



Public Private Partnerships (PPPs) in Germany

- PPP/PFI infrastructure projects in Germany -

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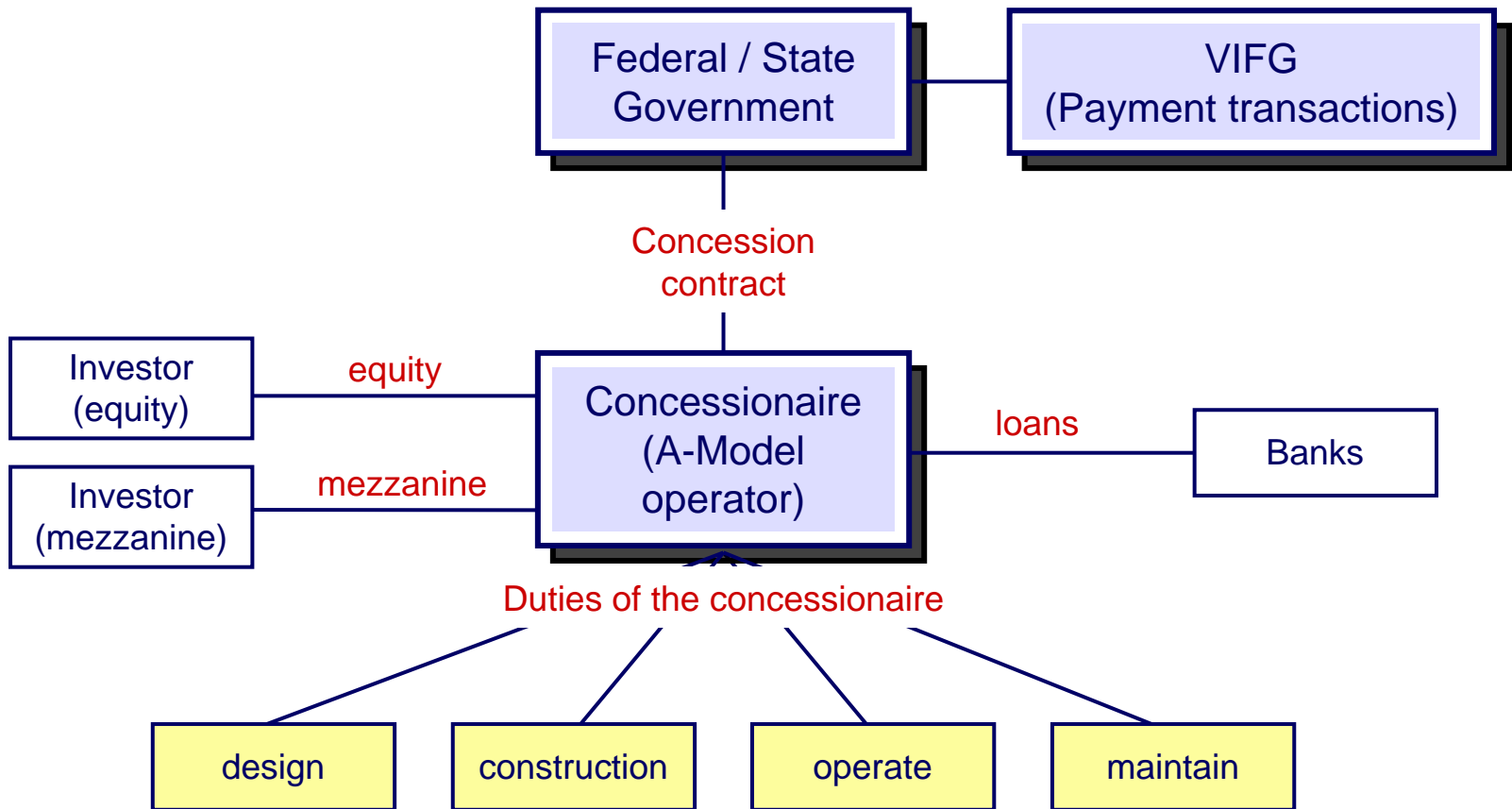
PPP on Federal Roads

Year	Evolution
1994	Fernstraßenbauprivatfinanzierungsgesetz (FStrPrivFinG)
1996/98	Tender of first two F-Model Projects
2002	Enacting of the Autobahnmautgesetz (→ HGV-toll)
2003	(a) Opening of Warnow Crossing, (b) Modification of FStrPrivFinG
2005	(a) Implementation of HGV-toll, (b) Start of first A-Models, (c) Opening of Trave Crossing
2007	Awarding of first two A-Model Projects
2008	(a) Awarding of third A-Model Project, (b) Announcement of further Projects from 2009

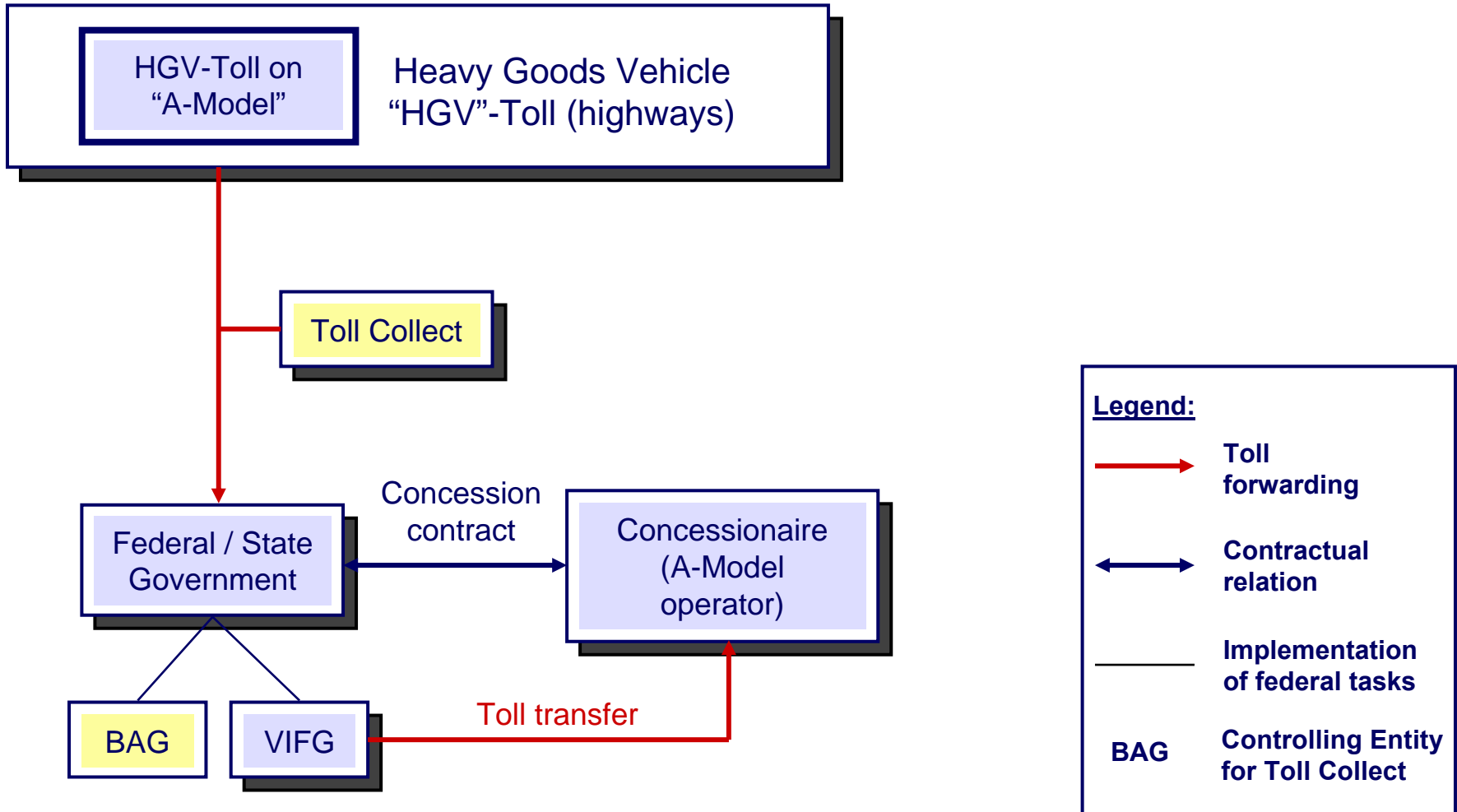
The A-Model Program

- 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

Structure of the A-Model



Structure of the Toll transfer



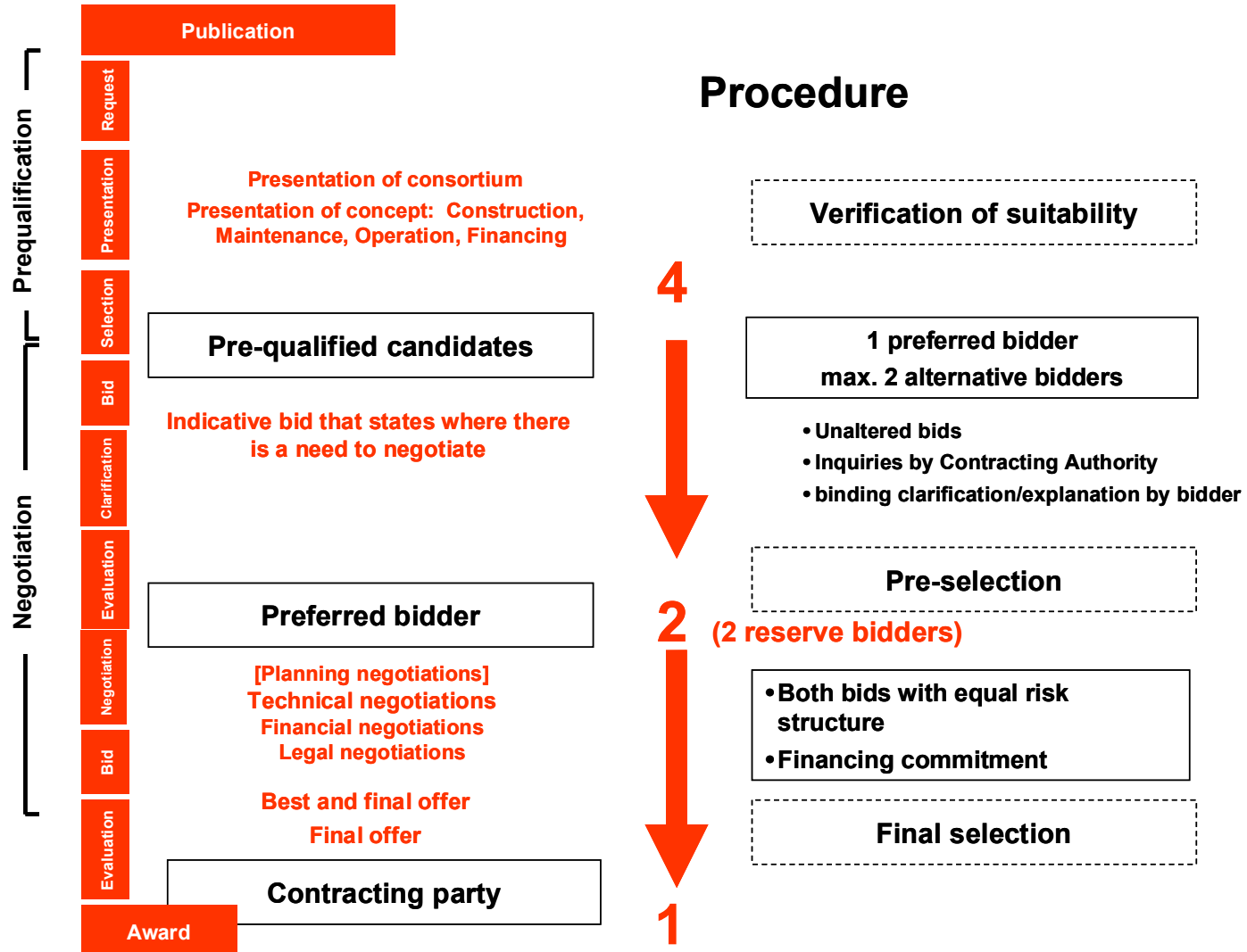
Risk allocation under the A-Model

	Contracting Authority	Concessionaire
Risk of toll collection	x	
Risk of planning and plan approval	x	
Risk of land acquisition	x	
Unpredictable construction of parallel or alternate routes	x	

Risk of completion		x
Risk of maintenance and operation		x
Risk of traffic volume		x
Risk of road condition (upon termination of Concession Agreement)		x

Force Majeure	x	x
Geological risk	x	x
Risk of legislative changes	x	x

Structured Negotiated Procedure



The A-Model: New Projects



The MoT announced further A-Model projects in June 2008

1-4 pilot projects awarded or in tender

Tender expected for 2008 / 2009

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

Tender expected for 2009 / 2010

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

The A-Model A8



PROJECT DETAILS

- **Road Section:** AS Augsburg West – AD München Allach
- **Length:** 53 km
- **Construction Costs:** app. € 230 m
- **Concessionaire:** Autobahnplus
(BAM PPP / Egis / Fluor / Trapp / Berger Bau)
- **Lender:** DEPFA Bank
- **Financial Advisor:** KPMG
- **Legal Advisor:** Lovells

FINANCIAL DETAILS*

- **Debt (total):** € 289 m
 - Equity Bridge: € 27 m
 - Debt: € 241 m
 - Mezzanine: € 12 m
 - Debt Service Reserve Facility: € 9 m
- **Equity (total):** € 27 m
 - quota: 11,7 %
- **Debt/Equity ratio:** 92/8
- **Margin:** 40-80 bps

*Source: Infra-News

SCHEDULE

Status:	Awarded
Tender launched:	Mar. 2005
Prequalification:	Sept. 2005
BAFO:	Feb. 2007
Start of concession:	May 2007
Construction Period:	3,5 years

The A-Model A8



The A-Model A8



A-Model A4



PROJECT DETAILS

- **Road Section:** AS Waltershausen - AS Herleshausen
- **Length:** 44,7 km to operate & maintain
- **Construction Costs:** --
- **Concessionaire:** HochTief / Vinci
- **Lender:** EIB / Dexia / HBOS
- **Financial Advisor:** Deutsche Bank
- **Legal Advisor:** Freshfields

SCHEDULE

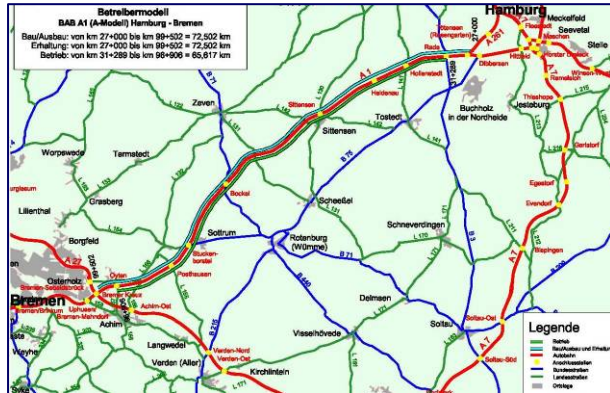
- **Status:** Awarded
- **Tender launched:** Aug. 2005
- **Shortlist:** Feb. 2006
- **BAFO:** Aug. 2007
- **Financial Close:** Oct. 2007
- **Start of concession:** Oct. 2007
- **Construction Period:** ... years

FINANCIAL DETAILS*

- **Debt (total):** € 280 m
 - EIB: € 100 m
 - Dexia: € 90 m
 - HBOS: € 90 m
- **Equity (total):** € 25 m
 - quota: 8,3 %
- **Debt/Equity ratio:** 91/9
- **Margin:** up to 80-90 bps

*source: Infra-News

A-Model A1



PROJECT DETAILS

- **Road Section:** AD Buchholz - Bremer Kreuz
- **Length:** 72,5 km
- **Construction Costs:** app. € 540 m
- **Concessionaire:** Bilfinger Berger / Laing Roads / Johann Bunte
- **Lender:** Unicredit / Caja Madrid / DZ Bank
- **Financial Advisor:** Macquarie
- **Legal Advisor:** Linklaters

SCHEDULE

- **Status:** Awarded
- **Tender launched:** Dec. 2005
- **Shortlist:** May 2007
- **BAFO:** Apr. 2008
- **Financial Close:** July 2008
- **Start of concession:** 2008
- **Construction Period:** 4 years

FINANCIAL DETAILS

- **Debt (total):** € 600 m
- **Offered for syndication**
- **Long-term Credit:** € 445 m
- **Equity Bridge:** € 52 m
- **Debt Service Reserve Facility:** € 35 m
- **Equity (total) quota:** ≈ € 50 m, 7,7 %
- **Debt/Equity ratio:** 92 / 8
- **Margin:** 125 bps in construction period
step up from 120 to 140 bps in following periods

*source: Infra-News

F-Modell-Projekte

- 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



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
<http://www.warnowquerung.de/>
- **Leading Lender:** Deutsche Bank / Nord LB / KfW

FINANCIAL DETAILS*

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

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

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

Trave Crossing



Source: Herrentunnel Lübeck GmbH & Co. KG

PROJECT DETAILS

- **Road Section:** B 75 7 B 104, crossing the Trave River
- **Length:** 2,1 km, incl. Tube with length of 1 km
- **Construction Costs:** app. € 180 m
- **Concessionaire:** Bilfinger Berger / HochTief (each 50%)
- **SPV:** Herrentunnel Lübeck GmbH & Co. KG
<http://www.herrentunnel.de/>
- **Leading Lender:** HSH Nordbank AG / KfW with further syndication
in addition the EIB

FINANCIAL DETAILS*

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

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

SCHEDULE

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

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
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Value for Money Assessment

- The application of the guidance is advised by Ministry of Finance
- The guidance should not be an instruction for accomplishments, but should define **minimum standards** for all sectors
- The understanding of phases and the instruments according to the federal expertise „PPP im öffentlichen Hochbau“.

Phase

Steps of PPP-Wirtschaftlichkeitsuntersuchung

I	Bedarfsfeststellung, Finanzierbarkeit und Maßnahmenwirtschaftlichkeit ----- PPP-Eignungstest
II	Erstellung des Konventionellen Vergleichswertes (PSC) ----- Vorläufige Wirtschaftlichkeitsuntersuchung (<i>bisher: „Beschaffungsvariantenvergleich“</i>) ----- Festlegung der Obergrenze für die Veranschlagung im Haushalt (Etatreife)
III	Abschließende Wirtschaftlichkeitsuntersuchung (<i>bisher: „Wirtschaftlichkeitsnachweis“</i>)
IV	Projektcontrolling

Value for Money Assessment

Goals:

- Valuation and comparison of variants of procurement as well as verification of economy and financial sustainability
- Optimisation of projektmanagement considering the life cycly costs (incl. the risks in a project)

Phases:

- Pre-test (Eignungstest)
- Comaparison of variants (Variantenvergleich)
- Verfication of economy (Wirtschaftlichkeitsnachweis)
- Contract monitoring (Vertragscontrolling)

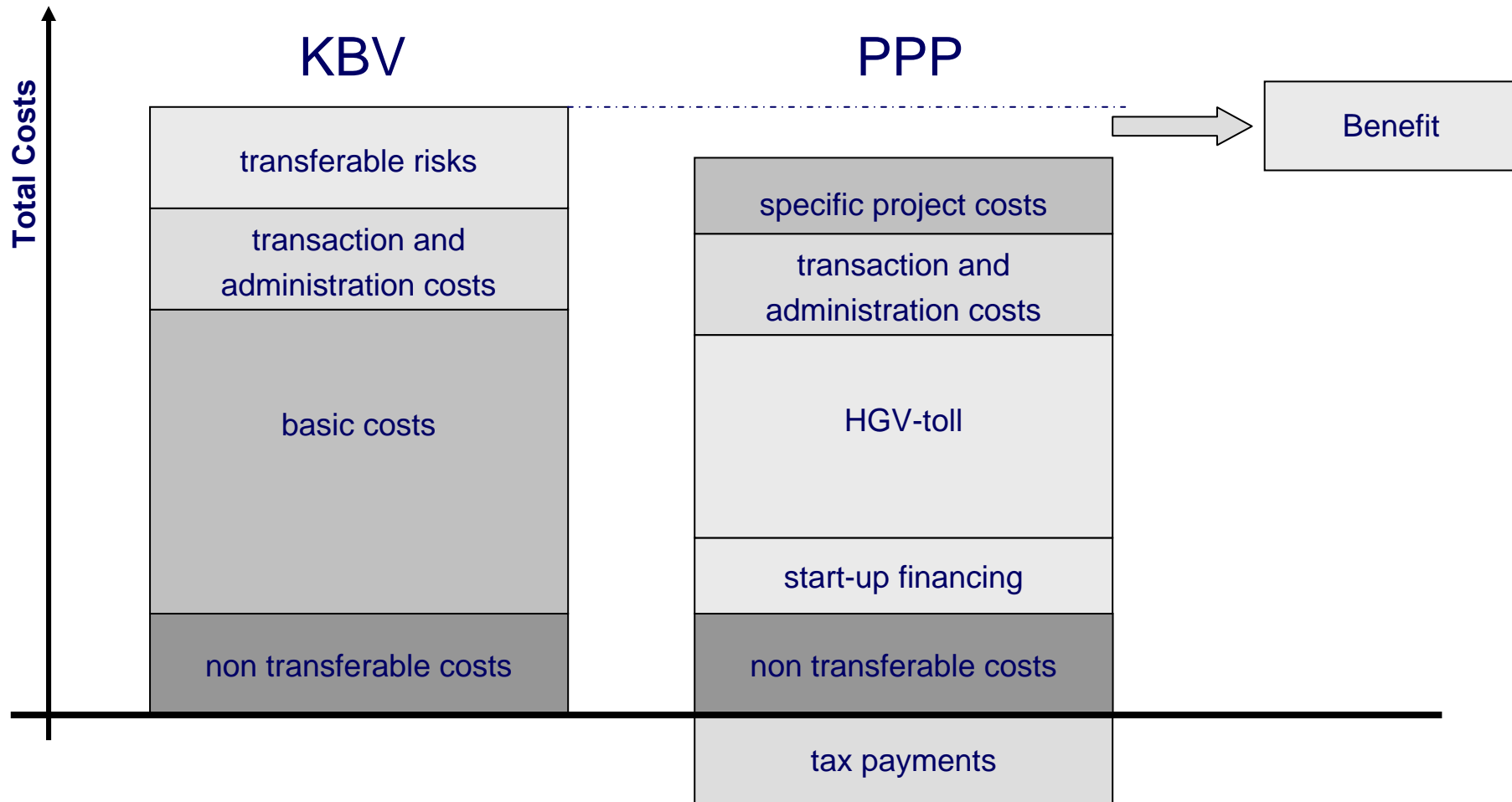
Basic Principles:

- Calculation based on the probable method for public procurement
- Consideration of the over all Life Cycle
- Including all risks in projects
- Fokus on cash value within all significant parameters for calculations

Value for Money Assessment

- Value for Money Analysis stands for continuous “process of awareness and decisions”, attending the whole project life cycle
- **Goal:** Allocation of informations that helps the decision makers of the administration for their decisions in different phases of a project
→ staged procedure
- Value for Money Analysis is the key management instrument to
 - support a structured project development,
 - ensure an awarding decision based on efficiency of the project and guarantee the efficiency with following monitoring as well as
 - evaluate the experiences attendingly and concludingly,for – but not only for – PPP-projects.

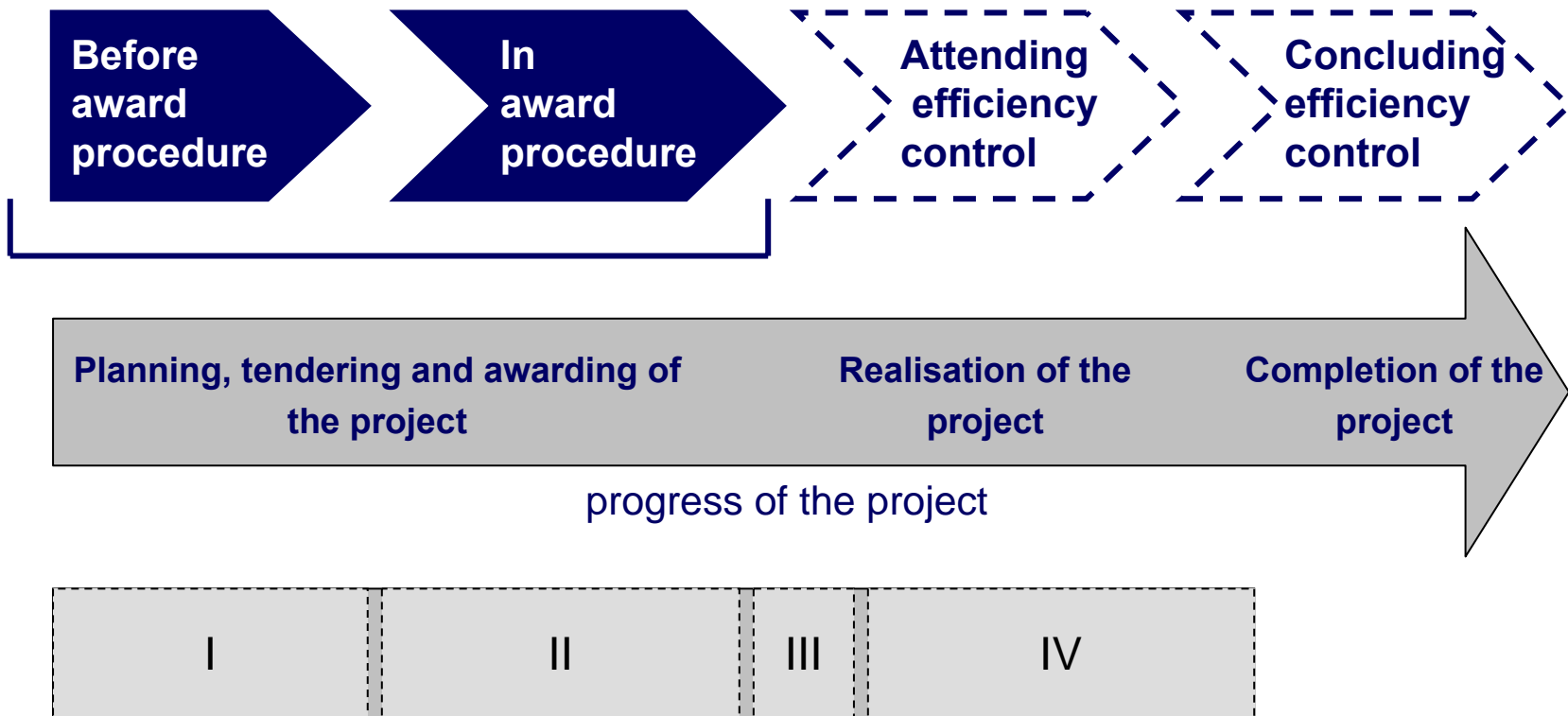
Comparison of KBV / PPP-Variant in the F-Model



KBV: conventional method of procurement

Value for Money Analysis

- Connection of project development and realisation with VfM Analysis



Phases of the Value for Money Analysis according to guidance

⇒ possibility for concluding evaluation based on VfM Analysis

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