

Project Description Arctic Safety Center

**Project Description
Arctic Safety Center**

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1 Introduction

1.1 Background

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 both national and international partners (network and institutions) for the specialized basic safety training developed by UNIS and provided to students.

1.2 Objective

UNIS ambition is to develop an own science department at UNIS, which performs research and education in field safety in the high Arctic, by combining the natural science observations from the science departments with field logistics and risk theory. Do this in both national and international collaboration. The purpose is to contribute to as safe and sustainable human Activity in The High Arctic as possible

The arctic safety center should be based on the following building blocks:

- The natural sciences that are already fully or partially part of the UNIS portfolio. This includes the use of existing and future data sets and active use of new measurement series and registrations, with special emphasis on 'remote sensing'
- "Best practice", in terms of the experience and expertise UNIS has on completion of training of students and staff for work in a high Arctic region, as well as quality assurance of the safety aspects of this type of work. The same type of expertise from other partners in the project will also be important here
- Safety and risk theory from our partners in mainland institutions

2 Project Description

Mandate	
The mandate is to establish an arctic safety center in Longyearbyen.	
Background	
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.	
Objectives	Success criteria
The purpose is to contribute to as safe and sustainable human Activity in The High Arctic as possible	Utilization of the natural sciences 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 environment Collaboration from stakeholders Safety and risk theory from our partners in mainland institutions.
Expectations and frame	Deliveries
Deliver according to agreed deliverables Deliver a product of good quality Establish the project within timeframe Deliver according to agreed budget	Master program Arctic Safety (60 Credits) Practical safety courses for industry, academia, residence of LYR New knowledge and theory and models
Task owner	Users
University Center in Svalbard	Students from mainland, UNIS and other national institutions Local business and organizations Industry Residence of LYR
Schedule	
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	

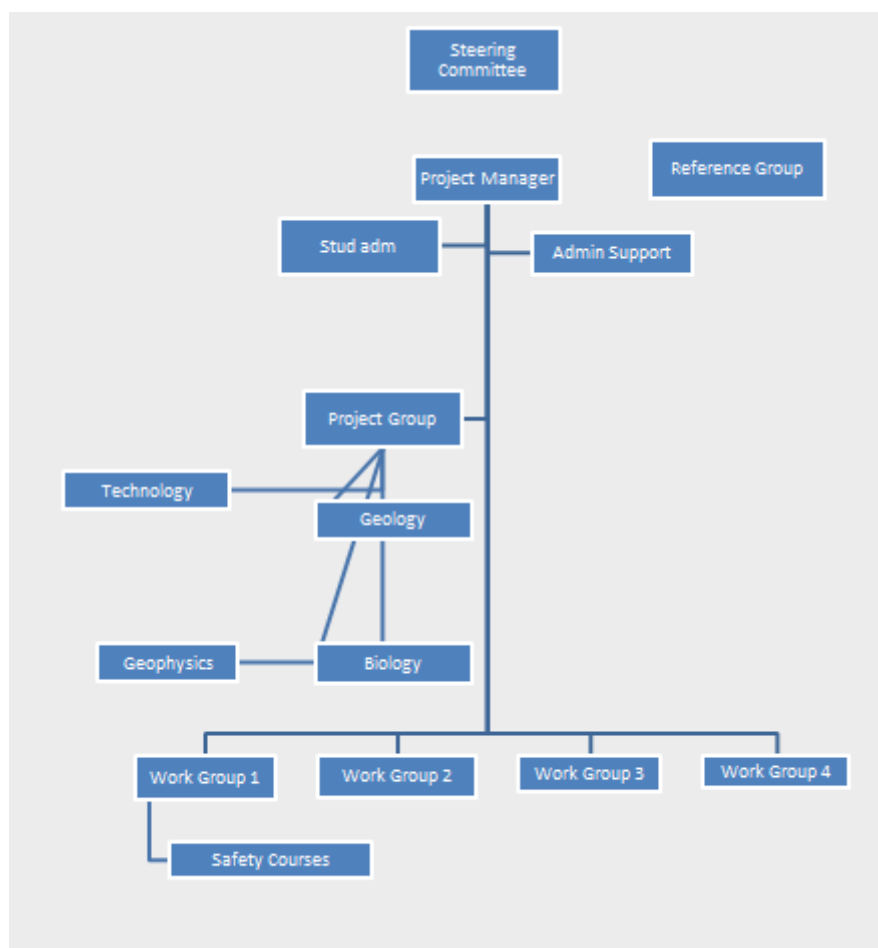
3 People and organization

3.1 Roles and responsibilities

- **Steering Committee`** overall responsibility is that the project reaches its goal within the budget and that the project is carried out with the best possible quality. The project leader will be the secretary for the Steering Group. The steering committee consist of people from the following organizations:
 - Norwegian Polar Institute, University of the Arctic (UArctic'), NTNU, SvalSat, University Center Svalbard (UNIS),
- **Project Manager** is formally responsible for running the project according to agreed milestones and budget in joint cooperation with the steering committee.

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- **Management group** shall assist the project leader with running the project and ensure the progress of the project internally at UNIS. This group will contain HSE Director and head of the scientific departments to ensure good inclusion of all relevant natural sciences and engineering in the project.
 - Admin support Group shall be support the projects in relation to HR issues and cost follow up.
 - **Reference Group** which will consist of all partners and others interested in contributing / participating in the project and/or users of the output from the project. This group shall have an advisory role to the project.
 - Working groups has been established in the project and they are responsible for delivery of the different work packages.
 - **Group 1:** Field safety and theory
 - **Group 1.1:** Development of safety courses for industry/academia
 - **Group 2:** Field safety at Arctic field stations
 - **Group 3:** Integration of natural science observation for improved field safety also using SIOS (Svalbard Integrated Observation System)
 - **Group 4:** Develop Longyearbyen to become a “High Arctic Safety Awareness Society”
 - **Group 4.1:** Development of safety courses locally in Longyearbyen and info on risk.

3.2 Project Organization



3.3 Stakeholders

The project has several stakeholders that are an important part of the project. See appendix B for more contact information to stakeholders.

3.3.1 National Stakeholders

The national stakeholders are listed below:

- NTNU
- Sintef
- University of Tromsø - UiT
- University of Stavanger - UiS
- Norwegian Polar Institute - NPI
- Governor at Svalbard
- Pole Position Logistics (Longyearbyen)
- SvalSat

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- Longyearbyen Council
 - Air Transport AS (Longyearbyen)
 - Visit Svalbard

3.3.2 International Stakeholders

The project has also identified several international stakeholders that are important for the project. They are as follows:

- University of the Arctic, UArctic'
- Copenhagen University
- INTERACT
- Forum of Arctic Research Operators, FARO

3.3.3 Possible Stakeholders

Since the application was written and approved several new stakeholders have been identified. These are

- Telenor Svalbard
- Store Norske NSK
- Joint Rescue Center HRS
- Coast Guard
- Kartverket
- Hurtigruten

4 Project Execution

4.1 Major project activities

In the application there have been identified several main activities. These are as follows:

- 1. Establish the project organization**
- 2. Hire a Project leader**
- 3. Implement the first steering committee meeting in mid-January 2016**
- 4. Implement and execute a project kick-off in March/April 2016**
- 5. Possible hire personnel in 20% positions in the following areas:**
 - Risk and safety subjects
 - Use of natural sciences measurement data and observations, including remote sensing

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- Circumpolar security training
 - Contingency planning
 - Implementation of heavy, complicated operations in the High Arctic
 - Design of the study
- 6. Conduct working meetings (workshops) in the following topics:**
- Relevant theory in safety and risk subjects
 - The use of scientific measurement data, observations and remote sensing
 - Circumpolar security training
 - Preparation of study programs
- 7. Pilot courses and subjects within the discipline**
- 8. Prepare for the opening of Arctic Safety as a separate subject at UNIS.**

Follow up of all main activities described above shall be done by project manager and this shall be performed on agreed budget and within schedule. If there are changes to the overall activity list this shall be forwarded to steering committee before decisions are made.

5 Deliveries

The deliveries that constitute the Arctic Safety center are presented below and further described in the following subsections.

- **Master (Bachelor) studies within relevant risk and safety subjects.**
- **Practical, tailor made field safety courses for both academia and the industry.**
- **Practical safety courses for the local settlements of Longyearbyen.**

5.1 Master/ (Bachelor) studies within relevant risk and safety subjects (60 Credits).

The driver for the project is the one year master/bachelor program. The students shall be enrolled in a study program at a mainland university and complete the specialization of arctic safety at UNIS. The Ma shall have a profile that is research based and building of already existing theory related to risk and safety theory. The main areas regarding theory (not limited to) are listed below:

- Safety Method and tool
- Risk management
- Societal safety
- Emergency Preparedness
- Leadership and organization

The already established theory shall be utilized in combination with case studies to provide the arctic challenges and differences. The following cases have been identified:

- Mosedalcase
- Oden Expedition
- Students in the field
- Maxim Gorky
- Mining Incident
- Tourism case – area 10

5.2 Practical, tailor maid field safety courses for both academia and the industry

UNIS has developed a large competence base due to years of having students in the field. During recent years this competence has been offered to both academia and industry as tailor made safety courses. This area shall be further developed and tailor made safety courses shall be part of the delivery of the Arctic Safety Center.

5.3 Practical safety courses for the local settlements of Longyearbyen

In Longyearbyen the population is very dynamic. Average yearly turnover of the population is 20-25 %. The need to perform practical safety courses for the local settlement of Longyearbyen is identified as an area that the Arctic Safety Center can provide. The objective for the Arctic Safety Center is to develop and perform practical safety courses for the population.

6 Risk Management

6.1 Risk

The project has identified several risks that may be a show stopper for establishment of the Arctic Safety Center.

- Lack of cooperation regarding developing of the arctic safety center from stakeholders
- 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

It is important that the project is aware of the risks and have a plan for how to mitigate the risks. The risks must be communicated to the steering committee and stakeholders.

6.2 Upsides

The project has identified several upsides that are positive and are strong arguments for why Arctic Safety Center shall have location in Longyearbyen at UNIS. They are listed below:

- 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, local settlements
- Increased reputation for UNIS regarding arctic safety
- Positive reputation to UNIS due to large portion of international students.