Management principles and safety culture in complex projects (MAPS)

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Outline

- Motivation
- Objectives
- Key mid-term results
Motivation

Complex projects as dynamic multi-organizational entities aiming at fulfilling a common objective

Evidence of schedule, quality and financial challenges in major projects in different industries

Safety research has paid insufficient attention to these challenges seen as economic issues
The goal of MAPS is to enhance *nuclear safety* by developing knowledge on supporting high quality execution of complex projects in the nuclear industry.
Specific research objectives

To identify generic safety principles of managing complex projects in the nuclear industry.

To clarify the cultural phenomena and their influence on safety culture and safety.

To provide guidance for facilitating management and safety culture in complex projects.
How is our research enhancing nuclear safety?
Key intermediate results
Benchmarking the Norwegian oil & gas industry was used for sharing lessons learned on management of safety and improving performance of complex projects.

Project governance
Key dimensions and mechanisms of project governance were identified: emphasis on the potential of relational project delivery arrangements for ensuring effective project governance.

System dynamics modelling was applied to understand the reinforcement mechanisms over time and the cumulative impact of project delays on safety.

Safety culture in complex projects
Practical methods to assure and improve safety culture were identified; a preliminary framework for evaluating their applicability in projects was developed.

Key interim results
Thank you for your attention!