



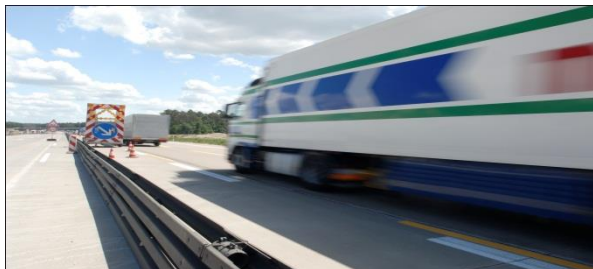
PPP for the Czech Transport Infrastructure in the context of D4 motorway PPP pilot project

VIFG VerkehrsInfrastrukturFinanzierungsGesellschaft mbH

27. November 2018, Prag

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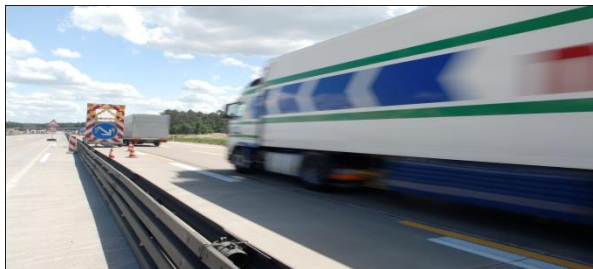
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- **Foundation of the VIFG and Government Objectives**
- **PPP-Projects on Federal highways**
 - **Tendered PPP-Projects**
 - **Future PPP-Pipeline**
 - **Lessons Learned**
- **Transformation of the VIFG**
- **Annex PPP-Projects and Contact**

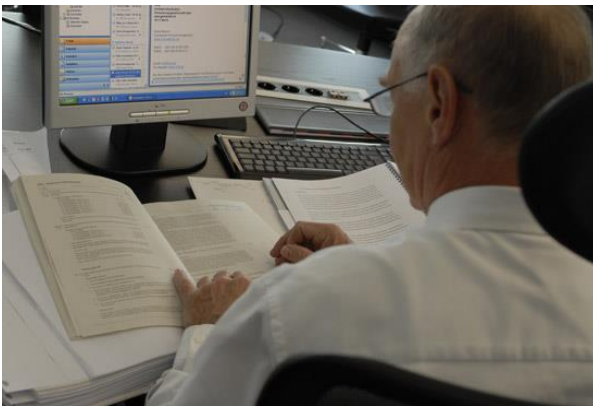
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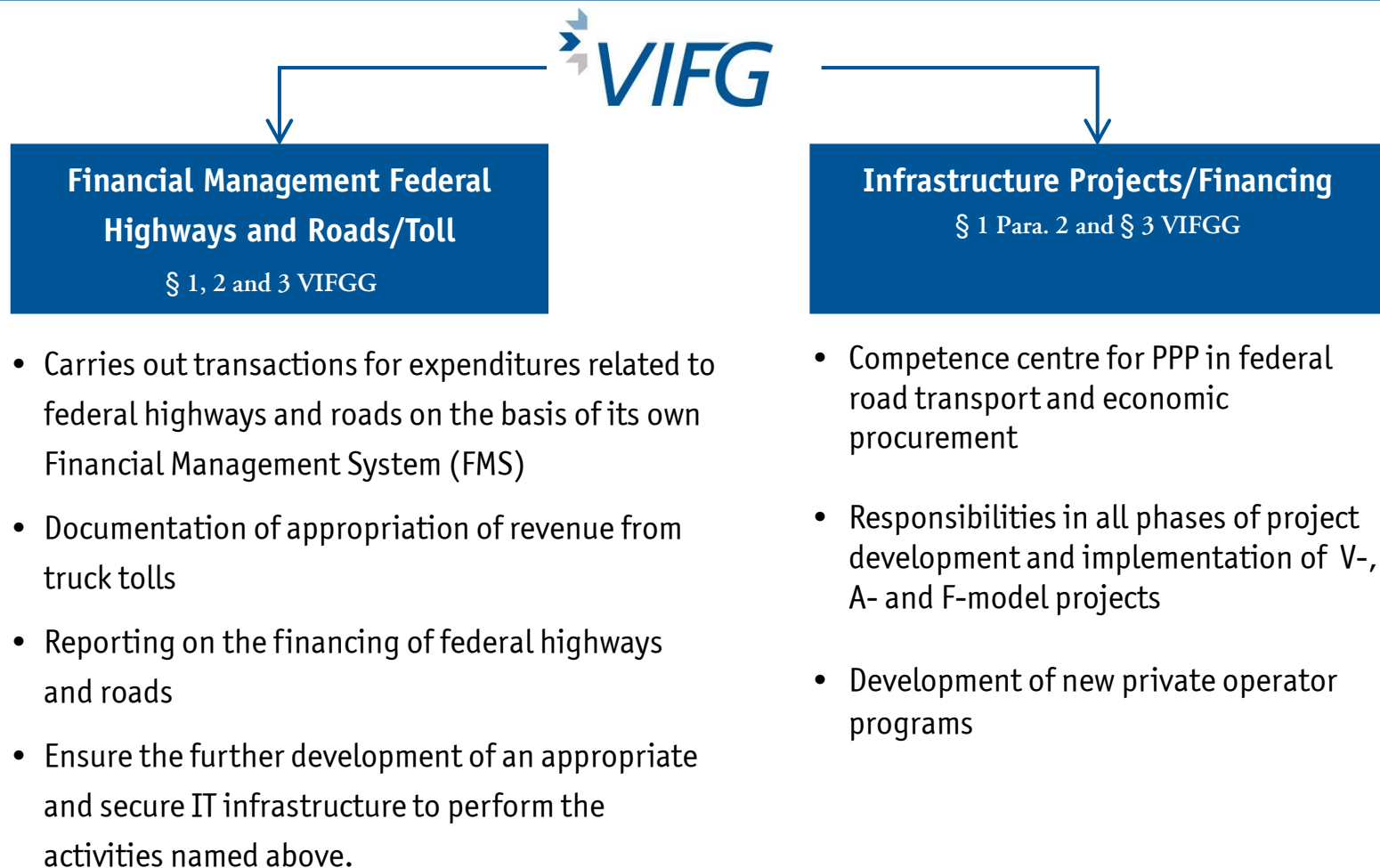
Foundation of the VIFG and Government Objectives



- The Ministry of Transport decided to use PPP for major transport projects due to the recommendation of the “Pällmann-Kommission”
- The VIFG was founded in 2003 following the recommendations of the “Pällmann-Kommission” and is based on the VIFG act.
- **Establishment of the company in accordance with § 1 VIFGG**
 - Federal Ministry of Transport authorizes the VIFG to carry out the financing of the federal transport infrastructure and
 - to carry out with responsibilities in the context of the Act on Private Financing for Transport Infrastructure and comparable private sector projects related to transport infrastructure.
- **Government objectives:**
 - Point out the connection between charging the users and using the charges
 - Finance programs for transportation infrastructure projects
 - Adjustment between annual budgets
 - Relief the public sector of certain tasks

Overview of the VIFG

Business Structure of the VIFG



Competence Centre “PPP in the Transport Sector”

V-, A- and F-Models,
Municipal Projects

International
Experiences

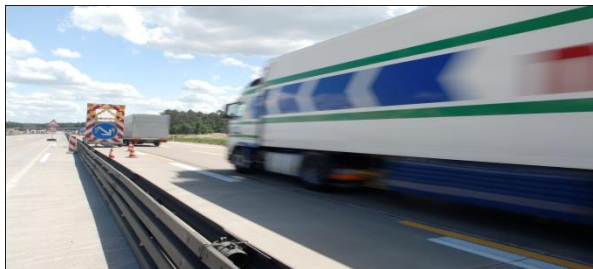
Efficiency and
Feasibility

Development

- Supporting project executing organisations that are implementing PPP projects in the transport sector, particularly in V-Model, A-Model and F-Model projects
- Evaluation of international experiences and analysis of possible adaptations for Germany
- Efficiency and feasibility analysis of existing and newly developed PPP-models for PPP-measures in the transport sector
- Lessons learned from past models and projects and identification of appropriate models for future developments of new private operator programs

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Types of Long-term Contracts



In Germany there are two types of long-term agreements made by government with private participation to design, finance, build, and operate public infrastructure:

- Concession
- PPP

Tendered PPP-Projects on German Highways



- 11 PPP-Projects on highways already tendered in Germany
 - Construction completed on 6 of the 11 tendered projects
 - Construction 100% on time
 - Construction on budget
 - 5 of the 11 tendered projects in construction
- 3 PPP-Projects on highways currently in tender in Germany
- Construction costs: approx. € 200m – € 650 m
- Concession volume approx. € 550m – € 1,6 bn

Tendered PPP-Projects on German Highways



- The private partner (designs), builds, maintains, finances und operates a road for (20) - 30 years
- The private partner receives a shadow toll or availability fees from the public partner; Toll Collect collects the tolls
- 3 batches of projects:
 - 1. batch: shadow toll pilot projects
 - 2. batch: shadow toll and availability projects
 - 3. batch: availability projects

2nd Batch of Pilot Projects



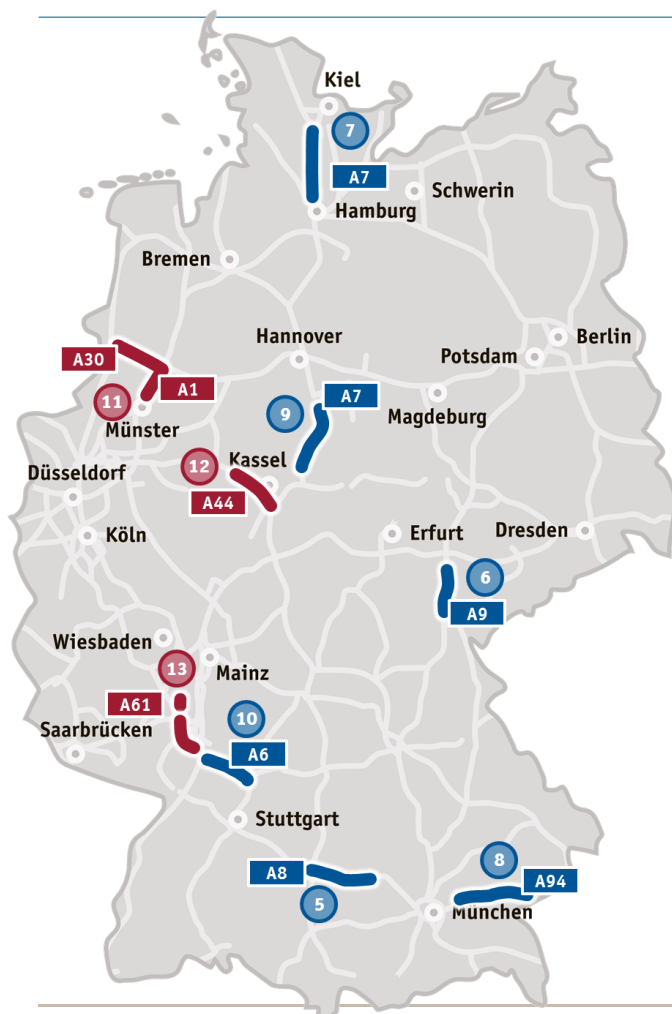
1. Bavaria	A8 (AS Augsburg-West – AD München-Allach)	Construction completed
2. Thuringia	A4 (State Border Hesse/Thuringia – AS Gotha)	Construction completed
3. Lower Saxony	A1 (AD Buchholz – AK Bremen)	Construction completed
4. Baden-Wuerttemberg	A5 (Malsch – Offenburg)	Construction completed

Key points

- Concession to a private partner
- Widening from 4 to 6 lanes
- Operation and maintenance over a specific period (e.g. 30 years)
- Remuneration through toll revenues of the section + start-up financing

PPP-Projects on Federal Highways

2nd Batch of PPP-Projects

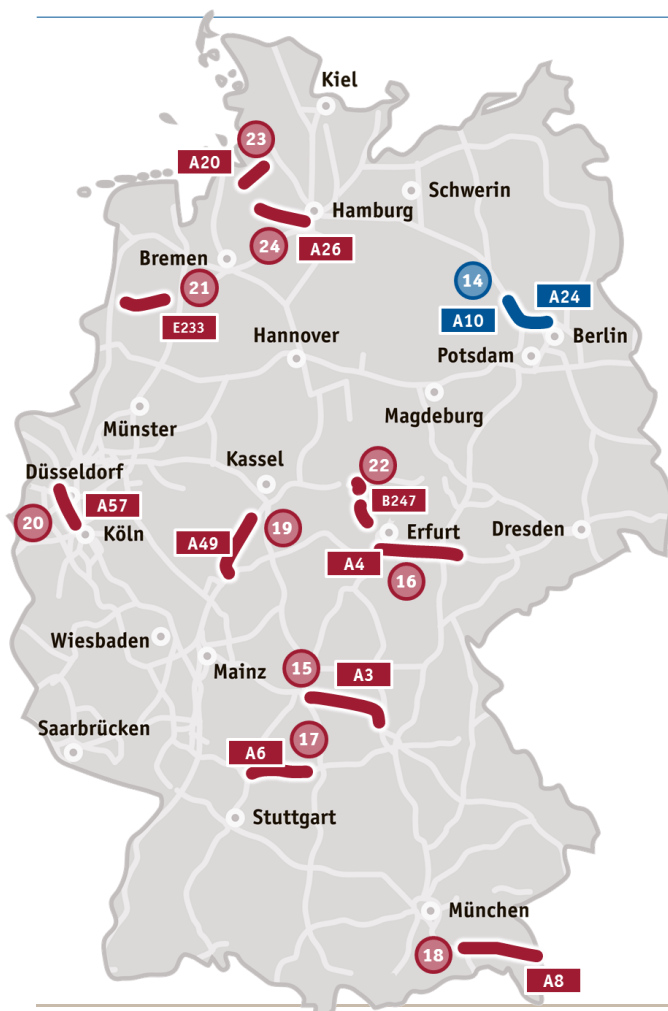


5. Bavaria	A8 (AK Ulm/Elchingen – AS Augsburg-West)	Construction Completed
6. Thuringia	A9 (AS Lederhose – State Border Thuringia/Bavaria)	Construction Completed
7. Schleswig-Holstein	A7 (AS Neumünster-Nord – south of AD HH-Nordwest)	Under Construction
8. Bavaria	A94 (AS Forstinning – AS Marktl)	Under Construction
9. Lower Saxony	A7 (south of AS Bockenem – AS Göttingen)	Under Construction
10. Baden-Wuerttemberg	A6 (AS Wiesloch/Rauenberg – AK Weinsberg)	Under Construction
11. North Rhine-Westphalia	A1/A30 (A1 Lotte/Osnabrück – Münster/Nord, A30 Rheine/Nord – Lotte/Osnabrück)*	In Preparation
12. Hesse	A44 (Diemelstadt - Kassel-Süd)*	In Preparation
13. Rhineland-Palatinate	A61 with further sections of A650, A65 (Worms – State Border RP/BW)*	In Preparation

* Project start is depending on public permission and positive VfM

PPP-Projects on Federal Highways

3rd Batch of PPP-Projects: New Generation



14. Brandenburg	A10/A24 (AS Neuruppin (A24) – AD Pankow/State Border BB (A10))*	In Construction
15. Bavaria	A3 (AK Biebelried – AK Fürth/Erlangen)*	In Tender
16. Thuringia	A4 (AS Gotha – State Border TH/SN)*	In the Pipeline
17. Baden-Wuerttemberg	A6 (AK Weinsberg – AK Feuchtwangen/Crailsheim)*	In the Pipeline
18. Bavaria	A8 (Rosenheim – Federal Border D/A)*	In the Pipeline
19. Hesse	A49 (AK Kassel-West – A5)*	In Tender
20. North Rhine-Westphalia	A57 (AK Köln/Nord – AK Moers)*	In the Pipeline
21. Lower Saxony	E233 (AS Meppen (A31) – AS Cloppenburg (A1))*	In the Pipeline
22. Thuringia	a) B247 (Ortsumgehung Kallmerode) b) B247 (Mühlhausen - west Bad Langensalza)	In Tender In the Pipeline
23. Schleswig-Holstein / Lower Saxony	A20 (Elbquerung)*	In the Pipeline
24. Lower Saxony / Hamburg	A26 (Hamburg (A1) – Rübke (including Hafenquerspange))*	In the Pipeline

* Project start is depending on public permission and positive VfM

Future PPP-Projects



- 11 PPP-Projects on highways in the preparation in Germany = Pipeline of the Ministry of Transport and digital infrastructure
- Availability projects
- Type of PPP-projects on German highways
 - Widening from 4 to 6 lanes
 - Mainly brownfield but as well some greenfield sections
 - Two PPP on national roads
- Contract period: 30 years
- Est. construction costs and concession volume : wider range compared to the tendered projects (B 247 as SME-project – A 3 biggest project so far)

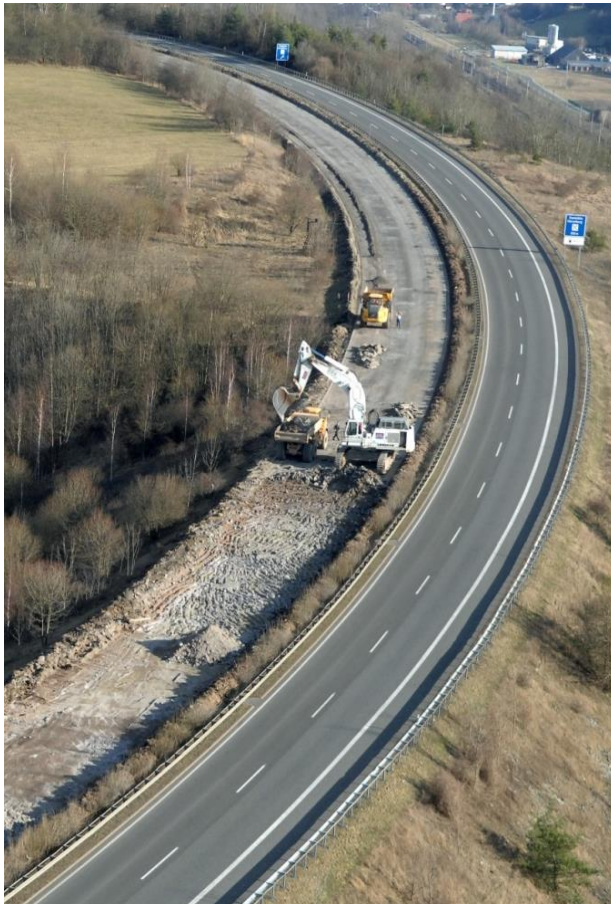
PPP for Highways – Lessons Learned



Network Effects:

- Positive effect on economic growth through early implementation of projects
- All projects feature a reduced construction time
- Reduced traffic impact (decrease in cost of traffic impact)
- Strengthening of the national construction industry for global PPP markets
- SMEs participate in all pilot projects: 60 –80 % of project volume is generated regionally/locally
- Feasibility study provides economic performance indicators and benchmarks for public procurement
- Innovation boost in the fields of building, operation and maintenance

PPP for Highways – Lessons Learned



Project Effects:

- Price guarantee through efficient risk allocation
- High quality construction and operation (e.g. construction services, efficient winter road service)
- Standardized awarding procedure (28 months)
- Efficient procurement of federal roads through life cycle approach
- Visible cash flow for the complete project period
- Reduced impact on the annual public budgets

Why are PPPs efficient?

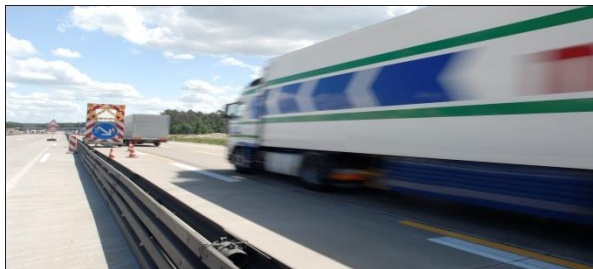
- **Life Cycle Approach**
 - Project structure is adjusted to the life cycle approach
 - Life cycle costs are subject to competition during the awarding procedure
- **Reliable Cash flow**
 - Price guarantee through proper contract management
 - Price guarantee through efficient risk allocation (construction risk, traffic risk . . . etc.)
- **Precise use of a Bonus-Malus-System**
- **Ensuring quality and maintenance through long-term financing**

Experience is based on ...

- **Comprehensive evaluations of pilot projects**
 - The VIFG participates on the evaluation of the feasibility study, tendering and monitoring of the projects in the construction and operating phase
 - Expertise of the Ministry of Transport, Road State Divisions, Federal Court of Auditors and of private partner took into account in the evaluation report
- **Transparency in awarding procedures**
- **Comprehensive feasibility studies**
- **Consistent contract management for all projects throughout the entire project period**

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Future of the VIFG - Reform of the Highway Administration



- VIFG will merge into a new company, owned/controlled by the government and parliament in 2019

‘Infrastrukturgesellschaft des Bundes für Autobahnen und andere Bundesfernstraßen mbH (abbr. IGA)’

- **Background / Status of the Reform**
 - Legal Reform of the Highway Administration/Management in terms of Functional Responsibility and Structure
 - Legislative Basis: IGA Foundation Act, Transformation Act, both as of 2017
 - Objectives: Centralised / Efficient Management of Germany’s motorways
 - Status: Reform / Transformation is in process
 - Merger of VIFG with IGA is one of the first steps
 - Contribution of regional structures/assets and the transfer of regional employees will follow
 - IGA founded in 2018; Operational start of IGA: 2021

Future of the VIFG - Reform of the Highway Administration



- IGA, Range of Responsibilities

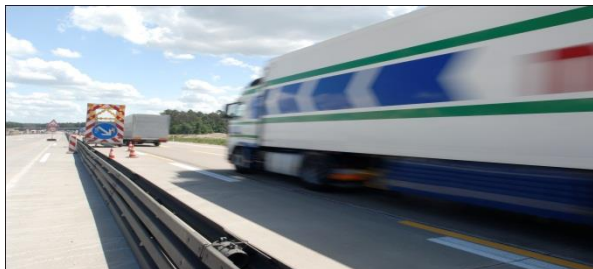
- **As of 2021**

- Planning and Construction of motorway sections (incl. expansion)
- Long-term operation and maintenance
- Management of the federal assets
- Financing of the motorways

Federal Executive Administration becomes ('pure') Federal Administration

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PPP-Projects on Federal Highways – Pilot Projects

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

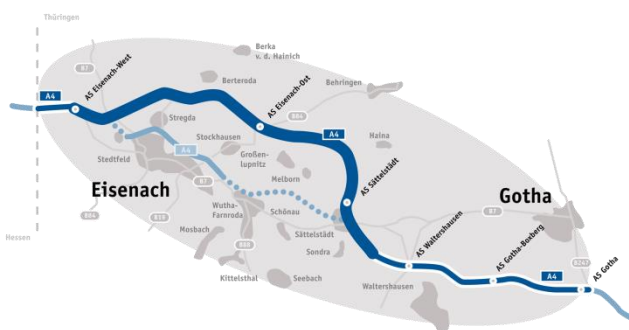
Road Section	AS Augsburg-West – AD München-Allach
Length	53 km (operation & maintenance), inclusive 37 km extension
Project Volume	€ 290 m; est. construction costs: approx. € 250m ; concession volume approx. € 730m
Concessionaire	autobahnplus A8 GmbH (BAM PPP / Egis / Fluor / Trapp / Berger Bau) http://www.autobahnplus.de
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		

PPP-Projects on Federal Highways – Pilot Projects

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

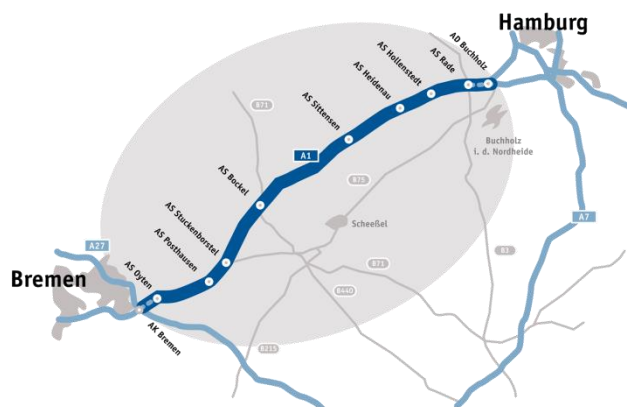
Road Section	State Border Hesse / Thuringia – AS Gotha (Bypass Hörselberge)
Length	44 km (operation and maintenance), inclusive 24,5 km extension and new construction
Project Volume	€ 300m; est. construction costs approx. € 200 m; concession volume approx. € 550m
Concessionaire	Via Solutions Thüringen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

Financial Information

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

PPP-Projects on Federal Highways – Pilot Projects

A-Model A1



Milestones

Status	Construction completed
Tender	Dec. 2005
Prequalification	May 2007
BAFO	Apr. 2008
Financial Close	July 2008
Concession Begin	Aug. 2008
Construction (plan 4 years)	time saving of 3 months

Project Information

Road Section	AD Buchholz – Bremer Kreuz
Length	72,5 km (construction and maintenance), inclusive 65,5 km operation
Project Volume	€ 650m; est. construction costs: approx. € 540m; concession volume approx. € 1bn
Concessionaire	A1 mobil GmbH & Co. KG (Bilfinger Berger / Laing Roads / Johann Bunte) http://www.a1-mobil.de/
Lender	Unicredit / Caja Madrid / DZ Bank sinc Nov. 2008 Commerzbank / Deka Bank
Financial Adviser	Macquarie
Legal Adviser	Freshfields

Financial Information

Total Debt	€ 600m	Total Equity	€ 50m
Syndicated Loan		Equity Ratio	7,7 %
• Senior Debt	€ 445m	Margin(construction)	125 bps
• Equity Bridge Facility	€ 52m	(6-12 year)	120 bps
• Debt Service Reserve	€ 35 m	(13-20 year)	130 bps
		(21-29 year)	140 bps

PPP-Projects on Federal Highways – Pilot Projects

A-Model A5



Milestones

Status	Construction completed
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) http://www.via-suedwest.de/
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		

PPP-Projects on Federal Highways – 2nd Batch Projects

A-Model A8 II

Project Information

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



Milestones

Status	Construction completed
Tender	January 2009
Prequalification	April 2010
BAFO	September 2010
Financial Close	May 2011
Concession Begin	June 2011
Construction	approx. 4,3 years

Financial Information

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

PPP-Projects on Federal Highways – 2nd Batch Projects

Availability Model A9



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) http://www.viagateway-th.de/
Lender	KfW IPEX, BBVA (Banco Bilbao Vizcaya Argentaria)
Financial Adviser	Deutsche Bank
Legal Adviser	Hogan Lovells

Milestones

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

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		

PPP-Projects on Federal Highways –2nd Batch Projects

Availability Model A7 I



Milestones

Status	Under Construction
Tender	Dec 2011
Prequalification	June 2012
BAFO	Apr 2014
Financial Close	Aug 2014
Concession Begin	Sep 2014
Construction	approx. 3,5 years

Project Information

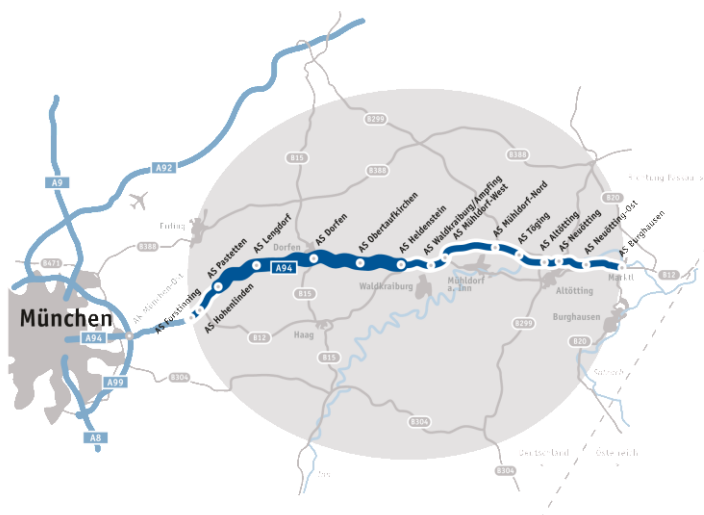
Road Section	AS Neumünster-North– south of AD HH-Northwest
Length	65,1 km (6-8-lane extension AD Bordesholm – AD HH-Nordwest), 58,9 km (operation and maintenance AS Neumünster-Nord – AD HH-Nordwest)
Project Volume	est. construction costs: approx. € 600m; contract volume approx. € 1.6bn
SPV	Via Solutions Nord GmbH & Co. KG (Hochtief / Kemna / DIF) http://www.via-solutions-nord.de/
Lender	Bond: Axa, Aegon, KfW IPEX, MassMutual, ING, Sun Life, EIB (Lead Manager: Societe Generale, Credit Agricole) – EIB
Financial Adviser	Societe Generale
Legal Adviser	Freshfields

Financial Information

Total Debt	€ 600m	Total Equity	€ 60m
• Short-term loan (5.5 years)	81m €	Equity Ratio	≈ 10 %
• EIB (PBCE)	90m €	Rating (Moody's)	A3
• Project bonds	429m €		
• Tenor	29 years		
• Coupon	2.957 %		

PPP-Projects on Federal Highways – Projects of 2nd Batch

Availability Model A94



Project Information

Road Section	AS Forstinning – AS Markt
Length	77 km (operation and maintenance), inclusive 33 km new construction (Pastetten – Heldenstein)
Projekt Volume	€ 410m; contract volume approx. € 1,1bn
SPV	Isentalautobahn GmbH & Co. KG (BAM / Berger Bau / Eiffage) http://www.isentalautobahn.de/
Lender	Bayern LB, DZ Bank, Deka, KfW – EIB
Financial Adviser	Mitsubishi UFJ Financial Group
Legal Adviser	DLA Piper

Milestones

Status	Under Construction
Tender	August 2013
Prequalification	June 2014
BAFO	October 2015
Financial Close	January 2016
Contract starts	February 2016
Construction	approx. 3,5 years

Financial Information

Total Debt	€ 410m	There was no further information published about the financing
• Long Term Facility	€ 250m	
• EIB Facility	€ 160m	
• Debt Tenor	29 years	
Start-up Funding (net)	€ 180m	

PPP-Projects on Federal Highways – Projects of 2nd Batch

Availability Model A6



Project Information

Road Section	AS Wiesloch/Rauenberg – AK Weinsberg
Length	47,2 km (operation and maintenance), inclusive 25,5 km extension (2 sections, incl. 1,3 km Neckartalbrücke)
Project Volume	€ 600m; contract volume approx. € 1,3bn
SPV	ViA6West GmbH & Co. KG (HochTief / DIF / Johann Bunte) http://via6west.de/
Lender	DZ Bank, KfW IPEX, L-Bank (Förderbank BW), MUFG, BTMU - EIB
Financial Adviser	UniCredit
Legal Adviser	Freshfields

Milestones

Status	Under Construction
Tender	September 2014
Prequalification	January 2015
BAFO	August 2016
Financial Close	December 2016
Contract starts	January 2017
Construction	approx. 5,5 years

Financial Information

Total Debt	-
• Project Bond	€ 57m
• EIB Fazility	€ 300m
• Debt Tenor	30 years
• Short Term Fazility	not specified
Start-up funding (net)	€ 270m

There was no further information published about the financing

PPP-Projects on Federal Highways – Projects of 2nd Batch

Availability Model A7 II



Milestones

Status	Under Construction
Tender	April 2014
Prequalification	March 2015
BAFO	December 2016
Financial Close	April 2017
Contract starts	May 2017
Construction	approx. 4 years

Project Information

Road Section	south of AS Bockenem – AS Göttingen
Length	60 km (operation and maintenance), inclusive 29,2 km extension
Project Volume	€ 546m; est. construction costs approx. € 440m; contract volume approx. € 1bn
SPV	Via Niedersachsen GmbH & Co. KG (VINCI / Meridiam) http://www.via-niedersachsen.de/
Lender	Caixa, DBJ, DZ Bank, KfW IPEX - EIB
Financial Adviser	Deutsche Bank
Legal Adviser	Clifford Chance

Financial Information

Total Debt	€ 420m	Start-up Funding (net)	€ 126m
• Long Term Facility	€ 80m	There was no further information published about the financing	
• EIB Facility	€ 185m		
• Debt Tenor	30 years		
• Short Term Facility (4 years)	€ 126m		
• Short Term Facility (5,5 years)	€ 25m		

PPP-Projects on Federal Highways – Projects of 3rd Batch

Availability Model A10/A24



Project Information

Road Section	AS Neuruppin (A24) – AD Pankow/State Border Brandenburg/Berlin (A10)
Length	64,2 km (operation and maintenance), inclusive 29,6 km extension and 29,2 km renewal
Project Volume	€ 620m; est. construction costs approx. € 650m; contract volume approx. €1,4bn
SPV	Havellandautobahn GmbH & Co. KG (BAM / Habau) https://www.havellandautobahn.de/
Lender	Bayern LB, Deka Bank, DZ Bank, Rabobank, Tecta - EIB
Financial Adviser	Mitsubishi UFJ Financial Group (MUFG & BTMU)
Legal Adviser	DLA Piper

Milestones

Status	Under Construction
Tender	May 2015
Prequalification	January 2016
BAFO	October 2017
Financial Close	February 2018
Contract starts	March 2018
Construction	approx. 4 years

Financial Information

Total Debt	-	There was no further information published about the financing
• EIB Facility	€ 258m	
• Debt Tenor	30 years	

Contact

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