



**ARCTIC
SAFETY
CENTRE**



UNIS



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Arctic Safety

«Safety in an operational context provided by demanding conditions in the Arctic»

Focus area:

- 1) Field safety
- 2) Societal safety
- 3) Emergency preparedness

Natural hazards and climate risk as important factors.








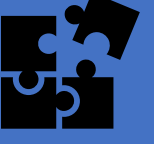
Regjeringen vil

- Bidra til UNIS sitt arbeid med å øke kompetansen om sikker og bærekraftig menneskelig aktivitet i Arktis gjennom Arctic Safety Center, med spesiell vekt på arbeidet med å utvikle senterets relevans for og tilbud til næringslivet.

Regjeringen vil

- Vurdere behov for bedre tilrettelegging for testing av skipsutstyr og for samhandlingsøvelser for operasjon av skip i polare farvann, inkludert søk- og redningsoperasjoner. Muligheten for å koble slik tilrettelegging opp mot aktiviteten som foregår ved Arctic Safety Center skal inngå i vurderingen.

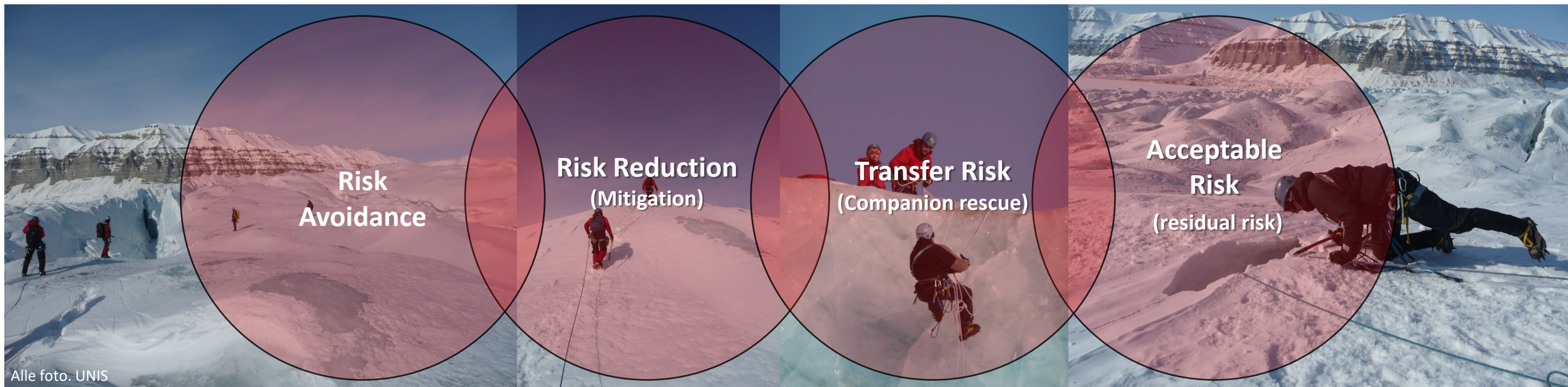
Activities - Arctic Safety Centre

					
MSc COURSES	PRACTICAL COURSES	AVALANCHE FORECASTING	TECHNOLOGY	SAFETY ASSISTANCE	RESEARCH ArctRisk
<ul style="list-style-type: none"> • Safety Mangement • Emergency Preparedness and Response • Risk handling in the Arctic context 	<ul style="list-style-type: none"> • Courses: <ul style="list-style-type: none"> - Polar Bear - Avalanche - Field safety • Continuing Education Course 	<ul style="list-style-type: none"> • Field observations • Instruments • Information and teaching 	<ul style="list-style-type: none"> • Development and testing • Snow sensors • IoT technology 	<ul style="list-style-type: none"> • Standard Operation Procedures • Courses • Accident investigation • Learning reports 	<ul style="list-style-type: none"> • Start april 2021 • Funding from RCN • Case: Longyearbyen avalanche safety
<ul style="list-style-type: none"> • 3 courses - 10 ECTS • Total of 75 students • Master thesis • Bachelor course 	<ul style="list-style-type: none"> • Target groups: <ul style="list-style-type: none"> Local community Industry Rescue & Emergency preparedness 	<ul style="list-style-type: none"> • Service for: <ul style="list-style-type: none"> Longyearbyen Lokalstyre SvalSat Rescue service (SMS) 	<ul style="list-style-type: none"> • Cooperation with: Telenor Svalbard og Longyearbyen Lokalstyre • Project: DRIVA Nordkapp 	<ul style="list-style-type: none"> • Local customers: <ul style="list-style-type: none"> SNSK SvalSat NP 	<ul style="list-style-type: none"> • Merging science and practice • Local, national and international participation



Theoretical and practical framework

Generic - Context - Risk-based approach - Experienced feedback



Alle foto. UNIS

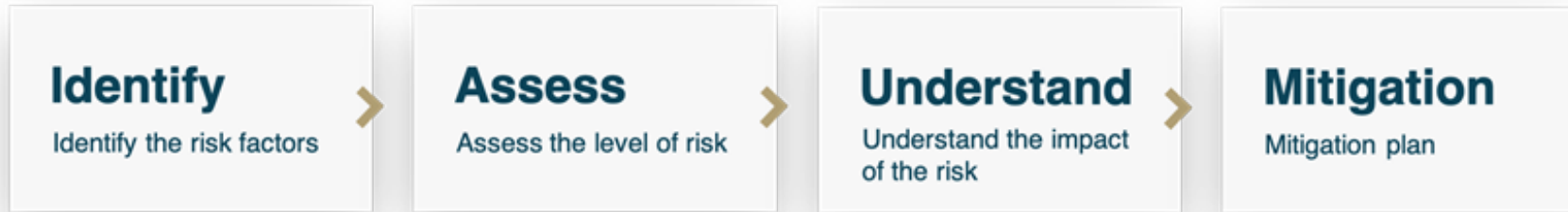
Climate Risk and Opportunities



United States Environmental Protection AgencyEpa.gov



Risk-based approach



SAFETY PERSPECTIVES

Safety I	Safety II
Learn from our errors	Learn from our successes
Safety defined by absence	Safety defined by presence
Reactive approach	Proactive approach
Understand what goes wrong	Understand what goes right
Accident causation	Repeat what goes right
Avoid errors	Enforce successful behaviors
Reduce losses	Create new process on successful behavior

Experienced feedback

- EXPLICIT Knowledge

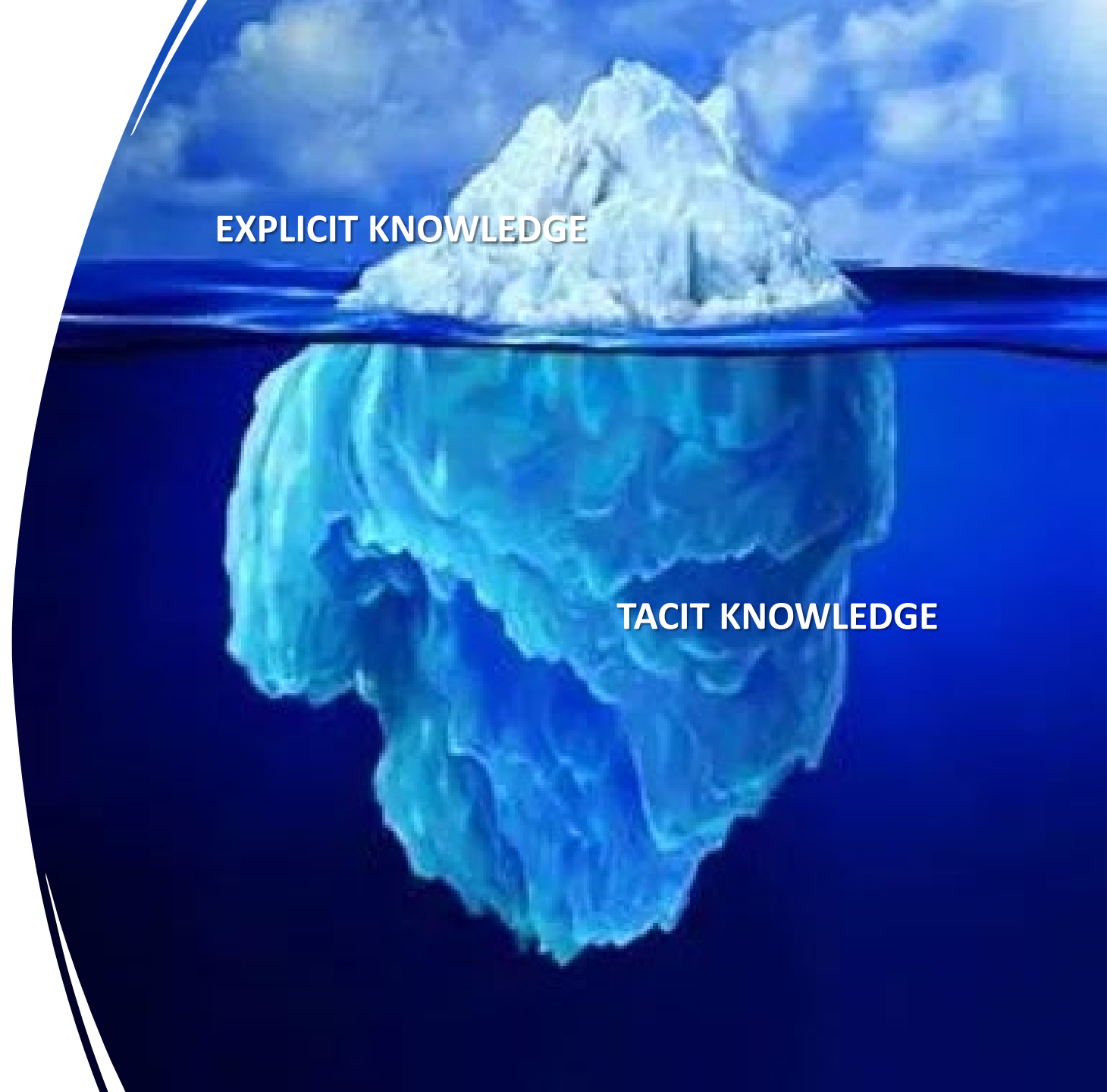
Knowledge in isolation

– «lives in books and heads»

- TACIT Knowledge

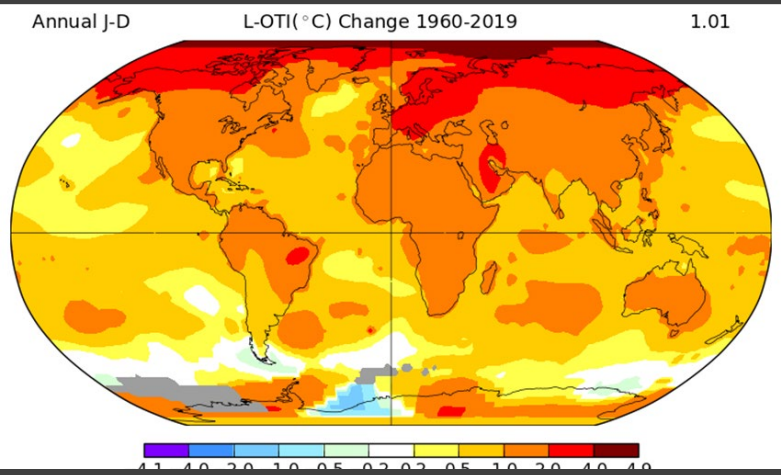
Knowledge interaction

– «lives in people and their practice»





Visiting vs. Living the Arctic



- Climate change – Ripple effect
- Risk or Opportunities?
- Transfer of knowledge?



Safety education and training





RISK-BASED APPROACH

ENVIROMENT

- Summer
- Winter

ACTIVITY

- Land or sea
- Motorized or on foot

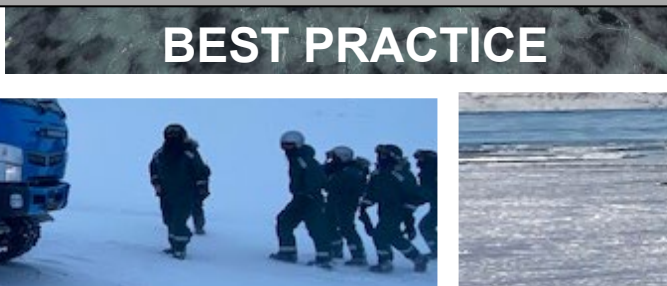
USERS

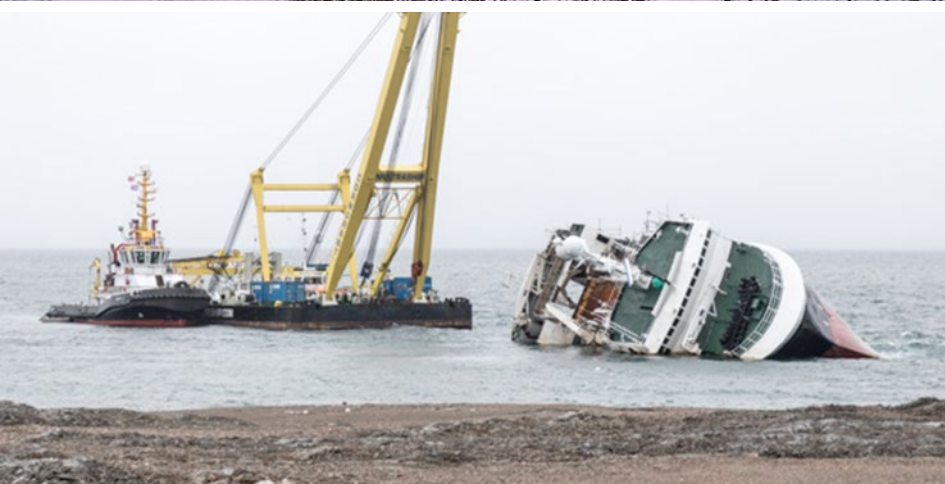
- Knowledge / experience
- Training
- Groupe size

UNIS STANDARDS

- Equipment
- Training
- SOP

BEST PRACTICE





Upcoming focus



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Arctic expertise; climate risk and natural hazards - risk management
-Knowledge and competence transfer, nationally and internationally

Competence and testing for increased Arctic maritime safety
-Coastal activity
-Individual safety, emergency preparedness, and environment

Guide certification for tourism - *May 2023*
-Courses and certification system

Thank you for your attention!

Q&A



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Kilder, ressursar:

- Field operations in the high arctic—experienced feedback and tacit knowledge as key tools for safety management. By M. Indreiten, E. Albrechtsen, S.M. Cohen
<https://www.taylorfrancis.com/chapters/oa-edit/10.1201/9781351174664-243/field-operations-high-arctic%E2%80%94experienced-feedback-tacit-knowledge-key-tools-safety-management-indreiten-albrechtsen-cohen>
- Editorial: Arctic safety, Safety Science Volume 137, May 2021, 105165.
By E. Albrechtsen, M. Indreiten
<https://www.sciencedirect.com/science/article/pii/S0925753521000084>