RIMS CANADA™

Proudly Presents…

Public Private Partnerships – Making Them Work

19 September 2011

The Panel

Ottawa 2011
Capital ConneXions

All Perspectives Represented

- Craig Lesurf, Senior Vice President Construction, Carillion Canada
  - Representing Construction and Equity
- Charles Halam-Andres, Managing Director, Scotia Capital
  - Representing the Debt
- David Bowcott, Senior Vice President Construction and Infrastructure, Aon
  - Representing Risk Advisory and Brokerage
- Sasha Beamish, Vice President Construction, Zurich
  - Representing Insurance Underwriting

Introduction

Public Private Partnerships – A Better Asset Delivery Model?

- Public Private Partnships – AKA PPPs, P3s, PFIs, AFPs
- Concept truly born approximately 25 years ago (Australia and UK)
- Mature Jurisdictions: Australia, United Kingdom and Canada

- Panelists:
  - To provide overview of their role
  - To provide their perspective on the model – Is it a better delivery model?

The PPP Model

1. As the title indicates, the model is a partnership between the private sector and public sector to construct and operate a public asset. ex: Hospital

2. The public sector defines all of the asset's desired characteristics for both construction and operation (output specifications) and defines the allocation of risk between the private sector and public sector.

3. Under this model, the private sector provides a fixed price, date certain, turn-key construction contract. Thus, the private sector takes virtually all risks relating to price and schedule risk during the construction phase.

4. Under this model, the private sector provides a fixed price contract for the entire operating term covering specified services and maintenance obligations. The risk of underpricing the associated materials and services is borne by the private sector during the operating phase.

5. Under this model, the private sector provides fixed rate financing for the entire term of the project.

6. By virtue of this model, the public sector transfers risks to the private sector which have plagued many public sector projects and have given public procurement a black eye.

Contractor and Equity Perspective

Craig Lesurf, Senior Vice President Construction, Carillion

Who Are We?

- Carillion Canada is wholly owned by Carillion plc
- Carillion plc is a $9 billion CDN a year company
- Carillion 2010 revenues combine to over $1 billion

Who Are We?

- Carillion Canada has several business divisions including:
  - Building Construction – (formerly known as Vanbots)
  - Infrastructure Development
  - Facility Management
  - Roads & Civil Construction
  - Highway Maintenance –
    - TWD & Carillion (largest in Ontario & Alberta)
  - Land Development

Carillion as a “One-stop Shop”

- Carillion is the only vertically integrated developer of AFP (Alternate Finance Projects) in Canada
- We are in all the boxes – Developer with Equity, raising Debt financing, Construction, Lifecycle & Facilities Management

Background

- Some interesting facts:
  - Carillion Canada oversees activities across Canada and the Caribbean with Head Office located in Toronto and working most provinces and territories
  - 1st FM company in Canada the Brampton Hospital, Royal Ottawa Hospital, Sault Area Hospital and soon to be, CAMH & Forensics & Corners Courts and eventually New Oakville Hospital
  - Providing 25% of the road maintenance for Alberta & providing 43% of the road maintenance for Ontario with a fleet of over 4,000 vehicles
  - Award winning builder with 14 TCA “Best of the Best” awards
  - Over $200 million in new road construction/refurbishment in Ontario alone
  - Ontario’s highest award for Safety for General Contractors – 1.425M man-hours with no LTI’s in 2010

Traditional vs. P3

Traditional (Bid-Build)

- Bid to owner procured design
- Minimal pre-construction Due Diligence
- Minimal lifecycle considerations
- Minimal third-party review
- Less up front expenses
- Minimal pre-screening of contractors

P3 (DBFOM)

- Builder works collaboratively with design
- Significant pre-construction due diligence
- Significant lifecycle consideration (skin in the game)
- Significant third-party review
- More up front expenses
- Significant pre-screening of contractors

Project Selectivity Criteria

- **Pipeline is reviewed well in advance**
- **Must have ability to win**
- **Creation of project teams to win–win theme**
- **Internal reviews of project criteria – must have various levels of corporate approval, bid/no bid &Major Projects Committee – Corporate Governance…**
- **MPC**

Risk Assessment

- **Best Practices**
  - **Before Subguard**
  - **After Subguard**
  - **In the DBFM Model**
- **Quality**
  - **QA/QC programs**
  - **Lifecycle**
  - **Sustainable construction**
- **Risk Registers**
  - **Used extensively during the bid process**
  - **Used extensively during the construction**

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Risk Assessment

- **Design Management**
  - **You must get the design right during the bid to drive the best functional program that in turn derives the lowest NPV.**
  - **Integration of the construction with the design**
  - **The builder now has a better seat at the table and has skin in the game**

Debt Underwriter Perspective

Charles Halam-Andres, Managing Director, Scotia Capital

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Role of Debt Underwriter

1. The Underwriter is a key team member of each bidding consortium.
2. At bid submission, the Underwriter commits to underwrite a bond offering in an amount equal to the Project's long term financing requirements at a specified issue spread (subject to adjustment using a benchmark), which will be repaid over the operating term.
3. Prior to financial close, the Underwriter will market the issue to institutional investors.
4. At financial close, the Underwriter will distribute bonds to investors based on allocations.
5. The proceeds of the issue will fund approximately 90% of Project costs.

Performance Security

1. In conjunction with any financing, the lenders require that the private sector sponsors backstop their obligations with performance security
   A. In relation to construction obligations, this security takes the form of:
   B. Letters of Credit – Immediate liquidity
   C. Performance and Labour & Material Bonds
   D. Subcontractor Default Insurance
   E. Reserving Mechanisms for Delay
   F. Parent Company Guarantee
2. In relation to operations, this security takes the form of:
   A. Letters of Credit
   B. Reserves
   C. Parent Company Guarantee
3. The Good – Any instrument that provides liquidity on demand or within a very short period. This allows problems to be fixed with cash. Ex: L/C's, Subcontractor Default Insurance
4. The Bad – Any instrument which has an adjudication process or can lead to delays
5. The Ugly – Any instrument that can result in litigation before performance obligations

Impact on Rating

1. Direct correlation between credit rating achieved and strength of performance security
2. The more easily accessible and the more liquid, the greater the positive impact on rating
3. Any instrument which provides accessibility and liquidity at a reasonable price will be received very favourably by the market

Advisors – Their Relevance

1. Understanding non-liquid performance support and insurance is a black art to all those who don't practice in the area
2. Advisers
   A. In the case of technical, they speak to risk of loss and amount of loss
   B. In the case of insurance, they speak to the risks covered and conditions of availability are critical to the assessment process
3. If you can't meet the standards proscribed by the advisers, Underwriters will not sign-off
4. No positive advisers' reports, no financing

The Capital Markets

1. Despite EU turmoil, Canadian capital markets remain strong and are very receptive to PPP bond offerings
2. Assuming an A category rating, market capacity is north of $1.5 billion
3. Issue spreads have generally trended downwards
4. Based on these factors, PPP bond offerings are the most efficient manner of providing long term capital for PPP projects

Credit Markets – The Future

1. Prior to the financial crisis of 2007/2008, debt capital for PPP projects was provided almost exclusively by European banks and a very limited number of domestic institutional investors.
2. The financial crisis led to the almost complete withdrawal of European banks from the market because they could no longer lend for the full term or at reasonable spreads.
3. Dealers such as Scotia Capital who were able to underwrite and distribute bonds in the Capital Markets for full project term and at competitive spreads replaced the European banks. As this market matured, the number of investors investing increased, thereby causing issue spreads to tighten.
4. Since the end of the financial crisis, the European banks have returned and domestic banks have entered, but largely only at the short end of the market (5 years or less).
5. For these reasons, we expect bond issues to continue to be the most efficient source of long-term debt capital for PPP projects and, as spreads tighten, become more competitive at the short end of the market.

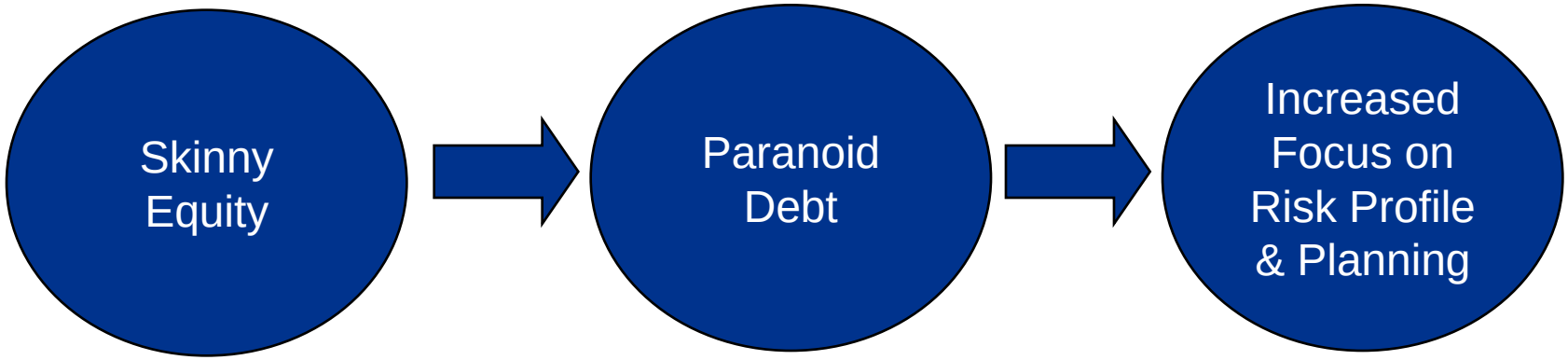
Risk Advisor/Broker Perspective

David Bowcott, Senior Vice President Infrastructure, Aon

Risk Advisor/Broker's Role

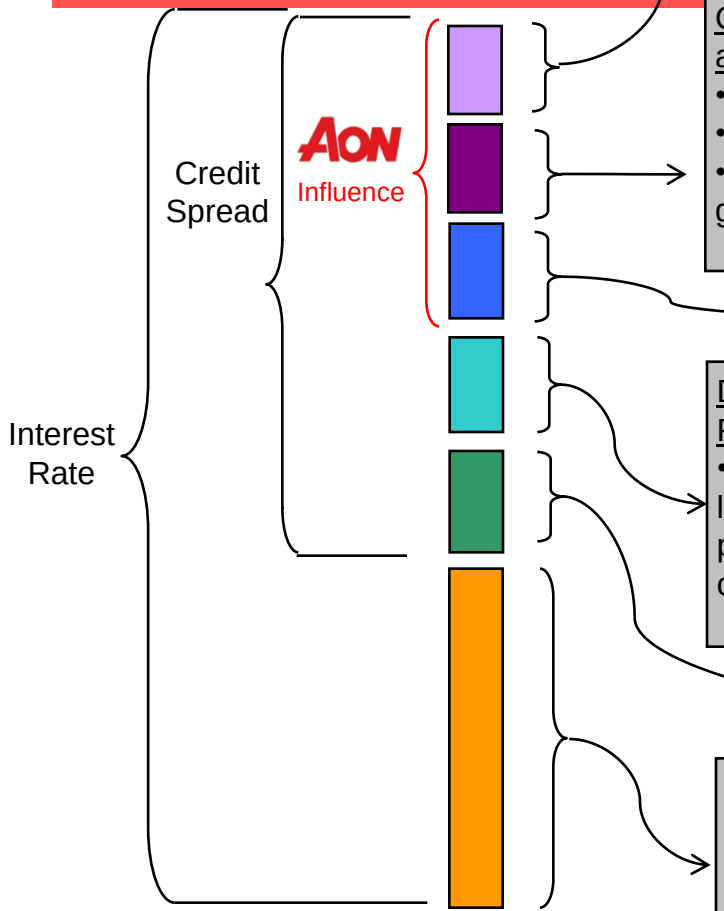
- Ensure project has access to all risk management tools:
  1. Risk transfer solutions (Insurance and Performance Security)
  2. Risk control solutions (construction and operational best practices)
  3. Pool of construction and infrastructure industry specific knowledge
  4. Network of stakeholders (owners, designers, contractors, equity, debt, subcontractors and suppliers)

P3s - Why Pay Attention?



- Highest level of pre-construction risk dialogue
- Risk technology abounds (The F1 of Construction)

Paranoid Debt - How do they see RISK?



Contractor Performance Supports
- DB contractor in particular
- Security used to secure beyond contractor balance sheet
- Key is balance between equity/debt needs and contractor needs (i.e.., high benefit to debt and low impact to contractor financials)

Contractor Risk Profile (DB and O&M)
- DB contractor in particular
- Typically financial metric
- Operational capabilities a growing metric (BPs)

Project Risk Profile
- Project specific perceptions of risk
- Risks should be accurately quantified and solutions clear

Debt Rating of Ultimate Payer
- Whether it is long-term lease or availability payments in a P3, credit covenant is key

Payment Mechanism
- How is the project paid for?
- Example: P3s can be either Availability or Volume payments.

Risk-free rate
- Long Government of Canada Bond (3.5%)
- AAA rating

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Advisor's Influences on Risk Profile

Project Risk Profile

- Methodology to analyze project specific risk issues and associated solutions
- Project Enterprise Risk Assessment (PERA)
  - Project due diligence report utilized by stakeholders to more effectively communicate risk
  - Risks are ranked and mapped to solutions (risk transfer and risk control)

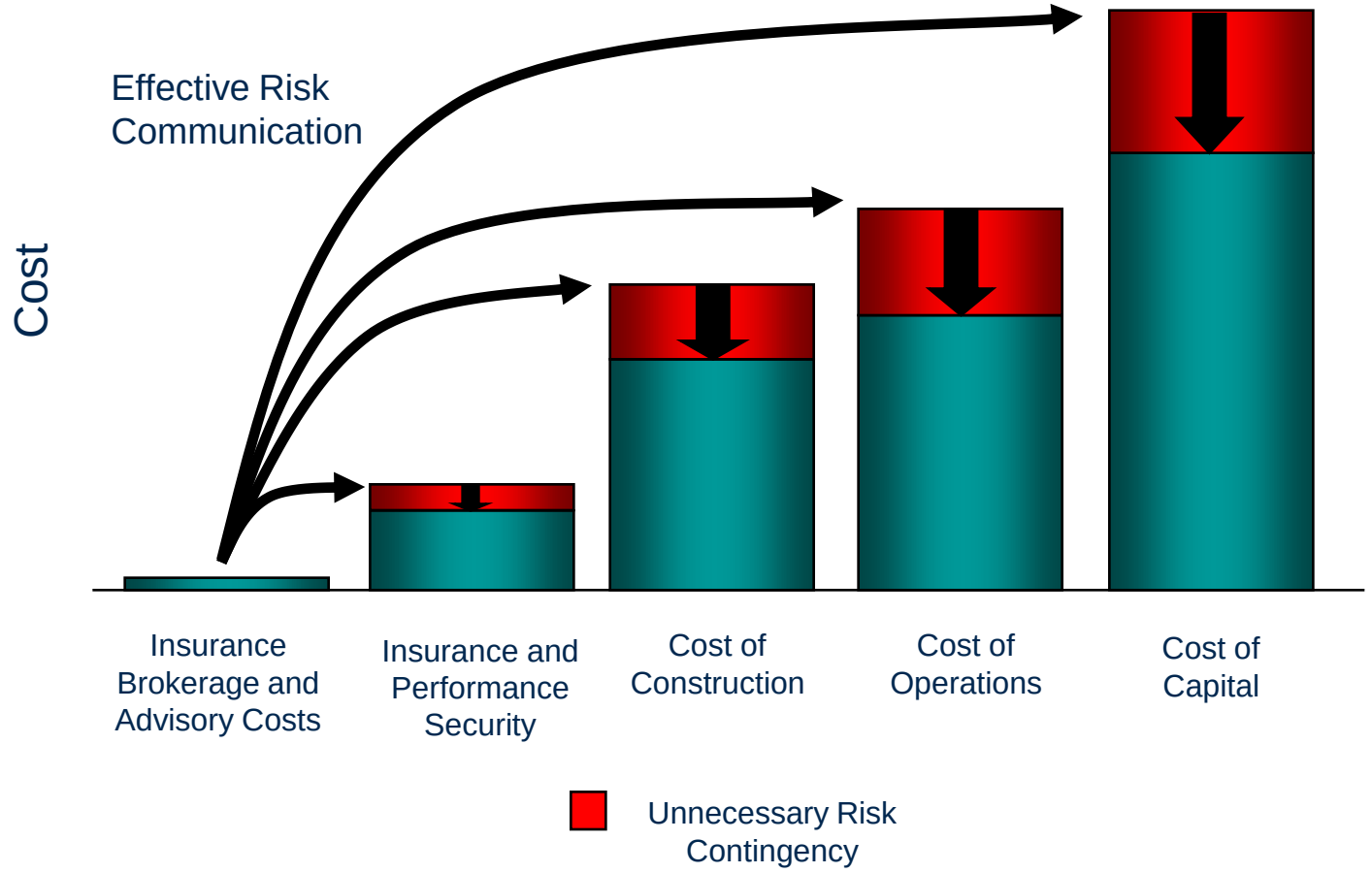
Contractor Risk Profile

- Methodology to analyze contractor financial and operational practices
- Solution: Contractor Enterprise Risk Assessment (CERA)
  - Risk assessment of contractor's operations (comparison to peer group)
  - Utilized to better communicate contractor practices to manage risks
  - Includes financial analysis for negotiations regarding balance sheet

Contractor Performance Supports

- The Tools
  - Performance Security (Letters of Credit, EDC/PSGs, Surety, Liquid Surety, Subcontractor Default Insurance (SDI/Subguard), Liquidated Damages Insurance, Consulting Engineer Guarantees)
  - Enhanced Project Insurance Policies
  - Integrated Insurance Policies (Responsive Broad Cover)

Impact of Better Risk Profile



P3s – Construction Risk Lab

- Insurers are learning P3s have significant risk controls:
  - Significant upfront risk due diligence
  - Design does not drive the bus (builder and operator do)
  - Significant Oversight – Several overseeing project planning and execution:
    - Key: Lender Technical Advisor
    - Key: Lender Insurance Advisor
    - Others: Financial, Legal, and Tax
  - Track Record of Success
    - Over 90% on-time and on-budget
    - Loss ratio of less than 15%
- P3s are the “F1” of Asset Management

Insurance Underwriter Perspective

Sasha Beamish, Vice President Construction, Zurich

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Trends In Infrastructure

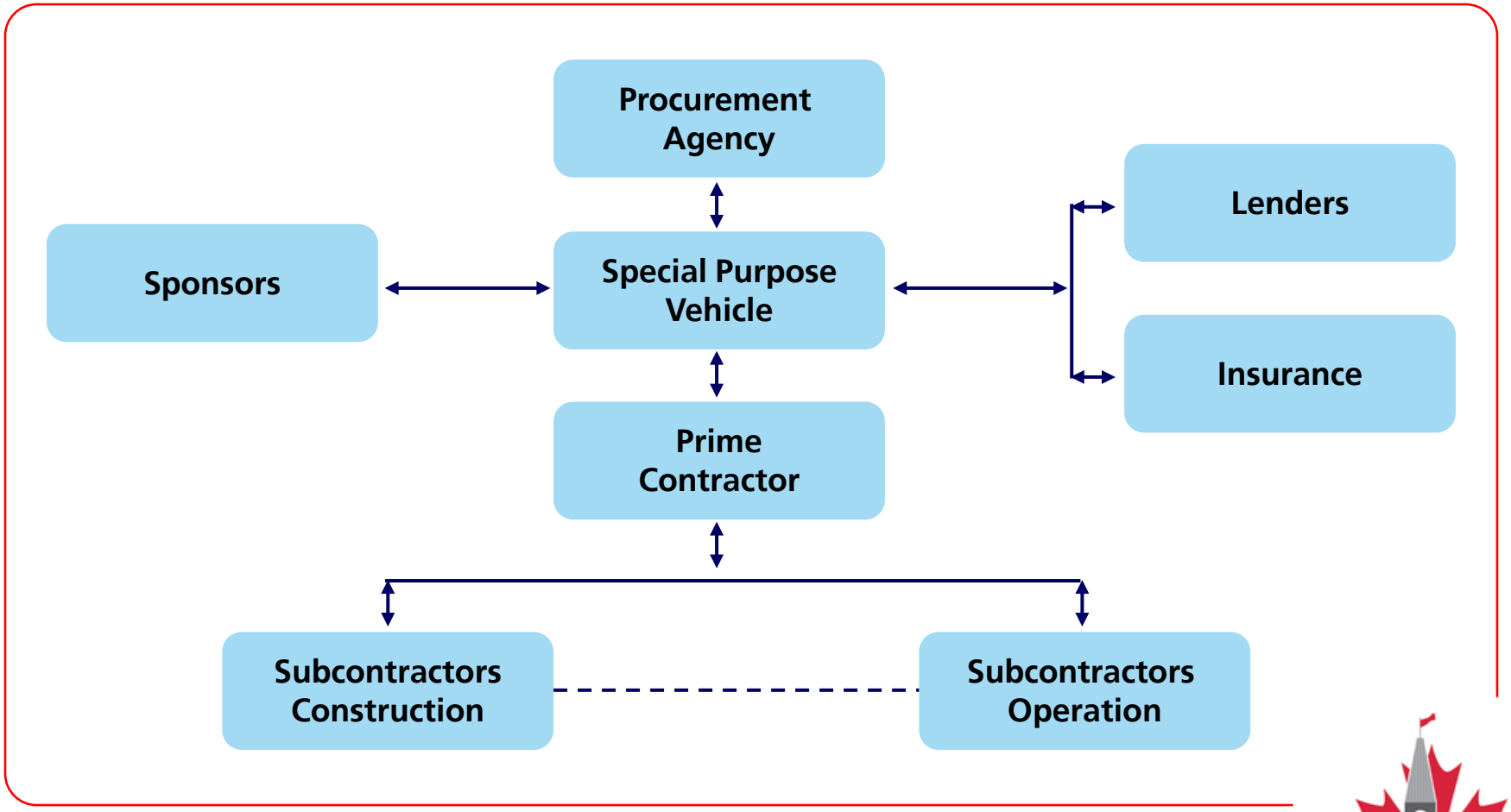
Market Demands:

- Population growth, immigration,
- Changing demographics
- P3 & alternative financing
- Trade with growing economies (China & India)
- Hosting national sporting events

Project Time Line

- The demand or perceived need for Infrastructure
- Conceptual planning and feasibility studies
- Design and engineering
- Procurement, manufacturing, transportation
- Engineering and Construction
- Startup for occupancy including testing
- Operation and maintenance

P3 Project Stakeholders
Makeup of Special Purpose Vehicle (SPV)



Major Risks Faced by P3 Project Stakeholders

Top Five Project Risks:

- Political
- Financing
- Contractual Responsibility
- Constructability
- Operations

Conceptual Planning and Feasibility Studies

Challenges:

- Special Purpose Vehicle (SPV) makeup
- Budget and financing
- Licenses and permits
- Environment impact
- Terrorism/security
- Market conditions
- Dependable access to utilities
- Construction feasibility
- Alternative construction methods
- Contractual responsibility
- Contractor/vendor selection
- Risk identification
- Risk allocation
- Management of risk

Conceptual Planning and Feasibility Studies

Zurich key P3 solutions:

- Feasibility consultative services – constructability and supply chain
- Risk assessment modelling
- Political risk insights
- Crisis management
- Business continuity planning

- Subguard® - subcontractor default insurance
- Surety bonds – performance and payment bond
- Environmental impact studies
- Supply chain coverage
- Pollution liability coverage
- Risk management/risk transfer/insurance

Design and Engineering

Challenges:

- Selection of Prime Contractor(s)
- Professional/Qualified labour
- Constructability
- Operations and maintenance
- Site selection
- Geotechnical considerations
- Local infrastructure and site access
- Weather and catastrophic events
- Specification development
- Government regulations
- Design errors

Design and Engineering

Zurich key P3 solutions:

- Contactors/Owners Protective Professional Indemnity® (CPPI/OPPI)
- Risk insights from engineering and construction document reviews
- Natural hazard catastrophe modelling
- Construction means and methods assessment
- Quality Assurance/Quality Control (QAQC) assessment
- Workforce management assessment
- Contractor selection protocols

Procurement, Manufacturing and Transportation

Challenges:

- Supply chain issues
- Just in time delivery
- High value components
- Lead time of key components
- Cost of repair/replacements
- Selection of subcontractors
- Delay impact
- Sole source supplier
- Performance standards
- Crime, political unrest

Procurement, Manufacturing and Transportation

Zurich key P3 solutions:

- Supply chain assessments and insurance
- Builders risk coverage
- Marine cargo coverage
- Marine delay in start up coverage
- Zurich Total Risk Profiling®
- Business interruption modelling
- Inspection of materials/materials management
- Customized collateral solutions

Engineering and Construction

Challenges:

- Resource risk
- Handoff
- Delay
- Efficacy
- Escalation cost of raw materials
- Contractor/subcontractor default
- Project Safety
- Warranty protection
- Construction management
- Means and Methods
- Quality Assurance/Quality Control
- Labour Management
- Material Management
- Equipment Management
- Claim Management

Engineering and Construction

Zurich key P3 solutions:

- Zurich ProjectSuite
  - CPPI/OPPI
  - Builders Risk coverage
  - Wrap-up coverage (Casualty)
  - Pollution Liability
  - Excess Liability Coverage
- Surety bonds*
- Subguard®*
- Zurich Consultative Services
- Safety-specific services
- Claims management protocols
- Fraud investigation

*Provided by main contractor

Startup for Occupancy Including Testing

Challenges:

- Operational experience
- Inefficiencies in operations
- Skilled labour shortage
- ‘Hot testing’
- Public liability
- Public relations
- Inexperienced staff
- Government inspections
- Lessons learned
- Insurance gaps

Startup for Occupancy Including Testing

Zurich key P3 solutions:

- Transition to construction and operational coverages
- Builders risk
  - Hot testing
- Crisis management consultation
- Transfer to operations service review
- Zurich Hazard Analysis
  - Enterprise Risk Management
  - Contingency planning
  - Business continuity planning

Operation and Maintenance

Challenges:

- Maintenance, modifications and repairs
- Cost escalation
- Health and safety
- Environment
- Public relations
- Legislation
- Repeated testing
- New technology
- Warranty compliance
- Terrorism
- Insurance gaps

Operation and Maintenance

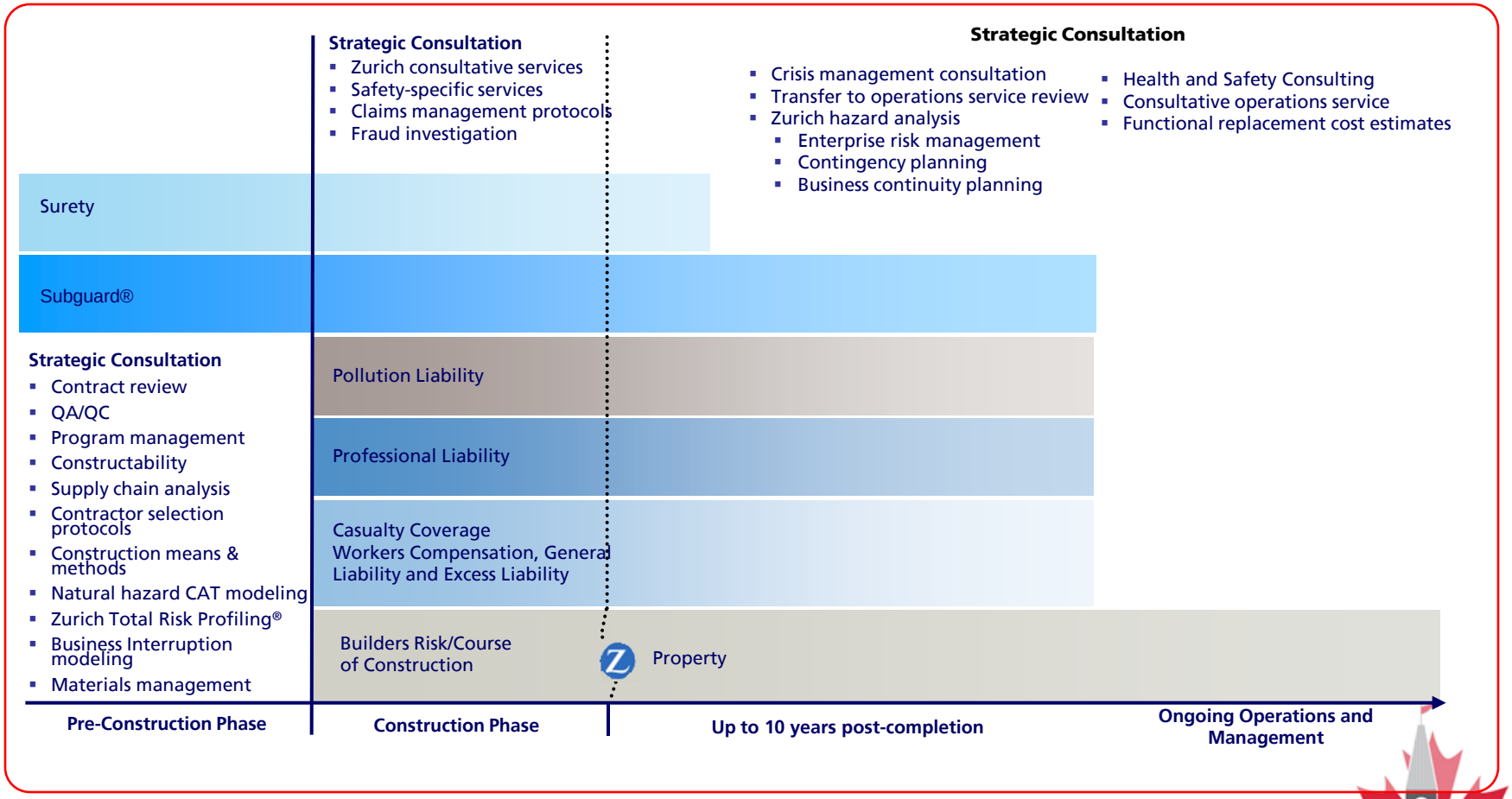
Zurich key P3 solutions:

- On-going operational property and liability coverage
- Pollution liability
- Risk transfer insurance
- Health and safety consulting
- Maintenance estimates
- Consultative operations service
- Functional replacement cost estimates

Risk Management

- Construction dedicated Risk services consultants
  - Pre-construction
  - Course of construction
  - Post-construction
- Risk services consultant provides periodic independent review of DBE's adherence to best practices
- Certain assets (e.g. schools) more exposed during operation than construction
- Recognise in-built risk protection are less expensive & more effective than ad hoc risk improvement after asset is built

Zurich P3 Project Suite



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