

# SABOA 2017 ANNUAL CONFERENCE

## Options to reduce the cost of public transport contracting

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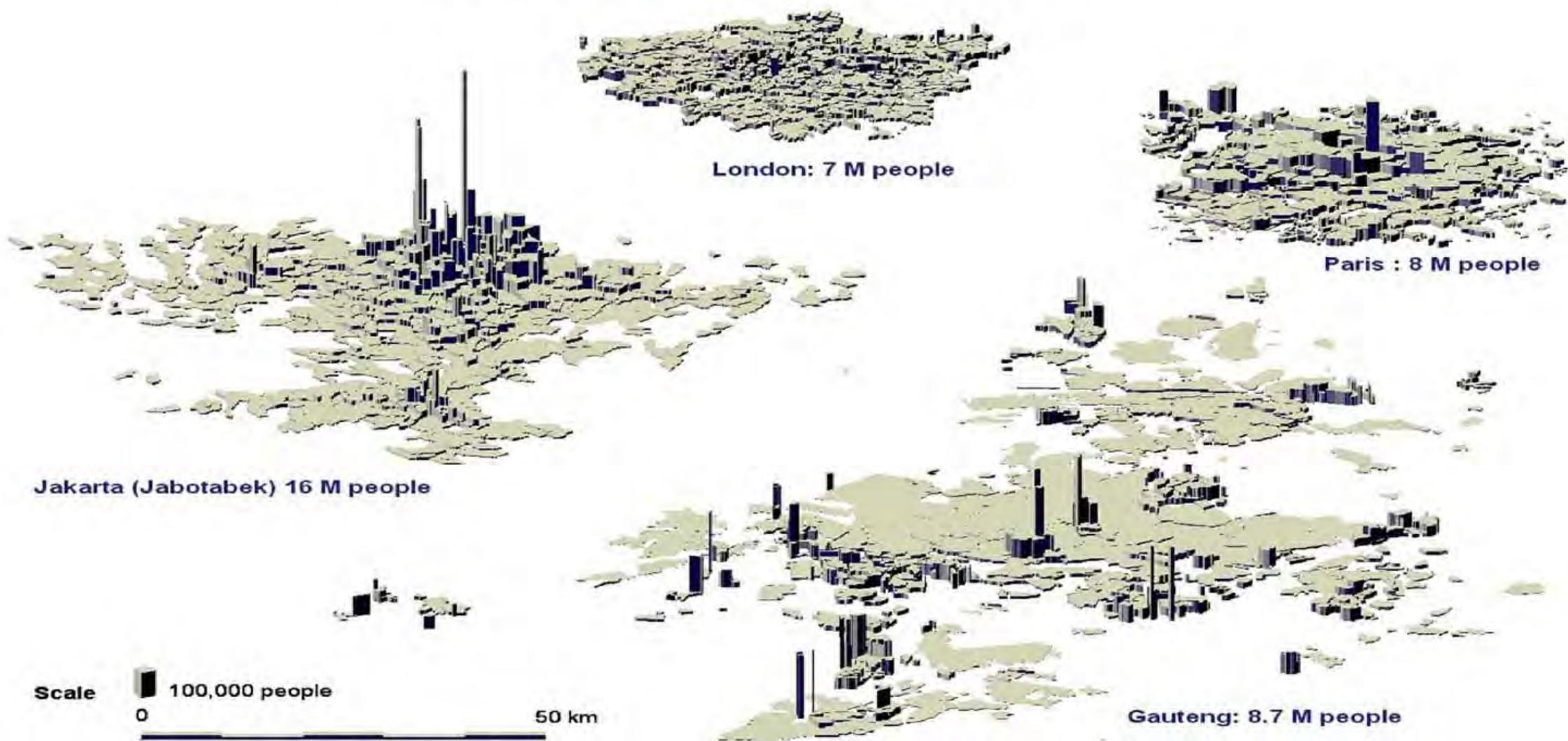
# Purpose of the overview

**This presentation is a high level overview** –strategic in nature and not necessarily realisable in the short to medium term

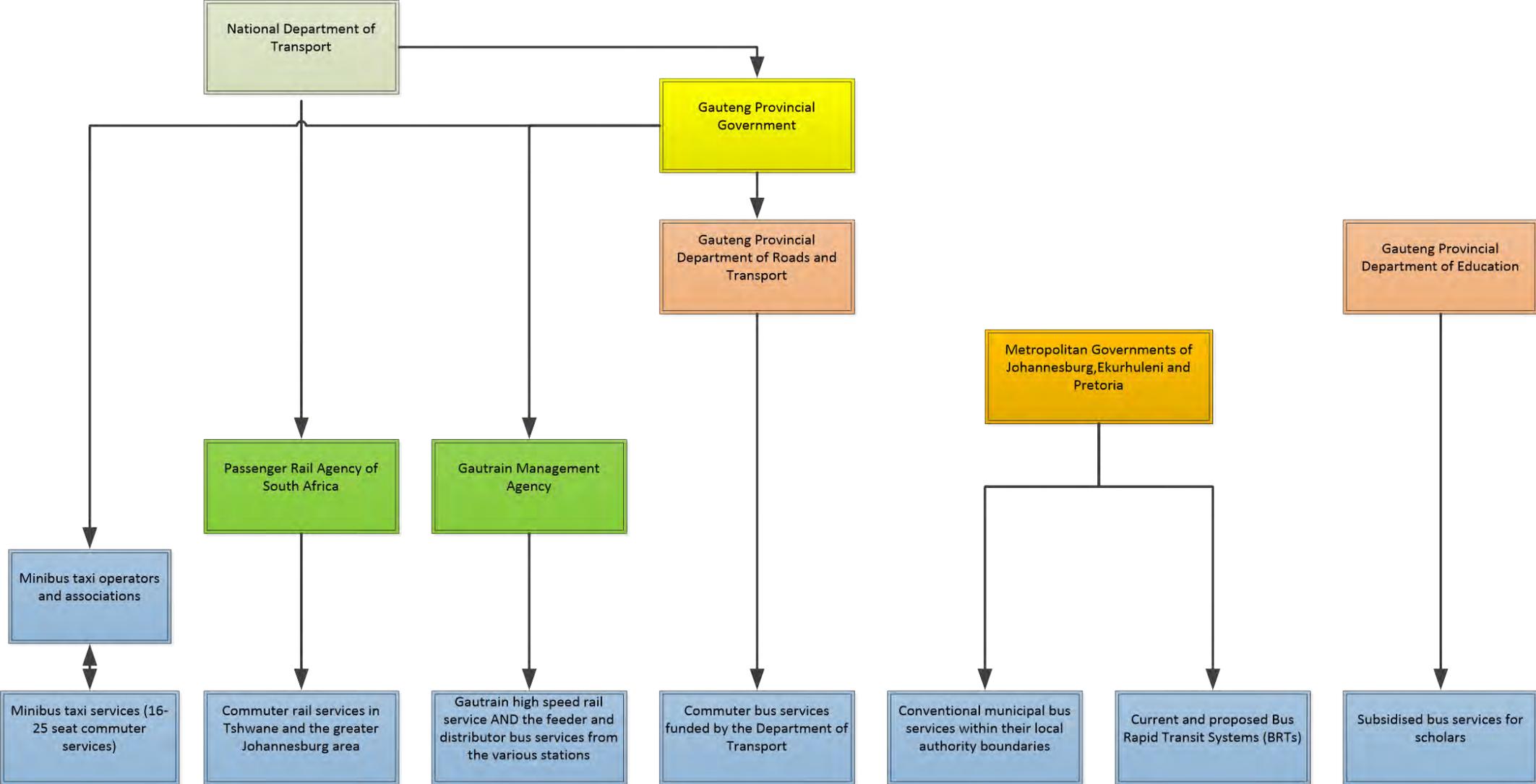
# Current public transport planning and funding

- **Current PT planning is highly fragmented and un-coordinated** – numerous institutional structures are involved, each with its own requirements of the modes of transport that it oversees
- **Current PT funding is highly fragmented and un-coordinated** with each funding stream dedicated to a specific mode of transport
- **The majority of the public experience a lack of integration of services and poor service delivery** – unless you know the system it is extremely difficult to understand and use
- **Quality of service delivery leaves much to be desired** (isolated pockets of excellence – Gautrain, BRTs etc) The remainder of services are problematic

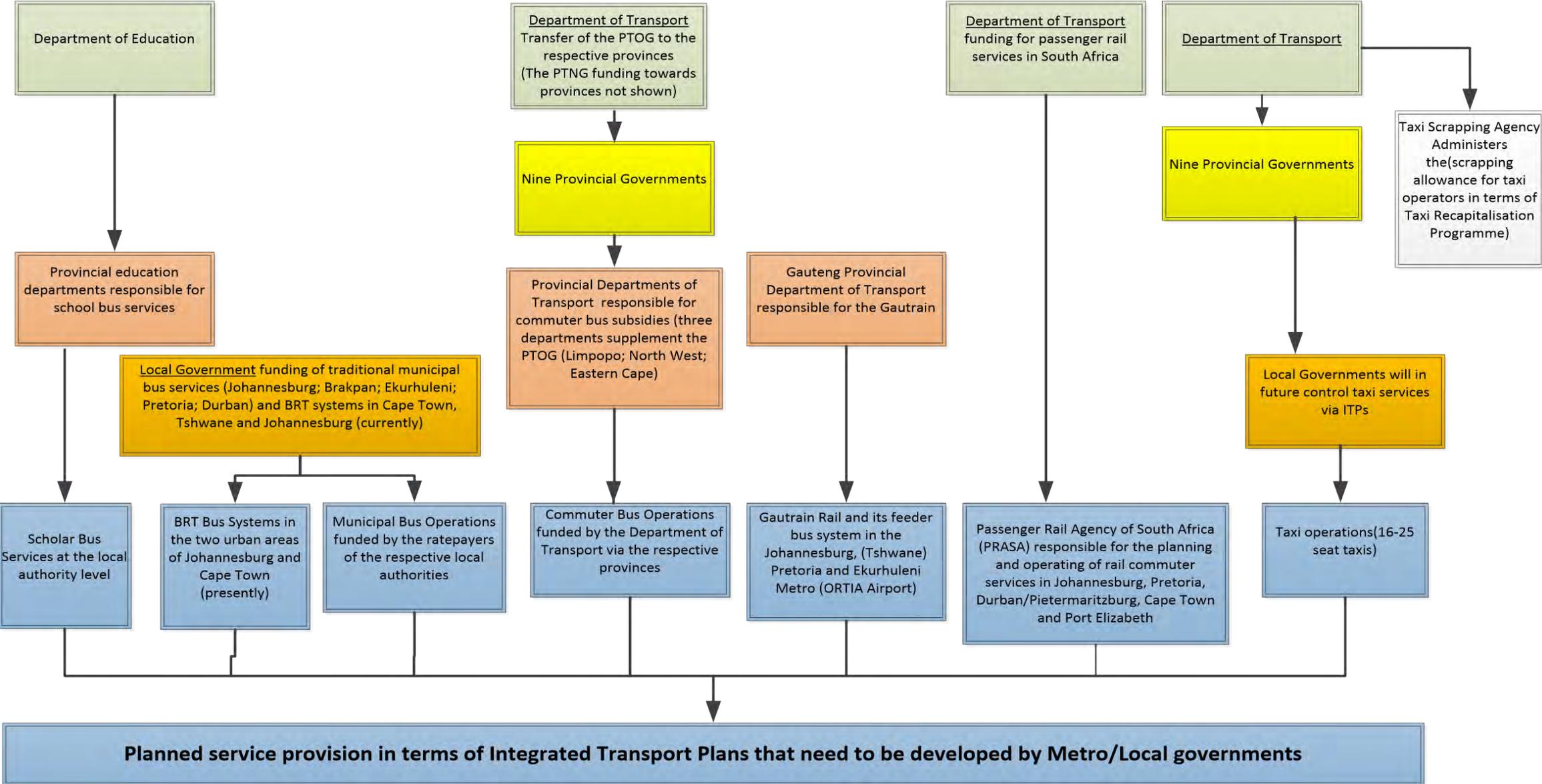
## Spatial distribution of population in Gauteng (2001 census) compared to Jakarta, London and Paris



# Institutions involved in managing and planning public transport in the Gauteng Province



# Institutions involved in funding public transport in South Africa



# Current operational and capital spending on PT in SA

Funding source	Year	Amount (R)
Public Transport Operations Grant (PTOG) (DoT transfer payment) *	2016/17	5 400 292 000
Public Transport Network Grant (PTNG)*	2016/17	5 592 691 000
Taxi Recap Programme (TRP) (DoT transfer payment) **	2015/16	248 325 000
Provincial Bus Subsidies ***	2015/16	1 181 172 000
Scholar subsidies *	2012/13	1 255 501 325
Passenger Rail Agency of South Africa (Ltd) (PRASA) (DoT transfer payment) ***	2014/15	<b>Operating</b> 3 887 000 000 <b>Capital</b> 11 857 000 000
Gautrain **** (Includes an estimated R900m in capital costs)	2016/17	1 800 000 000
<b>Total</b>		<b>31 221 981 325</b>

\*DORA 2016; \*\*Department of Transport; \*\*\* Integrated Public Transport Turnaround Plan V5; \*\*\*\* \*Vote 9 – Roads and Transport Budget Speech, Gauteng Provincial Legislature, 27 May 2016. (Includes about R900 million for additional rolling stock)

Note: This figure excludes most of the operational subsidies of the various BRT systems

# Conclusions from the funding sources slide

All of the following services could/have overlapping/complimentary services in the urban environment

- **PTOG – commuter bus subsidies (Treasury -DoT-Provinces)**
- **PTISG - (Treasury -DoT-Provinces)**
- **Taxi recap (DoT – Provinces)**
- **Municipal bus subsidies inclusive of BRTs**
- **Provincial bus subsidies (in addition to the PTOG)**
- **PRASA subsidies (DoT – PRASA)**
- **Gautrain Management Agency (Province-GMA)**

# Benefits of streamlined planning and funding

- **One of the most attractive areas for the optimisation of contracting costs has to be a streamlined planning and funding environment**
- **This will lead to (amongst other):**
  - **A minimisation of duplicated services**
  - **Complimentary services only where deemed necessary**
  - **A re-deployment of “duplicated” operations to currently underserved areas**
  - **A seamless, integrated public transport system (ticket, infrastructure, fare, timetable and marketing integration)**
  - **Maximum utilisation of existing assets thereby reducing the cost of operations**
  - **Dedicated infrastructure (e.g. bus corridors) vs mixed traffic**

**TABLE 1:** Current status of tendering and contracting in South Africa.

Type of contract	Number of buses <sup>†</sup>	Number of contracts	Percentage of the subsidy budget (%)	Contract characteristics	Duration
Interim contracts	± 3849	39	68	Foreseen as a transition arrangement in 1997. ICs are now 16 years old.	3 years originally. In practice ICs are now 16 years old. Contract extensions are between 1 and 3 months. The last round of extensions was up to 6 months.
Tendered contracts	± 1834	66	28	Based on a standard contract document. Mostly stand-alone services in rural or urban areas.	5 years originally. Contract extensions are between 1 and 3 months. The last round of extensions was up to 6 months.
Negotiated contracts	± 1300	10	4	Mostly applicable to state-owned and operated bus companies.	5 years originally. Contract extensions are between 1 and 3 months. Last round of renewals was up to 6 months.

*Source:* Southern African Bus Operators Association (SABOA), 2009, 'Member survey', SABOA, Pretoria and Department of Transport (DoT), 2013b, 'National Road Based Public Transformation Plan: A negotiated approach', presentation to the Annual General Meeting of the Southern African Bus Operators Association, University of Johannesburg, 30 May

ICs, interim contracts.

<sup>†</sup>, The number of buses could vary compared to the 2009 figures as a number of bus operators have introduced additional buses to cater for increased demand. In such instances these bus services are not subsidised.

Approximately 6983 buses on ICs,  
TCs and NCs

# The role of the TA in realising service delivery

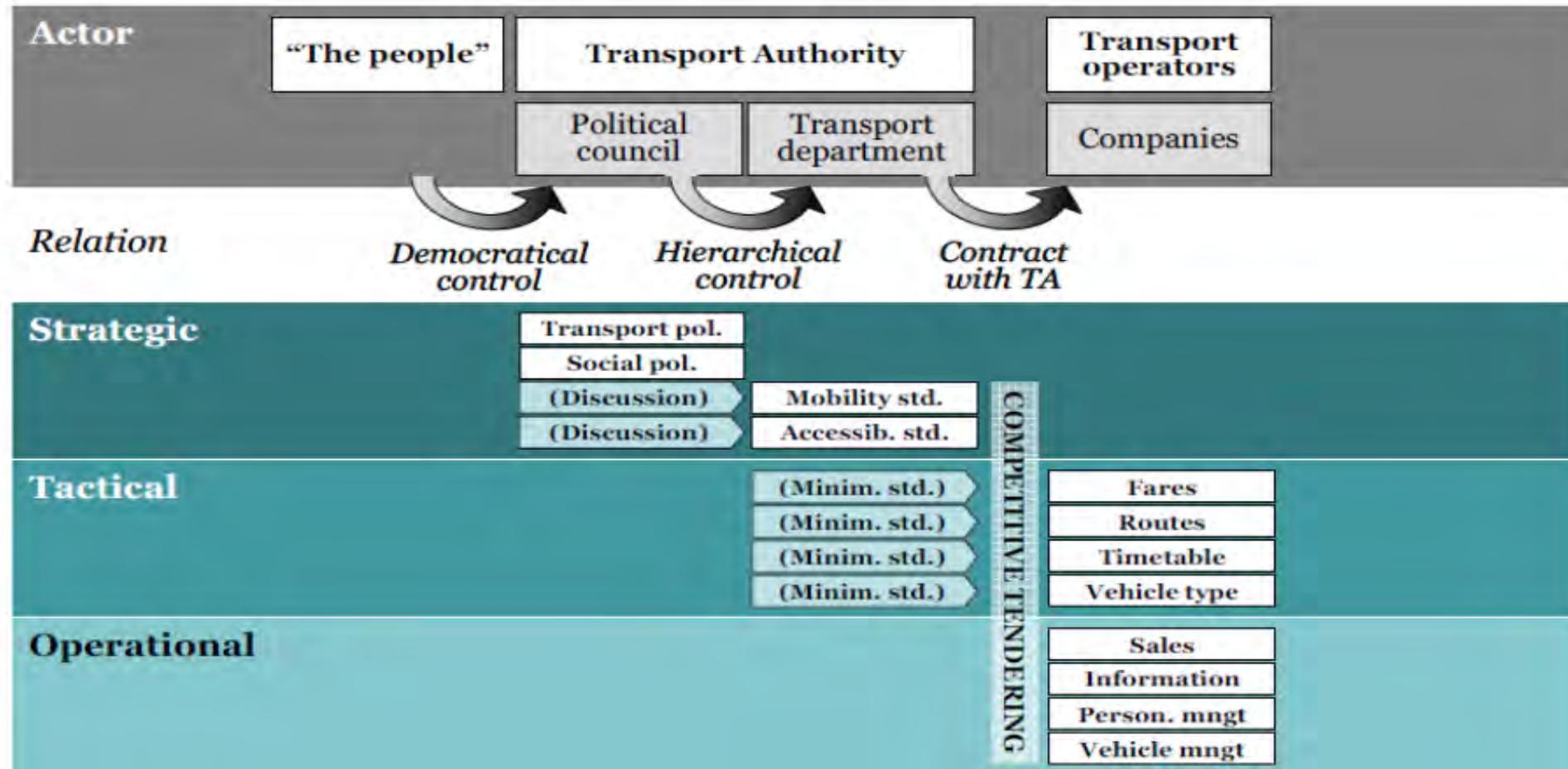
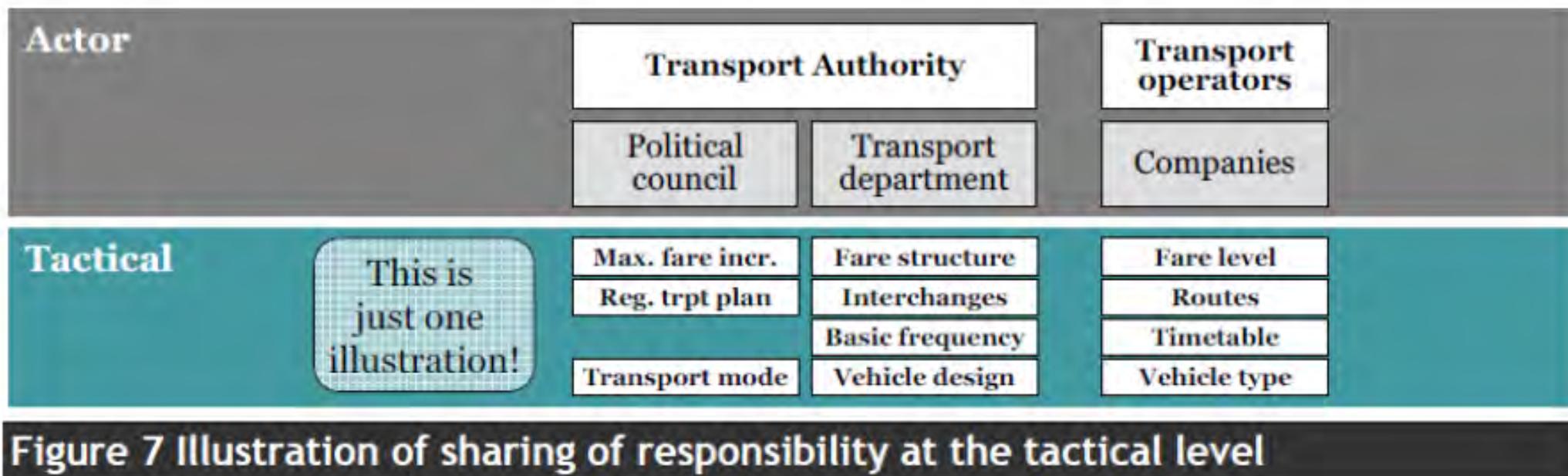


Figure 3 Tendering of the design and realisation

# Actions at the three levels...

- **Strategic level:** includes the formulation of general aims and the broad determination of the means that can be used to attain these aims. In short: **(Policy) aims: *what do we want to achieve?***
- **Tactical level:** making decisions on acquiring means that can help reaching general aims, and how to use these means most efficiently. In short: **Service design: *what service can help us to achieve the aims?***
- **Operational level:** makes sure the orders are carried out and that this happens in an efficient way. In short: **Operations: *how do we produce that service?***

# Sharing responsibility at the tactical level...



# Main characteristics of different periods of London bus contracts

Period	1970-1985	1985-1996	1996-1998	1998-2000	2000-present
Type of contract	Contract with one subsidiary public firm	Gross cost contract	Net cost contract	Gross cost contract	Quality incentive contracts
Ownership of bus companies	Public (1 firm)	Public (13 firms) and private	Private	Private	Private
Transport authority under control of:	Metropolitan government	Central government	Central government	Central government	Metropolitan government
Production risk allocation	Government	Operator	Operator	Operator	Operator
Demand risk allocation	Government	Government	Operator	Government	Government

Source: Contracting in urban public transport. European Commission- DG TREN, 2008

# Contributions to public transport services...

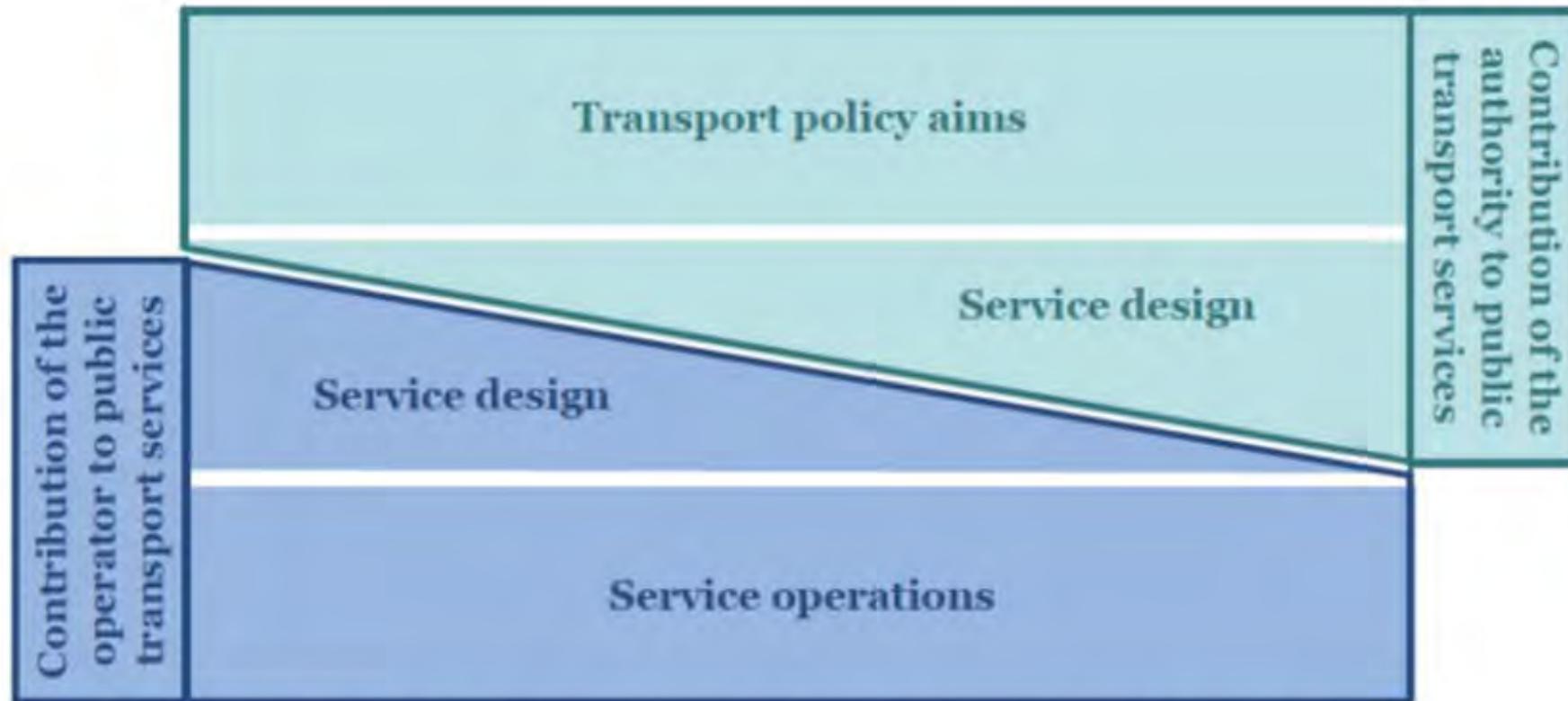


Figure 15 Contribution of the contracting parties to public transport services

# Contributions to public transport services...

- **Cost risk:**
  - **Operational cost risks** – who carries the risk on possible variations of the cost of operating the services?
    - **External risk** – cannot be influenced by the operator at all (exchange rates, interest rates etc.) or risk that can be influenced only in an indirect manner (energy price, price of spares and equipment, staff costs. **Appropriate escalation indexes are crucial**)
    - **Internal risk** – can be influenced indirectly by the operator – operational costs, maintenance costs etc.
  - **Investment risks** – who carries the risk of the property and value of assets (infrastructure and vehicles)?
  - **Revenue risks** – who carries the risk related to the amount of revenue expected from the passengers?
- **Other risks** e.g. operational complexity such as a complex network, new technology vehicles etc.

# Allocation of risk

- **Risk can be shared in various ways:**
  - **No risk** – management contract
  - **Operator bears the cost risk** – simple gross cost contract
  - **Operator bears the cost and revenue risk** – net-cost contract

## **The authority has to decide on how to allocate risk:**

**Low risk** – predictable for operators - **operators will calculate a low risk premium**

**High risk** – high uncertainty/critical for operator – **operators will calculate a high risk premium**

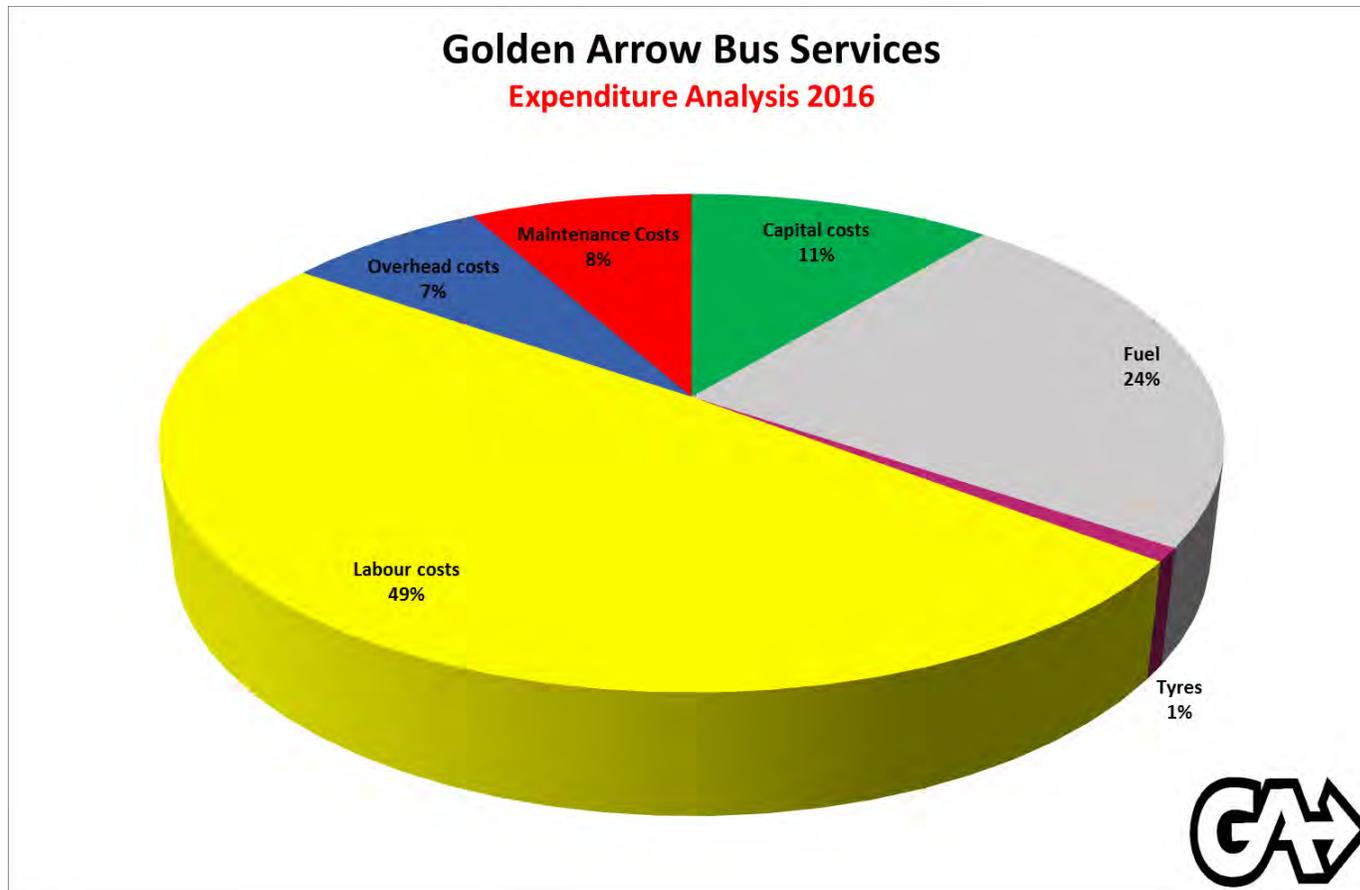
**Unbearable risk** – unpredictable and critical for the operator – **risk not bearable for operator** (market entry barrier), often only a few bidders

# Risk in a contractual relationship

- **Risk should be assigned to whichever party is in a better position to control those risks** or, if external to each party, then to whoever can absorb those risks at a lower cost
- **The escalation formula in any form of contracting is crucial to the apportionment of risks during the contract term and the overall impact on the operator and the operator's view on the risks (potential unforeseen costs) that it would have to carry**

# Bus company cost structure

The following represents a typical bus company cost structure:



# Bus company cost structure

- **In a typical contract a large percentage of the costs are uncontrollable:**
  - **Fuel costs increases/decreases**
  - **Labour costs** (industry-led bargaining but with regional differences as well as length of service)
    - Labour costs also differ between private (large and small) and municipal services
  - **Maintenance cost escalation** – spares etc.
- **Cost of procurement** (as % of total annual procurement spend) that are **influenced by exchange rates:**
  - Diesel – 45%
  - Oil and lubricants – 2%
  - Engines/gearboxes/axles/retarders – 4%
  - Chassis – 10%
  - Spares and electronics – 4%
  - Ticket machines – 1%

(Source: Survey amongst 18 contract operators 2015)

# How risk is dealt with is crucial in contracting...

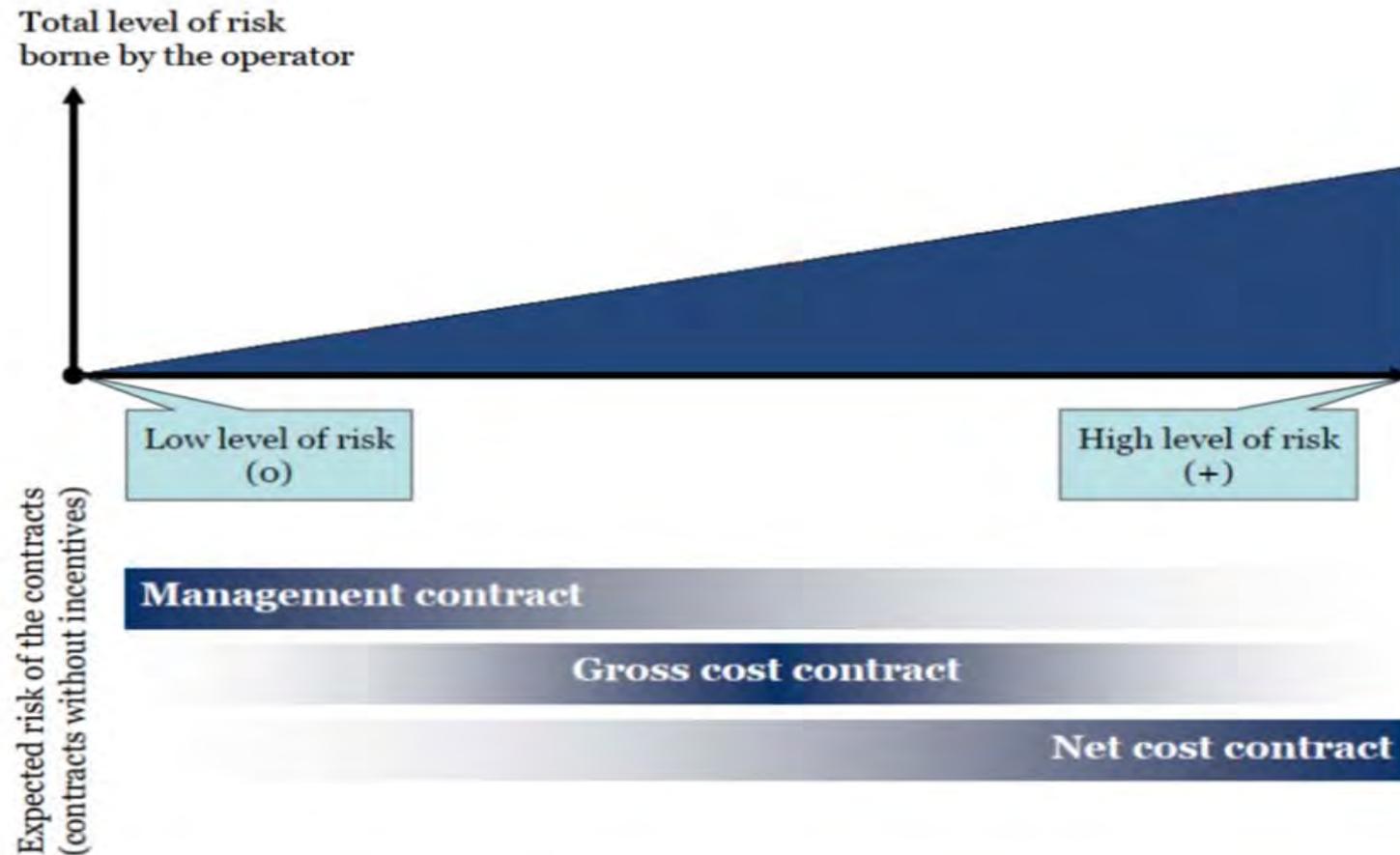


Figure 20 Risk continuum

# Flexibility required during contracting...

- **Changes in forecast passenger volumes** after commencement of services require flexibility in contracting arrangements
- **Changes in external factors, political aims or passenger needs** may lead to amendments to service designs during the contract period – this will lower the risk for the operator
- **Most contracts need to be renegotiated during their life-time, especially longer term contracts – the need for flexible contracts.** The “rules of the game” however need to be agreed to upfront so that contract stability is ensured.

# Contract specification

- A ***functional specification***: only (sometimes minimum) service requirements (route, frequency etc) and space for the operator to optimise, detail time tables, vehicles, information and other services (this could be an option when only limited funds are available)
- A ***constructive (detailed) specification***: usually specification of routes, timetables, days, tariffs, vehicles information etc.
- **Problem with functional contracting may be that it is difficult to compare bids**
- **Problem with detailed specification may be that the operator focuses too much on the authority and too little on the customer; also difficult to effectively coordinate and integrate services in the design**

# Conclusions

- **The major intervention is for planning and funding to be coordinated by considering the functional flow of people across municipal boundaries on multiple modes of transport**
  - ITPs have been used throughout the world to achieve this objective
  - **Transport Authorities** that have both a political and professional “legs” to effect the necessary planning, contracting and compliance matters
  - **Funding**, especially in a metro environment cannot be left as fragmented as it is at present; This is an obvious area to:
    - optimise contracting costs,
    - increase efficiencies,
    - potentially lower contracting costs through better asset utilisation, and
    - improve the general effectiveness and quality of public transport
- **There are numerous contracting options** – each with its own advantages and disadvantages – all of these options have contracting cost implications and risks
- **Appropriate risk sharing is crucial in contract design** – get it wrong and the operator will factor this into the contract price
- **The type of contract** (management; gross cost; net cost) **has a bearing on the apportionment of risk**
- **The choice of the design of the services has a risk for the authority and operators alike**

**THANK YOU**