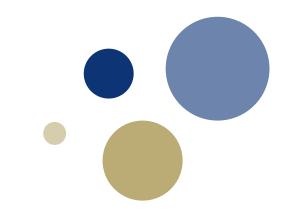


Norwegian University of Science and Technology



#### **Benefit Management in Public Construction Projects**

## Experiences and Recommendations Based on Seven Case Studies

Christian Bakke – 20th September 2024

#### **Concept report nr. 76**

Anne Strand Alfredsen Larsen. Gro Holst Volden, Biørn Andersen, Jan Alexander Langlo og Christian Bakke Nyttestyring i statlige byggeprosjekter - Erfaringer og anbefalinger basert på syv caseprosjekter Concept-rapport nr. 76

- Anne Strand Alfredsen Larsen
- Gro Holst Volden
- Bjørn Andersen
- Jan Alexander Langlo
- Christian Bakke

Concept report nr 76

#### **Overview of the Study**

- Focus: Benefit management in public construction projects in Norway
- Examines the practice across different sectors
  - Statsbygg, the Norwegian government's building commissioner, property manager and developer.
  - Forsvarsbygg, The Norwegian Defence Estates Agency
  - Sykehusbygg, The Norwegian Hospital Construction Agency
- Highlights the importance of systematic benefit planning and realization throughout the project lifecycle

#### Main Research Focus:

 How are benefits identified, planned, and managed in state projects?

• What recommendations can improve benefit management in public construction?

#### Definition

- The Norwegian Agency for Public and Financial Management (DFØ) guide for Benefits Management
- Benefits are broad effects perceived positively by at least one stakeholder
- Covers both qualitative and quantitative benefits
- Focuses on long-term societal and user impacts

#### Method:

- Case studies of seven public construction projects
  - Centre for Psychiatric Health
  - New Østfold Hospital
  - Psychiatric Building in Kristiansand
  - NTNU Campus Development
  - New National Museum
  - Firestation Haakonsvern
  - Police National Emergency Response Center
- Interviews with stakeholders: 20 interviews with 31 informants
- Document analysis and seminars for validation

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## The Four Steps in Benefit Management Step 1: Identify Step 2: Plan Step 3: Implement Step 4: Document

The Norwegian Agency for Public and Financial Management (DFØ)

#### 1. Identification of Benefits

- Step 1: Identify Step 2: Plan Step 3: Implement Step 4: Document
- Formal requirements for benefit identification are followed but often framed as project justification

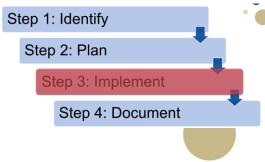
• Effect goals are often overly ambitious, unclear, or not directly tied to project outcomes

### 2. Planning of Benefits

- Step 1: Identify Step 2: Plan Step 3: Implement Step 4: Document
- Benefit plans vary greatly in quality and specificity
- Lack of baseline measurements

 Difficulty aligning objectives across different project stakeholders

#### 3. Execution of Benefits Management



- Insufficient focus on user involvement and long-term
  operational costs
- Unclear roles in implementing benefit plans

 Benefit tracking is inconsistent and lacks continuous engagement

# 4. Documentation of Realized Benefits

- Step 1: Identify Step 2: Plan Step 3: Implement Step 4: Document
- Limited documentation of realized benefits

 Follow-up on quality and functionality, but societal benefits are rarely measured

 Lack of clarity on responsibility for measuring benefits post-completion

#### Paradox 1 – The most important decisions are made when we know the least

• **Key points:** Early decisions have the most impact, but knowledge is minimal.

• Learning Point: Emphasize the need for thorough early evaluations.

#### Paradox 2 – Important benefits are not formulated as goals but are still expected to be managed

• **Key points:** Key project outcomes are not clearly defined, causing confusion

• Learning Point: Focus on to state and prioritize objectives clearly.

### Paradox 3 – Benefits Not Measured Get Ignored

• **Key points:** Unquantifiable benefits may be overlooked, leading to suboptimal decision-making.

• Learning Point: Introduce methods for considering qualitative benefits.

# Paradox 4 – Those responsible for extracting benefits are often one- time actors

• **Key points:** Short-term participants may not have the incentive to maximize long-term benefits.

• Learning Point: Highlight the role of consistent stakeholder engagement.

#### Paradox 5 – More benefit owners lead to more confusion

• **Key points:** Multiple stakeholders with different expectations create complexity.

• Learning Point: Coordination mechanisms are needed to align interests.

#### Paradox 6 – The benefit owner does not always have the tools to manage benefits

• **Key points:** The person or group responsible for the project's benefits may need more control or authority.

• Learning Point: Collaboration across departments and teams is crucial.

#### Paradox 7 – A naive belief that benefits can be realized without proper incentives



• **Key points:** Benefits are often assumed without ensuring there are strong incentives.

• Learning Point: Design incentive structures that align with desired outcomes.

#### Paradox 8 – The need for speed in the project can override the need for maturity

• **Key points:** Pushing projects forward too quickly can compromise necessary planning and development.

• Learning Point: Balancing speed with thorough preparation is essential.

#### Paradox 9 – Focus on construction, even when organizational development is crucial for benefits

• **Key points:** Physical infrastructure is often prioritized over softer, organizational elements.

• Learning Point: Benefits depend equally on nonphysical components and physical components.

# Paradox 10 – Finding the right balance between predictability and flexibility is challenging

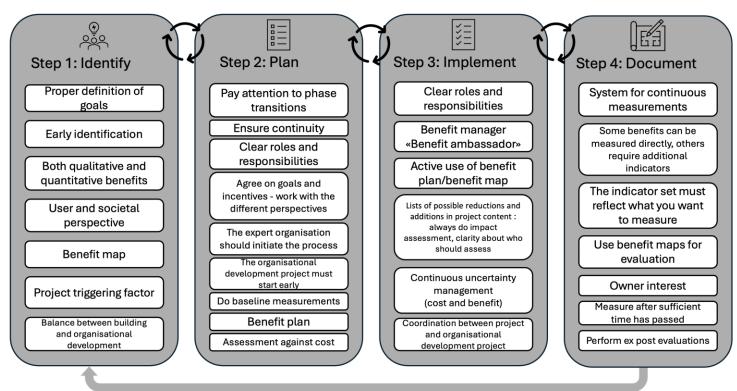
- **Key points:** Rigidity can stifle innovation, but too much flexibility can lead to chaos.
- Learning Point: It is important to operationalize goals and new plans. However, the plans must be flexible enough to allow for updates as changes occur during the project (adaptive planning).

#### Conclusion

 Public construction projects face challenges in benefit management

• Improvements can be made through more systematic identification, planning, and monitoring of benefits

#### The Four Steps in Benefit Management



#### **General recommendations**

- · Benefit management must be put on the agenda and concepts and terminology must be clarified
- Benefit management must be a natural part of the project: the owner must be involved, clear organisation/role clarification, "common rhythm" between stakeholders