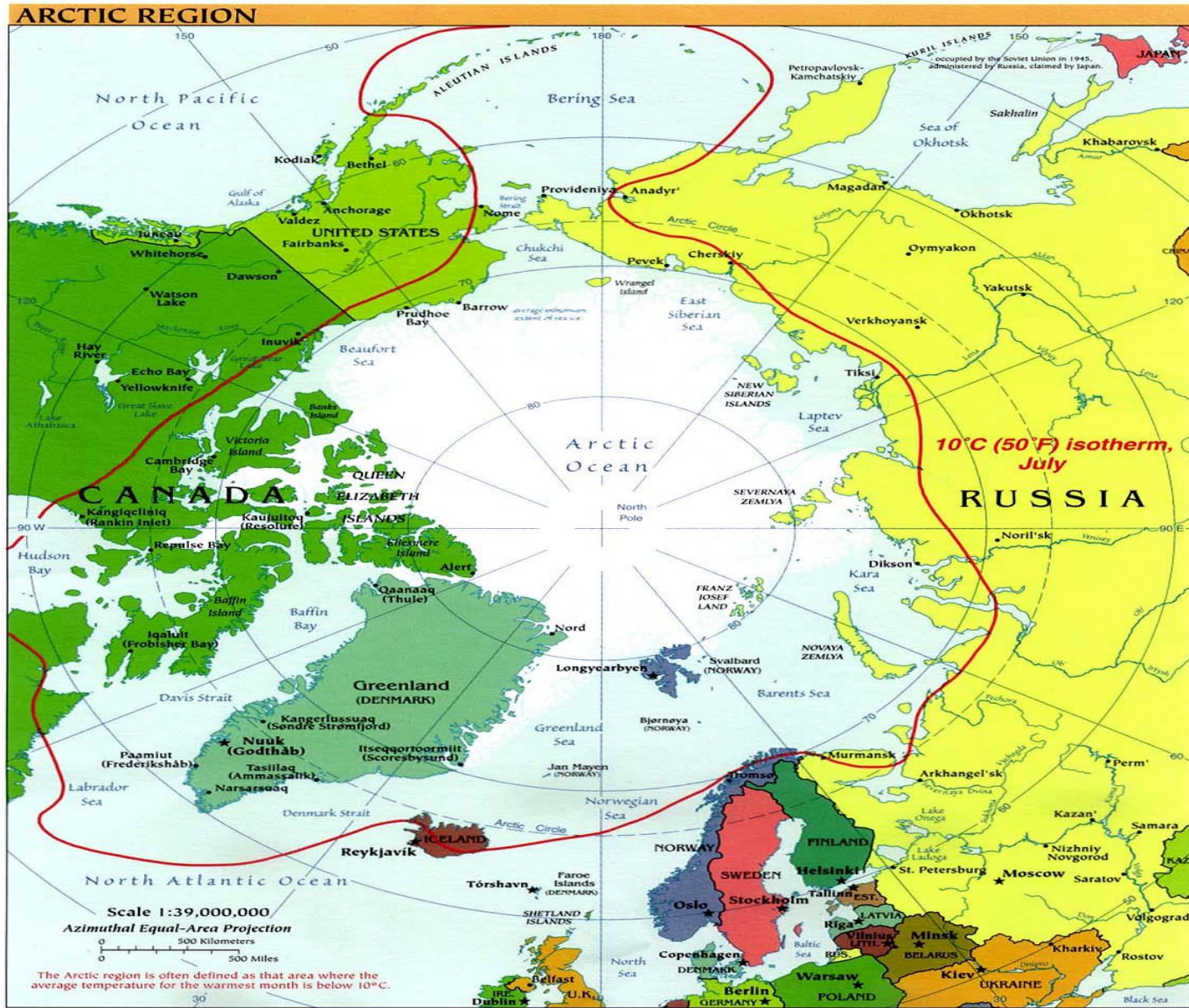


Development and Establishment of an Arctic Safety Center in Longyearbyen



Mandate



The mandate is to establish an arctic safety center in Longyearbyen.

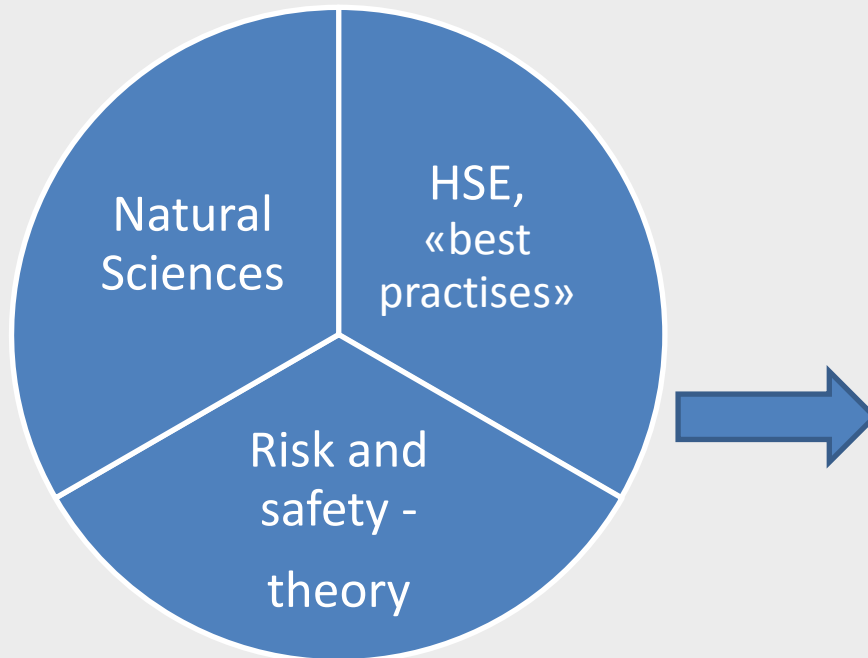
Background	
<p>The natural environment in the high north is undergoing rapid change while at the same time the interest in presence and economic development in the region has never been greater. As a consequence the need to increased competence and sharing of experience in how to operate in a safe and environmental manner in the high arctic is acute and extremely relevant. Both location of UNIS and years of experience collection related to arctic safety makes Svalbard an excellent location for arctic safety competence center. There is already a demand from several national and international partners for an arctic safety center.</p>	
Objectives	Success criteria
<p>The purpose is to contribute to as safe and sustainable human Activity in The High Arctic as possible</p>	<p>Utilization of the natural science knowledge that is already fully or partly at UNIS. "Best practice" in terms of experience and expertise UNIS has on completion of training of students; also expertise from other partners. Ownership from academic and logistical environments. Collaboration with stakeholders. Safety and risk theory from our Norwegian partner institutions.</p>
Expectations and frame	
<p>Deliver according to agreed deliverables Deliver a product of good quality Establish the project within timeframe Deliver according to agreed budget</p>	
Task owner	Deliveries
<p>University Center in Svalbard</p>	<p>Courses in a master program in Arctic Safety Practical safety courses for industry, academia, residents of LYR New knowledge, theory and models</p>
Schedule	Users
<p>Year One: Kick off, thematic workshops Year two: Pilot courses Tailor made safety courses to residence of LYR Year three: Development of safety training at field station in arctic How to use scientific observations to achieve increased Arctic safety August 2019: Opening of the Arctic Safety Centre</p>	<p>Norwegian and international students, UNIS and other national institutions. Local business and organizations Industry Residents in Svalbard particularly in Longyearbyen</p>

Goals and Objectives



Mission/Objectives

The mission of the Arctic Safety Centre is to contribute to as safe and sustainable human activity in the High Arctic . Our ambition is that the center shall share this knowledge trough education, tailor made courses, guidance for students, industry and residents of Longyearbyen.



Education and Experience transfer

- One year master (bachelor) studies using natural sciences for improved risk and safety. (60 ECTS)
- PhD courses related to arctic safety
- Practical, tailor made field safety courses for both academia and industry.
- Practical safety courses for the inhabitants of Longyearbyen.
- Collect, communicate and use relevant field safety data applicable for the region of Svalbard. Give advise and share experience and competence in relation to safe and sustainable presence at Svalbard.

Academic content

- Natural sciences -



- Relevant content from all the UNIS departments within;
 - Biology, Geology, Geophysics, Technology
- Contribution from other institutions within relevant topics as (but not limited to):
 - Arctic Wildlife
 - Toxicology
- Use of existing data series and circumpolar observation networks (e.g. SIOS)

Institutions listed as partners:

- UNIS, Norwegian Polar Institute; NP, University of the Arctic; UArctic, Copenhagen University

Academic content

- Risk and safety theory -



- Risk Management and safety theory
- Method and Tools for risk management
 - Qualitative and quantitative risk assessment methods.
- Societal Safety
 - Safety understanding & safety culture
 - Risk management strategies
- Emergency Preparedness
- Management and organization
 - The human factor; risk perception, understand and relate to risks involved. Physical and psychological stress reactions and countermeasures.



Institutions listed as partners:

NTNU, Sintef, University of Stavanger; UiS, University of Tromsø; UiT

Academic content

- HSE “best practice” -



- Case studies from complex scientific operations in the Arctic and Antarctic.
 - Lance freeze in
- Lessons learned from planning and execution of field operations.
 - Students in the field
- Findings and experiences learned from accident scene management, SAR operations and accident investigations.
 - Avalanche LYR, Maxim Gorkey, Moseldal incident, Mining incident
- Operational procedures and HSE manuals developed over time
 - Oden Expeditions



Institutions listed as partners:

-UNIS, NP, The Governor on Svalbard, Lufttransport AS, Copenhagen University, INTERACT, Forum of Arctic Research Operators; FARO.

Partners



National Partners:

- NTNU
- Sintef
- Norwegian Polar Institute
- Governor of Svalbard
- Pole Position Logistics (Longyearbyen)
- SvalSat
- Longyearbyen Council
- Lufttransport AS (Longyearbyen)
- Visit Svalbard
- University of Stavanger
- University of Tromsø
- Reed Cross

International Partners:

- University of the Arctic; UArctic
- Copenhagen Universitet
- INTERACT
- Forum of Arctic Research Operators; FARO

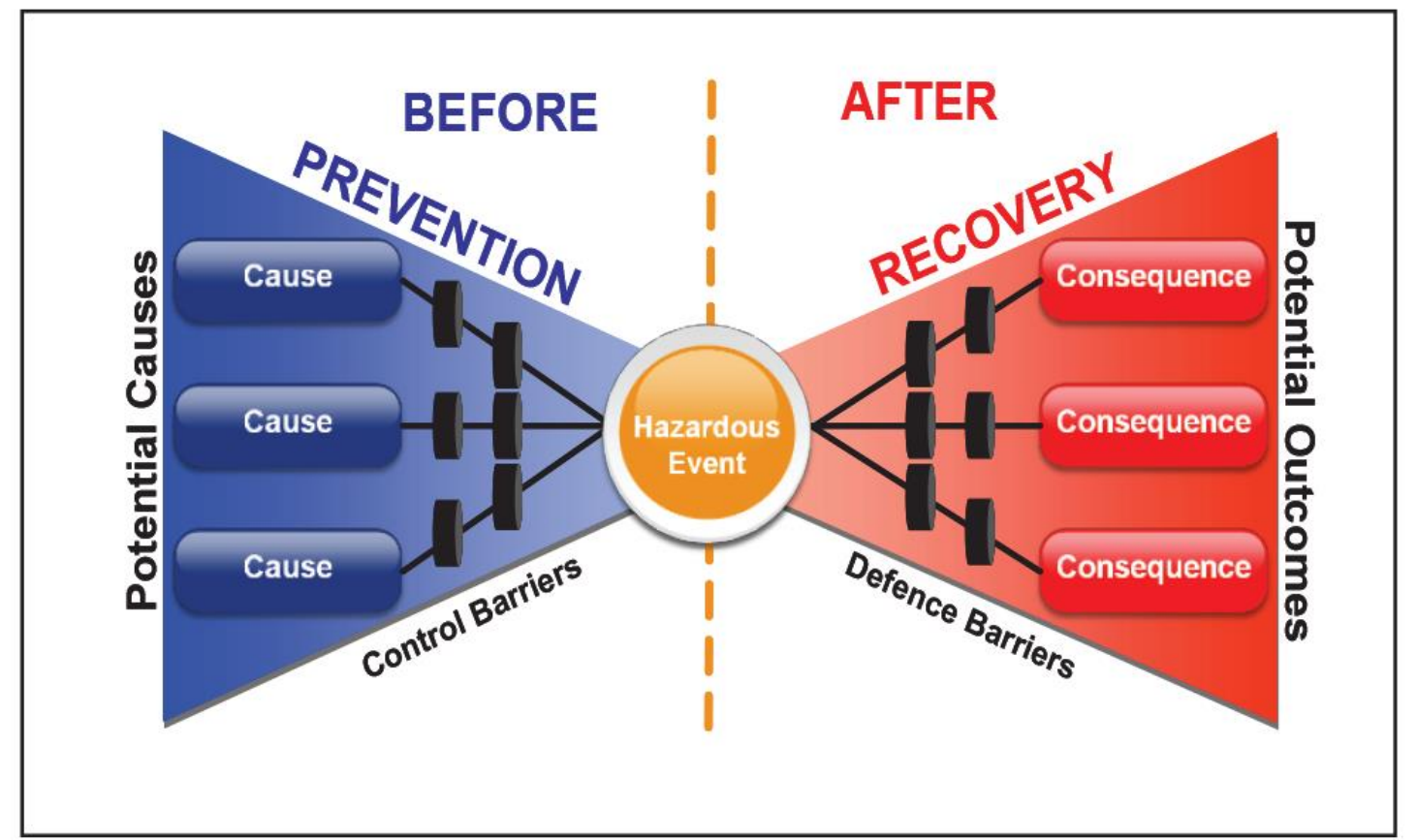
Possible Partners:

- Local Hospital
- Coast guard
- Telenor Svalbard
- Hurtigruta
- Store Norske Coal Company
- Joint Rescue Center
- Aeco

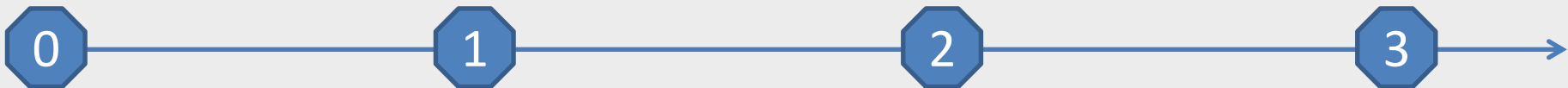
Secure:

- ✓ Common understanding of mandate, risk and requirements before execution
- ✓ Secure flow of information and cooperation regarding deliverables

Barrier Approach



Project Structure

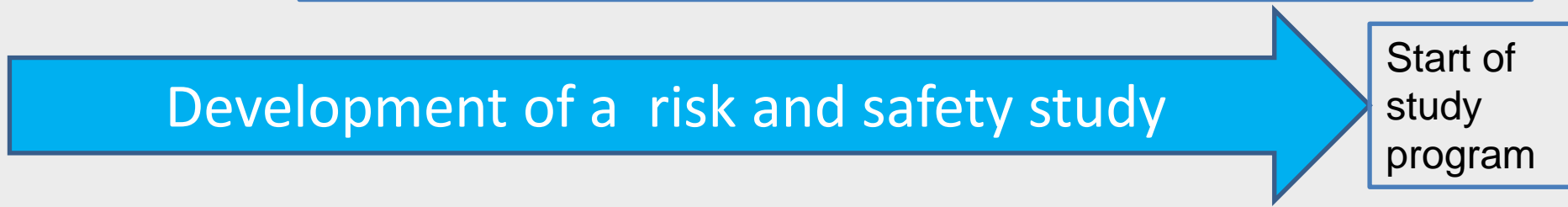


Develop risk and safety theory

Development of best practice cases and content

Development of academic content from natural sciences and observations

Field safety at field station



Local safety training and advice

Safety courses for industry and academia circumpolar

Project Organization and Resources



Steering Committee

UNIS (Chair), NPI, Sintef / NTNU, Interact, UArctic. (Opening for 1 – 2 local partners)

Reference Group

Important stakeholders not part of the workgroups

Project Manager

Stud. Adm.

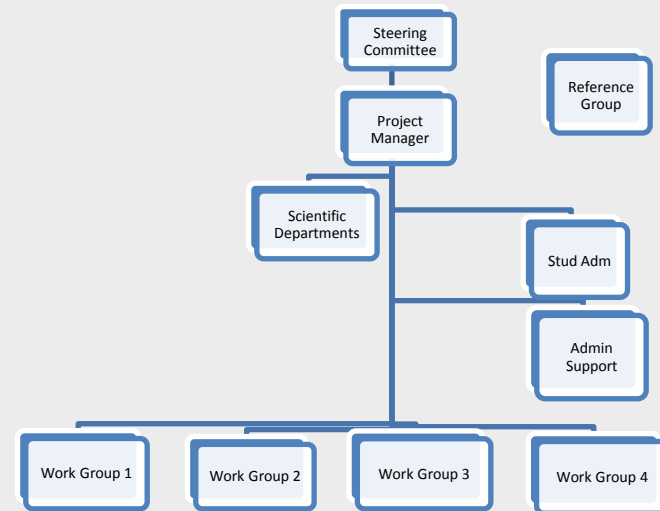
Support related to development of master program

Admin. support

Support from HR/Cost/HSE

Scientific Departments

Geology, Arctic Technology, Geo Physics, Biology



Work Groups:

- 1) Risk- and Safety theory
 - 1) Safety courses for industry, tourism and academia
- 2) Field safety at Arctic field stations
 - 1) Pilot Course
- 3) Integration of natural science observation for improved field safety also using SIOS (Svalbard Integrated Observation System)
 - 1) Pilot Course
- 4) Develop Longyearbyen to become a 'High Arctic Safety Awareness Society'
 - 1) Pilot Course

Risks and Advantages



Risks:

- Lack of cooperation regarding developing of the arctic safety center from stakeholders
- Lack of internal resources for supervision
- Quality of pilot course
- Lack of applicants to courses
- Cost overruns and lack of project control
- Lack of funding after end project period
- Lack of ownership in the academic environment
- Lack of co-supervisors for master theses
- Lack of transparency from LYR settlements
- Lack of knowledge due to high turnover of population

Advantages:

- Longyearbyen position in the Arctic
- Unique access to experience due to students in the field
- Due to UNIS location there is a unique opportunity for building of competence
- Use of local resources
- Cooperation between industry, tourism, academia and residence of LYR
- Increased reputation for UNIS regarding arctic safety
- Positive reputation to UNIS due to large portion of international students.
- Increased collaboration between UNIS and mainland universities
- Utilize the settlements as foundation for research

Plan and Status

