

# **Collaborative Planning in Design**

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# WHO, WHAT, WHERE IS VEIDEKKE?

- + Norway's largest and Scandinavia's fourth-largest contractor and property developer
- + 8,000 competent employees in three countries
- + Annual revenue of NOK 31.6 bn. (2017)

NON-RESIDENTIAL  
BUILDINGS

**33 %**

RESIDENTIAL  
BUILDINGS

**25 %**

CIVIL ENGINEERING  
OPERATIONS

**27 %**

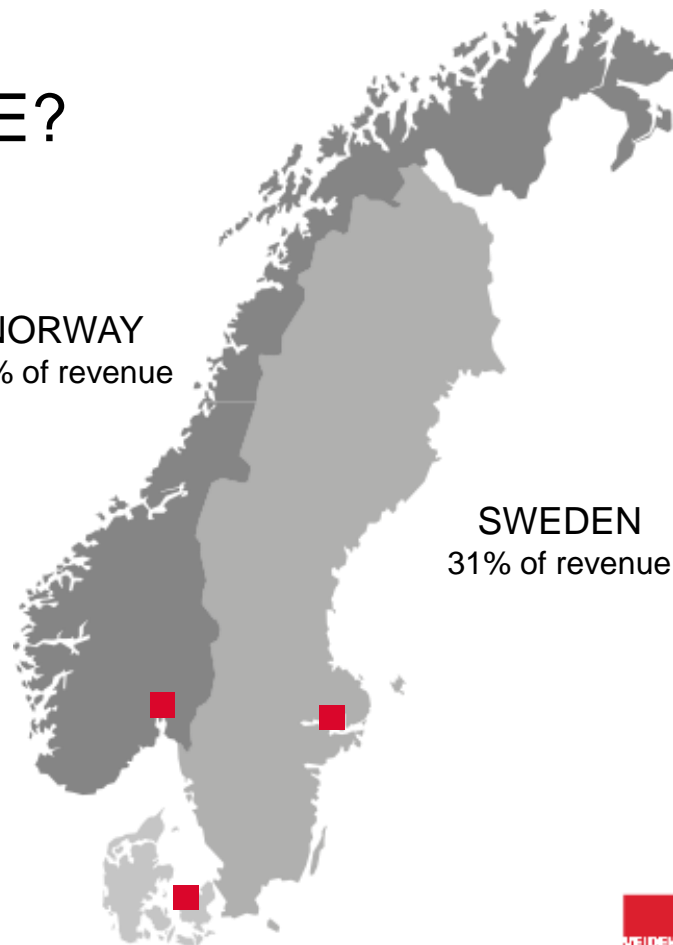
INDUSTRIAL  
OPERATIONS

**15 %**

NORWAY  
62% of revenue

SWEDEN  
31% of revenue

DENMARK  
7% of revenue



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# COLLABORATIVE PLANNING IN DESIGN



The Start-up process



Planning



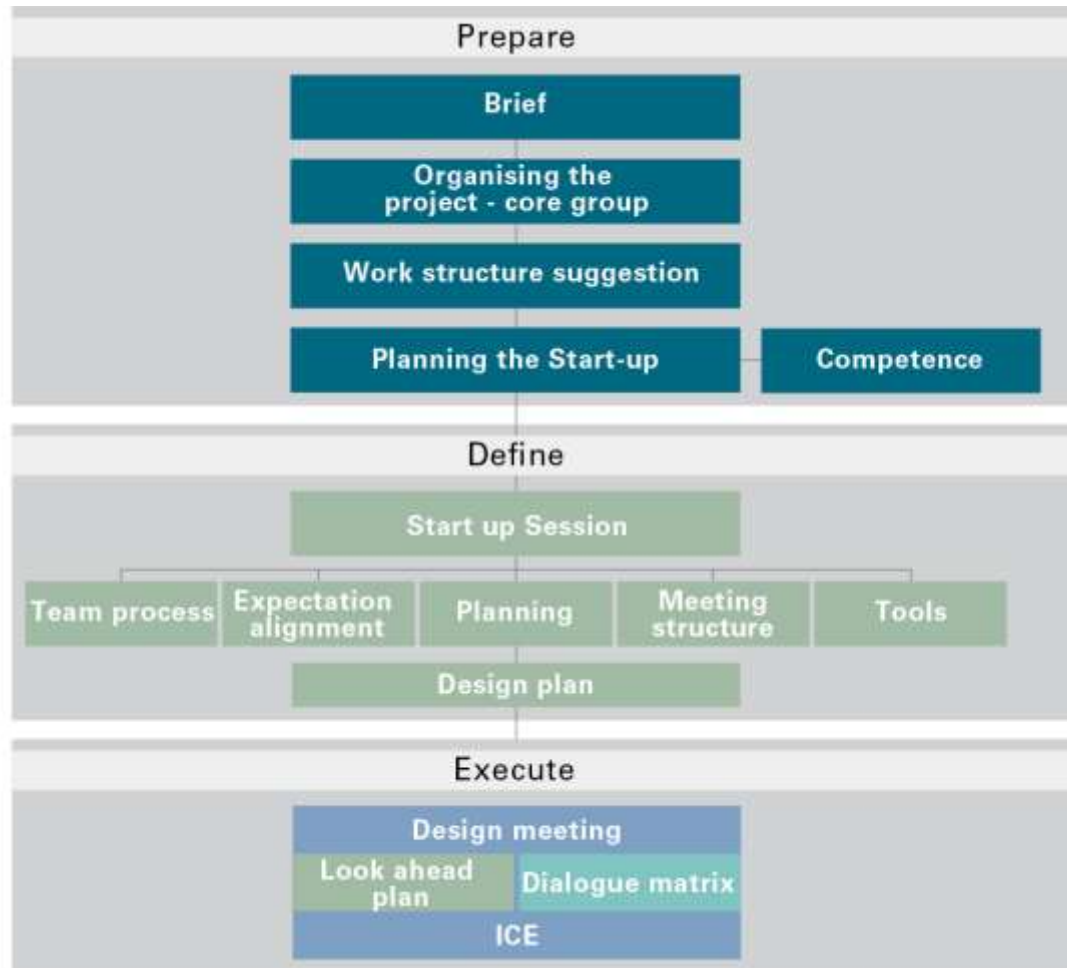
Work and meeting  
structure



Constraint analysis

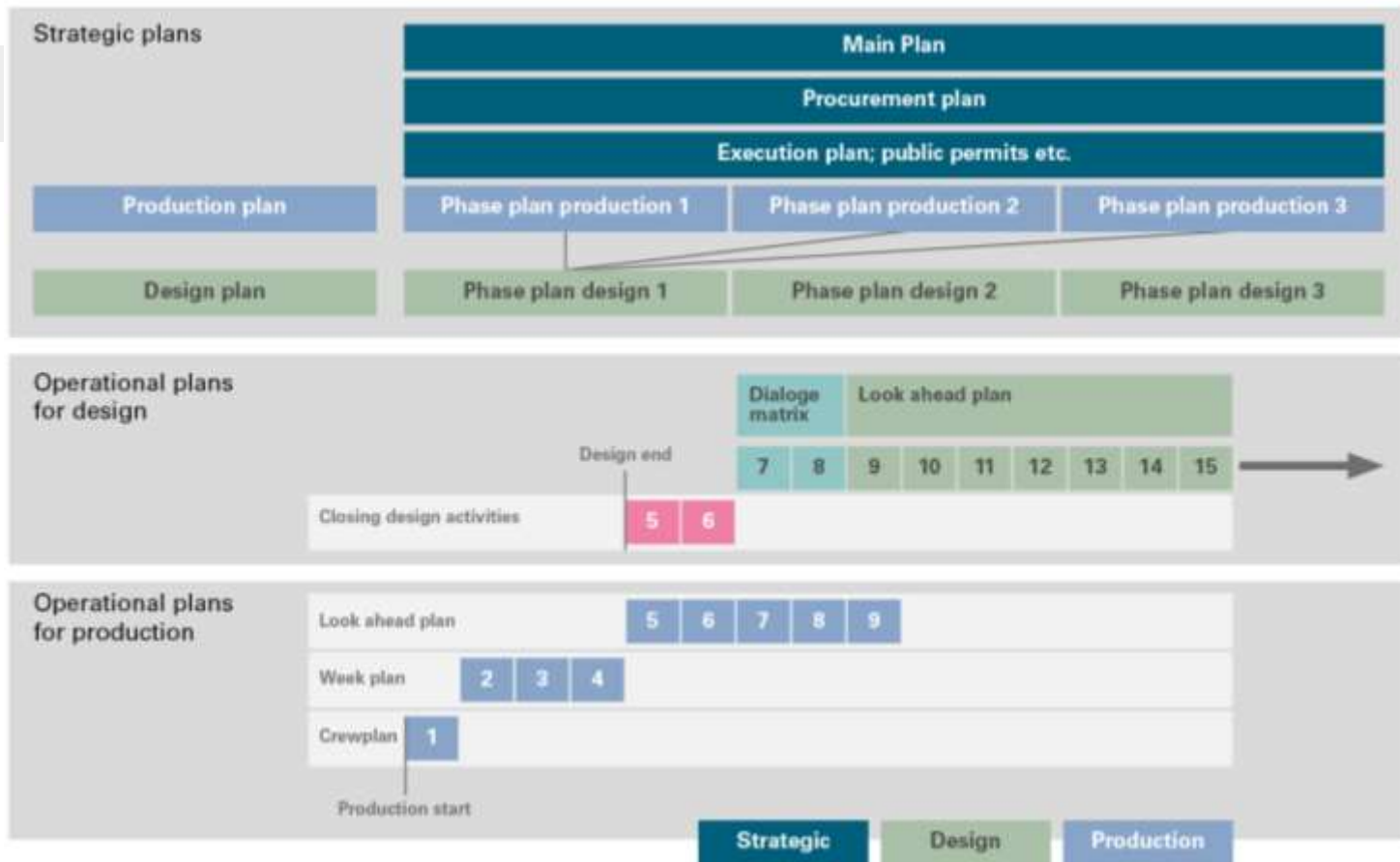


## The Start-up process



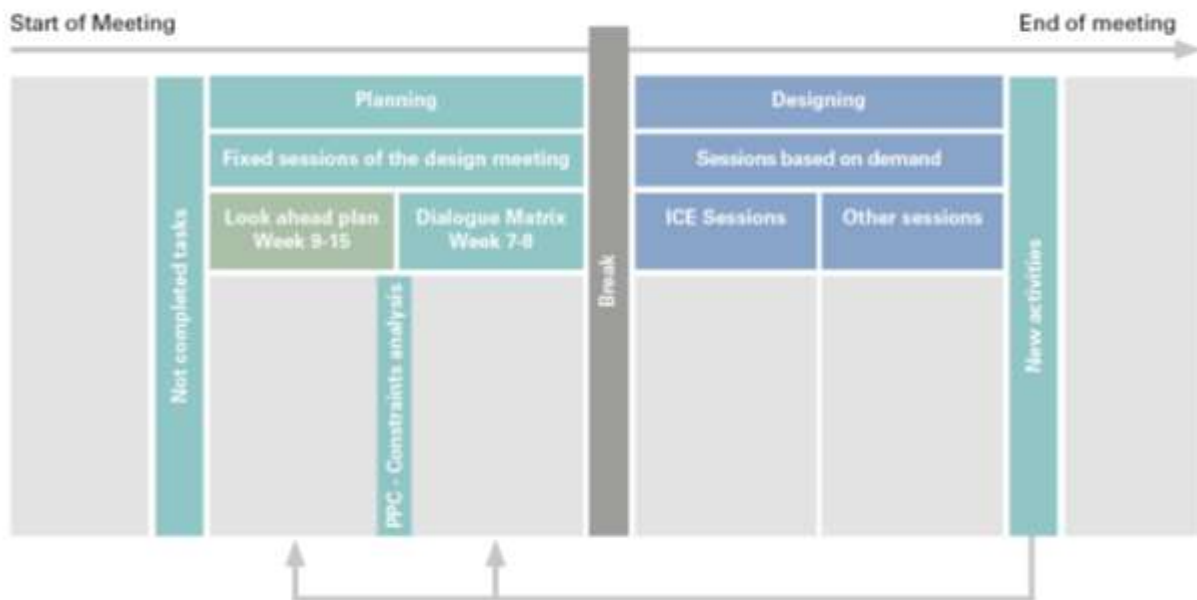


## Planning



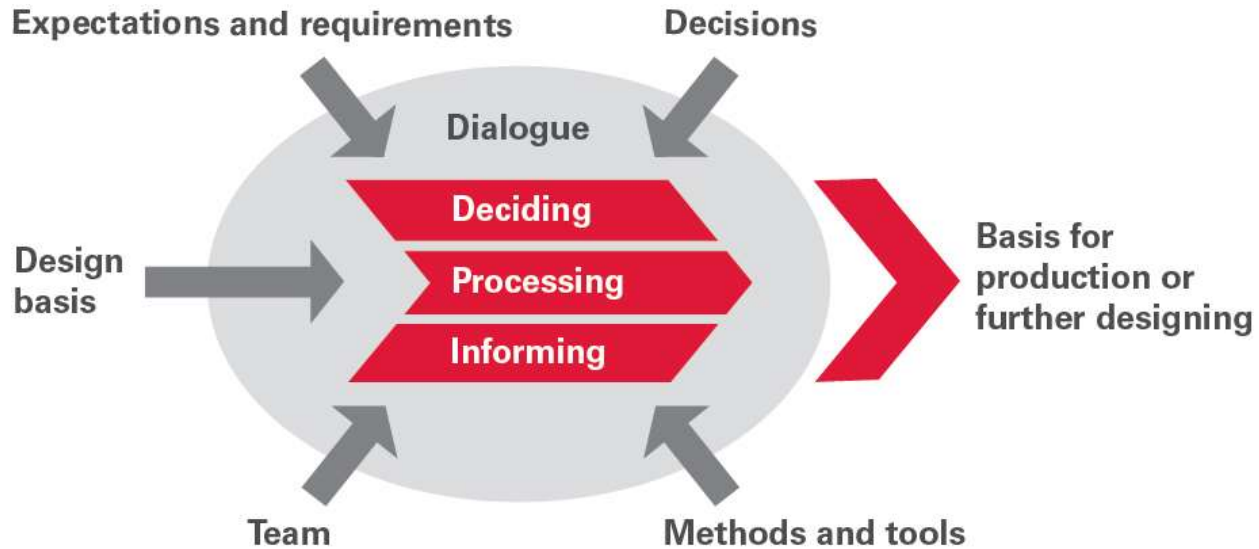


## Work and meeting structure





## Constraint analysis



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# SOME THEORETICAL FOUNDATIONS

1. Both design and production are value creating processes consisting of transformations and flows  
*Koskela (2000): An Exploration Towards a Production Theory and its Application to Construction*
2. Both design and production can be managed through the Last Planner System  
*Ballard (2000): The Last Planner System of Production Control*
3. There can be pooled, sequential and reciprocal interdependences between tasks  
*Thompson (1967): Organizations in Action*
4. Both design and production are logistical, economical and social processes  
*Andersen, Bølviken, Dammerud, Skinnarland (2008): Approaching Construction as a Logistical, Economical and Social Process*
5. Dialog is a precondition for design  
*Bølviken; Gullbrekken, Nyseth (2010): Collaborative Design Management*