

Financing Public Transport in Germany

Part B: Case Study Frankfurt



Report to the Work Group on Green Travel under the China Council for International Cooperation on Environment and Development

Dr. Axel Stein, kindly supported by traffiQ

The presentation is split into three parts

PART A: History and Current Regulations

PART B: Case Study Frankfurt

PART C: Case Study Berlin

Structure

Case Study Frankfurt

1. Institutional set-up

- **Politico-administrative structure in the state of Hesse**
- **The local public transport organisation “traffiQ”**

2. Size and quality of the public transport system

- Public transport network
- Regulations to guarantee quality standards
- Data on the service provision and service quality

3. Financing of the public transport system

- Revenue
- Expenditure
- Compensation of deficits

1. Institutional set-up

Politico-administrative structure

Special Characteristics of Hesse

- Two different transport associations:
 - RMV covers the area of 15 rural districts and 11 cities in the centre and the South of the state. It is one of the biggest associations in Germany.
 - NVV covers the area of 5 rural districts and one city (Kassel)
- Intensive interactions within the associations (transport, economy, etc.)

Transport Planning in Hesse

- High transport demand generated by local citizens, commuters and tourists
- Transport planning and organisation are subject to close cooperation



Source: RMV (Transport Association Rhein-Main)

1. Institutional set-up

Specific role of the local public transport organisation “traffiQ” (1)

Organisation of local public transport in Frankfurt until 2001

- The city managed local public transport by in-house operation (municipality-owned operator VGF).
 - VGF planned and operated all local transport services (light rail, tram, bus) and was responsible for infrastructure provision and maintenance.
 - Losses were compensated for within the municipal multi-utility, using gains within the electricity sector (“Stadtwerke”).
 - VGF was controlled both by its supervisory board and by shareholders of the Stadtwerke.
- ➔ The set-up of VGF was not competitive. With regard to changes in European and national legislation it seemed realistic that it would not win a tender.

1. Institutional set-up

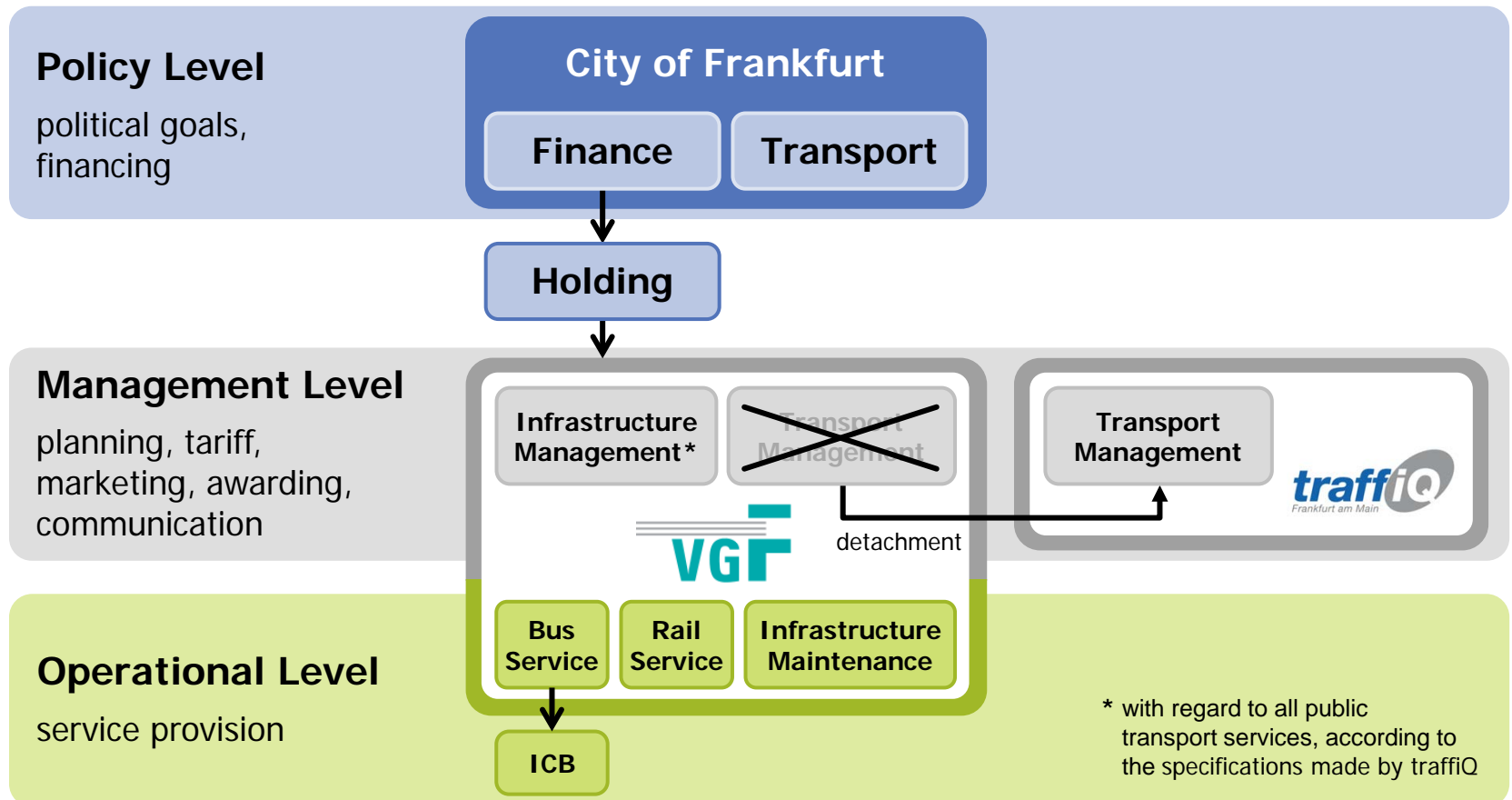
Specific role of the local public transport organisation “traffiQ” (2)

Changes to the organisation in 2001

- According to the regional legislation put into force in the course of European legislation, the directing assignments were transferred from VGF to the local public transport company, which was named „traffiQ“ in 2002.
- traffiQ is responsible for planning the local public transport network, setting infrastructure standards, marketing and financing public transport.
- Beforehand, these were tasks of the VGF. In general, the respective employees were taken over by traffiQ.
- In contrast, tendering and awarding were new tasks to traffiQ:
 - ➔ All local bus services were tendered beginning in 2003 and won by different independent companies. The VGF-owned company „In-der-City-Bus“ (ICB) today operates two of the seven bundles.
 - ➔ In 2011, rail-bound local public transport (tram, light rail) was directly awarded to VGF to acknowledge its efforts in quality and efficiency measures and secure jobs.

1. Institutional set-up

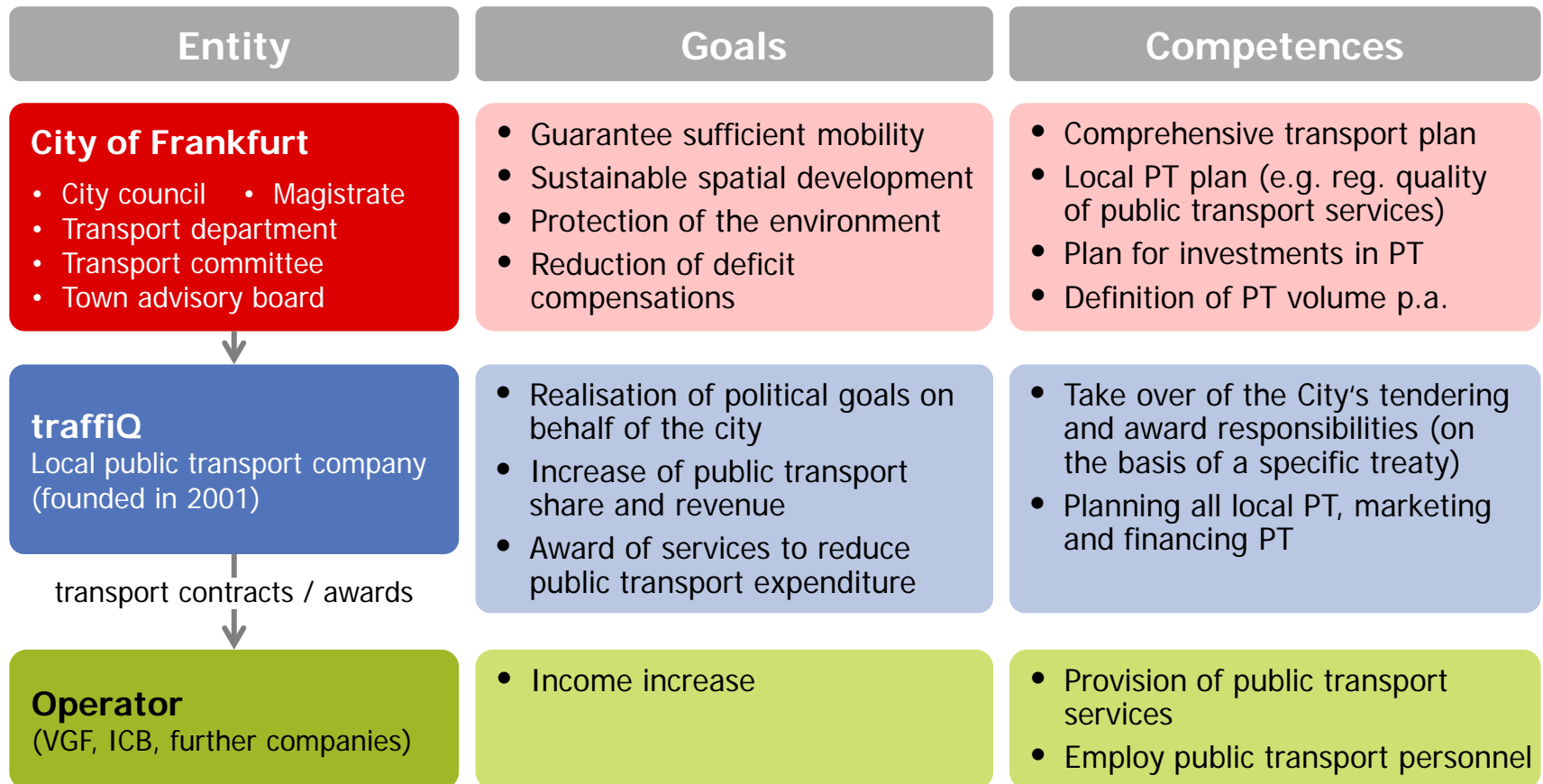
The making of traffiQ: clear separation of awarding authority and operator



Source: traffiQ

1. Institutional set-up

Allocation of responsibilities and competences to the three levels of local public transport supply



Source: traffiQ

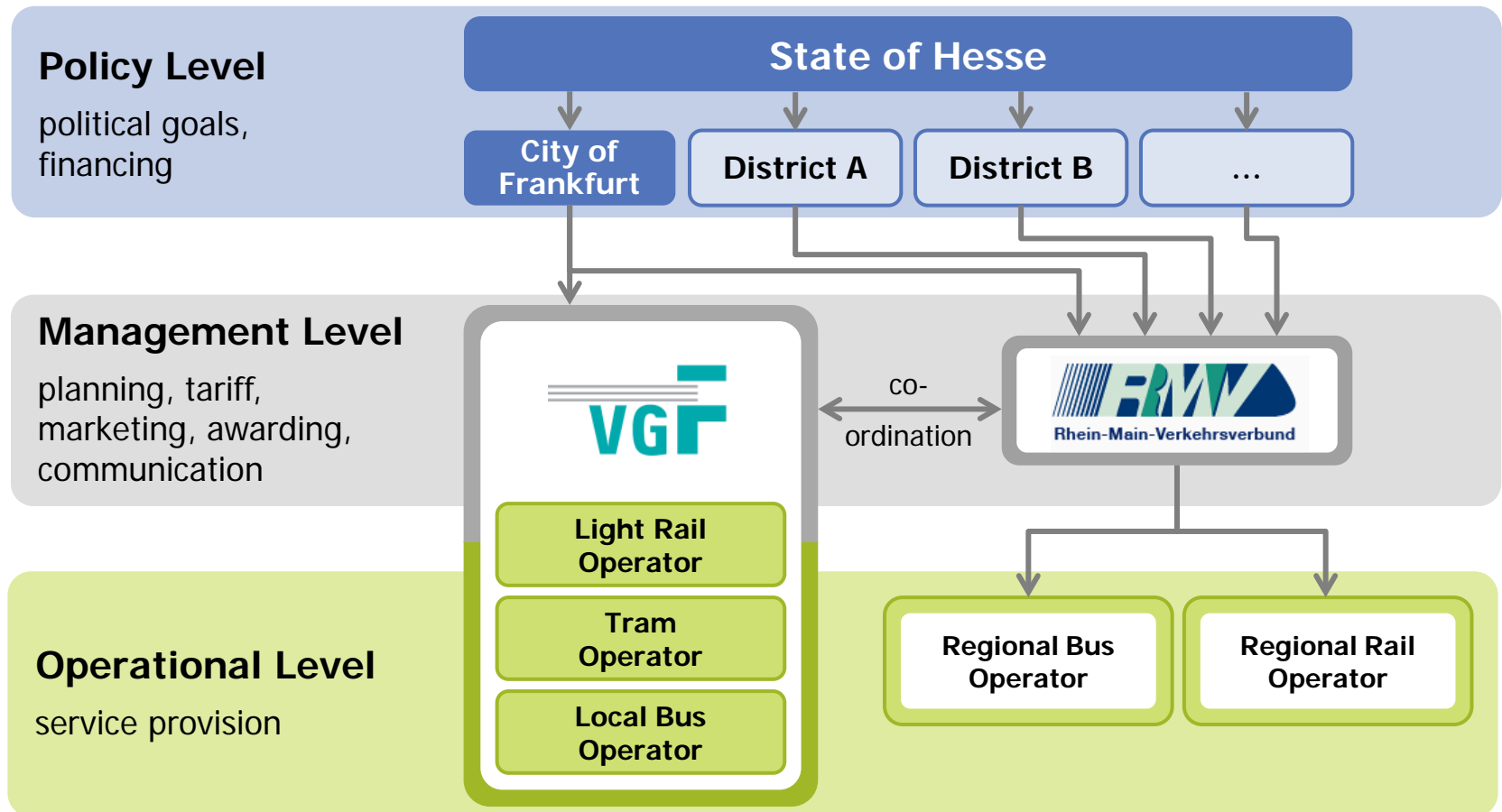
1. Institutional set-up

Coordination of local and regional public transport between traffiQ and RMV

- **Separation between traffiQ and RMV** is a matter of scale:
 - The **local** public transport organisation **traffiQ** is responsible for the management of road-bound public transport in Frankfurt (including light rail and tram services).
 - The **regional** public transport alliance **RMV** ("Rhein-Main-Verkehrsverbund") is responsible for regional bus services and for all metropolitan ("S-Bahn") and regional railway services.
- As local and regional transport are interlinked, **coordination between both organisations** is provided for:
 - Both urban and rural districts are members of the RMV.
 - traffiQ represents the City of Frankfurt in working group and advisory board meetings.

1. Institutional set-up

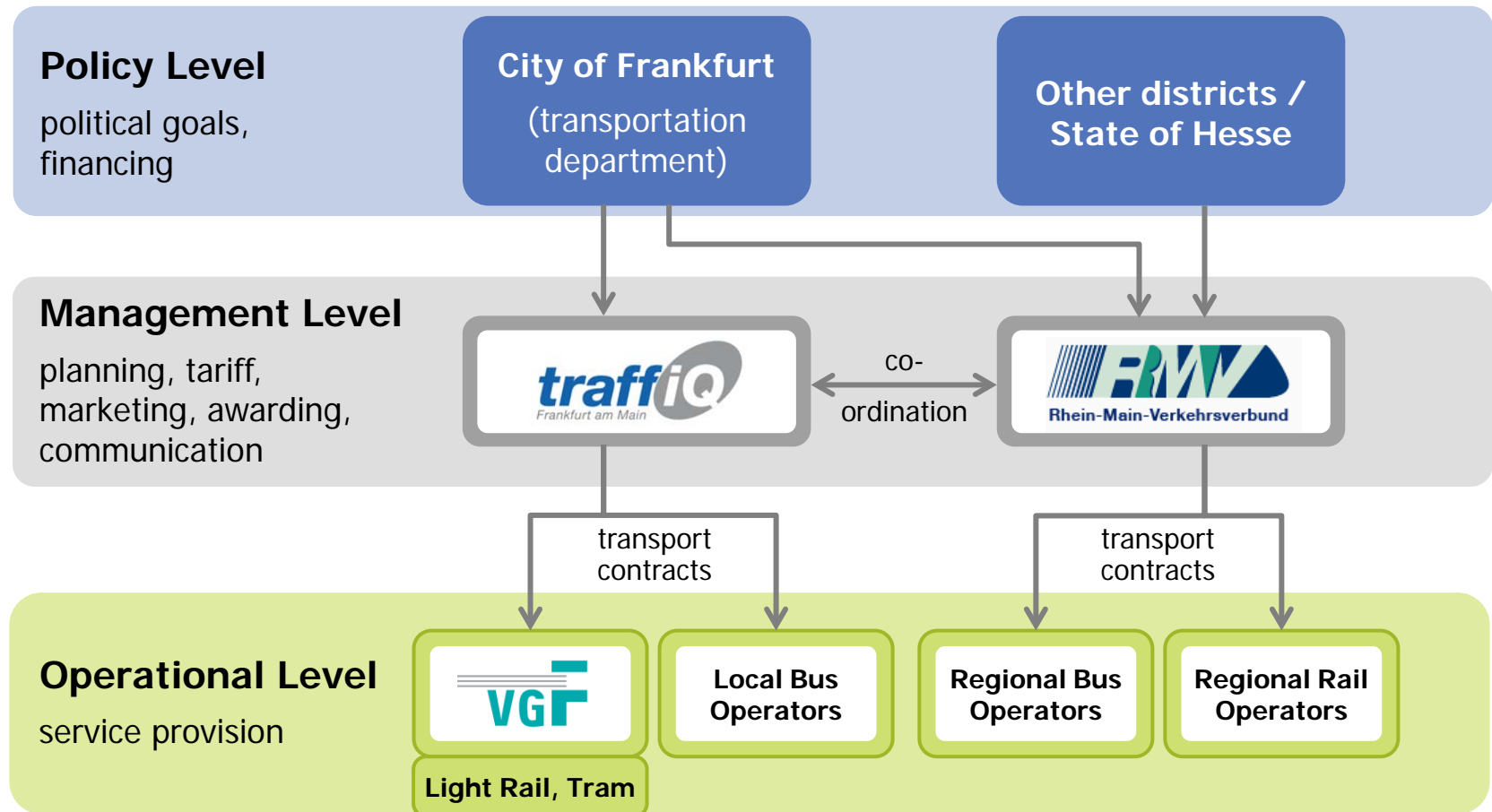
Coordination of local and regional public transport between VGF and RMV before 2001



Source: traffiQ

1. Institutional set-up

Coordination of local and regional public transport between traffiQ and RMV since 2001



Source: traffiQ

Structure

Case Study Frankfurt

1. Institutional set-up

- Politico-administrative structure in the state of Hesse
- The local public transport organisation “traffiQ”

2. Size and quality of the public transport system

- Public transport network
- Regulations to guarantee quality standards
- Data on the service provision and service quality

3. Financing of the public transport system

- Revenue
- Expenditure
- Compensation of deficits

Public Transport Network

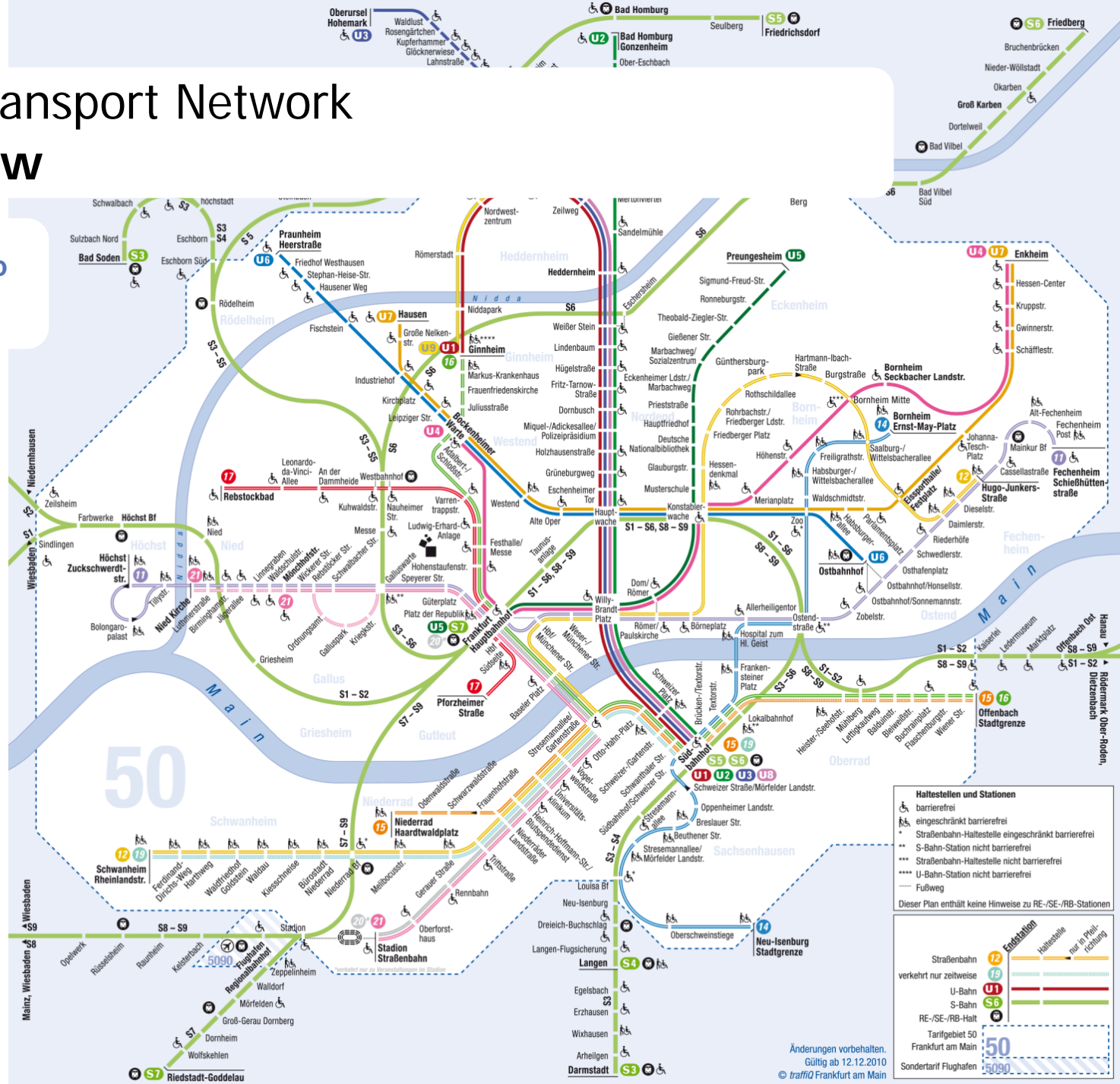
Size of the public transport system

- **revenue-earning kilometres:** 31,7 million
 - in which 16.9 million are served by 59 bus lines (incl. night services), organised in 7 bundles
 - in which 14.8 million are served by 9 light rail lines and 10 tram lines
- **total line length:** 750.2 km (regular routing, incl. night services)
- **stations:** 743 (multiple entries adjusted, incl. night services)
- **total passenger-kilometres:** 866.4 million
- **total seat-kilometres:** 5.934.3 million
- **transport area:** 248.3 km²
- **inhabitants in transport area:** 688,191 (2011)

Source: traffiQ 2011

Public Transport Network Overview

Network map of Frankfurt



Source:
traffiQ 2011

Regulations to guarantee quality standards

Tendering process (1)

How was the transfer to the tendering competition prepared?

- The bus lines were grouped in seven bundles. These bundles combine strong and weak lines to allow cross-subsidy within a bundle. The bundles are comparable in size with the exception of the very small bundles „F“ and „H“.
- One by one the bundles were put out for tender, starting in 2003. The contracts cover periods of five to eight years. In general, there is one tendering procedure per year.
- The first bundle went into operation towards the end of 2004. This allowed the former operator VGF to get acquainted with the competition conditions and all other potential operators to gain experiences in the tendering process step by step.

Regulations to guarantee quality standards

Tendering process (2)

How is the tendering process constructed?

- According to EU-regulation the process is organised as a public competitive bidding open to all bidders.
- The total price of the offer is the only award criterion.
- No variant offers are allowed.

Regulations to guarantee quality standards

Transport contracts

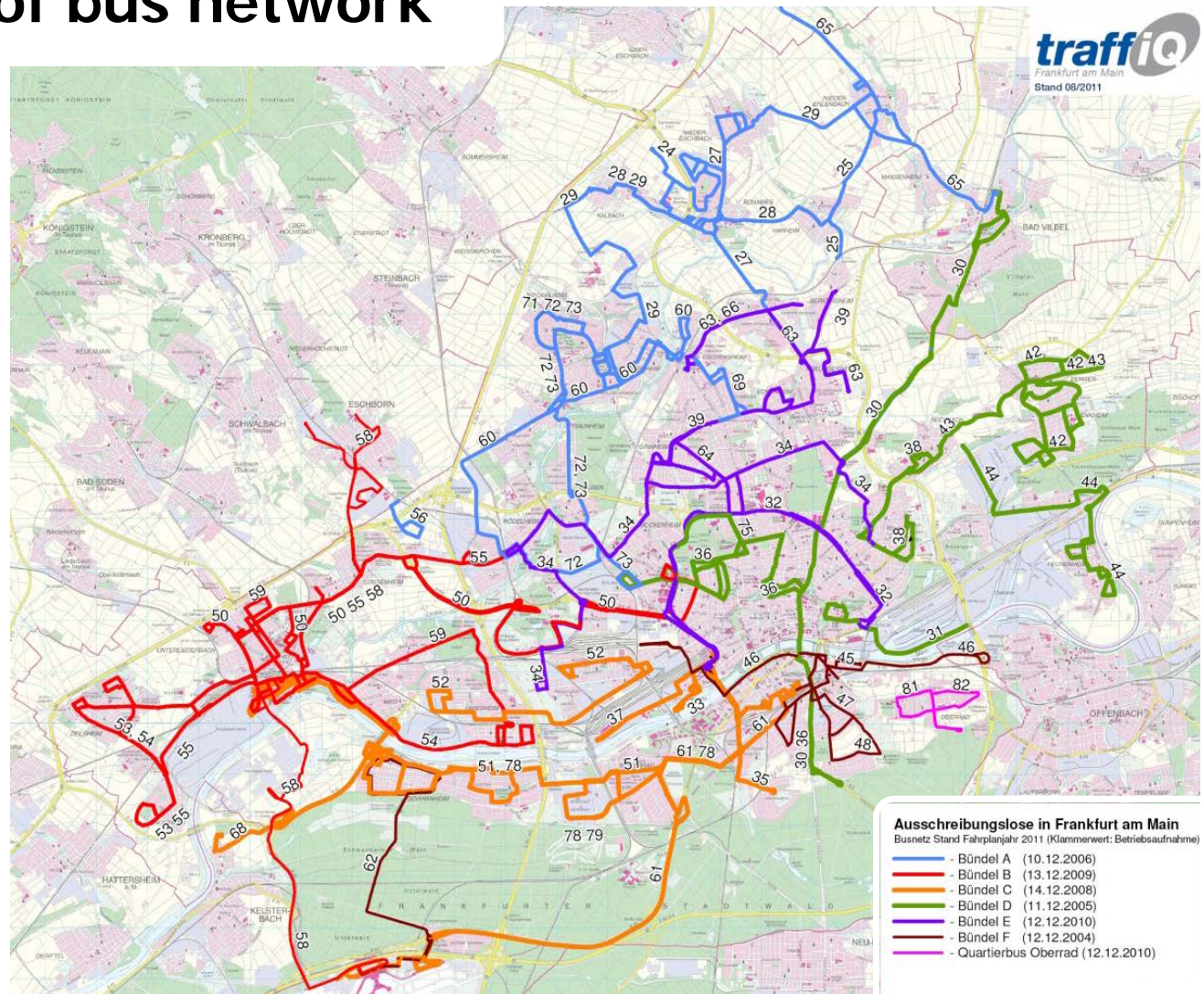
What are the main contents of the transport contracts?

- The contracts are constructed as gross cost contract (i.e. fare revenues will be retained by the operator) with a bonus-malus-system, based on defined quality criteria.
- Conformance with the quality criteria will be checked objectively on basis of vehicle requirements being met.
- Conformance with the quality criteria will be checked subjectively on basis on surveys collecting data which describe costumer satisfaction.
- The winning bidder is obliged to deliver both vehicles and depots.

Regulations to guarantee quality standards

Bundles of bus network

Bus route
bundles
("Liniennetzplan")
in Frankfurt



Source: traffiQ 2011

Regulations to guarantee quality standards

Public service contracts (bus, as of 31st Dec. 2011)

Bundle	Line	Size (2011)	Start of service – end of service	Europewide awarding procedure carried out in ...	Contract awarded on ...	Company
A	24, 25, 27, 28, 29, 56, 60, 65, 69, 71, 72, 73	3.286 million km	10.12.2006 - 08.12.2012	2005	06.12.2005	Veolia
B	50, 53, 54, 55, 57, 58, 59	3.776 million km	13.12.2009 - 13.12.2014	2008	09.10.2008	ICB
C	33, 35, 37, 51, 52, 61, 68, 78, 79, 80	2.579 million km	14.12.2008 - 14.12.2013	2007	08.12.2007	Sippel
D (2nd award)	30, 31 36, 38, 42, 43, 44, 75, n1, n2, n3, n4, n5, n6, n7, n8, n11, n62, n63	3.519 million km	11.12.2011 - 09.12.2017	2010	19.11.2010	ICB
E	32, 34, 39, 63, 64, 66	2.944 million km	12.12.2010 - 10.12.2016	2009/2010	19.02.2010	Veolia
F	45, 46, 47, 48, 62	0.723 million km	12.12.2004 - 12.12.2012	2003/2004	05.05.2004	RKH
H	81, 82	0.054 million km	12.12.2010 - 08.12.2012	2010	20.10.2010	UOB

Source: traffiQ 2012

Service provision and service quality

1st result: The market share of the public bus operator has decreased by 50 % within eight years

Change of provider structure between 2002 and 2011

– regardless of subcontractor services –

Operator	2002	2011
In-der-City-Bus GmbH (ICB)/VGF	100 % (VGF)	43.2 % (ICB)
Alpina/Veolia Verkehr Rhein-Main GmbH	0 %	36.9 %
Regionalverkehr Kurhessen GmbH (RKH)/DB Regio AG	0 %	4.3 %
Autobus Sippel GmbH/Netinera Deutschland GmbH	0 %	15.3 %
Überacher Omnibusbetrieb Emil H. Lang GmbH (UOB)	0 %	0.3 %

Market share of bus operators in Frankfurt am Main, based on revenue-earning kilometres

Source: own compilation, data provided by traffiQ

Service provision and service quality

2nd result: Since 2002 the quality of public transport has improved considerably

How did supply in local bus transport change since introduction of competition?

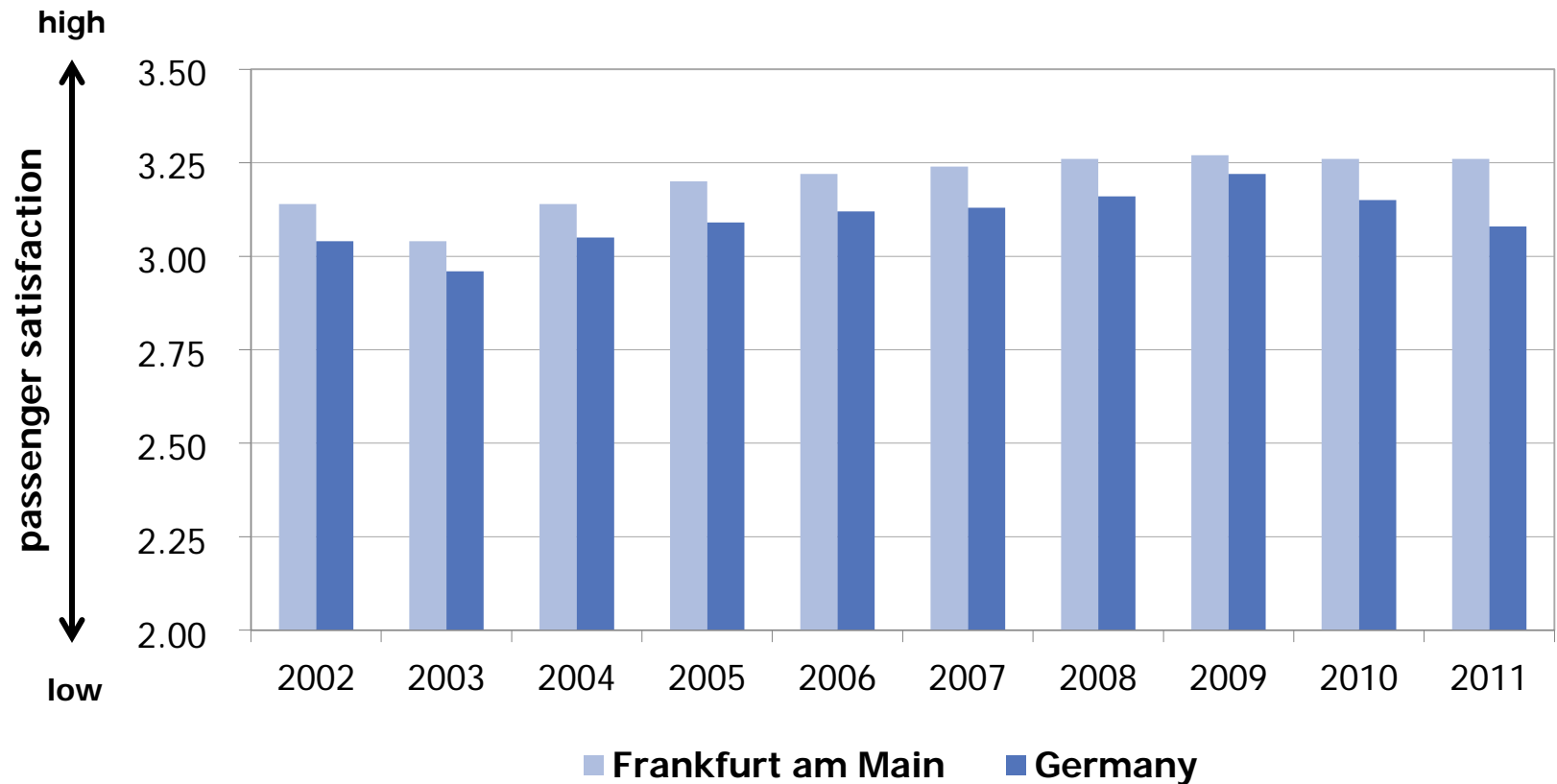
- The vehicle quality standards have been raised considerably: on the average buses are younger than 8 years, barrier-free access has become standard, vehicles are climatized, cleaner than before and fulfil stronger emission standards.
- The bus traffic volume has increased considerably (in terms of revenue-earning kilometres): starting with 12,9 million km in 2002 to 16,9 million km in 2011 (+31 %). The number of buses in use has increased from 224 to 283 (+26 %).
- Both an half-hourly night service on specific routes and city quarter buses have been introduced successfully.

How did demand of local bus transport change since introduction of competition?

- The number of passengers in all local public transport has increased from 183 million in 2006 to 201 million in 2011 (+10 % within five years).
- The share of public transport remained constant whereas the share of private cars decreased considerably to the benefit of non-motorised transport modes.

Service provision and service quality

3rd result: The passenger satisfaction has increased



Source: Own illustration, based on TNS Infratest data, ÖPNV-Kundenbarometer 2002-2011

Structure

Case Study Frankfurt

1. Institutional set-up

- Politico-administrative structure in the state of Hesse
- The local public transport organisation “traffiQ”

2. Size and quality of the public transport system

- Public transport network
- Regulations to guarantee quality standards
- Data on the service provision and service quality

3. Financing of the public transport system

- Revenue
- Expenditure
- Compensation of deficits

3. Financing of the public transport system

Overview of revenue and expenditure (2011)

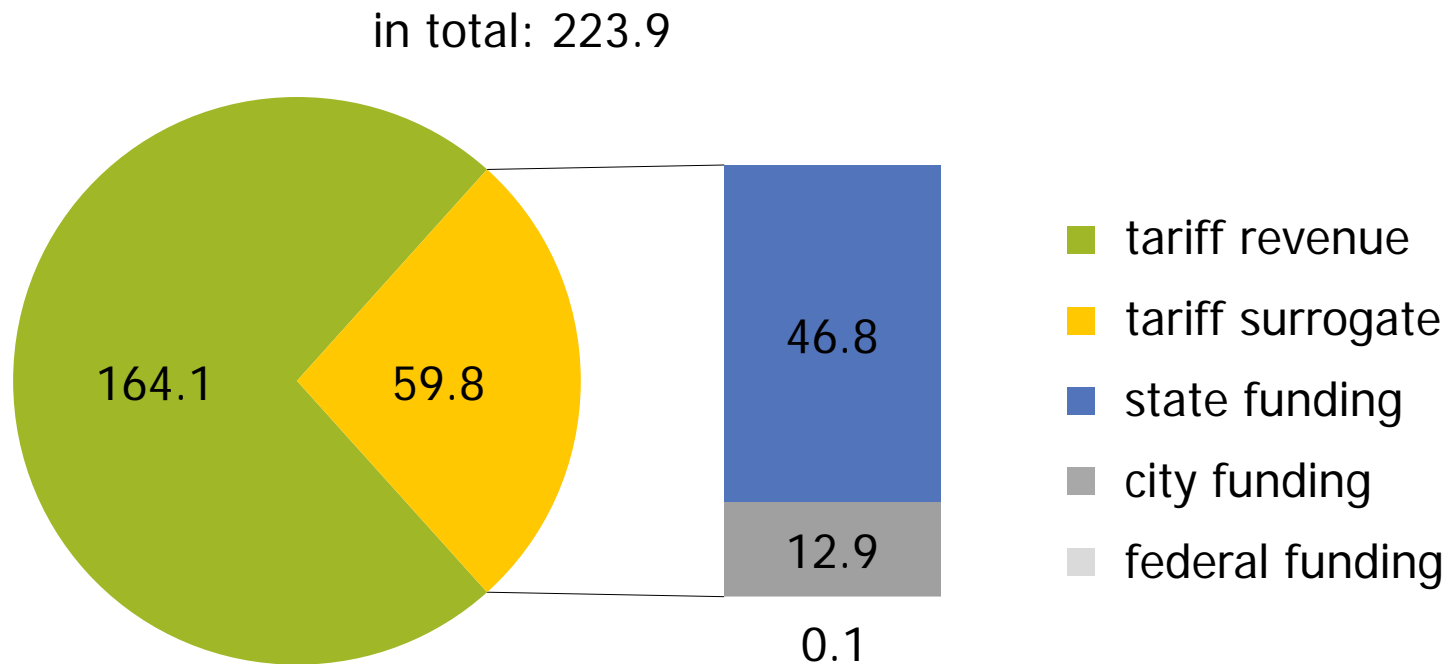
- The **total revenue of traffiQ** added up to **223.9 million €**,
 - of which 73 % are based on ticket sales
 - and 6 % are financed by the City of Frankfurt,
 - 21 % are financed by the State of Hesse
 - and less than 1 % are financed by the Federal Government.

- The **total expenditure** added up to **284.2 million €**,
 - of which 20 % are spent on bus services
 - and 80 % on light rail and tram services.

- The **remaining deficit (60.2 million €)** is compensated for
 - through cross-subsidisation from other public utilities (40.3 million €, 67 %),
 - by subsidies of the city (19.9 million €, 33 %).

3. Financing of the public transport system

Revenue of local PT (in million €)



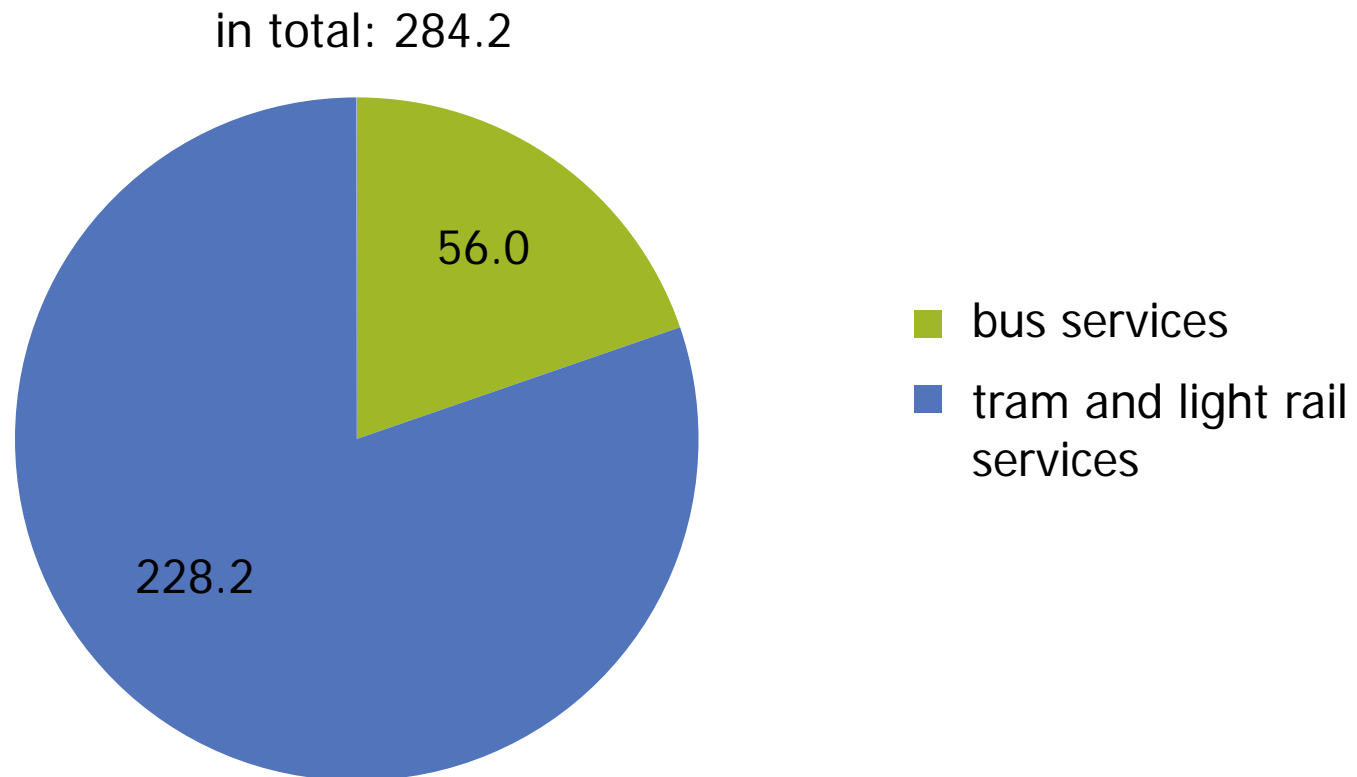
Source: traffiQ, 2011

25

Financing Public Transport in Germany, Part B

3. Financing of the public transport system

Expenditure of local PT (in million €)



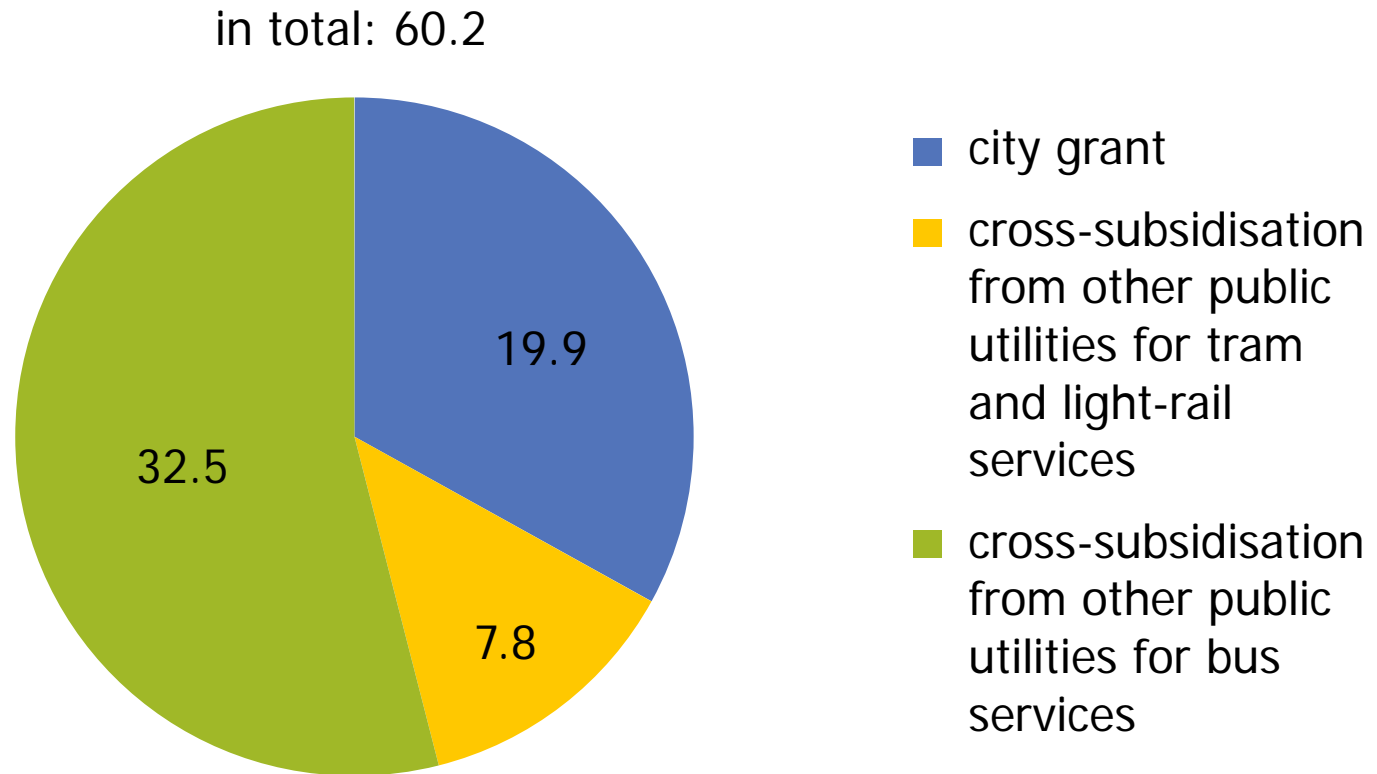
Source: traffiQ, 2011

26

Financing Public Transport in Germany, Part B

3. Financing of the public transport system

Compensation of deficits (in million €)



Source: traffiQ, 2011

27

Financing Public Transport in Germany, Part B

Contact

Dr. Axel Stein
Consultant

KCW GmbH
Berlin
Bernburger Str. 27
10963 Berlin

Fon: +49 (0) 30/40 81 768 – 88
Fax: +49 (0) 30/40 81 768 – 61
Mail: stein@kcw-online.de
Web: www.kcw-online.de