



Management principles and safety culture in complex projects (MAPS)

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Motivation

Complex projects are dynamic multi-organizational entities, in which the participating organizations combine resources, capabilities and knowledge to fulfill a common objective. Ensuring that safety and quality requirements are properly understood and satisfied in a multinational and dynamic context is a demanding process. Prior safety research has paid insufficient attention to project management because cost, time and quality challenges have been perceived mainly as economic issues. There is a need to advance the knowledge on enhancing project performance, managing nuclear safety and applying the concept of safety culture in complex projects.

Objectives

The guiding research question is: what are the safety management principles that should be applied in managing complex projects in the nuclear industry, and how they can be implemented in practice?

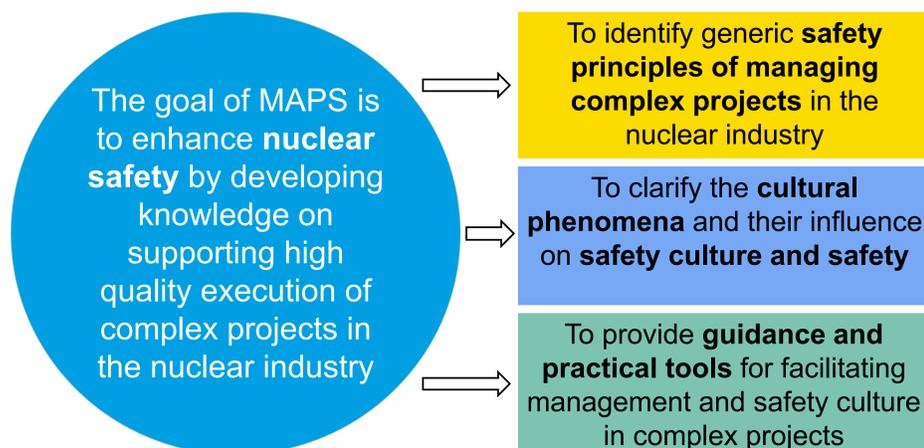


Figure 1. The ultimate goal and specific objectives of MAPS project (2015-2018)

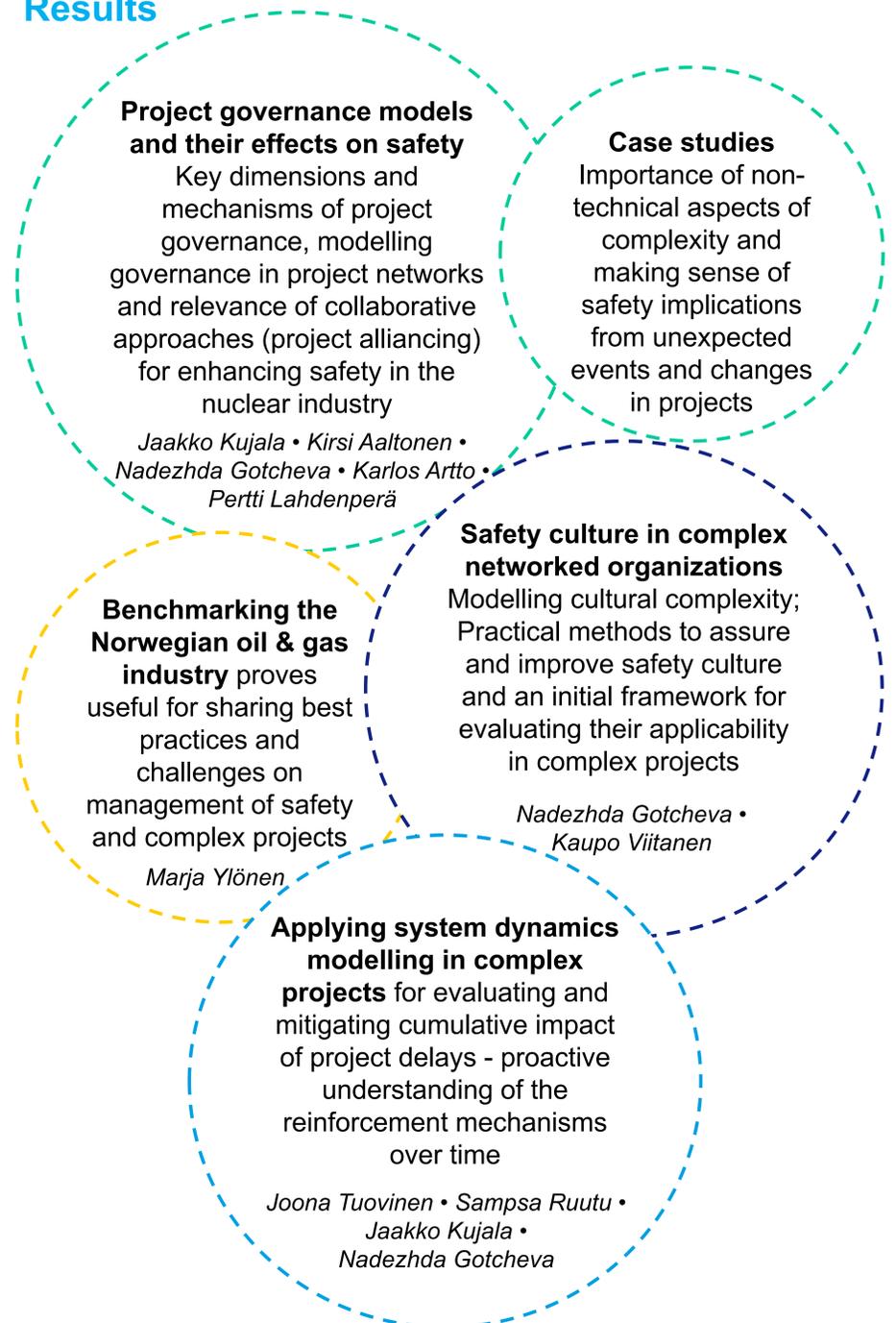
Methods

Different methods are used for the theoretical framework development and empirical data collection and analysis, such as literature review, documentary analysis, workshops, case studies, interviews with representatives of the nuclear industry and the oil & gas industry and the regulators, and system dynamics modelling.

Partners



Results



Conclusion and next steps

Current results provide a foundation for identifying and describing the safety management principles in complex nuclear industry projects to support the development and assurance of a healthy safety culture. Cooperation with leading scientists and nuclear industry practitioners continues to further refine and validate the preliminary insights and integrate them into theoretical advancement and practical guidance for facilitating project governance and safety culture in complex projects.

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