

# E6 Trøndelag – Project Portfolio

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*Johan Arnt Vatnan, SVP / Project Director*

*Oslo, 12.09.2018*

# Nye Veiers project portfolio in Trøndelag / Mid-Norway

- **106 km with new E6:**  
E6 Ulsberg–Melhus S  
E6 Ranheim–Åsen
- **EPCC with 20 years maintenance (guarantee)**
- **Cost of portefolio before optimization: NOK 29 billions**  
⇒ 4 lain motorway and 2-/3-lains road  
⇒ 90 og 100 km/h speed

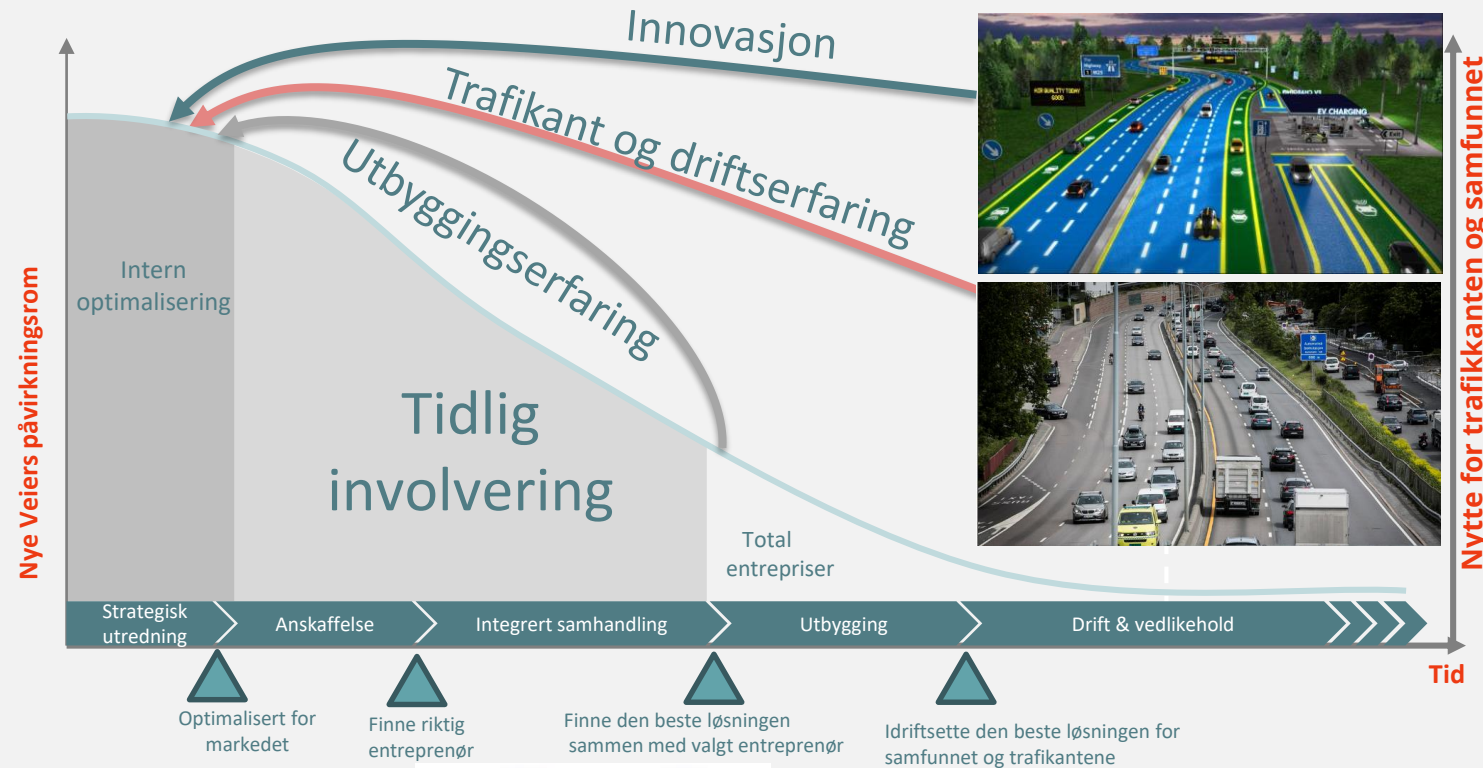


- **Optimization**  
⇒ In general 4 lain motorway  
⇒ 110 km/h speed  
⇒ 20% cost reduction

Net benefit

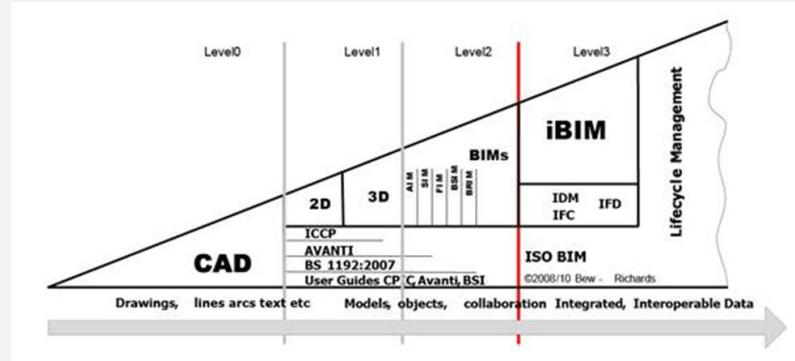


# Project and Execution strategy

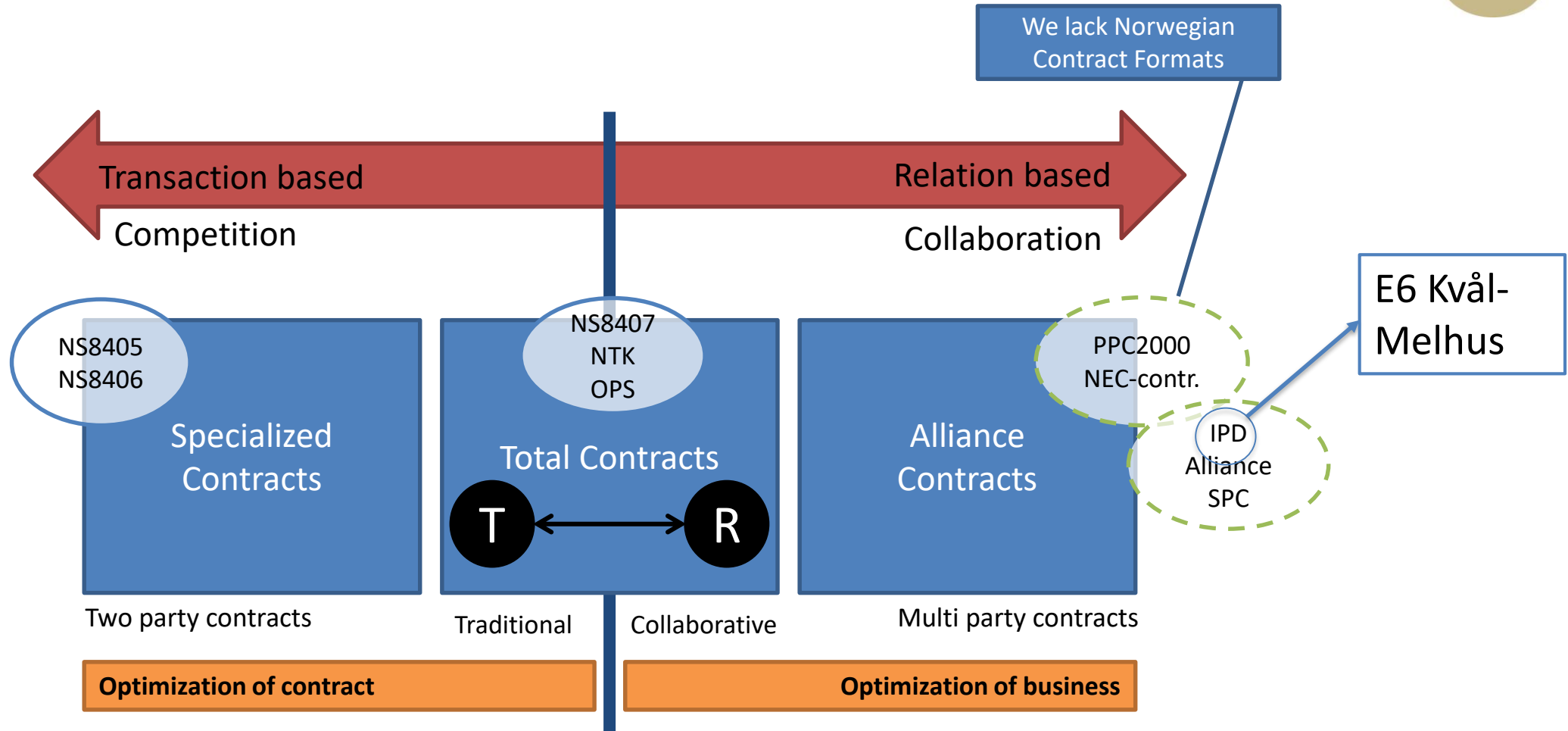


**DIGITALIZATION**

- Revised and new Project models – Design & Build –
- BVP – Best Value Procurement – performance goals and risk focus
- Increase Project Value
- Strong focus and requirements to HSE and CSR
- Real collaboration



# New Map Characteristics



Kilde: Ole J. Klakegg, prof. NTNU  
 Mod.: Johan Arnt Vatnan

# Contract strategy

- 6 Contracts
- Integrated collaboration – Integrated Project Delivery
- Phase 1
  - Optimization
  - Conceptual design
  - Revised or new zoning plans
- Phase 2
  - EPCC with 20 years guarantee (maintenace)

Entreprise	År 17	18	19	20	21	22	23	24	25	26	27	28
E6 Ranheim - Værnes												
E6 Kvithamar - Åsen												
E6 Kvål - Melhus S												
E6 Gyllan - Kvål												
E6 Korporalsbrua - Gyllan												
E6 Ulsberg - Vindåsliene												

■ Planlegging- og samhandlingsfase  
■ Utbyggingsfase

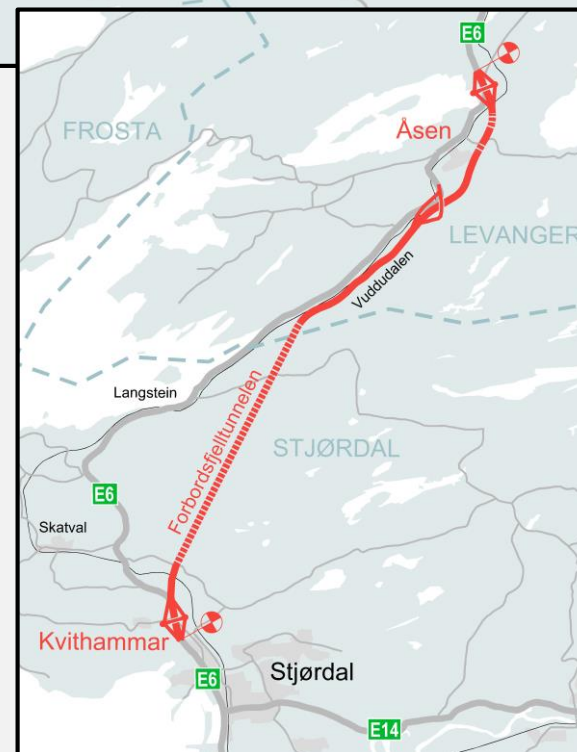


# Contract strategy – E6 North



- 2 Contracts
- E6 Ranheim—Værnes
  - 23 km
  - Contract value approx. 4,0 bill NOK
  - Integrated Collaboration contract
  - Clarification phase
  - Planned contract date 28.09.18

- E6 Kvithammer—Åsen
  - 19 km
  - Contract value approx. 3,8 bill NOK
  - Integrated Collaboration contract
  - Start of prequalification phase
  - Planned contract date 16.05.19



# Contract strategy – E6 South

## Provisional

- 4 Contracts
- E6 Kvål—Melhus S
  - 7 km
  - Contract value approx. 0,6 bill NOK
  - **Integrated Project Delivery contract - IPD**
  - Prequalification phase
  - Planned contract date 03.01.19



# Contract strategy – E6 South

## Provisional

- 4 Contracts
- E6 Kvål—Melhus S
  - 7 km
  - Contract value approx. 0,6 bill NOK
  - **Integrated Project Delivery contract - IPD**
  - Prequalification phase
  - Planned contract date 03.01.19
- E6 Ulsberg—Vindåsliene
  - 25 km
  - Contract value approx. 2,6 bill NOK





# Contract strategy – E6 South

## Provisional

- 4 Contracts
- E6 Kvål—Melhus S
  - 7 km
  - Contract value approx. 0,6 bill NOK
  - **Integrated Project Delivery contract - IPD**
  - Prequalification phase
  - Planned contract date 03.01.19
- E6 Ulsberg—Vindåsliene
  - 25 km
  - Contract value approx. 2,6 bill NOK
- E6 Korporalsbrua—Gyllan
  - 15 km
  - Contract value approx. 2,1 bill NOK



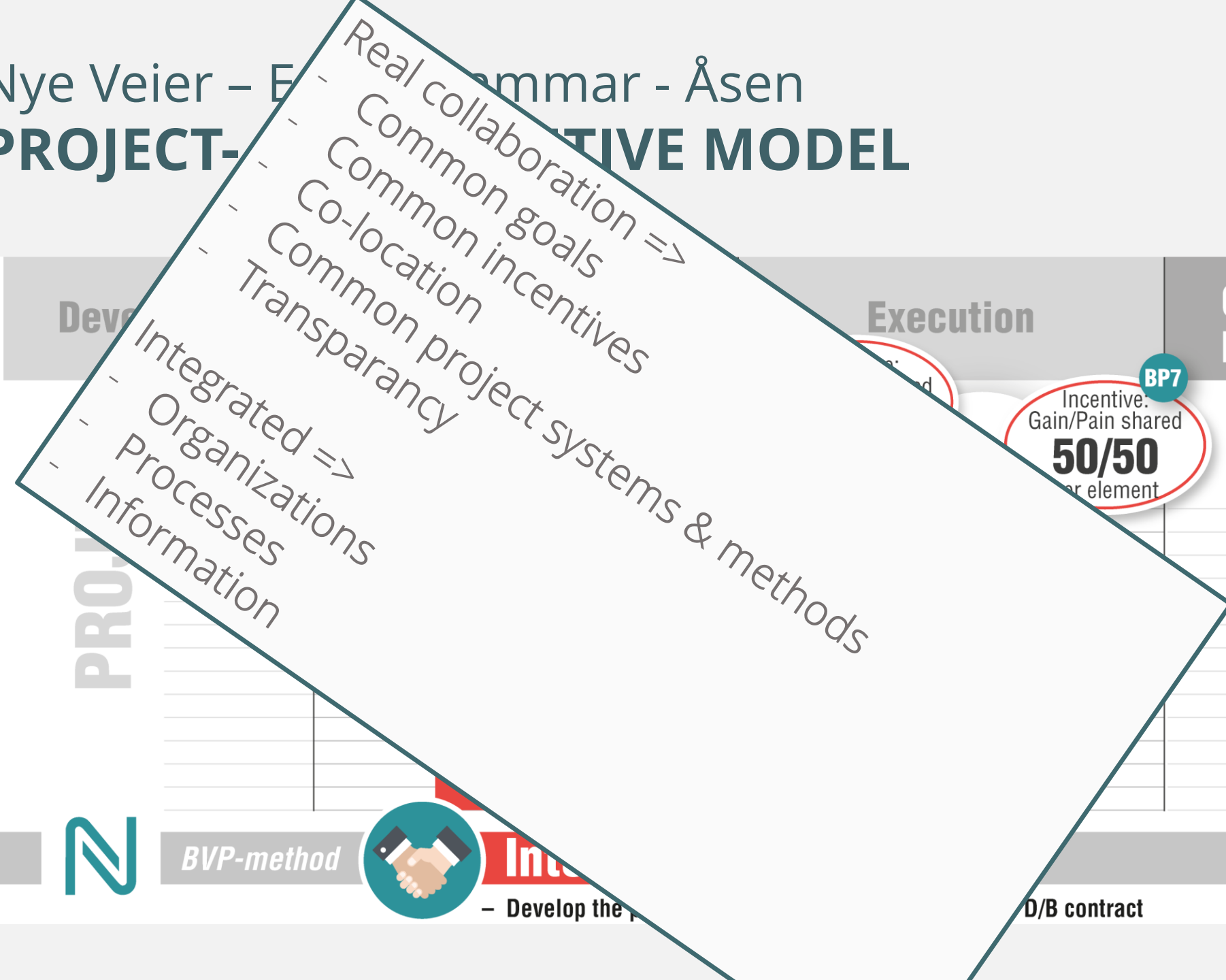
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  - Contract value approx. 2,6 bill NOK
- E6 Korporalsbrua—Gyllan
  - 15 km
  - Contract value approx. 2,1 bill NOK
- E6 Gyllan—Kvål
  - 17 km
  - Contract value approx. 3,3 bill NOK



# Nye Veier – E... ammar - Åsen PROJECT-... TIVE MODEL



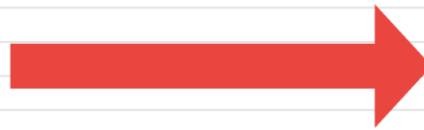
Deve

Execution

Operation and Maintenance

BP7

Incentive:  
Gain/Pain shared  
**50/50**  
per element



Guarantee



BVP-method



Inte

- Develop the

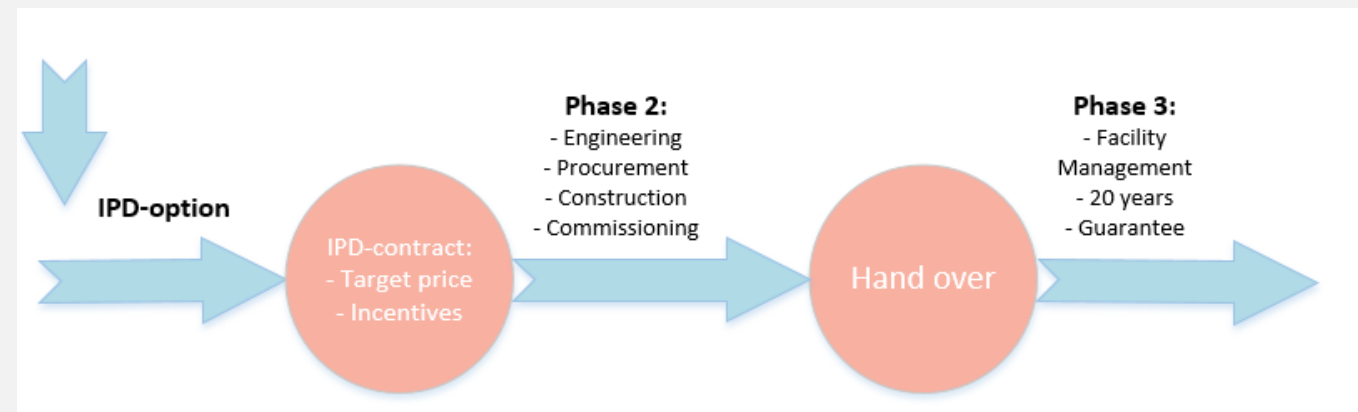
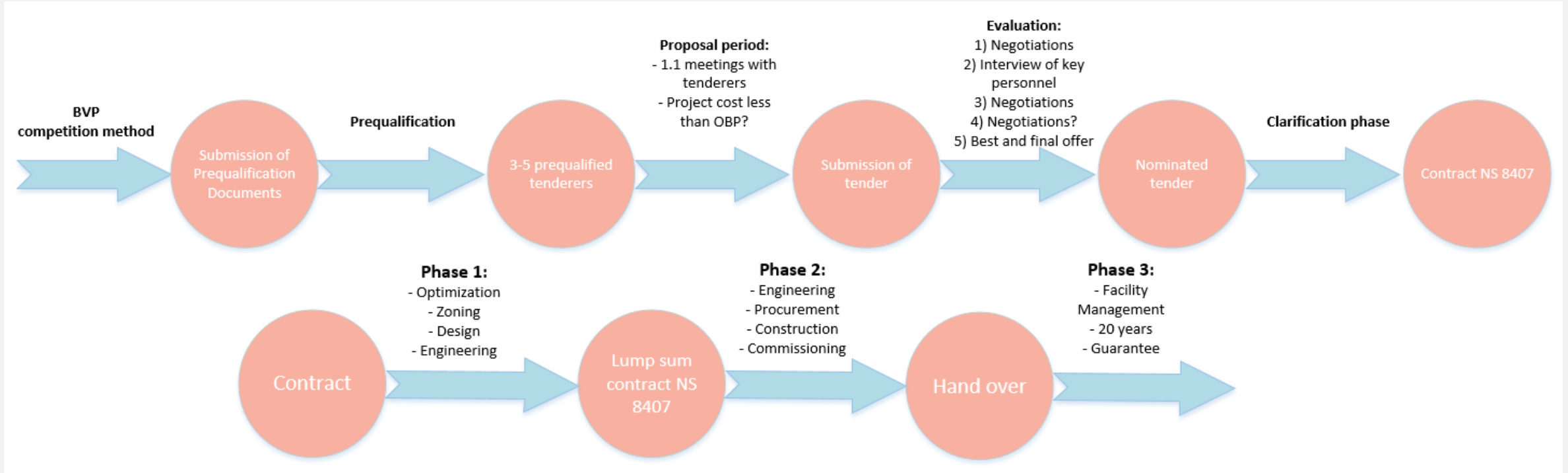
D/B contract

BP

= decision gate

# Project- and Execution Model – Integrated Collaboration

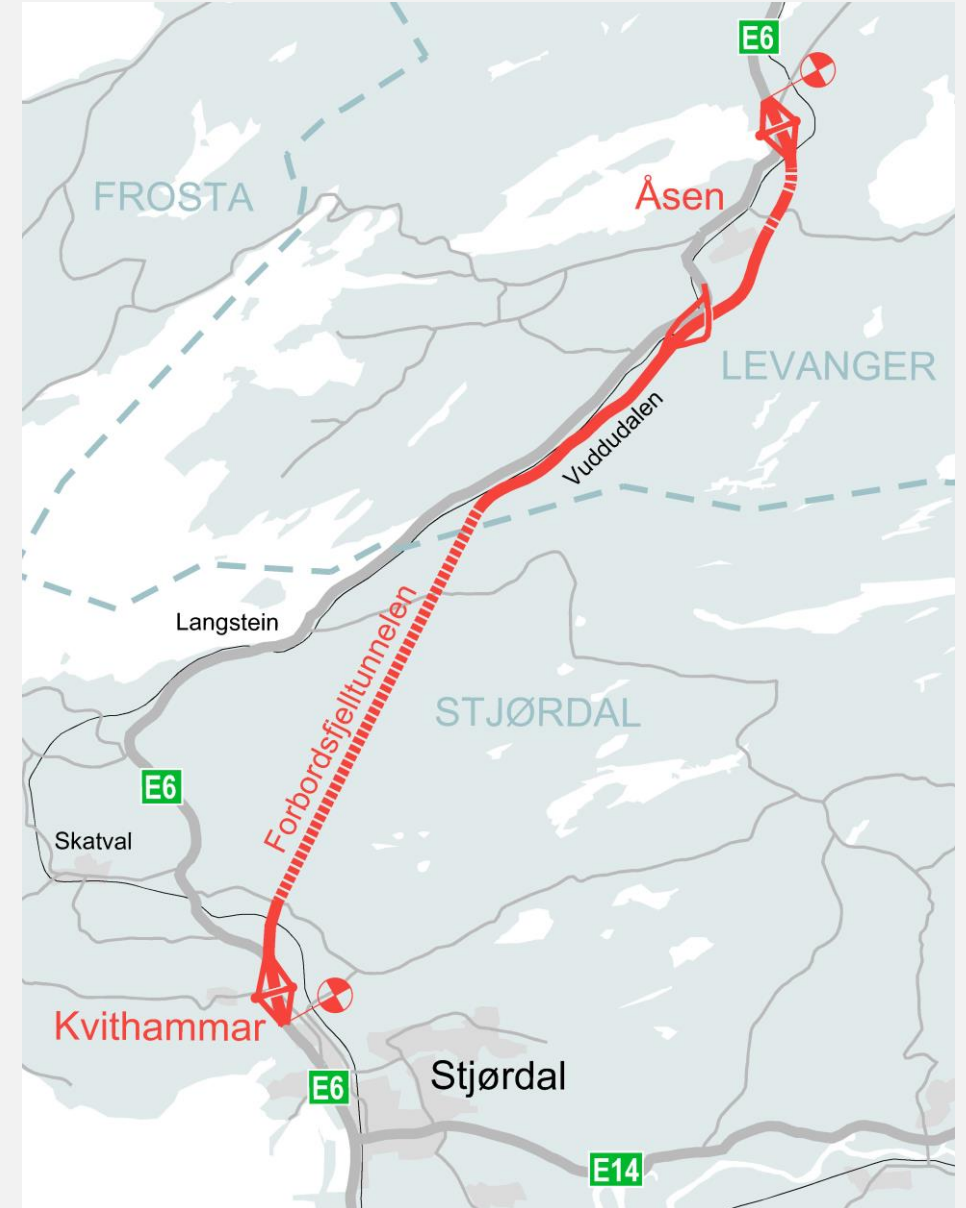
## E6 Kvithammer—Åsen



# Project Performance Goals – Execution



- Deliver on the goal of zero accidents and injuries during construction and operation phases, as well as ensuring a health promoting and fair working environment
- Minimize the construction and life time cost by the means of joint interaction and digitalization
- Minimize the inconvenience of all road users involved during construction and operation phases
- Minimize greenhouse gas emissions as well as other pollution to the environment
- Minimize temporary and permanent seizure of farmlands



# Overall schedule, E6 Kvithammar—Åsen



- Preannouncement: 12.06.18
- Deadline to join qualification: 20.08.18
- Announcement of qualification: 31.08.18
- **Deadline for qualification: 10.10.18**
- Selection of 3-5 Tenderers: 02.11.18
- Information meeting, start tender phase: 19.11.18
- **Deadline to deliver Tender: 08.02.19**
- Announcement of selected Tenderer: 26.03.19
- **Signing of contract: 16.05.19**
- Integrated collaboration and zoning plans: Q2-2019 to Q2-2020
- Mobilisation and physical start: Medio-2020
- Project completion: 2025/26

# Prosperous Trøndelag

- Cooperation
- Entrepreneurship
- Innovation
- Social and political stability
- Low crime
- Great nature



## Trondheim – leading city of:

- Technology and research
- Education
- Sports
- History
- Religion

