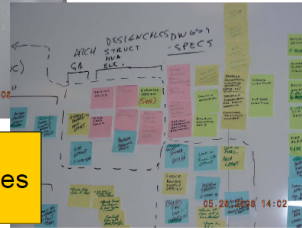
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Design-Schedule Interface

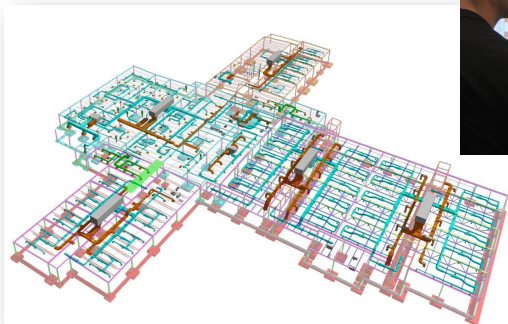
Developing the IDWP



Working Out the Issues

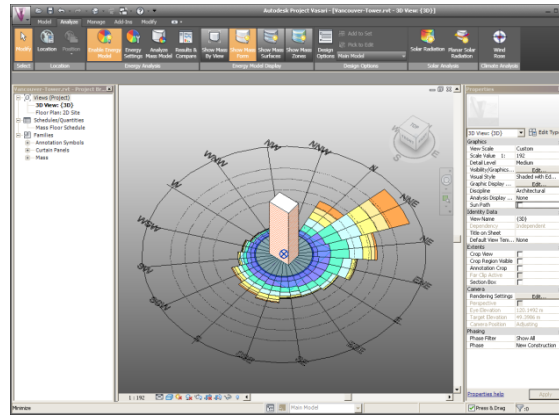


Design-Construct Interface



Constructability,
Coordination, and Clash

Design-Performance Interface BIM Analytics



Other IPL Competencies Process Tools and Techniques

- Lean Philosophies & Practices
 - Last Planner for design and construction planning
 - Set based design
 - Target value design
 - The Big Room (co-location)

Lean Principles



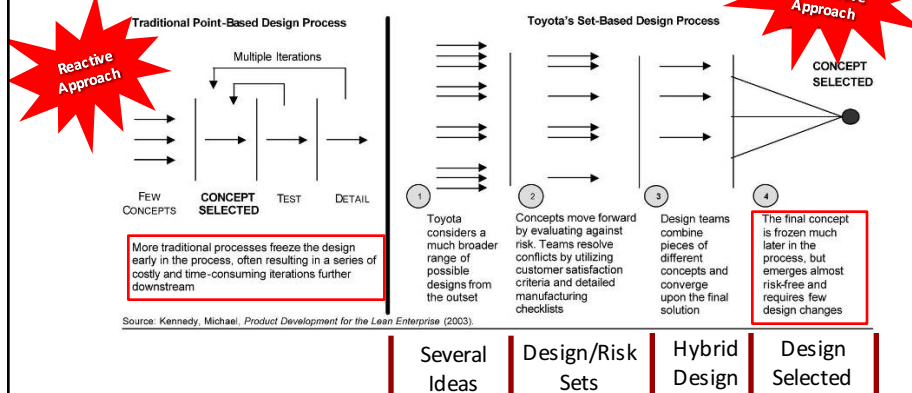
- Customer defines value
- Waste and inefficiency is bad
- Can't manage what you can't see
- Continuous improvement
- Respect for people

*Right process will
produce right results*

Set Based Design

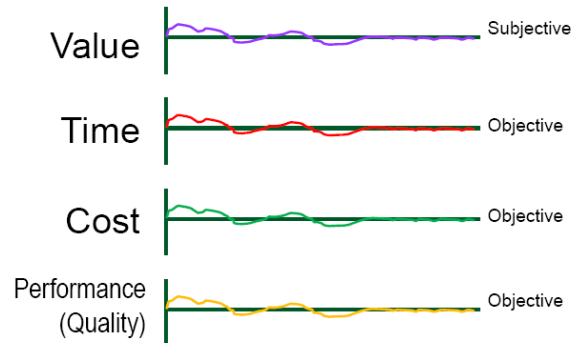
A collaborative team approach to design

FIGURE 4: TOYOTA'S SET-BASED DESIGN VS. TRADITIONAL POINT-BASED DESIGN



Target Value Design

Managing the Interfaces



Each criteria tracked to targets as design develops...

Target Value Design

- In Design-Build Done Right:
 - Rather than estimating based on a detailed design, we design based on a detailed estimate (cost model)
 - Rather than evaluate the constructability of a design, we design for what is constructible
 - Rather than make design decisions alone and then come together for group reviews and reactions, we decide first together...then commit and design to those decisions

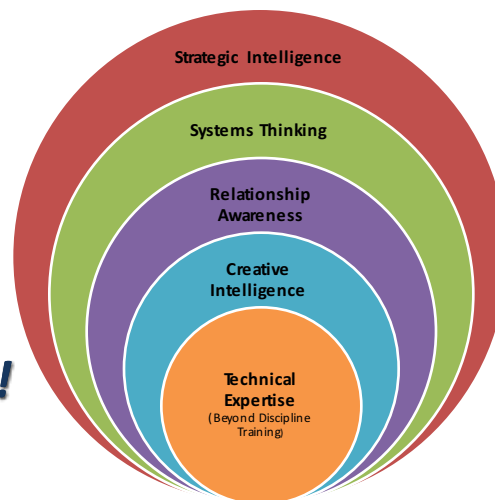
Thinking Together Out Loud
BEFORE Beginning Design

The BIG Room – Co-location



*What do they have
that I don't have?*

Great Question !





IPL Competencies Affective Skills and Talents

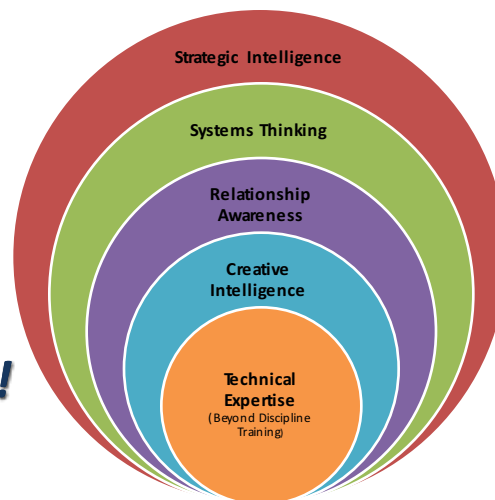
- Making the Mental Shift
- Emotional Intelligence
- Genius of AND
- Getting the right people on the bus
- Relational or alliance contracting
 - Gain/Pain sharing
- Communication
 - Cascading communication
 - Team talk
 - Reliable promising
 - Committed listening/speaking
- Commitment management

Getting Past the Barriers

New and Necessary IPL Competencies

*What do they have
that I don't have?*

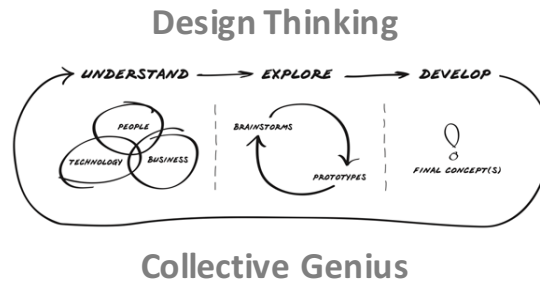
Great Question !



Creative Intelligence

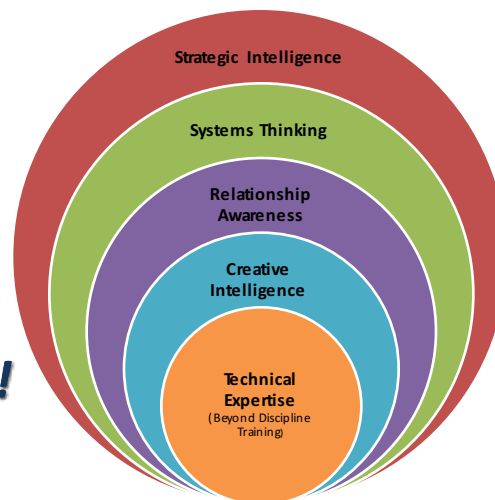
(Some Call Design Thinking)

- Ability to use “creative process” to anticipate and access added value
- Understanding the interdisciplinary problem solving process
- Leveraging the collective knowledge, expertise, and experience of the team

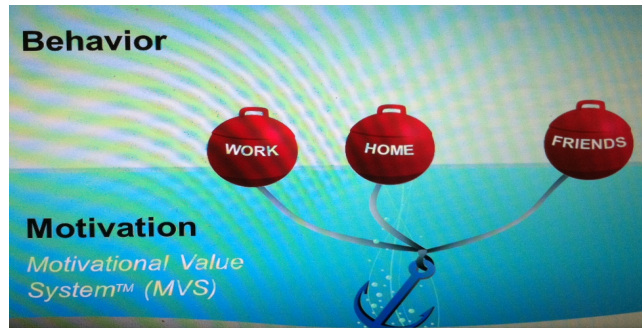


*What do they have
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Relationship Awareness

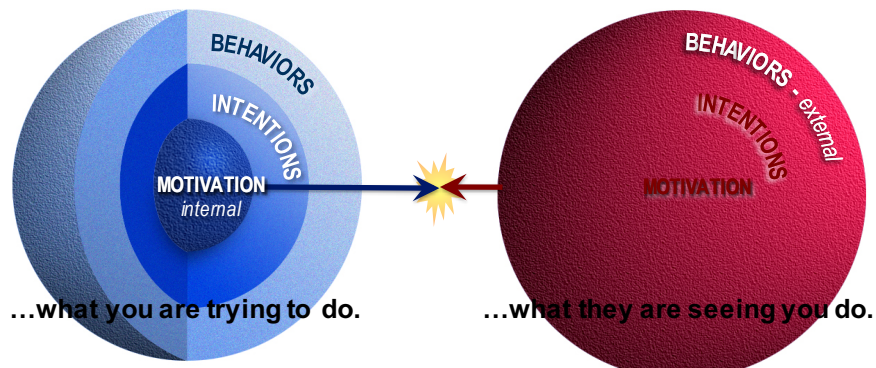


A theory of relationships based on motivation under two conditions:
 (1) When things are going well and (2) In conflict

Motivation, Intention, & Behavior

The reasons for
using behaviors...

The things that people
do or trying to do...



Benefits to DB Teaming

- Leader able to distinguish between behavior and motivations
- Leverage each team member's motivation value system (MVS)
- Ability to “borrow” behaviors to support your motivations
- Understand conflict sequences and triggers

Opposition VS Conflict

op'po•si'tion

Resistance,
contradiction,
contrast, differences...

**does not
necessarily
equal**

con•flict'

A sharp disagreement or
collision in interests, ideas
and/or principles... resulting
in emotional disturbance...

***Some of the most
creative ideas come
from the synergy
of opposition.***

***When a person's sense
of self-worth is
perceived to be
threatened or at risk.***

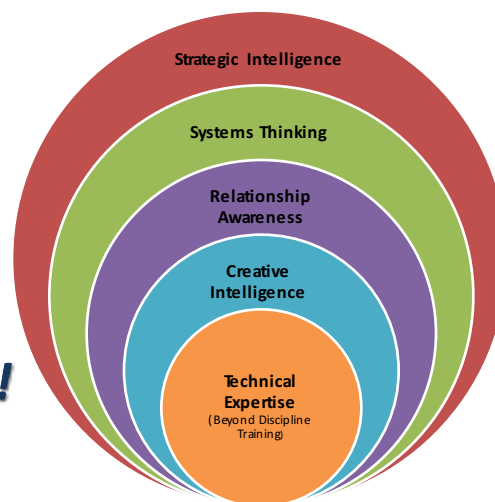
Being Aware of People's Motivations and
How They Change (in conflict) is an Important
IPL Leadership Competency

Every human being has an inner sense of
worth, of importance, of dignity. Wound
that and you have lost that person forever.

Dr. Norman Vincent Peale

*What do they have
that I don't have?*

Great Question !



Habits of a Systems Thinker

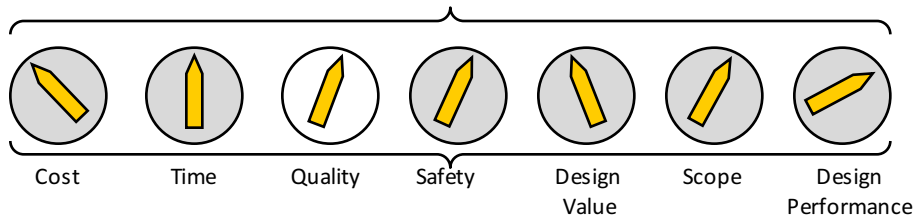
©2007, Waver Foundation, Systems Thinking in Schools

- Analytical Thinking
 - Considers HOW
 - Looks at parts and pieces
 - Produces knowledge
- Systems thinking
 - Considers WHY
 - Looks at the interactions of the parts and pieces
 - Produces understanding

Integrated Design & Construction

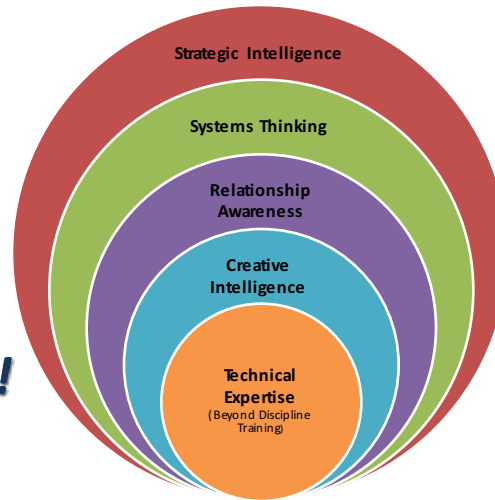
You cannot tweak one of these without impacting others.

Decisions CANNOT be made in isolation

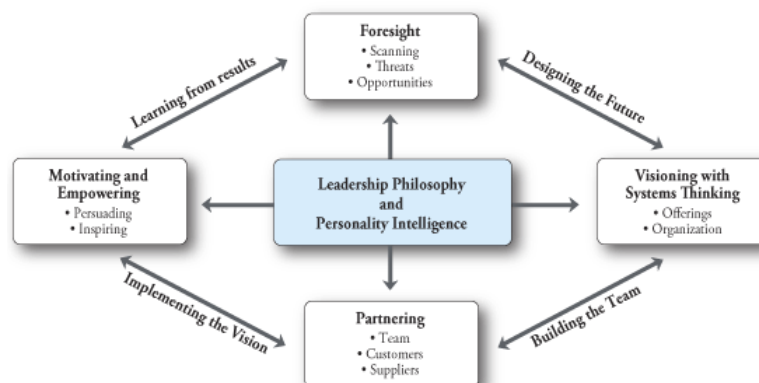


*What do they have
that I don't have?*

Great Question !



Strategic Intelligence



Leadership Philosophy

- Includes at least four elements
 - Purpose
 - Describes where and why you are leading - Should be meaningful to all
 - Bill Gates – “Improving the way people work”
 - Ethical and moral reasoning
 - Being ethical is essential to building trust
 - Practical values
 - What it takes to achieve purpose – “Collaboration”
 - Definition of results
 - More than financial results
 - What else do you measure?

Takes time to
develop a leadership
philosophy

Personality Intelligence

The ability to understand people

- Three elements
 - Understanding how people are motivated similarly to others raised in the same culture (**social character**)
 - Considered as the shared part of personality of people brought up in a similar way, shaping behavior and emotional attitudes
 - Understanding how people are motivated similarly to others who share a similar system of motivations (**personality type**)
 - Understanding how individuals are uniquely motivated by the meanings they give to their motivations and relationships (**identity**)

Interaction Between Leaders and Followers

- One irrefutable definition of a leader:
“Someone people follow”
- Leaders are most effective when they and their followers become collaborators who share a common purpose
- Leadership relationship exists within a context

Social Character

- | | |
|--|--|
| • Industrial – Bureaucratic | • Knowledge – Interactive |
| – Inner-directed, exacting | – Other-directed |
| – Values loyalty, stability, work experience, and expert job knowledge | – Independent and collaborative |
| – Leadership hierarchies | – Innovative |
| – Likes highly structured roles | – Expects continual change, not loyalty |
| – High control methods | – Often come from single parent families |

Social Character

- Leadership in a new context - Two main factors
 - The challenges facing a leader (the stuff)
 - The values and attitudes of those being led (people)
- Related to changes in modes of production
- The change from industrial work to knowledge work requires a change in the:
 - Dominate mode of production
 - The way work is organized
 - The tools we use
 - The skills and relationships required for effectiveness and efficiency
 - And the requirements of the leadership role

Social Character

- Knowledge work requires collaborative teams and collaborative leaders to:
 - Create innovative solutions
 - Work across organizational and discipline silos
 - Work with upstream and down street suppliers and stakeholders
 - Work across cultures

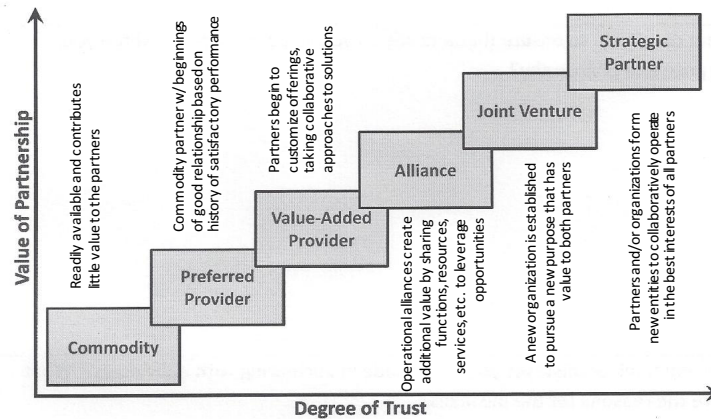
Foresight

- Foresight precedes vision and drives change
- Understanding the concepts of:
 - Target value design
 - Set based design
 - Whole life benefit, etc. are evidence that you have foresight....you can anticipate what's possible

Visioning with Systems Thinking

- Leaders with vision are systems thinkers
- They can describe an ideal future for their organization in terms of the interrelationship among people, processes, and the practical values that must work together to achieve a clearly defined purpose
- IPL's must be able to create and articulate "vision"

Partnering

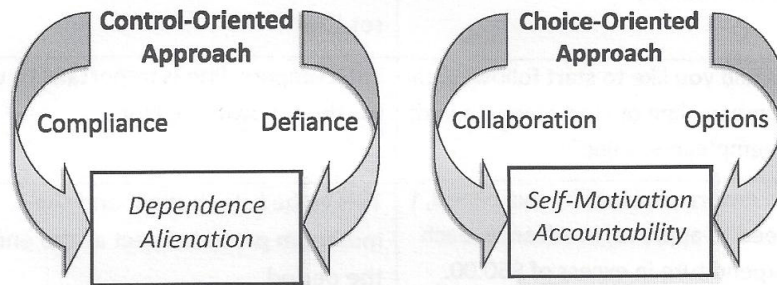


Motivating and Empowering

- Followers follow either because they **want** to follow or because they **have** to follow
- An IPL needs to move team members from “have to” to “want to”
- Collaborators want to follow a leader who involves them in the process of accomplishing meaningful vision

		Motivation of Followers	
		Have to Follow	Want to Follow
Motivation of Leader	Common Interest	Persuades	Collaborates
	Personal Interest	Dominates	Seduces

Motivating and Empowering



Moving team members from "Have to Follow" to "Want to Follow"

The Four R's of Motivating and Empowering

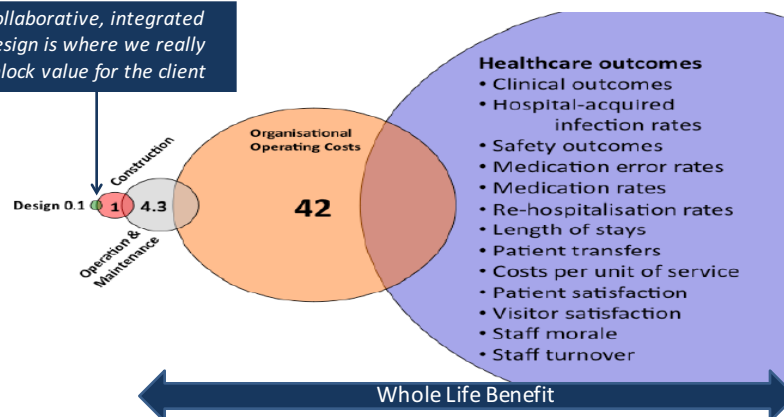
- When **responsibilities** are clear, there is not much room for role confusion
- When **relationships** are productive, there is not much room for conflict
- When **rewards** are appropriate, there is not much room for perceiving injustice
- When **reasons** are compelling, there is not much room for complacency or cynicism

Now the Real Challenges!

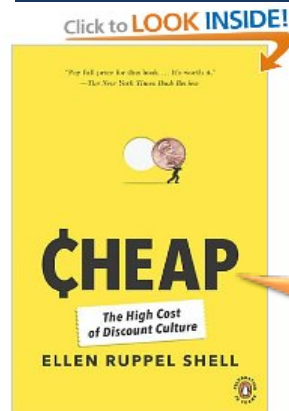
The Owner's Will & Procurement

Owner's Will

Collaborative, integrated design is where we really unlock value for the client



Addicted to Cheap



- The astronomically high cost of cheap
- Can you afford the high cost of cheap?
- What are you buying, really?
- What's the return on an investment in mediocre or worse?

Nothing has done more damage to this country's competitiveness in the world than our addition to the low bid process – both public and private!

Ideal Procurement - QBS

Power of the process

- QBS Procurement
- Align project goals
- Program, scope, set targets

Entire Team on Board

Value Generation Stage

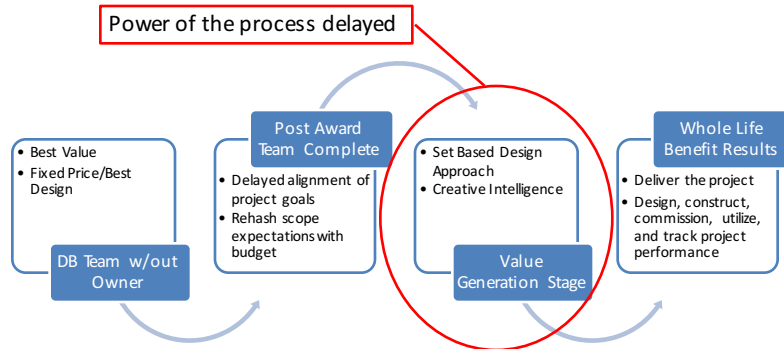
- Set Based Design Approach
- Creative Intelligence

- Deliver the project
- Design, construct, commission, utilize, and track project performance

Whole Life Benefit Results

Best Value Second Best

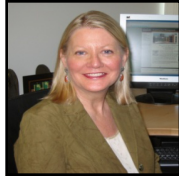
Low Bid Procurement Literally a Waste of Dollars



Final Thoughts

- The only thing more difficult than starting something new is stopping something old.
- There is no way of running a risk-less transformation or revolution.
- If you want to create a transformation in an organization you must be willing to run the risk of initiating radical ideas and taking the consequences good or bad that will come with that.

Thank You.....



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Questions?

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