

# **Sustainable Water Integrated Management (SWIM)**

## **Regional Training Event**

Funded by the EU European Neighbourhood and Partnership Instrument  
(ENPI) South/Environment.

## **TRAINING ON EVALUATING AND STRUCTURING PPPs IN THE WATER SECTOR**

### **Day 2 – Session 5: Investments and Financing PPPs**

*by*

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# Why are PPPs taking front stage (again) ?

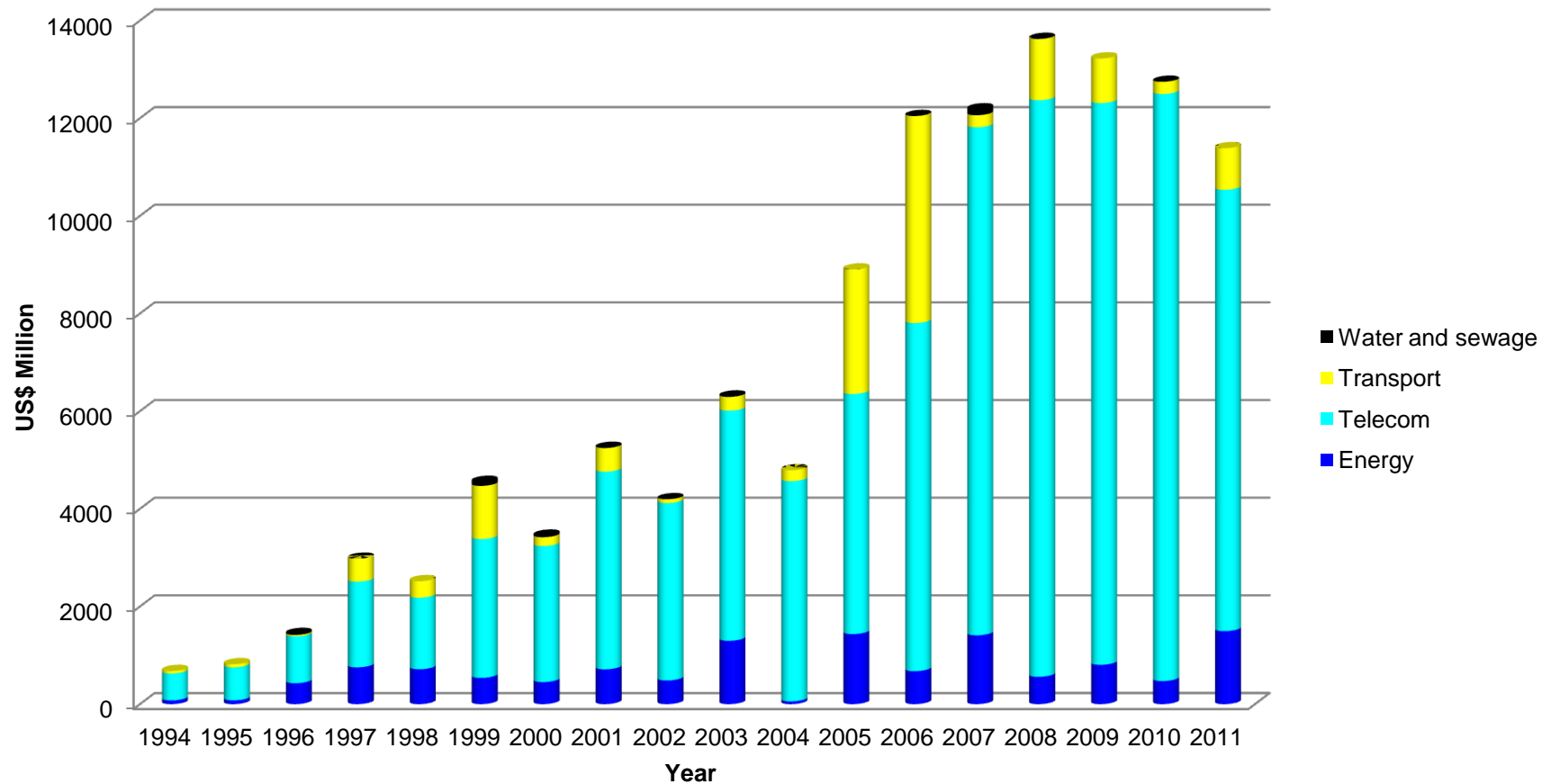
- ◆ Availability of public capital remains constrained due to deficits and/or prudent fiscal management
- ◆ Availability of private capital also constrained: investors generally more risk-aware than previously and less willing to take risks in emerging markets
- ◆ Yet huge capital needs remain in infrastructure, education and health care, for development and for competitiveness
- ◆ Efficiency gains from private sector involvement continue to be believed being considerable.

# Private Investment has been concentrated in certain Sectors

- Projects that generate ready cash flows and where user fees (tariffs) can be imposed on wholesale users (*telecommunications, ports, airports, power plants, freight railways and natural gas pipelines*) continue to attract the bulk of what private investment is available.
- Roads, urban transport, water supply and sanitation receive little private capital.

# Private Participation in SSA Infrastructure

## PPI in SSA



# Key Questions

- How to **structure** the PPP to create comfort for private investors to take equity?
- How to **create** conditions to attract private sector (debt)finance?
- How to **design** the PPP transaction linking finance to achieving predetermined performance targets?

# Incentives and Risk

- The principal challenge in designing a PPP: how to align the incentives of the PPP company so that it will perform so as to achieve *public-sector* objectives
- It is often said that value is created by transferring risk to the PPP company.  
Better to say: **value is created by transferring decision rights and rewards or penalties (incentives) to the PPP company**

# Uses of Financial Models

Why important: for many PPPs,  
**project cash flow is the key to project viability**

Different uses:

- Model of envisaged PPP (from PPP company's point of view)
- Model of public sector comparator (?)
- Bidder's model
- Banker's model
- Contractual model used for on-going contractual adjustments

# Public sector comparator (PSC) - 1

- ◆ PSC: the realistically best (hypothetical) public sector project that would deliver (more or less) the same benefits as the PPP project
- ◆ Purpose is to compare the costs of the PPP project with the PSC
  - Two main stages at which the PSC exercise can be carried out: (i) Before bidding, (ii) After PPP bids are received
  - Consultancy firms are mainly responsible for carrying out the PSC exercise and preparing the report
- ◆ Strong influence around the world by the approach developed by British PFI program, ... but UK has moved somewhat away from the PSC ...



# Public sector comparator (PSC) - 2

## Drawbacks of doing a PSC exercise ...

- High cost. Is it really needed for *every* PPP project?
- As often practiced, low transparency: “black box”
- Huge uncertainty about certain values (esp. when good data base does not exist)
- Easily open to manipulation to achieve desired results
- Nearly identical *benefits*? (esp. in developing countries)
- *Is there really a realistic alternative public sector project?*
- Some aspects are subject to great debate and highly contentious (e.g. discount rate)

# *Qualitative* indications of Value for Money

## Suitability of project to be a PPP

- The outputs are known and agreed among important stakeholders, and can be specified precisely and measured and monitored well
- Service needs are not expected to change in unpredictable ways in the short or medium term
- Technology and other relevant aspects of the sector are fairly stable

# *Qualitative* indications of Value for Money

## Suitability of project to be a PPP (cont'd)

- Risks affecting the project are well understood and the contract can include precise mechanisms that deal with the consequences of these risks materializing
- The contractual arrangement is not highly complex
- There are strong opportunities for economies to be realized by bundling together design, construction, and operation and maintenance (or some of these)
- The private sector is expected to have greater capacities or skills than the public sector to implement the project and deliver the required services
- Strong competition in bidding for the PPP project is expected

# Financing of PPPs

- ✓ Often done using “special purpose company, SPC” or “special purpose vehicle, SPV”, and on “project finance” basis
- ✓ In that case, estimated future cash flows of PPP company are of critical importance - A good financial model is a crucial instrument
- ✓ Characteristics of the financing can have an impact on the public sector – so public sector cannot leave this entirely to the private company

# Ladder of Financial Sustainability

Creditworthy in Tested Country Conditions	Country Conditions and Developed Financial Markets	<p>Private Finance</p> <p>Guarantees &amp; Intl. Donors</p> <p>Public Finance</p>
Marginally Creditworthy	Reliable Refinancing Sources & Security for Loans	
Sustainable Cost Recovery	Anticipates Long Term Cost Impacts (I.e. FX, asset revaluation)	
Cost Recovery	Profitable in Any Given Year But Not Sustainable in Long Term	
Pay-As-You-Go Recovery of Cash Outlays	Capital Subsidies	
Unviable Loss Making Utilities	Capital & Operational Subsidies	

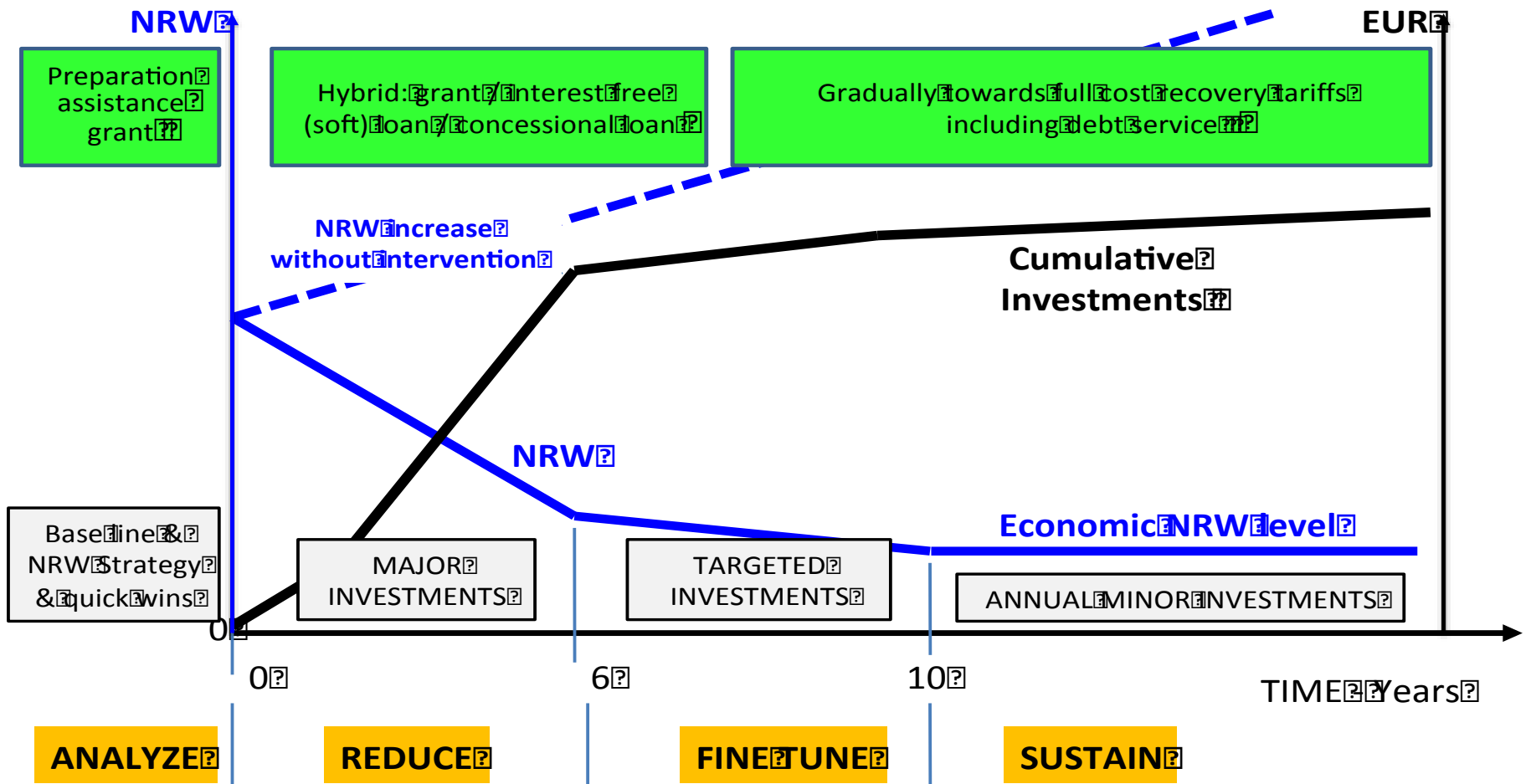
# Viability Gap Financing (VGF)

The aim is to support projects within the water sector development agenda and are economically justified but non financially viable, and financial feasibility is not achievable without reasonable support of investments or operations.

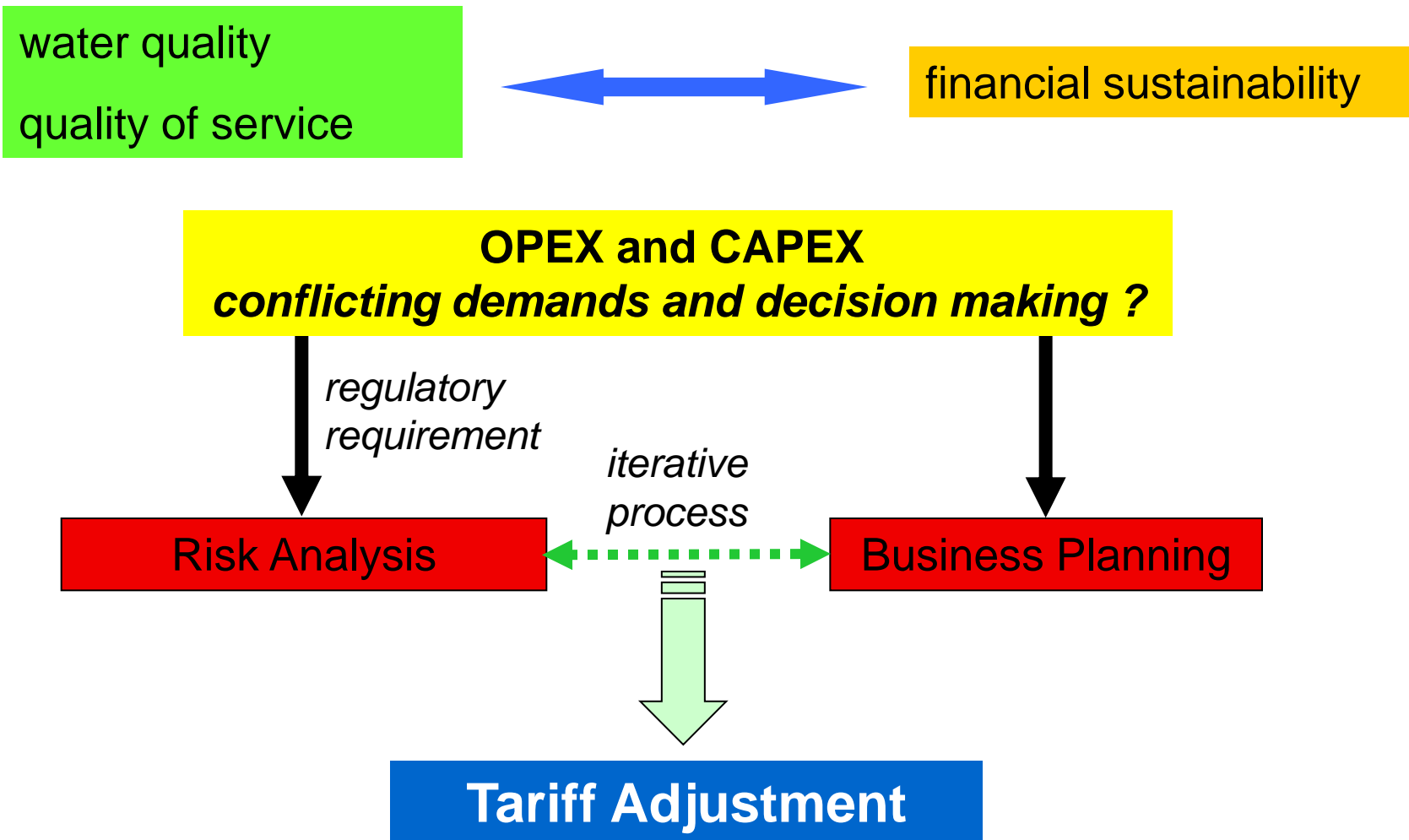
Issues are:

- ✓ What is the maximum amount of gap financing that would be justifiable from a public policy perspective?
- ✓ What would be the best financial instruments available for government intervention that would de-risk the position of private finance in different financing structures?
- ✓ What performance criteria should be incorporated in the VGF methodology?
- ✓ What financial instruments provide the maximum impact for leveraging private finance?
- ✓ How these instruments can be utilized in a financing structure to de-risk the exposure of private lenders?

# Sustainable Reduction of Non-Revenue Water



# Prioritizing CAPEX based on risk analysis





# Investment Project Generation

Government (National, Local) initiates			Hybrid Initiative by Govt, IFIs, Donors, PS, ...	Private Sector (PS) Initiates
Preparation out of Govt. Budget	Preparation financed by advance on loan/credit	Preparation financed by grant	Preparation financed by grant/credit/loan	Preparation financed by private sector
Investment financed by Govt. Budget	Co-financing by IFIs and Bilateral Donors (sovereign loan)	Blended financing concessional, commercial (private), grant	Project Finance (Blended financing)	Investment financed by private sector
Public-Public	Public-Public	PPP	PPP/PFI	Private

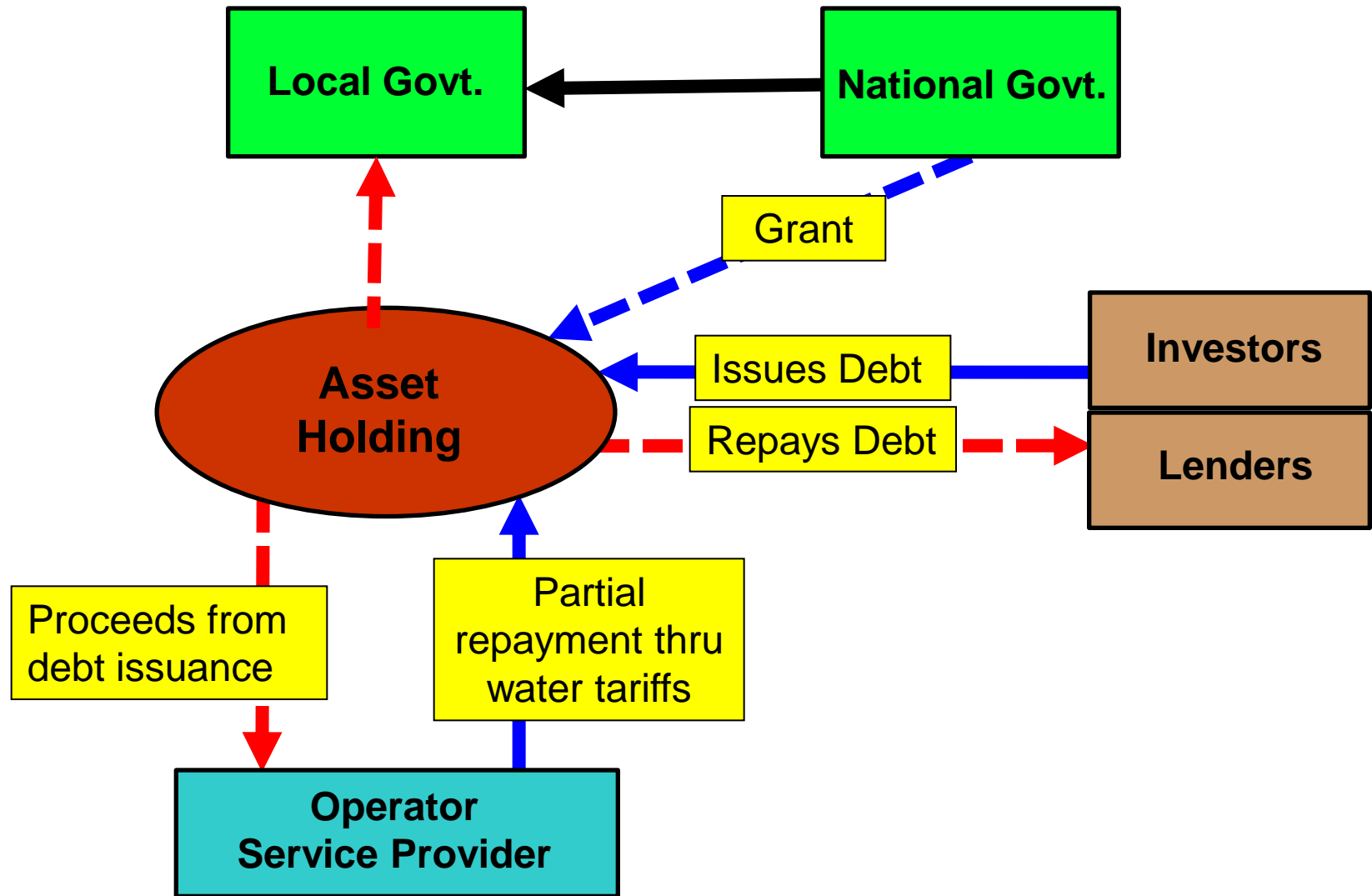
# (Innovative) Instruments to Attract Financing in the WSS Sector

## The Trust Structure Concept

### ◆ Reasons for interest

- ✓ The strongly expressed position of major private international water operators that their interests are fundamentally as operators of such systems, not investors.
- ✓ The need to mobilize capital for rational investment in specific opportunities.
- ✓ The need to improve operations and maintenance of existing facilities and to efficiently manage new and expanded facilities.
- ✓ The inability in many cases of tariffs to cover capital investment, operating costs and return on capital (debt and equity).
- ✓ The weak contractual, legal and regulatory environment for WSS investments, particularly at the sub-sovereign level.

# Financing—Using the Trust / Asset Holding Structure



# (Innovative) Instruments to Attract Financing in the WSS Sector

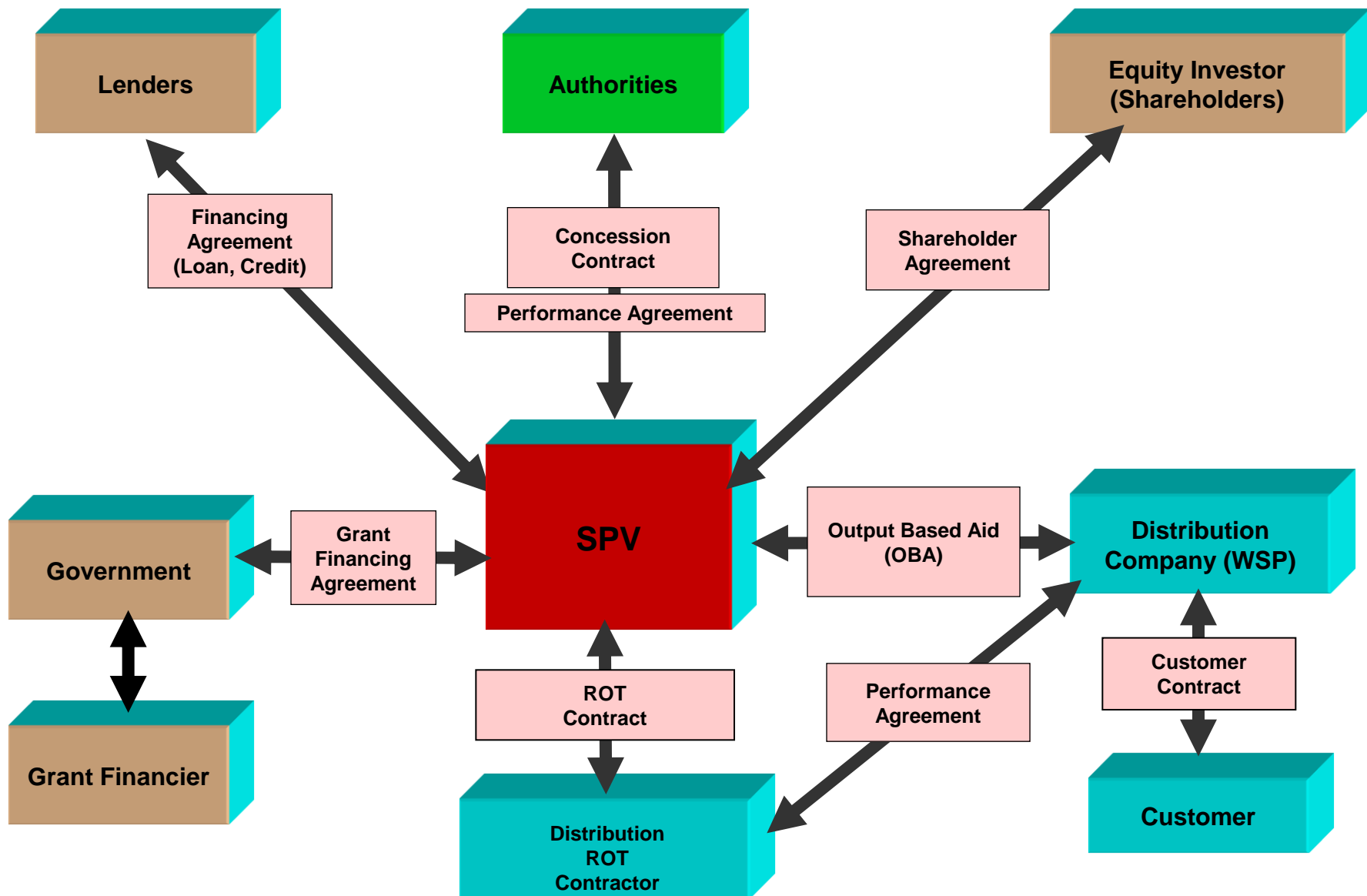
## The Trust Structure Concept

### ◆ Key attributes

- ✓ A financing and contractual structure, which is ring-fenced and insured against political manipulation and at least partially guaranteed against default.
- ✓ A combination of tariff and public sector financing sources including as appropriate, transfers, local taxes, donor institution grants and loans, output based aid and other possible sources.
- ✓ High participation from the private sector in the provision of services to design, build, operate, maintain, rehabilitate, and arrange financing for the facilities.

### ◆ Pros and Cons

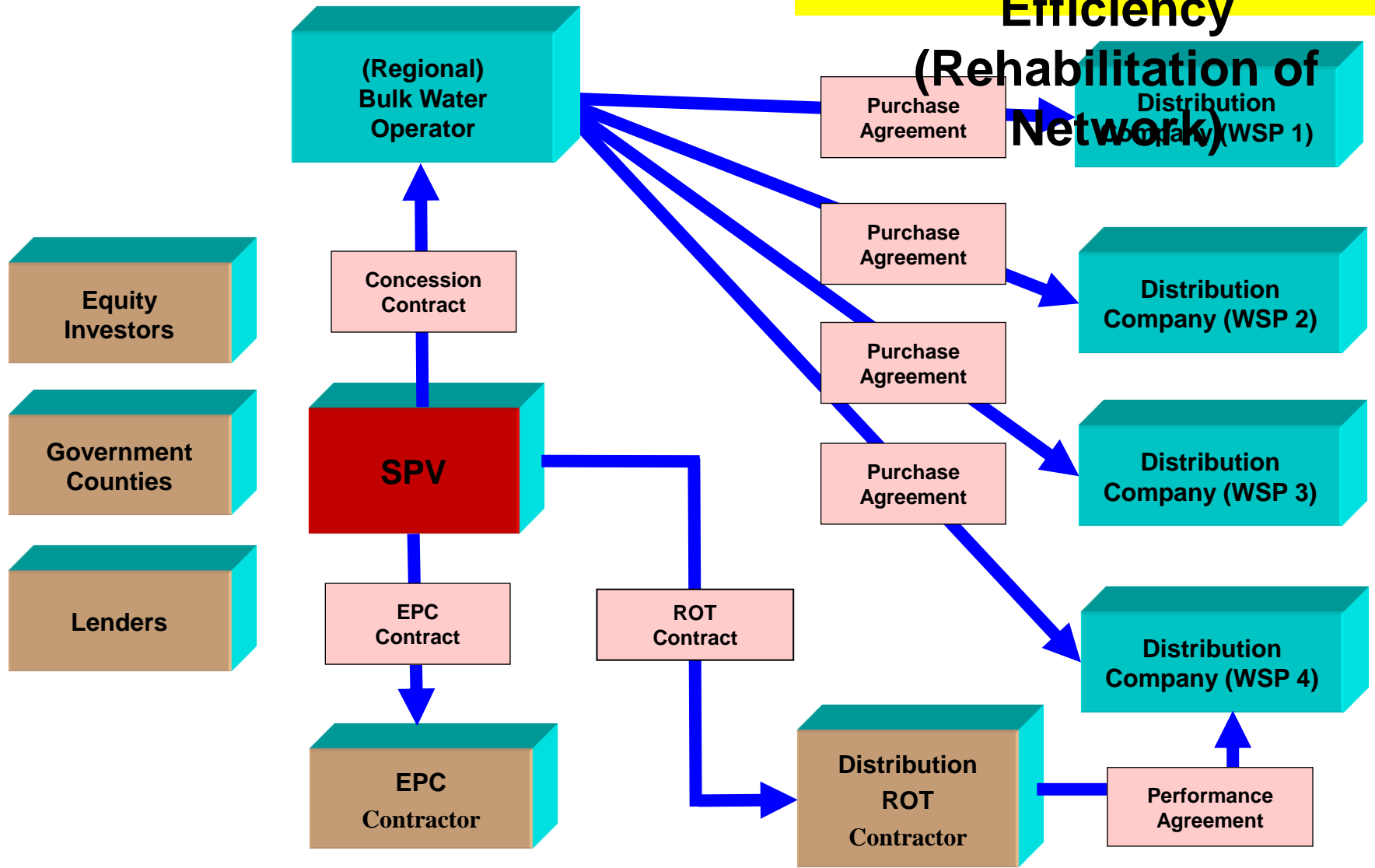
- + Local capital markets stimulation.
- + Potentially greater local currency financing.
- + Potential to convert the Trust into an equity investment vehicle.
- Establishment of Trust structure can involve high transaction cost.
- ~ *Concept is mostly applicable in middle-income countries.*



**PPP (network rehab.): a possible scenario?**

# Asset Development

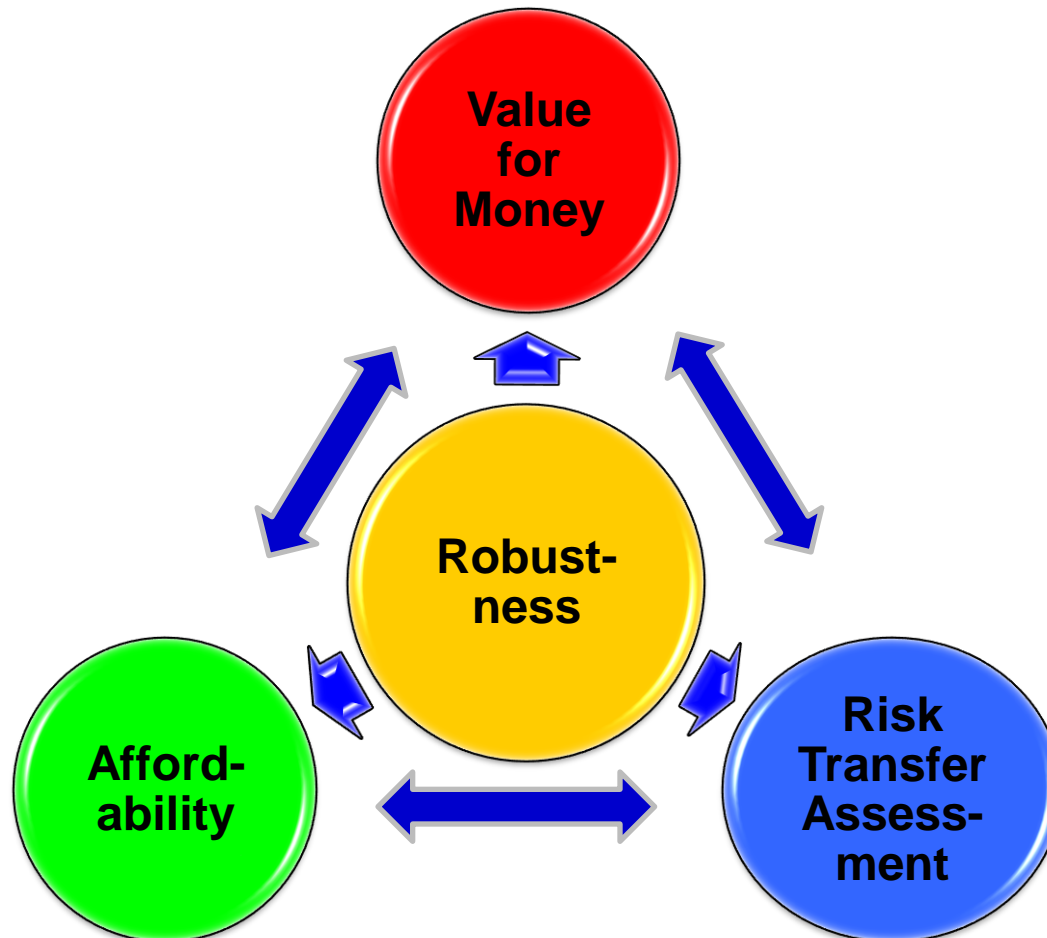
# Improving Operational Efficiency



# PFI - Factors

- Genuine risk transfer
- Output specification
- Whole life asset performance
- Performance-related reward
- Critical Success Factors (CSF)
  - 1. Risk Assessment**
  - 2. Value for Money**
  - 3. Affordability**
  - 4. Robustness**

# PFI Sustainable Model/Framework



Source: G. Sundaraj, University of Salford (UK), 2009



# Conclusion

- ❖ There are many risk mitigation facilities available, some tied to origin and some untied, that cover both commercial risk and political risk to varying degrees
- ❖ There is a need to create more awareness of these facilities among private sector investors and potential investors in the water sector

# Conclusion

Successful PPP infrastructure projects have in common:

- ❖ **Strong underlying business case.**
- ❖ **Strong financing and robust contractual structure**
- ❖ **Sustainable funding sources.**



**Thank you**

