

M51 – Kliplev Sønderborg motorvejen

Denmarks first road OPP Project

Outline of Presentation

- **I. The Project & Current Status**
- **II. Features of the OPP Project**
 - Competitive dialogue
 - Output based specifications
 - Technical features & life cycle costing approach
 - General risk distribution – the contractual relationships in action
- **III. Financial structure of OPP Kliplev Sønderborg explained**
 - What potential downside did the current financial structure of Kliplev bring?
 - What potential upside can long term financing bring?
 - What upside does OPP bring in comparison to design & build or traditional procurement
- **IV. Advantages of OPP**

I. Project & Current Status

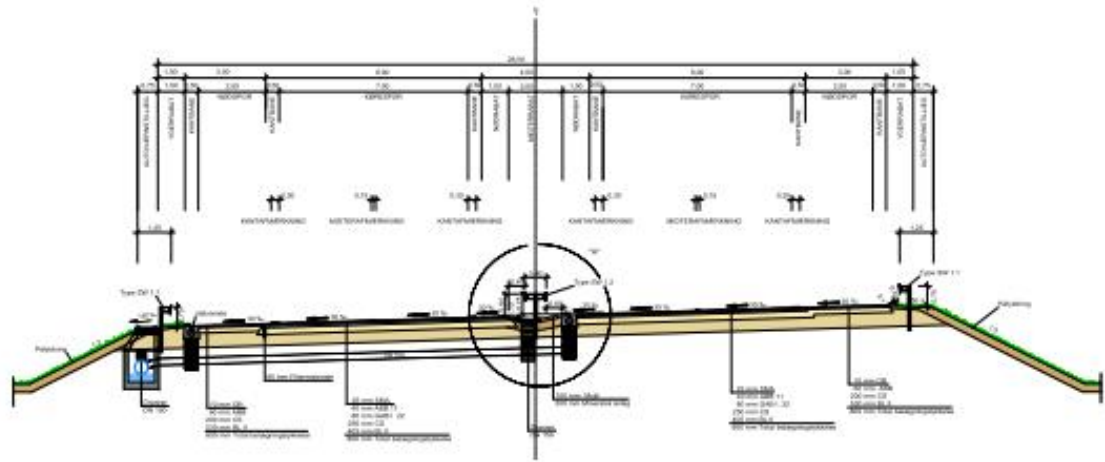
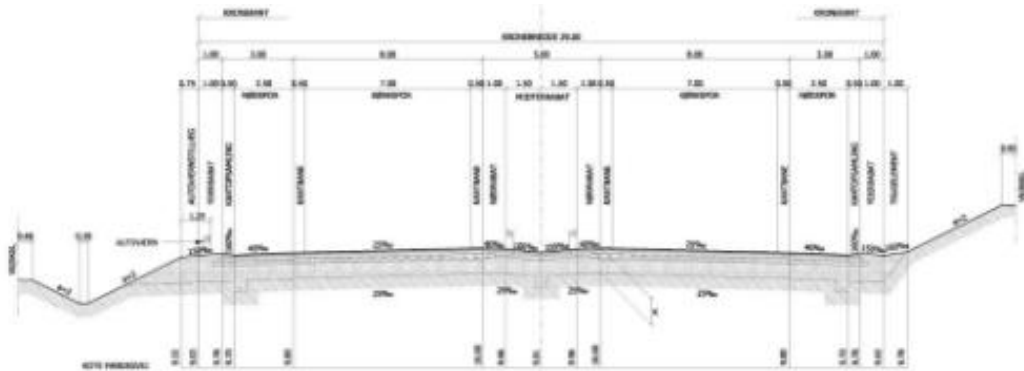
- **Project Information**
 - 26 km greenfield project, incl. 18 km of secondary roads
 - 7 interchanges
 - dual carriage way with emergency lane
 - Construction period: Feb 2010 – Mar 2012
 - Total Invest: ca. 1,1 bn DKK
- **Current Status**
 - Opening in Time in March 2012
 - Operations as planned
 - Smooth Winter Services
 - Good cooperation with VD
 - Project is optimized where possible
- **Investor**
 - Strabag SE
 - Strong PPP Track Record
 - 74.000 Employees World Wide
 - Strong base in core markets, expansion in Northern Europe & Russia



III. Features of the Kliplev Sønderborg OPP

- **Output based specifications**
 - Framework of Danish Road Rules as a guide line
 - High degree of freedom in technical solutions
 - Higher flexibility for solutions aiming at optimizing the total cost of ownership over the lifetime of the asset
 - Careful assessment as to the compatibility of different systems needs to be applied
 - This can be mitigated during the competitive dialogue phases
- **Competitive Dialogue („CD“)**
 - New form of tendering under Public Procurement Directives
 - Allows a public entity to discuss how to best achieve a wished result
 - Complex contracts (though not exclusively linked to OPP)
 - Compared to restricted procedure CD allows for early feedback and output based solutions
 - The competitive dialogue procedure defines the wished output, instead of preferred solutions

III. Features of the Kliplev Sønderborg OPP



III. Features of the Kliplev Sønderborg OPP

Basis, VD

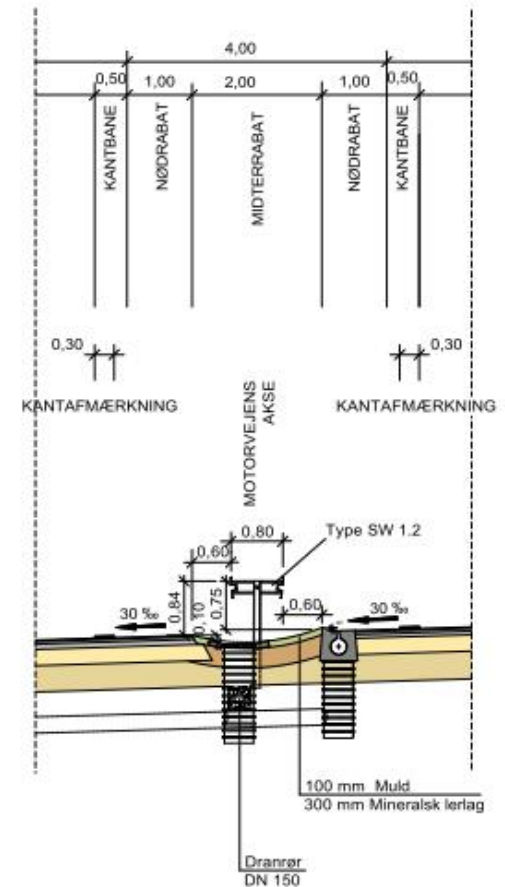
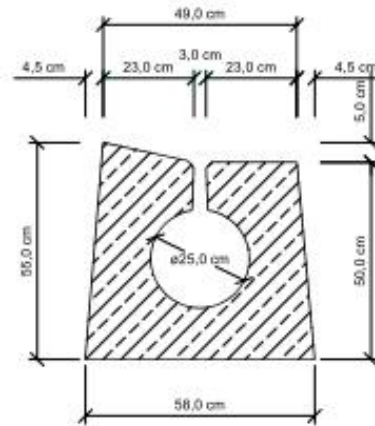
Afsnit	Længdefald, %	Længde, m
1	2,60	176
2	25,20	306
3	10,10	247
4	3,80	1.064
5	3,90	2.177
6	3,00	1.234
7	9,80	982
8	8,90	1.135
9	1,00	2.826
10	8,10	1.875
11	12,90	2.109
12	3,80	2.738
13	4,40	1.182
14	5,40	1.283
15	10,01	1.293
16	6,50	1.213
17	3,80	823
18	1,20	2.185
19	25,90	897
20	31,90	298
21	-	-
22	-	-
Sum	26,043	
Gennemsnitlig Længdefald	6,7%	

- I > 80% ■
- 80% > I > 50% ■
- 50% > I > 40% ■
- I < 40% ■

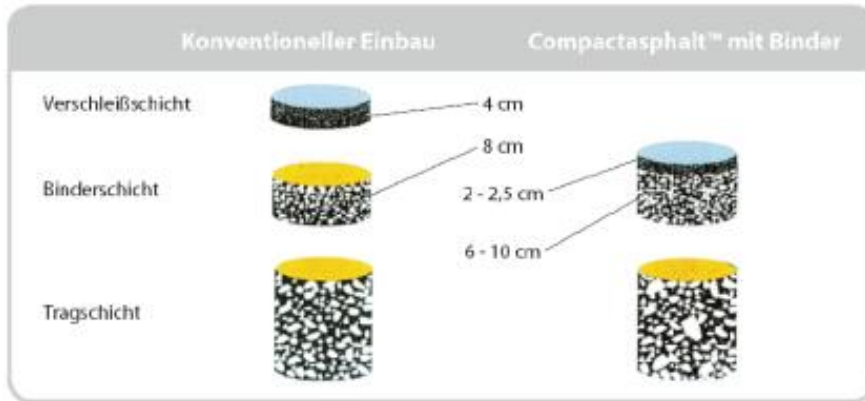
Tilbud, KMG

Afsnit	Længdefald, %	Længde, m
1	2,60	176
2	25,20	342
3	10,10	410
4	3,80	868
5	3,90	2.408
6	4,60	1.003
7	9,80	982
8	8,90	1.077
9	3,60	758
10	3,60	758
11	4,00	1.823
12	7,80	1.419
13	13,20	2.109
14	3,80	2.738
15	4,40	1.182
16	5,40	1.283
17	10,01	1.293
18	6,50	1.719
19	8,70	1.404
20	5,10	1.190
21	25,90	794
22	31,90	307
Sum	26,043	
Gennemsnitlig Længdefald	7,6%	

Figur 45: Viser forskellen i længdefald mellem VD's oprindelige længdeprofil og KMG's tilbudte længdeprofil



III. Features of the Kliplev Sønderborg OPP



Belægning - Type 1

Motorvej
 Kørespor
 E_0 for underbund 45 MPa
 800 mm koblingshøjde

Belægningsopbygning

25 mm SMA 6+ (61 kg/m²)
 40 mm ABB 11 (102 kg/m²)
 80 mm GAB I (197 kg/m²)
 250 mm CS
 405 mm BL II

Ramper
 Kørespor
 E -modul for underbund 45 MPa
 800 mm koblingshøjde

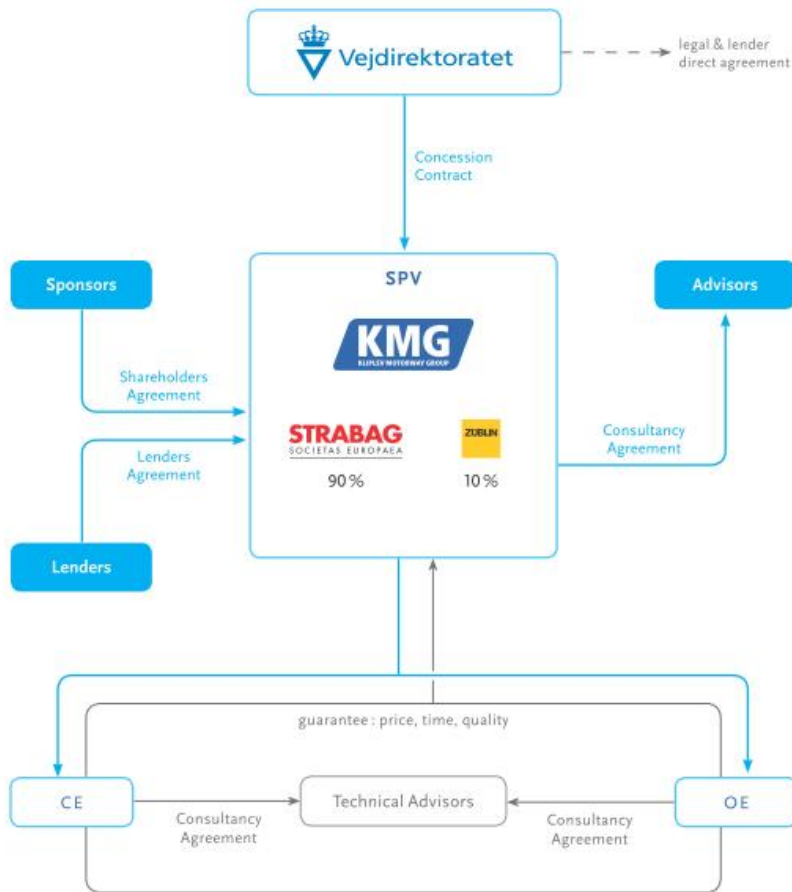
25 mm SMA 6+ (61 kg/m²)
 40 mm ABB 11 (102 kg/m²)
 80 mm GAB I, (197 kg/m²)
 200 mm CS
 455 mm BL II

III. Features of the Kliplev Sønderborg OPP

- **General Guideline under the OPP Kliplev Sønderborg**
 - All risks are born by OPP unless specifically mentioned
 - Risk matrix below simplified

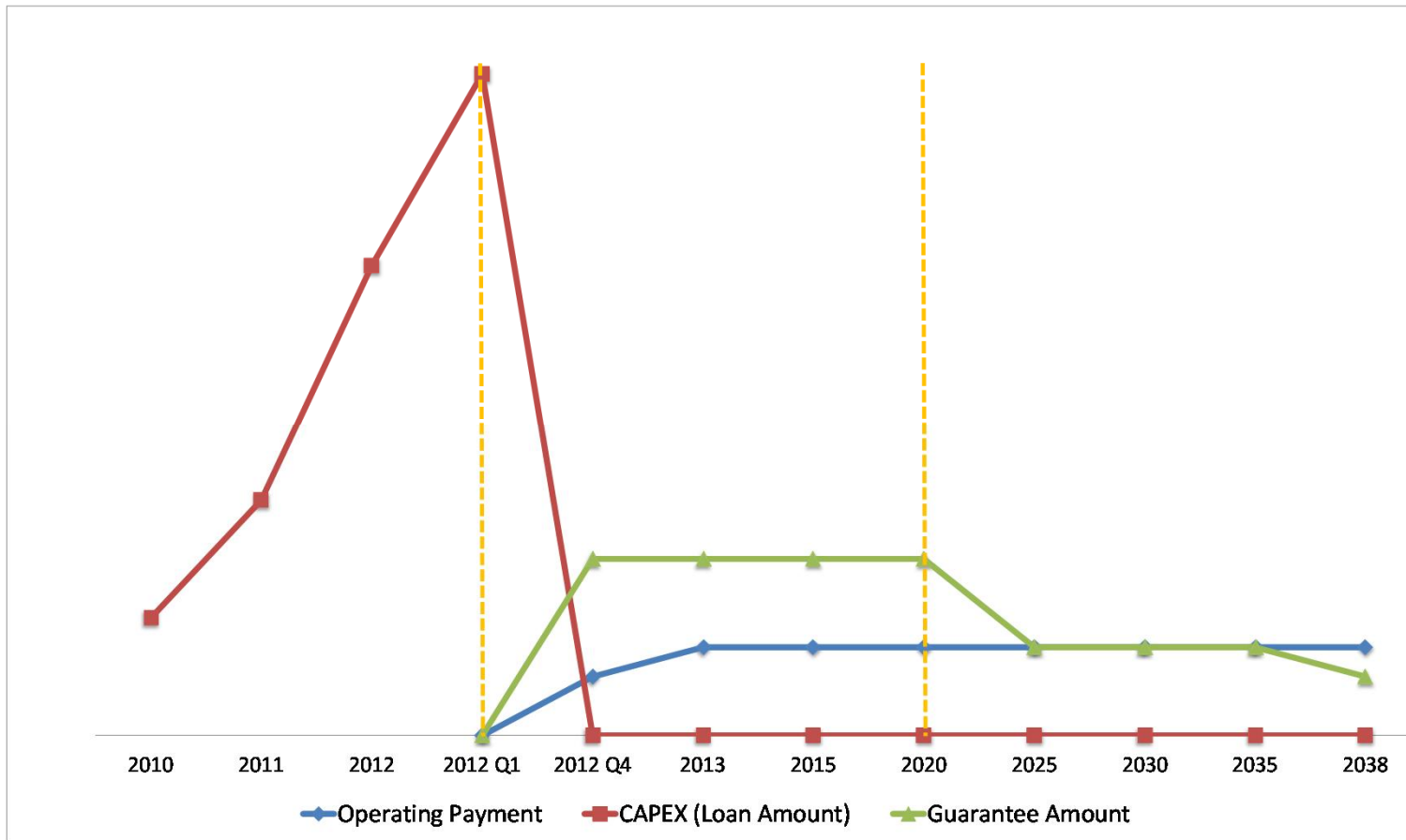
	OPP	VD
Construction Risk (i.e. cost overruns)	X	
Political Risk		X
Force Majeure	X	X
Project Specific Change in Law		X
General Change in Law	X	
Land Acquisition		X
Financial Risk	X	
O&M Risk (i.e. Cost Overruns)	X	
Design Risk	X	
Change Risk	X	X

III. Features of the Kliplev Sønderborg OPP

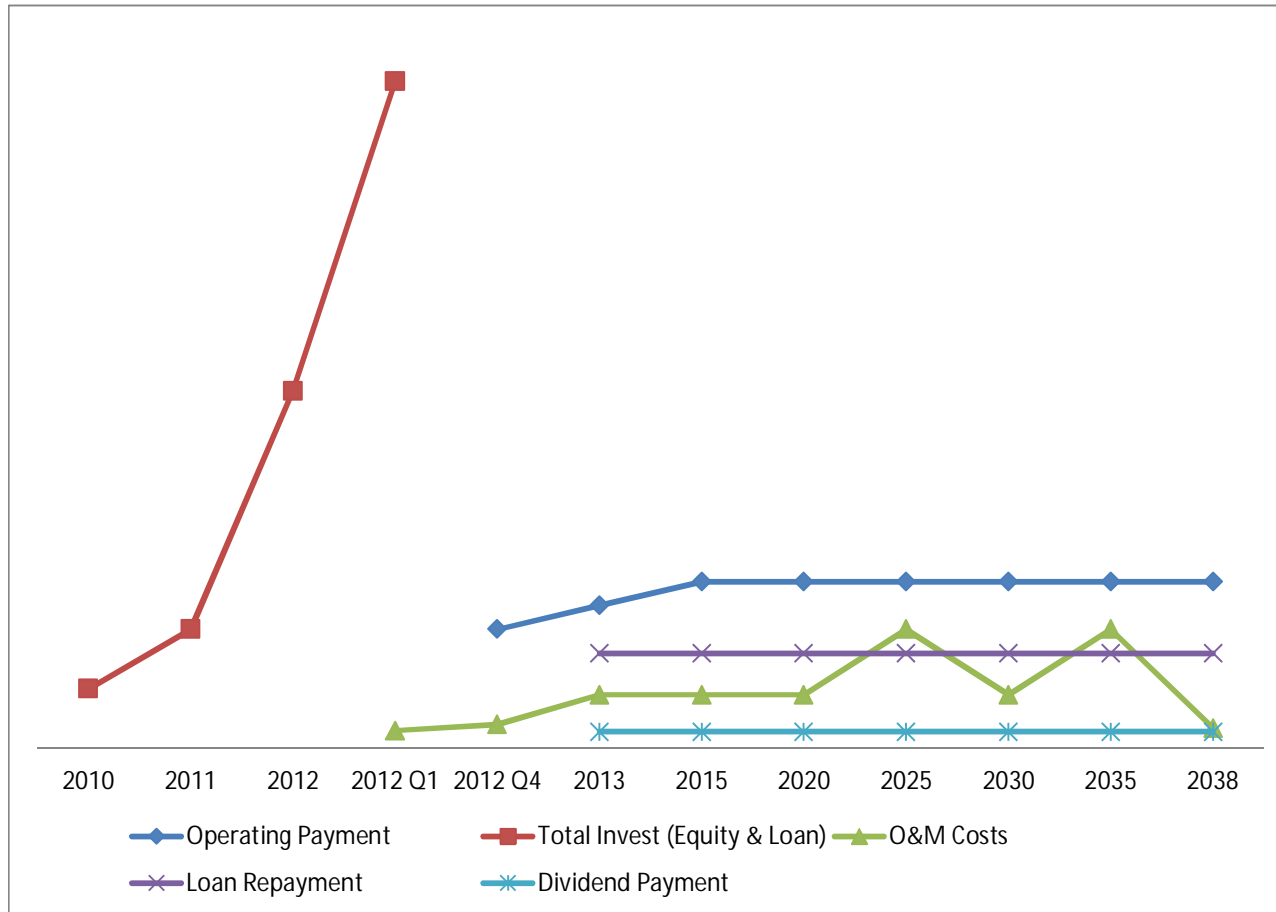


- One client
- One contract
- One interface
- One partner for 26 years

III. Financial Structure – OPP Kiplev



III. Financial Structure – Traditional Approach



IV. Advantages of OPP

- Responsibility of contractor/investor beyond normal defects liability
- One interface for construction & operations
- Asset has to be optimized for the long term from the very beginning
- Therefore total cost of ownership are brought down
- design & build has no consequences beyond the defects liability period
- Investment opportunities for local assets is there

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Thank you for your attention