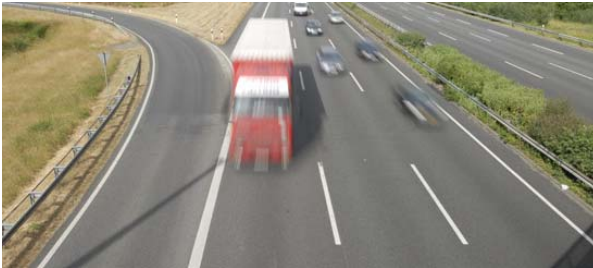


**Round Table PPP with the Minister of Economic Affairs  
of Estonia, Juhan Parts**

**- A-Models in General / A5 in Baden-Württemberg -**

Torsten R. Böger  
Stuttgart, 11<sup>th</sup> of November 2008

## Content



- **Trunk Roads in Germany**
- **Organisation of HGV-toll**
- **The A-Model**
- **The F-Model**

## Trunk Roads in Germany

### Germany's Trunk Roads – Structure

#### State level

- Federal republic
- States
  - 16 States (13 territorial states and 3 city states)
- Municipalities
  - Cities
  - Counties

#### Federal Road network

- Federal trunk roads (Bundesstraßen)
  - 40.700 km
  - Traffic volume: around 10.000 vehicles per day
- Federal highways (Bundesautobahnen)
  - 12.550 km
  - Traffic volume: average of 50.000 vehicles per day (up to 150.000 on some sections)

#### Forecast

- Passenger transport: +20%
- Goods transport: +63%

#### Reasons

- Europe (market, enlargement)
- General increase of trade and mobility

## Trunk Roads in Germany

### Annual Budgets for Transport Infrastructure

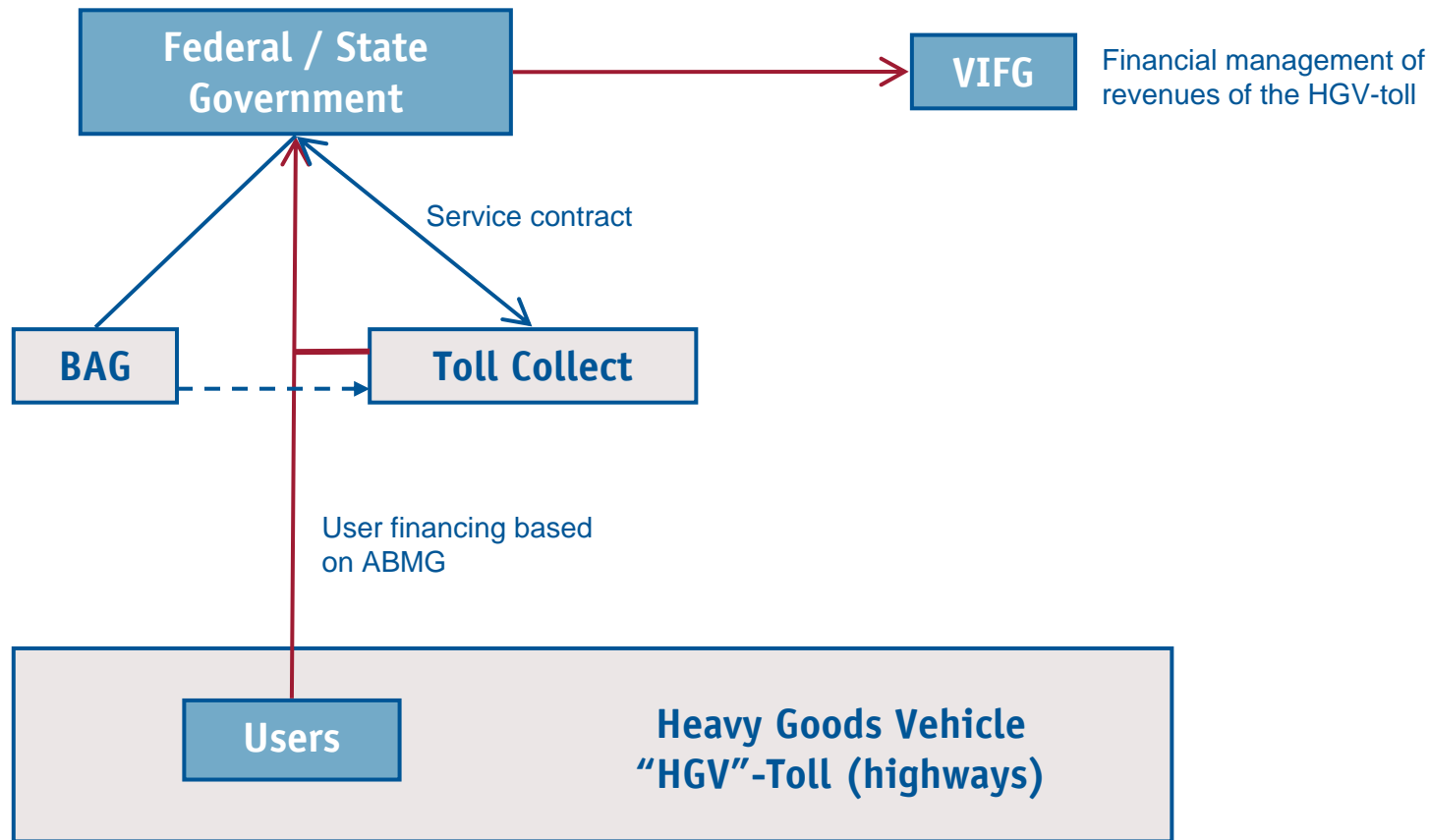
	Actual 2007	Target 2008	Draft 2009	Plan 2010	Plan 2011	Plan 2012
<b>Federal Budget</b>	€ 261,6 bn	€ 283,2 bn	€ 288,4 bn	€ 292,4 bn	€ 295,2 bn	€ 300,6 bn
<b>Transport</b>	€ 20,3 bn	€ 20,7 bn	€ 22,3 bn	€ 22,0 bn	€ 21,9 bn	€ 21,9 bn
<b>Investments</b>						
<b>Roads</b>	€ 4,93 bn	€ 4,93 bn	€ 5,23 bn	€ 5,04 bn	€ 4,89 bn	€ 4,85 bn
<b>Railways</b>	€ 3,40 bn	€ 3,70 bn	€ 3,92 bn	€ 3,92 bn	€ 3,92 bn	€ 3,92 bn
<b>Waterways</b>	€ 0,59 bn	€ 0,80 bn	€ 0,90 bn	€ 0,89 bn	€ 0,88 bn	€ 0,87 bn
<b>Investments total</b>	<b>€ 8,92 bn</b>	<b>€ 8,43 bn</b>	<b>€ 10,05 bn</b>	<b>€ 9,85 bn</b>	<b>€ 9,69 bn</b>	<b>€ 9,64 bn</b>

### Legal Framework of HGV-Toll




- HGVs with a maximum permissible weight of at least 12 t on federal highways
- Started on 1st of January 2005
- Average toll rate:
  - 12,4 cent/km when started
  - 13,5 cent/km now
  - between 16,3 - 18 cent/km expected in 2009
- Differentiation according to axles and emission classes
- Charging based on the exact number of kilometres driven
- Toll revenues aroused from € 3 bn (2005) up to € 5 bn (2012)
- Earmarking of revenue

## Organisation of HGV-toll

### Organisation of the HGV-toll



#### Legend

	Toll payments / forwarding
	Contractual relation
	Implementation of federal tasks
<b>BAG</b>	Controlling Entity for Toll Collect

---

---

## Goals of Federal Government with PPP/PFI

---

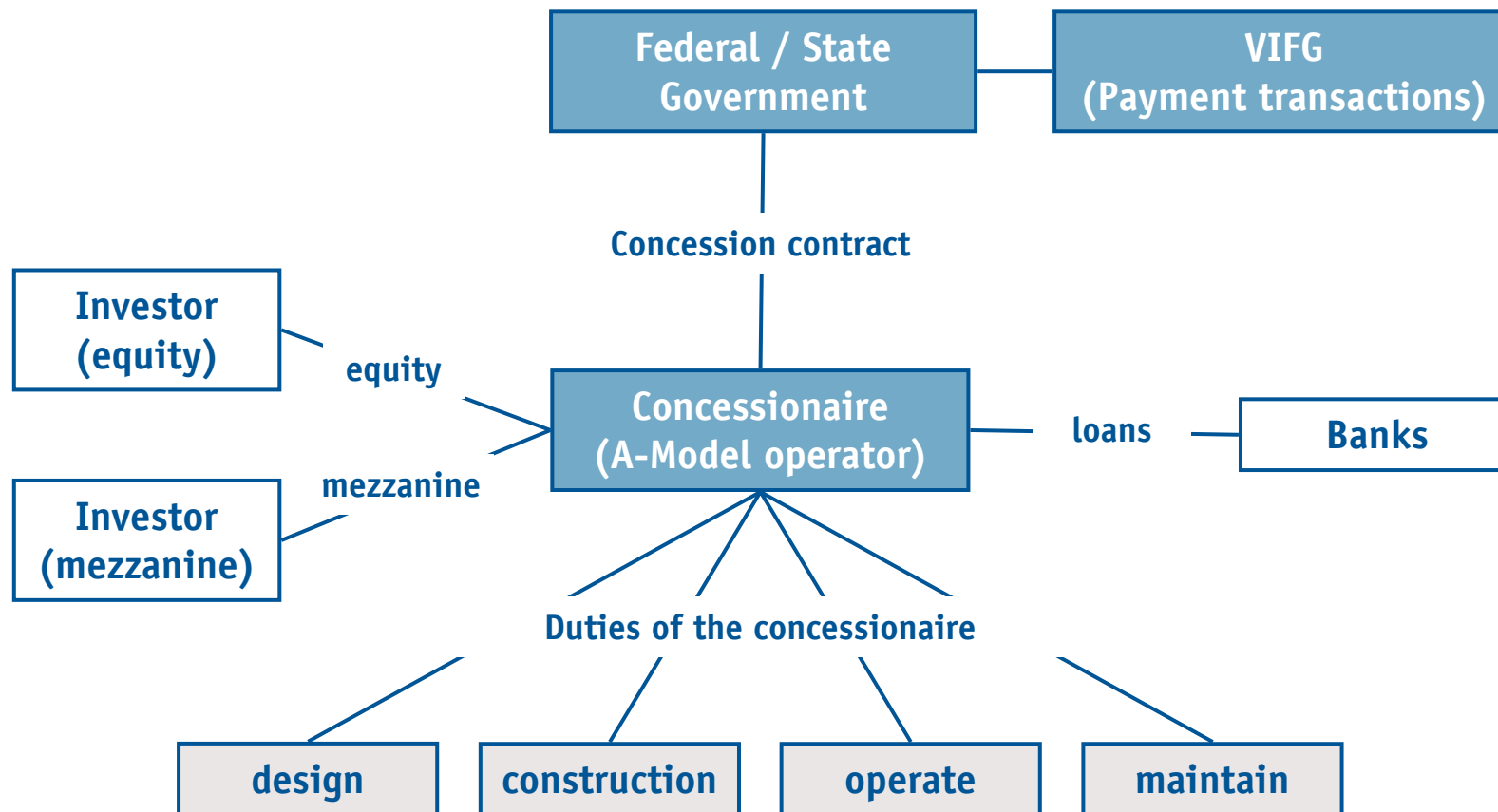
- **Efficiency**
  - Procurement of public services with an optimal ratio of funding and achieved benefits
- **Bring forward prior projects**
  - Realisation of huge and important projects earlier than the available funds in the annual budget allow
- **Modernisation**
  - PPPs setting Benchmarks for conventional procurement
  - Optimisation of administration structures
- **Innovation**
  - Innovative solutions are expected from procurement by the private partner

## **The A-Model Program**

- **The main two reasons to start the A-Model program were the entry in an user financing system in Germany and the expansion of the road network; it was not primary because of the expected effectiveness and efficiency**
- **Under the A-Model a private concessionaire expands an existing highway (from 4 lanes to 6 lanes)**
- **The concessionaire is remunerated with two elements:**
  - **Kick-off financing (expected: max. 50 % of investment)**
  - **Transfer of the HGV-toll that accrues on the specific section**
- **The tasks of the concessionaire are the (D)BFOM of the road**
- **The avg. A-Model road will be 50-70 km**
- **The contract duration will be 30 years**

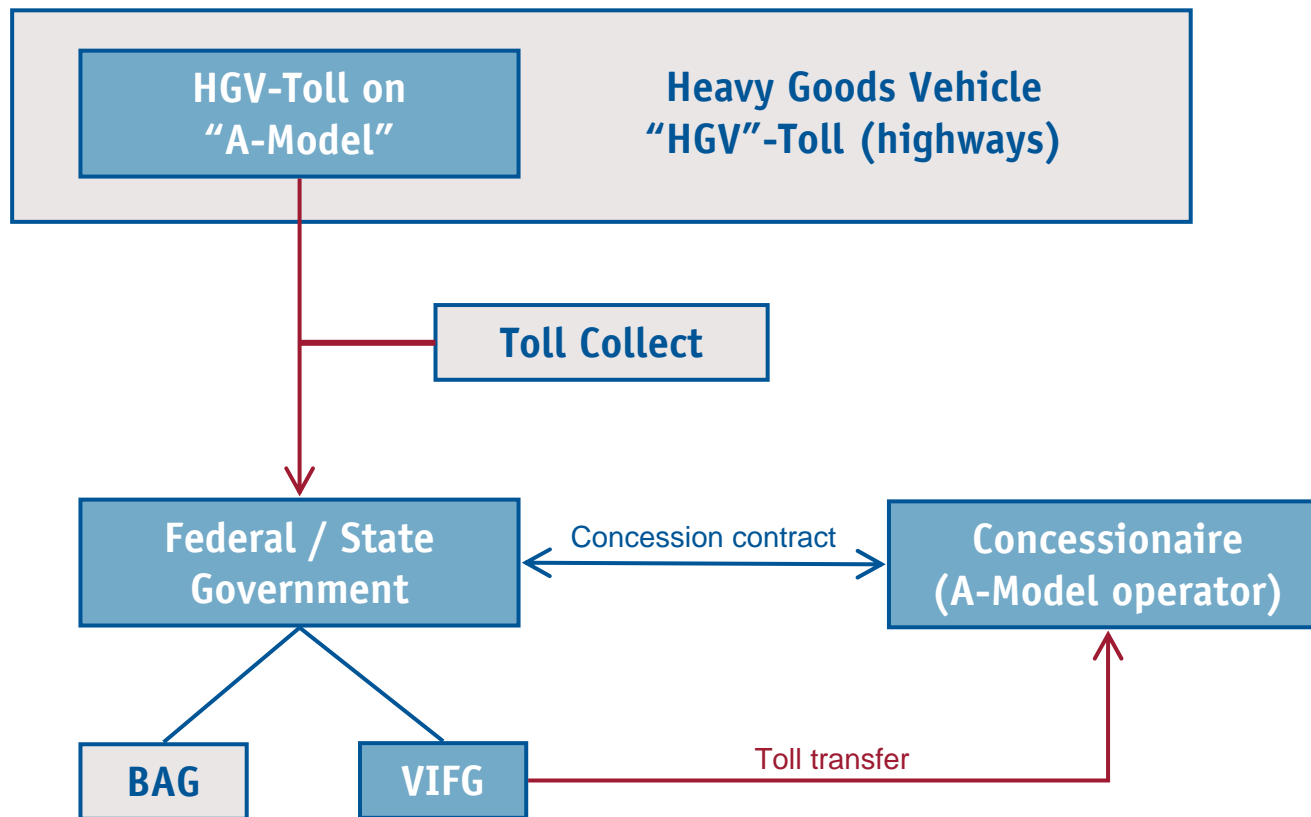
**A-Model**

**Structure of the A-Model**

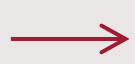




**A-Model**

**Structure of Toll Transfer**



**Legend**

	Toll forwarding
	Contractual relation
	Implementation of federal tasks
<b>BAG</b>	Controlling Entity for Toll Collect

## A-Model

### Risk allocation under the A-Model

	Contracting Authority	Concessionaire
<b>Risk of toll collection</b>	X	
<b>Risk of planning and plan approval</b>	X	
<b>Risk of land acquisition</b>	X	
<b>Unpredictable construction of parallel or alternate routes</b>	X	
<b>Risk of completion</b>		X
<b>Risk of maintenance and operation</b>		X
<b>Risk of traffic volume</b>		X
<b>Risk of road condition (upon termination of Concession Agreement)</b>		X
<b>Force Majeure</b>	X	X
<b>Geological risk</b>	X	X
<b>Risk of legislative changes</b>	X	X

## A-Model

### A-Model A5 – The 1st Pilot Project in Baden-Württemberg



#### Project-Details

Road Section:	AS Baden-Baden – AS Offenburg
Length:	53 km
Stretch of extension:	41,5 km
Construction Costs:	app. € 265 m
Concession Volume:	app. € 850 m

- Traffic Forecasts have shown that the daily traffic will increase from 67.000 vehicles per day (2005) up to 80.500 vehicles per day (2015) with a rate of Heavy Vehicles about 17,5 % (14.000 vehicles per day)
- The A-Model A5 is the fourth of the pilot projects and will be the first PPP-project in transport sector in Baden-Württemberg

#### Schedule

Status	In tender	Shortlist:	Mar. 2008
Tender launched:	Dec. 2005	BAFO	end of 2008
Prequalification:	Feb. 2007	Start of concession:	exp. 2009
Bids received:	Sept. 2007	Construction Period:	6 years

## A-Model

### The Ministry of Transport announced further A-Model projects in June 2008



#### pilot projects awarded or in tender

1. Bayern	A8 (AS Augsburg West – AD München-Allach)	Awarded
2. Thüringen	A4 (Landesgrenze Hessen /Thüringen – AS Gotha )	Awarded
3. Niedersachsen	A1 (AD Buchholz – Bremer Kreuz)	Awarded
4. Baden-Württemberg	A5 (AS Malsch – AS Offenburg)	In tender

#### Tender expected for 2008 / 2009

5. Bayern	A8 (Ulm – Augsburg-West)
6. Thüringen	A9 (AK Hermsdorf – Schleiz)

#### Tender expected for 2009 / 2010

7. Nordrhein-Westfalen	A1 (Lotte – Münster)
8. Niedersachsen	A30 (Rheine – Lotte)
9. Schleswig-Holstein	A7 (Bordesholm – Hamburg)
10. Niedersachsen	A7 (Salzgitter – Drammetal)
11. Baden-Württemberg	A6 (Wiesloch-Rauenberg – Weinsberg)

### The F-Model



- The use of the model is limited to tunnels, bridges and passes by law.
- The private concessionaire builds, finances und operates a road for 30 years.
- The concessionaire levies a direct toll from all users.
- 2 implemented projects:
  - Warnowquerung, Rostock (opened in 2003)
  - Travequerung, Lübeck (also called „Herrentunnel“; opened in 2005)
- Other projects were presented and are examined right now :
  - e.g. Weserquerung, Bremen
  - e.g. Alaufstieg, Baden-Württemberg

## F-Model

### Warnow Crossing



Source: Warnowquerung GmbH & Co. KG

#### Project-Details

Road Section:	B 105, crossing the Warnow River
Length:	4 km, incl. Tube with length of 790 m (4 lanes)
Construction Costs:	app. € 215 m
Concessionaire:	Bouygues / Macquarie Infrastructure Group (MIG)
SPV:	Warnowquerung GmbH & Co. KG <a href="http://www.warnowquerung.de/">http://www.warnowquerung.de/</a>
Leading Lender:	Deutsche Bank / Nord LB / KfW

#### Schedule

Status:	in operation
Tender launched:	--
Start of construction:	Dec. 1999
Start of concession:	Sept. 2003
Concession Period:	50 years
Construction Period:	app. 4 years

#### Financial-Details\*

<b>Debt + Subventions (total):</b>	€ 172 m	<b>Equity (total):</b>	€ 43 m
<b>Debt:</b>	€ 146 m	<b>quota:</b>	20 %
<b>TEN - Funds:</b>	€ 17 m	<b>Debt / Equity ratio:</b>	78 / 22
<b>Start – up financing:</b>	€ 8,5 m	<b>Margin:</b>	-- bps

\* Source: Infra – News / Warnowquerung GmbH & Co. KG

## F-Model

### Trave Crossing



Source: Herrentunnel Lübeck GmbH & Co. KG

#### Project-Details

<b>Road Section:</b>	B 75 7 B 104, crossing the Trave River
<b>Length:</b>	2,1 km, incl. Tube with length of 1 km
<b>Construction Costs:</b>	app. € 108 m
<b>Concessionaire:</b>	Bilfinger Berger / HochTief (each 50%)
<b>SPV:</b>	Herrentunnel Lübeck GmbH & Co. KG <a href="http://www.herrentunnel.de/">http://www.herrentunnel.de/</a>
<b>Leading Lender:</b>	HSH Nordbank AG / KfW with further syndication in addition the EIB
<b>Legal Advisor:</b>	Freshfields Bruckhaus Deringer LLP

#### Schedule

<b>Status:</b>	in operation
<b>Tender launched:</b>	Mar. 1997
<b>Start of construction:</b>	Oct. 2001
<b>Start of concession:</b>	Sept. 2005
<b>Concession Period:</b>	30 years
<b>Construction Period:</b>	4 years

#### Financial-Details\*

<b>Debt + Subventions (total):</b>	€ 158 m	<b>Equity (total):</b>	€ 22 m
<b>Net cash flow:</b>	€ 12 m	<b>quota:</b>	12 %
<b>Base amount:</b>	€ 90 m	<b>Debt/Equity ratio:</b>	- / -
<b>KfW credit:</b>	€ 28 m	<b>Margin:</b>	- bps
<b>Commercial credit:</b>	€ 28 m		

\* Source: Infra-News / Herrentunnel Lübeck GmbH & Co. KG

---

## Municipal Pilot Projects

---

- **Brandenburg a. d. Havel**
  - Maintenance, operation and financing a part of the network for 15-25 years
  - Periodical charges depending on the scope of service and the quality
- **Zeuthen**
  - Construction, maintenance, operation and financing a subnet for 25 years
  - Financial contributions from residents can be regarded for the project
- **Targets pursued with attending projects by the VIFG**
  - Development of new elements for PPP in road infrastructure (e. g. availability charges, PPP for maintenance, PPP for road networks)
  - Development of optimal strategies for maintenance to force the efficient operation and to enhance the quality of the road conditions (e. g. capturing the conditions, benchmarking)
  - Expansion of PPP solutions and reduction of transaction costs

---

## Perspectives

---

- **PPP is an important instrument to modernize the administration**
- **Benefits from PPP-Projects**
  - The search for alternative solutions like PPP shows potentials in the conventional sphere
  - The whole procurement process should learn from PPP-projects, like getting more transparent and implementing a performance monitoring
- **Further A-Model projects are in preparation**
- **The evaluation of the F-Model should give the discussed projects a boost**
- **The first regional projects have also started and the number of interested municipals seems to grow**
  - There can be lessons learned from projects including a road network
  - The expected payment mechanism for availability is new in Germany

## Contacting us

# Verkehrsinfrastrukturfinanzierungsgesellschaft mbH



## VIFG VerkehrsInfrastruktur FinanzierungsGesellschaft mbH

Georgenstraße 25  
10117 Berlin

Telefon: +49 (30) 5 20 02-62 10

Telefax: +49 (30) 5 20 02-62 12

E-Mail: [vifg@vifg.de](mailto:vifg@vifg.de)

Managing Director

Torsten R. Böger  
([torsten.boeger@vifg.de](mailto:torsten.boeger@vifg.de))

Tel. +49 (30) – 5 20 02-62 10

Head of PPP

Frank Ulber  
([frank.ulber@vifg.de](mailto:frank.ulber@vifg.de))

Tel. +49(30)-5 20 02-62 10