

NACWA's 2007 Winter Conference
Global Trends Impacting Utilities—
The Rising Cost of Clean
Creativity and Productivity as a Response

February 1, 2007

St. Petersburg, Florida

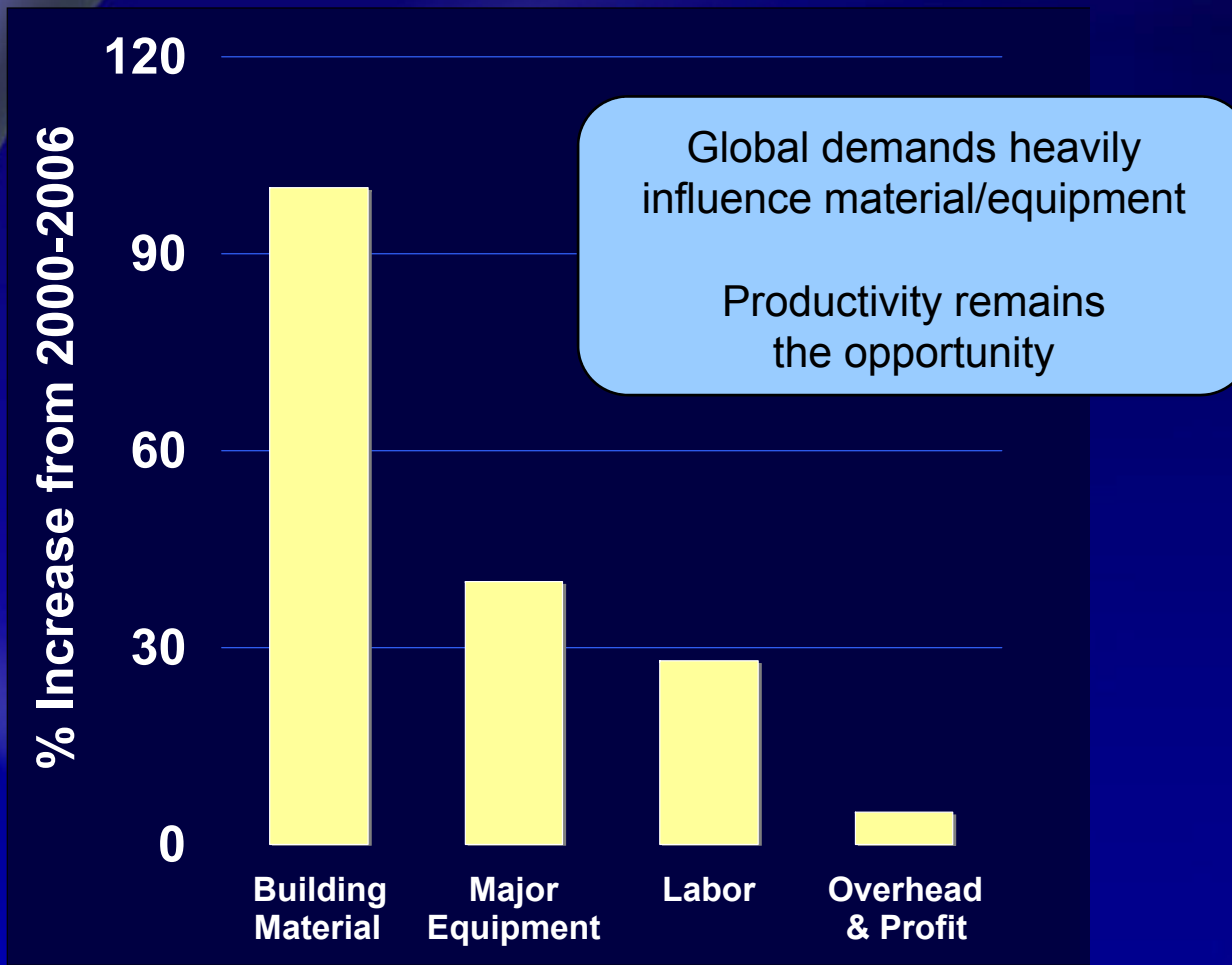
Richard D. Fox

President, Camp Dresser & McKee Inc.

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listen. think. deliver.

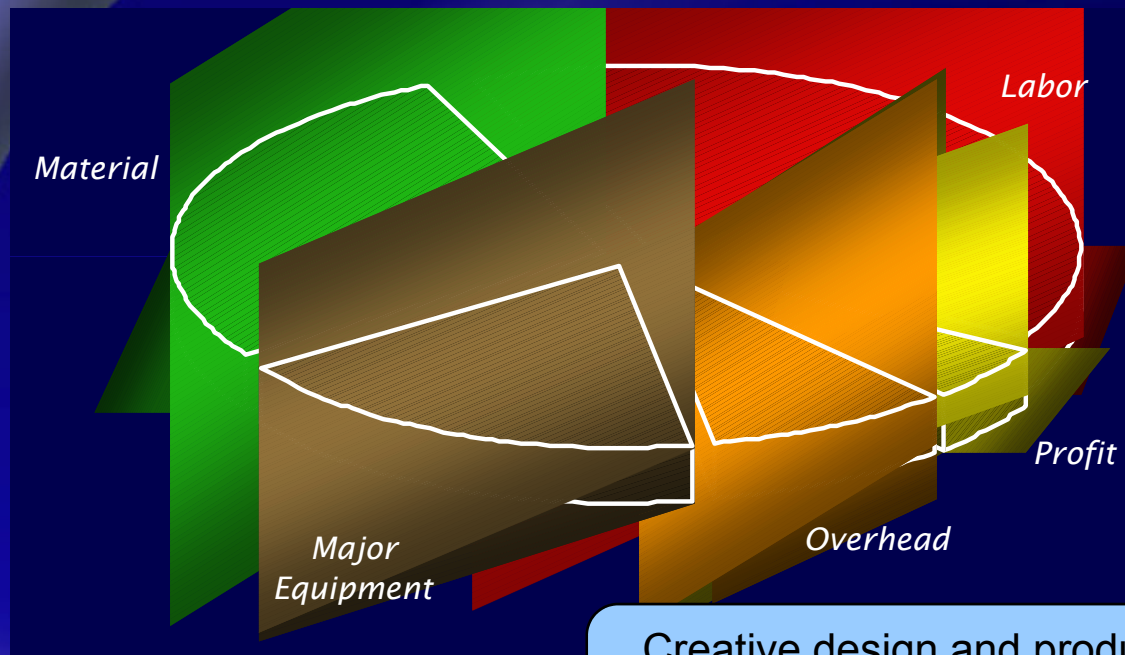
Construction costs rose significantly in all areas from 2000-2006



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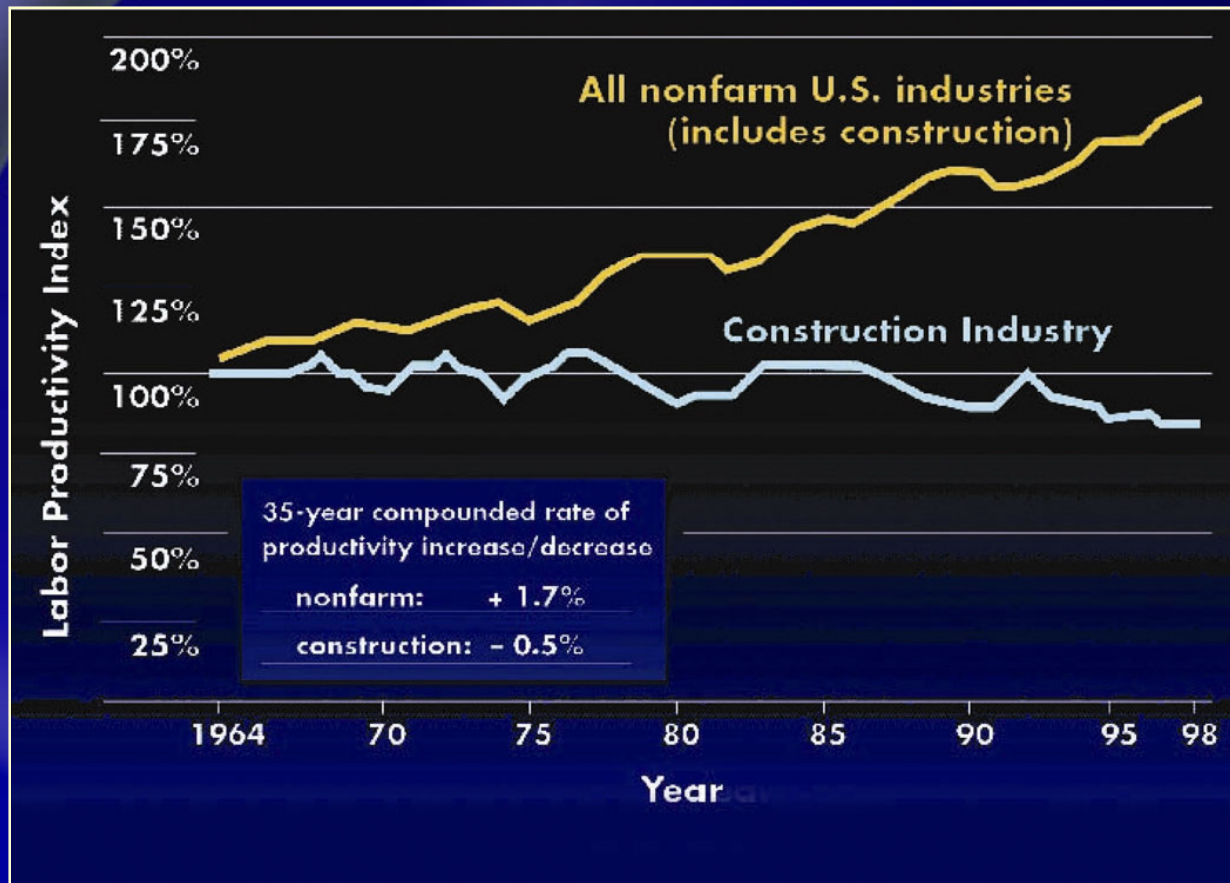
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Global market demands will continue to influence prices



Creative design and productivity are the opportunity for controlling the rising cost of clean

Productivity of US construction versus productivity gain in non-farm industries



Source: US Department of Labor

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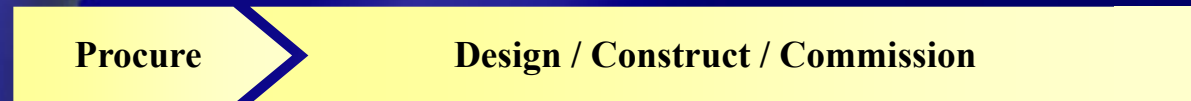
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Alternative delivery - a role in the “Rising Costs of Clean”

Design-Bid-Build (D-B-B)



Design-Build (D-B)



Alternative Delivery (D-B)

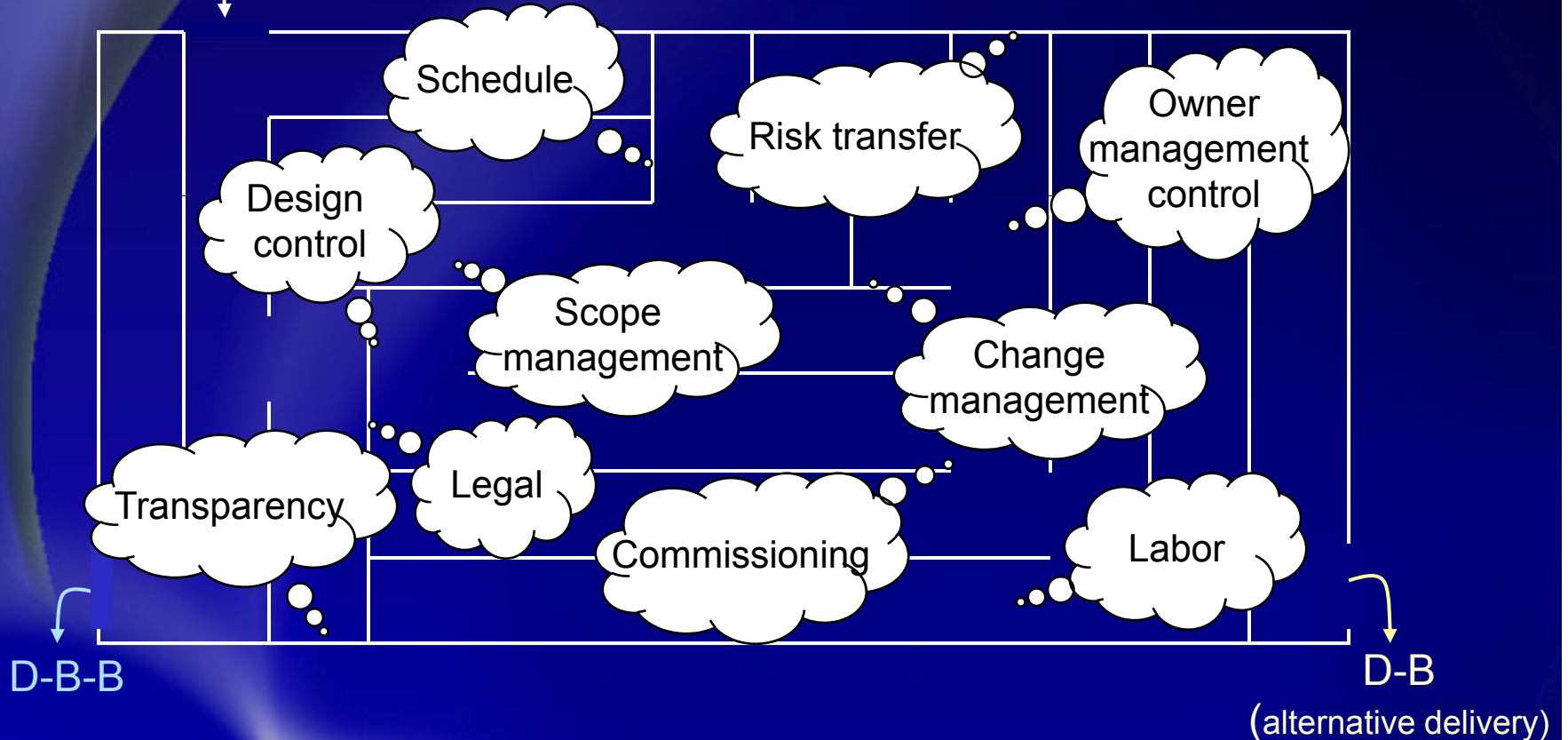
- ◆ Single source responsibility
- ◆ Construction/design partnership
- ◆ Accelerated delivery
- ◆ Reduced change orders
- ◆ Risk transfer
- ◆ Creativity incented

It's so obvious, why is it not obvious?

Design-bid-build vs. alternative delivery

It's so obvious, why is it not obvious?

Begin here



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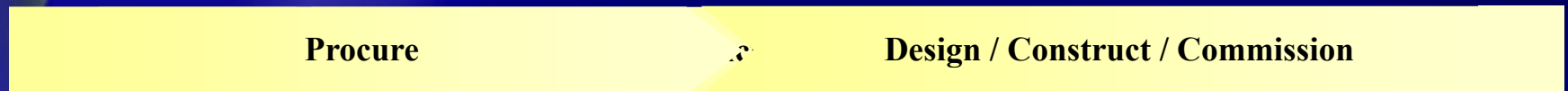
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Schedule Acceleration

Design-Bid-Build



Design-Build



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Change orders

Alternative delivery (D-B)
provides a track record of reduced
change management



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Labor

**Design
Build**

≠

- ◆ Multiple primes
- ◆ Filed sub-bid
- ◆ Prevailing wage
- ◆ Professional unions
- ◆ Operating unions

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Design Control

- ◆ Rehab
- ◆ Consistency
- ◆ Aesthetics/
Noise/Odor



High levels of
design control

≠

**Traditional
design
build**

EPCM

Procure

65 % Design

Negotiate

Construct/Commission

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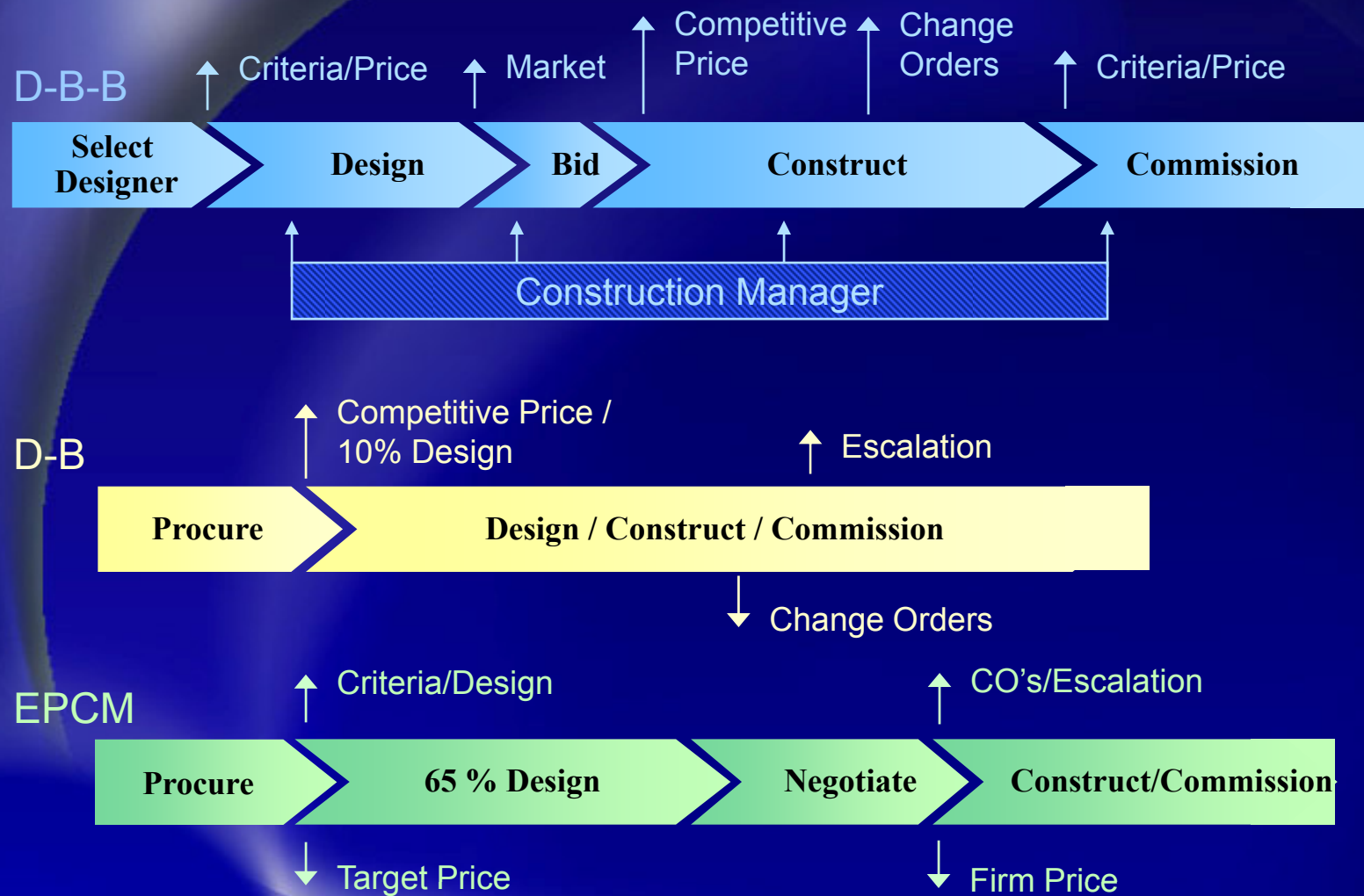
Risk Transfer

RISKS	MEANS/METHODS	PRICING
◆ General Liability	Insurance	0.1% - 0.2%
◆ Errors/Omissions	Professional Liability	0.1% - 0.3%
◆ Worker Injury	Workman's Compensation	0.1% - 3.0%
◆ Contractor Payment	Bonds	0.5% - 1.0%
◆ Contractor Performance		
-Schedule	Liquidate Damages	0% - 10%
-Overall	Contractual Transfer	0% - 7%
◆ Force Majuere	Contract Exclusion	0% - 0%
◆ Facilities Performance	Contract Transfer (warranty)	0% - 3%
◆ Limits on Liability	Contractual Terms	Erratic/Exorbitant
◆ Consequentials	Contractual Terms	Erratic/Exorbitant



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Transparency



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Summary

- ◆ **Global forces compound “Rising Cost of Clean”**
- ◆ **Productivity of traditional delivery**
- ◆ **Design Control = Modified D/B or EPCM**
- ◆ **Risk Transfer**
 - Rationale – Fair Pricing
 - Full – Exorbitant Pricing/No Responsible players
- ◆ **Transparency**
 - A real, client specific issue
 - Discuss it / manage it

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