

- **SocioTechnical safety Assessment within Risk Regulation Regimes (STARS)**

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The project aims to provide innovative solutions for regulatory challenges in today's turbulent environment. The project advances the safety field by integrating lessons from the so called new view on safety and studying their practical implications. The project will explore and link two topics of the SAFERA call: 'T1.2. assessment performance of regulation frameworks in the light of value systems' and 'T2. resilience: improving management of safety' concerning regulation and the policy framework'.

The past thirty years of research on accidents have built an understanding of ensuring safety that goes beyond technical rationality and traditional engineering models. The suggested project deals with the ability of regulatory authorities within specific risk regulation regimes to consider the sociotechnical dimensions of safety. The focus will be on exchange and systematization of knowledge across the petrochemical, chemical and nuclear industries. The project aims to:

- explore what this shift towards a sociotechnical approach entails from a scientific point of view and how it affects management of safety by both the industry and the regulators,
- compare the practices in risk regulatory regimes on sociotechnical approaches to safety critical systems,
- clarify the role of regulation (limits and possibilities) in ensuring sociotechnical safety in society, and
- develop an evidence based guide on how to develop regulatory practices towards taking better into account the sociotechnical dimensions of safety.

Information will be gathered about the assessments carried out by regulators and experiences concerning the validity of the findings from the assessments. The project will look at what scientific evidence there is to support the validity of sociotechnical safety evaluations and how the existing scientific models of safety and accidents can be applied in safety inspections. The project will also look at the application of resilience engineering concepts to sociotechnical assessment: what new do those ideas bring to safety evaluations, how does resilience differ from safety? The outcome of the project will be an evidence based guide providing advice to regulators and safety-critical organizations on how to utilise the sociotechnical approach.

The project is coordinated by VTT (Finland), and the other participating research organizations are INERIS from France and University of Stavanger from Norway.