

DEVELOPMENT OF TARGET COST FOR A HIGH-PERFORMANCE BUILDING Atle Engebø, Olav Torp, and Ola Lædre











Introduction

Two cost perspectives used to determine target cost (Ballard, 2006; 2007):

- 1. The owner defines the Allowable cost.
- 2. The project team defines the Expected Cost.

Expected cost will change during schematic design.





Research questions

- 1. How is target cost set in a high-performance building project?
- 2. How does expected cost develop through the collaborative phase?
- 3. How can a collaborative delivery model contribute to development of cost targets?





Research methodology

- Thematic literature review on Target Costing, Target Value Design, and Group Development
- Case study: a Zero Emission Building (ZEB) Laboratory (4 stories and 2000 m2)
- Case-specific document study
- Case-specific observations in design meetings (22 weekly ICE sessions)



The case





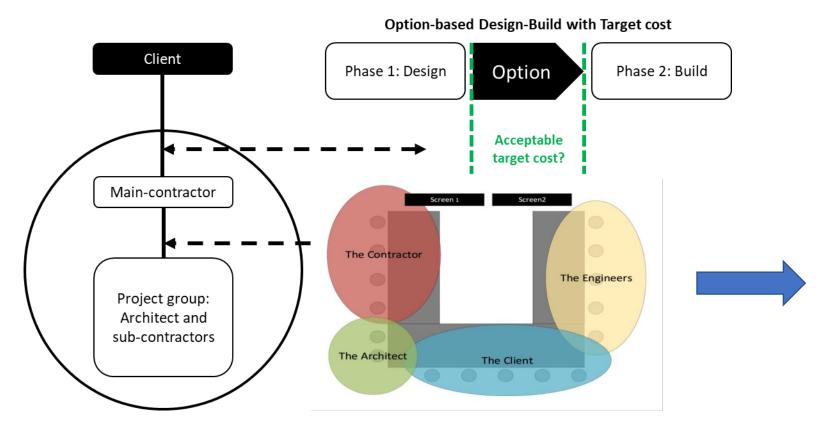
The client had high ambitions for the project
The studied high-performance building is a Zero Emission Building
(ZEB) Laboratory in Norway. This 4 stories high building contains
approximately 2000 m²

- ZEB-COM building: it will generate more energy during its lifetime than energy used for construction, operation and materials.
- A living lab: It will be a full-scale laboratory where the users are exposed to different temperatures, air qualities, moisture levels, luminosities etc.





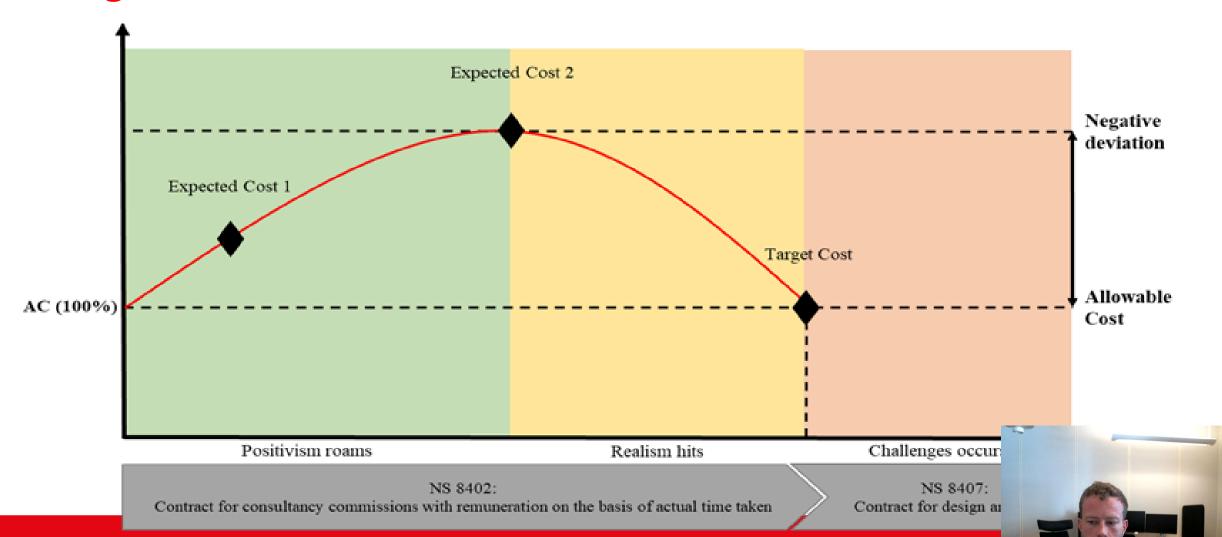
Findings and discussion







Findings and discussion





Conclusions

- The contractor-led project team managed to come up with a schematic design and a target cost equal to allowable cost.
- Expected cost derailed from the allowable cost in a realm of positivism, before managers hit by realism stressed cost and assessed risk.
- The benefits of Target Value Design could have increased in the investigated case if the owner had communicated the ambitions more precisely.



THANK YOU!

