Public-Private Partnerships

COLUMBIA | CBIPS Center for Buildings, Infrastructure and Public Space

Under the guidance of Prof. Feniosky Peña-Mora & Prof. Rick Bell

Ashutosh Tripathi Giacomo Garzino Lizzie Song Vidit Hirani





CASE STUDIES

PART ONE



PART TWO

SUCCESSFUL FACTORS

PART THREE



I-4 Ultimate

- Reconstructing 21 miles of I-4 from Orange County to Seminole County
- Divided into 4 zones
- \$2.3 Billion project
- 40-year lease period
- Time period: 6.5 years
- Construction delayed by 245 days
- \$100 illion claim submitted
- Possible reasons include:
 - Catastrophic drill shaft failure (complex geological conditions)
 - Weather issues (hurricanes)
 - Working with existing traffic

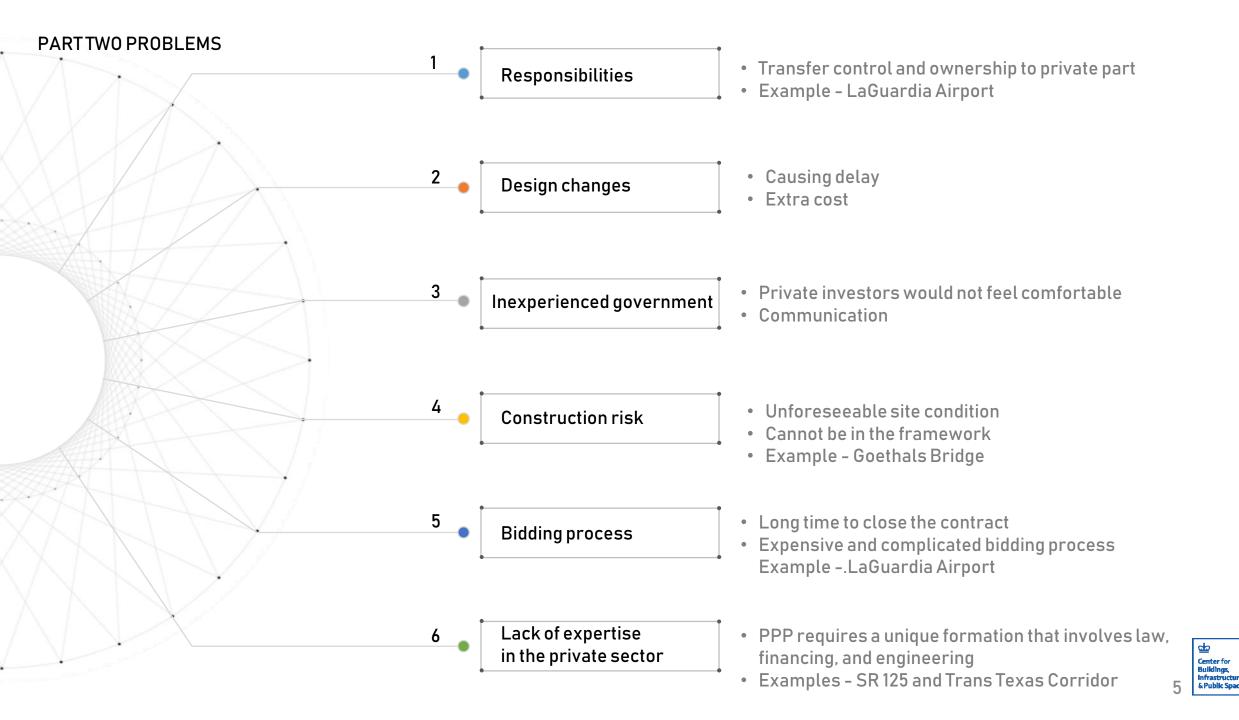


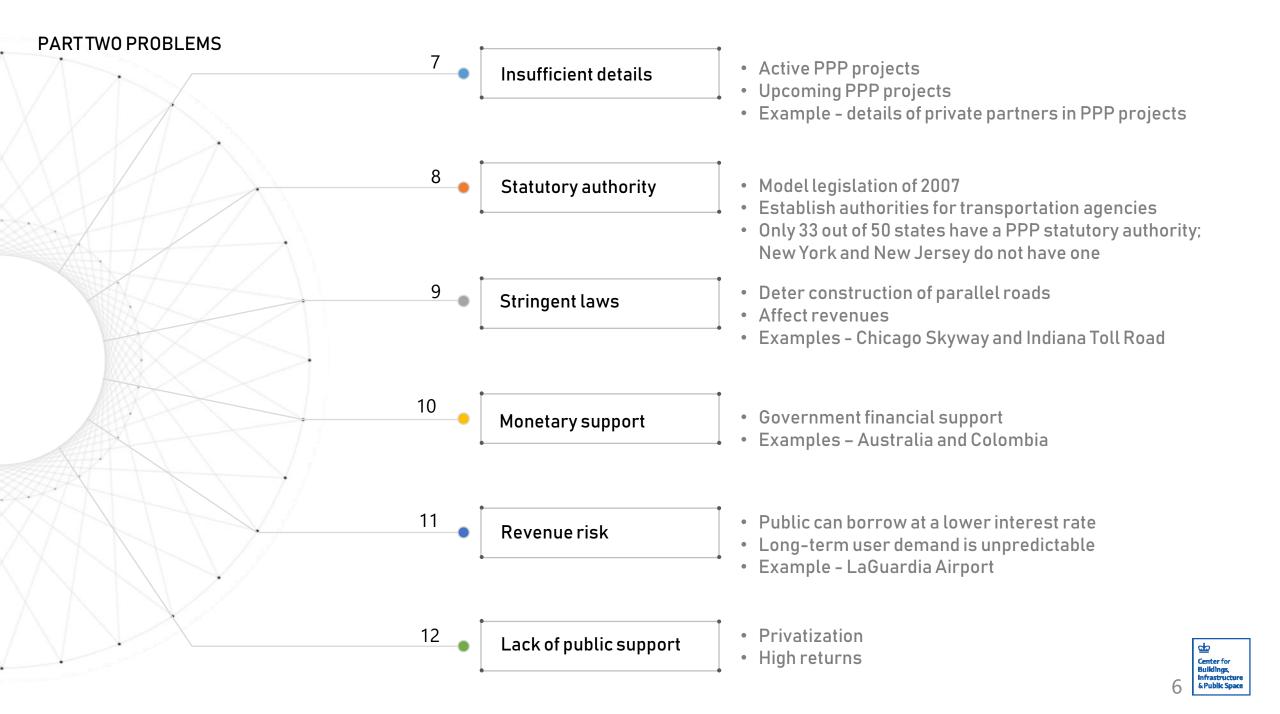
LaGuardia Airport Central Terminal

- LaGuardia Airport development of the central terminal
- Total number of terminals 4
- PPP project with LaGuardia Gateway Partners (Skanska, HOK, and WSP) as private partners and Port Authority of New York and New Jersey as public partner
- 20th busiest airport with traffic of more than 29.7 million passengers
- Value of contract \$4 Billion
- Lease period 35 years or until 2050
- Possible reasons/problems include:
 - Long procurement process
 - Construction risks
 - Revenue risk









PART THREE SUCCESSFUL FACTORS – RISK ALLOCATION

APPROPRIATE RISK ANALYSIS METHODOLOGY

- Prudent risk management is fundamental to the success of any capital project delivery
- Risk workshop
- Risk identification
- Risk assessment
- Risk allocation
- Risk mitigation

SOUTH BAY EXPRESSWAY (SR-125) TOLL ROAD, SAN DIEGO COUNTY, CALIFORNIA



Threat:

• Environmental clearance process

Mistake:

• The private partners bore the responsibility to carry out the full environmental review and clearance process.

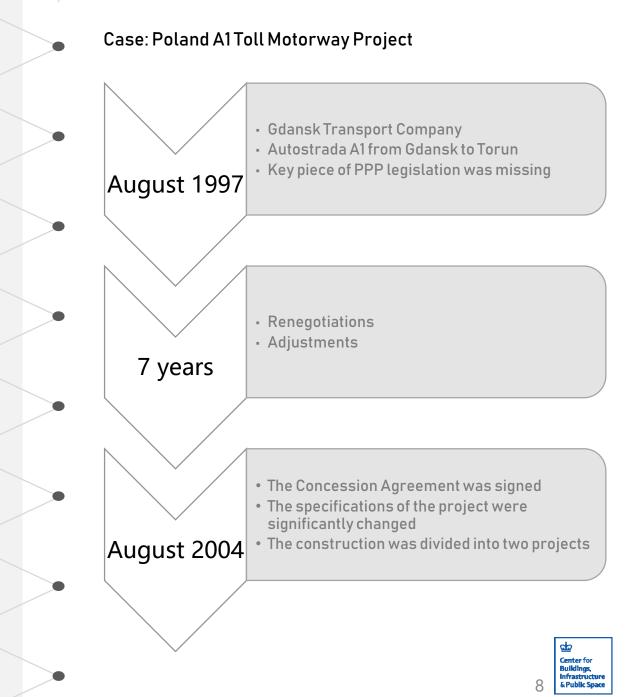
Result:

• Took more than nine years to complete.

PARTTHREE SUCCESSFUL FACTORS – FAVORABLE LEGAL FRAMEWORK

Increasing capability of government agencies to deliver

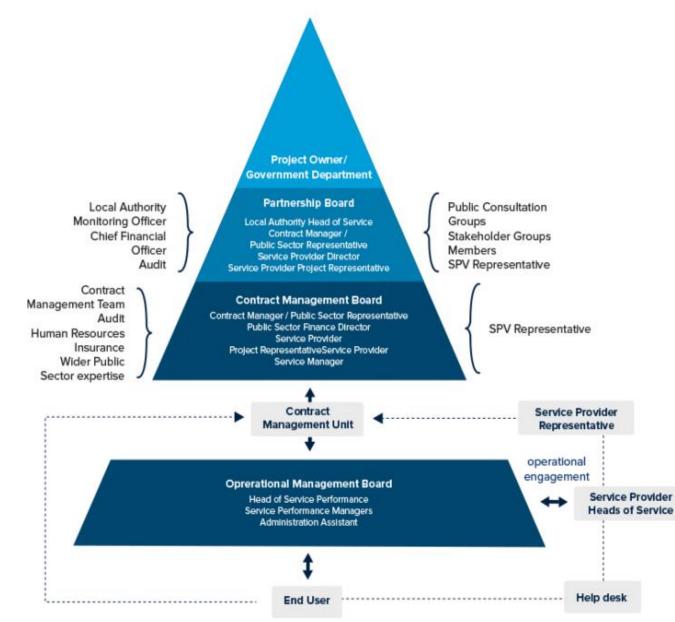
- Reduce cost of the learning curve
- Risk of mistakes
- Transfer skills
- Structured way of reconciling disparate objectives
 - Expectations
 - Training
 - Skill development
 - Improves longevity of PPP Program
- Making sure that whole-of-government risk is limited
 - Government reputation
 - Fiscal risks
- Generating market interest
 - Competitive procurement process
 - Drive down price
 - Promote innovation
 - Reduce investors' perception of risk



Reference: World Bank Presentation

Case Studies of Transportation Public-Private Partnerships in the United States

PART THREE SUCCESSFUL FACTORS - GOOD GOVERNANCE STRUCTURE



I-495 Express Lanes



Threat:

• Early engagement

Mistake:

- Public engagement with key stakeholders
- Robust and early engagement with end users
- Allocation of operational responsibilities

Result:

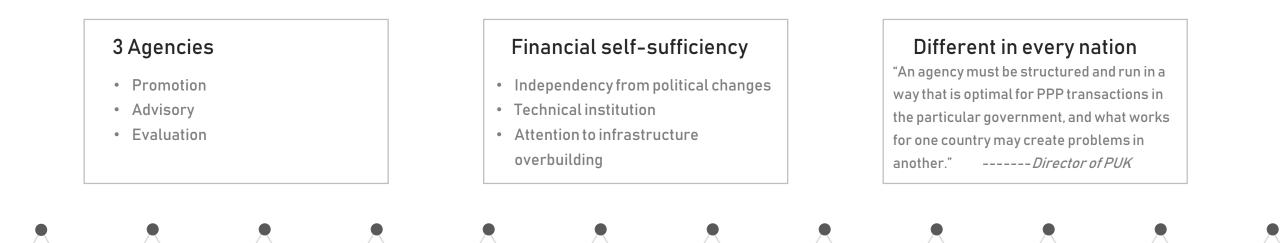
• Customers also needed to learn where they could get on and off the network



Reference: The APMG Public-Private Partnership (PPP) Certification Guide

Case Study USA i-495-Express Lanes: https://gihub-managingppp-tools.s3.amazonaws.com/live/media/1436/gih_casestudy_usa_i-495-express-lanes.pdf

PARTTHREE SUCCESSFUL FACTORS – PUBLIC AGENCY



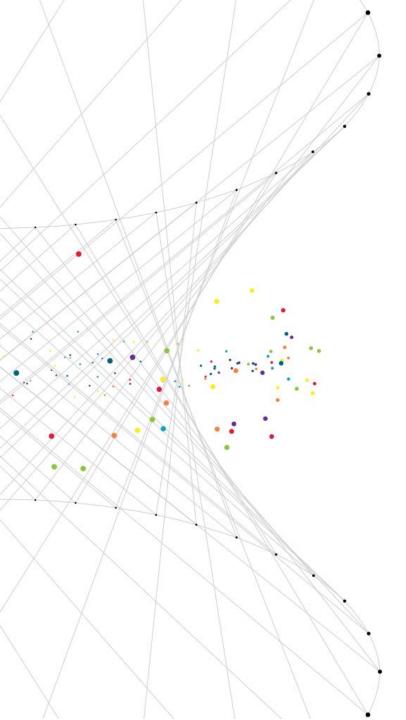
Providing expertise

- PPP sector lack of people with the necessary preparation
- Unique field

Cheaper and shorter bidding process

- 3 months to decide on a winner
- 8 months to close





PART THREE SUCCESSFUL FACTORS- STRONG PRIVATE CONSORTIUMS

Strong private consortiums



Stimulate competition

• Public advantage



Competitive bidding process

• Possibility of noticing inconsistency



Examples

- Only three companies
- JFK four proposals
- Dulles Green Way one proposal
- Charlotte Water Plant four proposals



Greater number of projects



https://www.cbpp.org/research/state-budget-and-tax/its-time-for-states-to-invest-in-infrastructure

PARTTHREE SUCCESSFUL FACTORS – MACROECONOMIC FACTOR



Colombia example

- US \$50 Billion in Colombia
- 4,350 miles in Colombia



Higher return

- More competition
- Cheaper for the public
- PPP development
- Higher risks are acceppted

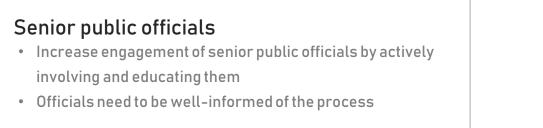


Lower risks

- Risk matrix
- Less accurate framework needed, business planning
- Mistakes in traffic forecast



PART THREE SUCCESSFUL FACTORS - GOVERNMENT AND POLITICAL SUPPORT



Political leaders

- Minimize misperceptions by the public about the value of PPP
- Mayor to deliver a champion project addressing fiscal challenges in the process
- Example The Mayor of London for the Central London Congestion Charging PPP Program

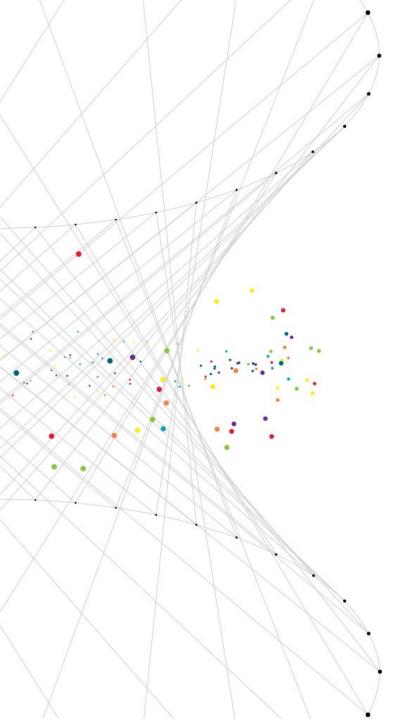
Public sector monetary support

- Provide concessional finance, as in the case of Australia; example _ The NAIF - Queensland Treasury up to \$5 Billion
- Valuable contribution as in the case of Colombia

Public sector involvement

- Ongoing monitoring of performance with respect to safety and maintenance as stipulated in contract
- Recourse rights in case of private partner defaults





PART THREE SUCCESSFUL FACTORS - COMMUNICATION

Transparency

Creating a transparent environment for all active and upcoming projects, as in the case of Australia's National Infrastructure having a construction schedule

Contract disclosure

- Less than 45 days consistent with government guidelines after the contract becomes effective
- Example NSW ISFU for Sydney Harbor Tunnel, Hills Motorway (M2)

- TAMWORTH HOSPITAL REDEVELOPMENT - STAGE 2 WA - GATEWAY WA NSW - HMAS ALBATROSS REDEVELOPMENT STAGE 3 NSW - WAGGA WAGGA BASE HOSPITAL REDEVELOPMENT NSW - PACIFIC HIGHWAY - NAMBUCCA HEADS TO URUNGA VIC - PORT OF MELBOURNE PORT CAPACITY PROJECT NSW - LAKE MACQUARIE TRANSPORT INTERCHANGE AT GLENDALE NSW - MOOREBANK UNITS RELOCATION NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1 MULTI-STATE - NATIONAL BROADBAND NETWORK - NBN	1 1	2012	L	2013		2014	1 1	2015		2016	20	017
NSW - HMAS ALBATROSS REDEVELOPMENT STAGE 3 NSW - WAGGA WAGGA BASE HOSPITAL REDEVELOPMENT NSW - PACIFIC HIGHWAY - NAMBUCCA HEADS TO URUNGA VIC - PORT OF MELBOURNE PORT CAPACITY PROJECT NSW - LAKE MACQUARIE TRANSPORT INTERCHANGE AT GLENDALE NSW - MACREBANK UNITS RELOCATION NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1	TAMWORTH HOSPITAL REDEVELOPMENT - STAGE 2											
NSW - WAGGA WAGGA BASE HOSPITAL REDEVELOPMENT NSW - PACIFIC HIGHWAY - NAMBUCCA HEADS TO URUNGA VIC - PORT OF MELBOURNE PORT CAPACITY PROJECT NSW - LAKE MACQUARIE TRANSPORT INTERCHANGE AT GLENDALE NSW - MOOREBANK UNITS RELOCATION NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1		WA - GAT	Eway wa									
NSW - PACIFIC HIGHWAY - NAMBUCCA HEADS TO URUNGA VIC - PORT OF MELBOURNE PORT CAPACITY PROJECT NSW - LAKE MACQUARIE TRANSPORT INTERCHANGE AT GLENDALE NSW - MOOREBANK UNITS RELOCATION NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1		NSW	- HMAS ALB	ATROSS REDE	VELOPMEN	IT STAGE 3						
VIC - PORT OF MELBOURNE PORT CAPACITY PROJECT NSW - LAKE MACQUARIE TRANSPORT INTERCHANGE AT GLENDALE NSW - MOOREBANK UNITS RELOCATION NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1		NSW	- WAGGA W	AGGA BASE H	OSPITAL RE	DEVELOPME	NT					
NSW - LAKE MACQUARIE TRANSPORT INTERCHANGE AT GLENDALE NSW - MOOREBANK UNITS RELOCATION NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1	NSW - PACIFIC HIGHWAY - NAMBUCCA HEADS TO URUNGA											
NSW - MOOREBANK UNITS RELOCATION NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1			VIC - PORT	OF MELBOUR	NE PORT C	APACITY PRO	JECT					
NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1	NSW - LAKE MACQUARIE TRANSPORT INTERCHANGE AT GLENDALE											
NSW - BLACKTOWN AND MT DRUITT HOSPITAL REDEVELOPMENT - STAGE 1			NSV	- MOOREBAN	IK UNITS RE	ELOCATION						
	NSW - PACIFIC HIGHWAY - OXLEY HWY TO KEMPSEY											
MULTI-STATE - NATIONAL BROADBAND NETWORK - NBN				NSW - BLAC	KTOWN AN	D MT DRUITT	HOSPITAL F	REDEVELOPME	NT - STAGE	1		
				MULTI-STAT	E - NATION	AL BROADBAN		RK - NBN				

Source: NICS GOV Australia

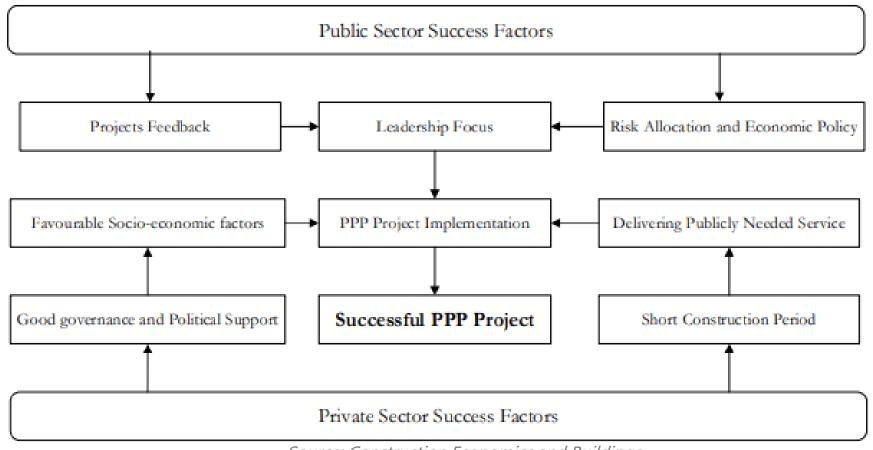
Encourage strong competitive bids

- International investment as in the case of Australia
- Limited complexity to ensure lower transaction and monitoring costs

Practitioners guide

 Helps in following the success of different PPP projects in terms of performance flexibility





Source: Construction Economics and Buildings

PARTTHREE SUCCESSFUL FACTORS - SOUND ECONOMIC POLICY

Bidding cost refunded

• Percent of losing bids refunded as in the case of Colombia, which will invite more investments

Public sector comparisons

• Compare outputs and costs of PPP proposal against neutral benchmark called PSC adjusted for risk, for example as in Australia

Raising capital

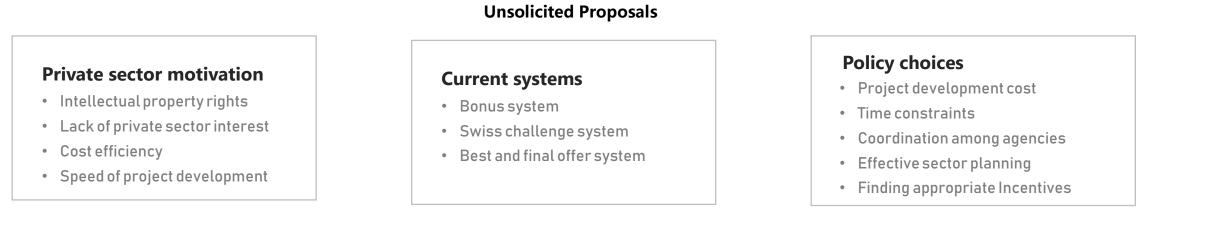
• Improve finance availability by inviting more participants

Tendering situation

• Australia – the time was 40% shorter than in the UK because of transparent pipeline



PART THREE SUCCESSFUL FACTORS - COMPETITIVE AND TRANSPARENT PROCUREMENT PROCESS



Need

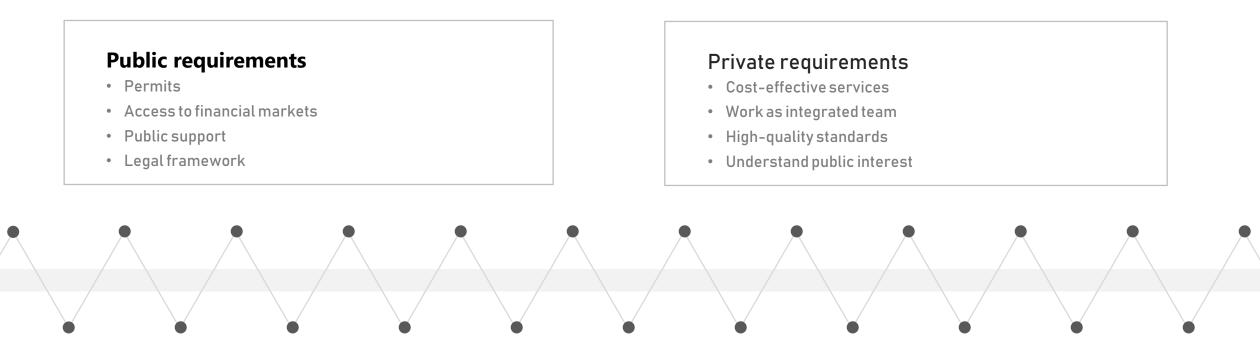
- Avoids corruption
- Promotes innovation
- Reduces cost
- Allows for systematic planning

Implementation

- All documents are public
- Evaluation criteria are clear
- Minimum number of bidders



PART THREE SUCCESSFUL FACTORS - PUBLIC AND PRIVATE COMMITMENT



Need

- Mitigate political uncertainty
- Long-term leases
- Fosterteamwork

Examples

- Colombia's mitigation of revenue risk
- Pacific Highway upgrade in Australia



THANK YOU

