
Get Contractor
Contract
Strategy
Yell & Bitch
@ Contractor
Profit $!!!

Contract Strategy

Critical to Your Project's Success

Agenda

- Introductions
  - Safety Moment
  - Sub-committee Scope
  - Workshop Scope
- Exercise # 1
- Business Need
- Exercise #2
- Wrap-up

Our Team

- Bill Somerville, Nexen
- Randy Bignell, Bantrel
- Jason Bobier, Nexen
- John Taylor, Corporate-Commercial Lawyer
- Nicola Haig, Athabasca Oil
- Paul Bourque, Clearstream

Safety Moment

Share the Road!

Committee Scope

- Develop a Best Practice for the Development and Selection of Contracting Strategies for Capital Projects

- Encourage Owners and Contractors to Utilize the Recommended Best Practice

Our Objective

- To improve capital project execution through the use of a (Contracting Strategy) best practice that will facilitate the selection of the appropriate contract, which is designed to increase the probability of:
  - achieving project goals; and
  - successfully completing the project

Workshop Scope

- Communicate our objectives, scope and work done to date; and
- Obtain your feedback and support

Exercise #1 Industry Check-up

- Have you ever been on a project that went completely sideways?
- Was it the other guy's fault?
- Were you slightly, slightly, slightly to blame?
- Could the project have been planned, set up, and contracted in such a way to improve the project's outcomes?

Business Need

Research has shown that if undertaken at the *beginning* of a project:

- Effective risk assessment; and subsequent
- Contract Strategy including:
  - Assignment of Contract Scopes;
  - Interfaces Split; and
  - Contract Terms

Will have a better chance of being

- Fit for purpose
- Flexible
- Able to accommodate and react to project “bumps in the road”

Who is IPA?

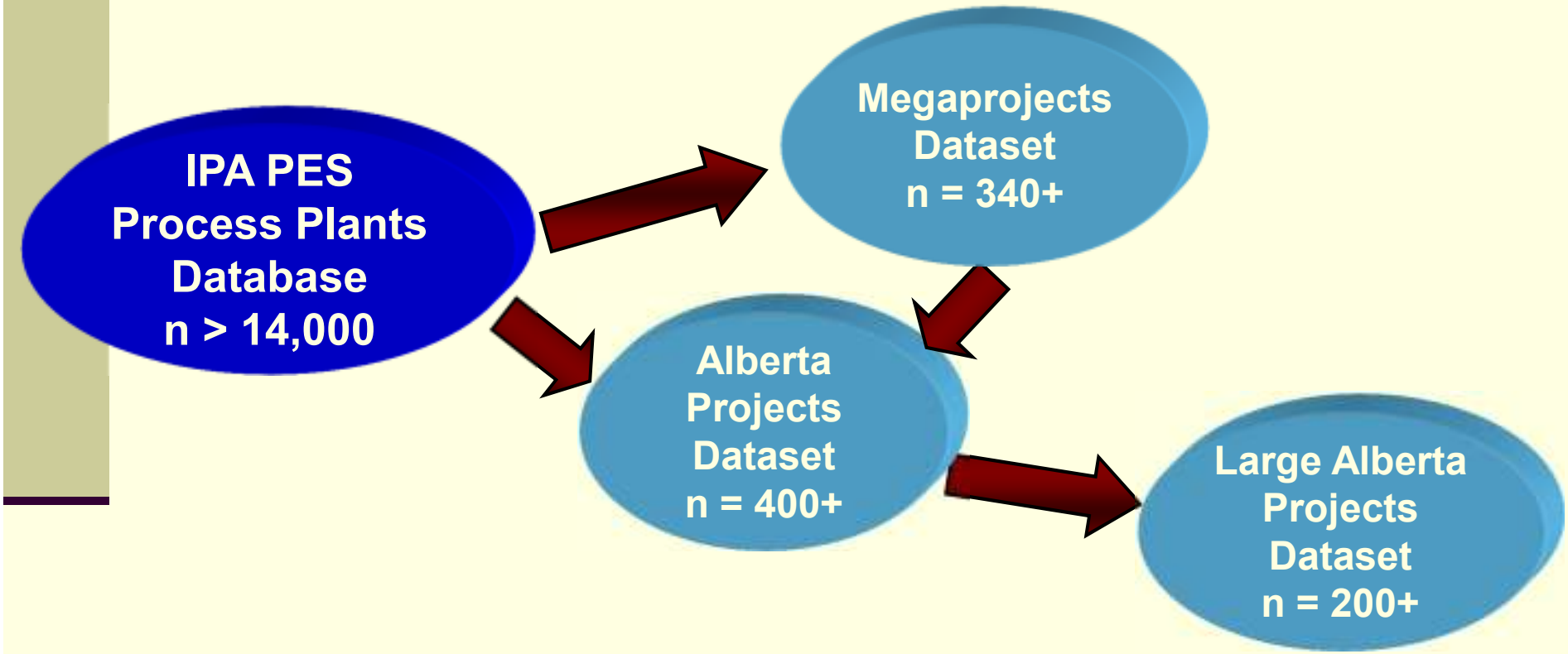
- Founded in 1987 to provide a unique project research capability for the chemical process, petroleum, minerals and manufacturing industries
- Offices in US, The Netherlands, Australia, United Kingdom, Brazil, Singapore, and China
- Over 200 staff members
- Devoted exclusively to the analysis of capital projects as a field of empirical research
- The entire focus is from the owner's perspective

Clients Represented in the IPA Databases

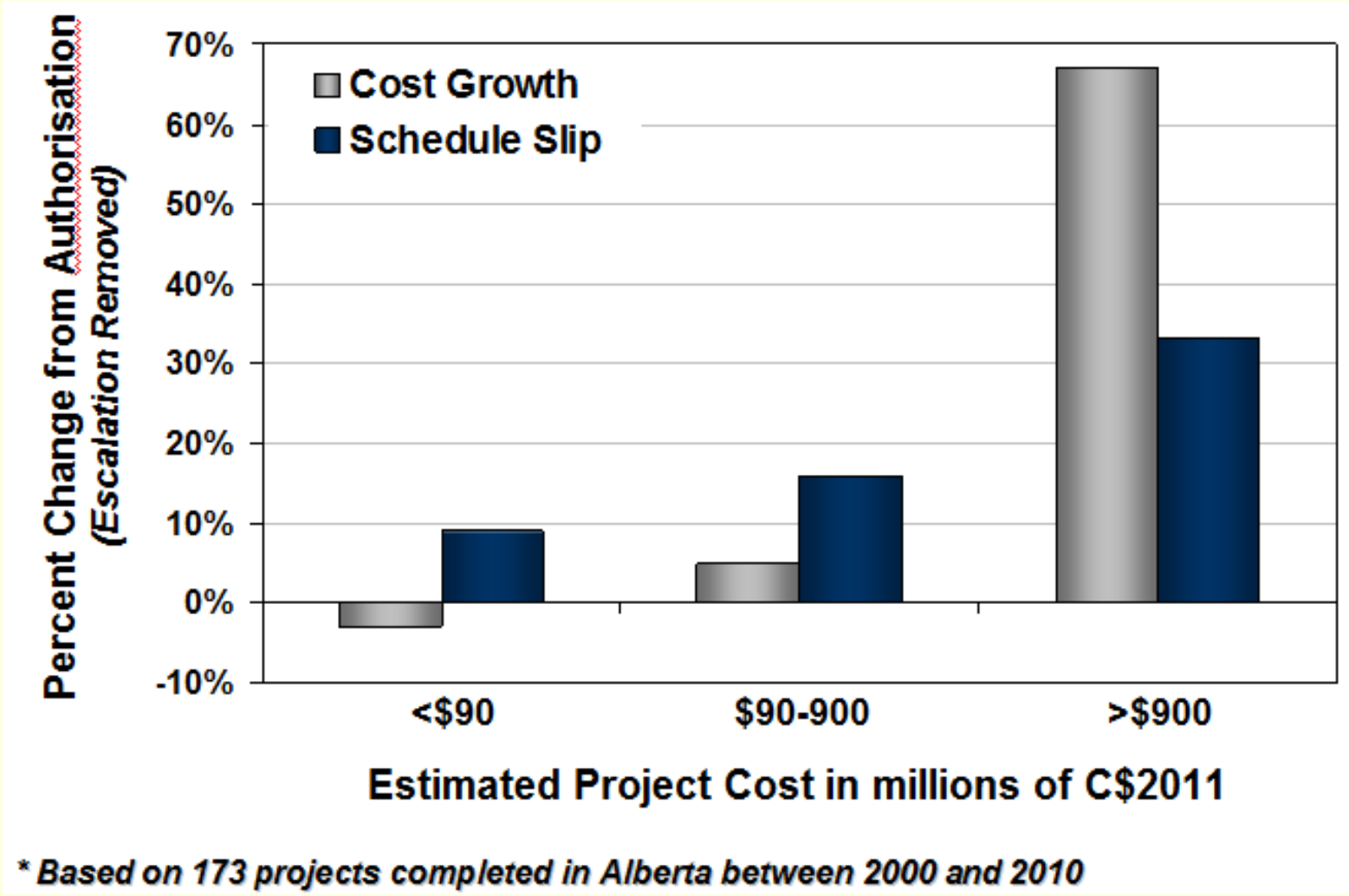
Abbott Laboratories
Abitibi-Consolidated
ADNOC
Agip KCO
Agrium
AlOC
AIR Liquide
Air Products
AKZO Nobel
Alcan
Alcoa
Allegheny Industries
Alyeska
Anadarko Petroleum
Anglo Platinum
Arkema
AstraZeneca
Atlantic LNG
Australian Paper
AVR
AWE
Basell
BASF
Bayer
BC Hydro
BG
BHP Billiton
Bluescope Steel
Bluewater
Borealis
Braskem
British Nuclear Group
BP
Bristol-Myers Squibb
Caltex
Cargill Inc.
Chevron
Chevron Phillips Chemical
China Three Gorges Project Development Corp.
CITGO
Clark Refining & Marketing
CNRL
Codelco
Colonial Pipeline Company
Cominco
Condea Vista
ConocoPhillips
Copesul
CRI
CSR
CYTEC
De Beers
Department of Defense (US)
Department of Energy (US)
Dofasco
Dow Chemical Company
DowCorning
DSM
DuPont
Eastman Chemical Co.
Ecopetrol
Edison Company
Eli Lilly & Co.
Enbridge
EnCana
Eni Petroleum
Entergy
ExxonMobil
Evonik Degussa
Falconbridge
Flint Hills
Florida Power & Light
FMC Corporation
Gaz De France
Genentech
General Electric
Georgia Pacific
Gerdau
GlaxoSmithKline
GS Caltex
Hess Corporation
Hoffmann-La Roche
Honeywell
Husky Oil
ICI
IMC Global
Imperial Oil
Incitec
Invista
JGC
JACOS
Johnson & Johnson
Kimberly-Clark
Kinder Morgan
Koch Industries
Kodak
Kraft
Kumba Iron Ore
Kuwait Nat'l Petroleum
Lasmo
LTV Steel
Laricina Energy
Lukoil
Lundin Malaysia
LyondellBasell
Malaysian Refining Co.
Marathon Petroleum
Marathon Oil
MeadWestvaco
Merck & Company, Inc.
Methanex
Motiva
Mineração Rio Norte
Murphy Oil
NAOC
Nederlandse Aardoilie Mj.
Newmont Gold
Nexen
Noranda
Northwest Redwater
Nova Chemicals
Novartis
Nycomed Amersham
Numinco
OMV
Opti Canada
Orica
Origin Energy
Owens Corning
Pacific Energy Partners
Pasadena Refining
PDVSA
PEMEX
PEQUIVEN
Petrobras
Petrochina
Petro-Canada
Petronas
Petroleum Development Oman
Pfizer (formerly Pharmacia)
Pillsbury
Pioneer Natural Resources
Portland Pipeline
Potlatch
Praxair
Procter & Gamble Co.
PTT Exploration & Production
Qatar Petroleum Co.
Quimica Fluo
Repsol YPF
Rhodia
Rio Tinto Alcan
Rohm & Hass
SABIC-IP
Samarco
Sanofi Pasteur
Santos
SAPPI
Sasol
Saudi Aramco
Schering-Plough
SECCO
Shell
Singapore Refining Co.
Solutia
Solvay
Southern Company
Southern Natural Gas
Staatsolie Suriname
Star Petroleum Refining Co.
Statoil
Stepan
Suncor Energy
Sunoco
Suzano Petroquimica
Syncrude
TransCanada
Tengiz Chevroil
Tesoro
Total
Union Carbide Corp.
US Gypsum
US Steel
Vale
Valero
Votorantim Metais
Wacker
Wellman
Weyerhaeuser
Woodside
Wyeth
Xstrata

Alberta Clients

Good Sample of Alberta Projects



Alberta Projects Are Historically Unpredictable



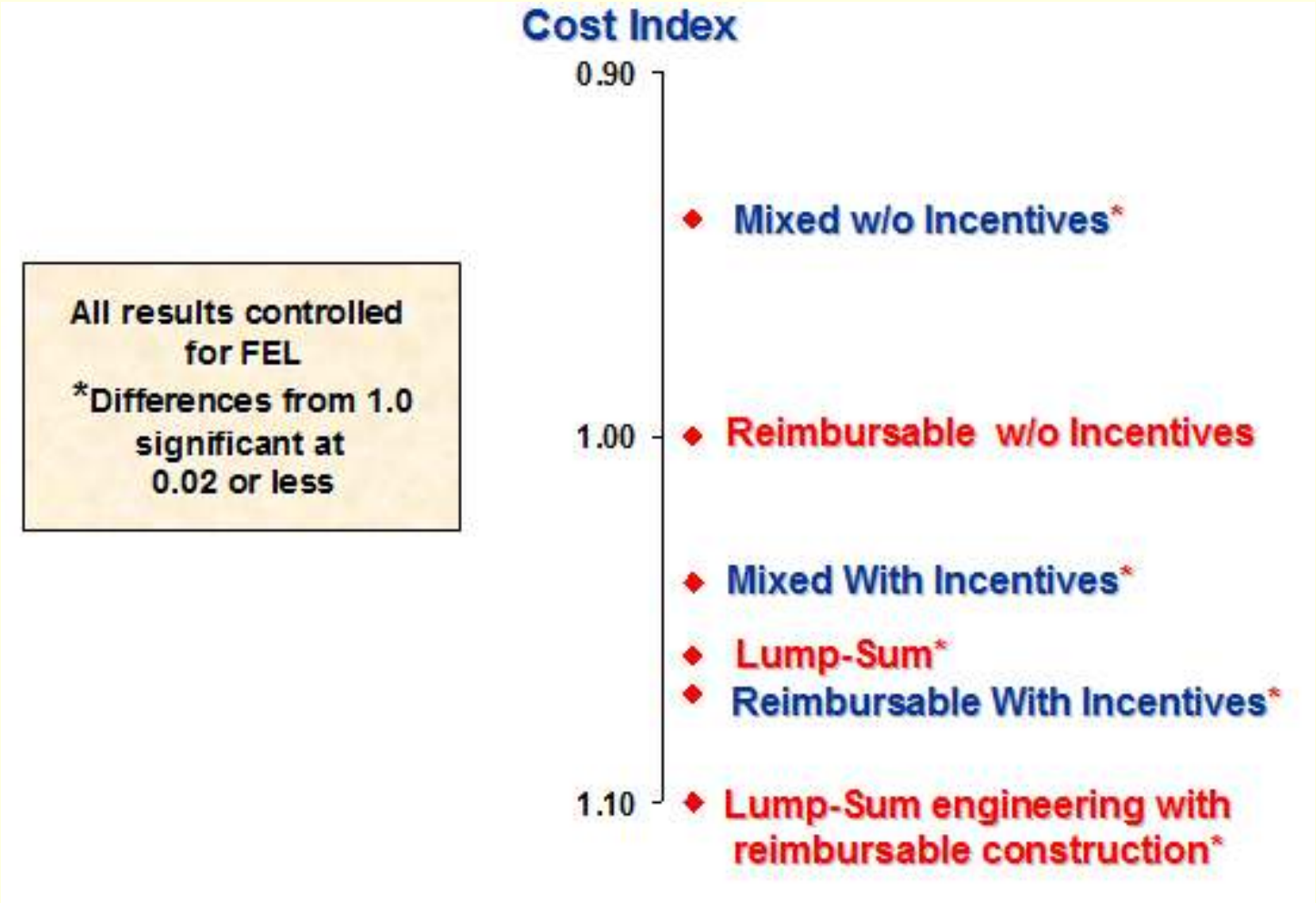
** Based on 173 projects completed in Alberta between 2000 and 2010*

Source: Independent Project Analysis, COAA 2011, Ed Merrow, *The Lost Projects Decade in Alberta*

Contracting in Perspective

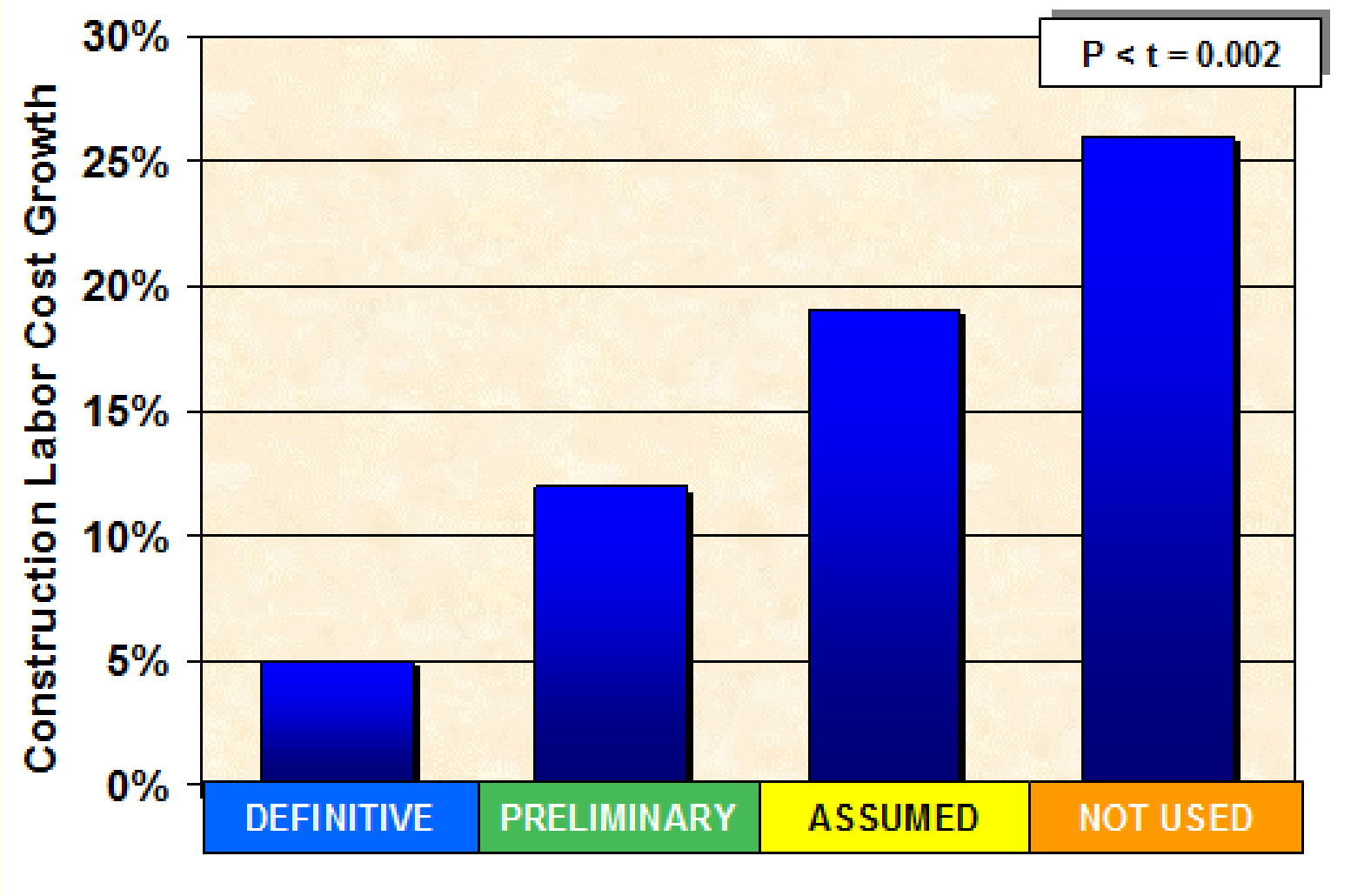
- Contracting strategy is an integral part of effective project execution planning
- Good" contracts never substitute for solid fundamentals
- Contracts are a second-order issue for projects
  - Clarity of the business objective is much more important
  - Owner team development and Front-End Loading are much more important

Cost Performance by Contract



Source: Independent Project Analysis, IBC 2004, *Contracting in Time and Place*

Impact of Not Understanding Local Labour Availability

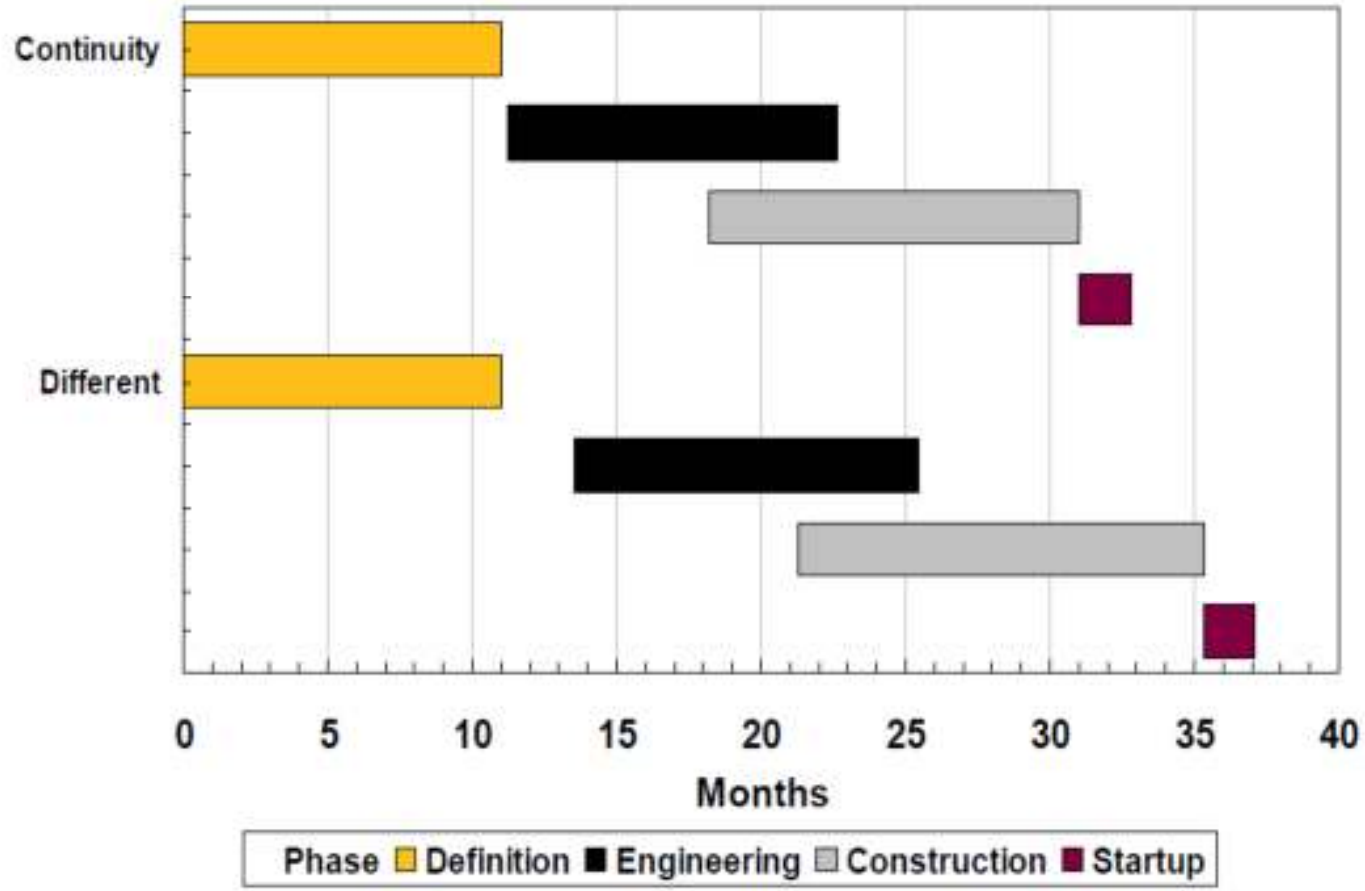


Source: Independent Project Analysis, IBC 2006, *Effective Construction Labour Strategies*

Contractor Continuity Can Provide Earlier Completion Dates

Schedule Benefit

- *Early Engineering Start - 2 months*
- *Construction Schedule - 1 month*
- *Execution Schedule - 2 months*
- *Total Cycle Time - 4 months*



Source: IPA, Contracting Committee 2006, *Selecting Engineering Contractors Early*

Strategy Selection Can Impact Project Results

- Selection of contract type can impact cost effectiveness; mixed strategy is best
- Local labor availability, and knowledge of availability, can impact strategy decisions; less knowledge leads to field labor growth
- Using the same contractor for FEED and execution can provide faster cycle times

Therefore…

There is no substitute for fundamentals and the “best” contracting strategy is *not* a silver bullet; however, it is an important element of execution planning and project success.

Contract Strategy Defined

- A Contracting Strategy is a project deliverable (typically produced by a multi discipline project team) that is aligned with and supports the project's:
  - Goals;
  - Objectives;
  - Key success factors;
  - Project execution strategy; and
  - Capabilities of the contractor supply market

Contract Strategy Defined

- The contracting strategy clearly defines and allocates a project's:
  - Scope of work and interfaces;
  - Roles and responsibilities;
  - Risks and mitigation strategies; and
  - Compensation model

Exercise #2 Table Discussion

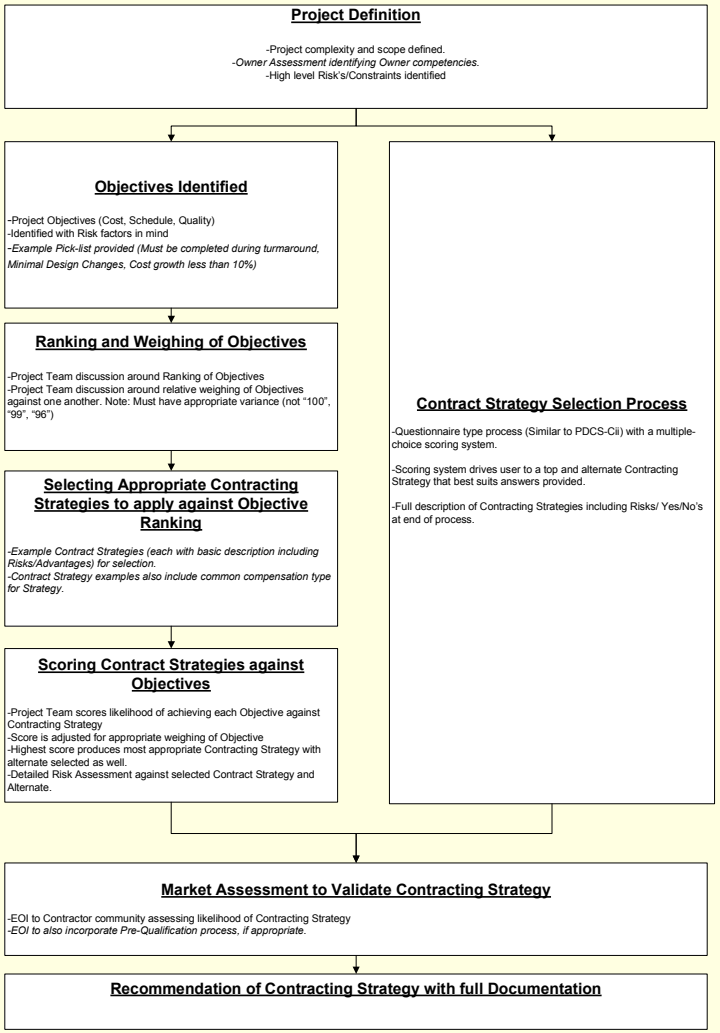
1. Are we on the right track?
2. What do you do for contract strategy development? Is it documented?
3. Is it part of your project planning/execution process? When is it done?
4. Did we miss any key issues or criteria?

Discuss at your tables for 10 min > report back

Draft Work to Date

Process Flow Chart

- Left-Full Project
- Right-Fast Track



Draft Work to Date

Strategy Definitions Table

Example 1 – EPC Lump Sum – Not usually done in Alberta unless for small value projects with a well defined off the shelf scope. Key Drivers to choose this contract strategy – well defined scope / price predictability / not schedule driven / availability of resources /low technical complexity / Owner comfort with role.

Roles	Risks allocated to the Owner	Risks allocated to the Contractor	Compensation and Variants	Performance summary
Owner engages engineer and prepares the project brief, schematic design, developed design and contract documentation. Usually a competitive bid but can be a single source negotiated Lump Sum where limitations in availability of Contractors or a preferred Contractor is an issue. Contractor carries out the detailed engineering, procurement and construction either on its own or with - Sub-contractors - JV partners - Consortium partners - Alliance Partners Relationship between parties is potentially adversarial. Typically mentality is 'your gain is my loss'.	That the basic design meets the project brief. Owner should undertake due diligence to ensure that the design can be built within the budget. Tenders should be called after EDS design is complete as without sufficient scope definition the Contractor (and their Subcontractors) may require to include a prohibitive premium to the overall EPC lump sum thus exceeding Owner budget. That the contract documentation reflects the design (unless design endorsement required) and that the contract documentation is complete, unambiguous, accurate and suitable for the purpose of the execution of the project through E, P and C. Final cost is highly dependent upon quality of contract documentation prepared by the Owner and the impact of variations leading to additional cost / delayed completion.	Generally the risk rests with the Contractor in terms of cost and schedule overruns, quality issues requiring rework and availability at the tendered cost the resources for the duration and various stages of the work. Quality - Materials and workmanship are in accordance with the contract documentation. Schedule - Completion of the execution of the E, P and C phases will be within the allocated time. Cost - That the cost of execution will be within the adjusted contract sum. Interfaces - Interface risk between the phases must be effectively managed without cost or schedule impact.	The accepted lump sum becomes the contract sum, subject to adjustment for variations to the contract documents and claims. A Contractor may be required to offer an "all-in" schedule of rates in lieu of a lump sum. Where the quantities are "known" this effectively becomes a Lump Sum. Convertible Lump Sum – Initially a reimbursable compensation contract until the engineering is at a stage where the Contractor can clearly ascertain its forecast cost to complete the project and take the risk on future potential changes and thus offer a lump sum without including a prohibitively large risk factor.	Predominantly used for projects where there is a high degree of certainty about project scope and requirements. Success is highly dependent upon the adequacy, completeness and accuracy of the contract documentation. Will normally deliver the lowest initial contract sum following tender call, but not necessarily the lowest final cost. Not well suited to fast tracking the project. Not well suited when there is new technology or high technical risk unless contractor is a specialist in the field. Not well suited where there is a lack of availability of resources or experience in managing such types of contract – from both an Owner and Contractor standpoint.
Tender process, cost and payments	**Scope**	**Design/quality**	**Time**	**Generic contracts & Administration**
Usually competitively tendered or where market conditions allow a negotiated firm price (usually where specific technology/ expertise involved). Lump Sum tendering is an expensive process for Contractors to ensure all risks are adequately priced. Gaps in back to back lump sums for its sub-contractors require added qualifications or risk premium. The accepted lump sum becomes the contract sum, subject to adjustment for variations and claims. Contractor paid on a regular basis for work completed, up to the value of the adjusted contract sum.	Scope is precisely specified in the contract documents. Scope can be varied, but not beyond the original intent of the contract documents. Any variations will normally give rise to a contract sum adjustment and extension of time.	Quality of materials and workmanship is fully specified in the contract documentation. Choice of Subcontractor/ vendors rests with Contractor (with owner approval) and quality/ performance based on Contractors pre-qualification system. Depending on level of completion of design when Tendered the Contractor may have limited input into the design & 'constructability' of the project. Warranty period of 12 months or more, depending on nature of project. Often Contractors scope is extended to provide Commissioning and Operations start-up support.	Design and documentation must be completed before construction can commence, making it potentially the longest duration procurement strategy available. Most delays will give rise to claims for extensions of time for the completion of construction.	Difficult to control time and cost outcomes where contract documentation is inadequate or variations are needed. Claims are common. Owners usually provide their own in house contracts. Contract administration is complex and may involve a large amount of change management.

Draft Work to Do

- Develop Owner Self Assessment process
- Update flow chart with feedback
- Complete strategy alternative table (definitions, pros/ cons)
- Risk Evaluation and Allocation guidelines
- Complete list of Contracts Strategy Considerations

Wrap-up

- Workshop Recap
- Feedback Form
- Anyone interested in joining the committee, please come see one of the committee members!

Comments

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or

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Thank You!

Your Participation Was Appreciated