

Railway PPPs

Trends, PPP Relevant Issues

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Railway PPPs are contentious

Increasing
Trend

Over the last 25 years, 27 PPPs have been awarded in the rail sector – **16 are in Europe** --Rail PPPs are controversial

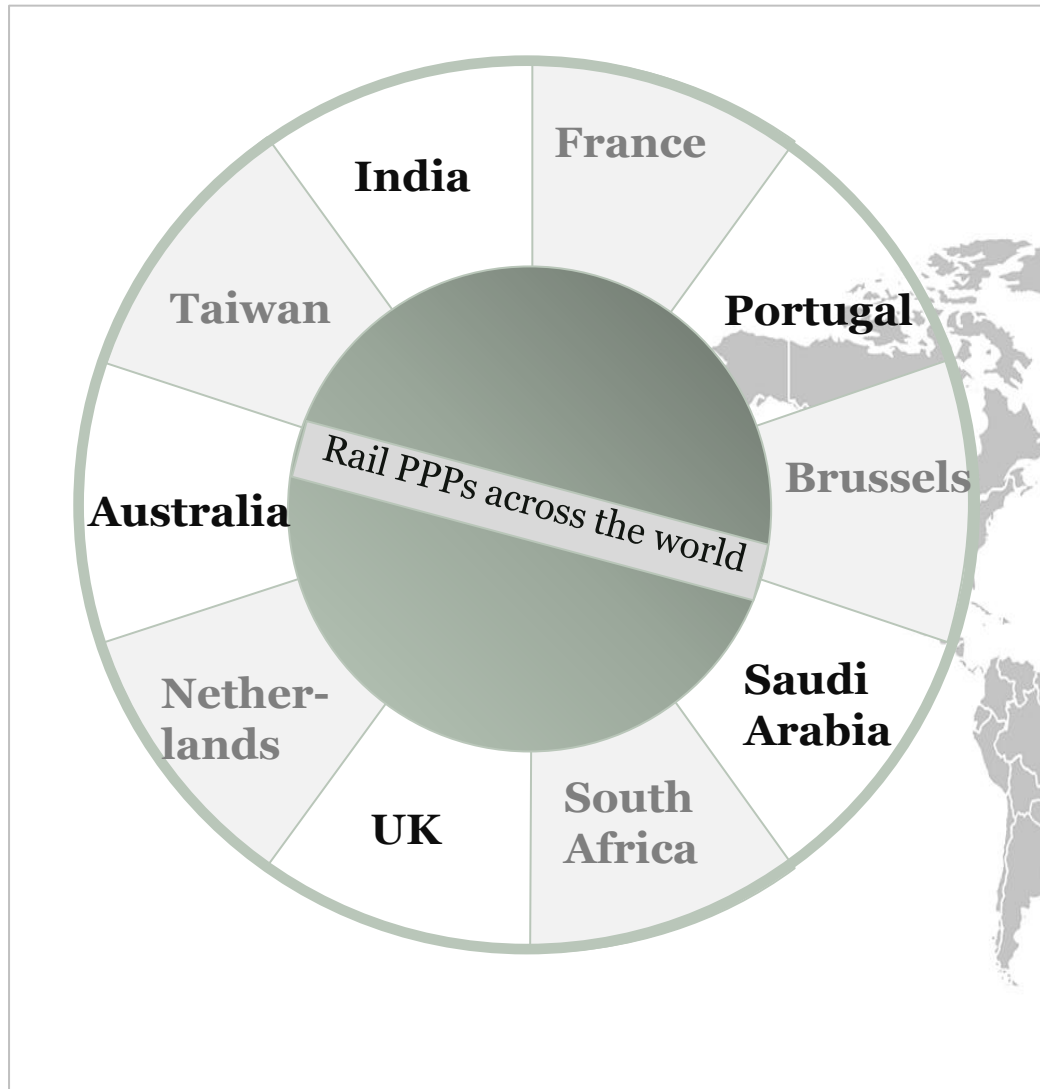
Positive

Some argue that they allowed to fund and build projects that otherwise would have been impossible to launch, or that they fostered innovative systems.

Negative

PPPs are costly to bypass budget constraints that cost more to the taxpayer at the end of the day

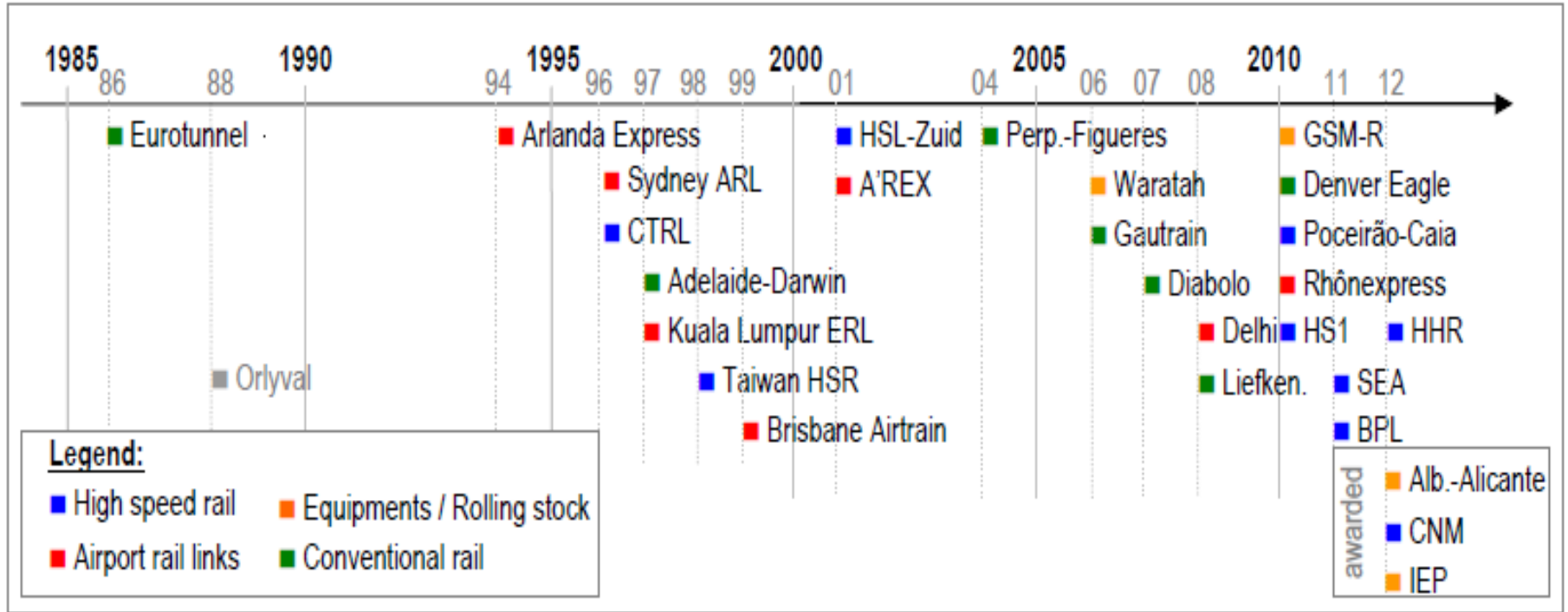
Excerpt of Rail PPPs



PPPs have also been applied to infrastructure rehabilitation, maintenance and operation projects in heavy rail (Chile, Mozambique) and metro (London underground)

These PPPs rather involve limited investments and scope is smaller than the large PPPs listed to the left.

Overview of Rail PPPs



Source: PPPs in the rail sector - A review of 27 projects, Julien Dehornoy, SNCF French National Railways, April 2012

7 PPPs Airport Links

Construction & Operation of Infrastructure and dedicated Trains

Delhi ARL is the only one with new network

9 PPPs High Speed Lines

Infrastructure PPPs to connect both ends with conventional networks with open access to operator -8 are in Europe

4 PPPs Equipment & Rolling Stock

Focus on optimizing life cycle costs for sub systems such as signalling (GSM-R), power supply and train control (Alb.Alicante) or rolling stock (Waratah)

7 PPPs Conventional Lines

Less complex technically (Eurotunnel, Perp. Figueres); Also applied to freight corridors (Adel.-Darwin, Liefkenshoek) or to get expertise in markets (Gautrain, Denver Eagle)

What are Rail PPPs?

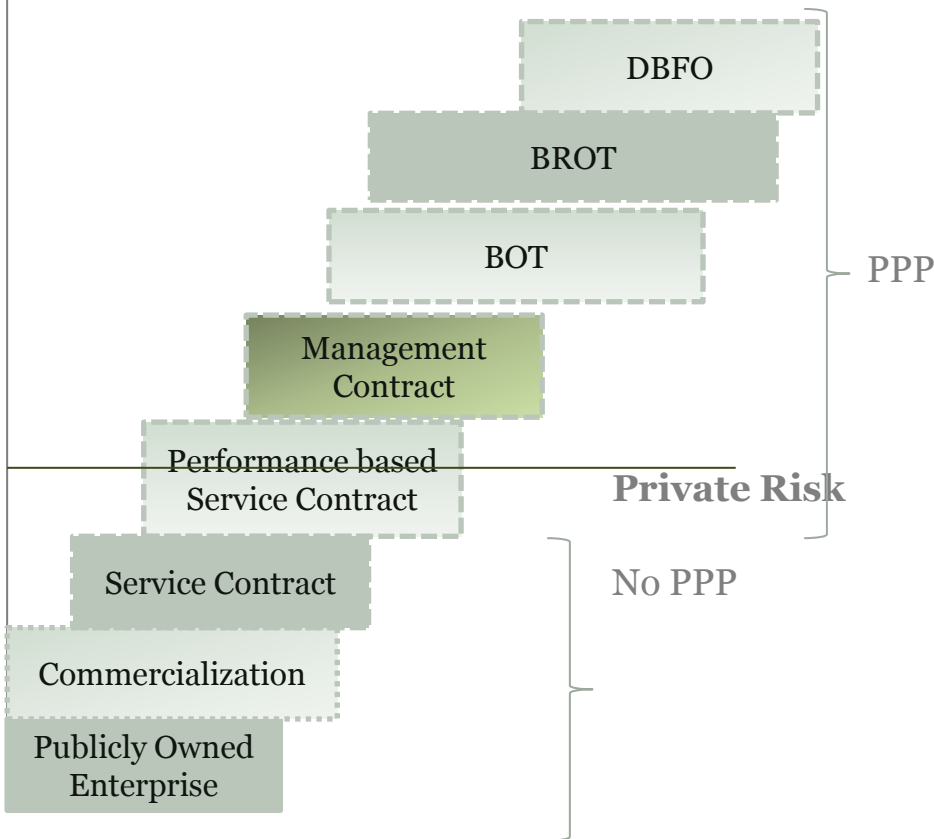
The term PPP is not well-defined = confusion in the minds of practitioners:

Are often wrongly perceived as modes of partnerships:

- ✓ General cooperation between public and private sector
- ✓ Privatizations
- ✓ Sub-Contracting

A Common Definition of PPP

Level of Private Involvement



Key Drivers

- Consistent political commitment
- Availability of affordable debt
- Macroeconomic condition
- Investment climate

- Institutional and legal framework
- Capacity and expertise to deal with complexity of PPPs in a country

- PPP investment must render VfM
- Affordability & Risk allocation
- Significant PPP pipeline

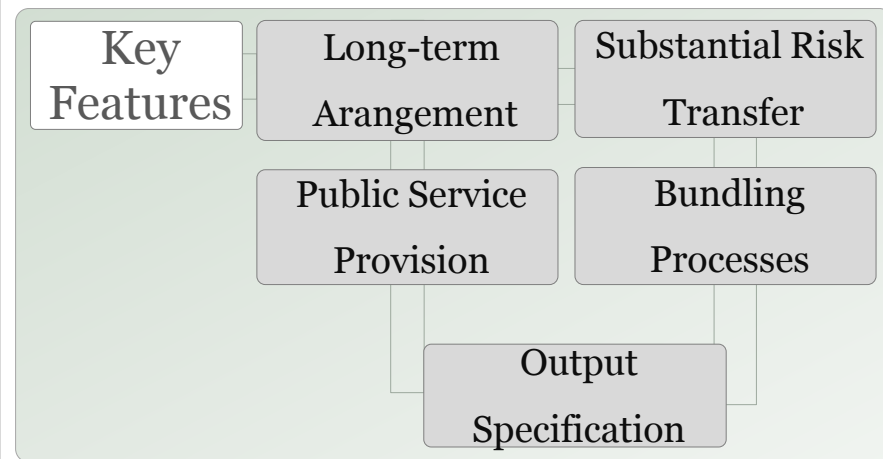
Key Features of a Rail PPP

✓ Contract is awarded or signed between a public entity (referred to as public authority) and a private company

✓ Design, construction, operation, maintenance of specific material assets (conventional rail system (including high-speed rail) or any sub-system (track, signaling, rolling stock, etc.) excluding light rail, metro, people movers

✓ Private sector finances the asset including debt and equity, but may receive initial subsidies or ongoing fees from the public authority over the asset's lifetime

✓ Risk sharing although private sector bears risks of construction, financing, operation and maintenance costs, but may or may not bear risks related to commercial revenues.



Rail PPPs need high Direct Funding – National or EU grants (“blending”)

Positive Externalities of Railways and Long payback periods and long life-times!

Typically 40-60 years

Track Access Charges

Contrary to the road sector, infrastructure user charges are **systematic in the** rail sector

May be differentiated by market segment, where the charge is topped up with mark-ups “that the market can bear”

May include a scarcity / congestion charge

May be used for additional price signals (e.g. noise, ETCS)

Regulation under EU law (2001/14/EC)

Non-discriminatory

Related to wear-and-tear

Distance-based and tonnage-based

Base level is the “cost directly incurred” (~ short-run marginal cost)

Most rail PPPs are of the DBFM type, Design-Build-Finance Maintain

➔ **Availability based payment; traffic risks borne by public sector; the Public sector receives revenue from the track access charges; remuneration based on making the capacity available, plus other selected quality goals**

A minority are Build-Operate-Transfer (BOT-Types)

➔ **Traffic risk borne by the private partner who obtains the revenue from track access charges plus (possibly) some quality goals, including availability**

Experience: Tours-Bordeaux (HSL SEA) and Stockholm-Arlanda

For high-speed, quite often **state co-funding around 40%-60% of** investment costs

Areas for Rail PPP

Infrastructure

- Freight lines
- Metro lines
- High speed lines
- Terminals
- Multi modal logistic parks
- Production units

Services

- Hospitality & tourism
- Catering
- Preservation of heritage
- All on board services

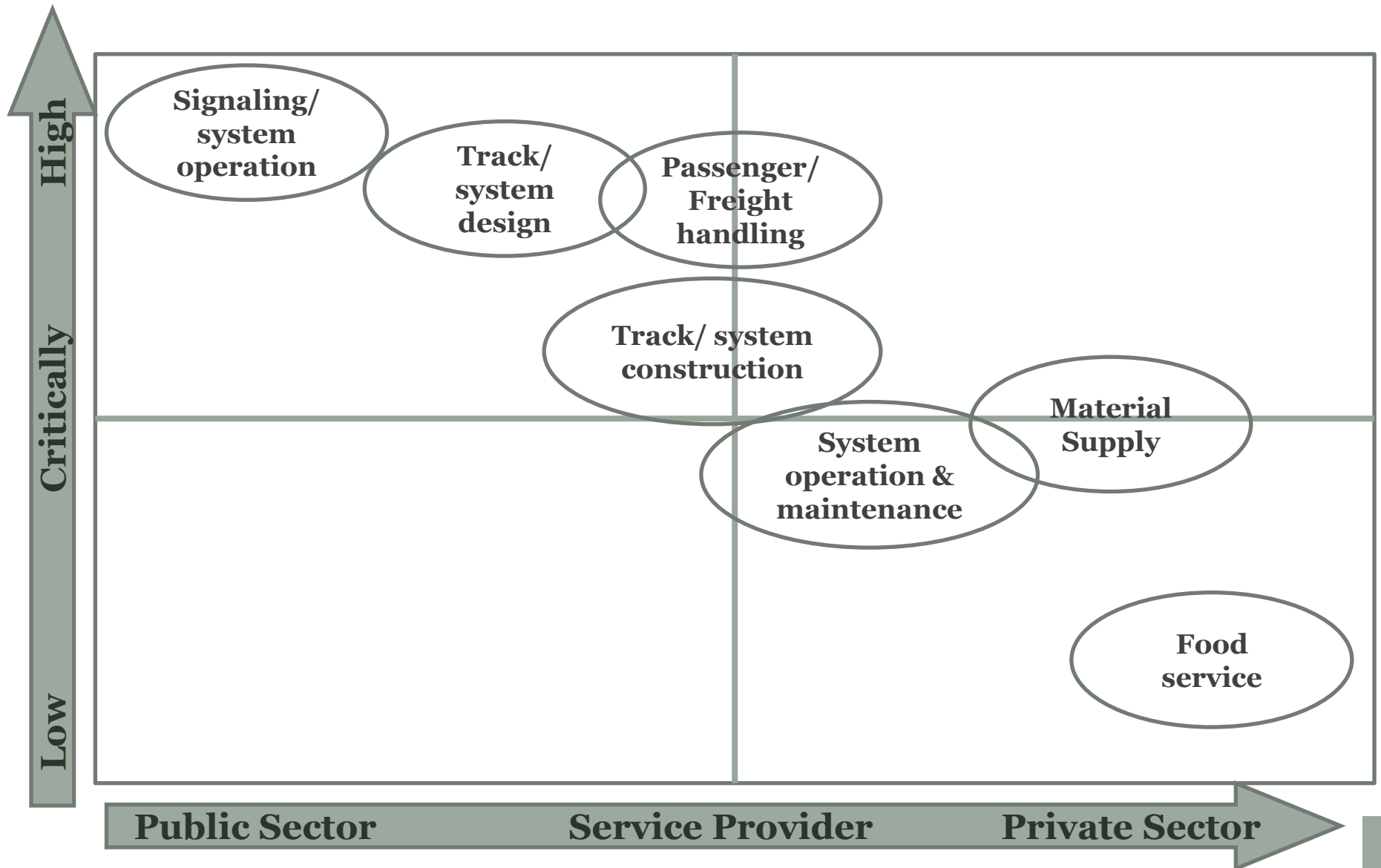
Operations

- Container trains
- Passenger high end services
- Terminal operations



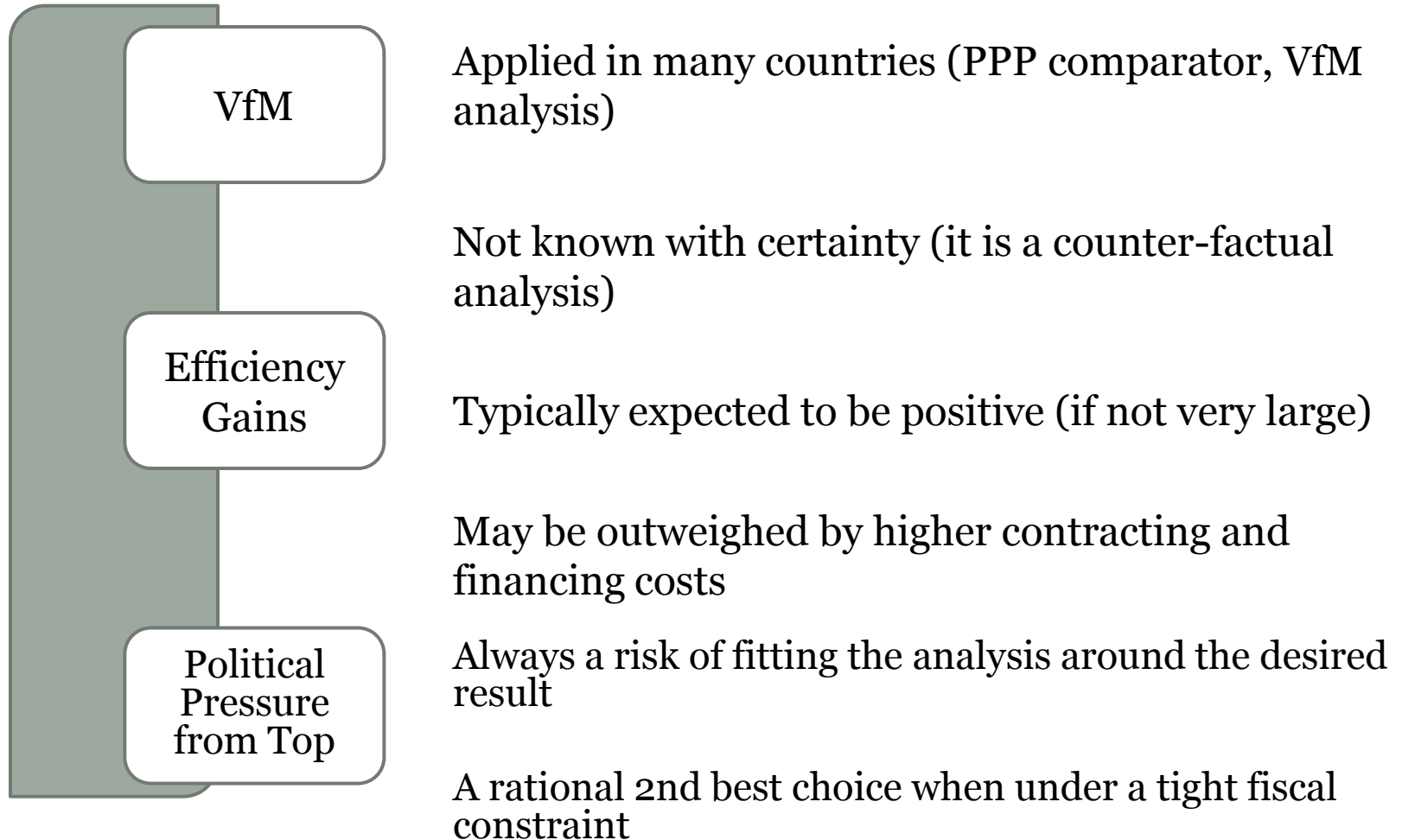
Source: www.db.de

PPP model via an Analysis of Application



Typical Rail PPP Drivers

Justified if more cost-effective and/or faster/better delivery at same cost



Allocation of the Risk

	Public	Shared	Private
Project Management			○
Design			○
Administrative permits			○
Construction			○
Risk of soil			○
Operation/ Maintenance			○
Land Acquisition			○
Quality and Service			○
Commercial/ traffic risk			○
Infrastructure renewal			○
Technological evolution		○	
Change in Law		○	
Unforeseen Changes		○	
Litigation risk against contract	○		

Key Drivers for Rail PPPs

Changing Environment

Higher economic growth in Asia

Population growth

Higher urbanisation

Environment issues

Need for Efficiency & Costs

Reducing costs of labour and O&M

Better Asset utilization

Safety and reliability

Reducing time and cost overrun

Need for Private Capital

Reducing Government financial support

Need for growth in infrastructure

Interest of private investors/ Strategic Investors

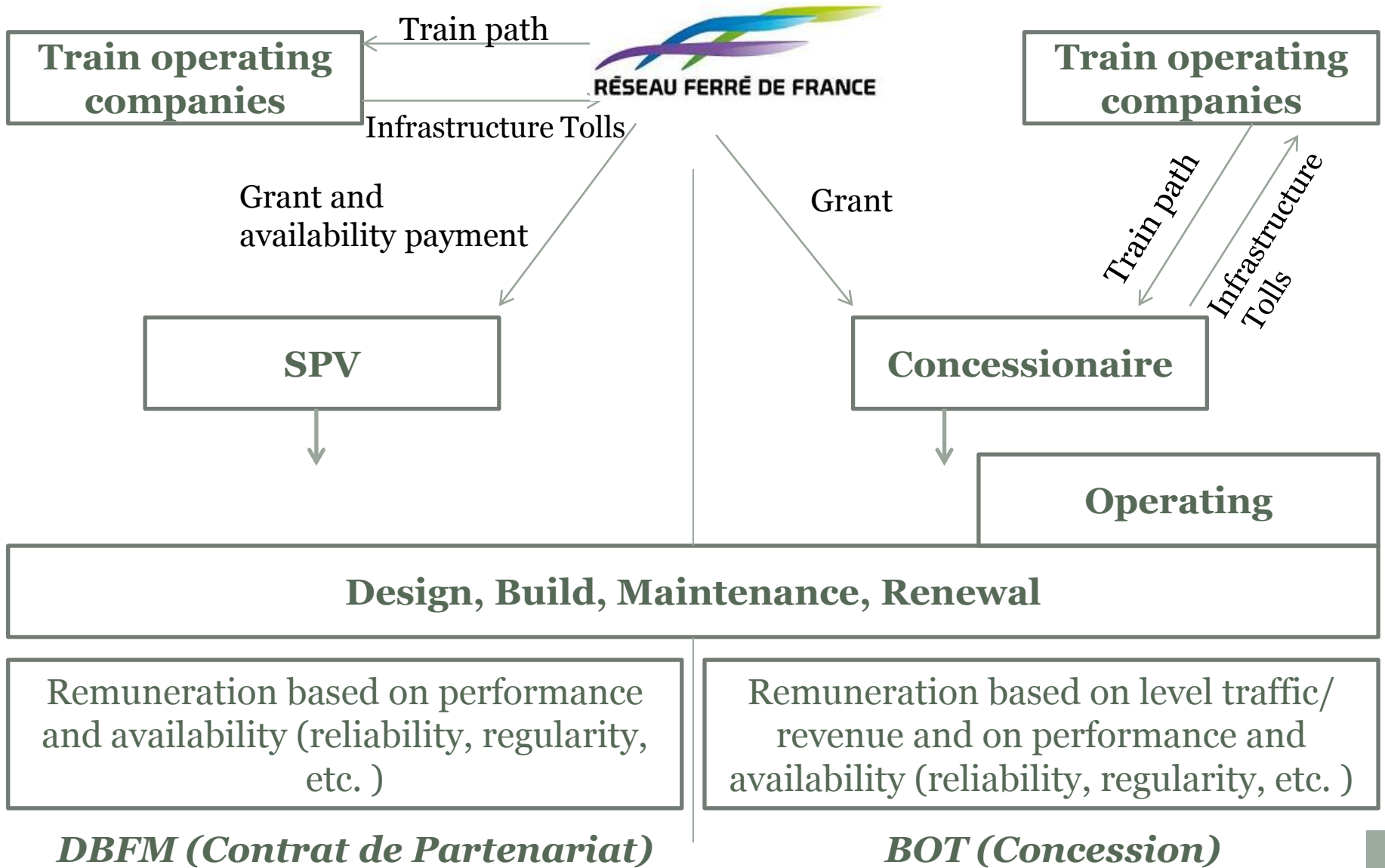
Need for Quality & Innovation

Growing customer expectations

New technology and modernization

Providing seamless logistic solutions

Two Schemes for Railways in France



Advantages

Respect of delays and costs : Project on time and on budget;
lump sum contract

Bundling of asset construction and operation ;

Life cycle cost (LCC) optimization

Risk allocation

Performance based

Brownfield risk : extension of existing network



Disadvantages

Financial costs (mainly after financial crisis) -
club deal vs syndication
liquidity issues : limited final take
rising of commercial bank margins and
fees (*project finance debt from 70 bps
to 250 bps and more*)

Reduction in number of financial institutions active in the market

Shorter maturities of bank lending :
from 35 years to 10-15 years, not
covering entire project life (except public banks)

Transaction costs

Widening gap between the “private” WACC and the cost of public debt

Complexity of interfaces with the existing network (connections, systems)

In other sectors PPP project:

implementation gives control to private concessionaire over design, construction, maintenance, operation & revenue collection

Reasonable control over business with non-competing facilities

Facilities are generally standalone

In Railways , rail connectivity is a part of the network with train operation being a network activity. By policy IR is the only train operator

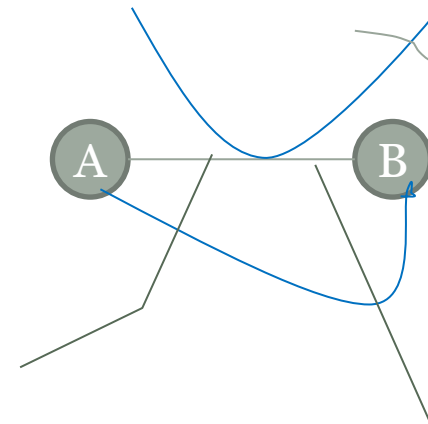
Private Operation on IR network not permissible

Maintenance on passenger intensive lines generally not given to concessionaire on safety issues

Tariff freedom cannot be given

Competing facilities can enhance traffic risk

Shortage of rolling stock or congestion on IR network will impact project viability



Thank you for your Attention

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