# Washington JTC
# Staff Working Group Meeting

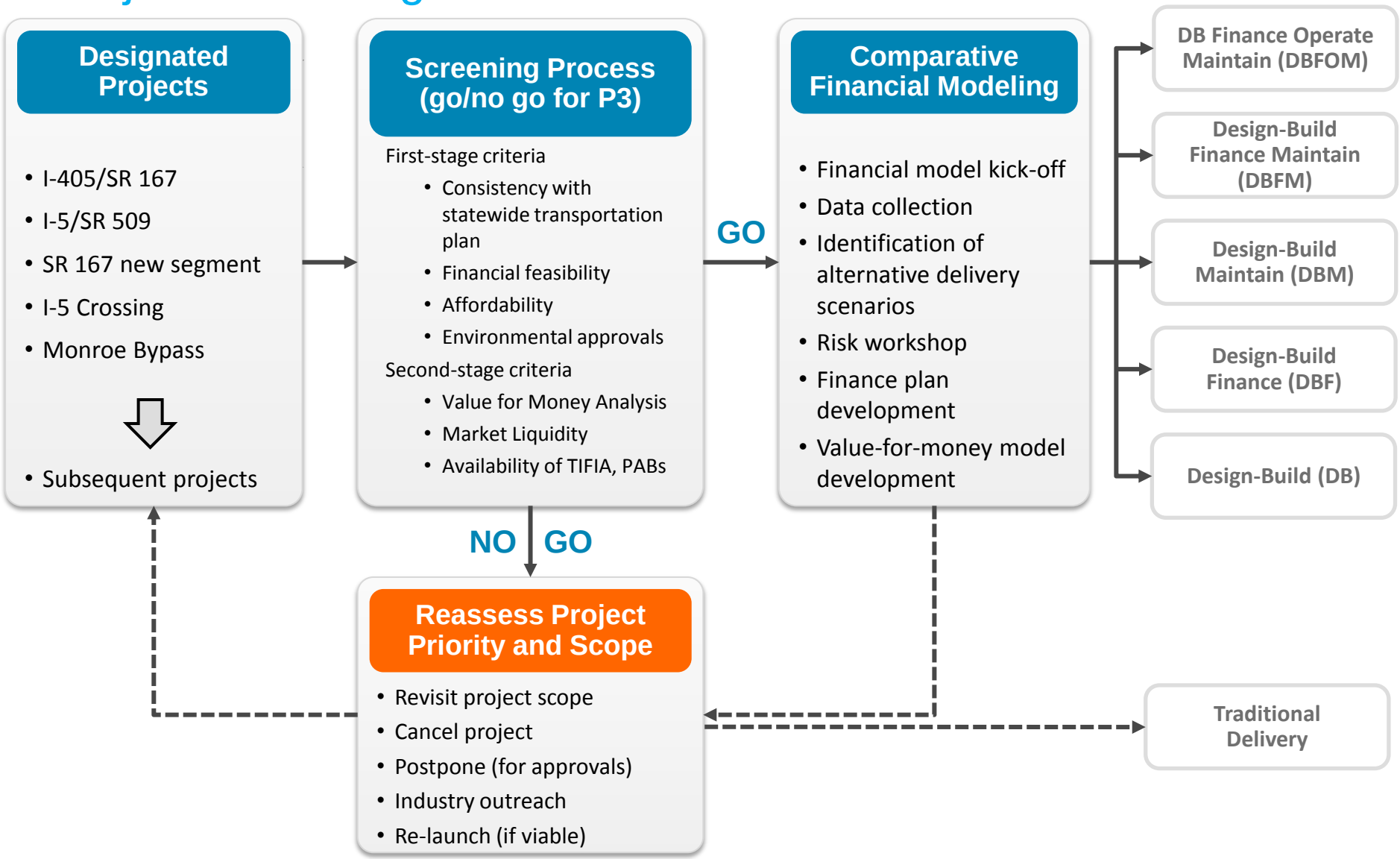
## Discussion Materials
**September 15, 2011**


# Day One Agenda

| Time | Item | Presenter |
|---|---|---|
| 9:00 AM | **Welcome/Overview** | Mary Fleckenstein, Simon Shekleton |
| 9:15 AM | **Screening Tool Overview**<br>- Criteria<br>- Functionality | Sam Barend/Simon Shekleton/Susan Kehoe – Discussion |
| 10:15 AM | **Screening Criteria Methodology in Other States and Nations** | Sam Barend, Liam Kelly |
| 10.45 AM | **Screening Tool Exercise**<br>-Real Project Examples<br>-WA JTC Project Exercise | Simon Shekleton - Discussion |
| 11:45 AM | **Break** | |
| 12:15 | **Working Lunch**<br>- Value for Money Overview | Sam Barend, Liam Kelly |
| 1:00 PM | **Risk Overview/Background** | Simon Hough |
| 1:45PM | **Case Study/Interactive Risk Apportionment Exercise** | Group Exercise |
| 3:00 PM | **Development of Project Risk Registers** | Simon Hough |
| 4:00 PM | **Close** | |

# Screening Process

# Project Screening Context



# Procurement Model Selection – Key Requirements

1. **Model needs to support Government's key objectives**
2. **Must be deliverable – market appetite, precedent transactions**
3. **Must facilitate Government's desired risk allocation**

# Development of a Screening Tool for Washington

**Essential Considerations**

- Good Screening Tools assess common, comprehensive criteria
  - Public interest
  - Project viability
  - Risk
  - Numerous others (per following slide)
- Asking the rights questions is key, but it is equally important to:
  - Weigh responses to suit values and objectives of the State
  - Establish clear and objective requirements for inputs to the screening tool for consistency
  - Establish appropriate fatal flaws

**Local Calibration**

- Draft criteria will be presented through upcoming material and workshops (now)
- Once the list of criteria is set, we will ascertain and define:
  - Fatal Flaws
  - Weighting of objective criteria
  - Assessment and weighting of subjective criteria
  - Potential legal / legislative hurdles

# Screening Considerations

**Spending need/cost savings**

- Part of capital plan/demonstrable need
- Technical innovation
- Affordability
- Provides value for money
- Economies of scale
- Risk transfer
- Timing benefit
- Whole life costing

**Private sector ability to partner**

- Current market liquidity
- Return justifies risk
- Suitable size
- Risk tolerance
- Complex construction
- Ability to attract TIFIA, PABs
- Approvals Process

**Regulatory, legal, and political feasibility**

- Regulatory risks, issues, or flexibility
- Need for new or change in legislation
- Environmental issues
- Political risks or issues
- Accounting and tax treatment
- Land ownership issues
- Accounting treatment

# Project Screening and Prioritization Process: Lessons Learned

- Critical to have a process for the selection of transportation projects
- A programmatic approach and methodology for screening and selecting candidate projects
- A process for pro-actively defining the project pipeline rather than assuming a reactive approach based on legislative priorities and unsolicited proposals
- Key decisions, such as public funding commitments, must be made early in the project development process to inform part of the screening and prioritization criteria
- Decisions to move forward or not to move forward with projects should be taken early in the process to avoid abortive work on infeasible projects

# Project Screening and Prioritization Examples

**National Road Authority, Ireland**

- The National Roads Program (2000-2007) was launched with a clearly identified pipeline of 9 toll road projects
- NRA periodically examines Ireland's transport needs and creates an overarching strategic plan to determine which roads are needed and where
- There is a formal screening process
- The criteria for selection include confirmation of the following:
  - Appropriate size for PPP mechanism; commercially bankable; ability to attract substantial private finance; ability to attract sufficient private sector interest to ensure good competition at bid stage and ultimately result in VfM for public sector

**Infrastructure Ontario, Canada**

- IO launched "ReNew Ontario" (2005 -2010) – targeting 40 PPP projects across multiple infrastructure sectors
- The Ministry of Energy and Infrastructure determines PPP eligibility according to five principles: public interest is paramount, VFM, public ownership must be preserved, accountability must be maintained
- For projects above $50 million, IO is mandated to set project criteria, bring together public and private sector organizations, conduct a procurement process to select a private-sector consortia and ensure the public interest is upheld throughout the life of the project

**Georgia Department of Transportation**

- The Public Private Partnership (PPP) Program was re-launched in 2009 – with a 4 project multimodal pipeline
- Rules require GDOT to develop a biennial P3 list for Transportation Board consideration
- Comprehensive project screening protocol is carried out to identify near, mid and long-term projects
- Projects may be proposed by GDOT, other state agencies, local authorities and MPOs via a Project Data Request Form. Projects sit within the Strategic Transportation Improvement Program
- Screening factors include: potential for value added by the private sector, the Department's preparedness, public funding, project maturity, market interest, project scope, and financial feasibility

**Texas Department of Transportation**

- The Comprehensive Development Agreement (CDA) Program was launched in 2002
- There is a formal screening process. At the end of the 2007 legislative session, 87 potential projects were identified
- Screening criteria are based on risks (e.g. system interface, design and construction, O&M requirements, public acceptability, approvals and scheduling, and demand); financial feasibility; and estimated time to procurement

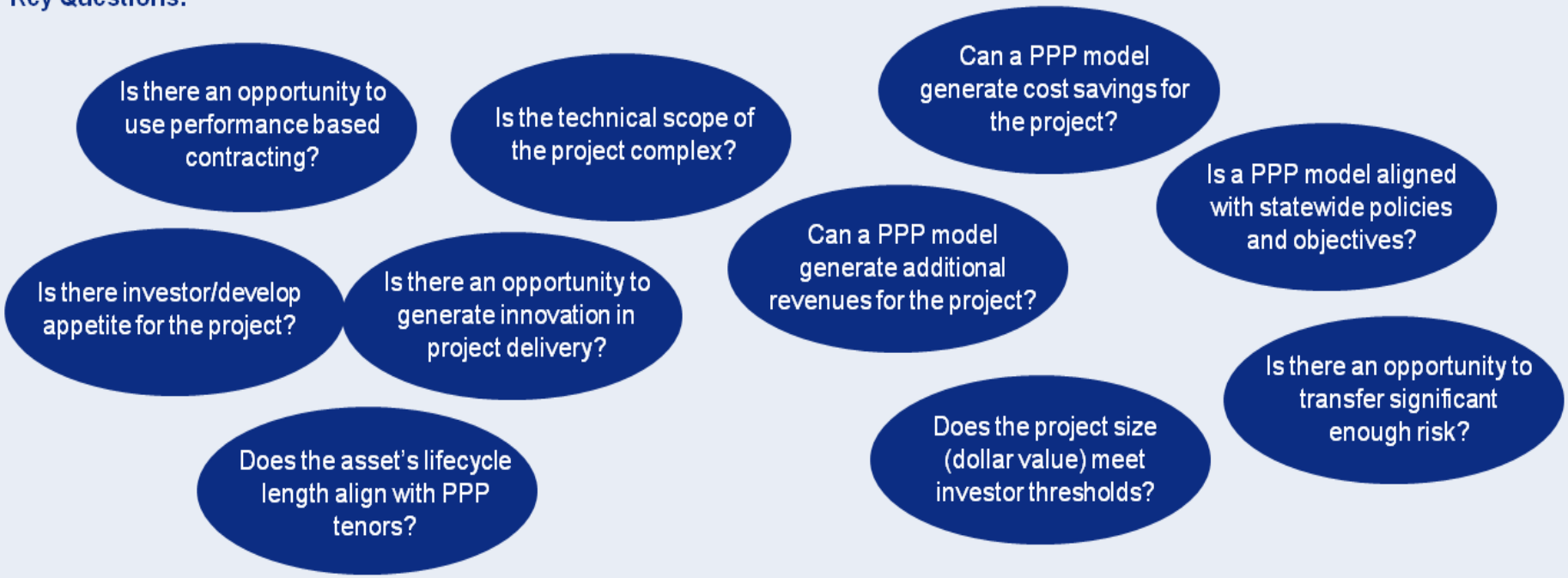
# PPP Project Screening Frameworks – Detailed Case Study

## State of Michigan, Office for PPP

**Step 1: Pre-screening Evaluation**

This step involves a preliminary evaluation of the project by asking the following types of questions. During this step, all questions need not be answered in the affirmative. Rather, this step is aimed at identifying any "threshold" issues that may prevent the project from being considered for PPP delivery.

**Key Questions:**

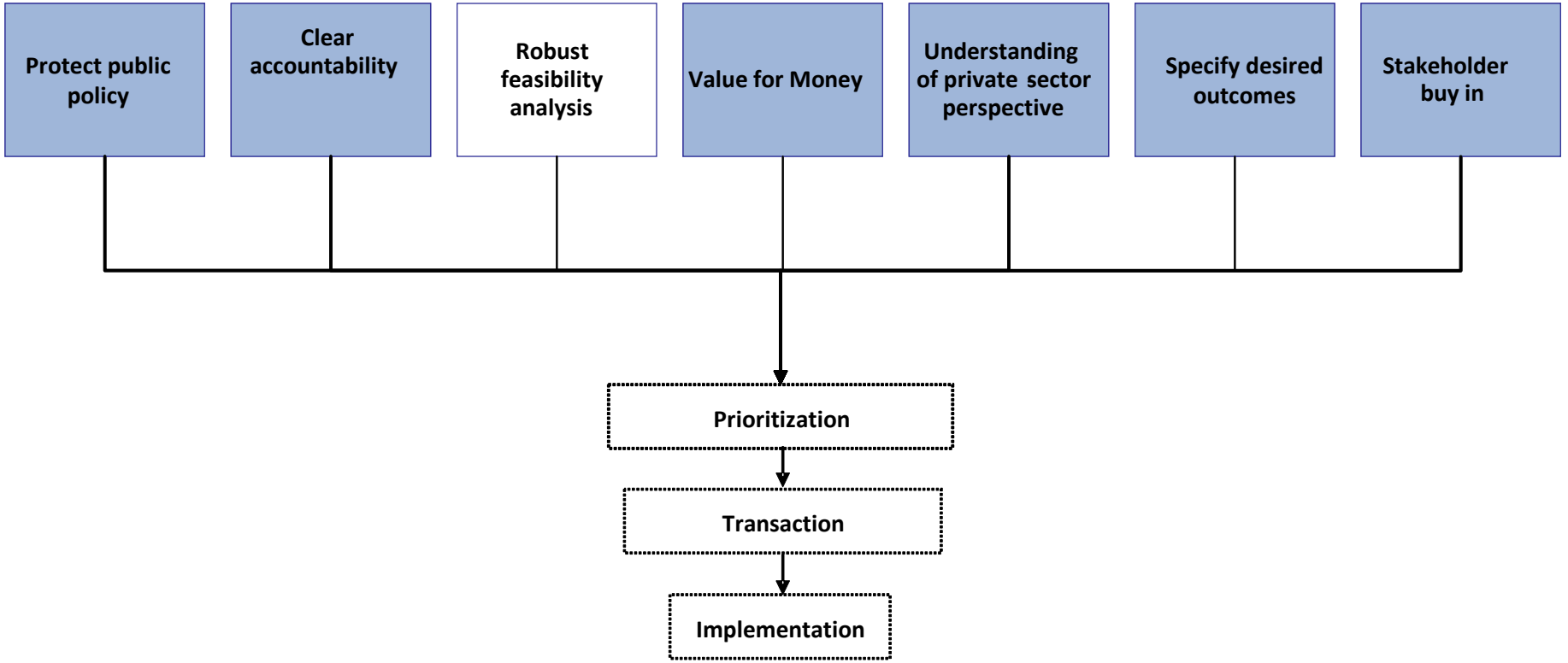



***Outcome: Should the project proceed to Step 2 of the project screening?***

# PPP Project Screening Frameworks – Detailed Case Study

## State of Michigan, Office for PPP

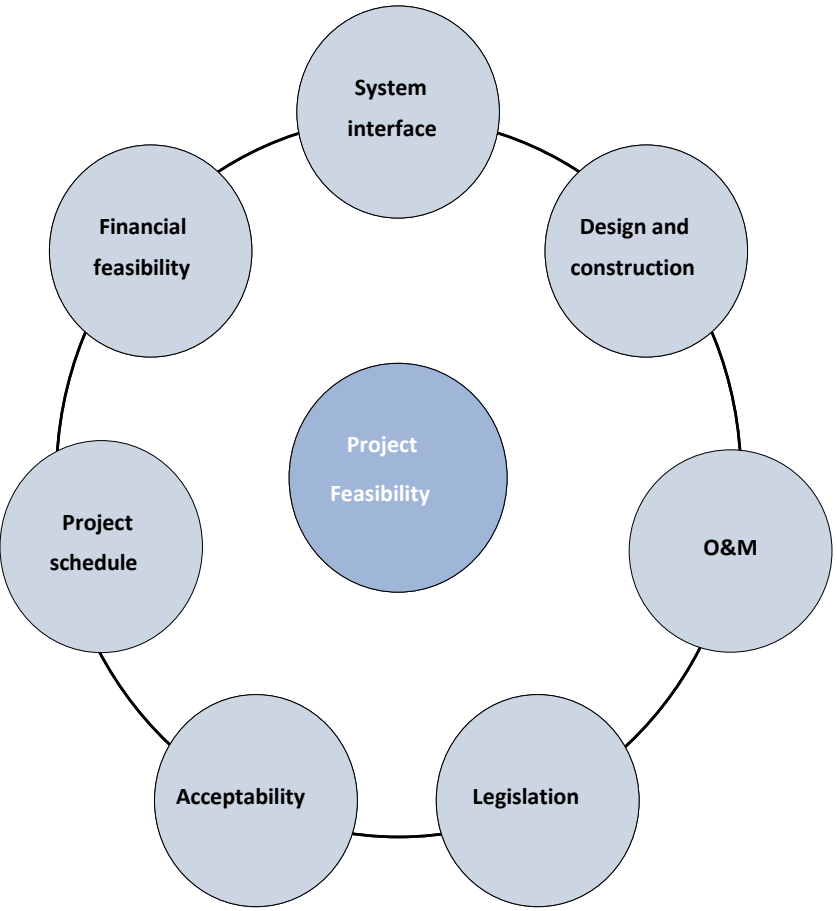
The State of Michigan's project screening framework is one step in a comprehensive implementation plan aimed at meeting a variety of objectives, including:



# PPP Project Screening Frameworks – Detailed Case Study

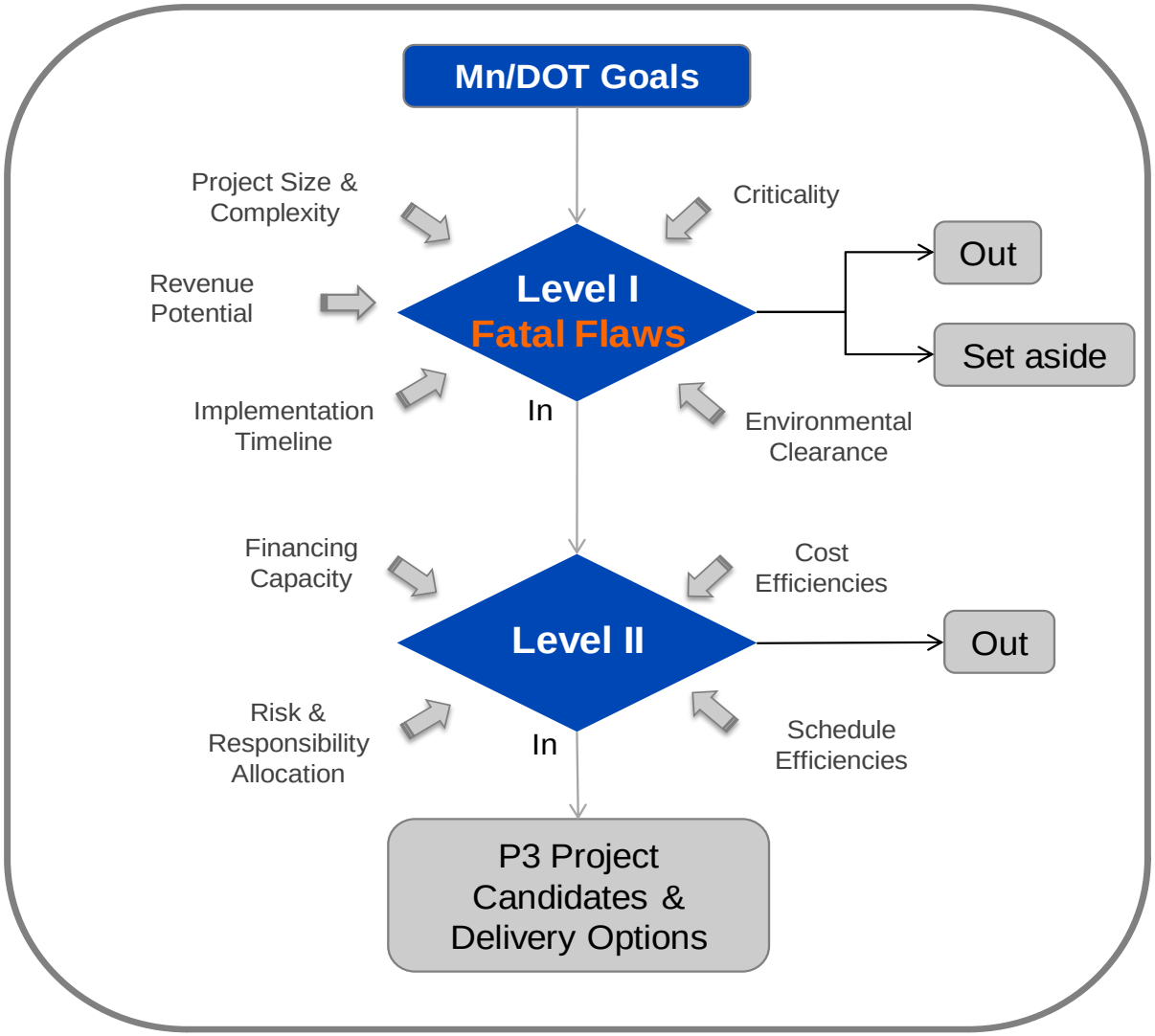
## State of Michigan, Office for PPP

If a project process to Step 2 of the project screening evaluation, then a 'deeper dive' is performed in order to assess the feasibility of the project if delivered under a PPP model.

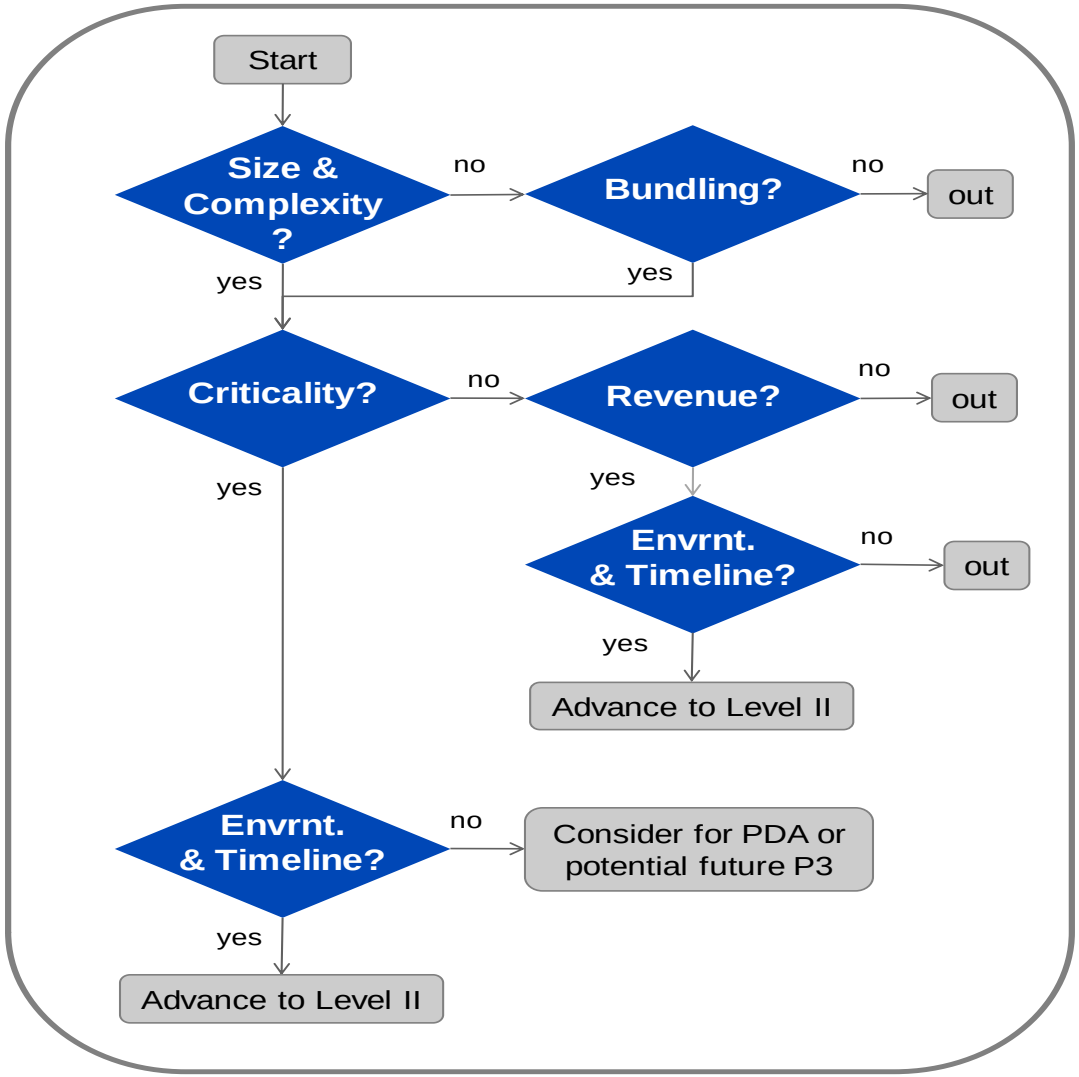



| | |
|---|---|
| System interface | • Considers how well the planned improvements integrate with existing / other planned infrastructure (interoperability) |
| Design and construction | • Addresses significant design and construction constraints including land acquisitions, right-of-way, utilities, geotechnical, hazardous materials and constructability within the context of project cost |
| O&M | • Addresses O&M issues such as fence-to-fence responsibility, existing O&M contracts, interoperability of tolling/revenue collection system, regulation and enforcement |
| Legislation | • Considers existing and required legislation for tolling and PPPs |
| Acceptability | • Addresses the acceptability of the project itself as well as the delivery method, whether it be by way of traditional financing or PPP, as well as the acceptability of tolling/3rd party revenue from both the public and political perspective if appropriate |
| Approvals / project schedule | • Considers the complexities of the approvals process including environmental approvals, relevant authorization and Federal programs. Also addresses the importance of the project schedule to a PPP environment |
| Financial feasibility | • Considers the project economics in the context of capital costs, O&M costs, rehabilitation costs, revenue potential, expansions, public funding and private financing in a financial feasibility model |

# Minnesota DOT's P3 Screening Process Overview Flow Chart



# Minnesota DOT's Screening Process Flow Chart



# FHWA's Suggested PPP Project Selection Criteria

## For the Public Sector

- Enabling legislation in place
- Urgent transportation need
- Political and institutional support
- Lack of internal resources, staff/financial, to deliver project in a timely manner
- Leverage public resources and transfer cost/schedule risks to the private sector
- Expedite schedule through access to capital markets and innovative project delivery
- Transfer cost, schedule, and quality risks to capable private partner
- Increased cost-effectiveness through best practices and access to new technology
- Competitive market environment based on firms with proven experience
- Capability to manage transparent procurement/contract administration processes
- Public accountability through monitoring of contract performance standards

## For the Private Sector

- Enabling legislation in place
- Pressing transportation need
- Reasonable development timeframe
- Financially feasible (adequate funds to satisfy required rate of return on investment)
- Manageable risks consistent with responsibilities and rewards
- Supportive political climate
- Defined procurement path providing equal opportunity to all interested parties
- Comprehensive market evaluation to assure reasonable traffic & revenue risks
- Public sector sponsorship of environmental clearance and permitting
- Commitment by public sector acquisition of necessary rights-of-way
- Partnership philosophy demonstrated by project sponsor in flexible contract terms
- Opportunity to apply innovative approaches to reduce project costs and risks

# PPP Project Screening Frameworks – Recommendations

**Key Takeaway: Develop standard processes and methodologies for "Project Screening and Prioritization" for solicited projects.**

☑ **Set up a project screening and prioritization framework for projects:**

- Project screening criteria should include: need for the project, technical feasibility, financial feasibility, operational considerations, environmental considerations, public acceptability, and legislative acceptability
- Screen projects that come from an adopted transportation plan, statute, or the Legislature
- The criteria and the output from the screening process should be uniform to assist with making comparisons

☑ **Publish a prioritized "short list" of candidate projects:**

- Develop a methodology for prioritizing candidate projects that takes in account: results of the screening process, transportation priorities, available funding, environmental issues and public benefits.
- Identify candidate projects as short, medium and long-term priorities
- Communicate the list to industry
- Projects to be procured using a competitive procurement method

☑ **Update the short-list of projects regularly:**

- Solicit industry input through regular dialogue with the private sector
- Revisit assumptions regarding market conditions as necessary
- Update the short-list list every 2 years to reflect change in priority and/or transportation needs

☑ **Early decision making:**

- Funding need for a given project is identified early in the process
- Supports early start of environmental and public outreach processes

# Screening Tool Exercise

- Real Project Examples
- Sample Candidate WSDOT Project

# Value for Money Analysis

## What is Value for Money?

*"The optimum combination of whole-of-life costs and quality (or fitness for purpose) of the good or service to meet the user's requirements. VfM is not the choice of goods and services based on the lowest cost bid."*

- VFM analysis:
  - Considers the potential outcomes of alternative procurement options
  - Measures savings across whole-life costs, not lowest-bid costs, thus considering life-cycle efficiencies
  - Quantified through a risk-adjusted analysis that compares traditional procurement options with selected alternative procurement options

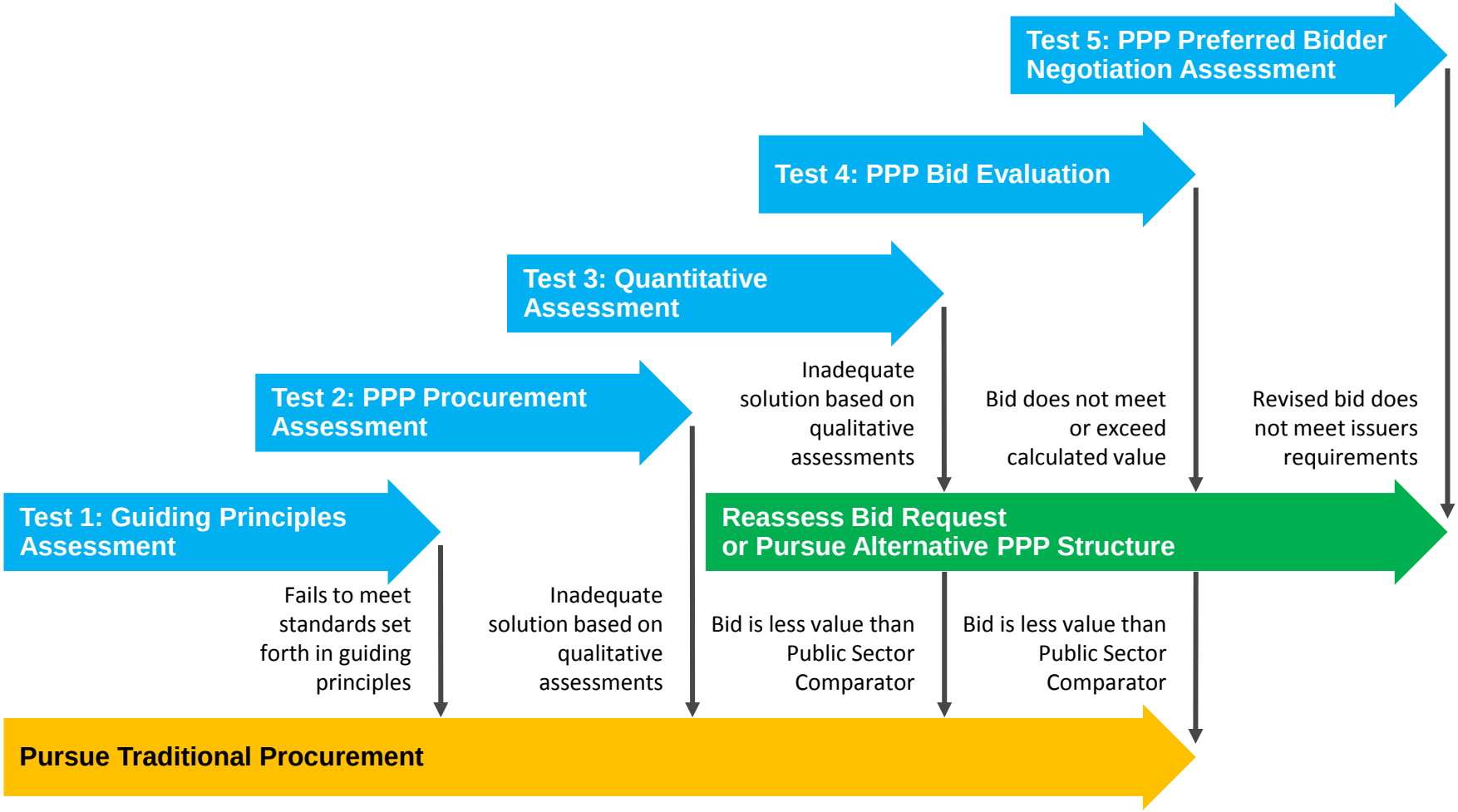
# VFM & the Delivery of Public Service

- **Starting point:**
  - Major capital investment options
- **Desired end point:**
  - Delivery of the sought-after benefits (at the right price)
- **Achieved (in part) by:**
  - Optimum and enforceable risk allocation to the private sector partner (at the right price)
  - Competition

# Issues Regarding Use of Public Sector Comparators

- **Policy / legislative context**
  - Consensus can be complex
- **Advantages**
  - helpful with political / public perception / presentation issues
- **Challenges**
  - Needs empirical data and sector experience (limited at start of program)
  - Reliant on a single-point, cost-based test based on Net Present Values
  - Timing of final output does not help with decision making process
  - Reliant on assumptions that can be manipulated (e.g. optimism bias calculation)
  - Risk of double counting

# Assessing Value for Money



# Common VfM Drivers

- **Optimal Risk Allocation** – risks should be transferred to the part best able to manage or mitigate that risk
- **Focus on Whole Life Costing** – ensuring whole life costing, not just up-front costs, ensures consideration of operating and refurbishment costs
- **Integrated Planning & Design** – early consideration of operational aspects of the design ensures cost savings in the provision of facilities services
- **Use of Output Specifications** – describing required output, without prescribing a solution, allows bidders to innovate and reduce costs
- **Sufficient Flexibility** – ensuring sufficient flexibility in long-term contracting structures will allow changes to be effected at reasonable costs
- **Proper Incentives** – both rewards and deductions for performance should serve to properly incentivize the parties
- **Long-term Partnerships** – contracts should occur over a period which can be reasonably predicted, while maximizing gains from risk transfer
- **Managing Scale and Complexity in Procurement**– procurement costs should not be disproportionate to the underlying project

# Generators of Long-Term VfM

- Establishing and maintaining competitive tension throughout the bidding process;
- Providing incentives to the private sector for the delivery of quality services;
- Encouraging innovative delivery solutions;
- Offering incentives for the benefit of both parties (e.g. periodic cost benchmarking and sharing mechanisms); and
- Entering into a long-term partnership contract, to provide a degree of certainty of cost to government and revenue security to the bidder.

# VFM Assessment Process

Three step process for assessing VFM:

1. Establish baseline project costs
   - Based on cost-consultant estimates or known operating results
2. Conduct risk analysis
   - Comprehensive risk analysis, including quantification, completed across universe of project-related risks
3. Compare total project costs
   - Considers retained risks and total life-cycle costs of the project under traditional and alternative delivery methods

# Baseline Costing

Two types of baseline costing will apply:

- Construction & Operating Estimates
  - Greenfield development will rely on the capital costs estimates provided by quantity surveyors
  - Operating costs will be estimated based on comparable projects
- Known Operating costs
  - Where an existing service business is operating a business-as-usual baseline can be established

# Risk Analysis

Risk Analysis includes:

- Identification of the universe of applicable risks
- Quantification of impact cost for each risk
- Estimation of probability of occurrence for each risk

- Resulting probability weighted risk cost equation:

  **= Base Cost x Impact (of risk) x Probability (of risk)**

- The sum of all of these risks results in the total risk weighted project cost

# Comparing Models

- A risk-adjusted comparison of total project costs (to the sponsor) is compiled and compared across procurement options
- Comparison of options considers
  - Project contract's effective risk transfer
  - Differing potential cost of inputs, such as costs of financing
  - Time value of money, through discounting future obligations to measure all costs in today's dollars

# Methodology

- Balance between qualitative and quantitative assessment
- Considers project and market features
- Embeds an evidence-based approach
- Uses generic quantitative models for the PSC and “should cost” PPP solution
- Models include technical adjustments (Optimism Bias, tax etc.)

# Qualitative Assessment

- **Viability**
  - Measurable and definable outputs, clear scope
  - Operational flexibility
  - Equity/efficiency reasons for private sector service provision
- **Desirability**
  - Do the benefits outweigh the costs?
- **Achievability**
  - Market interest, time scales

# Quantitative Assessment

Identify cost inputs

Adjust costs for Optimism Bias

Factor in finance cost assumptions

Adjust for:

- Flexibility
- Tax
- Life cycle investment

# Conclusions

- VfM is a concept that compares options
- Affordability and Compliance are constraints
- VfM is important:
  - Decision making
  - Presentation issues
- The assessment of VfM is a balance between qualitative and quantitative factors

# Risk Workshop

# What is Risk?

# Risk Allocation Defines the Public Private Partnership Business Model

**A comprehensive risk assessment and allocation profile will help guide the selection of an appropriate delivery model, ranging from traditional delivery to a full P3 concession**.

Key: ○ Public Sector takes (pays) Risk
● Private Sector takes (pays) Risk

| | Design | Construction | Operations | Maintenance | Financing | Ridership | Collection |
|---|---|---|---|---|---|---|---|
| Design Bid Build – Traditional | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Design Build | ● | ● | ○ | ○ | ○ | ○ | ○ |
| Design Build Maintain | ● | ● | ○ | ● | ○ | ○ | ○ |
| Design Build Operate Maintain | ● | ● | ● | ● | ○ | ○ | ○ |
| Design Build Finance Operate Maintain (Availability Payment) | ● | ● | ● | ● | ● | ○ | ○ |
| Full Concession (Real User Fee) | ● | ● | ● | ● | ● | ● | ● |

Risk Transfer

# Risk and Responsibility Allocation

- Who are potential bearers of risk?
  - Developers
  - Operators
  - Private investors – lenders and equity sponsors
  - Facility users and toll payers
  - Sponsor agency
  - Stakeholders
  - General public / taxpayers
- Which party is best placed to manage each risk?
  - Assess information about the likelihood of the risk (experience is key)
  - Manage and mitigate its occurrence and consequence
  - Provide most efficient pricing
- Risk allocation should be reflected in Value for Money assessment

# Process for Allocation

- Identify areas of risk
- Evaluate form of risk
- Consider capacity to manage
- Consider Value for Money consequences

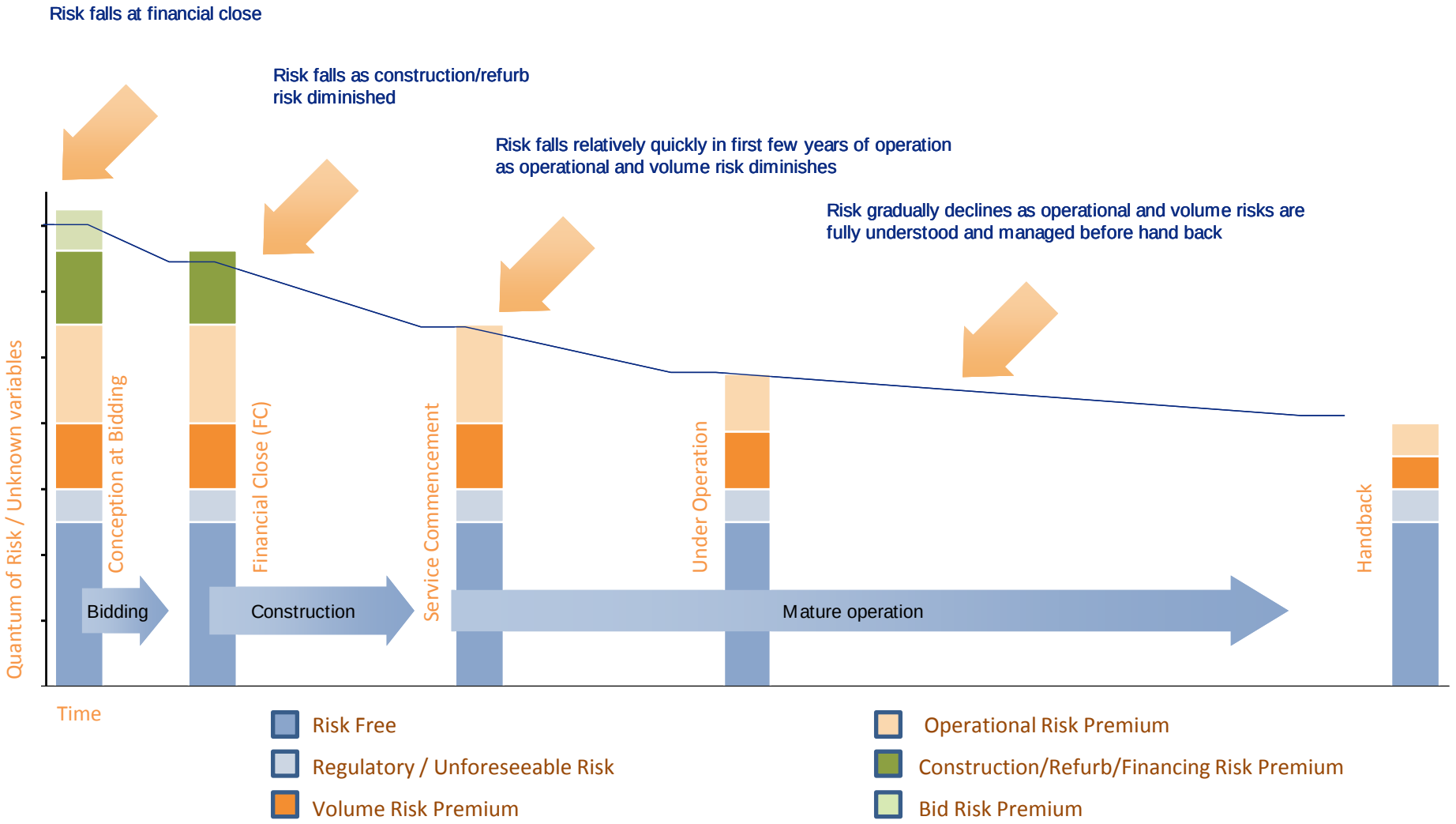
# Risk Assessment - Methodology

- **Undertake a risk assessment workshop with a multi-disciplinary team**
  - Identify specific risks
  - Quantify range of impacts
  - Assess probability or likelihood of specific risks
  - Determine mitigation strategies

- **Risk Mitigation**
  - Reduce the likelihood of risks and related consequences
  - Implication for project scope

- **Risk monitoring**
  - Use of a risk management plan, linked to the risk register
  - Updated over the project life

# Typical Risk Profile of a P3 Project



# Case Study – Group Exercise

- Divide into 3 groups
  - Procuring Agency
  - Bidding Consortium 1
  - Bidding Consortium 2
- Prepare proposition and presentation
- Refer to Case Study Material