

University of Pisa
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Private Sector Participation in the Water Sector

The Worldwide Experience

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Agenda



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2 Models for Private Involvement in the Water Sector

3 The Rationale for PPP Usage

4 Main Benefits of Using PPP

5 Main Pitfalls in PPP Usage

6 Contract and Risk Management

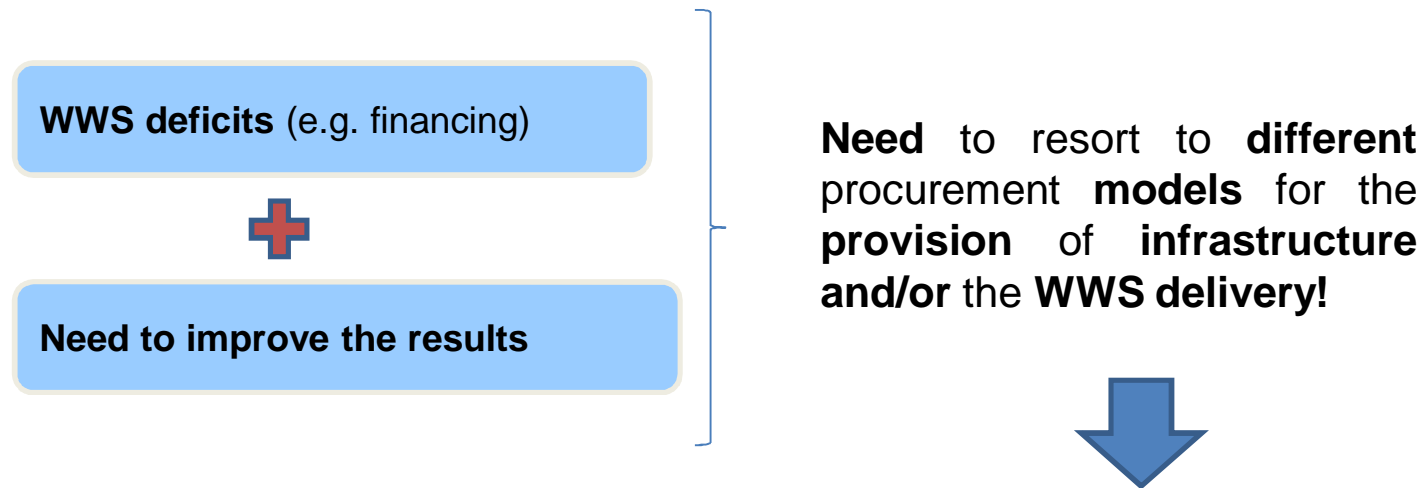
7 World Trend of PPP in the Water Sector

8 Concluding remarks



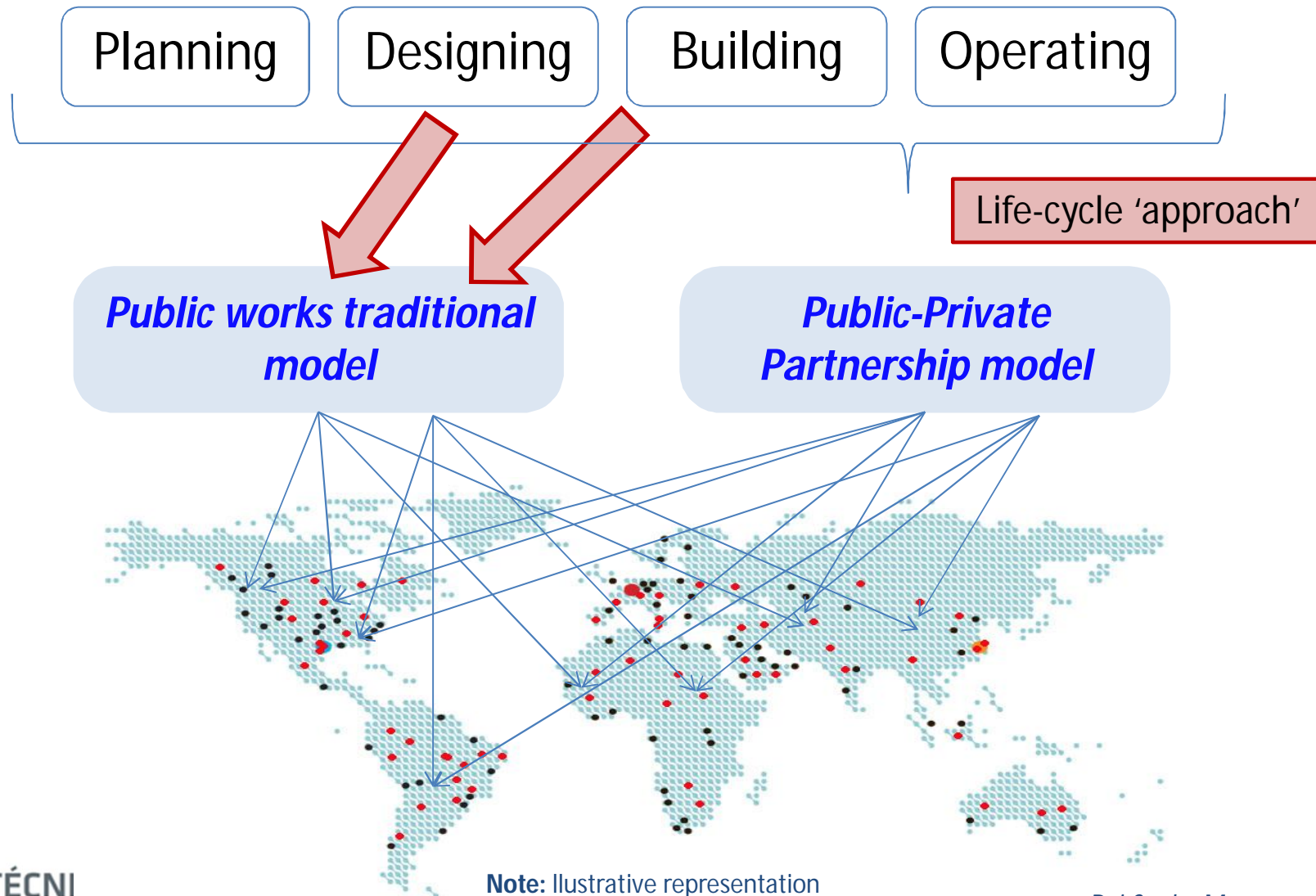
INTRODUCTION

- **Why** have **private sector** arrangements **emerged** all over the world in the water and wastewater services (**WWS**)?



Public and private sectors engage in a **contractual**, or **institutional**, **relationship** to ensure that a certain **infrastructure** and/or the **WWS delivery** (*i.e.*, whole system or partial divisions) is available!

Private Sector Participation (PSP)



Private Sector Participation (PSP)



In which activities?

Retail?

Specific parts?

Both?



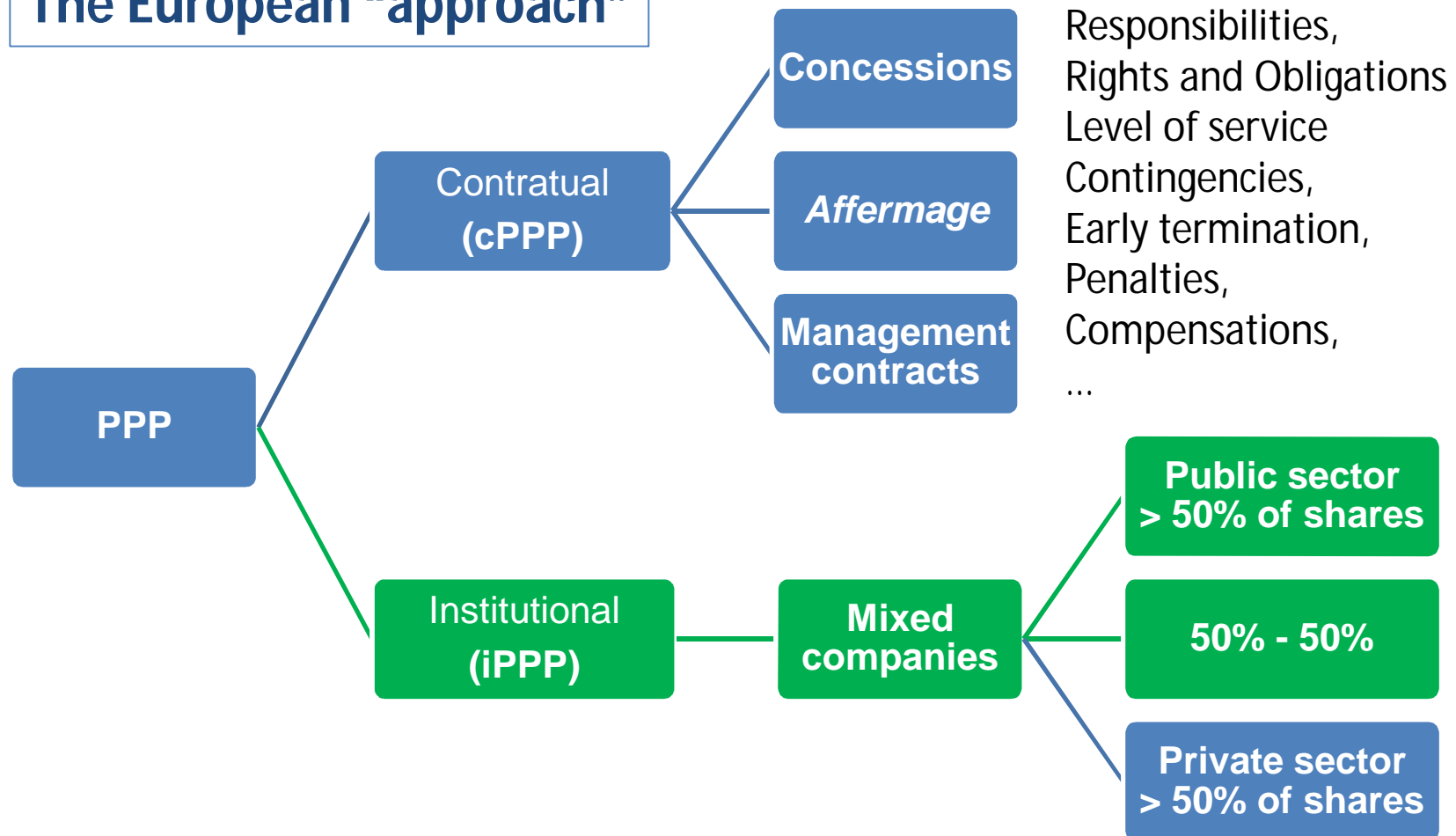


MODELS FOR PRIVATE INVOLVEMENT IN THE WATER SECTOR

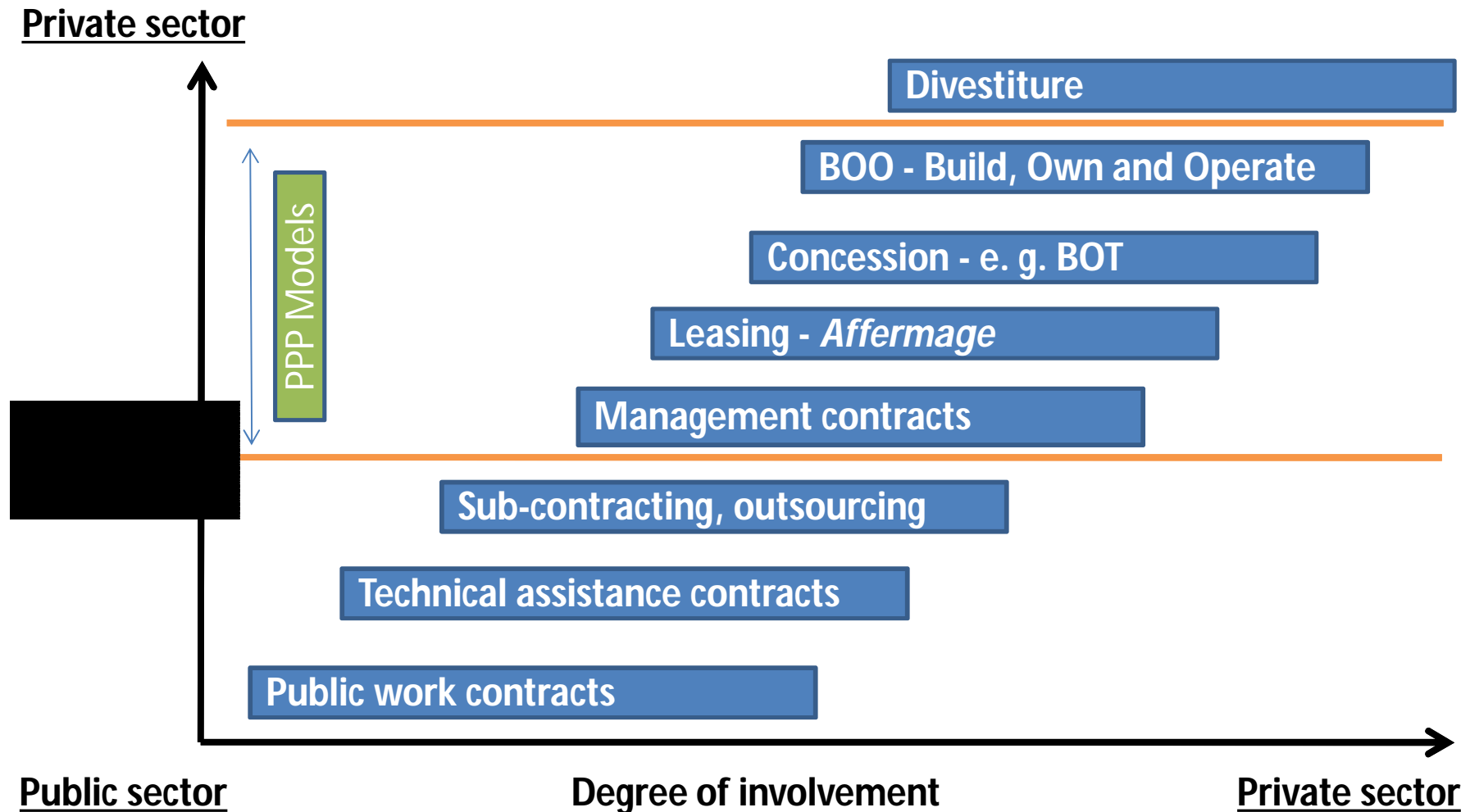
Models for private involvement



The European “approach”



Risk assumption and degree of involvement





THE RATIONAL FOR PPP USAGE

Why should the public sector use PPP?



PPP?

Focus the scarce public resources on specific areas

Competition and the scrutiny of capital markets make the use of capital resources more effective

Efficiency



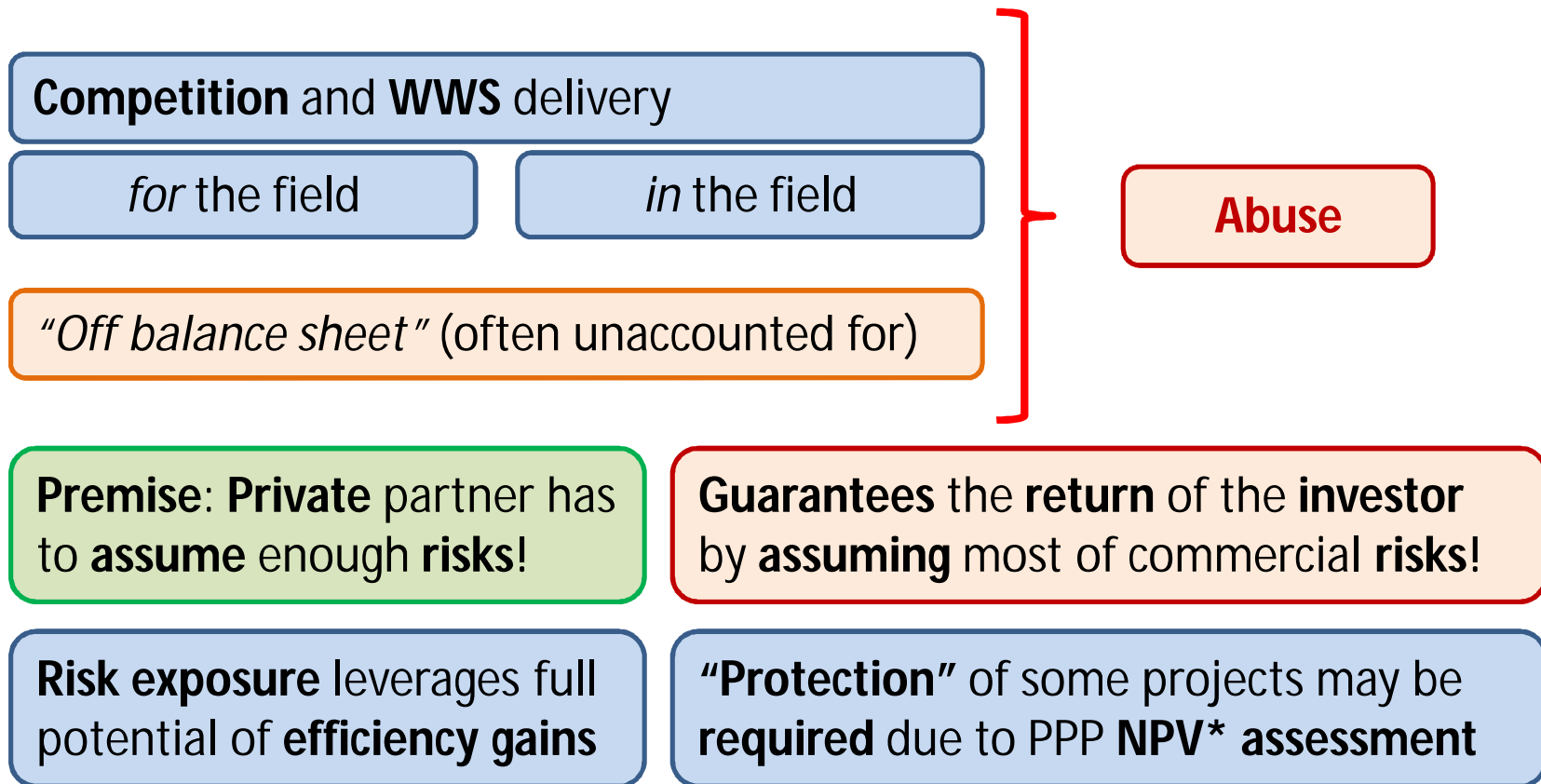
**Value for money
(VFM)**

What is the role of the government in today's economic and social context?

Minimal and limited to supervision and regulation?

As a provider in specific WWS areas? Single provider?

Why should the public sector use PPP?



What are the partners **concerns**? The **incentives**?
The **benefits**? And the **pitfalls**?

*NPV: Net Present Value.

The partners concerns/incentives



Private Partner

Profit-driven return on the investment for risk-taking

Fulfillment of business purposes and achieve results



Public Partner

Legislation

Regulation

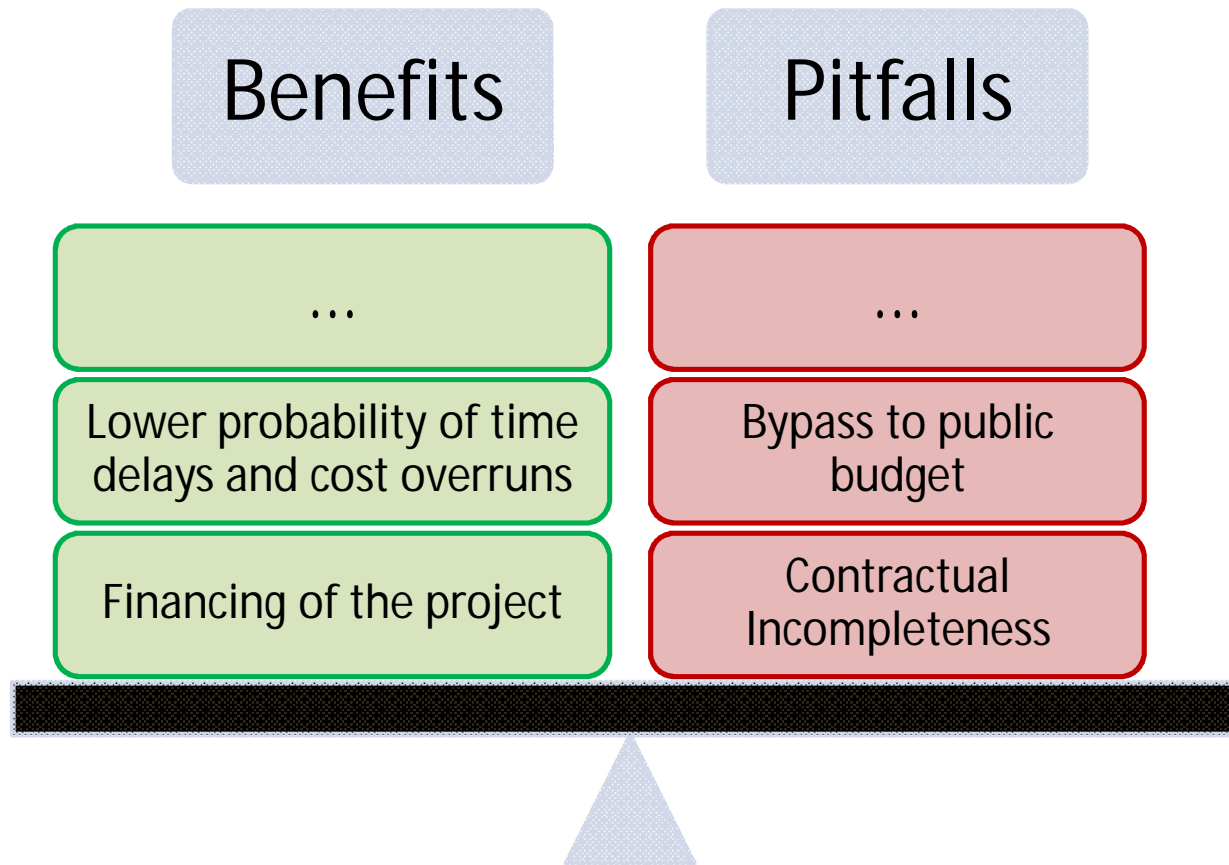
Political opinion

Democratic decision making

Minimum risk

Maximum social value

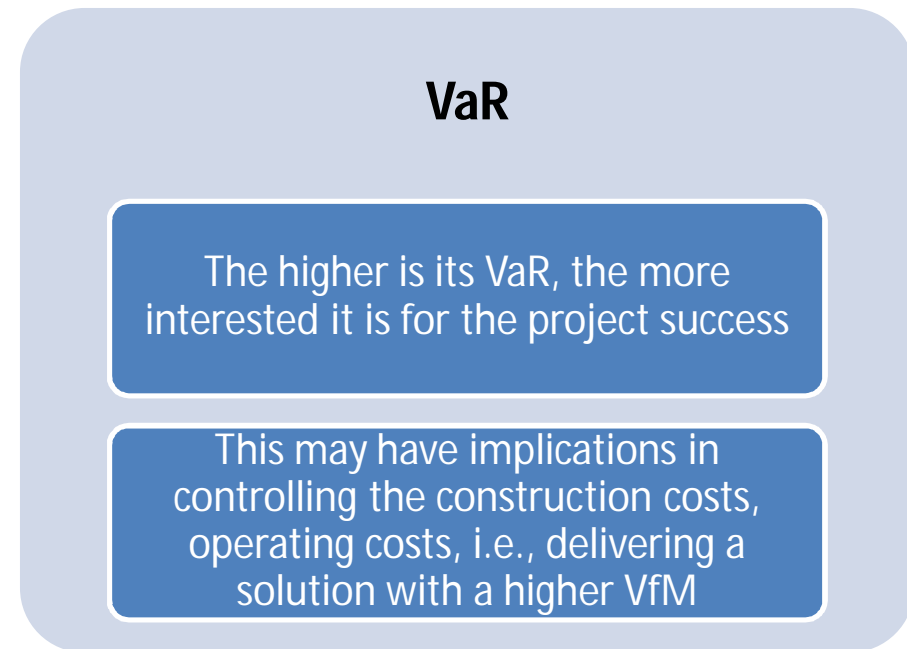
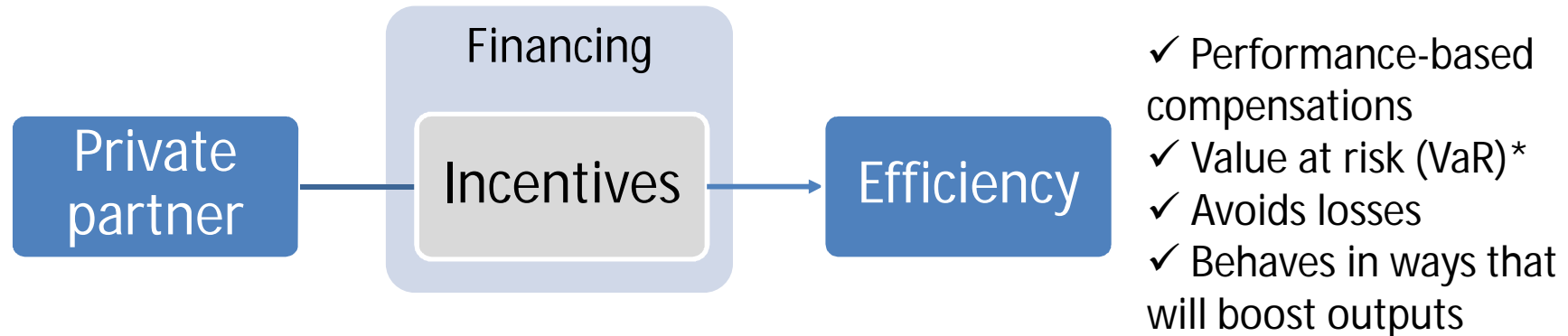
Required to assess benefits and pitfalls



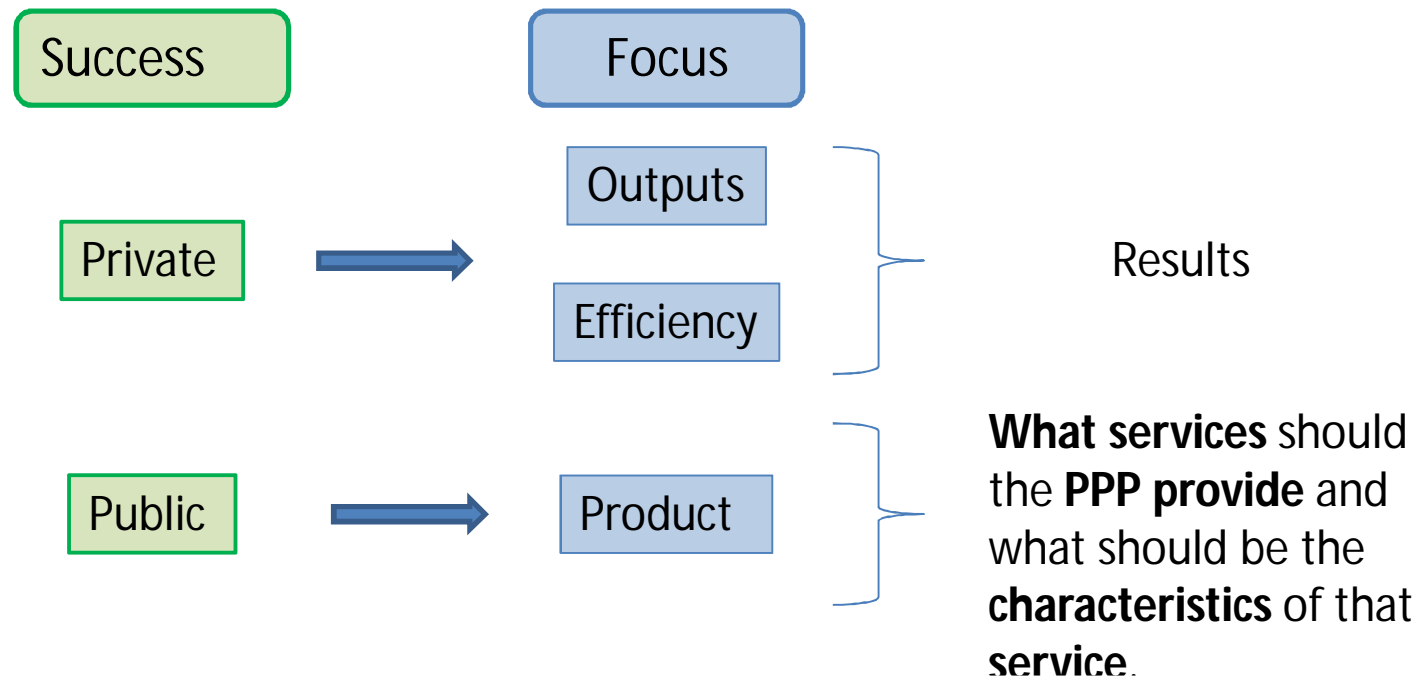


MAIN BENEFITS OF USING PPP

Total or Partial Financing



Oriented Toward Results



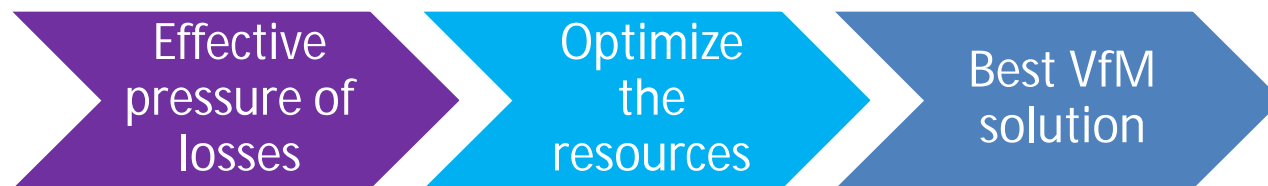
Unlike the public works contracts which demand a comprehensive specification of:

- Materials
- Techniques
- Design standards
- Technical specifications

Enhances Innovative Solutions



Pragmatically, given the adequate incentive...



More Effective Control of Costs and Deadlines



Private sector

- Significant risk transfer
- In accordance with its competencies and attributions



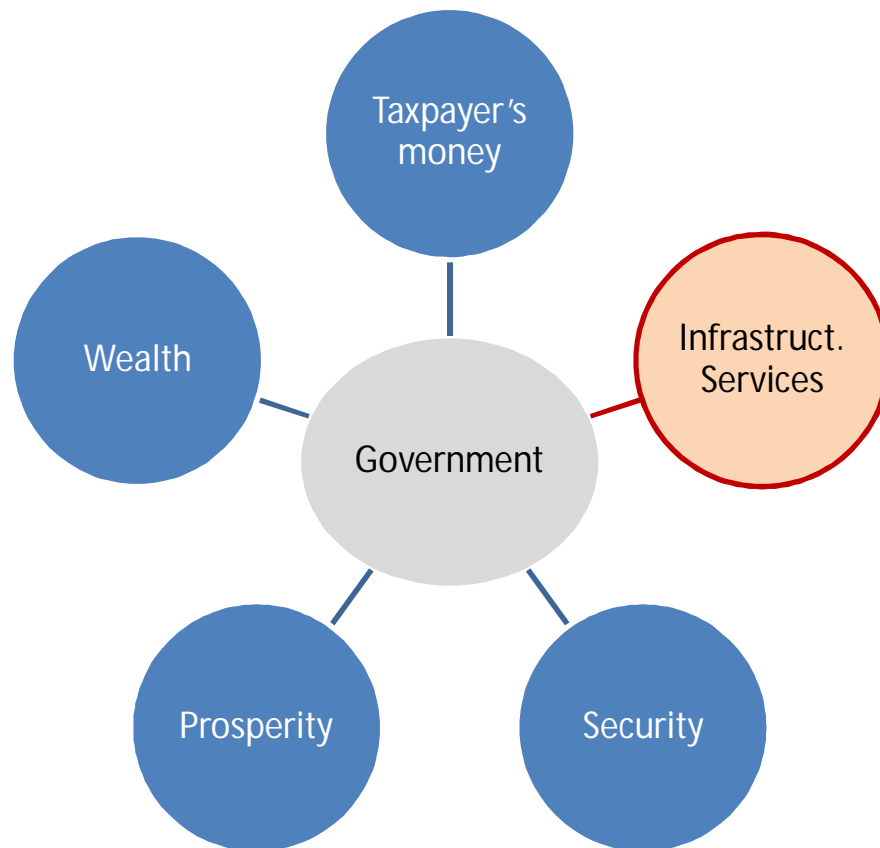
Public sector

- Construction cost overruns
- Public work contracts cost significantly more than expected, usually without compliance with deadlines

Governments focus on their main tasks



Several tasks to perform



→ Requires a more active and commercially driven approach

→ **What should the government do?**

The focus should be the supervision and contract management

Effective and Dynamic Management



Commercially driven approach

Effective and dynamic management





MAIN PITFALLS IN PPP USAGE

The main pitfalls



The desire to develop projects without public expenditure

Poorly designed contracts

Projects without a positive NPV

Renegotiation



One price, the one presented by the private partner

- **Without** any **competition** and with **profit margins** above the competitive market

Abusive behavior by lowballing their offers to **predatory levels**

- Expect to reach **desirable** levels of **profitability** through **renegotiations**

Higher Cost of Capital



PPP projects - **total** or **partial** financing

Private financing



- **Risk exposure** to an individual (or a limited group of individuals).
- **More risky** from the perspective of the capital borrowing market.

Public financing

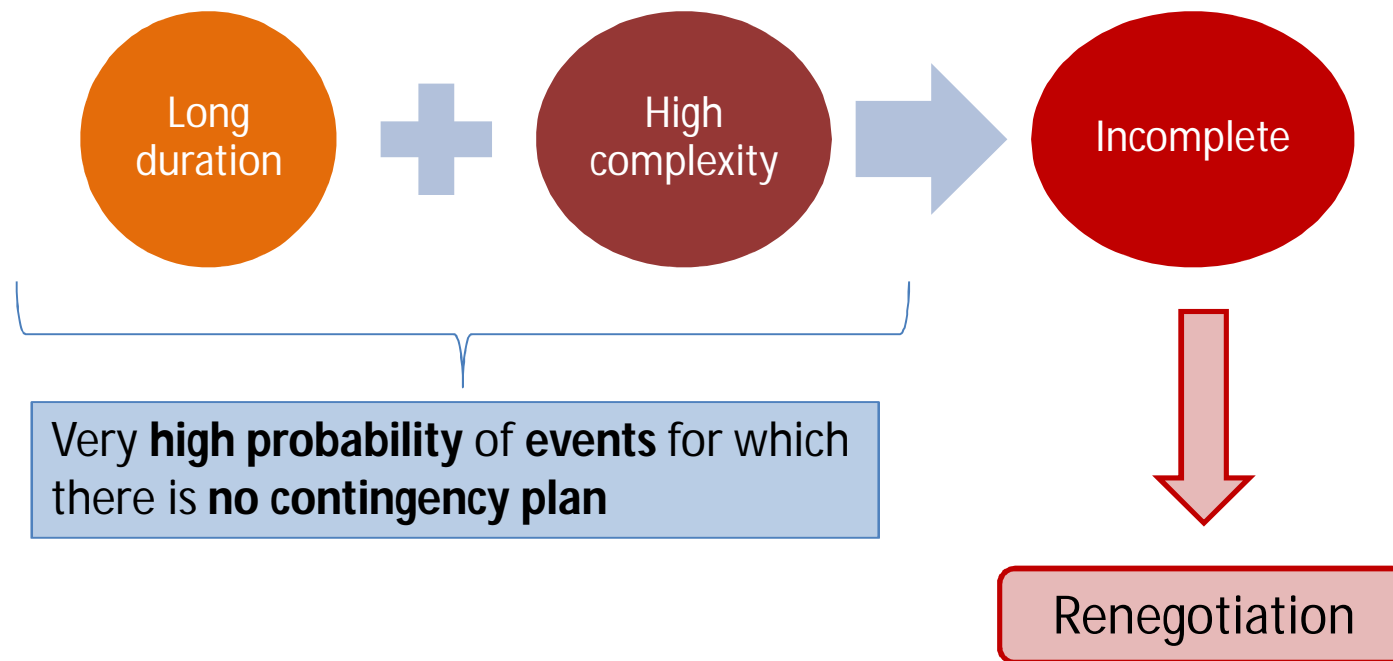


- **Public debt**, the risk is **spread** over the entire **society**.
- Usually **perpetuity**, with the **debt** being **rolled over**.

Contractual Incompleteness



Main weakness?



Long Term Forecasts



Forecasting → Econometric models



Macroeconomic context

- Operating expenses (OPEX)
- Capital expenses (CAPEX)
- Revenues

Impact on demand? Collection ratio?

Bypass to Public Budgets/Overspending



Rationale for PPP

Higher VfM

Expenditure with PPP projects

- Sunk investments diluted over a long period of time.

Public accounting standards

- PPP expenditures **not accounted** as **public debt**. **Opportunity** for governments to engage in **expenditure without** the proper **accounting**

Abuse of the PPP model to surpass budget constraints

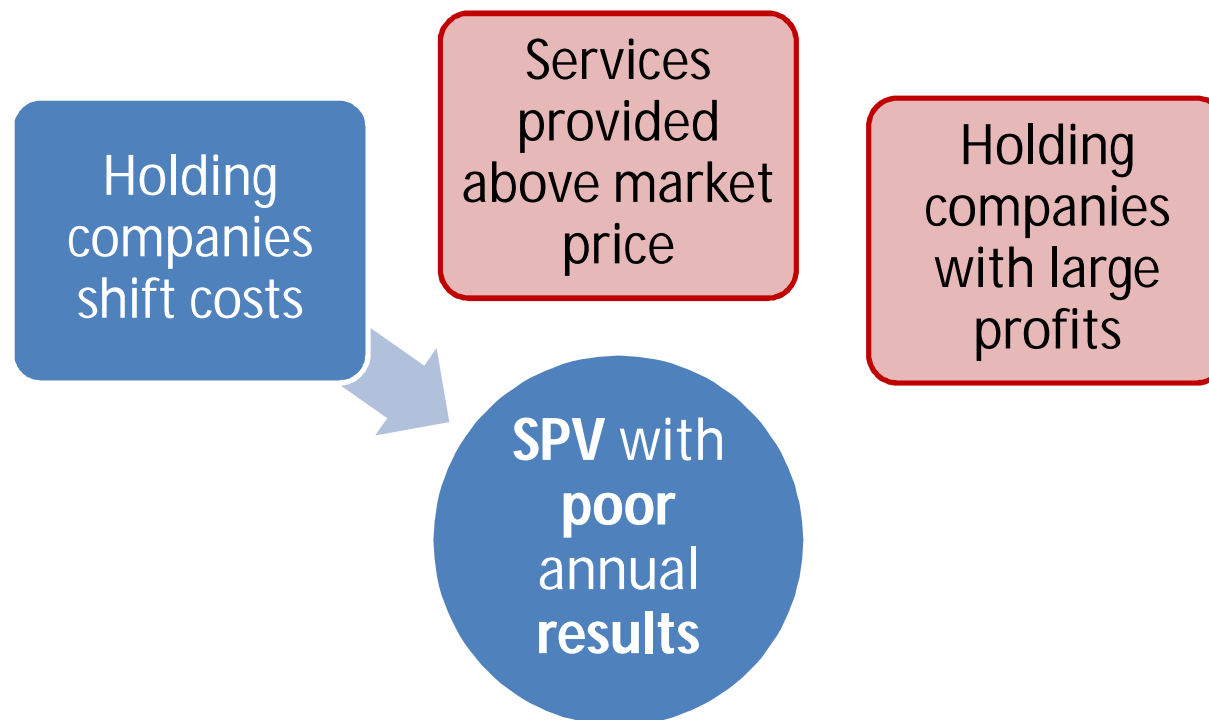


Transference of Costs to Parent Companies



Special purpose vehicle (SPV)

Holding companies shareholders

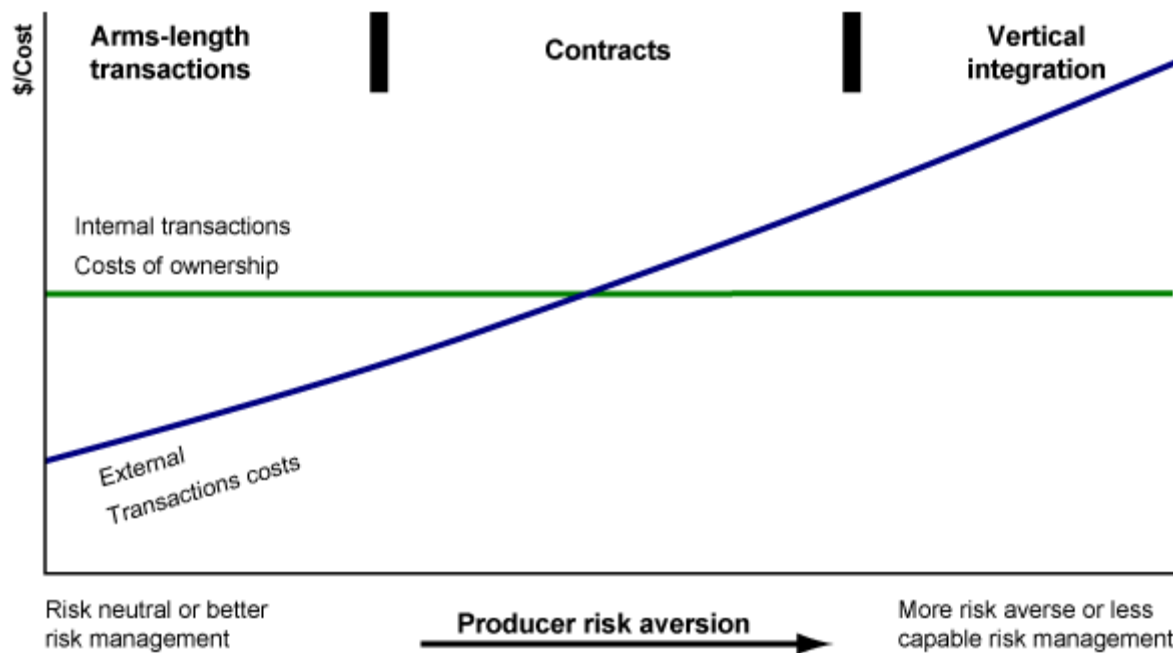


High Transaction Costs



Skilled professionals

Continuous management of the partnerships from the public sector side



May have a **large impact** on **local** PPP arrangements

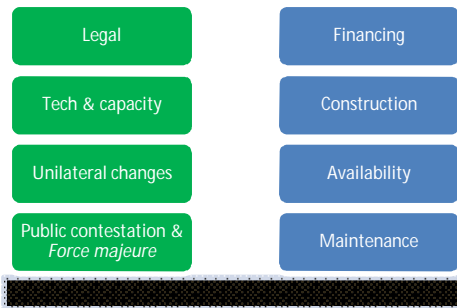
Ineffective and **inefficient** PPP with **negative** long term **consequences** for the public interest

Risk Allocation

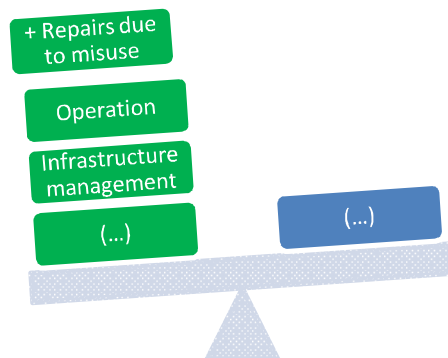


Risk allocation may be one of the biggest **pitfalls!**

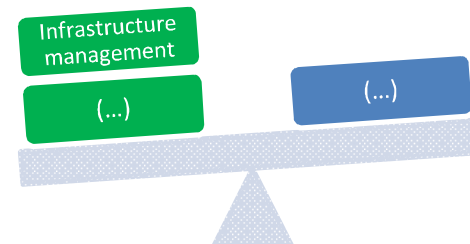
Public Private



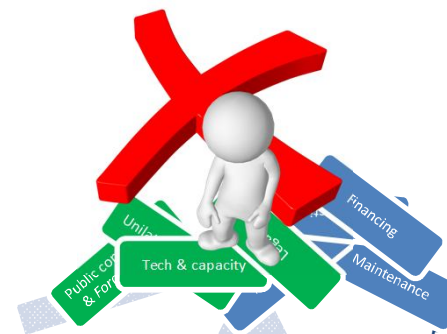
Public Private



Public Private



Public Private



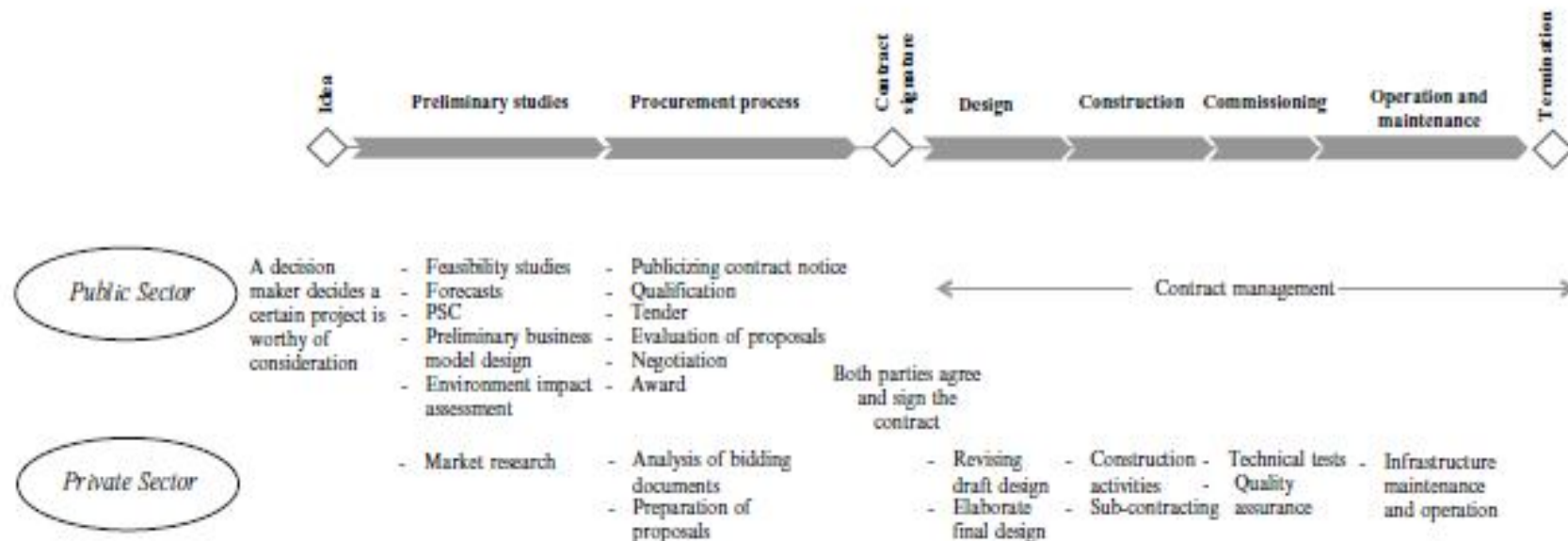


CONTRACT AND RISK MANAGEMENT

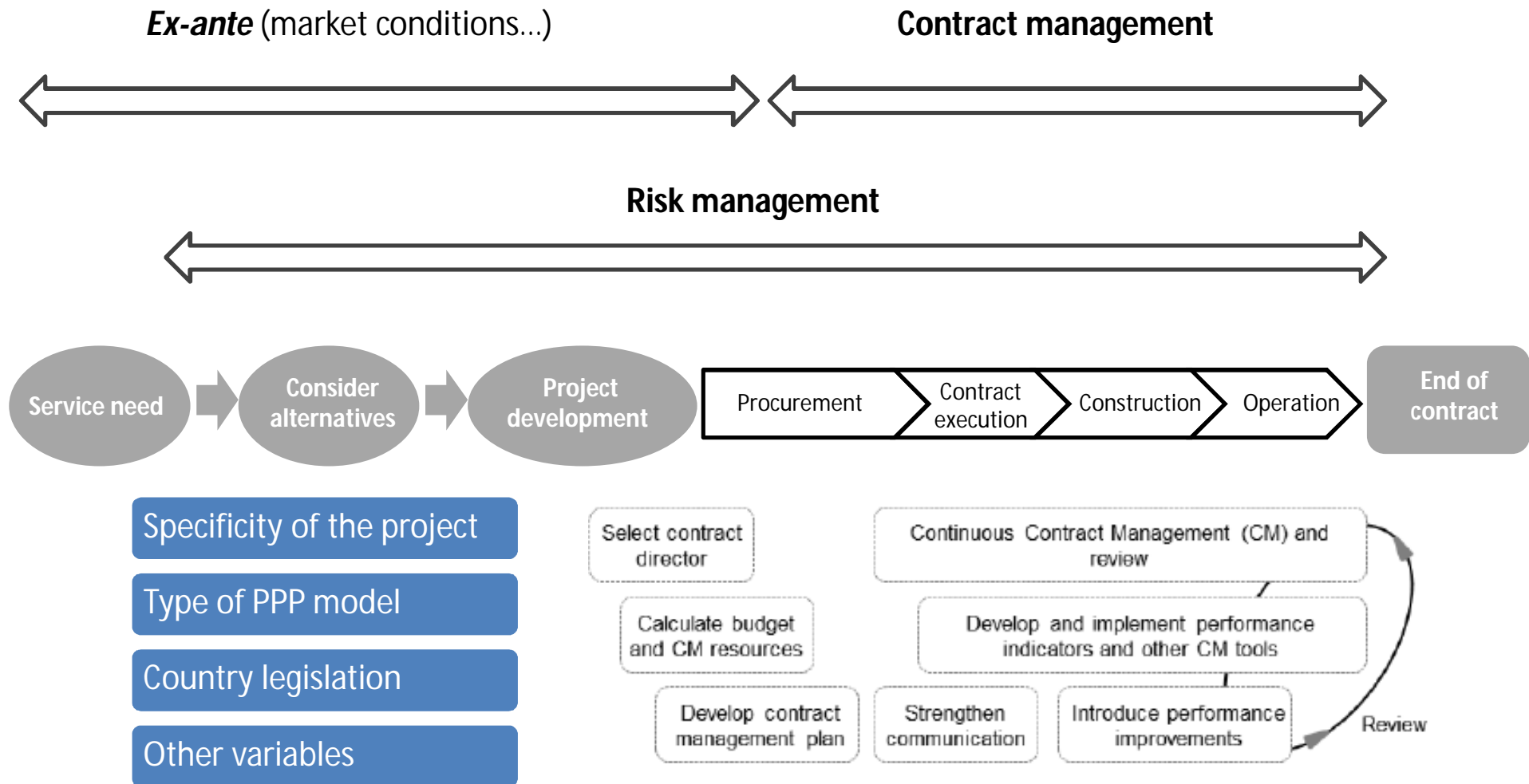
Responsibilities



Public versus private responsibilities in a PPP project **life-cycle** perspective



Contract and risk management



Timeline

Risk in PPPs



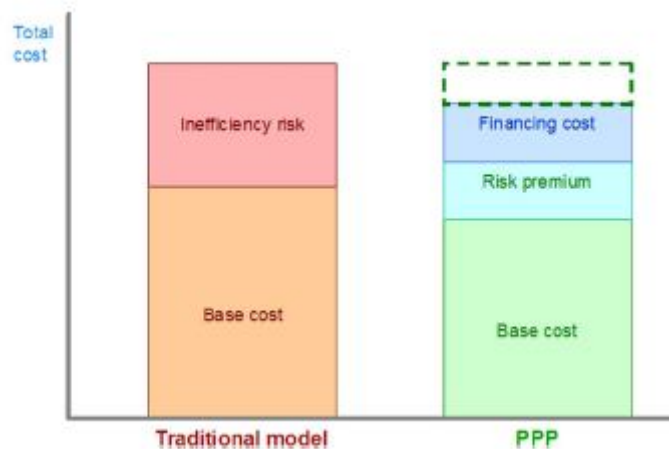
Do **efficient PPP** create value for money when compared to other models?

PPP incentives reduce the base cost

- Private sector can capture residual savings (where the public sector has reduced incentives for cost containment)

Contract-inefficiency risk

- Bad management of some risks by the public sector (such as construction risk) leads to higher costs when municipalities use the traditional infrastructure contracting

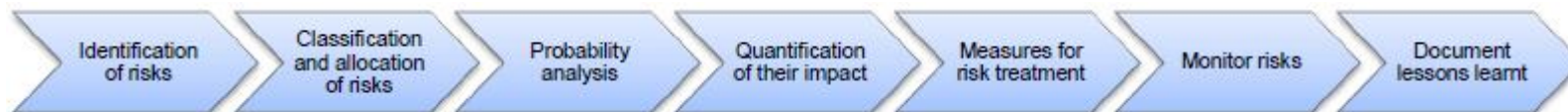
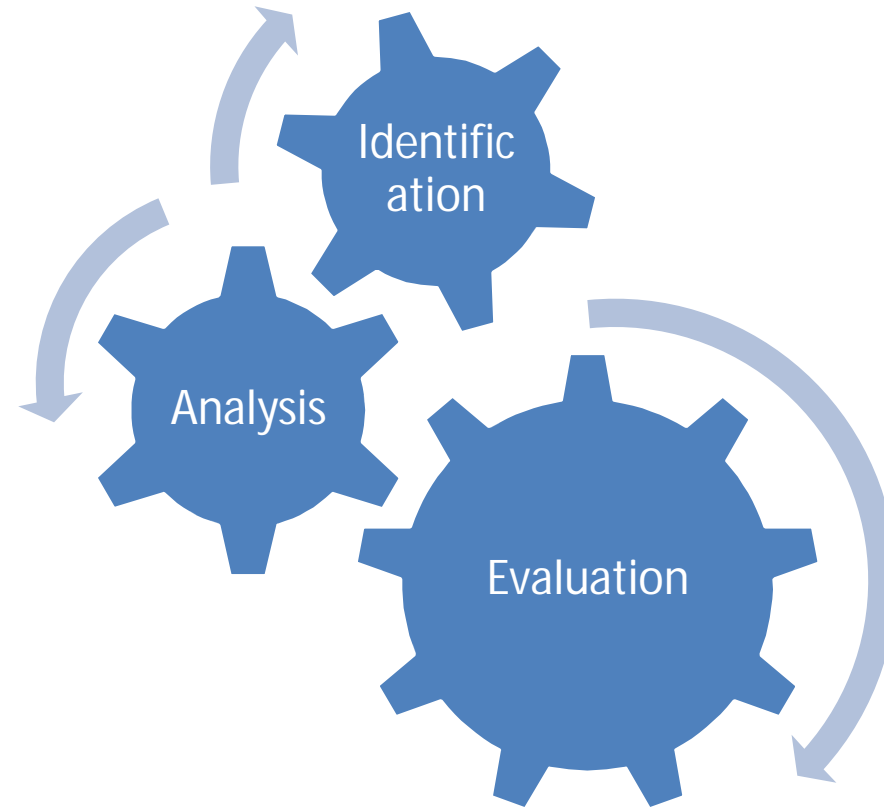
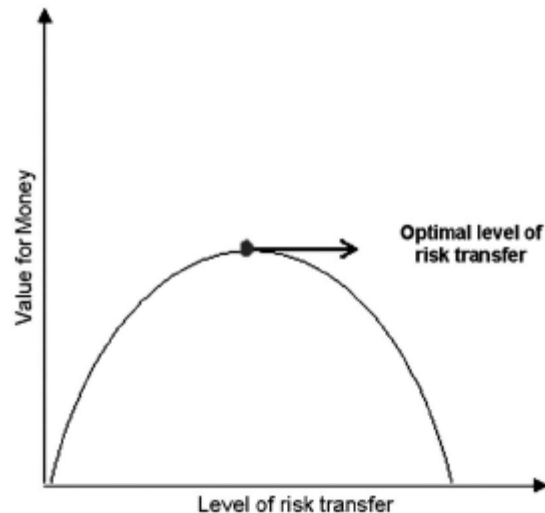


- Who bears the risk? Passed on to customers and taxpayers?
- Not saddled with excessive base costs and there isn't a flawed allocation of risk-derived costs, thanks to improved procurement procedures.

Risk Assessment



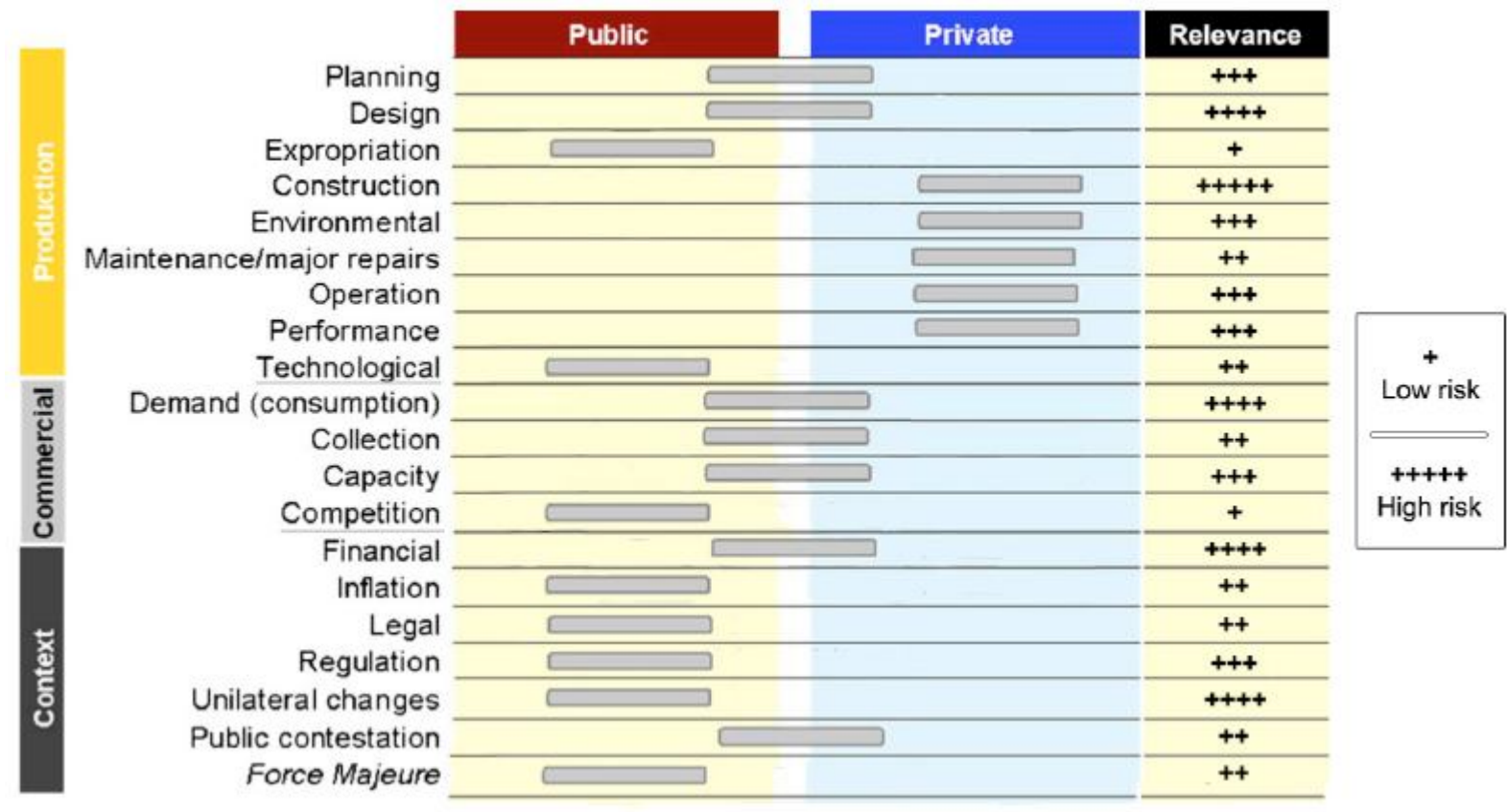
Ignoring risk is
not an option!



Risk Allocation (required solution)



Define risk criteria (relevance) and possible mitigation measures



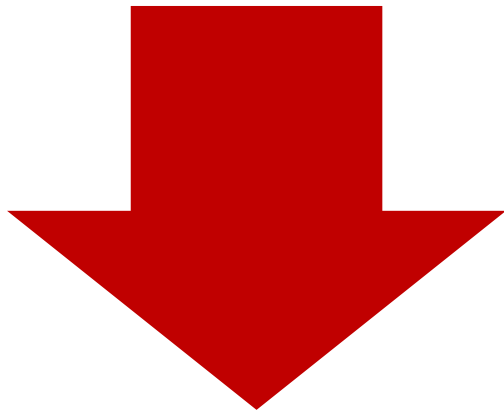


WORLD TREND OF PPP

Trend to adopt or to reverse?



* **Worldwide** trend towards engaging **PPP**



* But there are several **PPP failures**, or partial successes, that led to '**re-municipalization**'!

In Portugal: Water and Wastewater



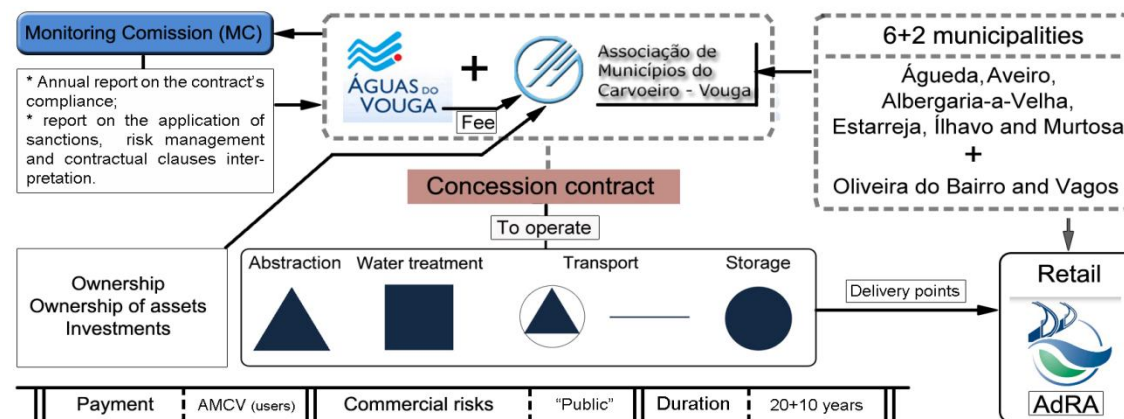
A Portuguese case of cPPP



Renegotiation: + 40.1 million €
Duration: 25 + 5 years
Objective: Full urban water cycle
(mostly retail)

Status: Active!

Another cPPP



Status: Active!

In Romania: Bucharest



Bucharest
APA NOVA Bucuresti
(Water and Wastewater)



PPP details:

- Veolia of France won the bid to operate and maintain the water and sanitation system for 25 years (concession).

Outcomes:

- Long-term strategy for sustainable development;
- Standards and deadlines were set for each indicator so as to significantly improve the quality of the services;
- appr. €70 million investment into modernizing water and sanitation services between 2002 and 2006;
- reduced water losses (the loss was reduced by 44.4%);

Status: Active!

Philippines: Maynilad Water Services (iPPP)



PPP details:

- Manila is a city where two concessions were awarded in 1997, the first to Manila water (a cPPP), and the second to Maynilad Water Services, today (since 2007) an iPPP with DMCI-MPIC *Water consortium* as a shareholder (84% of the shares), for 15 + 15 years.

Outcomes:

- Since 2007 (re-privatization), Maynilad has spent over P30 billion to improve and expand its water services (to more than 8 million people);
- served customers almost doubled (1,162 million connections), and get 24-hour service (today, 98%, in 2006, 32%);
- non-revenue water reduced from 67% in 2007 to just 31.1% at 2014;

Issue: Re-privatization needed due to struggles to meet its service and financial obligations due to financial crisis and natural phenomena.

Status: Active!

In Argentina: The Buenos Aires concession



Aguas Argentinas

PPP details:

- Concession Contract signed in 1993 with a *consortium* led by Suez Lyonnaise de Eaux for 30 years (revoked in 2006).

Outcomes:

- Since 1993, that the need for new infrastructure planned was difficult to comply with, but moderate compliance led it to be considered a success!
- During 2001 an **external macroeconomic shock created an unexpected situation, preventing the compliance of contractual duties.**

In fact,

- Neither the PPP complied with obligations on expansion and quality,
- Neither the government replied to the freeze in tariffs when the Peso depreciated in 2001, substantially reducing the real value of tariff.

Status: Revoked!

Issue: Macro-economic risk and lack of flexibility

In Bolivia: The Cochabamba case



PPP details:

- In 1999, the Bolivian government privatized the water system in Cochabamba by granting a 40-year concession to an international consortium called Aguas del Tunari (headed by Bechtel).

Outcomes:

- Rate structures were immediately modified, which resulted in increases of up to \$20 in water bills for local families, reaching at 25% of some families disposable income.
- Groups gathered in protests (under an alliance known as "La Coordinadora"), which led to an outbreak of violence, leading to arrestments and casualties!

Status: Withdrew!

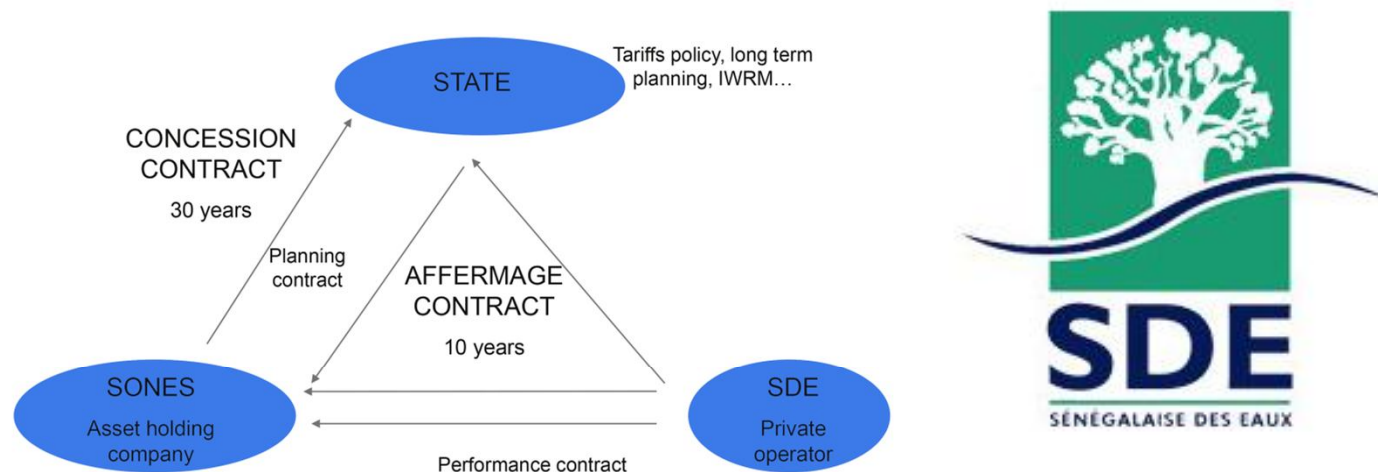
Issue: Public resistance (lack of willingness to pay), no suitable increase in tariffs and no communication.

In Senegal: The sub-Saharan success (?)



PPP details → 10 year affermage renewable for 5 years (april 2011)

Status: Active!



Outcomes:

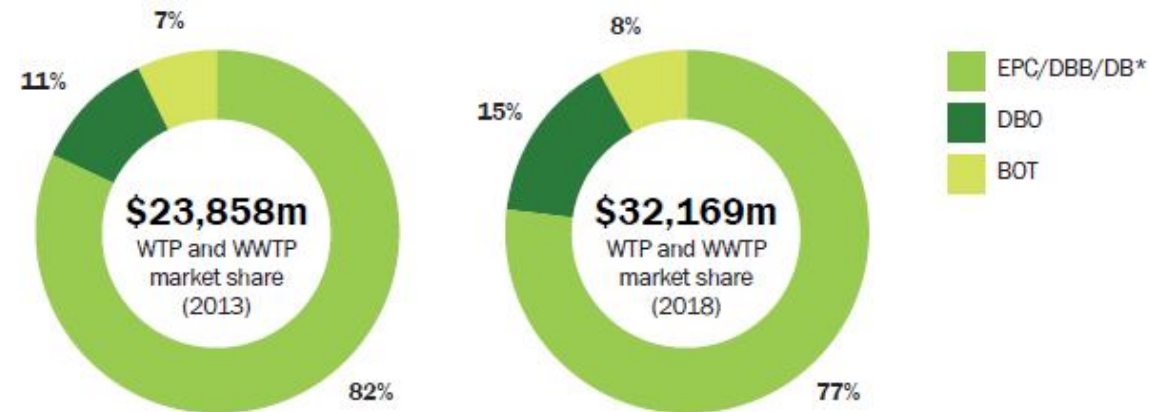
- Public budget constraints vs MGD (**success**)
- Improvements in technical and operational performance (**success**)
- **But someone has to pay at the end! (3T, turned into a problem due to tariffs)**
- Contract renewal with clear advantage given to SDE in the negotiations

Issue: Development of **an inhibiting environment (political will)**, with consequences in tariffs and the regulator (although adapted to the initial local context, it was not independent).

The trend to adopt PSP to parts of the system



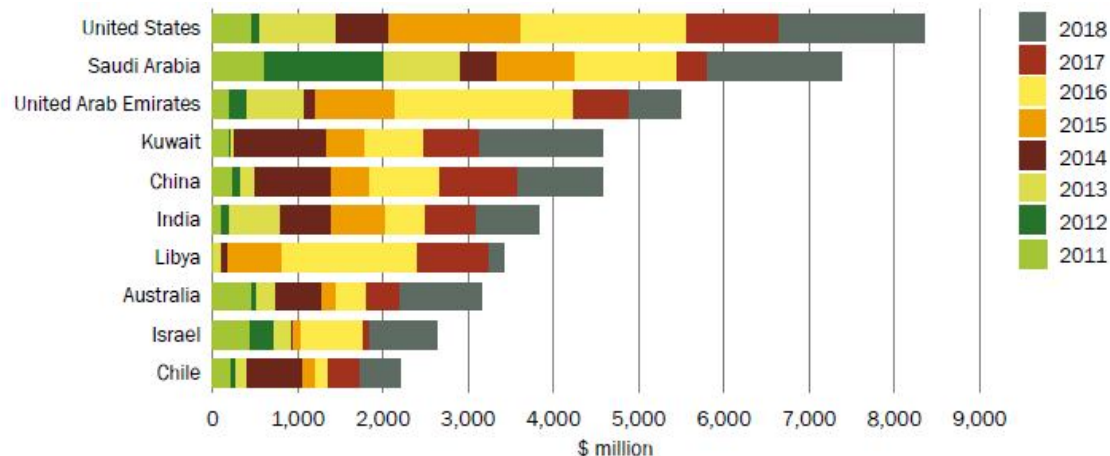
Water and wastewater treatment plant market share



*Includes EPC contracts for privately owned utilities

Source: GWI

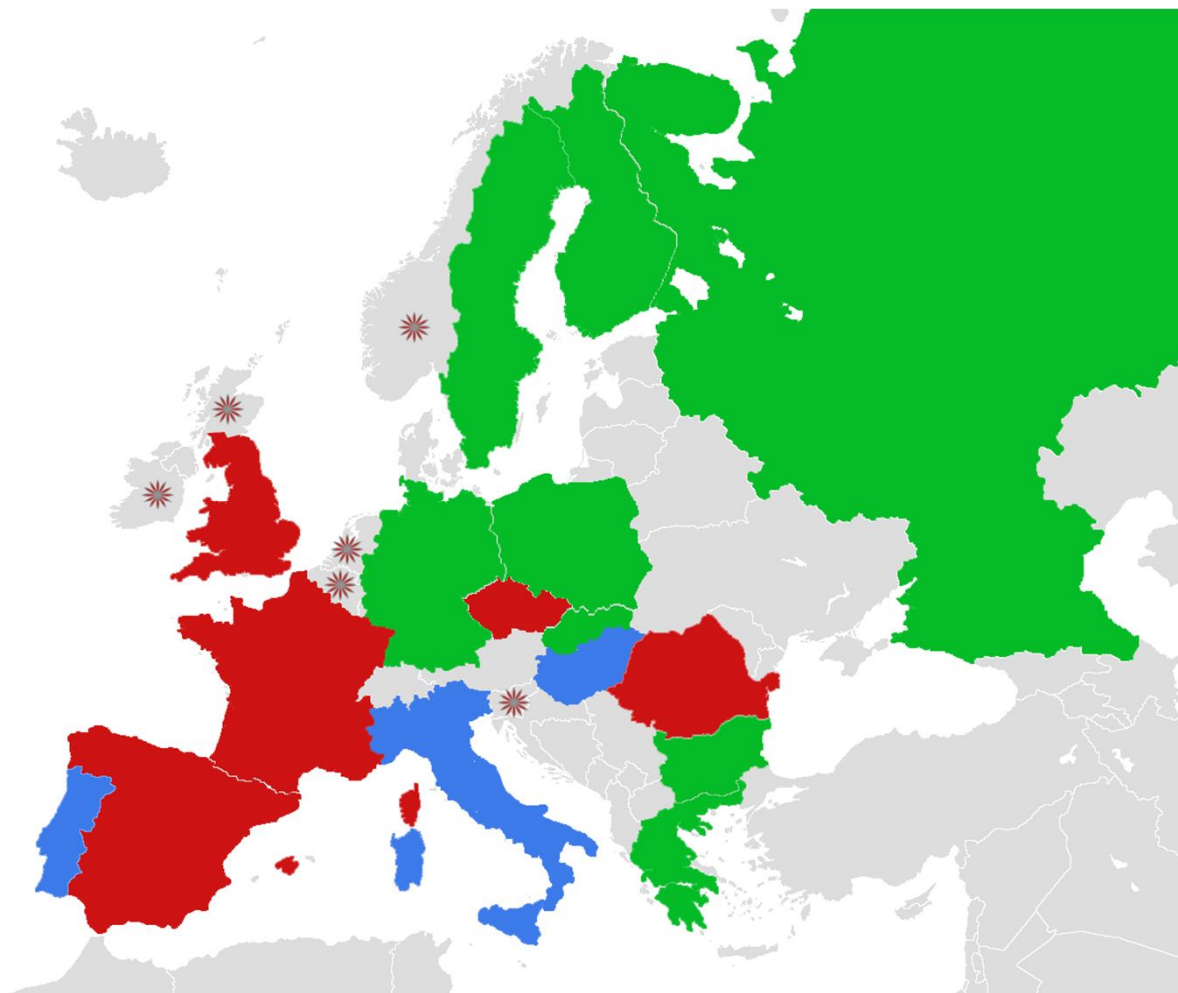
Desalination 'market' possibilities



Source: GWI

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PSP in Europe



Caption:

>50%

[25, 50)

[3, 25)

[0, 3)



- No significant
PSP, but some
contracts exist!



CONCLUDING REMARKS

- There are **several options** for private sector **participation**, all have their **pros** and **cons**; however, there is a requirement to assure that there is an appropriate **private investment**, **duration** of **contract** and **effective risk transfer**!

- Promote **maximum competition** in the **procurement procedure**!

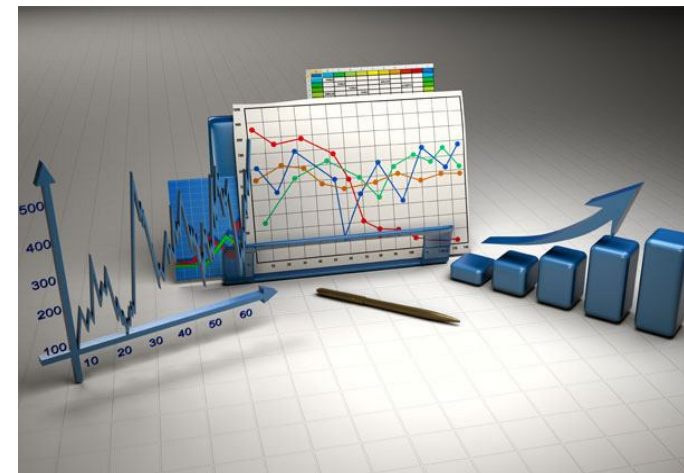


- Assure **political** and **external entities independence**!

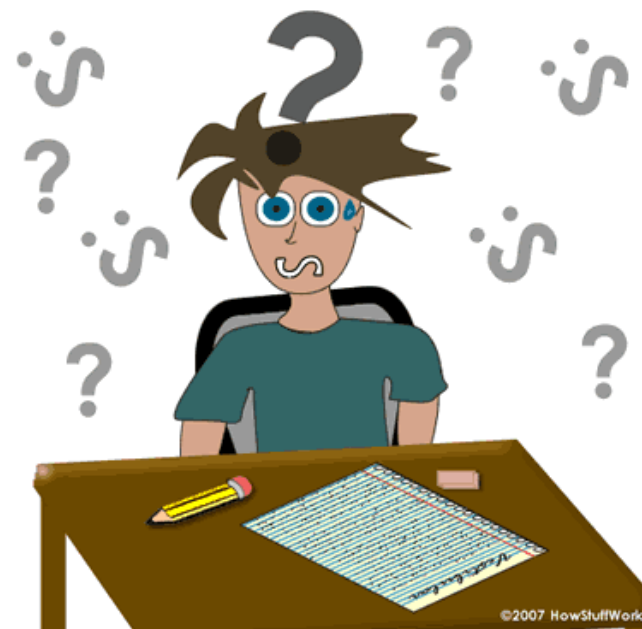


- The **choice** to develop a **PPP** must be based on **solid evidence!** The adoption of **comparative methodologies** should be **mandatory**; since there is **no best solution**, the **one size fits all** concept is an **illusion**.

- There are numerous **cases** of **success** and **failure**, some of the failures were even being successful in the mid term, therefore, it is **paramount** to promote **procedures** and the use of **adequate tools** to assure an effective **risk** and **contract management!**



Questions



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