



connecting
people
delivering **value**

Owners in Control.... but Contractors Still Held Accountable

Mark Stevens
ECRI- June 2011

FLUOR[®]

Topics for Today

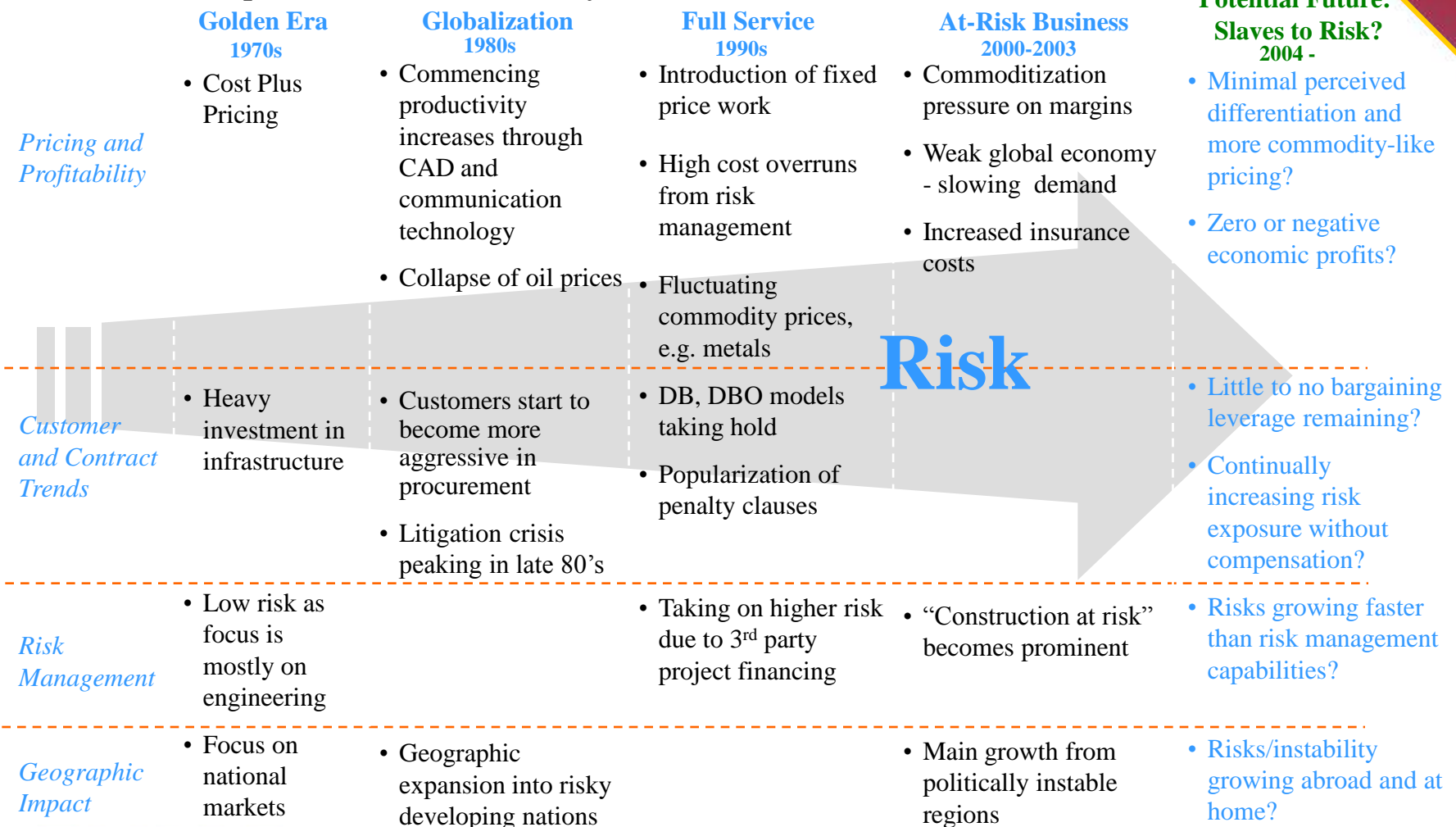
connecting people
delivering value

- ⌘ The next big thing in the evolution of risk transfer
 - Where we have been
 - Where we are going
- ⌘ The correlation between controlling the work and mitigating the risks
- ⌘ Recent case studies- Client Assuming Control and Contractor retaining the risk

Over the last four decades, the E&C industry has adopted riskier business models

connecting people
delivering value

Risk Level Development in the E&C industry



Risk



Developed in conjunction with AT Kearney and the World Economic Forum

The Next Big Thing in the Evolution of EPC Risk Transfer

connecting people
delivering value

- ⌘ Owners Maintaining Control of the Key Elements of Project Execution while shifting the Risk to Contractor
- ⌘ Why is this even an issue?
 - Owners goals may not perfectly align with the goals of the contractor
 - Through lack of experience or otherwise, Clients team may insist on a particular course of action that is not appropriate, timely or cost effective, but the ramification of such decisions are absorbed by the contractor.
 - Increased Owner control of project execution reduces the degrees of freedom a Contractor has at his disposal to mitigate risk
- ⌘ And so the argument from the Owner goes as follows:
 -but we simply wants to stay close to the execution issues so that we can stay aligned and help generate solutions. Don't you want to be aligned with us?

A Tale of Two Projects

connecting people
delivering value

⌘ Project A:

- A LSTK Power Plant being built for a developer who is selling power to a US utility
- Owner involvement includes:
 1. Two people attend a status review on the project once a month

⌘ Project B:

- A LSTK Power Plant being built for that same US utility
- Owner involvement includes:
 1. Review and approve monthly and weekly critical path schedules
 2. Ability to remove Contractor personnel at any time.
 3. Ability to require acceleration by Contractor if they deem Contractor is behind
 4. Owner is involved in negotiating major orders and setting the terms
 5. Requirement to do x% of the work with small, female or minority contractors

Although the risks are nominally the same, the Contractors ability to mitigate is restricted on project B due to increased Owner involvement

- ⌘ On several recent projects Owners have negotiated agreements and then required that we take assignment and guarantee the performance of supplier. Examples include:
 - Owner asks for Contractor to provide LD's on schedule and performance of the entire plant but the agreement that they wish to assign does not have the same level of guarantee:
 - No heat rate guarantee on the assigned Steam Turbine in the agreement to be assigned
 - To collect Schedule LD's on the assigned equipment Contractor must prove that he has been harmed (NHNF)
 - Owner looking to assign the obligations and liabilities of the Subcontract to the Contractor, but want to have all the levers for enforcing the obligations stay with the Owner (e.g. payment, LOC, LD's from supplier go directly to owner)
 - All of the above allow the Owners to negotiate a lower price for the equipment, but if the contractor accepts the assignment there is limited backup for the guarantees they are asking the Contractor to assume.

Specifying An Owner Controlled Subcontractor Be Used

connecting people
delivering value

- ⌘ On two recent projects where a national oil company was part of the Owner Group, we have been advised that a condition of our bidding was that we must use, and guarantee the performance of, a fabricator that was owned by one of the owners:
 - As this was a sole source procurement with a subsidiary of the Owner, the fabricator was unwilling to negotiate to accept onerous flow down terms from the prime contractor.
 - The fabricator had limited and, in some instances, questionable experience
 - The Contractor was asked to provide guarantees, including schedule guarantees with LD's, performance guarantees with LD's and warranties for which there was only limited recourse to the fabricator.
- ⌘ The risk mitigation options available to the Contractor beyond simply pricing are limited

What's the Impact of Giving up Control?

customers are people delivering value

Business Risk Management Framework

INTERNAL

Exhibit AB - Risks and Mitigation Strategies

FLUOR PRIVILEGED AND CONFIDENTIAL

Customer: SAPCO (JV Evorak-SAAC) Project Start/Complete Date: / Proposal / Project Manager: Aric Dekker
 Project Name: Super Absorber Polymer Plant_EPC Review Date: 13-Aug-10 Risk Representative: Wilbert Boon
 Location: Middle East, Saudi Arabia Revision Date: 17-Aug-10 Project Risk Representative: Lidia Stepanyak
 Sales Prospect Number: 10056650 / Revision Number: 1 Approved By: Wilbert Boon

Rev #	Risk #	Risk	Severity	Exposure	Priority	Unmitigated Exposure	Remarks	Mitigation Strategy	Preferred	Execution Cost	Remaining Exposure	Remaining Exposure Rationale	Risk Responsible Party
1	2	Not having enough information on the installation scope of equipment packages may affect subcontractor price as quoted during OBE preparation	4	3	4	700,000	14 significant packages, and each has 100,000 USD impact and 50% of those packages have the impact	2.1 Use of P11 data	Yes	0	600,000		
0								2.2 Make assumption based on historical project (if available) how the packages will be delivered to the site. Proposal to be based on this assumption.	Yes	0			
								2.3 Get early involvement with the vendors to get packaged equipment.	Yes	0			
								2.4 Include Vendor Reqs for construction period	Yes	0			
1								2.5 Include add. Allowance on installation cost for 1% & benchmark for actual cost.	Yes	0			
1								2.6 Mid November issue of LS	Yes	0			
Sub Total						700,000				0	600,000		

To the extent Contractors relinquish control of key execution parameters, then they are limiting their available mitigation strategies

With fewer execution Strategies available, the remaining exposure and Event Contingency need to increase

1	3	Fluor may not receive required attention from Al-Hajri as SAP scope is smaller than the rest of the complex (besides, Samsung may have more leverage with Al-Hajri)	3	4	3	0		3.1 Staggered mechanical erection of SAP- SAP plant mechanical completion 3-6 months after AA-plant	No	0	0		
1								3.2 Get a senior level commitment from the Al-Hajri management - get executive sponsor in place and conduct regular meetings to monitor progress - DELETED IN REV 1	Yes	0			
1								3.3 Set up an incentives scheme on Project Completion Date	Yes	0			

- ⌘ In today's market place, EPC Contractors will be asked to take on more risk.
- ⌘but more than just transferring risk, our clients are further leveraging their market position to assume more control of the project while leaving the risk with the Contractor
- ⌘ When our control of a project is limited, our mitigation strategies are as well
- ⌘ The principle:
 - Accept risks we can reasonable mitigate through the effective control of project execution
 -but if others want the control, then they should reasonable accept the risks associated with that control

What risk management principles will your organization stand on?