

*Daniel Bongardt, GIZ China  
2013, May 16th, Beijing*

**Tram**

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## **Turning the Trend**

How Germany Succeeded in Financing  
Comprehensive Urban Transport Systems

# Overview

1. Transport Trends in Germany
2. Institutional Set-up
3. Financing
4. Planning Framework
5. Conclusions for China





Public transport will only be considered a viable alternative if it is user-friendly, reliable and affordable.

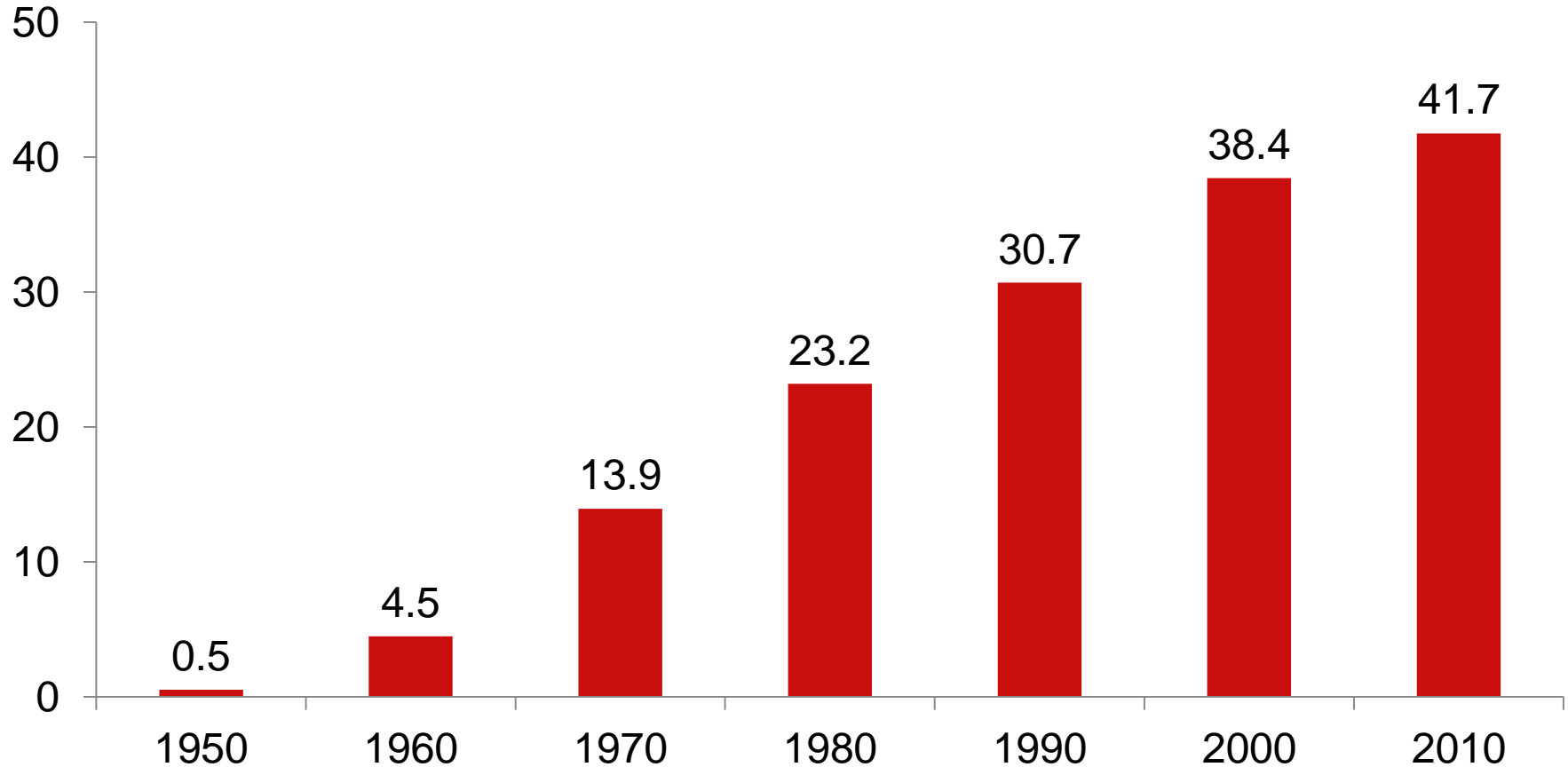
# Transport Trends

- Strong renewed growth of public transport since the early 1990s



# Growth in Private Vehicles in Germany

In million vehicles



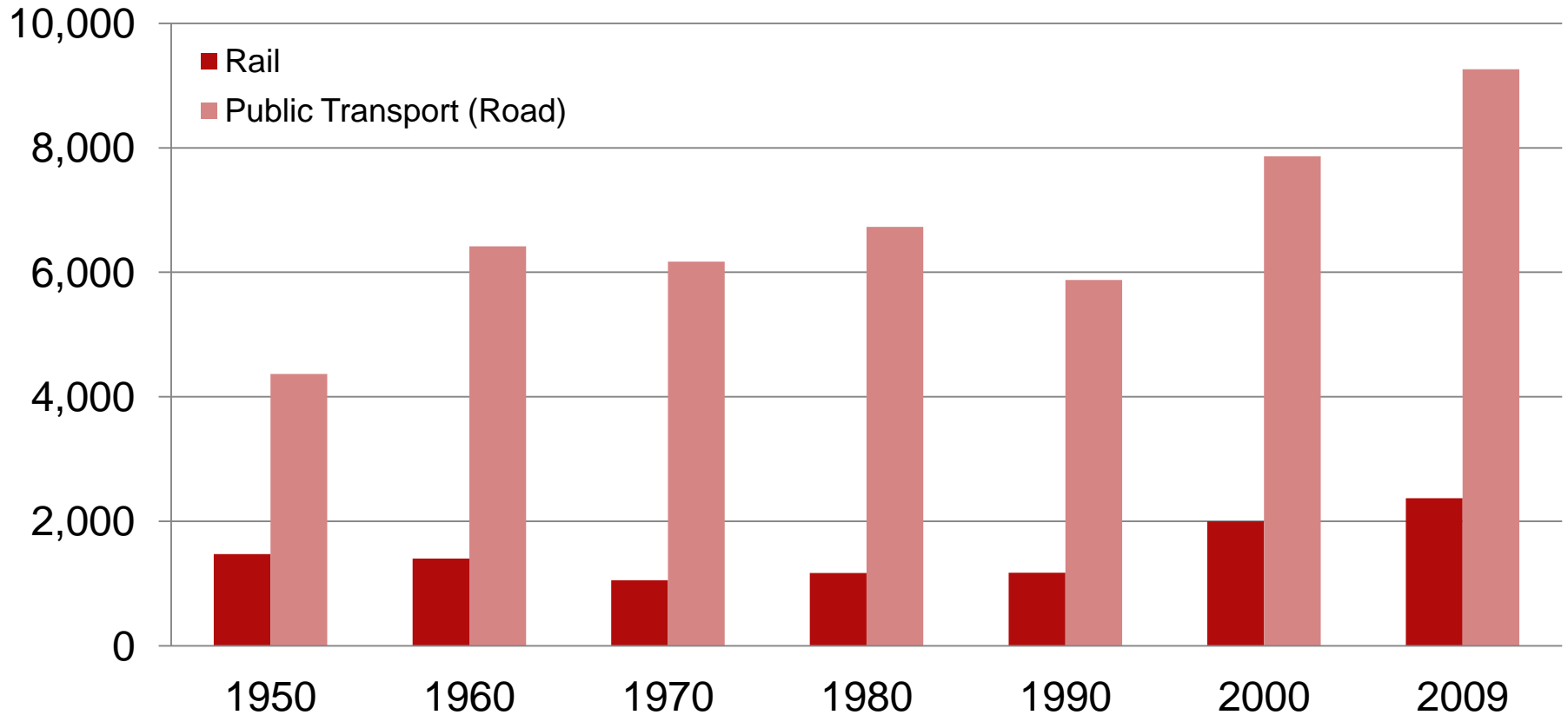
Bis einschl. 1990 früheres Bundesgebiet, 1950 ohne Saarland und Berlin-West, ab 2000 Deutschland.

Ab 2000 ohne vorübergehend stillgelegte Kfz (2000: ca. 5 Mill. Fahrzeuge).

Quelle: Kraftfahrt-Bundesamt.

# Public Transport Development

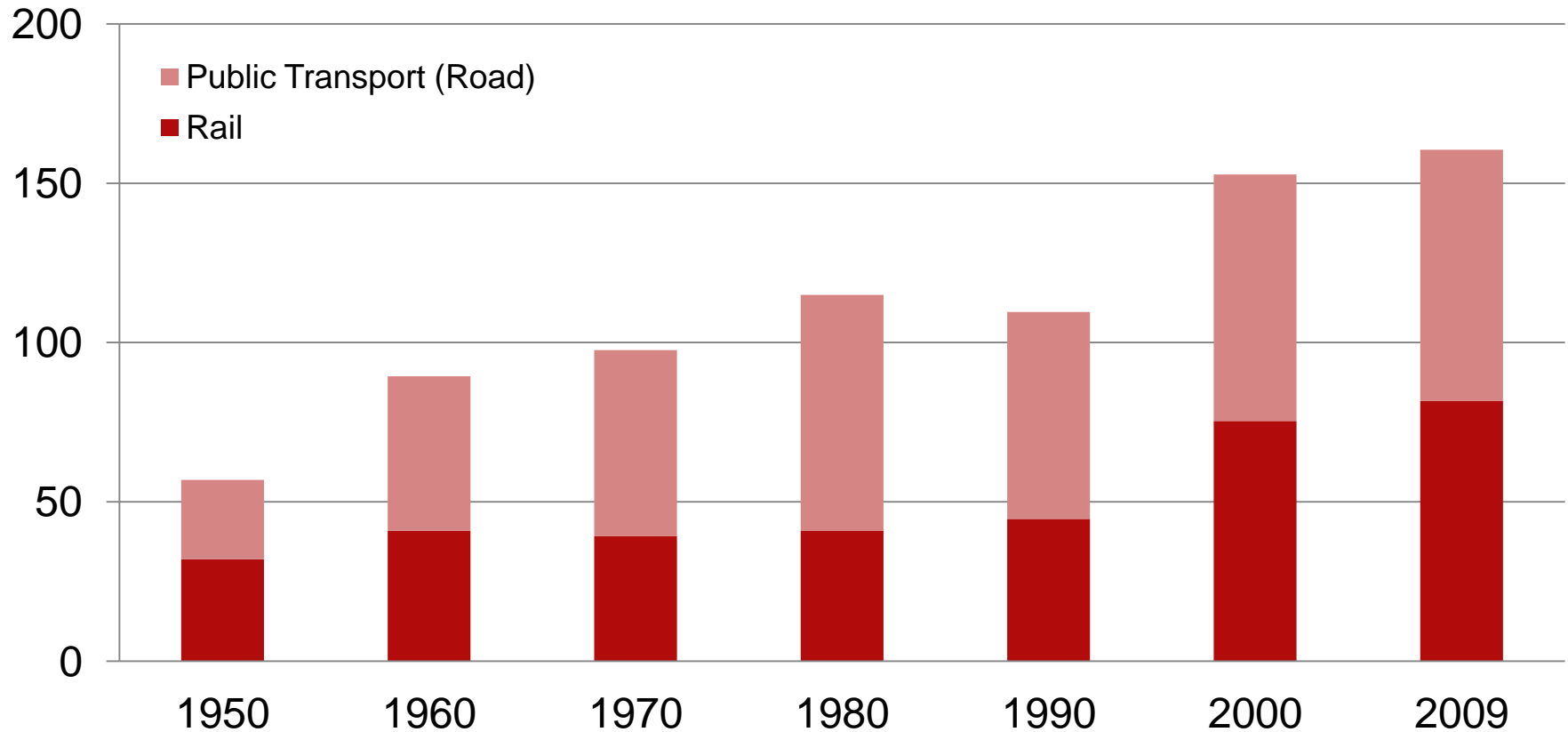
1950-2009, in million passengers



Source: VDV, DIW

1950: Without Saarland and Berlin West  
From 2000: West and East Germany

# Public Transport Development 1950-2009, in billion passenger km

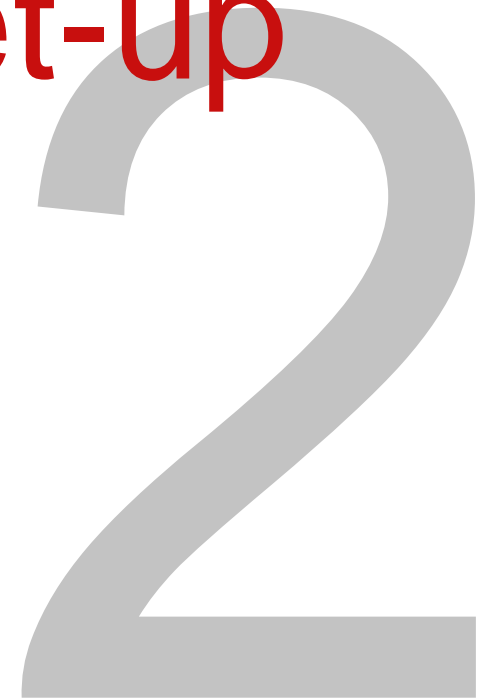


Source: VDV, DIW

1950: Without Saarland and Berlin West  
From 2000: West and East Germany

# Institutional Set-up

- Clear split of roles and responsibilities





# Split of Responsibilities across Government Levels

NATIONAL

Provides funds (e.g. from fuel taxes) to provinces for specific programmes and projects  
Defines criteria such as cost-benefit analysis, environmental impact assessment, etc.  
Regulates market access of transport operators and minimum standards

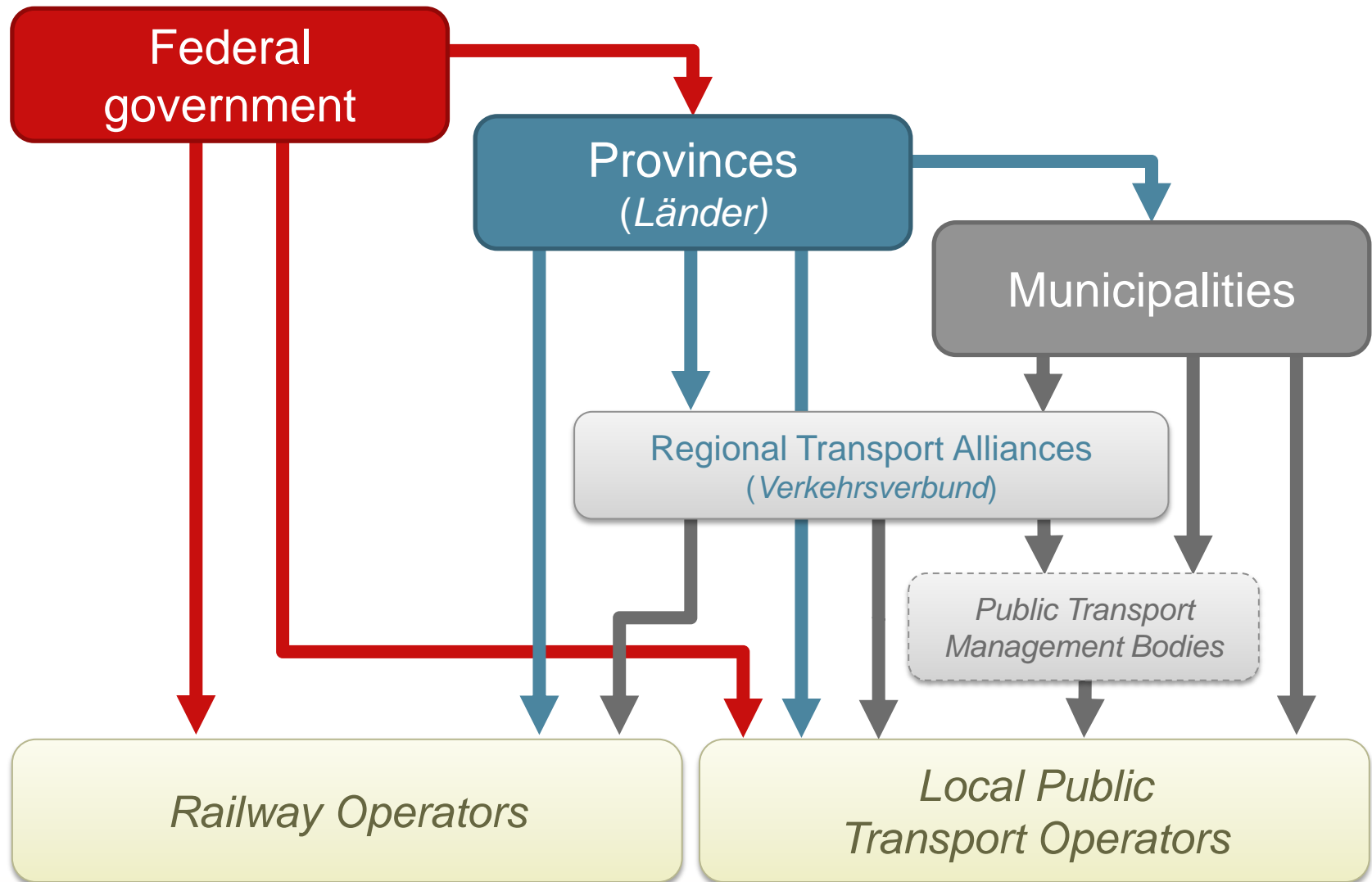
PROVINCIAL

Require comprehensive mobility plans from cities  
Provide funds to cities and identify projects  
Fund regional railways such as S-Bahn (tendering services)  
Initiate *Regional Transport Associations* (Verkehrsverbund)

MUNICIPAL

Plan and finance infrastructure projects (with support from provinces) based on regional public transport plans  
Tender public transport services and define quality criteria in service contracts  
Subsidies local transport operators  
Issue special tickets to students and senior citizens

# Institutional Set-up in Germany



# Financing

- Advanced system of national, provincial and municipal funding (initially introduced in 1971 and revised in 1992) ...
  - ... provided reliable long-term budget for high-quality public transport;
  - ... combined with clear procedural requirements, e.g. EIA and CBA



# Public Transport Financing in Germany

(in billion €, estimation for 2008)

## Public Investment in Rail

BSchwAG-Anteil SPNV,  
zusätzliche Haushaltsmittel Länder/  
Kommunen, LuFV-Anteil SPNV

0,43

## Public Investment in Bus

GVFG/Entflechtungsgesetz,  
zusätzliche Haushaltsmittel  
Länder/Kommunen, Bundes-  
GVFG

1,85

## Operation Rail

Verkehrsverträge  
(ohne Ausgleichszahlungen,  
inklusive Trassenpreise)

5,34

## Operation Bus

Querverbund, Verkehrsverträge,  
Betrauungen, freigestellter  
Schülerverkehr

3,05

24,61

Total public transport spendings

15,62

Share of public funding

2,78

## Tax reductions for PT

Querverbundsvorteil, keine  
USt für Verkehrsverträge;  
ermäßigter MwSt-Satz

8,99

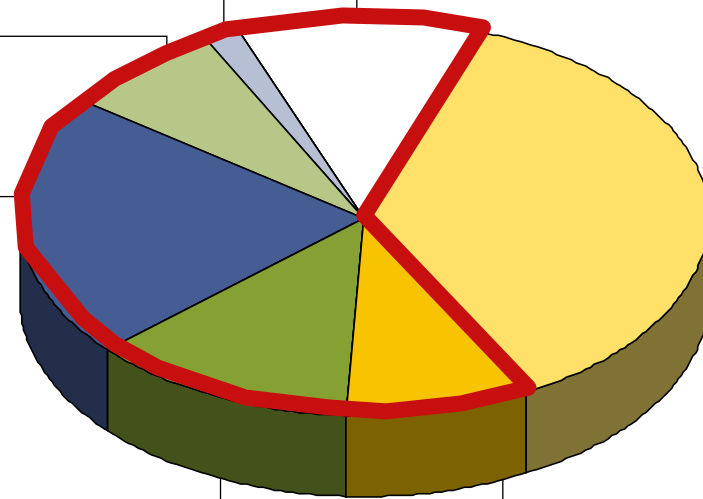
## Revenues from operation

Fahrgelderträge (ohne  
Tarifersatzleistungen;  
SPNV: 3,14; ÖSPV: 5,55),  
Werbung, Pacht

2,17

## Subsidies for special

tickets (social groups)  
(Sozialtickets, SGB IX,  
Schülerbeförderung,  
Verbundtarif-Förderung)



# Public Transport Spending

## in the Province of Baden-Württemberg (in 2010)

<b>Total funding for transit services</b>	<b>€ 1.28 billion</b> <i>~ € 118 per citizen</i>
transfers to operating costs of rail transit	<b>50.9%</b> (€ 650.9 million)
infrastructure investments	<b>10.5%</b> (€ 135 million)
rolling stock investments	<b>0.2%</b> (€ 2.8 million)
transfers to investments and operating costs of bus transit	<b>0.8%</b> (€ 10 million)
support to fare unions	<b>3.8%</b> (€ 48 million)
compensation for free tickets for disabled	<b>2.9%</b> (€ 37 million)
compensation for fare rebates to students	<b>30.8%</b> (€ 394 million)

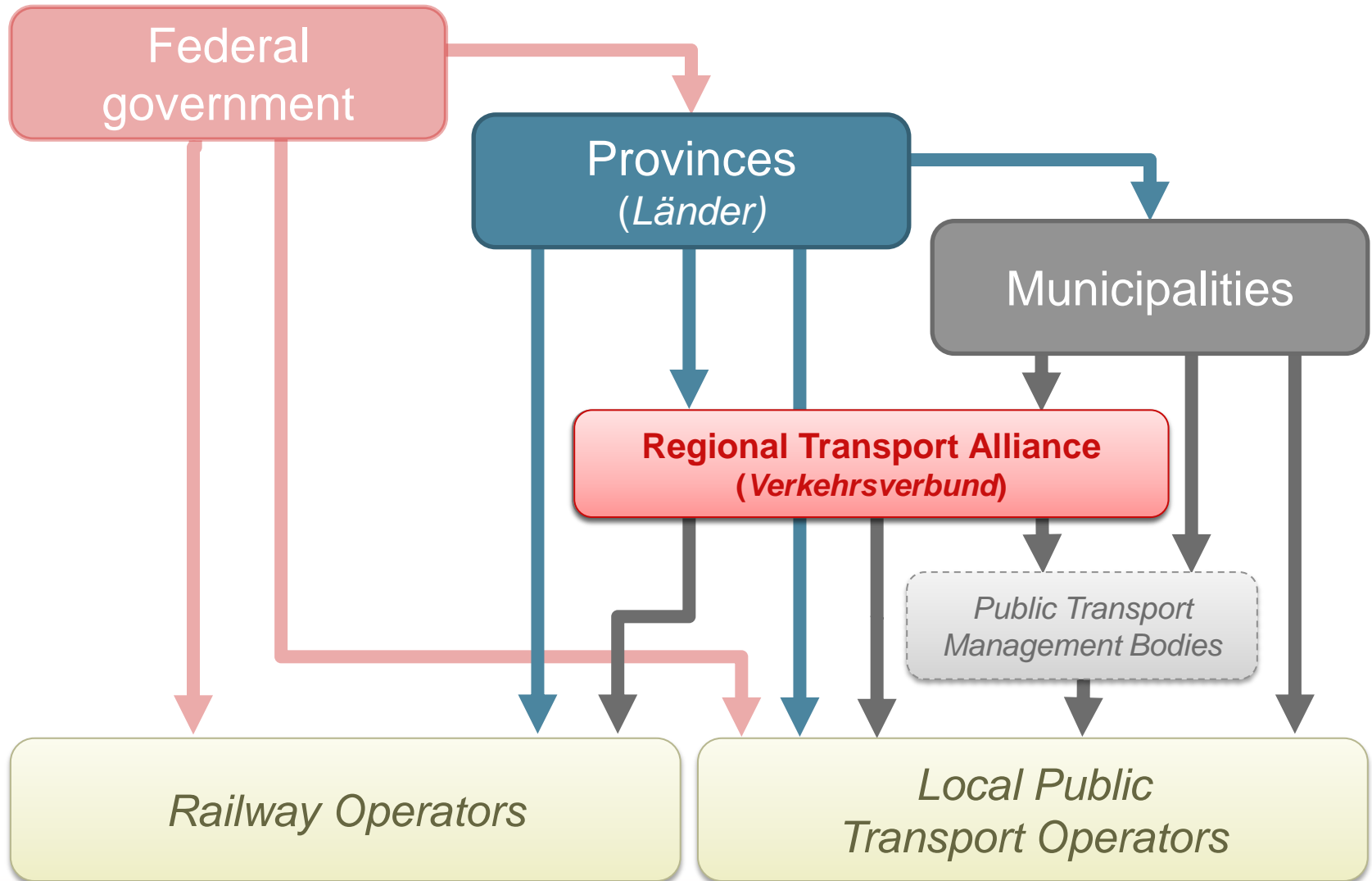
# Planning Framework

- Local public transport plans required in all municipalities
- Public Transport Alliances coordinate regional public transport
- Quality ensurance through Transport Service Contracts between operators and municipal authorities

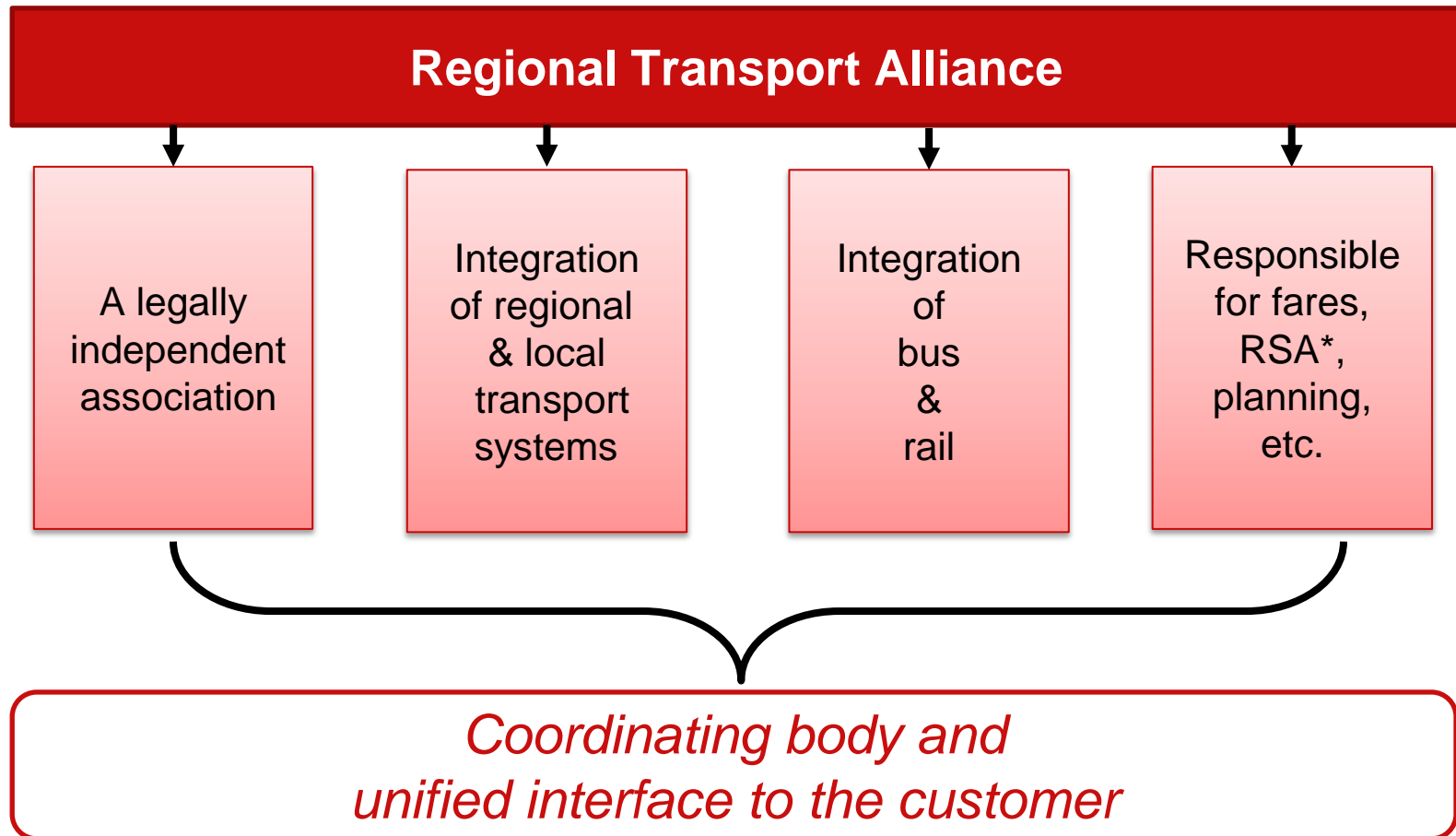




# Regional Transport Alliances



# Features of Transport Alliances



\*RSA = revenue sharing agreement

# Transport Alliances in Germany



**Legende**

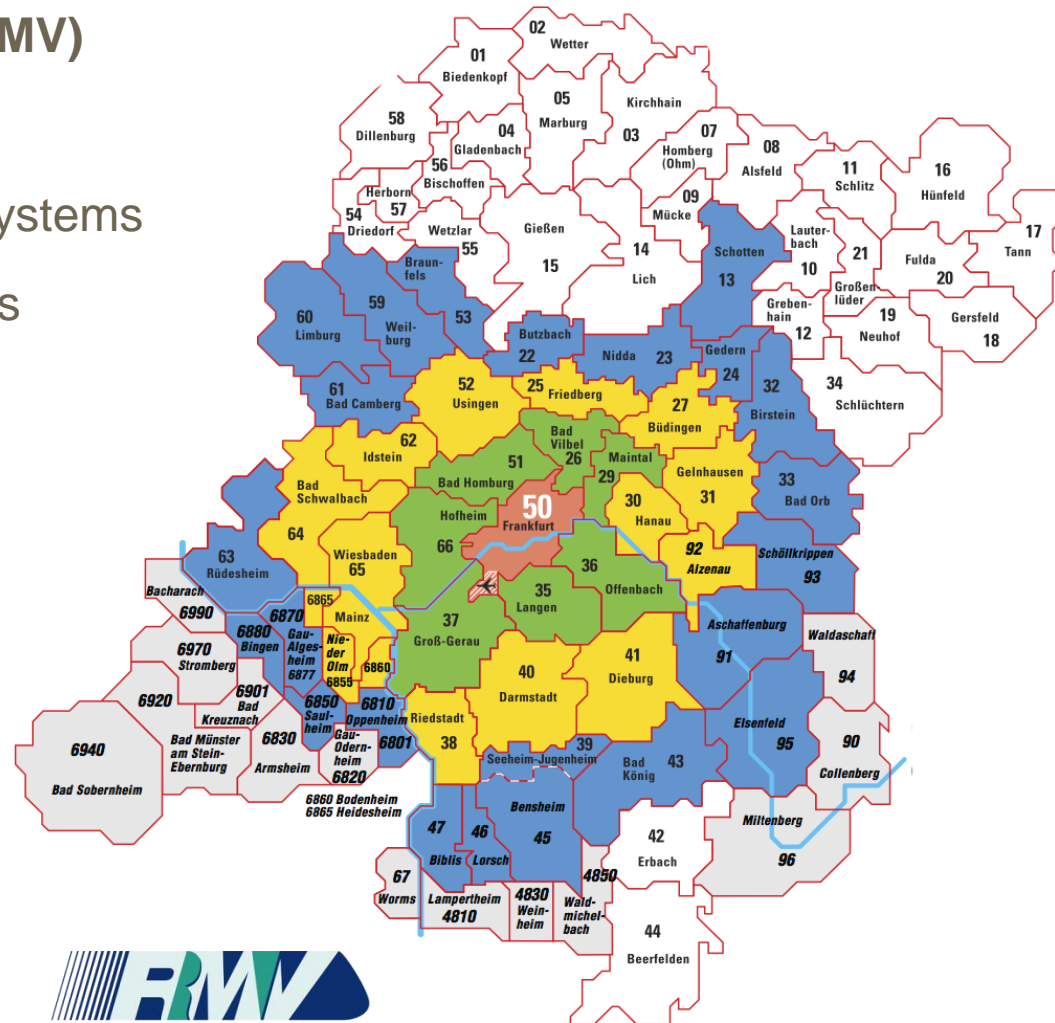
- Verbände mit SPNV-Integration
- Verbände ohne SPNV-Integration
- Teilgebiete eines Verbunds mit SPNV-Integration, in denen ein weiterer Verbund mit eigenständigem Tarif für die Regionalbuslinien operiert
- Verbände ohne Gemeinschaftstarif, die nur Fahrplankoordination betreiben
- Gebiete, in denen die Zuständigkeiten für Gemeinschaftstarif und Fahrplankoordination bei unterschiedlichen Verbänden liegen
- Dachtarife mit SPNV-Integration
- Verbundfreie Gebiete

# City of Frankfurt (Main)

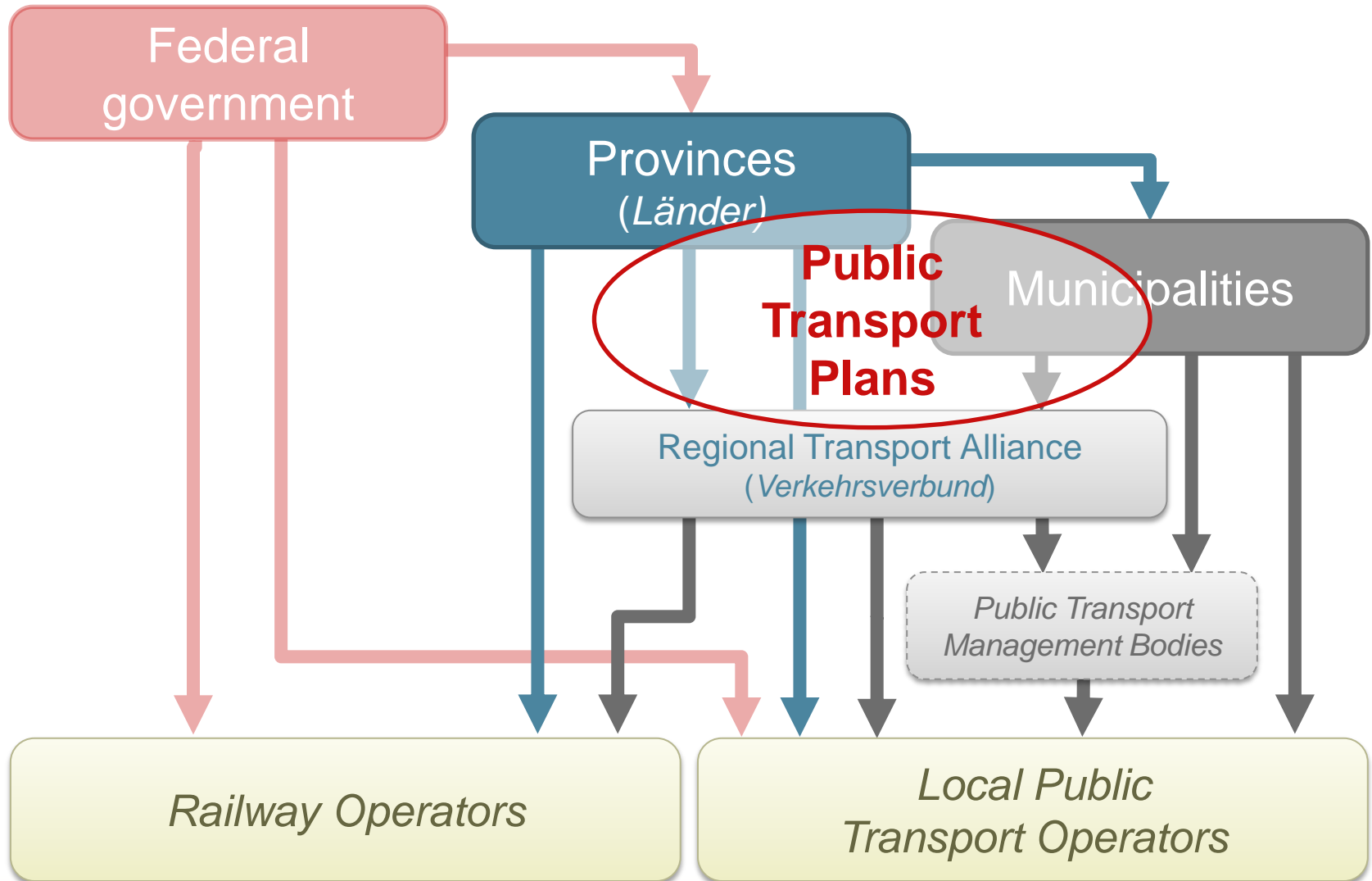
## Example

## Rhine-Main Transport Alliance (RMV)

- Started in 1995
- Integration of 112 different fare systems
- Managing 153 transport operators
- Board includes
  - 15 rural districts
  - 4 large cities (e.g. Frankfurt)
  - 7 medium-sized towns
  - Provincial government (Hessen)
- Tendering rail services
- Joint marketing
- Integrated timetable/interchange

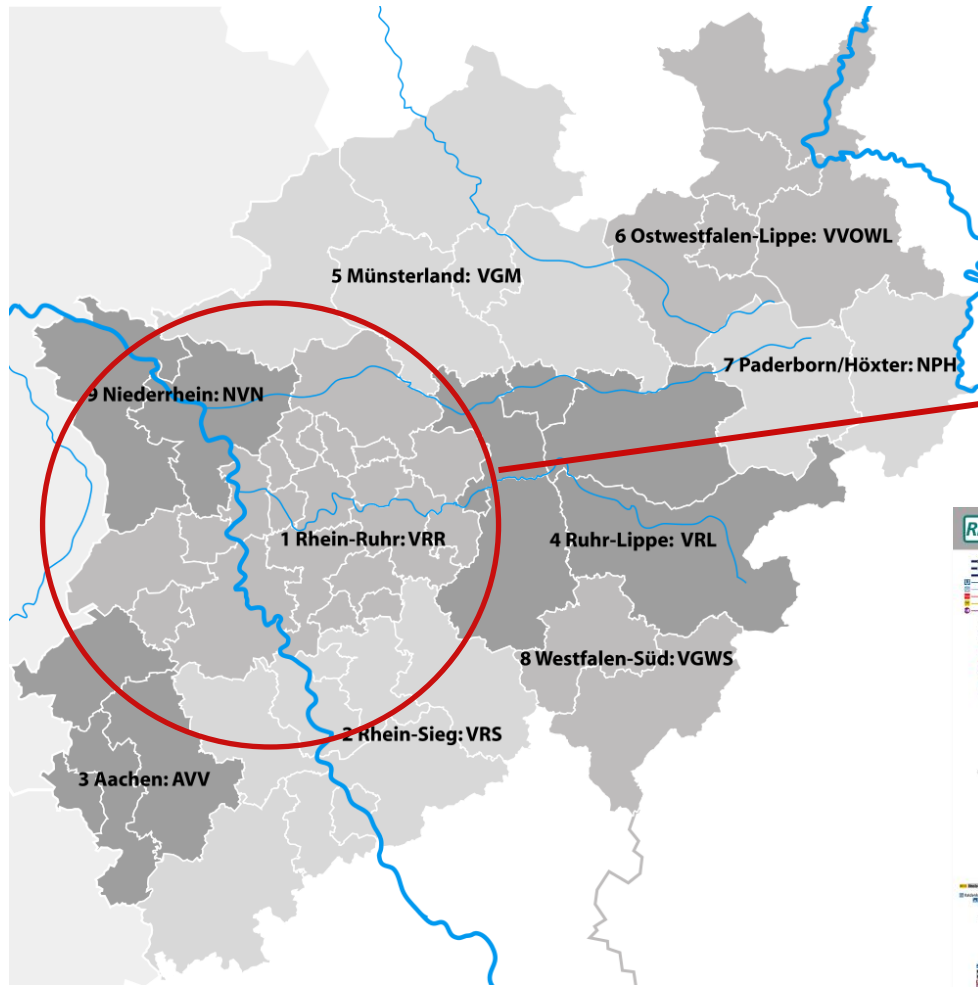


# Public Transport Plans



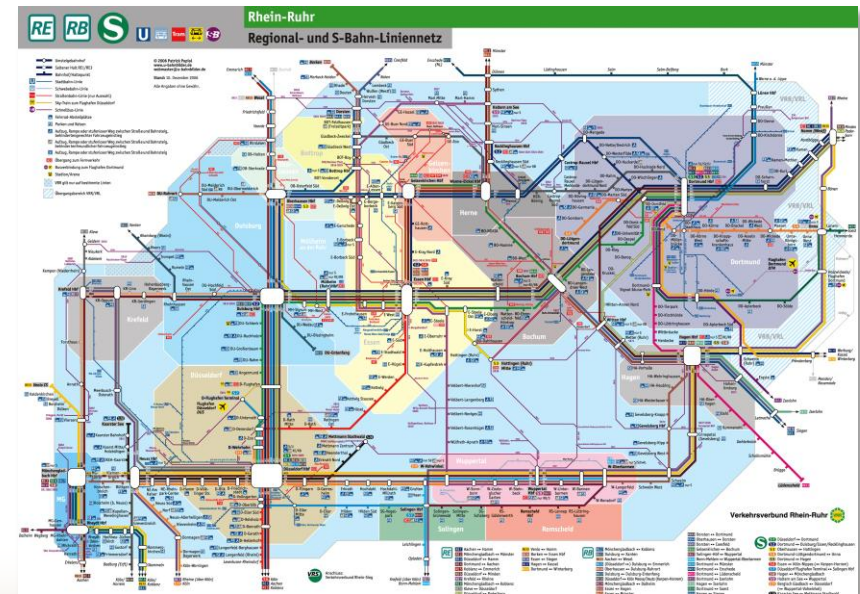


# Levels of Public Transport Planning



**Province Level:**  
Transport Development Plan  
(Strategic Framework for  
Infrastructure Development)

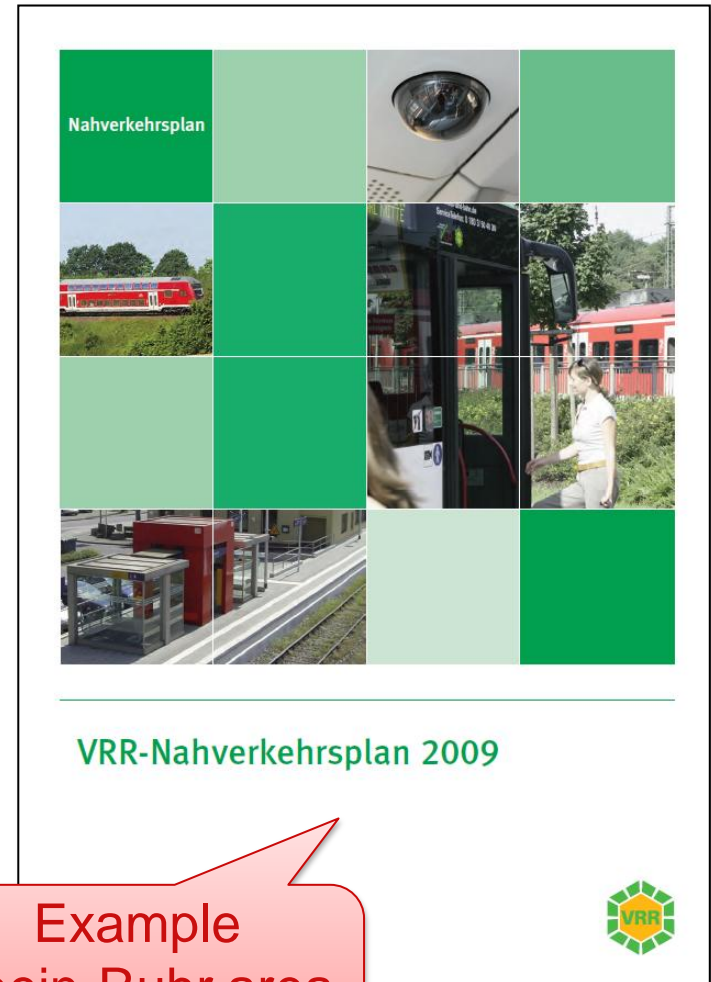
**Local Public Transport Plan**  
(Transport Alliance)



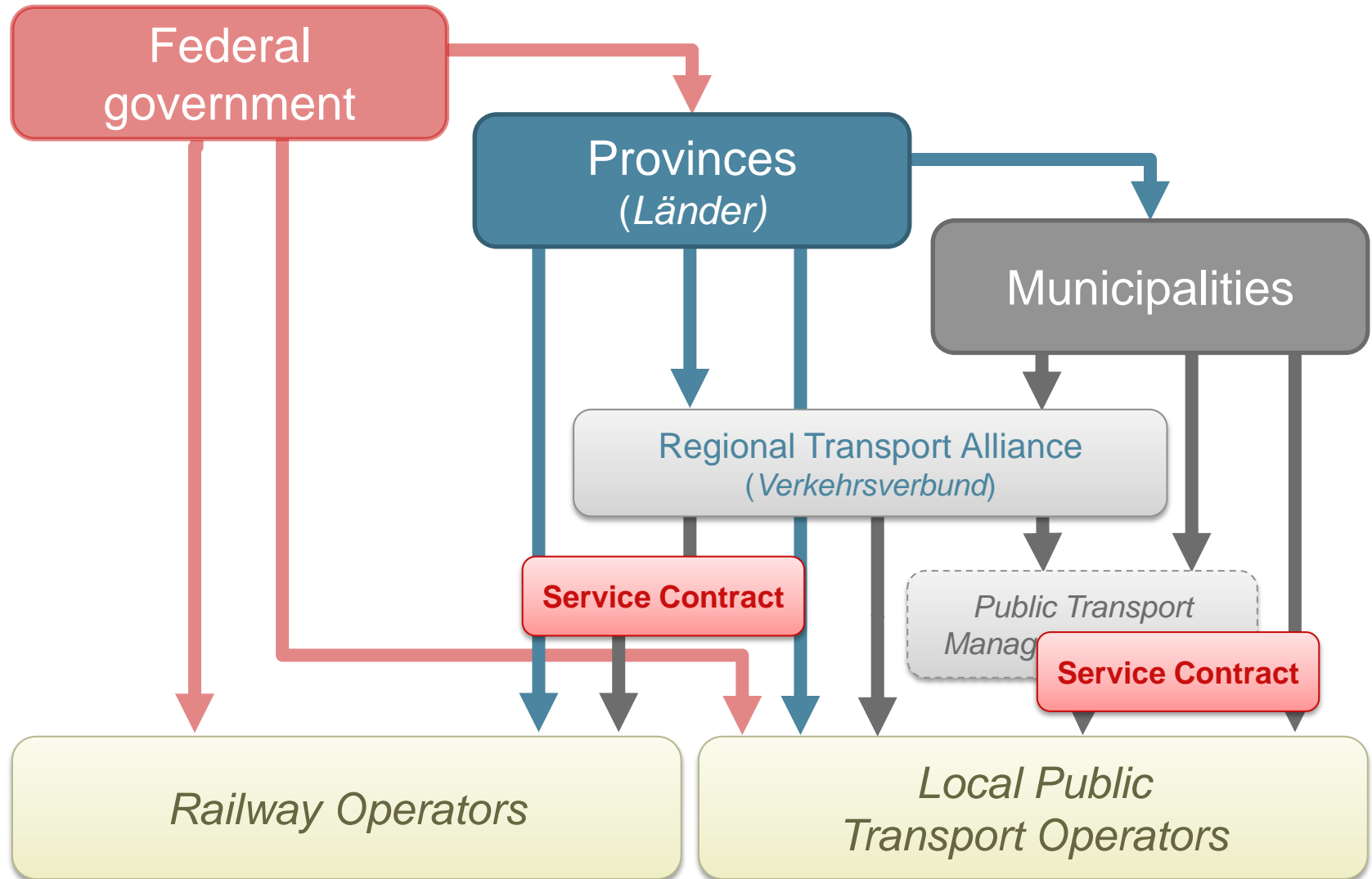


# Content of Local Public Transport Plans **giz** Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

- 1. Frameworks Conditions**
- 2. Rail Based Public Transport**
  - Developments of Services
  - Future Development of Services (Short- term, Long-term Measures)
  - Infrastructure (Stations, Network)
- 3. Intermodal Mobility**
  - Passenger Information
  - Accessibility
  - Interconnectivity with public transport, with Individual transport
- 4. Safety and Customer Management**
- 5. Tariff and Marketing**
- 6. Financing**



# Transport Service Contracts



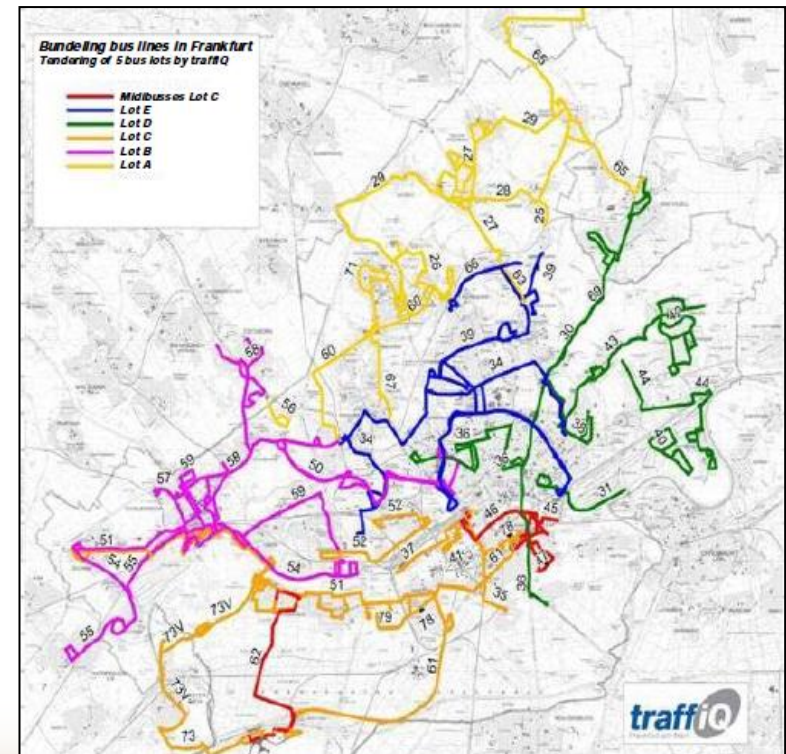
## Fundamental Content of the Transportation Contracts

- Duration of the service, scope of services (including operating schedule, time schedules, routes)
- Compliance with all laws, standards and requirements
- Quality requirements
- Reporting obligations
- Gratifications and Penalties “Bonus-Malus-System”
- Bids are not allowed to contain public subsidies in order to be comparable
- Observance of high environmental standards are obligatory

# Tendered Bus System in Frankfurt

## Example

- Service contracts for 5 lots of bus lines
- Annually 2-3 Mio. VKT per lot
- Bundling of profitable and less profitable lines
- Private and municipal operators
- Still one unified “brand”
- Increase in cost efficiency
- Increased service quality







Linie Ziel Abfahrt in

100	S+U Alexanderplatz	3 min
200	Prenzlauer Berg Michelangelostr.	13 min

Lustgarten

BVG

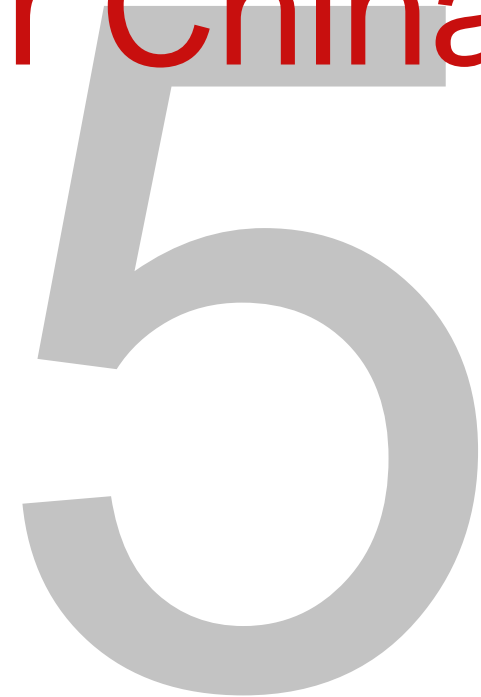
Kasse

1. Clear split of roles and **responsibilities**;
2. Advanced system of **national, provincial and municipal funding** (initially introduced in 1971 and revised in 1992) ...  
... provided reliable long-term budget for high-quality public transport;  
... combined with clear procedural requirements, e.g. EIA and CBA
3. Requirement to develop local **public transport plans** in all municipalities;
4. A key role for capacity building and service quality is on **regional coordination** through “Public Transport Alliances” (*Verkehrsverbund*);
5. Recently, quality became more important. Criteria now ensured through “**Service Contracts**” between operators and municipal authorities;



# Conclusions for China

- Combination of national-local sustainable funding mechanisms
- Comprehensive mobility planning
- Coordinate responsibilities



# Prospects for SUT in China

2-day Expert Workshop in Mutianyu, 1-3 November 2012



*10 Chinese and 10 international experts*

*Participants were working in 4 breakout groups:*

## **1. Local Empowerment**

Increasing options for local funding of sustainable urban transport

## **2. Mainstreamers**

Scaling up innovative funding options for sustainable urban transport

## **3. Reform China Transport with New Fund**

Using national funding to catalyze sustainable urban transport

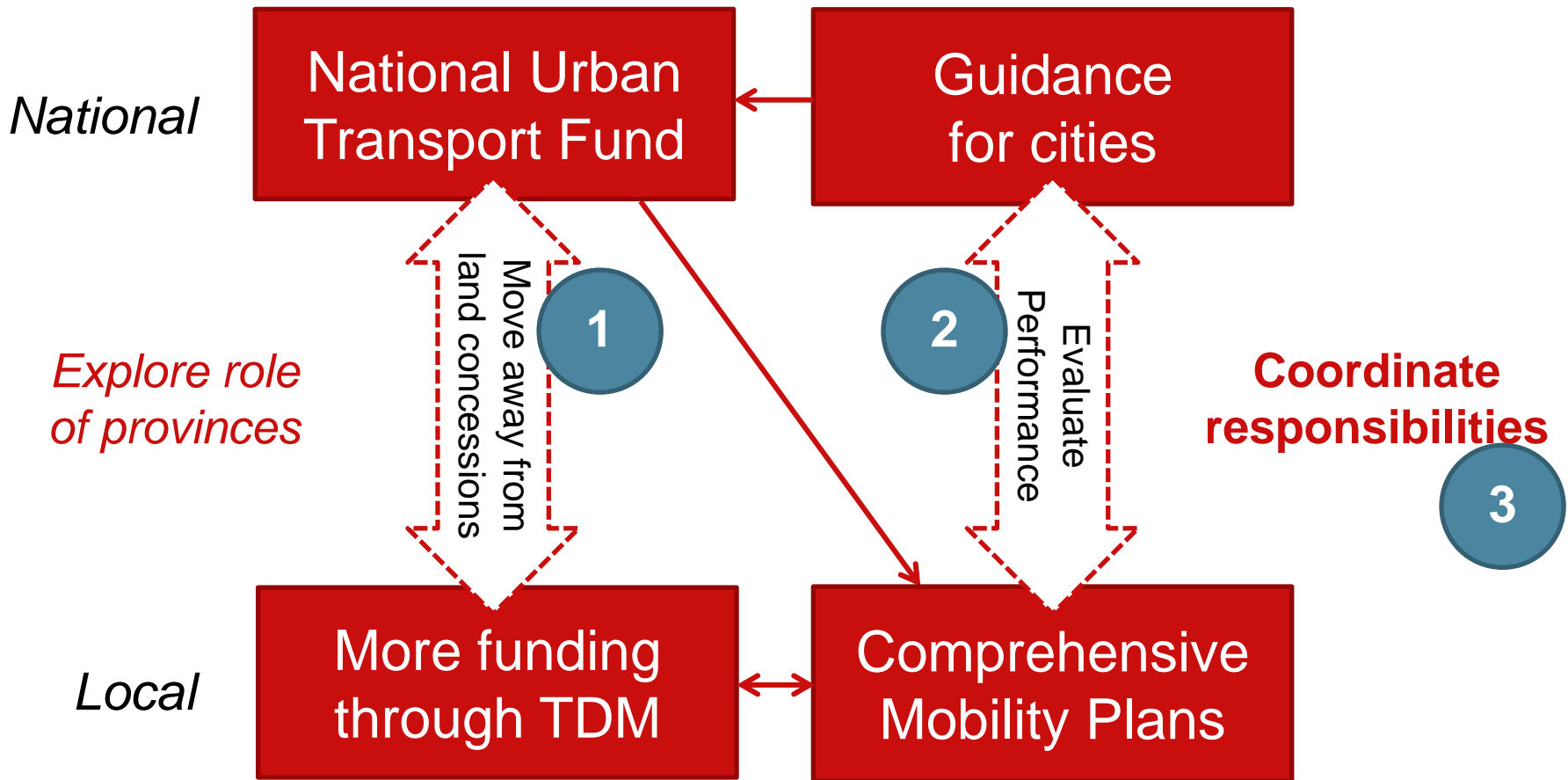
## **4. Long March to Structural Reform**

Reforming transport institutions and link funding to performance criteria



# Potential Building Blocks

... of sustainable urban transport financing in China





# 3 Leverage Points to Move Ahead

## 1 **Combination of national-local sustainable funding mechanisms**

- Chinese National Urban Low Carbon Transport Fund
- Land-use/property taxes & transit oriented development
- Transport demand management strategies

## 2 **Comprehensive mobility planning**

- Consolidating existing guidance and policies into a national urban transport policy
- Link funding to comprehensive mobility plans
- Provide capacity building and performance monitoring

## 3 **Coordinate responsibilities**

- Great potential of regional transport alliances for regional integrated transport services
- Unify responsibilities under transport bureaus (including rail)

Thank you!

daniel.bongardt@giz.de

