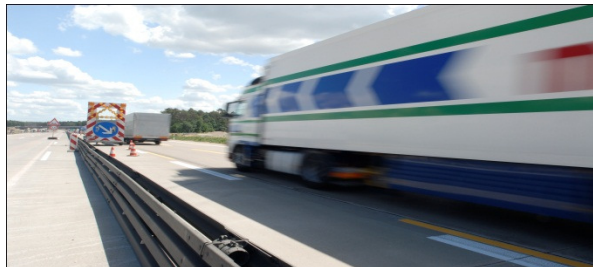




**PPP on German Federal Trunk Roads**  
**Joint Workshop on “Financing Transport Infrastructure”**  
Geneva, September, 10<sup>th</sup> 2013

## Content

### Content

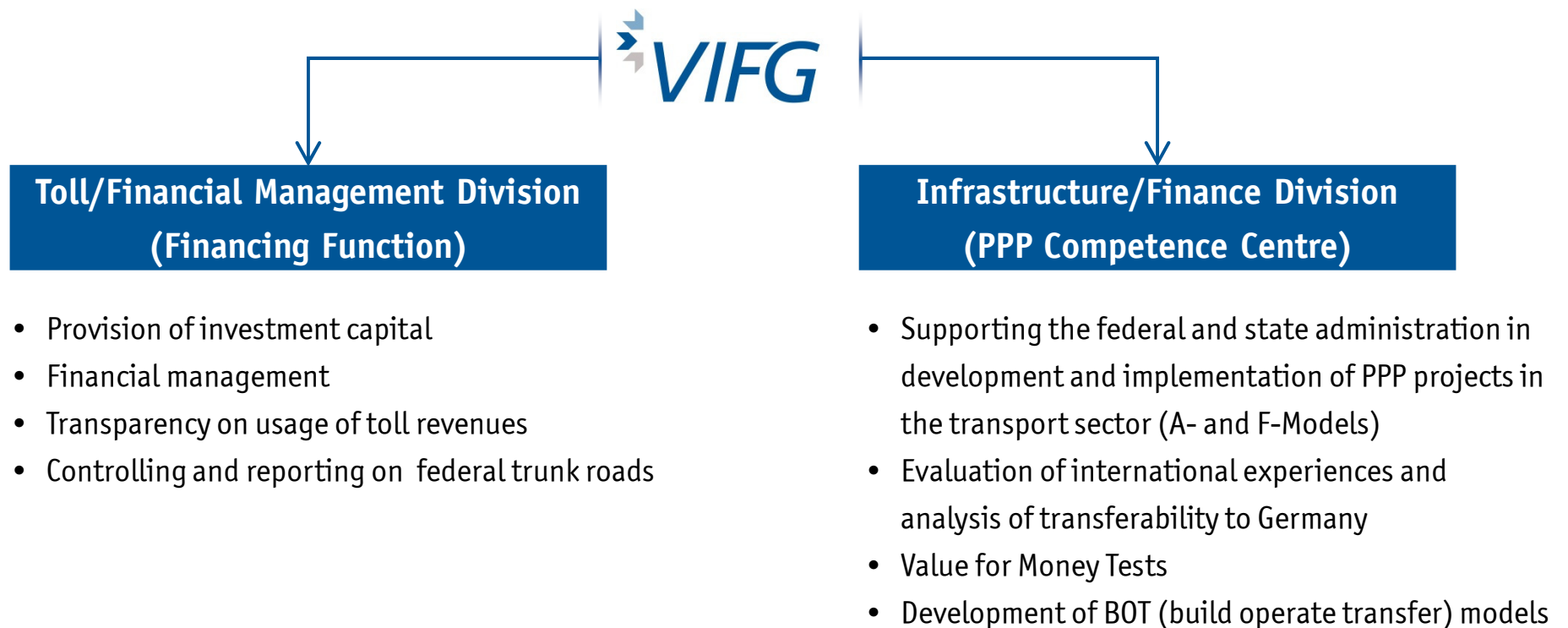


- **Tasks and Functions of the VIFG**
- **Financing Transport Infrastructure in Germany**
- **Federal Transport Infrastructure Plan**
- **A-Model PPP-Projects in Germany**
- **Present PPP-Project on Federal Highway**
- **Structured Negotiated Procedure**
- **Current Infrastructure Financing Market Environment**
- **Contact and Appendix**

## Tasks and functions of the VIFG

### Tasks and functions of the VIFG

Germany's Transport Infrastructure Financing Company (VIFG) founded in 2003 and based on the VIFG act



## Financing Transport Infrastructure in Germany

### Federal Road Network



- Motorway Toll for Heavy Goods Vehicle (> 12 t) on Highways
- Toll revenues are entitled to the federal government, revenues and expenses are accounted in federal budget and operated by the VIFG
- 12.800 km federal highway and 39.900 km federal roads

#### Total federal budget for federal road network 2008-2016\* / € bn.

2008	2009	2010	2011	2012	2013 (Plan)	2014 (Plan)	2015 (Plan)	2016 (Plan)
6,0	7,1	6,5	6,1	6,4	6,5 (Plan)	5,9 (Plan)	5,8 (Plan)	5,7 (Plan)

\*operation costs not included

- Investment requirement: minimum € 8 bn. p.a. – funding gap: € 2 bn. p.a.

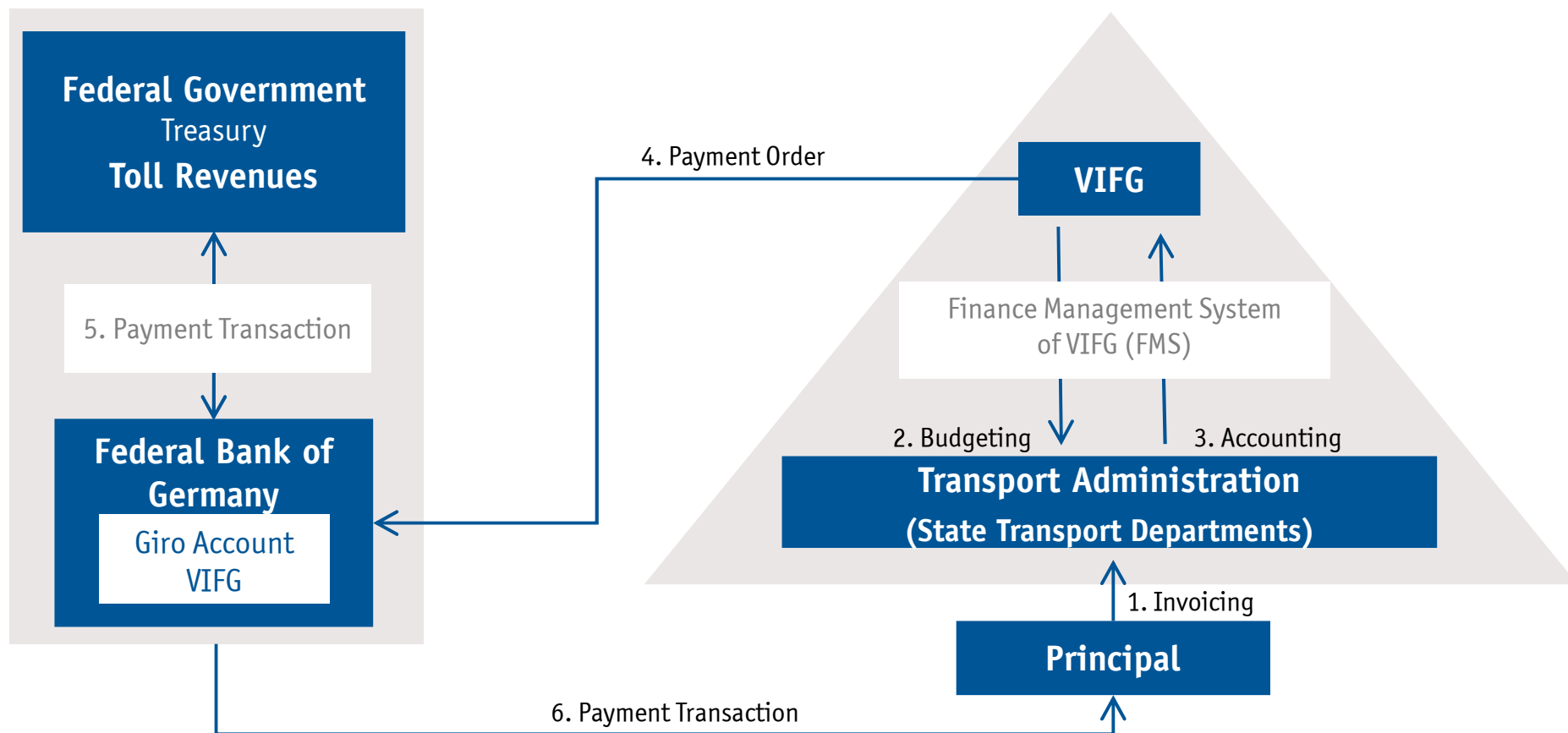
#### HGV – Toll revenues 2009-2011 / € bn.

2009	2010	2011	2012	2013 (Plan)
4,325	4,510	4,477	4,362	4,523

- Toll system operation costs and expenditures for harmonization measures of approx. € 1,3 bn; hence net toll revenues of approx. € 3,2 bn in 2012

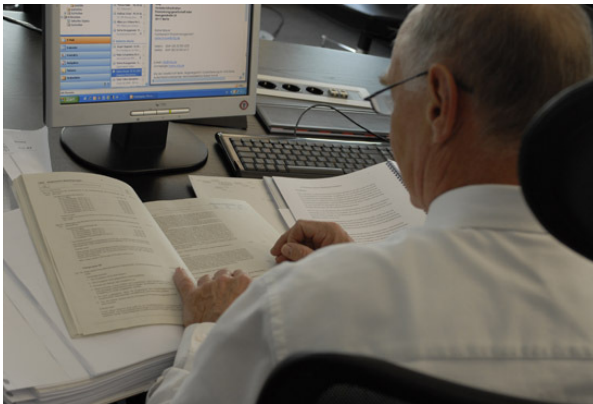
Financing Transport Infrastructure in Germany / Tasks and functions of the VIFG

**Toll Payment Transaction Processing**





### Financing Transport Infrastructure in Germany



**Under the basic law, the Federal Government is responsible for the construction and maintenance of the federal transport infrastructure:**

- federal railway infrastructure:
  - Construction/ upgrading => Federal Budget
  - Maintenance and Operations => DB Bahn
  
- federal waterway infrastructure :
  - Construction, Upgrading, Maintenance and Operations => Federal Budget
  
- federal road infrastructure:
  - Construction, Upgrading, Maintenance and Operations:
    - Federal Budget
    - (private Financing PPP)

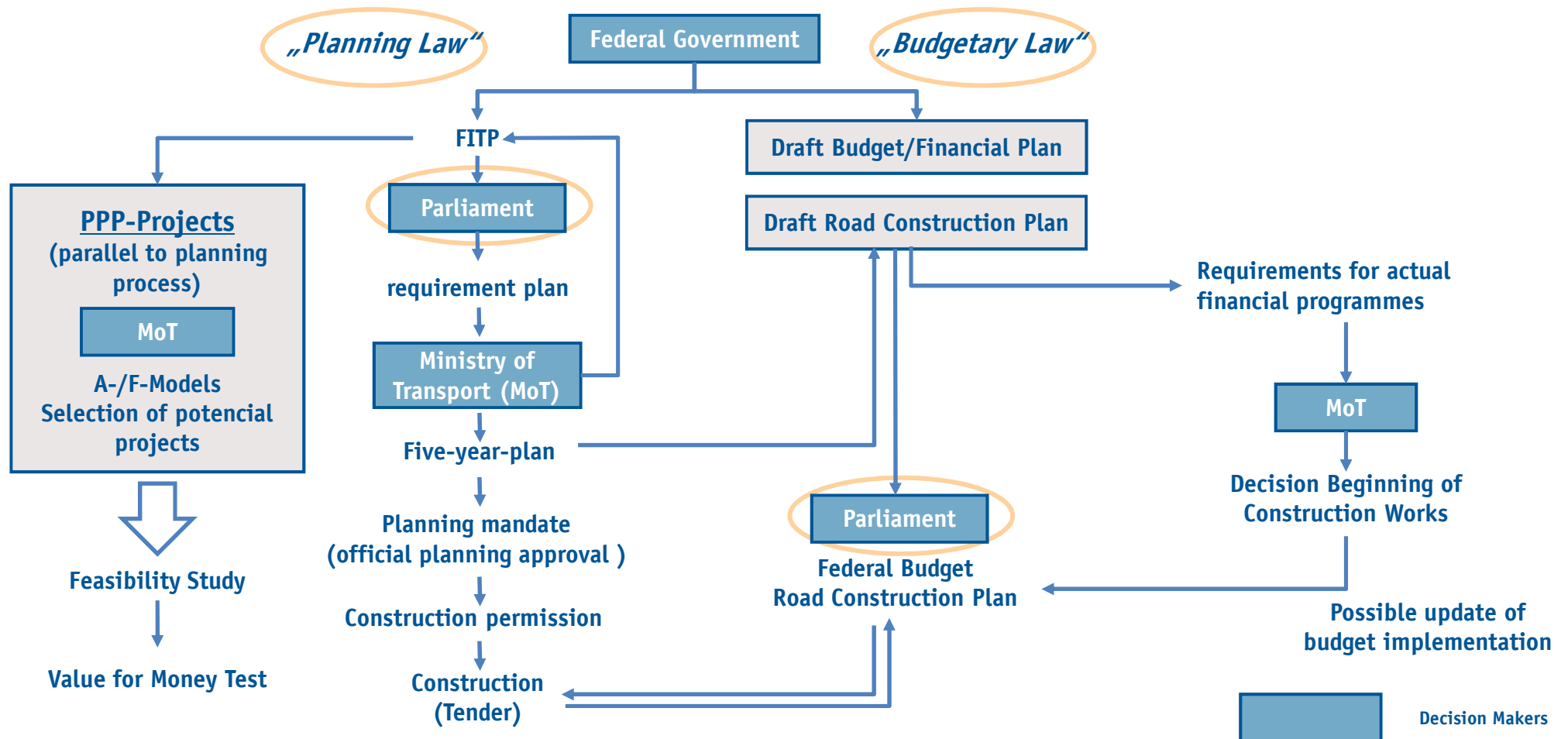
## Federal Transport Infrastructure Plan

### Federal Transport Infrastructure Plan (FTIP)

- **Framework program and planning tool, not a funding plan, non-legislative instrument**
  - Validity usually 10 to 15 years or until a new FTIP is published
  - Every five years the MoT reviews the requirement plans and decides if a new FTIP must be laid down
  - 2003 FTIP is currently valid, the 2015 FTIP with a revised approach is in progress
- **FTIPs (Bundesverkehrswegeplan) give the basis for:**
  - construction, upgrading and maintenance of transport infrastructure,
  - Federal Government draft bill to amend the extension acts (Ausbaugesetze) on federal railway and road infrastructure and the related requirement plans (Bedarfspläne)
- **FTIP is laid down by the Federal Ministry of Transport, Building and Urban Development (BMVBS) (MoT) and approved by the Federal Government**
  - Government must prove the overall economic efficiency and necessity of the projects under consideration in the FTIP
- **The Parliament decides which projects are included in the FTIP and in the requirement plans of the extension acts**
- **Implementation of the requirement plan => MoT draws up five-year plans**
  - Since 2006/2007 the MoT develops a cross-modal framework investment plan for federal transport infrastructure, which places the priorities of the construction, extension and maintenance projects

Federal Transport Infrastructure and PPP

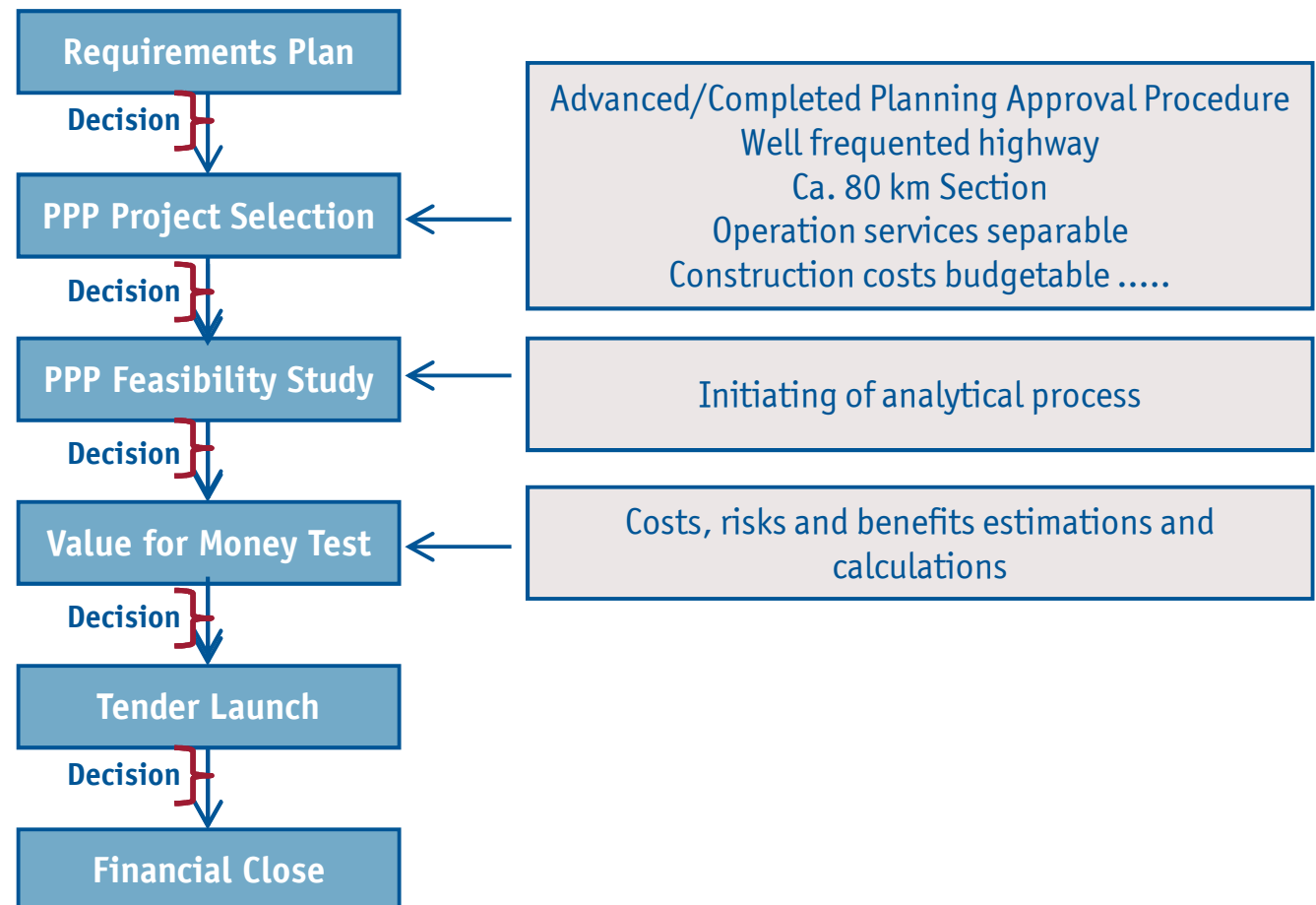
Financial Conditions for Requirement Plans (Roads)





## A-Model PPP-Projects in Germany

### PPP Decisions Process



## A-Model PPP-Projects in Germany

### A-Model PPP-projects

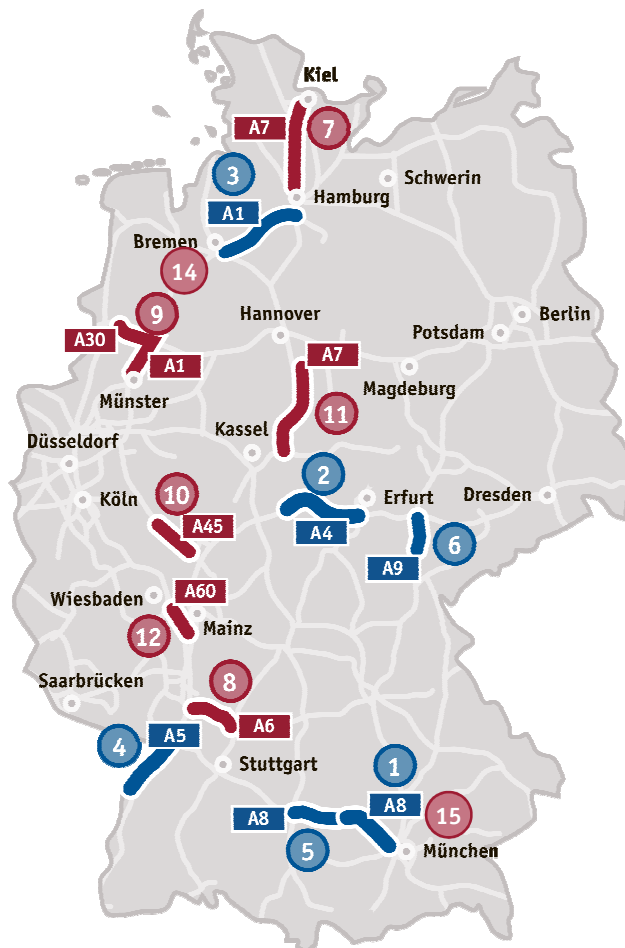


- **Project contract with private partner**
- **Extension from 4 to 6 lanes or greenfield construction**
- **2 types of A-models**
  - Shadow toll
  - Availability fee
- **Operating and maintenance period (e. g. 30 years)**
- **Remuneration through toll revenues of the section or availability fees; + start-up financing**

## A-Model PPP-Projects in Germany

### PPP-Projects on German Highways

#### A-Model PPP-Projects



1. Bavaria	A8 (AS Augsburg West – AD München-Allach)	Construction completed
2. Thuringia	A4 (Landesgrenze Hessen/Thüringen – AS Gotha )	Construction completed
3. Lower Saxony	A1 (AD Buchholz – AK Bremen)	Construction completed
4. Baden-Wuerttemberg	A5 (Malsch – Offenburg)	Awarded
5. Bavaria	A8 (AK Ulm-Elchingen – AD Augsburg-West)	Awarded
6. Thuringia	A9 (AS Lederhose – Stateborder Thuringia/Bavaria)	Awarded
7. Schleswig-Holstein	A7 (AS Neumünster-Nord- AD HH-Nordwest)	In Tender
15. Bavaria	A 94 (AS Forstinning – AS Markt)	In Tender

## A-Model PPP-Projects in Germany

### PPP-Projects on German Highways



#### Tender expected

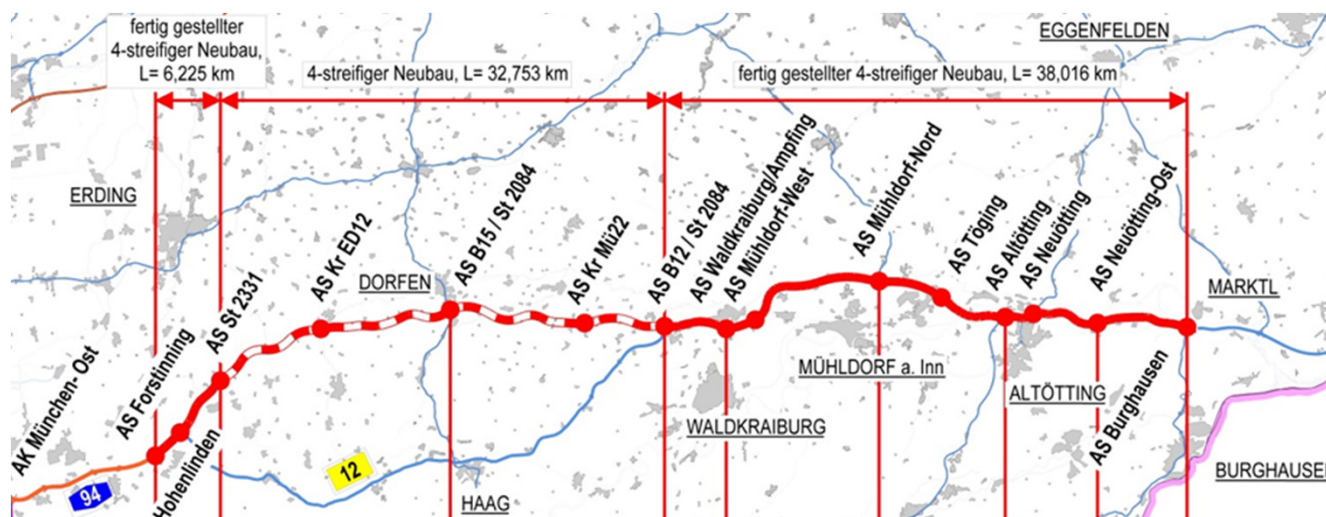
<b>8. Baden-Wuerttemberg</b>	A6 (Wiesloch-Rauenberg – Weinsberg)
<b>9. North Rhine-Westphalia</b>	A1 / A30 (A 1 Lotte-Osnabrück – Münster; A 30 Rheine – Lotte-Osnabrück)
<b>10. Hesse</b>	A44 (Diemelstadt – Kassel-Süd)
<b>11. Lower Saxony</b>	A7 (Salzgitter – Göttingen)
<b>12. Rhineland – Palatinate</b>	Measures in line of A61 / A650 / A 65
<b>13. Thuringia</b>	A 4 Maintenance project
<b>14. Lower Saxony</b>	E 233 (B 213) Construction project

## Present PPP-Project on Federal Highway

### A-Model A 94

#### Time Schedule

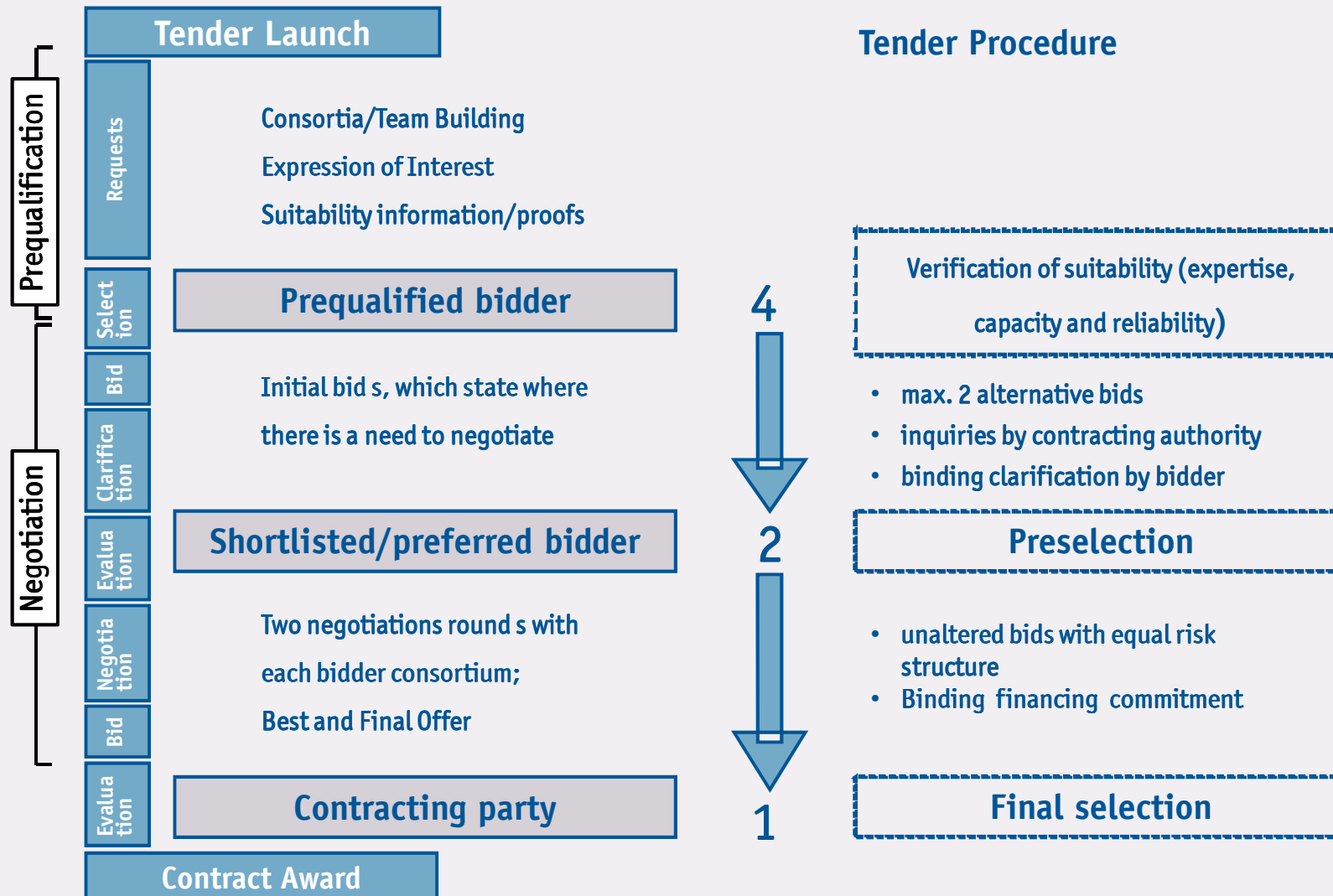
Status	In Tender
Tender	June 2013
Prequalification	4 Q. 2013/ 10. 2014
BAFO	2015
Financial Close	Dec. 2015
Concession Begin	Jan. 2016
Construction	Ca. 3,5 years, with a bonus paid for early completion



#### Project Information

Road Section	Highway junction Forstinning – Highway junction Markt
Length	77 km maintenance and operation, inclusive 33 km greenfield four-lane trunk road construction between Pastetten, Dorfen and Heldenstein
Project Volume	construction costs: approx. € 400m ; start-up financing: approx. € 200m
Project Life	30 Years
Type of Project	Availability PPP

## Structured Negotiated Procedure





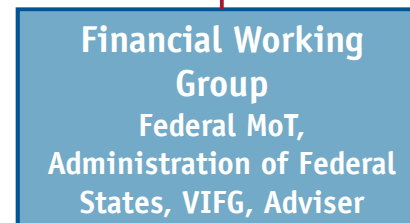
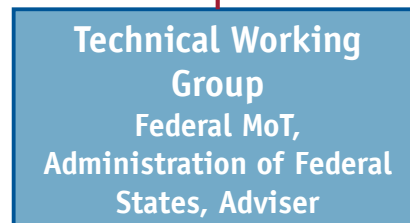
**Structured Negotiated Procedure**

**PPP Organisation on the Public Side**

**Strategic Level**

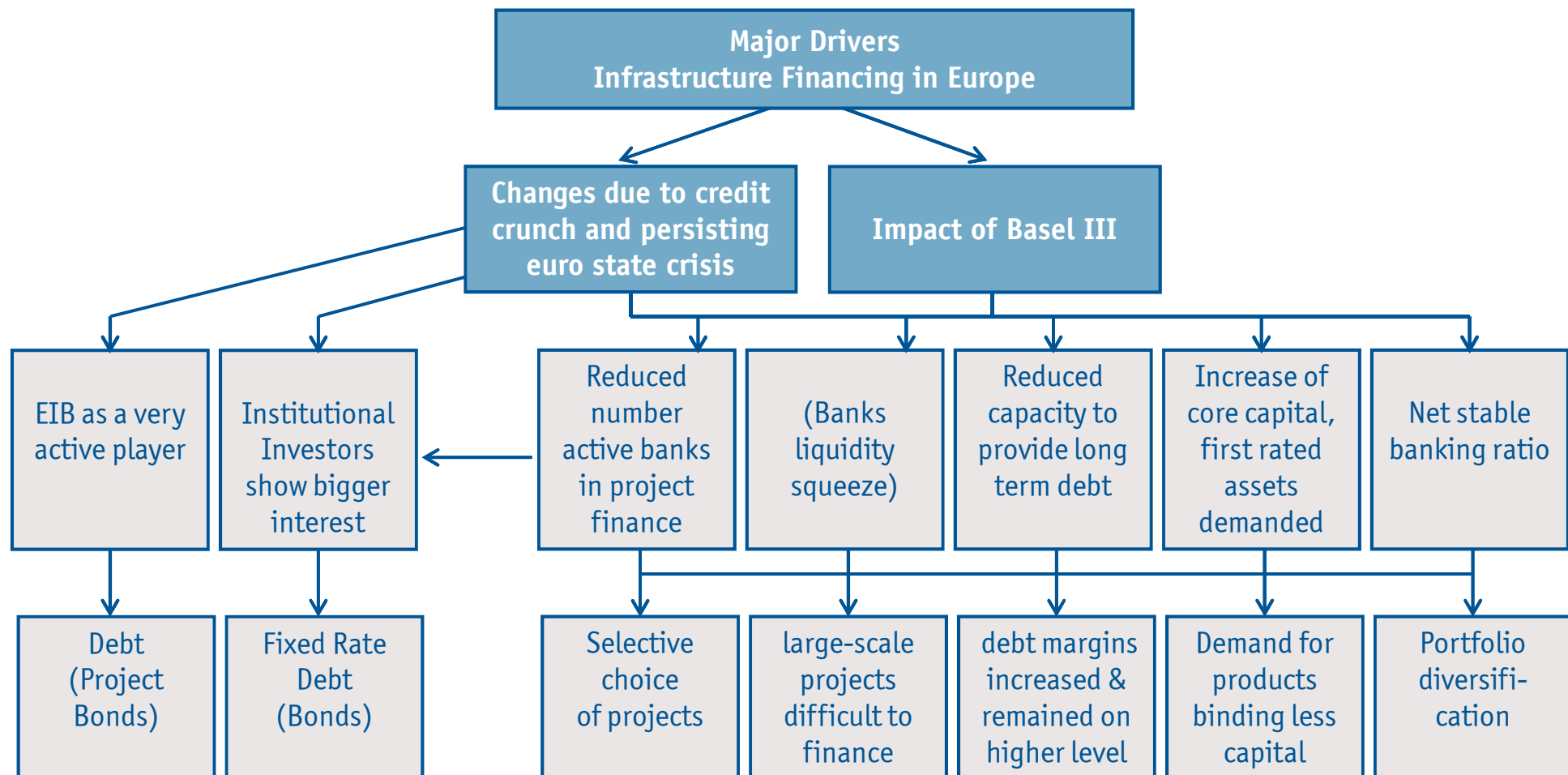


**Operative Level**



## Current Infrastructure Financing Market Environment

### Current Infrastructure Financing Market Environment in Europe



## Current Infrastructure Financing Market Environment

### Adjustments for Future Projects



- Keep the projects bankable /(bondable) in size, risk structure, type of model (shadow toll or availability), etc.
- Participation of public authorities (start-up financing) unchanged
- Flexible tender procedure => E.g.: changes in the time terms to financial close possible; financing commitments allowed for several bidders as long as competition is preserved; non-binding commitments by EIB in first bidding phase
- Changes in the tender documents: E.g.: Financing from institutional investors as well as bond financing is permitted <= Changing Face of Capital Providers in Project Finance and PPP: less active banks, institutional and bond investors are more interested in understanding long run infrastructure projects
- Bond or bank : bidders decision (value of money and risk must be well managed)

## Verkehrsinfrastrukturfinanzierungsgesellschaft



**VIFG**  
**VerkehrsInfrastruktur-**  
**FinanzierungsGesellschaft mbH**

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10117 Berlin

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

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

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**Infrastructure/Finance**

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## Appendix: PPP-Projects on Federal Highways

### A-Model A8



#### Time Schedule

Status	Construction completed
Tender	March 2005
Prequalification	Sept. 2005
BAFO	Feb. 2007
Financial Close	May 2007
Concession Begin	May 2007
Construction	3,5 years

#### Project Information

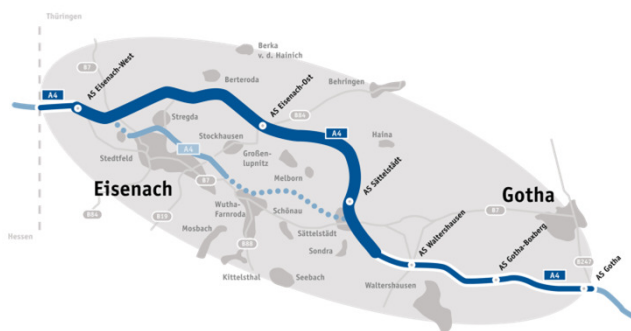
Road Section	AS Augsburg-West – AD München-Allach
Length	53 km (operation & maintenance), inclusive 37 km extension
Project Volume	€ 290 m; est. construction costs: approx. € 250m ; concession volume approx. € 730m
Concessionaire	autobahnplus A8 GmbH (BAM PPP / Egis / Fluor / Trapp / Berger Bau) <a href="http://www.autobahnplus.de">http://www.autobahnplus.de</a>
Lender	DEPFA Bank
Financial Adviser	KPMG
Legal Adviser	Lovells

#### Financial Information

Total Debt	€ 289m	Total Equity	€ 27m
• Equity Bridge Facility	€ 27m	Equity Ratio	11,7 %
• Senior Debt	€ 241m	Margin	40-80 bps
• Standby Mezzanine	€ 12m		
• Debt Service Reserve	€ 9m		

## Appendix: PPP-Projects on Federal Highways

### A-Model A4



#### Milestones

Status	Construction completed
Tender	Aug. 2005
Prequalification	Jan. 2006
BAFO	Aug. 2007
Financial Close	Oct. 2007
Concession Begin	Oct. 2007
Construction (plan 4 years)	time saving of 4 months

#### Project Information

<b>Road Section</b>	State Border Hesse / Thuringia – AS Gotha (Bypass Hörselberge)
<b>Length</b>	44 km (operation and maintenance), inclusive 24,5 km extension and new construction
<b>Project Volume</b>	€ 300m; est. construction costs approx. € 200 m; concession volume approx. € 550m
<b>Concessionaire</b>	Via Solutions Thüringen GmbH & Co. KG (HochTief / Vinci) <a href="http://www.via-solutions.de">http://www.via-solutions.de</a>
<b>Lender</b>	EIB / Dexia / HBOS
<b>Financial Adviser</b>	Deutsche Bank
<b>Legal Adviser</b>	Freshfields

#### Financial Information

<b>Total Debt</b>	€ 280m	<b>Total Equity</b>	€ 25m
• EIB	€ 100m	<b>Equity Ratio</b>	8,3 %
• Dexia	€ 9m	<b>Margin</b>	80-90 bps
• HBOS	€ 90m		





## Appendix: PPP-Projects on Federal Highways

### A-Model A5



#### Milestones

Status	Under Construction
Tender	Dec. 2005
Prequalification	Feb. 2007
BAFO	Dec. 2008
Financial Close	March 2009
Concession Begin	Apr. 2009
Construction	approx. 6 years

#### Project Information

Road Section	Malsch – Offenburg
Length	59,8 km (operation and maintenance), inclusive 41,5 km extension (Baden-Baden - Offenburg)
Project Volume	€ 670m; est. construction costs: approx. € 350m; concession volume approx. 1bn
Concessionaire	Via Solutions Südwest GmbH & Co. KG (Vinci / Strabag / Meridiam Infrastructure) <a href="http://www.via-suedwest.de/">http://www.via-suedwest.de/</a>
Lender	BBVA, KBC, NIBC, Santander, EIB
Financial Adviser	Deutsche Bank
Legal Adviser	Freshfields

#### Financial Information

Total Debt	€ 450m	Total Equity	€ 110 m
• EIB	€ 225m	Equity Ratio	≈ 15 %
• Participation of 4 other banks	€ 225 m	Margin	200-300 bps
• Debt Tenor	28,5 years		
Cash Sweep	€ 35m		

## Appendix: PPP-Projects on Federal Highways

### A-Model A8 II



#### Project Information

<b>Road Section</b>	AK Ulm/Elchingen – AS Augsburg-West
<b>Length</b>	58 km (operation and maintenance), inclusive 41 km extension (Günzburg – Augsburg)
<b>Project Volume</b>	€ 400m; concession volume approx. 1.3bn
<b>Concessionaire</b>	Pansuevia GmbH & Co. KG (Hochtief / Strabag) <a href="http://www.pansuevia.de/">http://www.pansuevia.de/</a>
<b>Lender</b>	UniCredit, BBVA (Banco Bilbao Vizcaya Argentaria), LBWW and EIB
<b>Financial Adviser</b>	UniCredit
<b>Legal Adviser</b>	Freshfields

#### Milestones

Status	Under Construction
<b>Tender</b>	Jan. 2009
<b>Prequalification</b>	Apr. 2010
<b>BAFO</b>	Sept. 2010
<b>Financial Close</b>	May 2011
<b>Concession Begin</b>	June 2011
<b>Construction</b>	approx. 3,5 years

#### Financial Information

<b>Total Debt</b>	€290m	<b>Total Equity</b>	€ 80m
• <b>EIB</b>	€ 149m	<b>Equity Ratio</b>	≈ 20 %
• <b>Participation of 3 other banks</b>	€ 225m	<b>Margin</b>	270-320 bps
• <b>Debt Tenor</b>	19 years		
<b>Start-up funding(net)</b>	€ 75m		

## Appendix: PPP-Projects on Federal Highways

### Availability Model A9



#### Milestones

Status	Under Construction
Tender	March 2009
Prequalification	Feb. 2011
BAFO	June 2011
Financial Close	Sept. 2011
Concession Begin	Oct. 2011
Construction	approx. 3,5 years

#### Project Information

Road Section	AS Lederhose – State Border Thuringia/ Bavaria
Length	46,5 km (operation and maintenance), inclusive 19 km extension (Triptis – Schleiz)
Project Volume	€ 300m; est. construction costs: approx. € 105m
Concessionaire	Via Gateway Thüringen GmbH & Co. KG (Vinci / BAM / Roland Meister) <a href="http://www.viagateway-th.de/">http://www.viagateway-th.de/</a>
Lender	KfW IPEX, BBVA (Banco Bilbao Vizcaya Argentaria)
Financial Adviser	Deutsche Bank
Legal Adviser	Hogan Lovells

#### Financial Information

Total Debt	€ 120m	Total Equity	€ 12m
• Senior Debt	€ 104m	Equity Ratio	≈ 10 %
• Equity Bridge Facility	€ 16m	Margin	app. 250 bps
• Debt Tenor	19,5 years		
Instalments (net)	€ 88m		

## 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 receives a direct toll from the users
- 2 implemented projects:
  - Warnowquerung, Rostock (opened in 2003)
  - Travequerung, Lübeck  
(also called „Herrentunnel“; opened in 2005)
- More projects are currently under development

## Appendix: F-Model

### The F-Model “Warnowtunnel”



Source: Warnowquerung GmbH & Co. KG

#### Milestones

<b>Status:</b>	Operating
<b>Tender:</b>	Dec. 1994
<b>Construction:</b>	March 2000
<b>Concession begin:</b>	Operating since Sept. 2003
<b>Concession:</b>	Since July 2006: 50 Years
<b>Construction</b>	3,5 Years

#### Project-Details

<b>Road Section:</b>	Tunneling Warnow B 105
<b>Length:</b>	4 km, incl. 790 m tunnel (4 lanes)
<b>Project value:</b>	215 Mio. €; Construction costs: 157 Mio. €
<b>Concessionaire:</b>	Bouygues Travaux Publics S.A. (30%) / Macquarie Infrastructure Group (MIG) (70%)
<b>SPV:</b>	Warnowquerung GmbH & Co. KG <a href="http://www.warnowquerung.de/">http://www.warnowquerung.de/</a>
<b>Financing Banks</b>	Leading (1999): Deutsche Bank / Nord LB / KfW per Sept. 2008: Deutsche Bank London / ING / Merrill Lynch / NIBC / Sumitomo / Swedbank / DePfa Dublin / DBLux / HeLaBa / KfW / EIB / Camulus Master Fund / DVB
<b>Financial advisor</b>	DB Luxemburg, Luxembourg
<b>Legal advisor</b>	Görg Lawyers, Berlin

#### Financing-Details

<b>Total Debt:</b>	160 Mio. €	<b>Total equity:</b>	41 Mio. €
• <b>Senior Debt:</b>	52 Mio. €	<b>Equity-Ratio:</b>	20 %
• <b>Mezzanine Debt:</b>	31 Mio. €	<b>Debt/Equity-Ratio:</b>	80 / 20
• <b>Subordinated Debt:</b>	77 Mio. €	<b>Start-up Financing</b>	-



## Appendix: F-Model

### The F-Model "Herrentunnel"



Source: Herrentunnel Lübeck GmbH & Co. KG

#### Project-Details

<b>Road Section:</b>	Tunneling Trave B 75 / B 104, Lübeck
<b>Length:</b>	2,1 km, incl. ca. 780 m tunnel
<b>Project value:</b>	180 Mio. €
<b>Concessionaire:</b>	Bilfinger Berger / HochTief (zu je 50%)
<b>SPV:</b>	Herrentunnel Lübeck GmbH & Co. KG <a href="http://www.herrentunnel.de/">http://www.herrentunnel.de/</a>
<b>Financing Banks</b>	HSH Nordbank AG und KfW Also engaged is the European Investment Bank (EIB)
<b>Financial advisor</b>	n. a.
<b>Legal advisor</b>	Freshfields Bruckhaus Deringer LLP

#### Milestones

<b>Status:</b>	Operating
<b>Tender:</b>	March 1997
<b>Construction:</b>	Oct. 2001
<b>Concession begin:</b>	Sept. 2005
<b>Concession:</b>	30 Years
<b>Construction</b>	4 Years

#### Financing-Details

<b>Source of funds:</b>	158 Mio. €	<b>Total equity:</b>	22 Mio. €
• Internal financing	12 Mio. €	<b>Equity-Ratio:</b>	12 %
• Basic amount	90 Mio. €	<b>Debt/Equity-Ratio:</b>	-- / --
• KfW-Debt	28 Mio. €	<b>Marge</b>	-- bps
• Commercial debt:	28 Mio. €		