

# BEST VALUE PROCUREMENT- EXPERIENCES FROM THE EXECUTION PHASE

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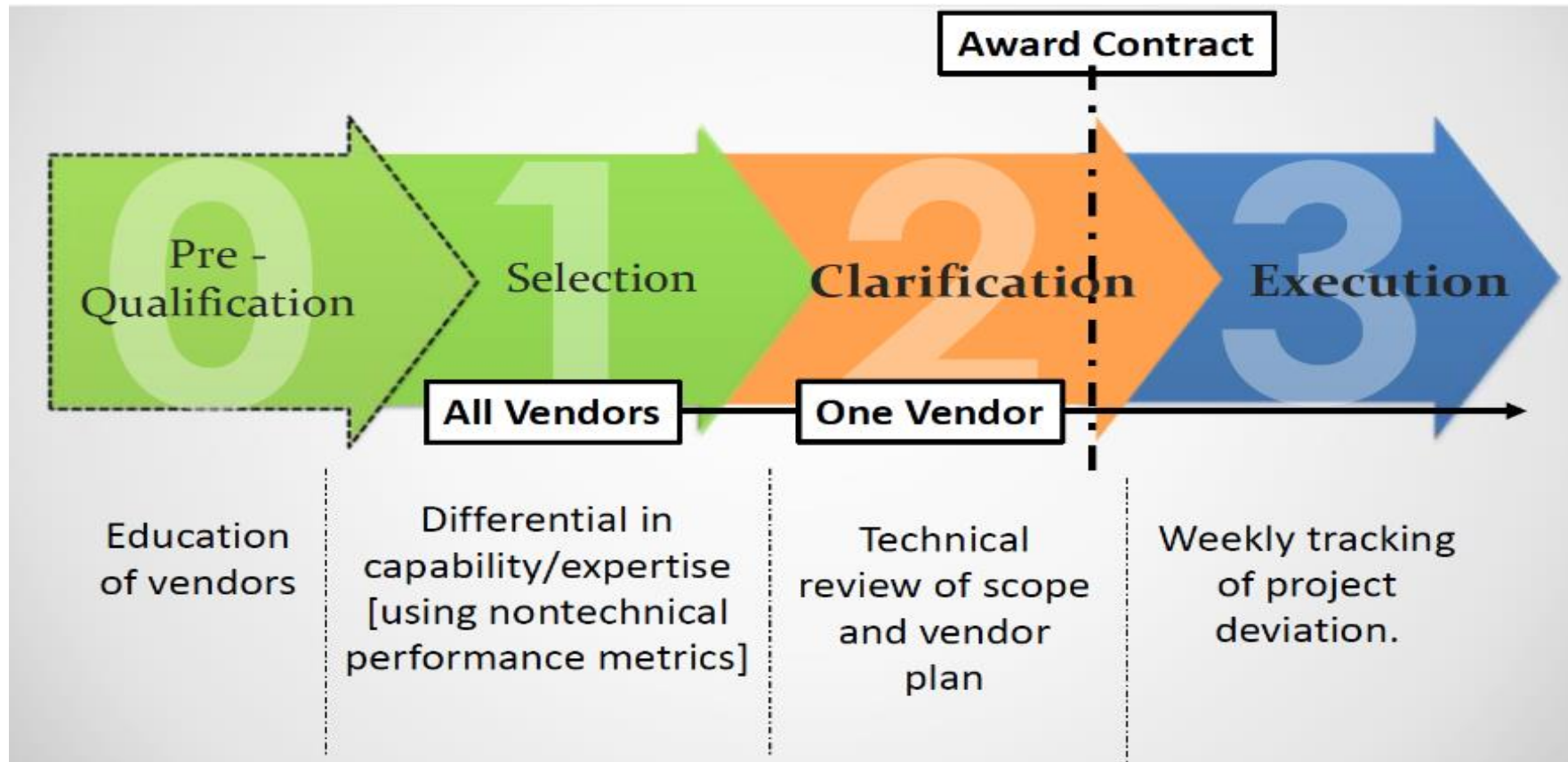
# Introduction

- Statistics given by Statistics Norway (2018) shows a 10% decrease in productivity in the Norwegian construction industry
- Several approaches are applied to turn this trend over, such as partnering and early contractor involvement (ECI)
- There are several approaches for implementing ECI in the public sector and BVP is one of them

# What is BVP?

- BVP is a part of the Best Value Approach (BVA) founded by Dean Kashiwagi in 1991
  - BVA consists of a procurement model, a risk managing model and a project management model
  - The overall purpose of BVP is to identify and select the most suitable vendor (the expert) through simple and dominant information

# BVP phases



# Research questions

- The available research is mainly related to the early phases of BVP
  - minimal research has been done on the execution phase and how BVP can improve the final product
- This paper explores experiences from the execution phase of two Norwegian building projects and addresses the following research questions:
  - How was BVP practiced through the projects?
  - What consequences followed BVP in the execution phase?
  - How should BVP be practiced to improve the execution phase and the final product?

# Research method

- Literature study and two longitudinal case studies
- A longitudinal study consists of continuous or repetitive measures to follow particular individuals over prolonged periods of time
- The two case projects were chosen as they are among the first building projects in Norway using BVP
- The projects were of same size and scope with a conventional project organization

## Case study

- A total of 8 interviews were held with interviewees from both the client and the vendor
- Interviewees were selected based on their involvement in both the procurement and execution phase
- Interview were conducted through in-depth semi-structured interviews based on an interview guide, face-to-face at the interviewee's office
- First interview round were held in October-November 2018 and the second round in March-April 2019

# How was BVP practiced through the projects?

- BVP was practiced quite similar in the projects, and mostly as described in the theory
- Important differences were:
  - Client's maximum price vs. client's maximum budget price
  - Added value

Table 2: Practicing of Best Value Procurement

Elements of BVP	Munkerud Kindergarten	Vollebekk Kindergarten
<b>Pre-Qualification Phase</b>		
Sponsor	No	No
Selection and education of core team	No	No
External BV expert	Yes	Yes
Pre-qualification	No	No
Use of all four phases	Yes	Yes
Training of owner	Yes	Yes
Core document / request for proposal	Yes	Yes
Open budget w/ceiling	Client's maximum price	Client's maximum budget price
Training of vendor	Yes	Yes
<b>Selection Phase</b>		
Evaluation criteria in MEAT:		
• Level of expertise	15%	30%
• Risk assessment	20%	20%
• Added value	10%	0%
• Interview with key personnel	30%	25%
• Price	25%	25%
Time-plan	Yes	Yes
Short listing	No	No
Multiple grading groups	No	No
Dominance check	Yes	Yes
<b>Clarification Phase</b>		
Kick-off meeting	Yes	Yes
Risk management plan	Yes	Yes
Scope document	Yes	Yes
Elaboration of potential critical sub-contractors	No	No
Key Performance Indicators (KPIs)	Yes	Yes
Letter of intent	No	No
Contract award meeting	No	No
Vendor involved in framing of contract	Yes	Yes
Owner financially responsible for all controllable risks	Yes	Yes
Risk contingency fund	No	No
<b>Execution Phase</b>		
Weekly risk report	Yes	Yes
Performance measurements	Yes	Yes
Director's report	No	No



# What consequences followed BVP in the execution phase?

- How BVP is practiced in the earlier phases has shown to have a significant influence on the execution phase of the project, and thus also the final product
- Most of the consequences were positive, but some caused a number of challenges

Table 3: Consequences of Best Value Procurement

Element of BVP	Effect	Consequences for the execution phase
<b>Pre-Qualification Phase</b>		
Use of all phases	+	<u>Best Value Procurement becomes a mind-set, rather than a method.</u> Sharing this mind-set leads to a collaborative environment in the execution phase
	+	More flexible and demand-controlled communication in the execution phase
Core document	+	More predictable solutions for the client
Open budget w/ceiling	+	Fewer change orders and added costs
<b>Selection Phase</b>		
Evaluation criteria	+	<u>Higher weighting of quality leads to higher quality</u>
	-	<u>Weighting of price becomes excessive</u>
	+	<u>Added value leads to more innovation</u>
	+	Opens for new and smaller vendors that normally would not get the project
	-	A lack of interviewees from the vendors participating in the execution phase may limit the evaluation of the vendor's project execution performance
+	More weight on quality leads to a higher focus on investment and life cycle costs	
<b>Clarification phase</b>		
Kick-off meeting	+	Gives the actors a common understanding of the project and leads to increased interaction between the parties
	+	Clarifies playing rules for conflicts and leads to increased construction progress in the execution phase
Risk management plan	-	Inadequate periodic control and update leads to low information regarding the overall project risk
Key Performance Indicators	-	<u>Inadequate standardization makes it difficult to develop and use KPIs</u>
	-	Difficult to measure innovation and quality in the execution phase
Contract award meeting	-	Lack of a contract award meeting may limit the benefits of KPIs and risk management plan in the execution phase
<b>Execution phase</b>		
Weekly Risk Report	+	More efficient communication in the execution phase
	-	<u>Causes no reduction in the owners control needs</u>

# How should BVP be practiced to improve the execution phase and the final product?

- Important elements when practicing BVP:
  - Education of project participants
  - BV expert
  - Price
  - Interview of key personnel
  - Added value
  - Kick-off-meeting
  - Risk management plan
  - Key Performance Indicators (KPIs)
  - Weekly Risk Reports (WRR)

Table 4: Improvements and measures for future BVP projects

Element of BVP	Measure/improvement
<b>Pre-Qualification Phase</b>	
Core document	A clear and precise core document leads to more predictable solutions for the client but may limit the innovation. Important to early clarify what is more important for the client.
Education of project participants	BVP is a mind-set more than a method. This mind-set must be shared by all participants regardless of project phase. <u>Future projects should have an extensive focus on education in BVP.</u>
External BV expert	Frequently involve the BV expert. Costs should be covered by the owner, not the vendor.
<b>Selection Phase</b>	
Price	<u>Price should not be a part of the evaluation criteria when the owner's maximum budget is specified.</u> Tenders over the maximum price must be declined.
Time plan	May be included as an evaluation criterion when a faster execution phase is desirable.
Dominance check	Perform as early as possible to avoid waste of project resources on a non-expert
Interview of key personnel	<u>Key personnel from the execution phase must be included.</u> The practice will make it easier to evaluate project execution performance and implement the BVP mind-set in the execution phase
Added value	<u>Open for vendors to offer Added Value.</u> This will lead to more innovation in the project.
<b>Clarification Phase</b>	
Kick-off-meeting	Establish playing rules for conflicts, trust and an equal understanding of the project scope. Important actions for preventing potential conflicts
Risk management plan	<u>Periodically control and update of the plan</u> in order to provide an overview of the overall project risk
Key Performance Indicators	Must be sufficiently clarified and established early in the clarification phase. <u>Establish clear indicators for how to measure innovation and quality.</u> Formed after guidelines by Horstman & Witteveen (2013). Must be periodically evaluated and updated during the execution phase.
Contract award meeting	Clarify and establish final KPIs and expose all risk factors in the project to achieve a better practice of these elements in the execution phase.
<b>Execution Phase</b>	
Weekly Risk Reports	<u>Must be formed to help reduce the client's control needs</u> <u>Must be completed and sent weekly,</u> whether or not new information has occurred.
Performance measurements	All actors should measure their own performance in order to gather dominant information for future projects.



Thank you for your attention!

Questions?