



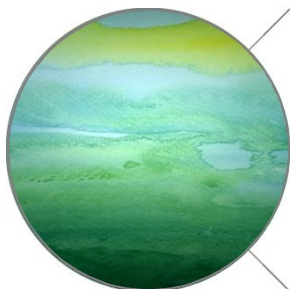
Management principles and safety culture in complex projects (MAPS)

Nadezhda Gotcheva, VTT



SAFIR2018 Interim seminar
23-24 March, 2017

Outline



Motivation

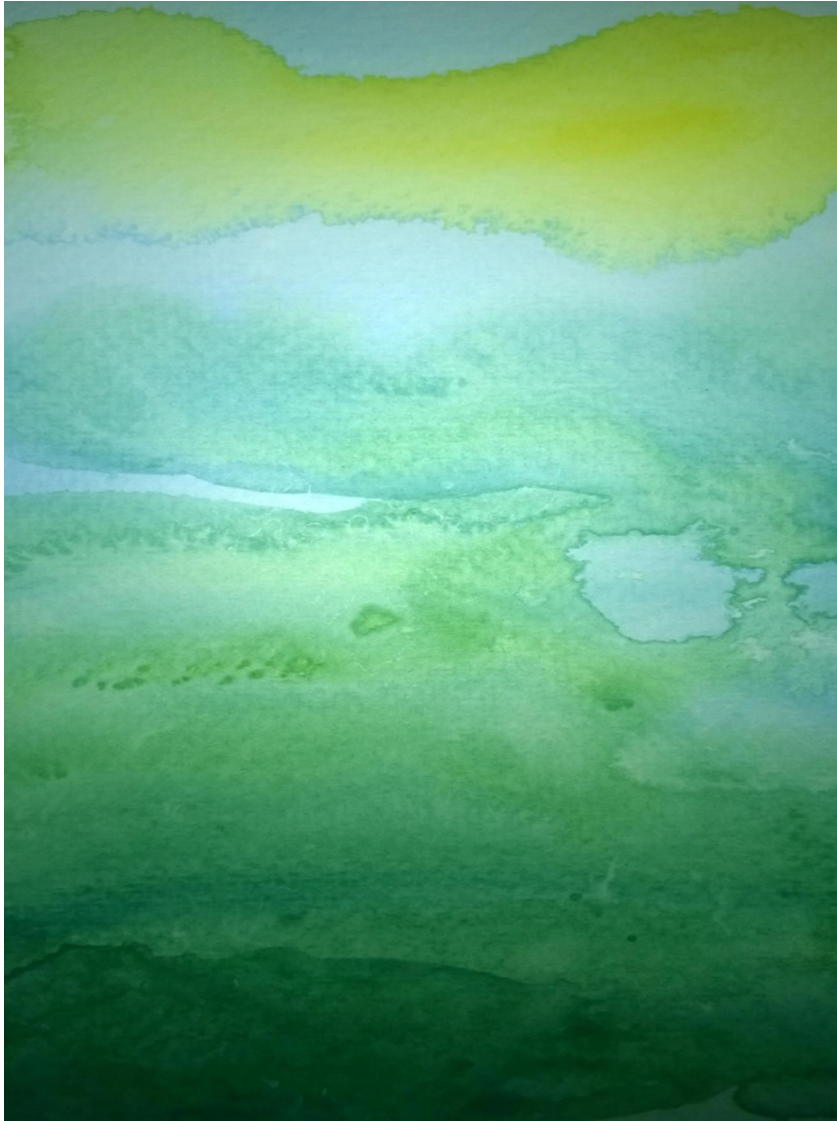


Objectives



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

A scenic landscape featuring a rocky stream in the foreground, green hills in the middle ground, and mountains in the background under a blue sky with clouds. The text is overlaid on the upper portion of the image.

**How is our research enhancing nuclear safety?
Key intermediate results**

Key interim results

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

Benchmarking the Norwegian oil & gas industry

was used for sharing lessons learned on management of safety and improving performance of complex projects

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



Thank you for your attention!