



CIMFP Exhibit P-00901



HYDRO
THE POWER OF
COMMITMENT

Lower Churchill Project

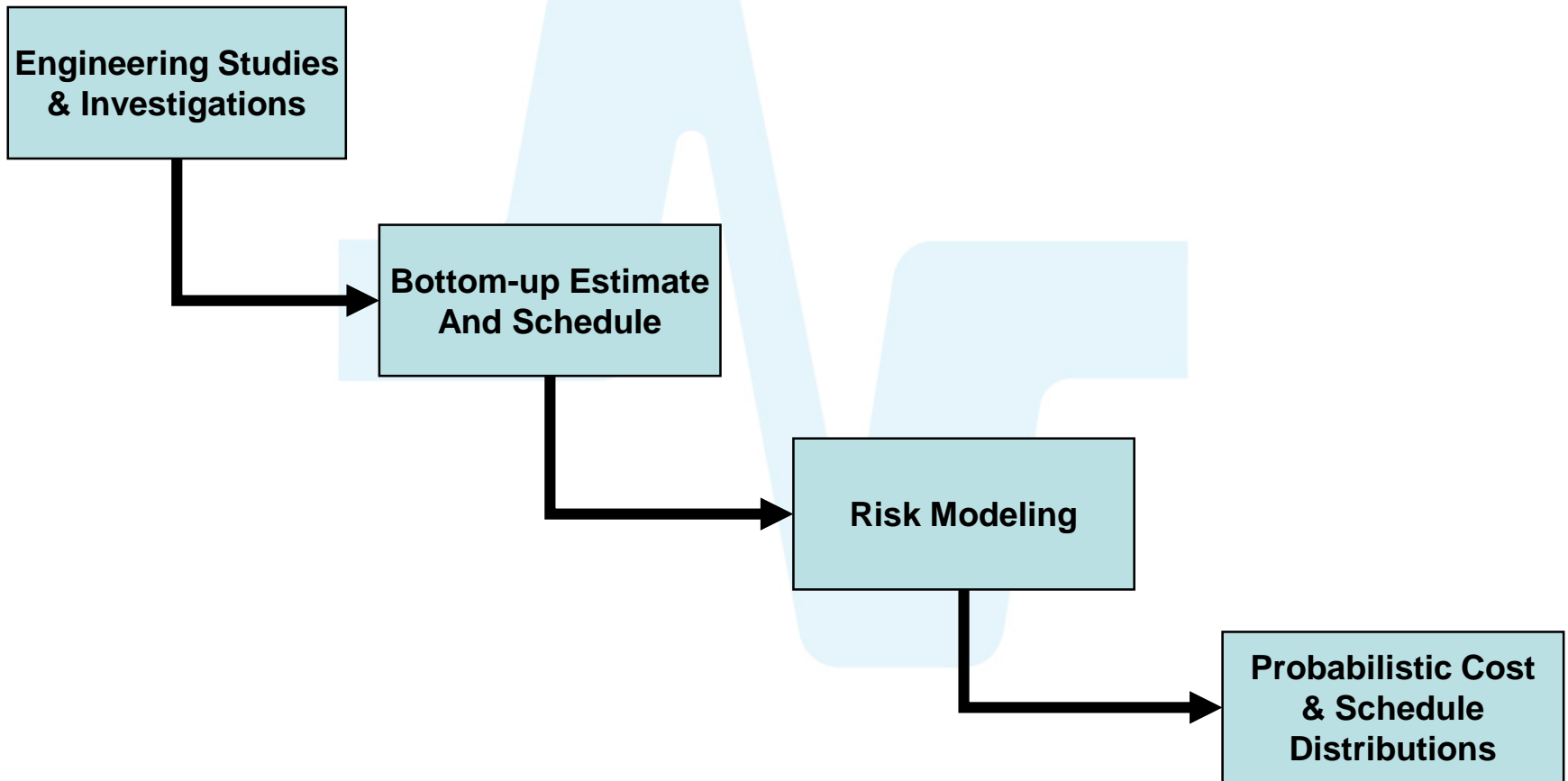
Cost, Schedule & Risk Update to Gatekeeper

10 June 2008

Purpose

- To provide a preliminary review of the risked cost and schedule outlook for LCP.
- To obtain alignment on the proposed contingency and gatekeeper reserve levels to be included in Gate 2a economic runs.

Risked Cost and Schedule Development



Relevant Gate 2 Deliverables

- Class IV Cost Estimate
 - ❖ CAPEX
 - ❖ OPEX
- Construction Schedules – Level 3 or 4
- Risk Management Plan

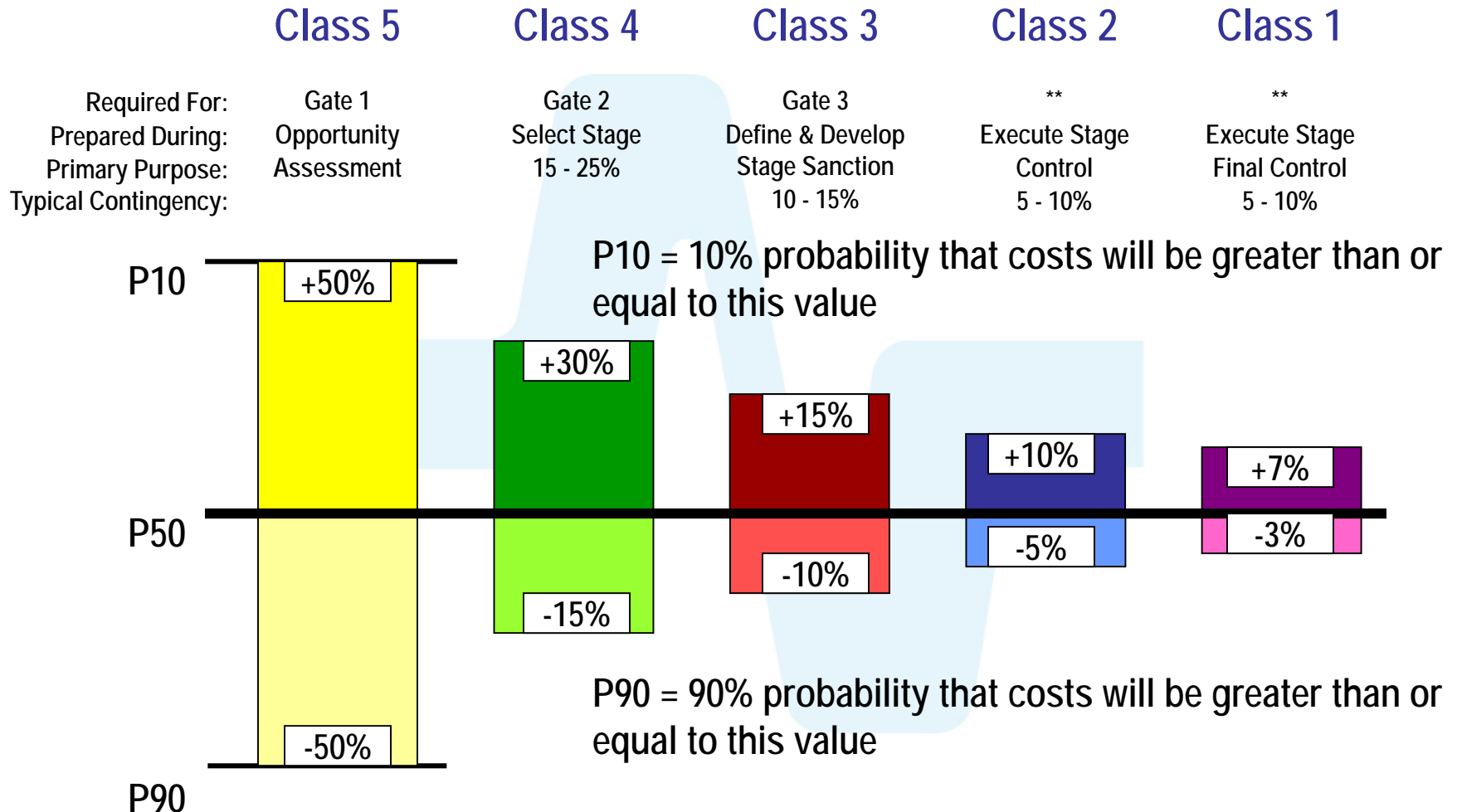
A quick refresher Estimate Class And Accuracy

Provides a measure of scope technical definition

Estimate Class	Engineering Complete	Typical Contingency	Typical Estimate Accuracy	Purpose of Estimate	Required For PDM Gate
5	Minimal	*	$\pm 50\%$	<ul style="list-style-type: none"> Evaluation Screening 	1
4	1 – 10 %	15 – 25 %	- 15% + 30%	<ul style="list-style-type: none"> Concept Selection FEED Decision 	2
3	10 – 25 %	10 – 15 %	- 10% + 15%	<ul style="list-style-type: none"> AFE Project Sanction Decision 	3
2	30 – 80 %	5 – 10 %	- 5% + 10%	<ul style="list-style-type: none"> Control Estimate Re-forecast of Class 3 	**
1	80 – 100 %	5 – 10 %	- 3% + 7%	<ul style="list-style-type: none"> Final Control Estimate Re-forecast of Class 2 	**

Accuracy = For a specified confidence interval, the range within which the final cost of a facility will fall, with no change in work scope (baseline of base expectations).

Estimates and the Gateway Model



As a project becomes better defined and less likely to change the more confidence there is that the estimate will accurately predict the final project cost.

Contingency

- Contingency = Expected Cost – Best Estimate
- Additional amount, usually controlled by the project, to provide for the occurrence of unforeseeable or undefined elements (i.e. risks) of cost within the defined project scope. Also referred to the amount of amount of money in a cost estimate to cover the difference between the P50 (or most likely outcome) estimate and the base estimate.
- Covers incomplete project definition, estimate omissions, engineering/construction uncertainties, design progression, budget quote vs. actual price, lower productivity from plan, rework, etc.
- Contingency is not be used to address scope changes or Gatekeeper Level Risks.

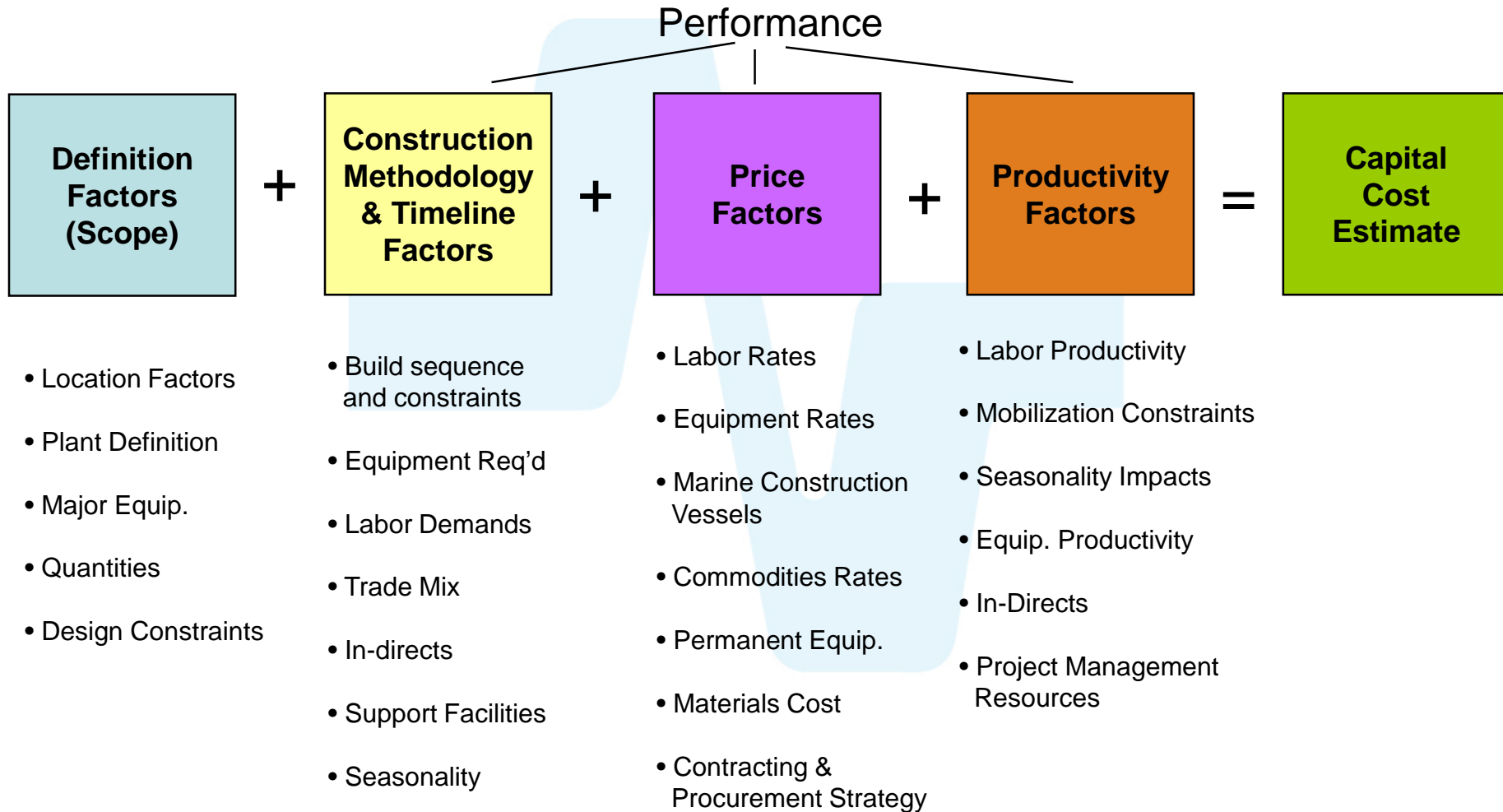
Management Reserve

- Additional amount, usually controlled by management, to provide a higher confidence cost level (i.e. comfort factor).
- Often used by management as a mechanism to support scope addition in a project.
- Funds the management of Gatekeeper Level Risks.

Capital Cost Estimate Development

- Gull Island
 - ❖ 2 separate estimates prepared – SNC-L and IPE/LCP
 - ❖ Very-detailed – 10,000+ line items
- Overland Transmission
 - ❖ RSW provide bottom-up estimate
- Submarine Cables
 - ❖ Statnett estimate
- HVDC Converter Stations
 - ❖ Quotations received from major suppliers

Capital Cost Estimate Development



Major Uncertainties

- SOBI cable installation rates and protection requirements
- Gull Island Balance of Plant
- Labor productivities
- HVdc Converter Stations – what's in/out
- Gull Island to SOBI access ways for Tx construction
- Overland Tx design reliability and ice loadings
- Island System Integration of HVdc infeed.

Estimate Summary – *Preliminary*

Gull Island Plant	\$3,075
Gull to CF	\$ 200
Gull to SP (incl Converter Station & SOBI)	\$2,100
TB to Lingan (incl. Converter)	\$ 920
Engineering	\$ 200
<u>Owner Project Management</u>	<u>\$ 440</u>
Total	\$6,935

Notes:

- 1.) All costs in 2008 CDN \$
- 2.) Excludes IDC
- 3.) Excludes work required for system integration on Island

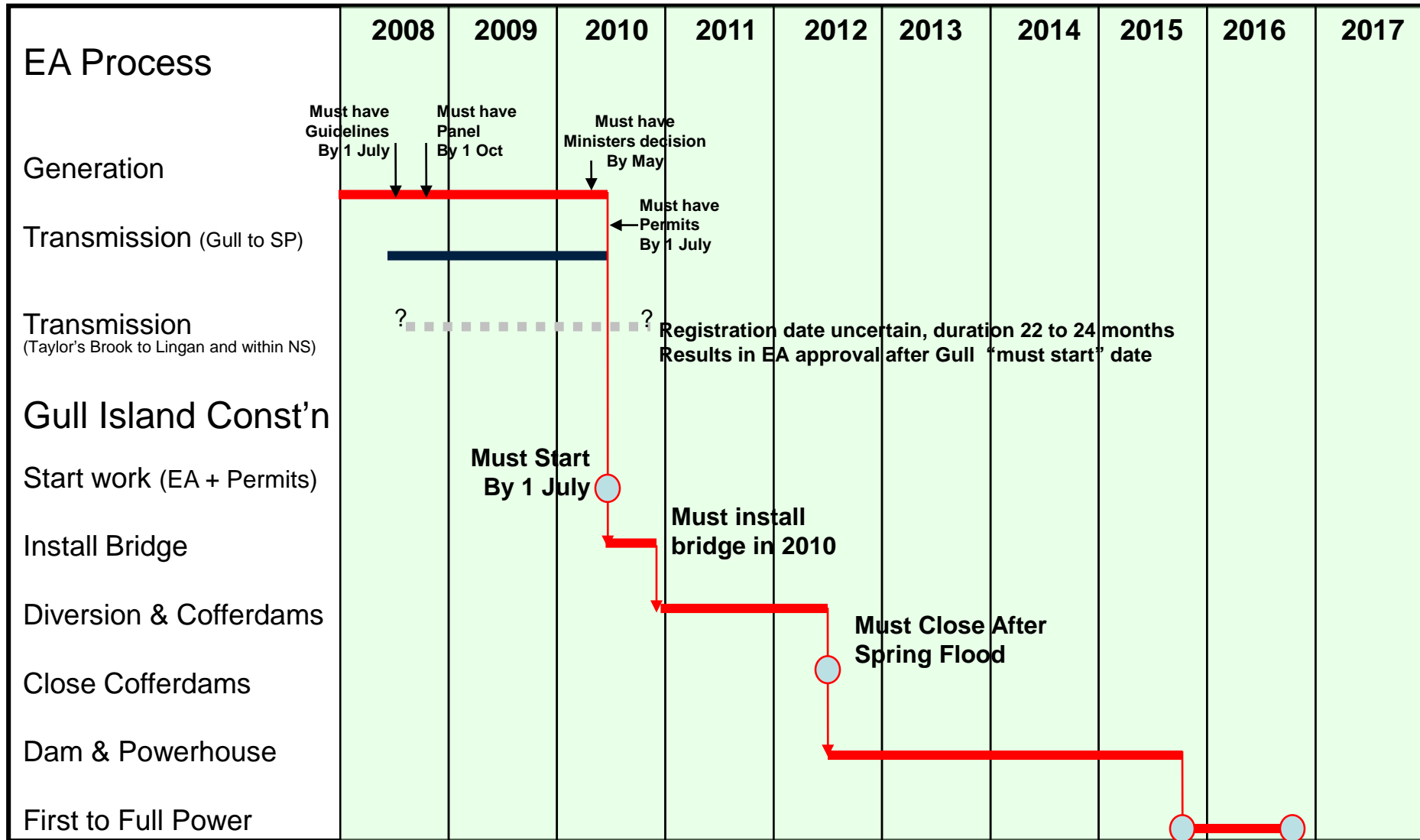
Comparison to 2006

	<u>Current</u>	<u>2006</u>
Gull Island Plant	\$3,075	\$2,165
Gull to CF	\$ 200	\$ 150
Gull to SP (incl Converter Station & SOBI)	\$2,100	\$1,416
TB to Lingan (incl. Converter)	\$ 920	\$1,010
Engineering	\$ 200	\$ 258
<u>Owner Project Management</u>	<u>\$ 440</u>	<u>\$ 400</u>
Total	\$6,935	\$5,399

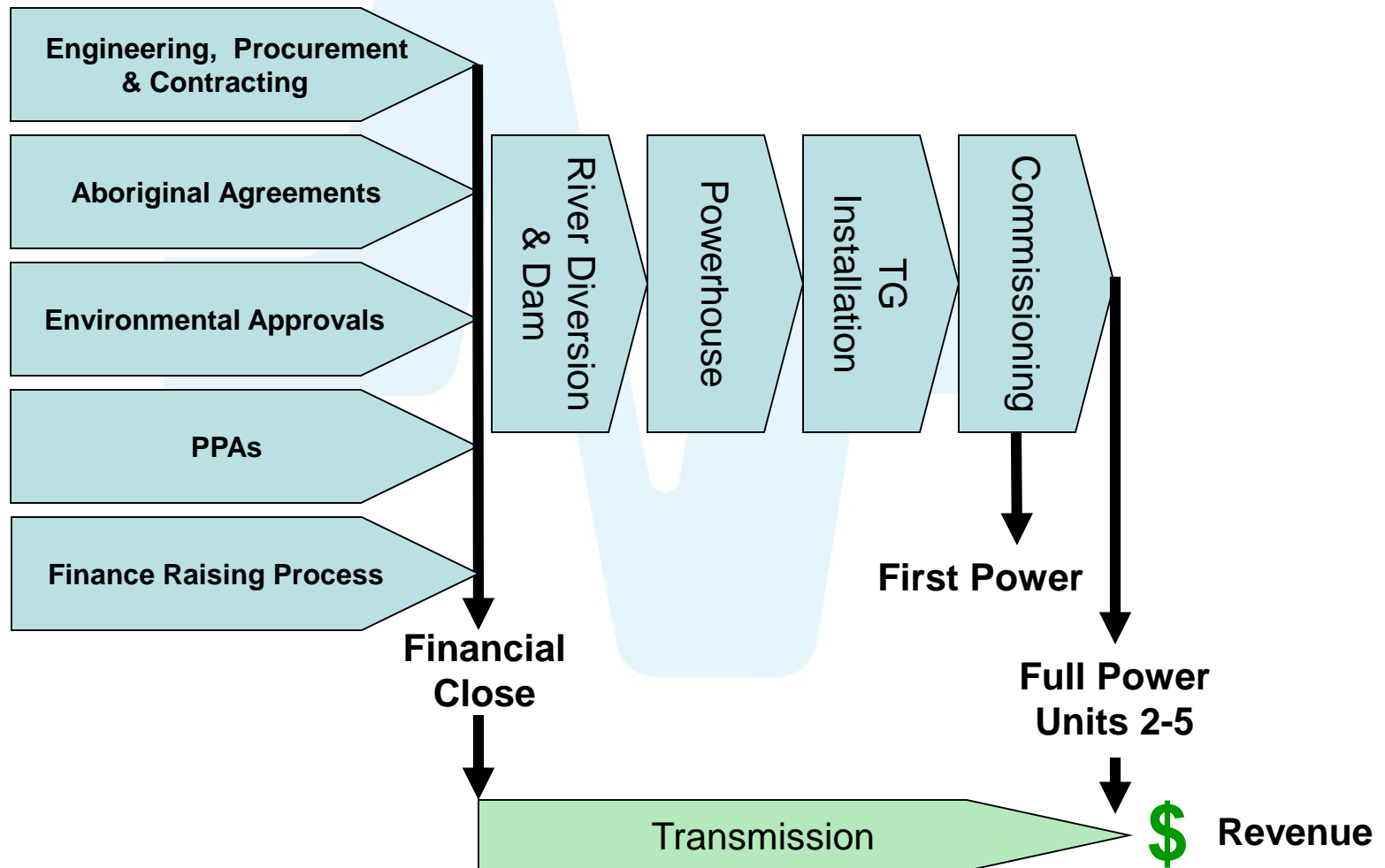
Schedule Development

- Extensive construction schedule developed for Gull Island.
- Detailed schedule in place for In-Feed however additional constructability input required to validate key assumptions.
- Phase 3 schedule (up to Gate 3) has five (5) parallel critical paths and the uncertainties surrounding each are substantial:
 - ❖ EA Process
 - ❖ Raising Finances
 - ❖ Engineering & Construction Contracts Bidding / Award
 - ❖ PPAs
 - ❖ Aboriginal Agreements

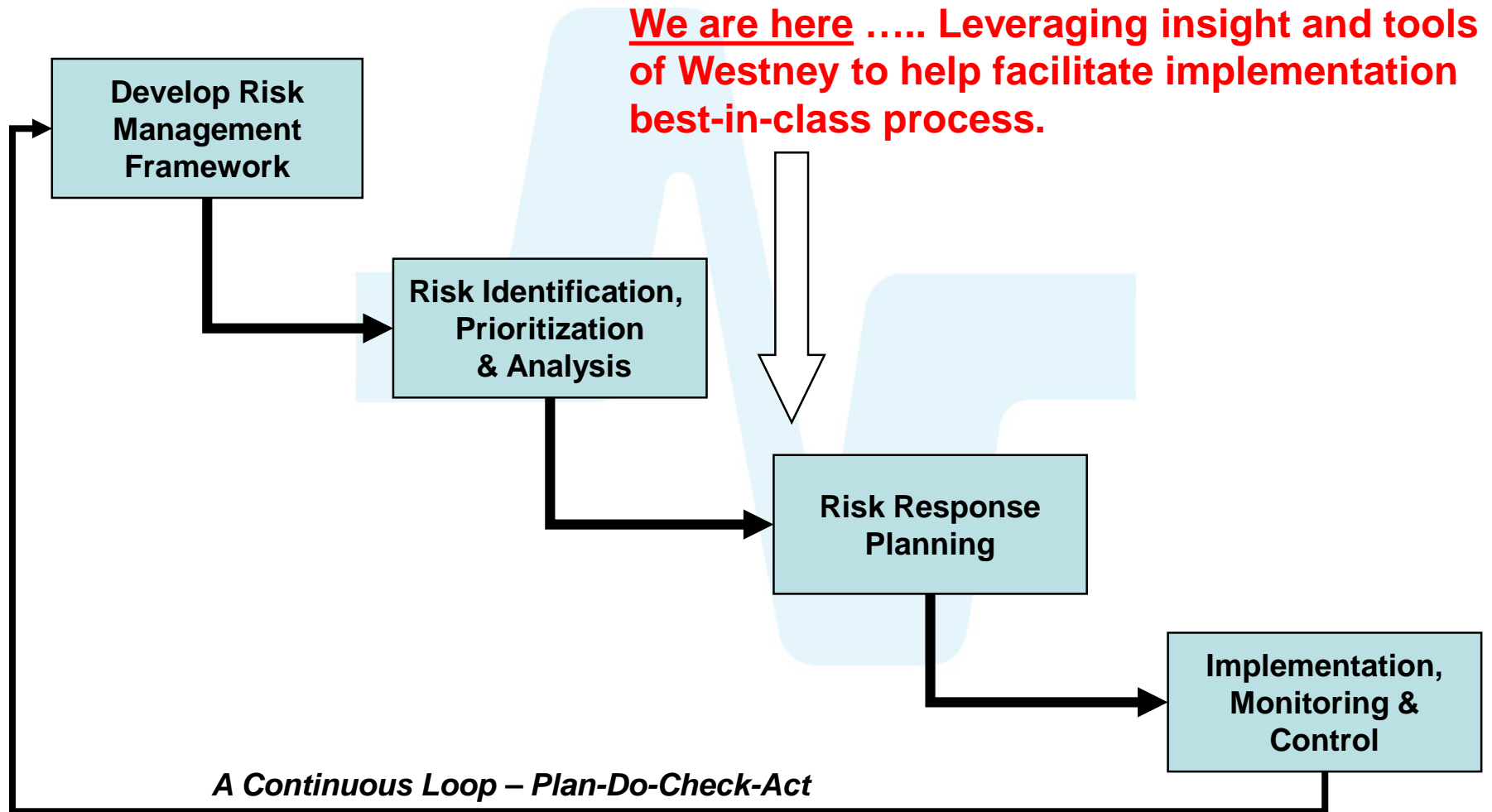
Simplified Critical Path



5 Key Work Streams Requiring Focus

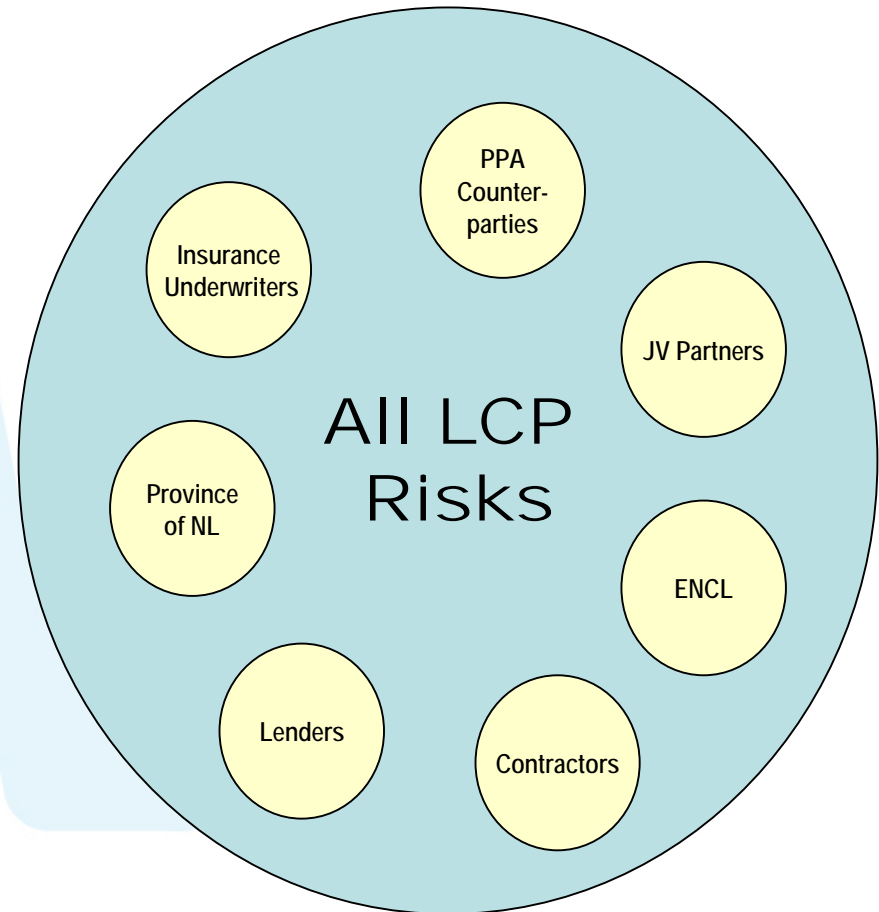


Our Basic Approach to Risk



Risk Philosophy

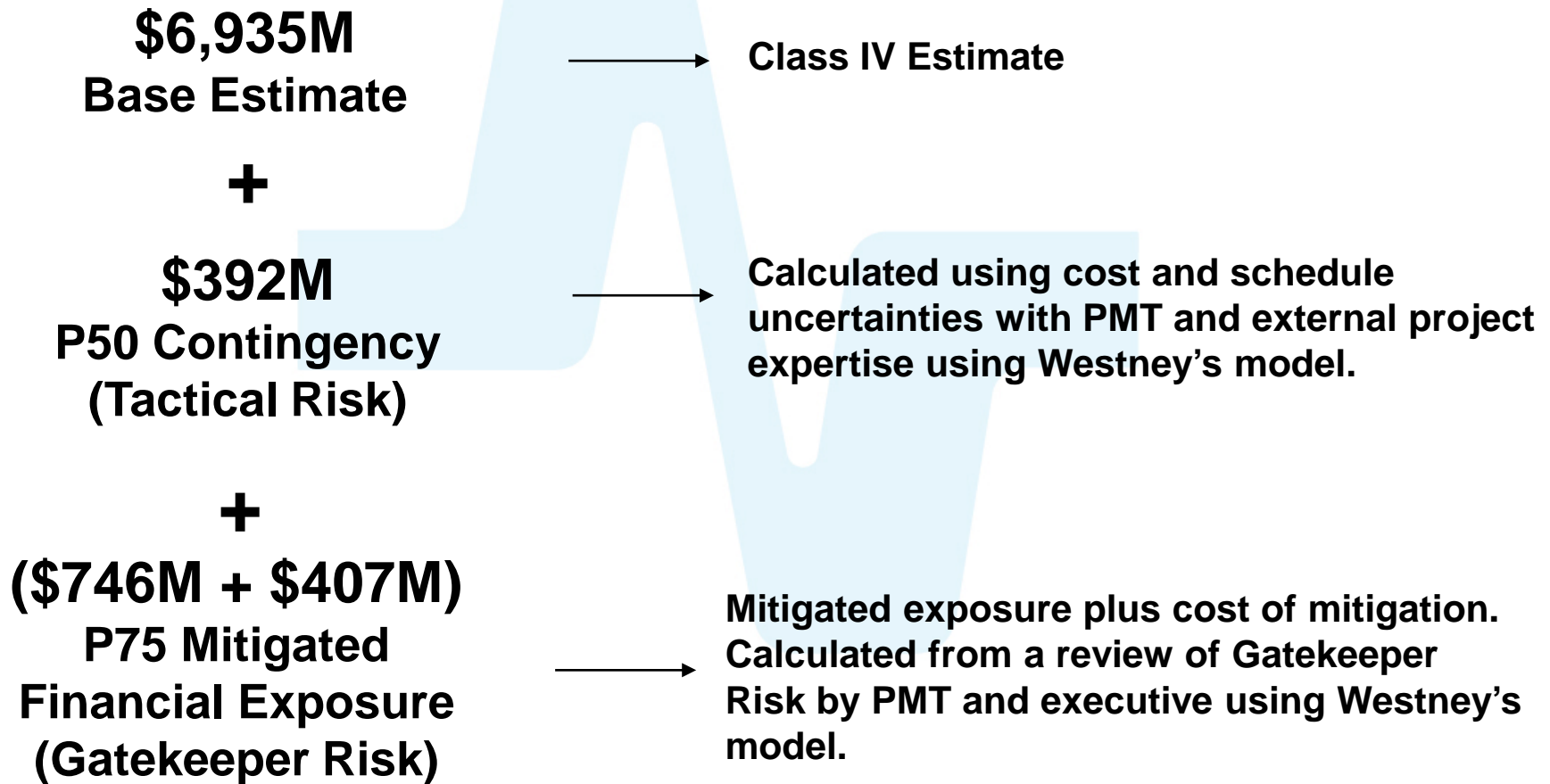
- Built upon framework of early identification, assessment and mitigation planning.
- Many risks are multi-dimensional and complex requiring creative solutions.
- Cost effectively managing risks will require risks to be allocated to various stakeholders who are best positioned to manage them.
- Risk Resolution Team core group to understand risks and develop strategic action plan.



Nomenclature

- **Tactical Risks** are the uncertainties identified by a detailed evaluation of the current project.
- **Gate-Keeper Risks** are any other uncertainties that might affect project costs that may not be addressed or fully considered in the current project estimate or schedule. Some of these risks may have been ignored, limited by assumptions, or excluded in the current estimate. These risks are categorized as outside the project team and the estimator's "vision."

Recommended Capital Cost = \$8,480M

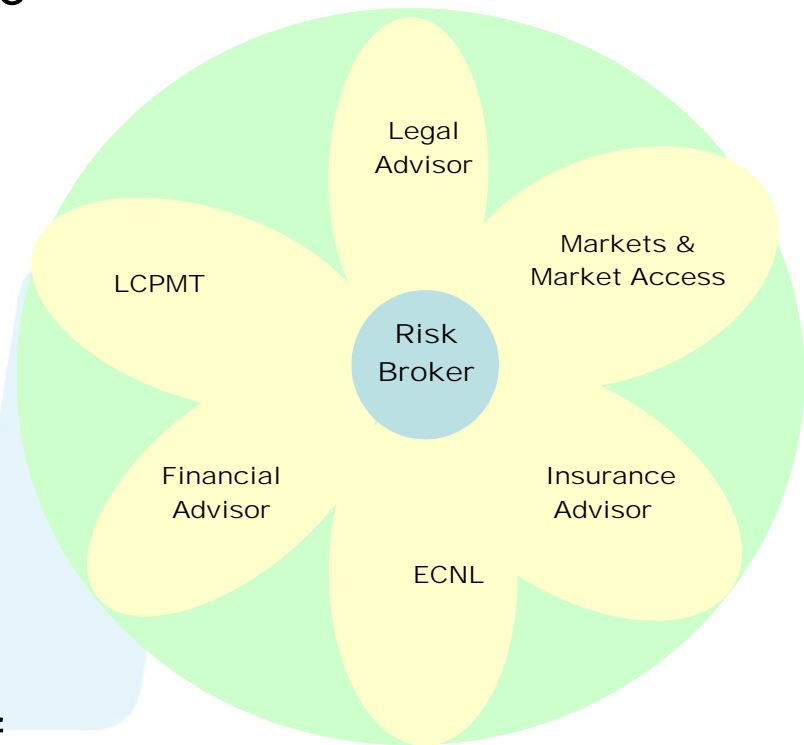


Back-up Material

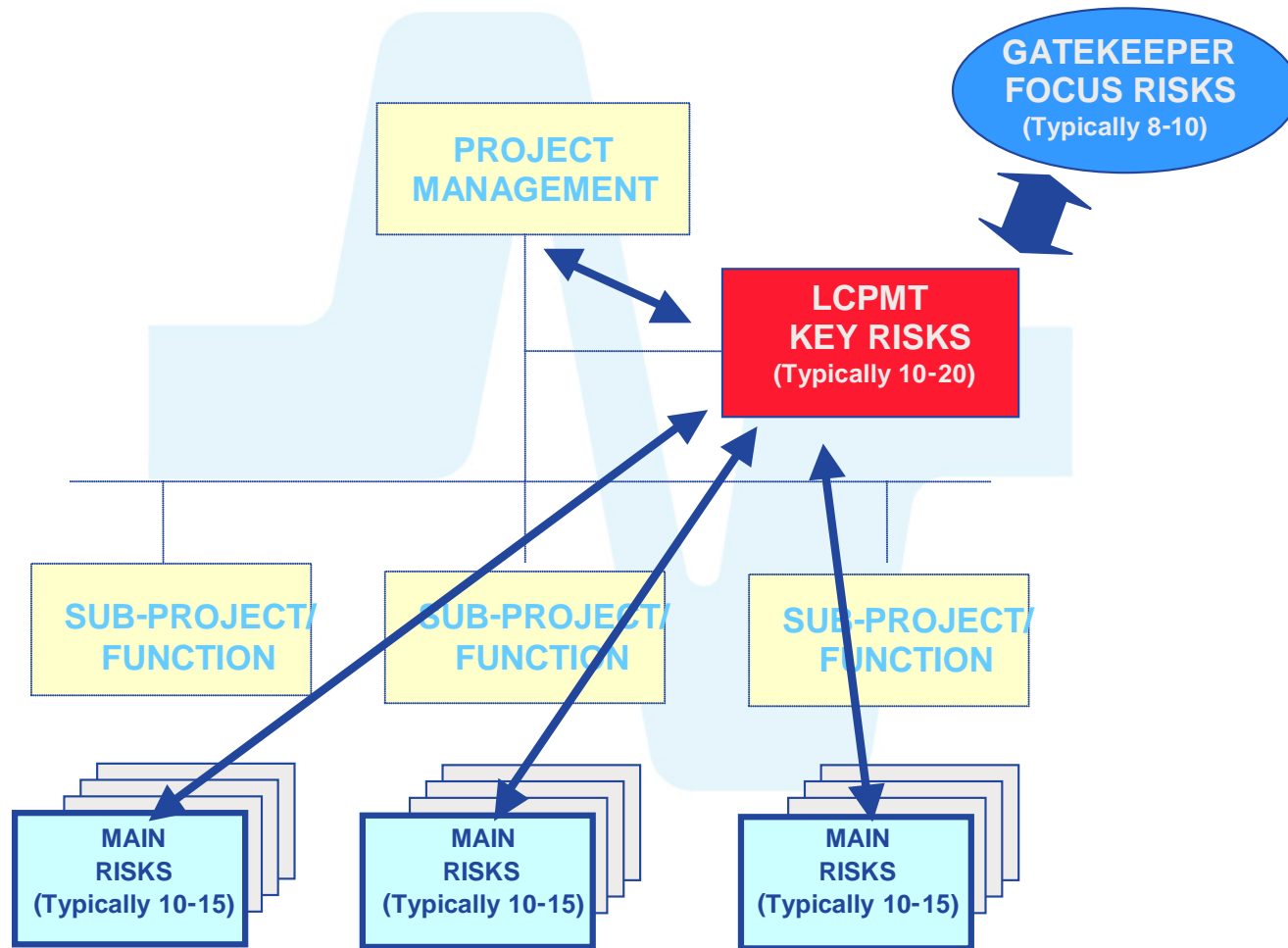


Risk Resolution Team

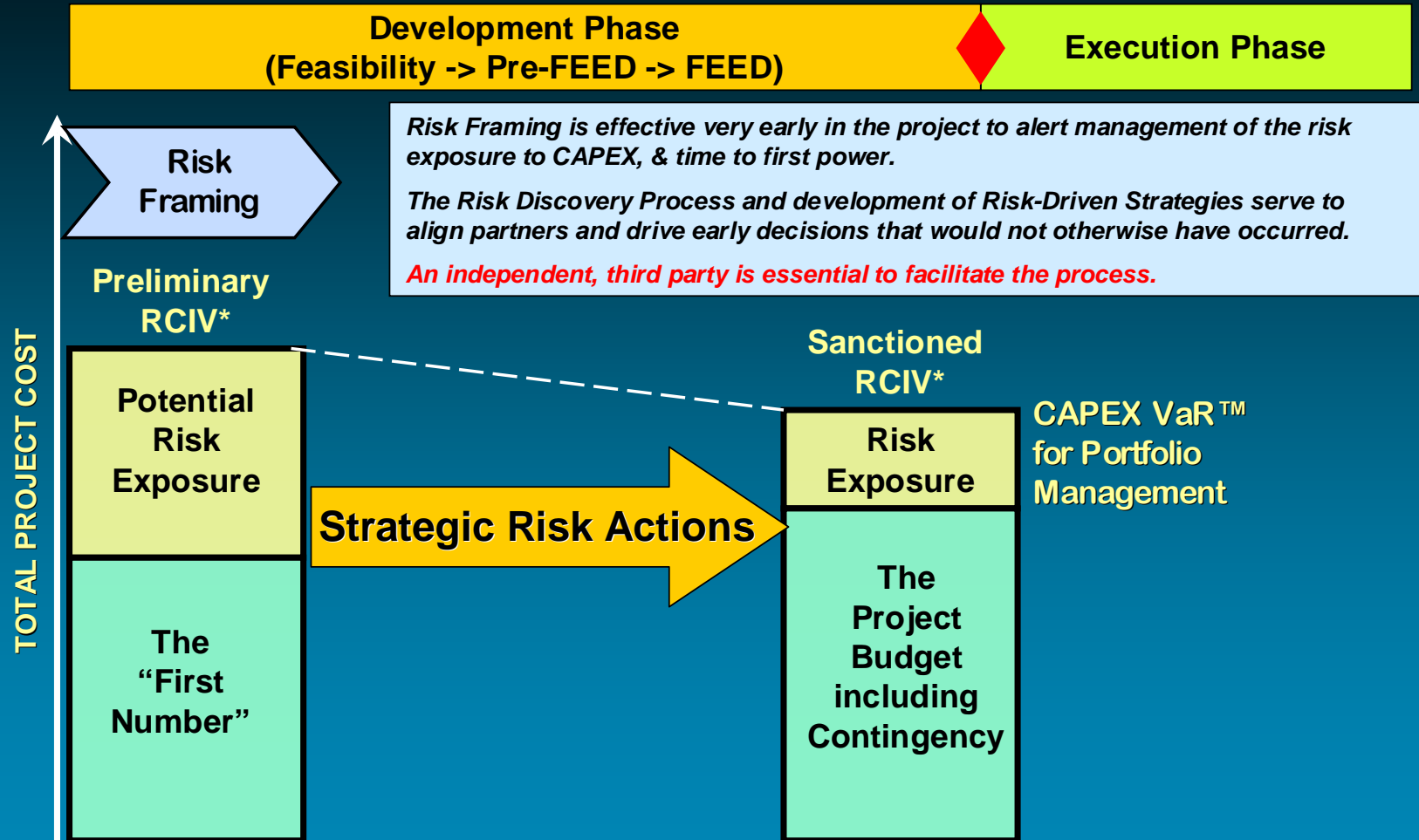
- Risk Resolution Team, facilitated by the LCP Risk Manager with the support of the Risk advisor, consists of LCPMT, ECNL, Financial advisor, Insurance advisor, Legal advisor, Markets & Market Access team.
- Risk advisor to act as a risk broker to create a common understanding of all identified risks and determine the big picture of risk and optimal allocation of risks.



Risk Awareness Levels

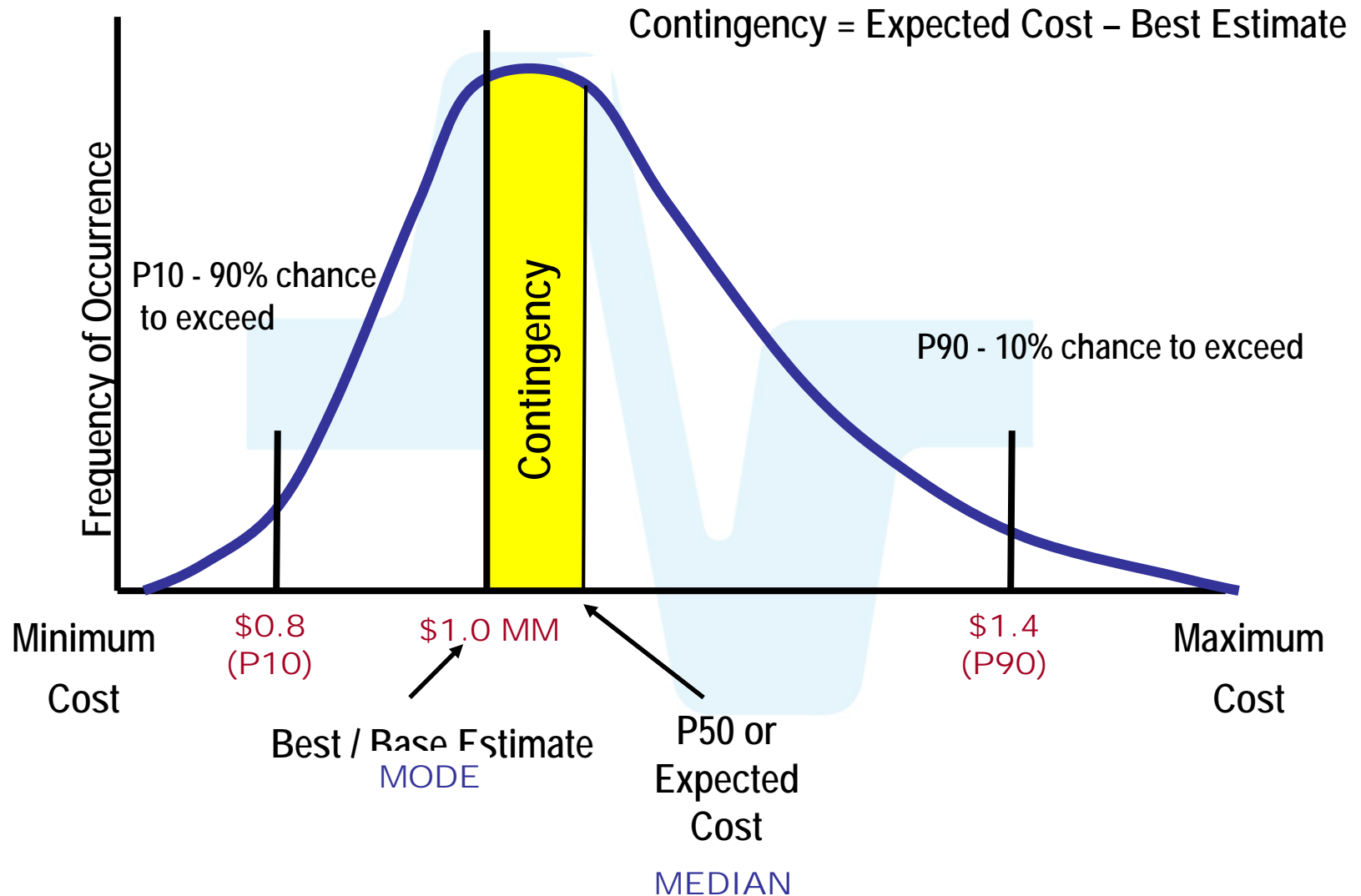


Risk Framing Shapes Capital Project Outcomes

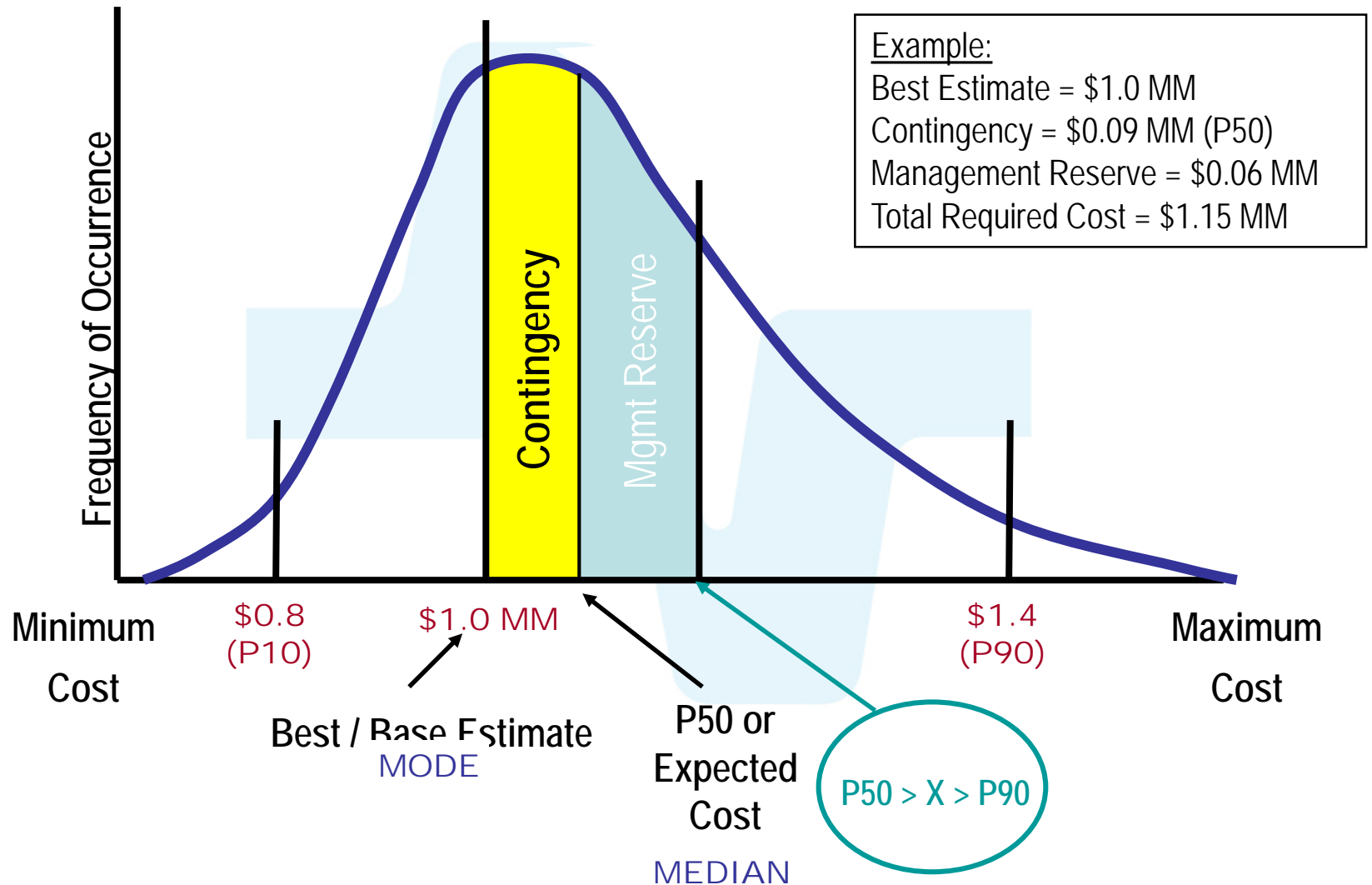


*Risk-Conditioned Investment Value™

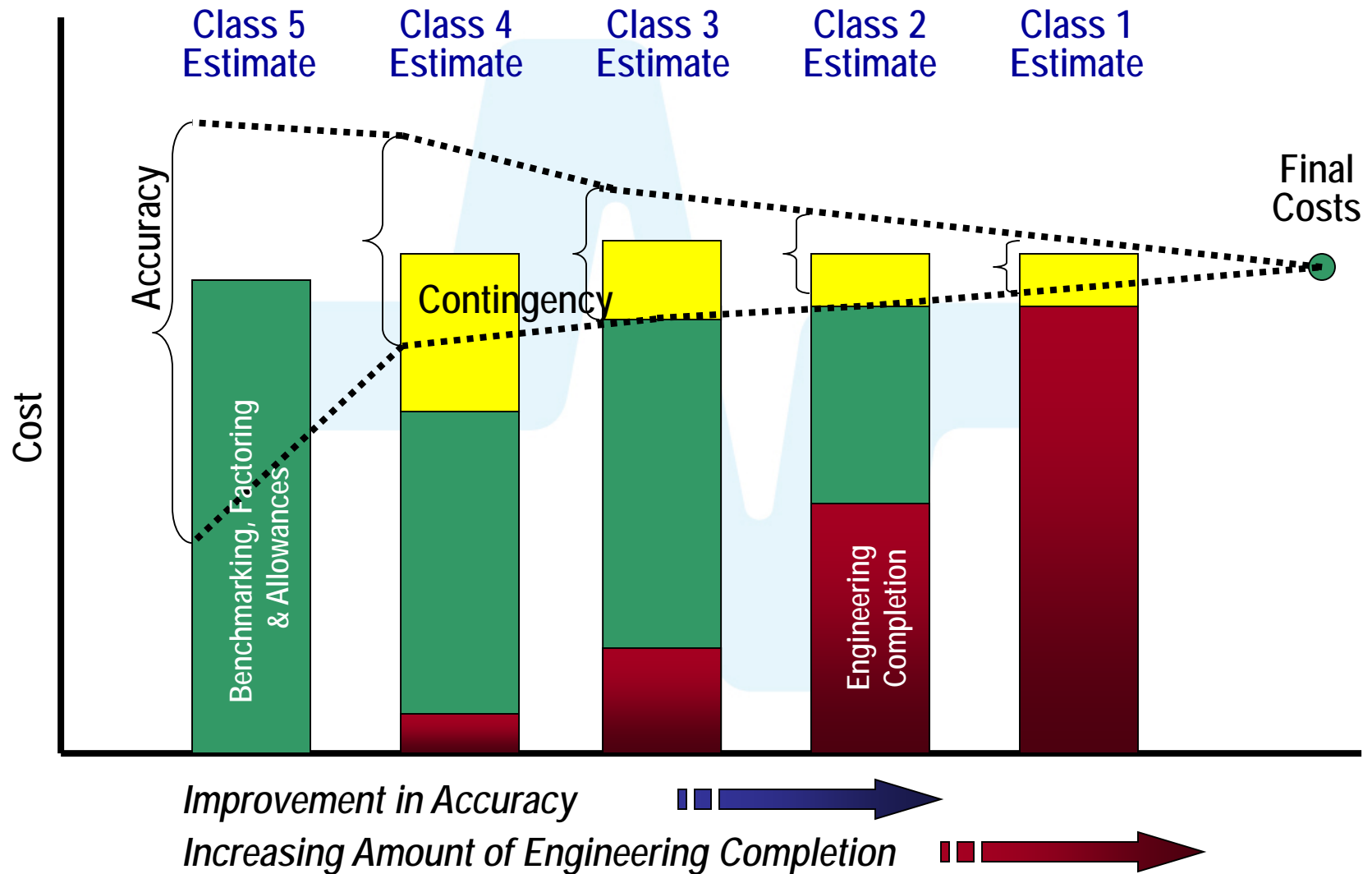
Contingency



Management Reserve

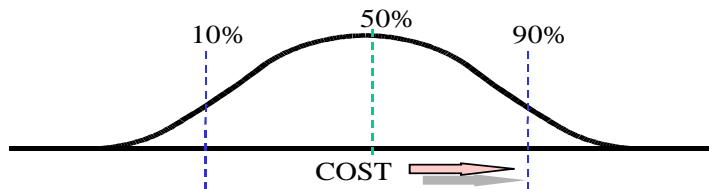


Cost Estimate Maturity Model



Accuracy Evolution

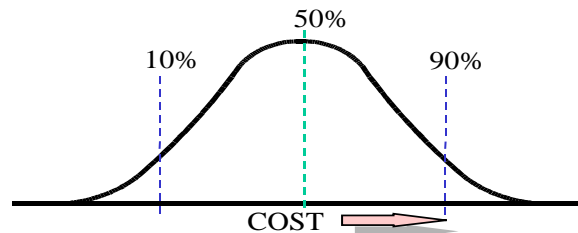
Accuracy Evolution Over Time



CLASS 5

CONCEPT SELECTION

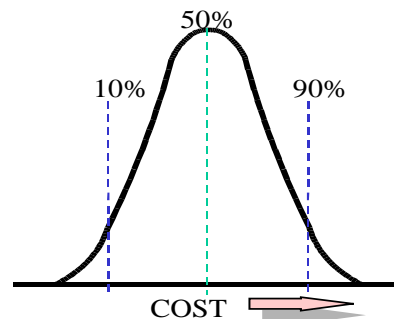
- Minimal engineering
- Low definition detail
- Wide accuracy +/- 50%



CLASS 4

FEED DECISION

- More Engineering
- More definition
- Moderate accuracy



CLASS 3

GATE 3 APPROVAL

- Adequate FEL (10-25% Engineering)
- Well defined
- +/- 10% accuracy