ASEAN Bilateral Program 2012

Presentation on PPP Financial Structures

30 October 2012

Ernst & Young

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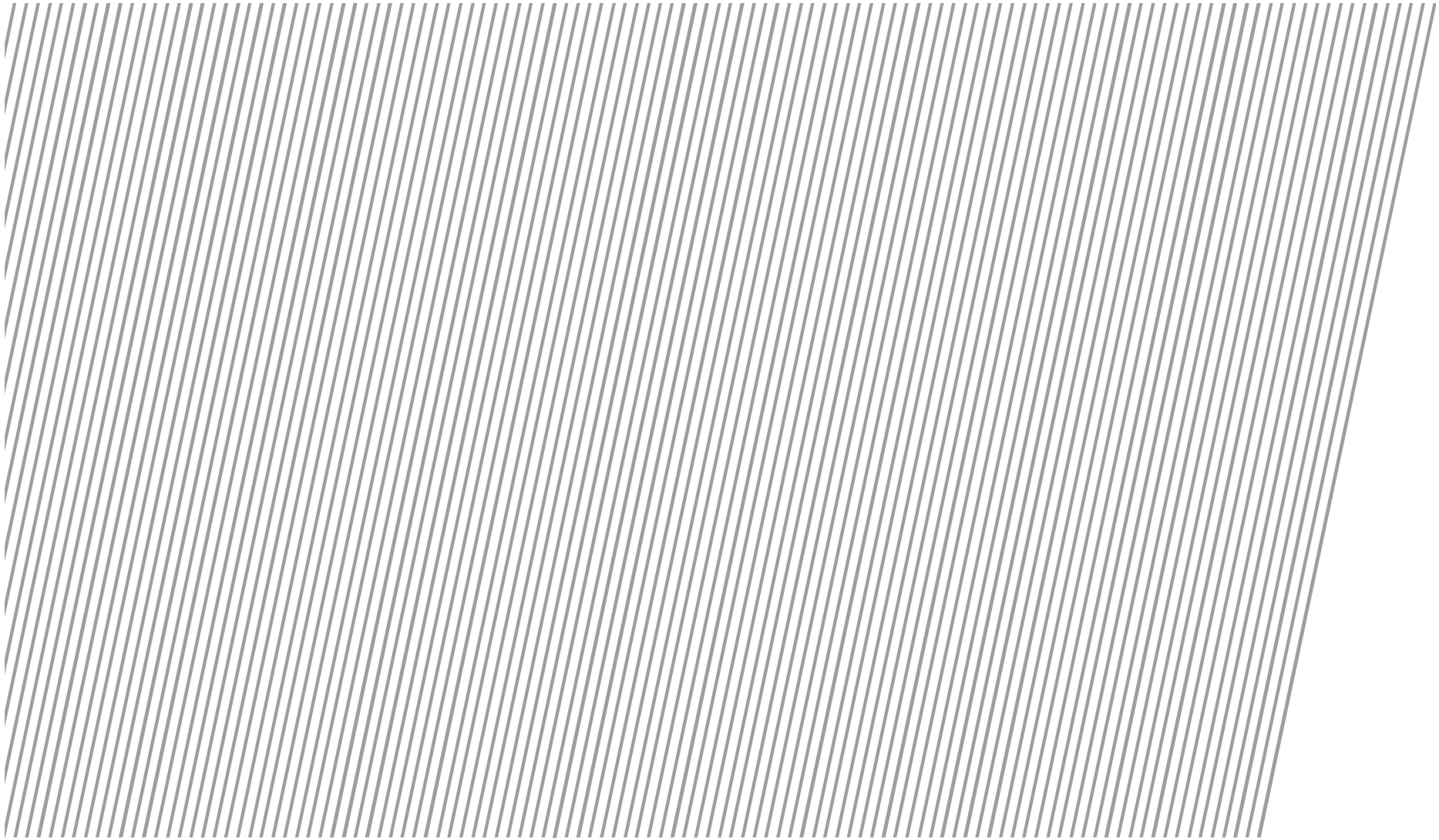
Introduction



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Introduction



Lynn Tho
ASEAN Infrastructure
Advisory Leader,



Harsha Basnayake
Managing Partner,
Singapore and Southeast Asia,
Transaction Advisory Services

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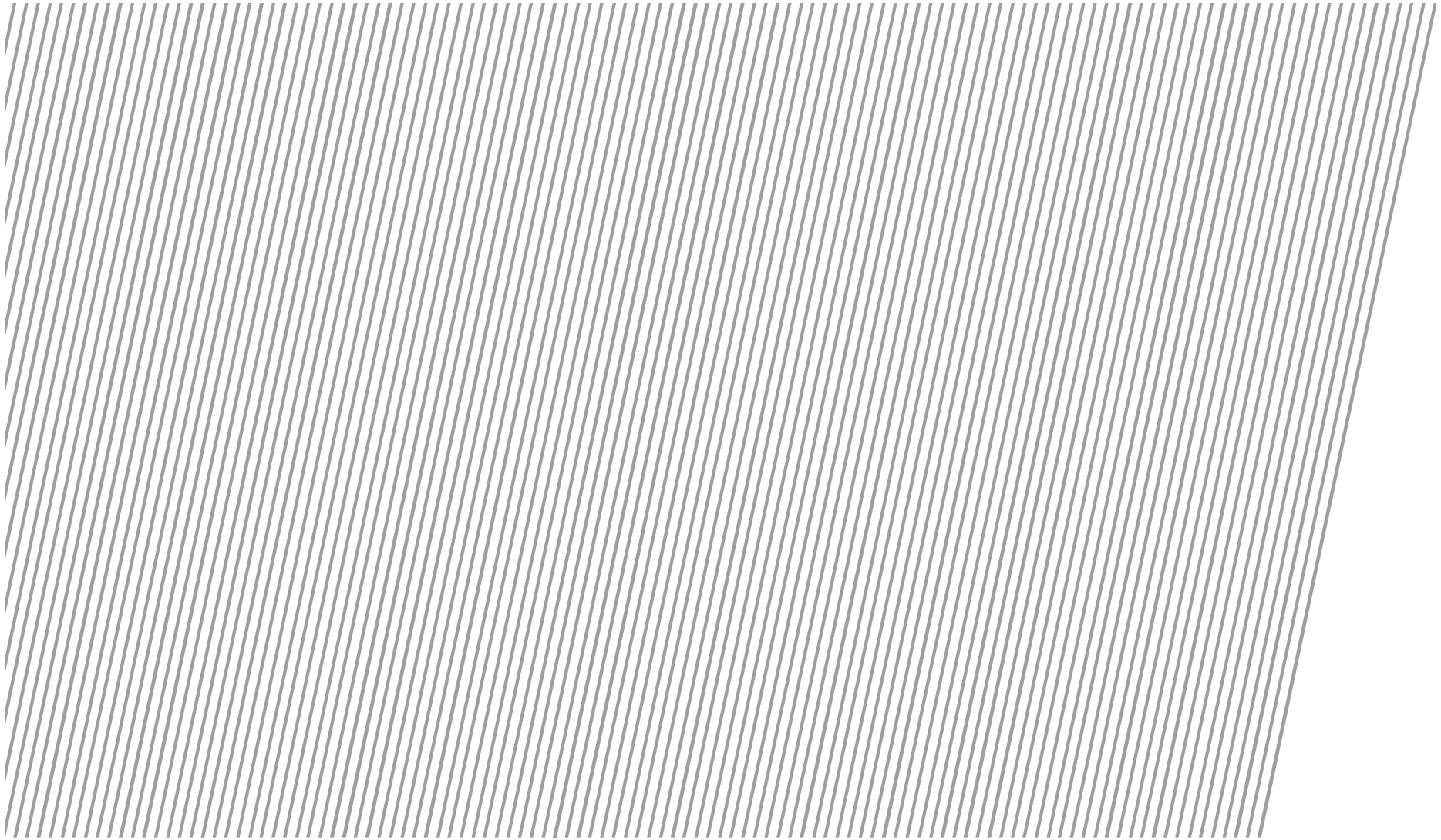
Our track record in PPP advisory



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Our track record in PPP advisory

- Leader in PPP and PF advice to public sector in the world

Advisory Mandates Closed Asia Pacific 2010*
1. Ernst & Young
2. PWC
3. Deutsche Bank
4. HSBC
5. KPMG
Source: Infrastructure Journal, January 2011

Advisory Mandates Closed Global 2011*
1. Ernst & Young
2. State Bank of India
3. Korean Development Bank
4. Deloittes
5. Axis
Source: Dealogic Jan 2012

- More than 800 dedicated professionals worldwide
- More than 150 dedicated professionals in Asia Pacific

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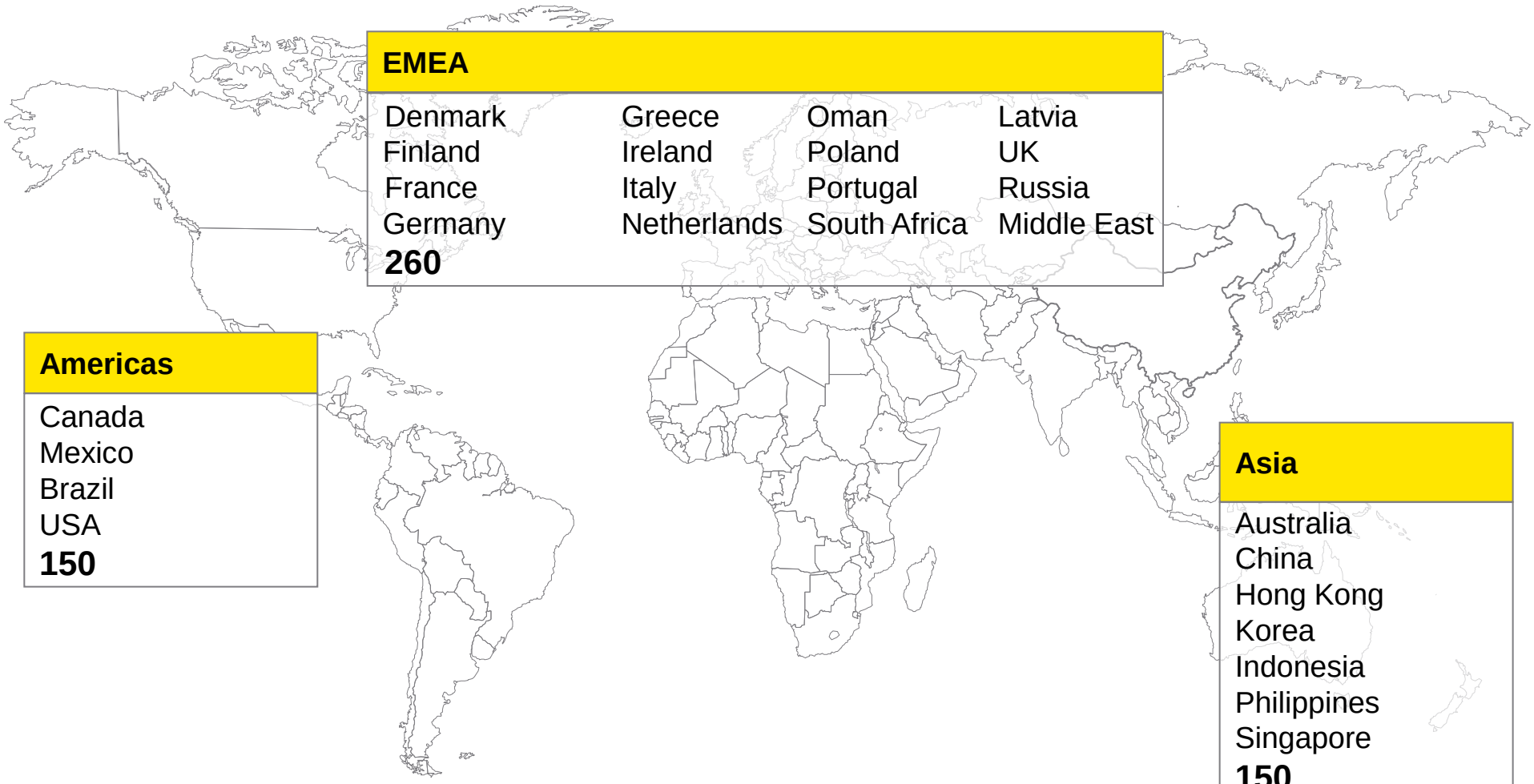
Ernst & Young Infrastructure Advisory
Global reach



EMEA

Denmark	Greece	Oman	Latvia
Finland	Ireland	Poland	UK
France	Italy	Portugal	Russia
Germany	Netherlands	South Africa	Middle East

260

Americas

Canada
Mexico
Brazil
USA

150

Asia

Australia
China
Hong Kong
Korea
Indonesia
Philippines
Singapore

150

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Ernst & Young's Infrastructure Advisory Practice

- We have industry teams specialising in key sectors including:

Transport	**Utilities**	**IT**
Power	**Health**	**Telecoms**
Education	**Defence**	**Emergency services**
Courts	**Regeneration**	**Prisons**
Waste	**Property transactions**	

- As one of the world's leading advisory firms, we provide a broad range of professional services which can be coordinated in a seamless way to provide clinical analysis of the issues and innovative solutions to the infrastructure sector. Our services include:

- **Feasibility Studies**
- **Business Case Development**
- **Economic Analysis & Modeling**
- **Capital Structuring**
- **Commercial Advisory**
- **Procurement Advisory**
- **Financial Modeling**
- **Accounting & Tax Structuring**
- **Risk Management**
- **Due Diligence**

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Recent PPP Advisory experience in Asia Pacific

Singapore	Asia Pacific
Tuas Desalination PPP, Singapore 2011 Government Advisor for the overall procurement Financial Close achieved 2011	**Philippines Schools PPP**, Philippines preferred bidder selected
Singapore SportsHub PPP, Singapore 2010 Lead Financial Advisor to Winning Consortium ★ ***Awarded the Asia Pacific PPP Deal of the Year in 2010 by PFI International***	**Jatiluhur Water Project Feasibility**, Indonesia ongoing Advisor for Feasibility Assessment
National Environment Authority, Singapore Current Advising NEA on the development of the 6th Solid Waste Management and Incineration Facilities in Singapore	**Royal Adelaide Hospital PPP**, Australia 2011 Government Advisor for the overall procurement ★ ***Awarded the Asia Pacific PPP Deal of the Year in 2011 by PFI International***
Keppel Newater PPP, Singapore 2007 Lead Financial Advisor to Winning Bidder	**Mundaring Water PPP**, Australia 2011 Government Advisor for the overall procurement ★ ***Awarded Asia Pacific Water Deal of the Year 2011 by Project Finance Magazine***

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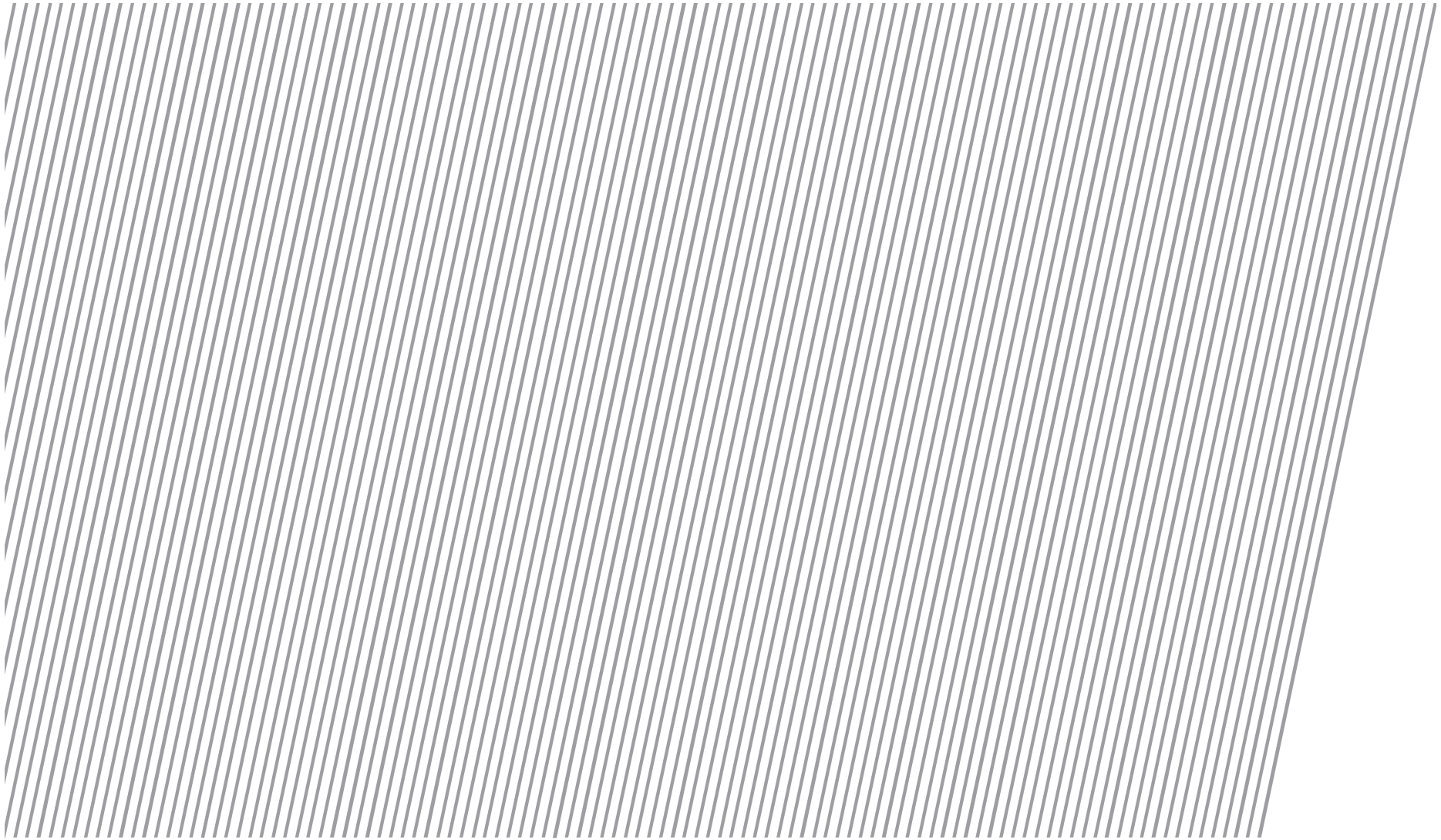
Principles of PPP



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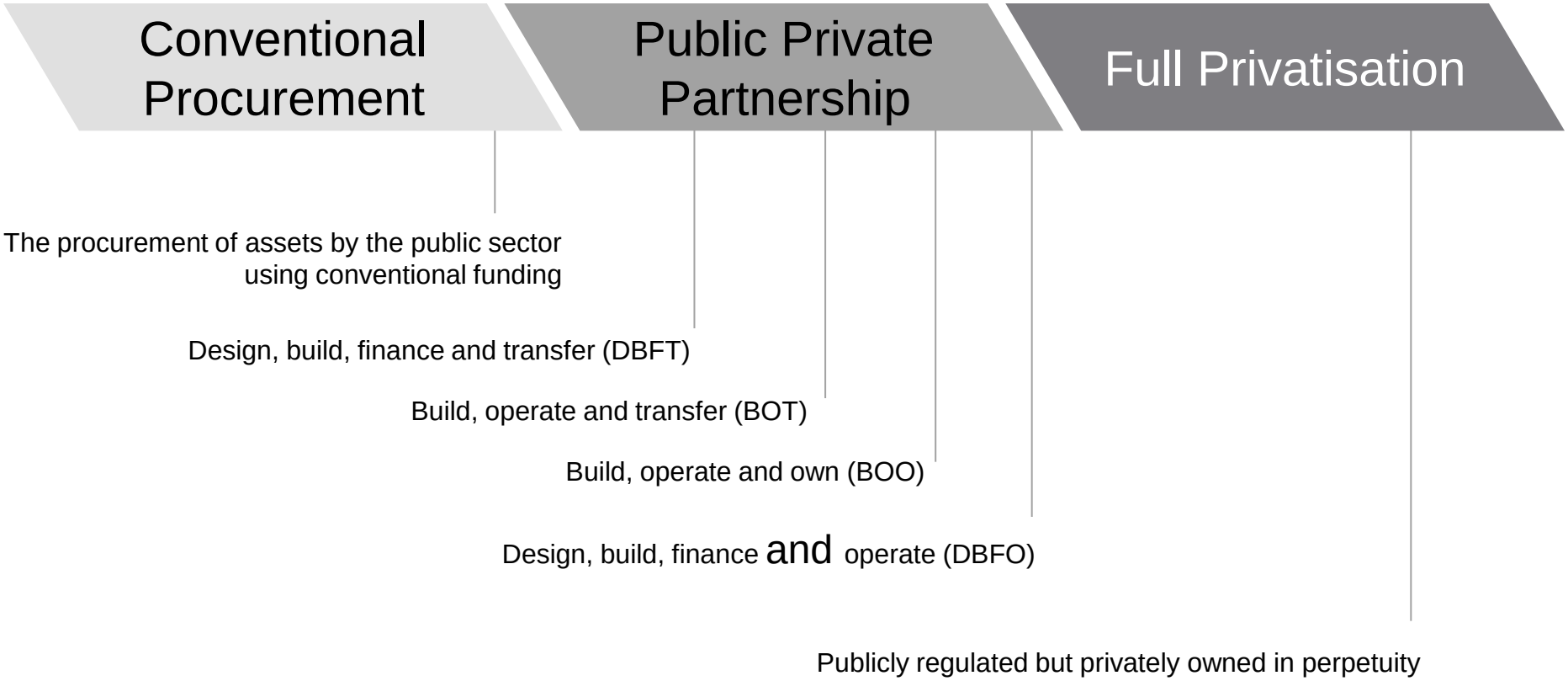
PPP Procurement in context



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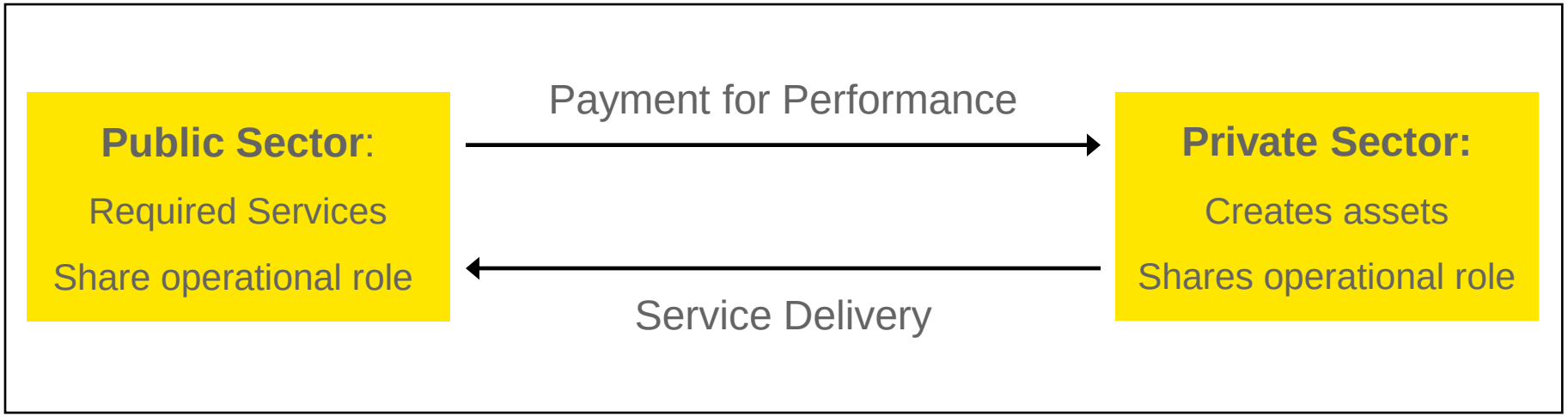
What are Public Private Partnerships?

- Introduces private finance to provide the initial funding for public sector projects
- Public Sector defines and pays for a service not an asset
- Private Sector delivers an agreed level of service over a specified period (and assets as required)



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Why use PPP?

- Transfer risk to the party best able to manage it
- Whole-of-life costing
- Service focus, not asset focus
- Innovation / spread of best practice
- Realisation of equity
- Acceleration of infrastructure delivery
- Alleviate fiscal pressure
- Potential for upside revenue sharing

UK Findings	***Govt Tender***	***PFI Experience***
Construction projects where cost to the public sector exceeds price agreed at contract	*73%*	*22% [1]*
Construction projects delivered late to public sector	*70%*	*24% [2]*

1: some were due to govt variations
2: only 8% more than 2 months late
UK National Audit Office 2003 sample of 37 PFI projects

Australia Findings

PPP Projects delivered : > 30% savings from project inception.

PPP projects (larger) completed 3.4% ahead of time,
Traditional projects completed 23.5% behind time.

PPPs were far more transparent than traditional projects as measured by availability of public data

Allen Consulting Group 2007

To achieve best results, adequate project preparation is critical to develop a PPP arrangement which is clear in its objectives and ensures appropriate allocation of the risks to the key parties, public and private

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Singapore Water PPP experience - TUAS Desalination

- Globally competitive prices achieved
  - Hyflux SingSpring PPP Project (2005): SGD$0.78 per cubic metre (US$0.60/m3) first year tariff (was the lowest in the world for SWRO technology)
  - Hyflux Tuas 70mgd desalination PPP Project (2011): First-year price of $0.45 per cubic metre (US$0.35/m3).
- Technical innovation / advancement
- Financial innovation contributing to lower tariff levels
  - Long financing tenors achieved
  - Participation from domestic and international banks
  - Development of Domestic Financial Markets (Business Trust, Infrastructure Funds)
- International participation in PPP tenders
  - International water companies
  - International construction companies
  - International Infrastructure Investors
- Strong reputation of the Singapore Government
- Pipeline of projects

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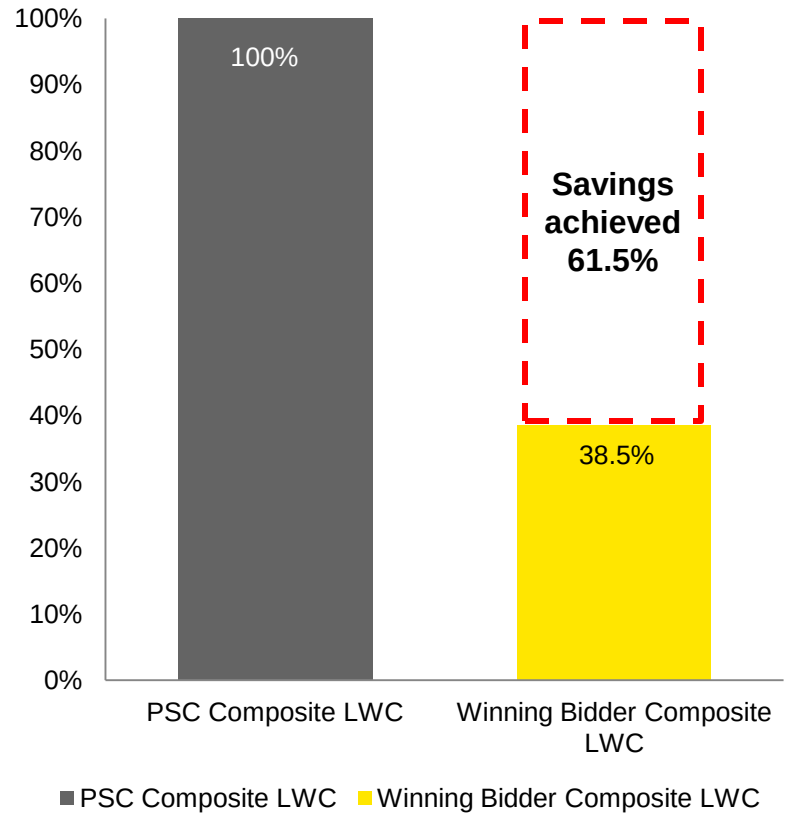
Singapore Water PPP experience - TUAS Desalination

- 70 MGD capacity
- DBOO structure
- 7 private sector bidders
- Lead time from tender release to announcement of selected bidder 9 months
- Financing completed in 7 months
- First year tariff improved from SGD0.78 per cubic meter in 2005 to SGD0.45 per cubic meter
- Innovative financially engineered proposition
- EY



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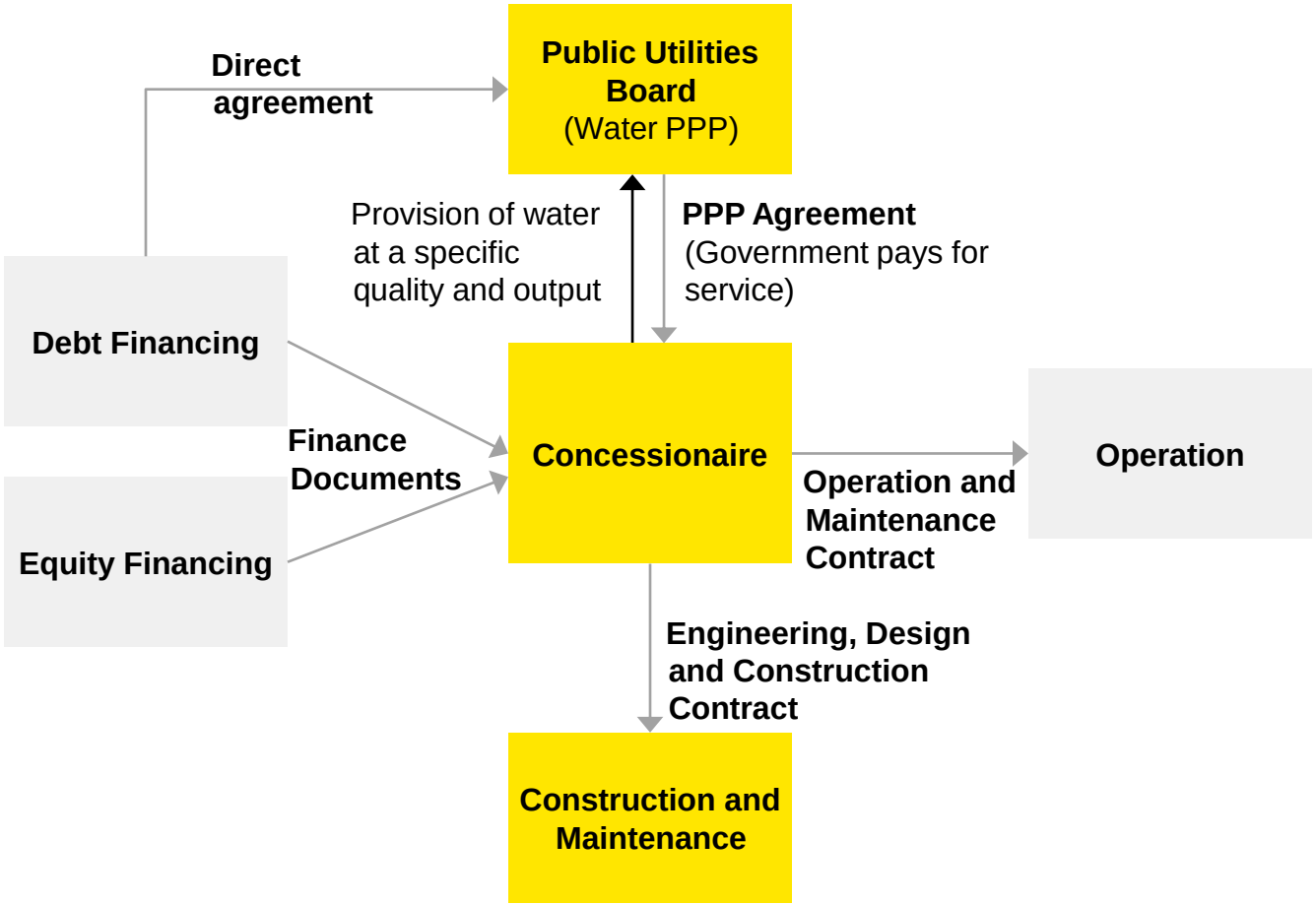
Simplified PPP project structure



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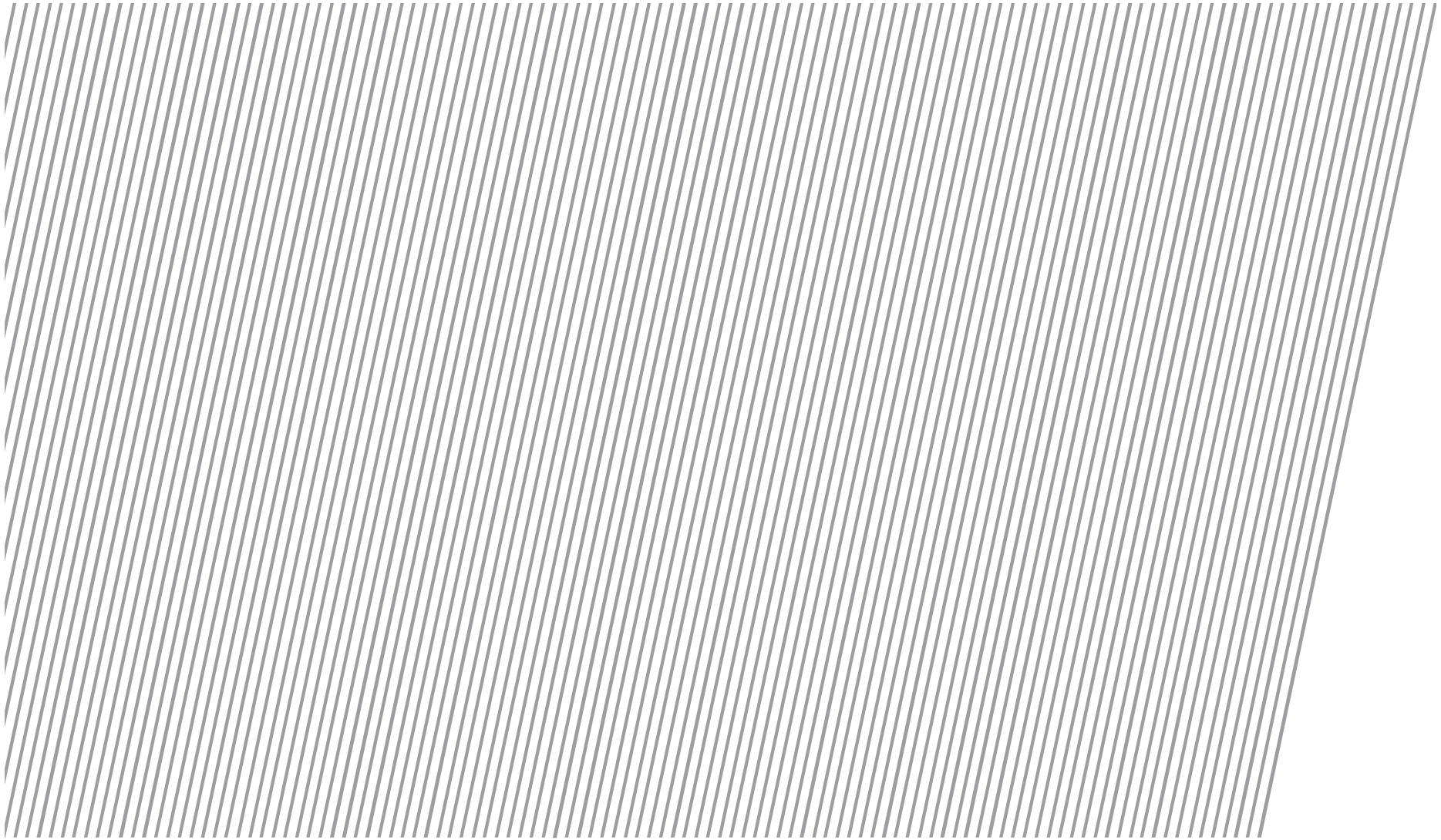
Project risk allocation



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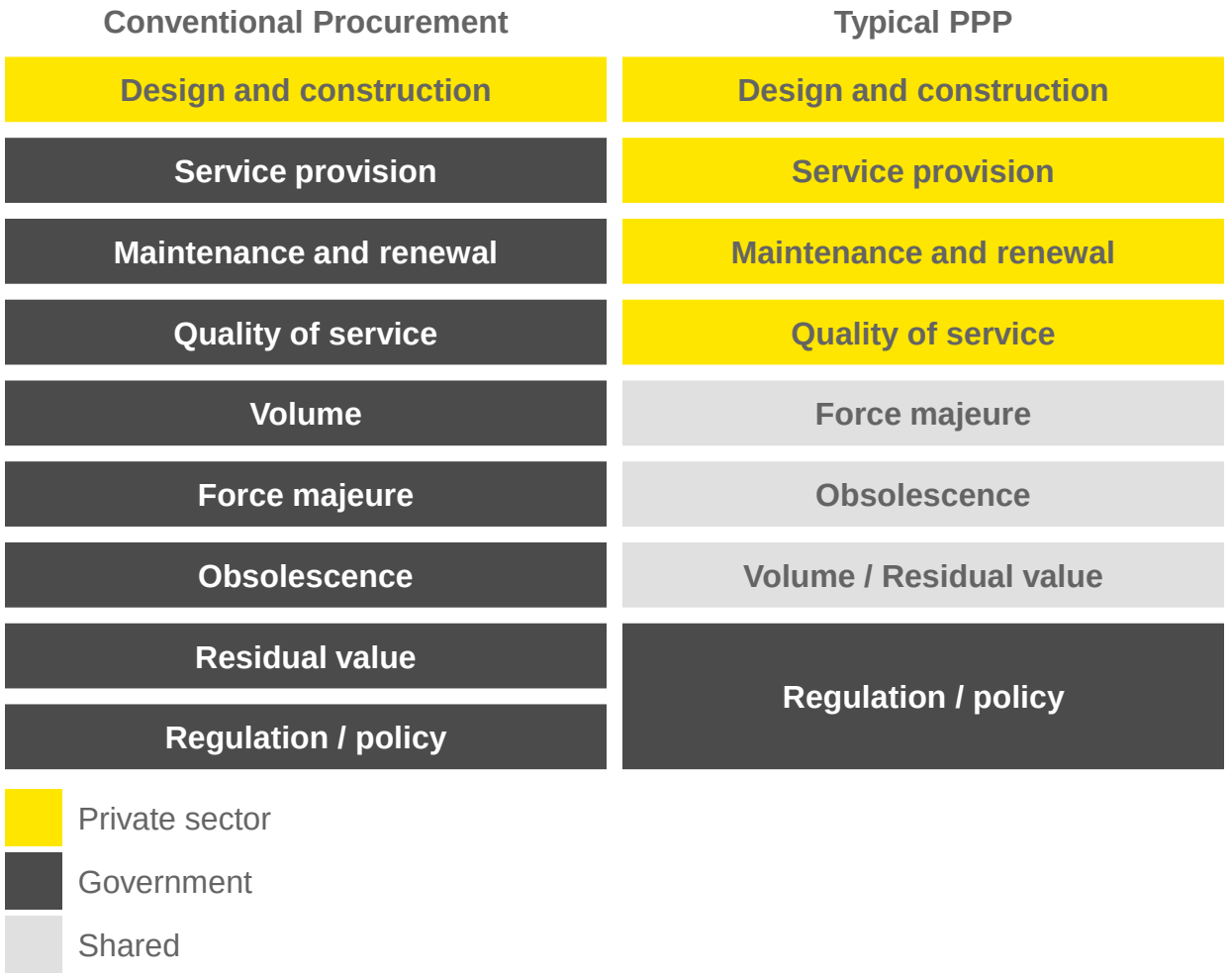
Key elements of PPP – Appropriate risk transfer

- Risk should be allocated to the party best able to manage and control that risk (and thus best price it)
- Risks should not be simply "parked" with the SPV / Project Company
- Risk allocation should be undertaken prior to detailed work on the project documentation
- Some risks cannot be transferred



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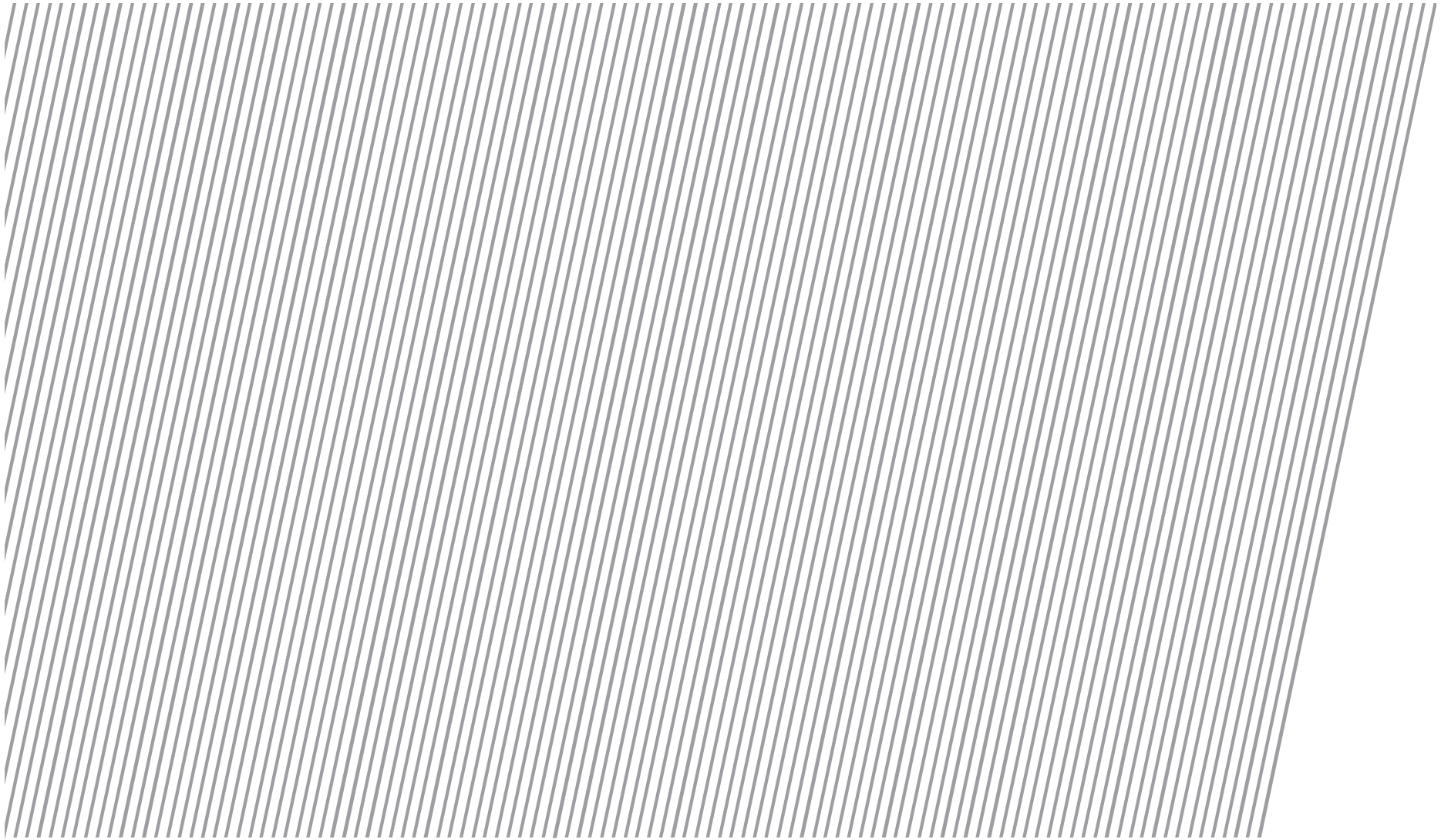
The Payment Mechanism



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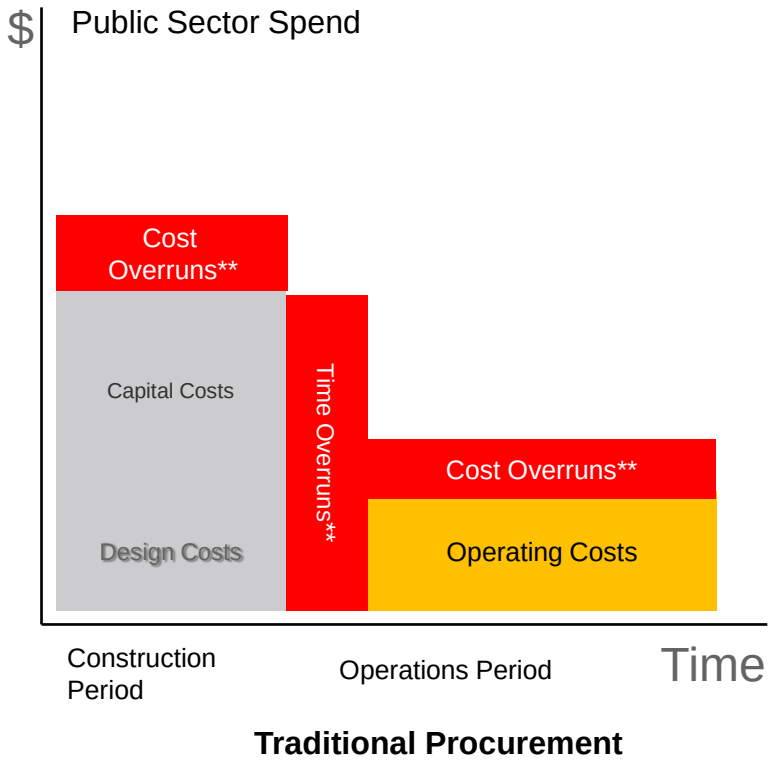
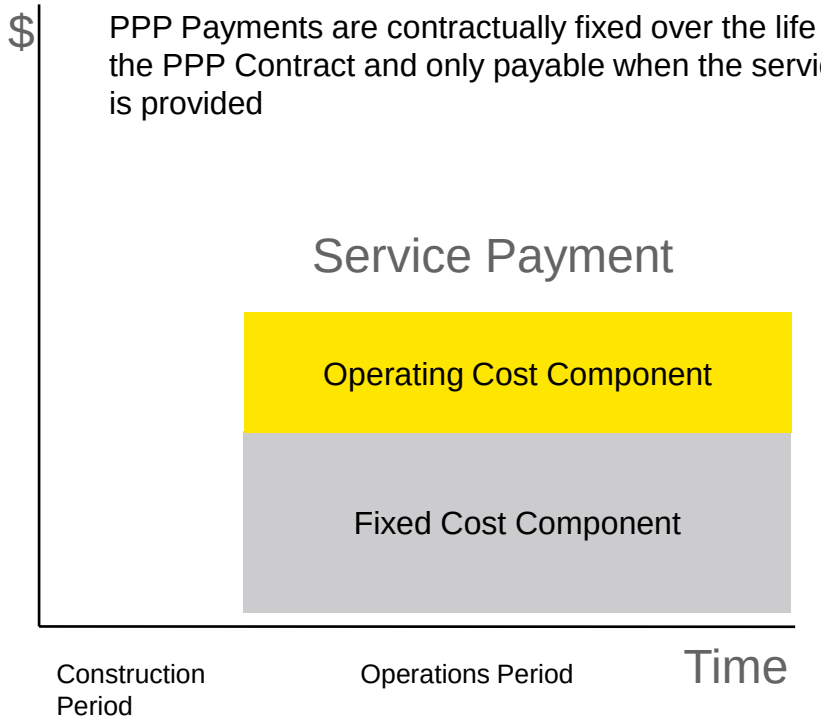
The PPP Payment Mechanism



Traditional Procurement



PPP Procurement

** **Unplanned**

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Typical Payment Mechanism - The Service Payment

Fixed payments

Fixed Availability Payment (not usage related)

(+)

Variable Payments

Variable payment (usage related)

(+)

Pass Through

Pass Through Costs (usage related)

(–)

Reduced Availability

Poor Performance

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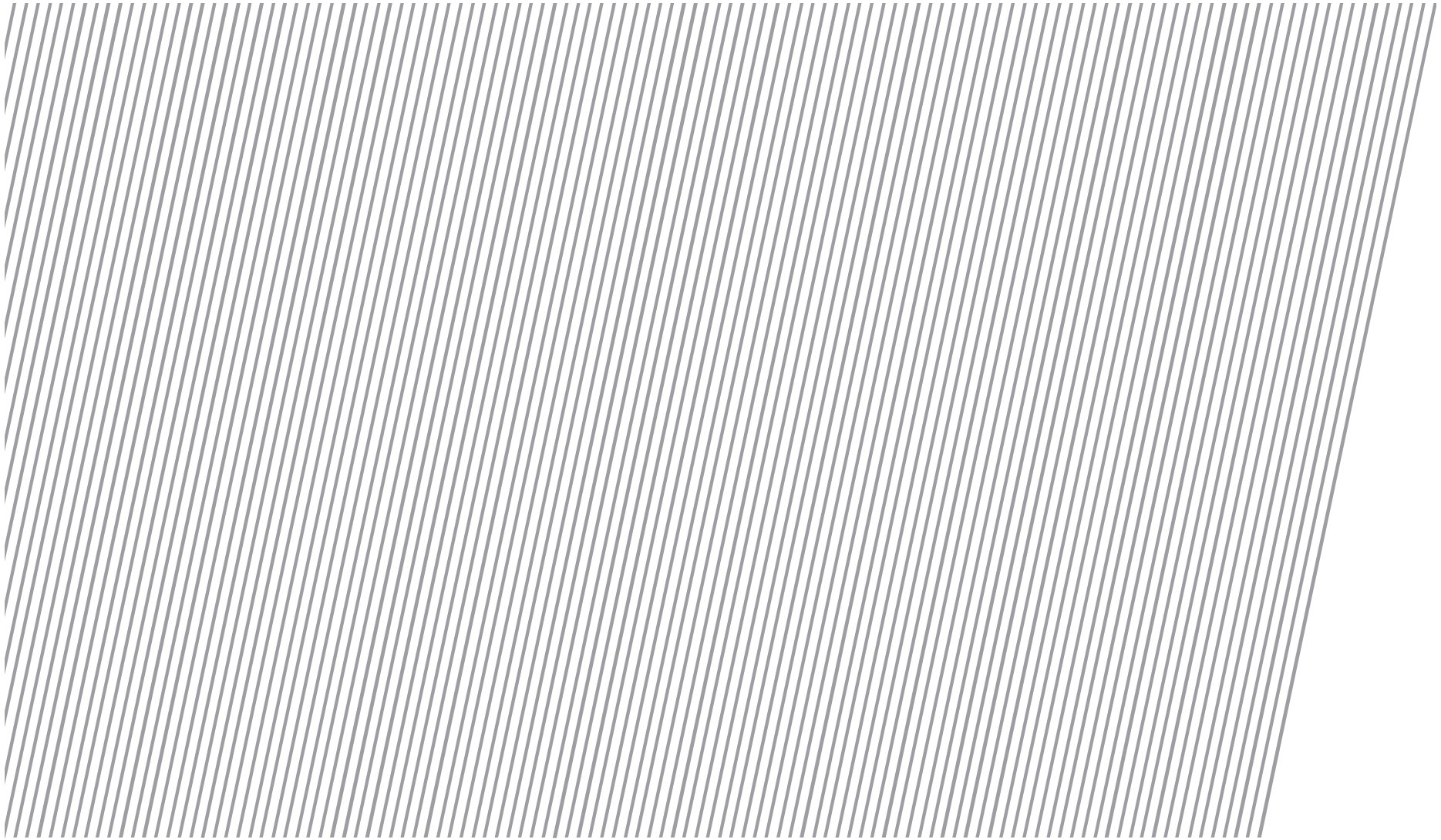
Financing Considerations



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Availability of financing options / sources

- There is an established debt and equity financing market for well structured PPPs
- Good understanding and interest in infrastructure as an asset class globally
  - Investors looking for long term stable cashflows
- The following key considerations will affect the availability and cost of private sector financing under a PPP model
  - project structure
  - affordability and budgetary objectives
  - depth of financial markets
  - credit rating of the government counterparty



- Domestic syndicated bank loans
- International PF banks
- Domestic capital markets (bonds)
- Islamic financing
- Multilateral agencies
- Financial sponsors (infrastructure funds, sovereign wealth funds, pension funds
- Industry investors
- REITS / Business Trusts (Operating Assets)
- Credit Enhancements (grants, government loans etc)

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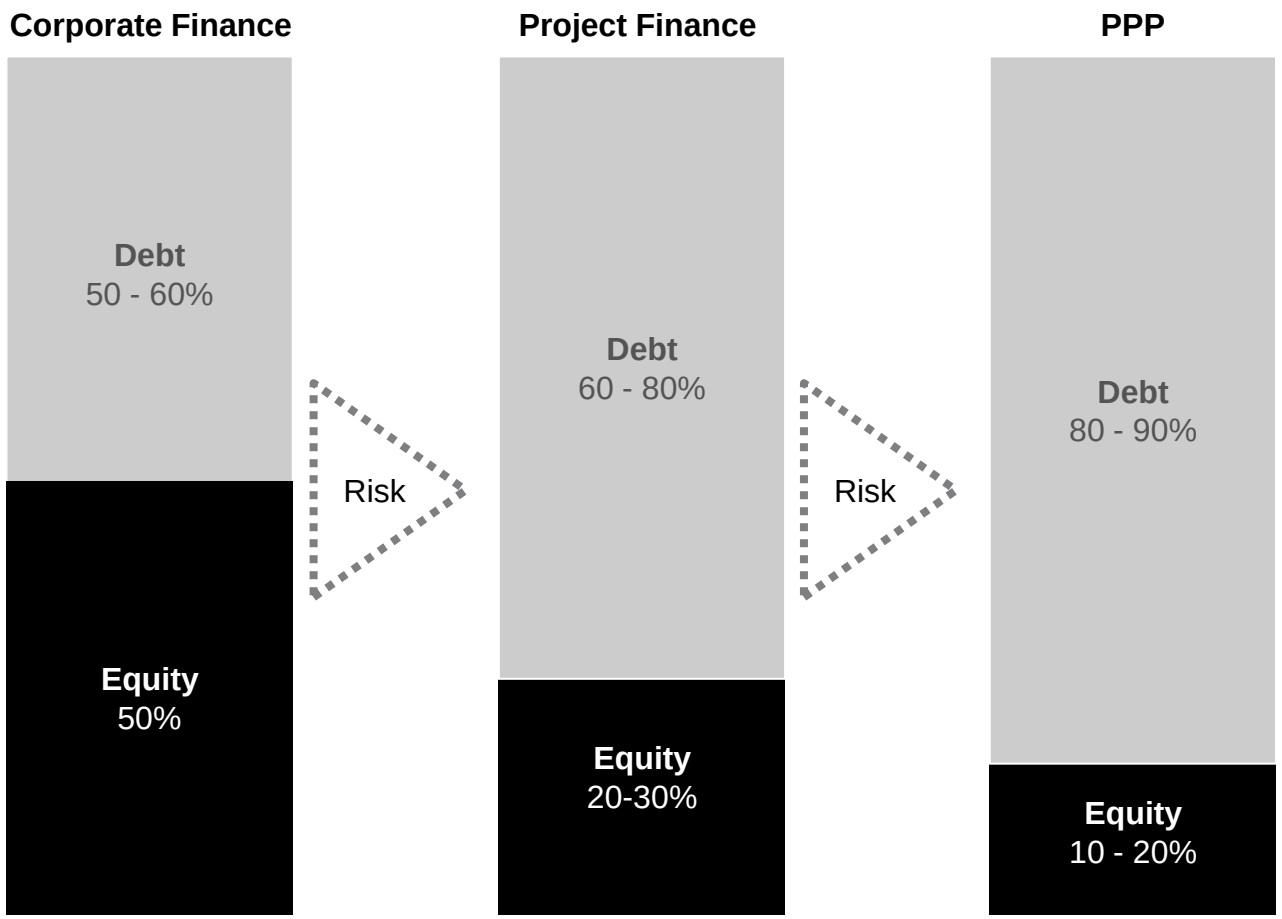
Illustrative Financing Approaches



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Key financing considerations

Macro	Micro
► Government obligation undertaken by appropriate entities ► Counterparty Risk ► Legal regime which permits taking of security and enforcement of contractual rights ► Political commitment to PPP ► Competition and availability of suitable participants ► Availability / capacity of long term debt markets ► Availability and establishment environment of equity participation ► Transparent procurement process	► Well defined projects, clarity on output spec ► Strong and experienced construction contractors ► Standardization of project contracts ► Appropriate allocation of risk (standardized) reflected in payment regime ► High quality predictable cash flow – low volatility ► Alternative suppliers / contractors / operators etc ► Ability to step into contracts ► Adequate termination protection ► Protection from other adverse event, change in law, force majeure, insurance etc.

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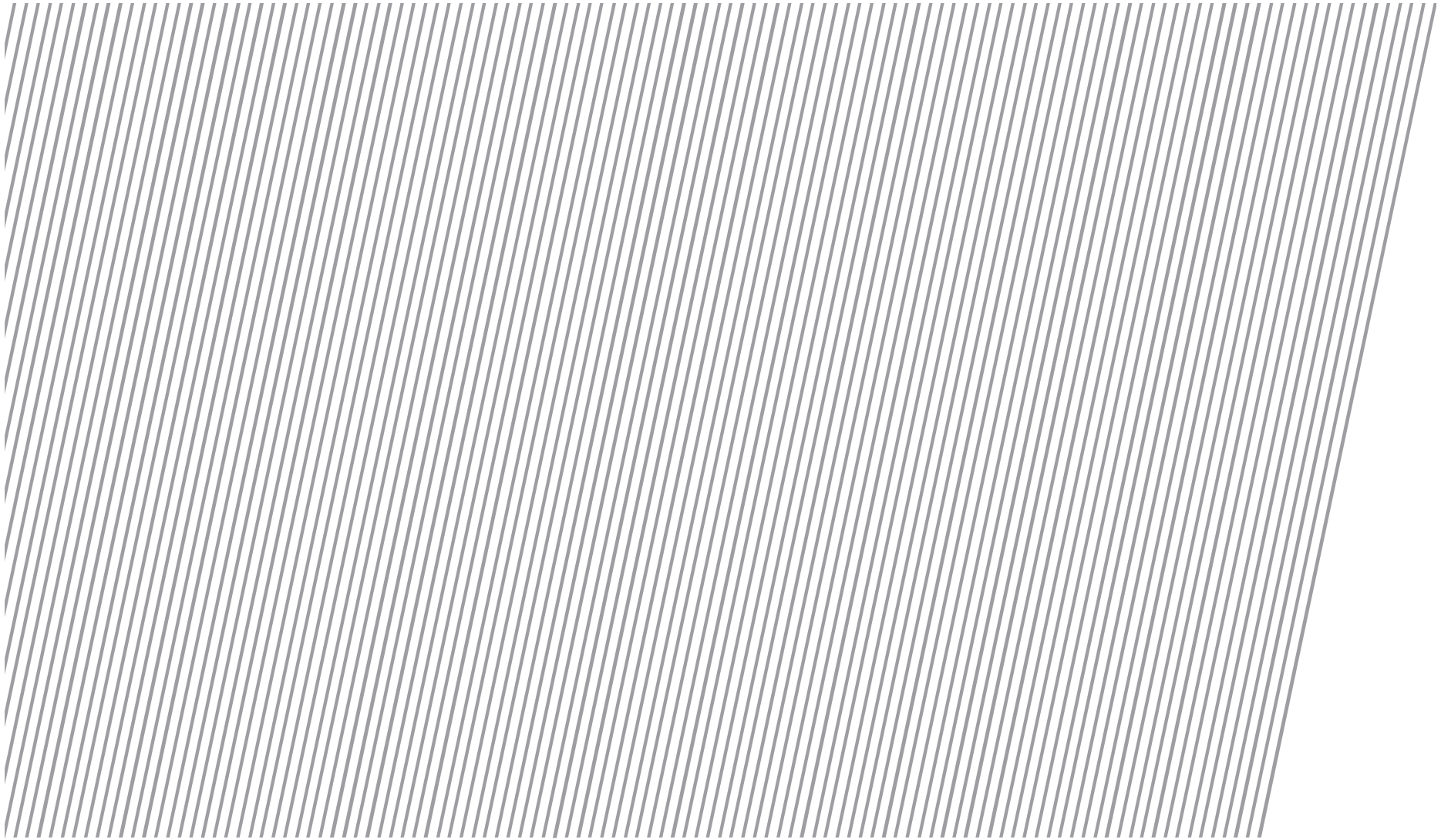
Role of the Financial Advisor



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Role of the Financial Advisor – How EY can assist

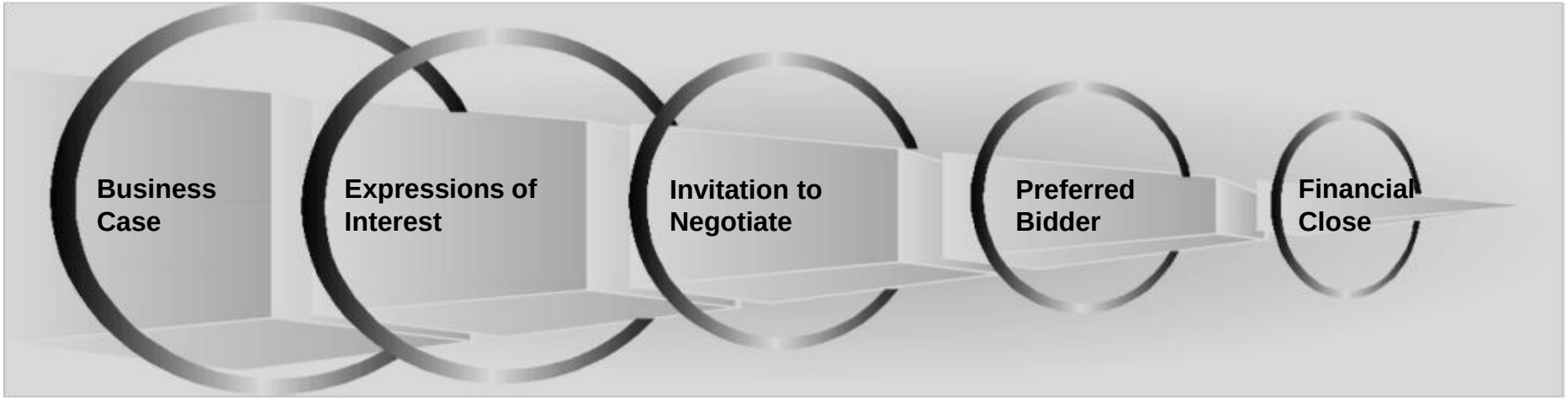
- Procurement Options appraisal
- Develop the Risk Structure
- Shadow tariff modelling
- Affordability
- Develop the Outline

- Market Sounding
- Develop Project structure
- Develop Tender Documents Assess Private Sector Market

- Financial Bid Evaluation
- Bidder selection and negotiations
- Financial Deliverability and Bid Robustness

- Assist to negotiate and evaluate key commercial terms
- Payment Mechanism
- Termination
- Compensation
- Financial Deliverability
- Assist with internal approvals

- Financial Close Protocol
- Final Business Case
- Accounting Treatment



EY can support throughout the procurement process

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Some Final Thoughts

- More countries / governments are actively exploring PPPs as a means to deliver long term infrastructure
- Interest in Infrastructure / PPP Projects continues to be strong from investor and financial players for well structured projects
- Project selection and preparation is important to ensure successful project delivery and engagement with private sector
- Appropriate risk allocation and availability of financing are key components in determining the optimal PPP structure
- Not all projects are suitable as PPPs
- Successful PPP programs have required dedicated government project teams during the procurement process and political commitment from the relevant authorities
- Numerous established PPP models and structures - no need to reinvent the wheel
- Work with experienced and credible advisors!

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Brief CV



Lynn Tho
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- Lynn leads EY's ASEAN Infrastructure Advisory team. She has over 15 years experience as a project finance banker in Asia and Europe advising private and public sector clients on PPP and infrastructure Projects. Lynn also has experience lending and investing into infrastructure projects.
- Lynn has been involved in over 30 PPP/PFI projects in the transport, education, health, water, waste to energy and defence sectors across Asia and Europe.
- Lynn has a proven track record of advising and structuring deals from inception to successful financial close.
- Lynn has been involved in all the PPPs in Singapore, including the desalination and newater projects.
- Lynn was the lead financial advisor on the $2bn SportsHub PPP Project, the $360mn ITE College West Schools PPP Project and the Singapore MoD's the Basic Wing Course PPP. Each of these were "firsts" in Asia Pacific and received numerous awards by the international PF industry.
- Lynn also spent some time as senior advisor in the Her Majesty's Treasury's Corporate and Private Finance Unit in the UK Government.
- The CPFU were responsible for PFI Policy in the UK working closely with the different government departments to implement PFI Projects.
- Lynn holds a Bachelor of Economics (Acc / Econ) from the University of Sydney.

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Brief CV



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- Harsha is a transaction advisory specialist and has more than 20 years of experience with Ernst & Young working in Transaction Advisory Services (TAS) as well as in the Assurance business.
- Harsha specializes in valuations, financial modelling, mergers and acquisitions and restructuring. He has led numerous engagements relating to a wide range of clients including private businesses, investment banks, private equity funds, sovereign wealth funds, public listed companies and statutory boards. The nature of these engagements he has led includes provision of advice relating to mergers and acquisitions, due diligence reviews, valuations, financial modelling, debt restructuring and litigation support. He has significant experience across Asia having advised on numerous, complex, cross border transactions and investments.
- Harsha also plays an active role within Ernst & Young and has several core responsibilities. He is the current Leader for Transaction Advisory Services in Singapore and Southeast Asia. He pioneered and led the Valuation & Business Modelling practice in the Far East and has been a member of Ernst & Young's Global Valuation and Business Modelling Steering Committee. He is regularly consulted on various valuation related issues.
- Harsha also has wide experience in infrastructure projects having advised on numerous clients, project sponsors as well as financiers on business modelling, accounting, valuation and costing issues. These projects include waste management, transportation, telecommunications, electricity, water and real estate projects.
- Harsha is a Fellow Member of the Institute of Chartered Accountants of Sri Lanka.

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