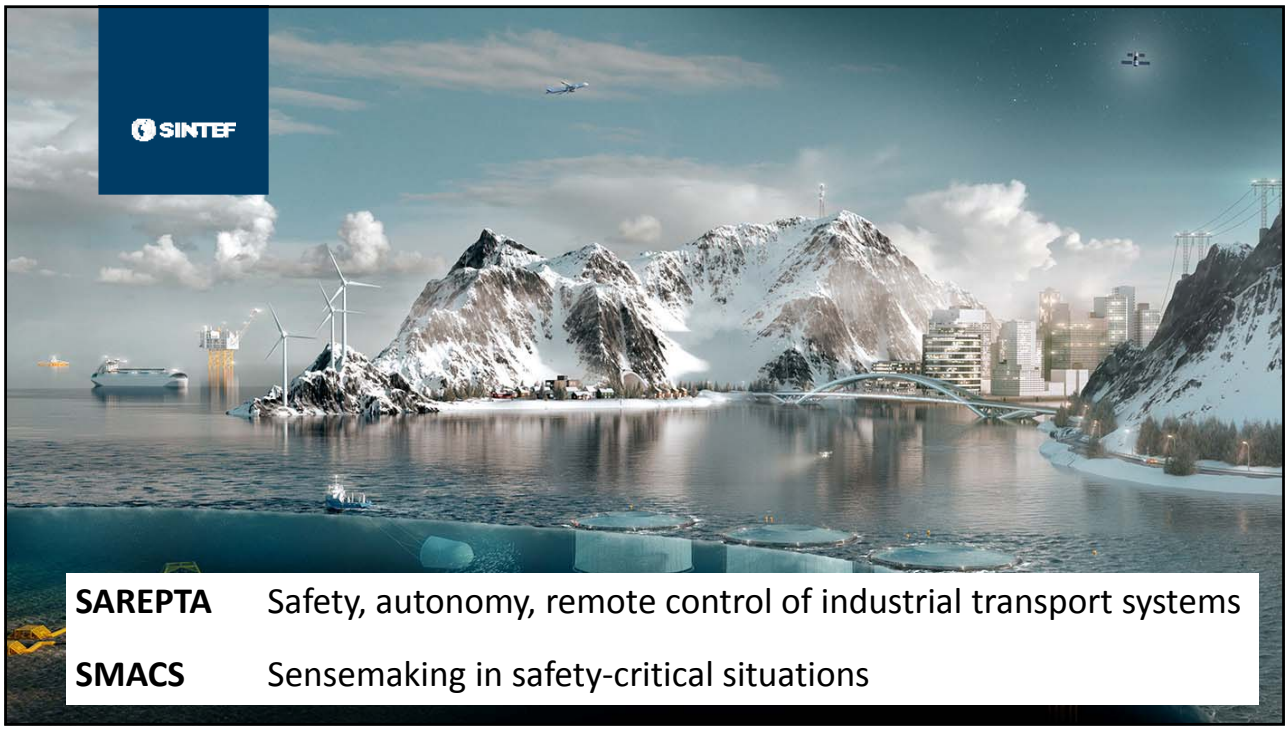

Projects needing collaboration with HFC

SAREPTA Safety, autonomy, remote control of industrial transport systems
SMACS Sensemaking in safety-critical situations

- Period 2017 - 2020
- Cases, Data
- Discussion of problems and findings
- PhD Position SMACS (announced in May)

Both projects are described at www.hfc.sintef.no

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SINTEF

SAREPTA

Safety, autonomy, remote control and operations of industrial transport systems

A. **Risk identification and risk levels**

B. **Vulnerabilities and threats**

C. **Technical, human and operational barriers**

D. **Organizational and human factors, and regulatory measures for risk mitigation**

Sea Air Rail Road




SINTEF

SAREPTA – main goal

Knowledge about risks of autonomous transport

- Gather data and structure events
- Develop methods to assess risks & reduce risks

Domain

- Autonomous systems – sea (& air, rail, road)
- Focus – level of Automations – steps to full automation
- (Braatenfondet & SINTEF Strategies)

SINTEF

SMACS main problem

How can the ability to deal with safety-critical situations be improved in demanding maritime operations?

Domain:

Ship (bridges), rig (control rooms)

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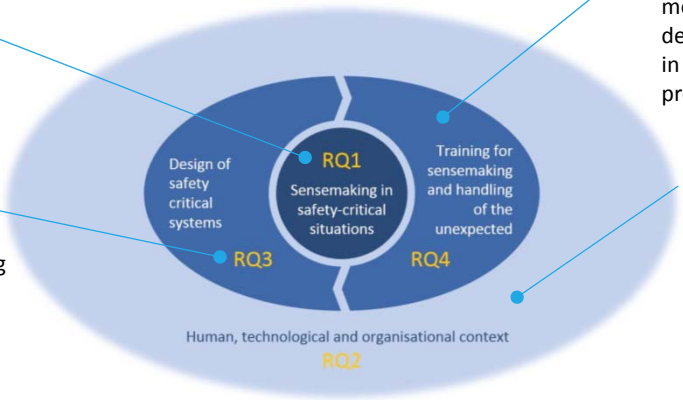
Research questions and areas of focus

RQ1: What are the characteristics of sensemaking and resilience in safety-critical situations?

RQ3: What are the characteristics of an HMI that facilitates sensemaking and resilience in safety-critical situations in the maritime domain?



RQ4: What are the characteristics of training methods that promote the development of sensemaking in the future maritime profession?

RQ2: What are the needed human, technological and organizational factors to support sensemaking and resilience in safety-critical situations in the maritime profession?

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SMACS expand knowledge

- Design of safety critical systems
- Sensemaking and resilience
- Learning and training