



सत्यमेव जयते

Ministry of Urban Development  
Government of India



## PPP and Procurement Training Workshop for Top 33 Smart Cities

# Smart City PPPs

S. R. Ramanujam

- Smart Cities have a high and diverse potential for PPPs
- Success requires
  - Clarity of purpose for pursuing PPPs
  - Maximising the PPP potential in all projects
  - Proper preparation
  - Learning from experience and sharing within



# CHARACTERISTICS OF PPP PROJECTS

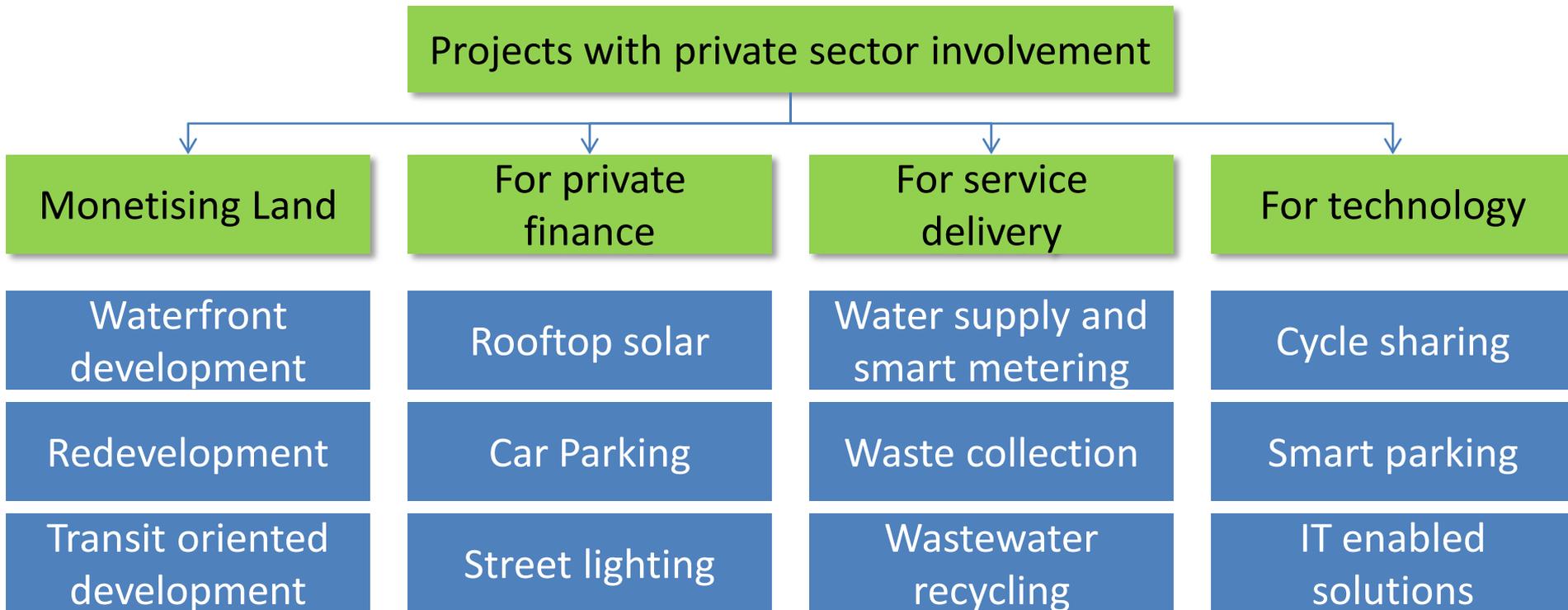


# Key characteristics of PPPs

- Provision of public assets and/or related services
  - Door to door waste collection is service oriented
- Investments and/or management
  - Wastewater treatment projects may be grant funded, but focus on management
- Specified, pre-determined and measurable performance standards
  - Water distribution projects will have 24 x 7 as a performance standard
- Performance linked payments
  - Smart metering projects may link payments to performance
- Substantial risk sharing with the private sector
  - Street lighting projects transfer substantial risk to private sector



# Smart city proposals reflect the diversity in the definition of PPPs



# CLARITY OF PURPOSE



# Clarity of Purpose

Projects with private sector involvement



Monetising Land

High value, but fewer projects

Possible where zoning regulation, ownership and redevelopment potential is clear

Benefit - Monetisation

For private finance

Working group for 12<sup>th</sup> Plan estimates potential of 13% to 23%

Since urban services do not recover operating costs<sup>②</sup> private investment, if any, will have to be repaid by ULBs.

Benefit<sup>③</sup> – Transfer of construction and operations risks; customer service; cost savings

For service delivery

For technology

Small value but high impact projects

Focus is on accessing private sector skills. In most cases, costs will be met by ULB

Benefit - Innovation



① Working Group on financing urban infrastructure, Steering Committee on Urban Development and Management, 12<sup>th</sup> Five Year Plan, Government of India

② Fourteenth Finance Commission, Government of India

③ Committee on revisiting and revitalising PPP model of infrastructure, Government of India

# Clarity of Purpose

Common reasons for failure

Monetising Land

Over ambitious assumptions

Parking projects relying on real estate development

For private finance

Expecting user charges to recover operating costs fully and/or repay private investment for basic services.  
Weak ULB capacity to support projects

Water PPPs that underestimated grant requirement.  
Many SWM projects which didn't provide for tipping fee

For service delivery

For technology

Treating these as revenue generating projects



# MAXIMISING POTENTIAL FOR PPP



# Hierarchy of preferences for PPP projects

Is the land potential or cost saving more than project cost

Net revenue to ULB

Redevelopment, commercialisation, street lighting projects

Can user charges recover O & M and part of project costs

User charges + VGF/ Annuity from ULB

Water supply, solid waste and urban transport projects

Can Operator be paid based on output?

Output based payments from ULB

Water, waste and wastewater treatment projects

Can operator be paid based on performance standards?

Performance based annuities

Roads, sewage networks and drains

Service contracts with performance standards

Technology based projects, customer service projects



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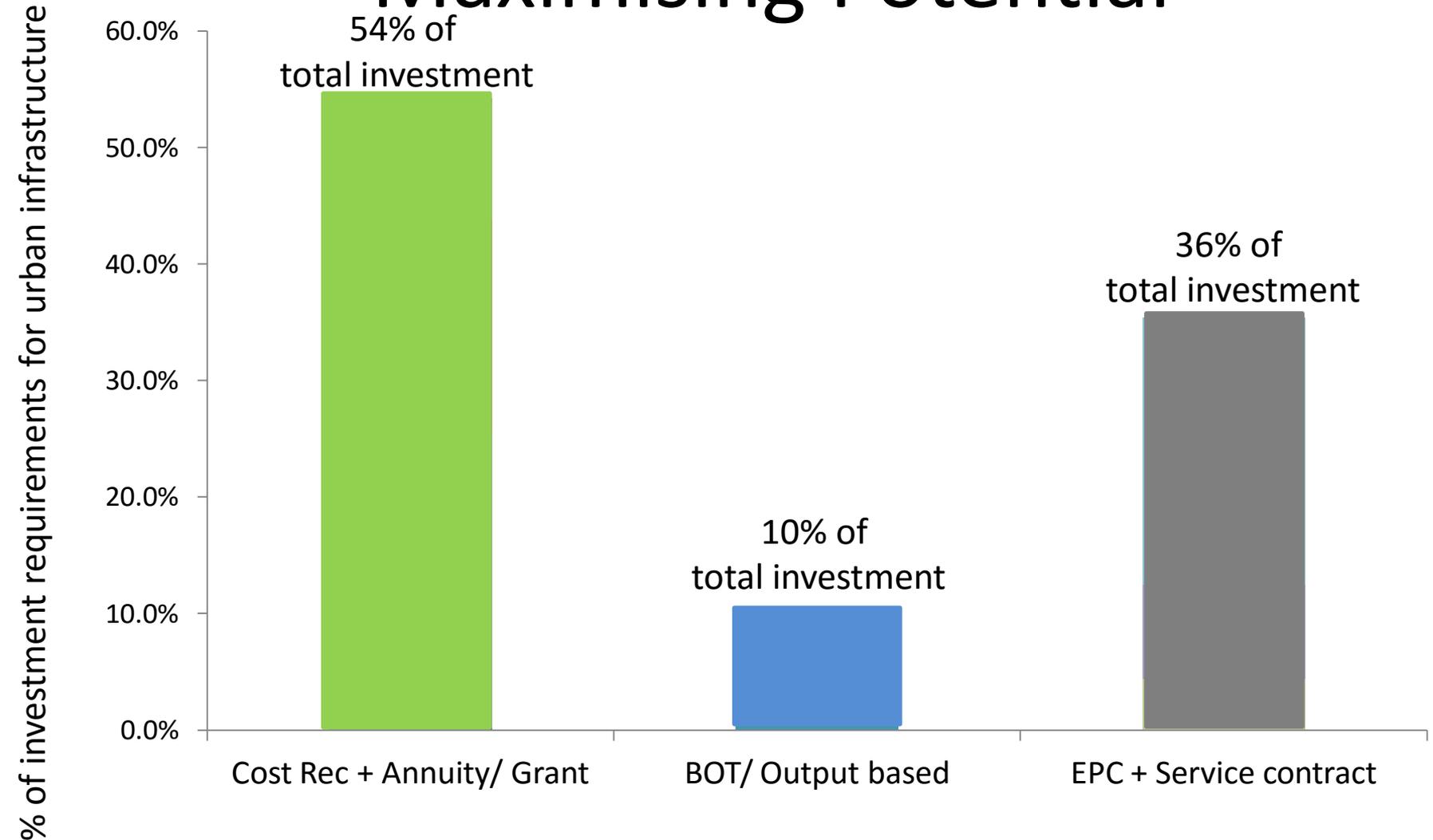
Source: Working Group on financing urban infrastructure, Steering Committee on Urban Development and Management, 12<sup>th</sup> Five

Year Plan, Government of India



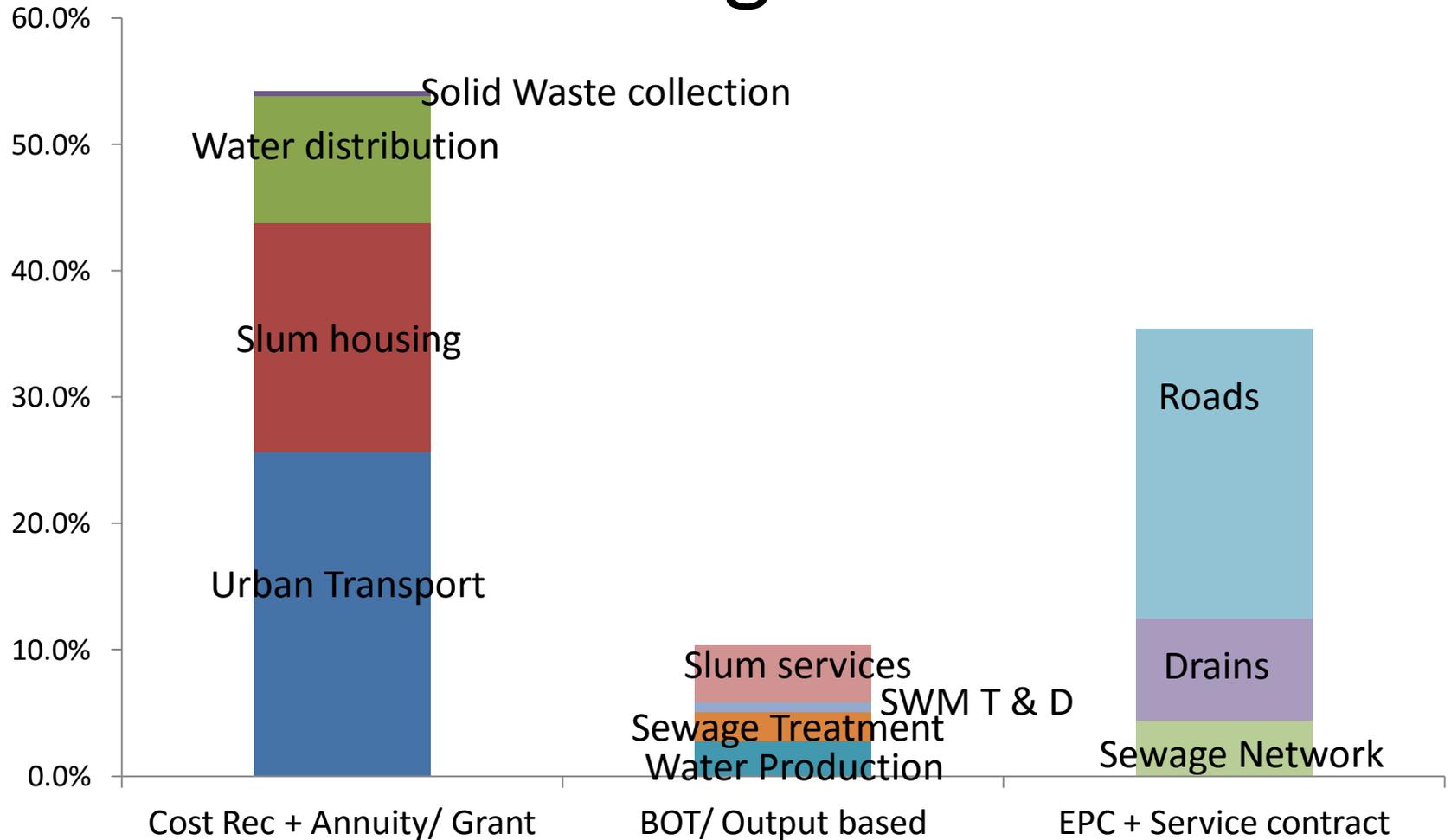
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# Maximising Potential

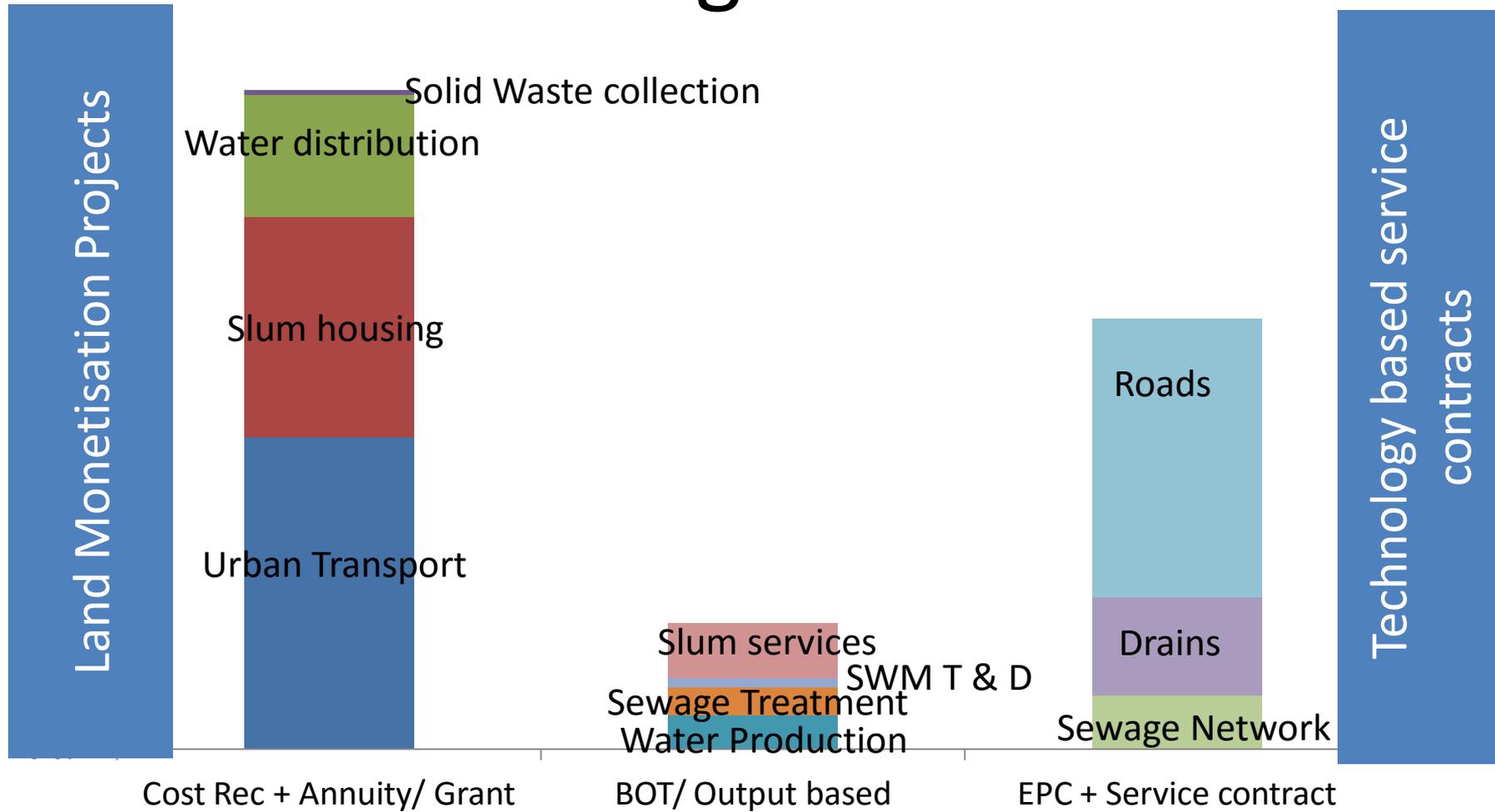


Source: Calculations based on HPEC Investment estimates, Investments in roads reduced to reflect immediate investment outlay

# Maximising Potential



# Maximising Potential



# Example Udaipur

Net revenue to ULB

Captive waste water recycling plant

User charges + VGF/  
Annuity from ULB

24 x 7 water supply, SCADA and smart metering  
Solid waste management  
GPS enabled IPT services  
Tourism App  
City bus services  
Parking facilities

Output based payments  
from ULB

Solid waste processing plants  
Automation and control of pumping stations

Performance based  
annuities

Restoration of road network with heritage walks  
Rehabilitation of sewage network  
Natural purification and real time monitoring of lake  
water

Service contracts with  
performance standards

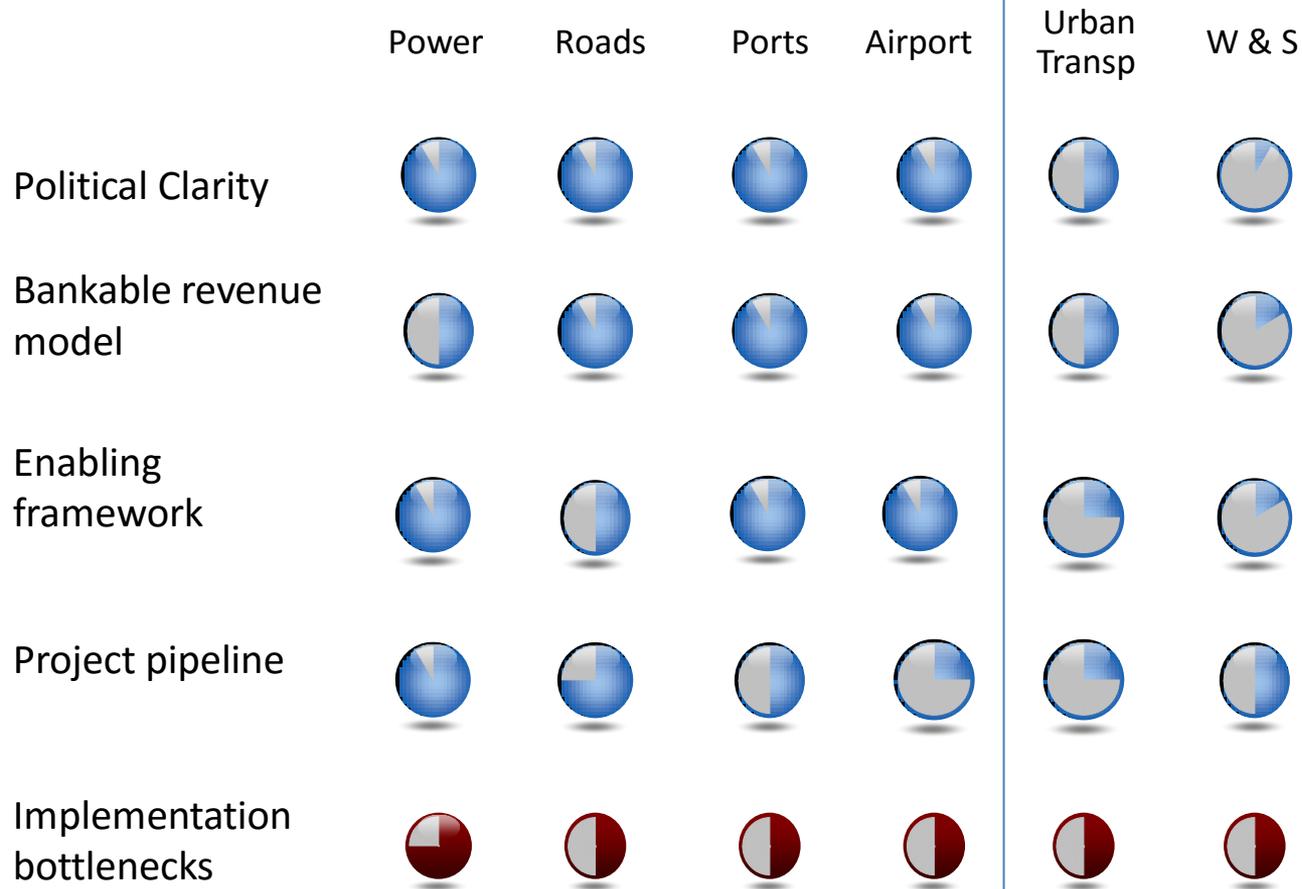
Utility ducts; Landscaping and beautification  
Utility control; City surveillance  
Smart traffic and parking management



# PREPARING FOR PPPS



# What has worked in other sectors?



# How should smart city SPVs prepare for PPPs?

- Financial capacity
  - Freedom to fix and revise user charges for smart city projects
  - Predictable revenue support from ULB
  - Payment security fund for Operators
- Organisational capacity
  - Approval to pursue PPPs as first choice implementation model
  - Recognition that PPP projects also require payments from ULB/ SPV
  - Delegation of powers for PPP structuring, procurement and monitoring
- Project structuring
  - Service delivery and output as the driving factor for decisions; not asset creation
  - Clear linkage between operator revenue and performance standards
  - Transparent and consistent procurement process across projects



# Sharing and learning

- Many PPP proposals are common (parking, solar, Cycle rentals, basic services)
- Smart City Network for PPP projects - “Lead” ULBs for each type of project
  - Study and learn from best practices
  - Standardised documents across cities
  - Similar pre qualification criteria to improve transparency
  - Troubleshooting and handholding
- Smart city PPP market place
  - Promote projects
  - Track operator performance
  - Possibly empanelment of Operators across cities



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