



CAPARDUS - Capacity-building in Arctic standardization development

Coordination and Support Action under EC Horizon2020 Grant Agreement no. 869673

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Data management plan

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Version	DATE	CHANGE RECORDS	LEAD AUTHOR
1.0	31.03.2020	Version 1.0	T. Hamre
	31.03.2020	Review	S. Sandven
1.1	24.11.2021	Update of research survey data management	T. Hamre

Approval	Date: 24 Nov 2021	Sign.
		Skui Sandver
		Coordinator

DISSEMINATION LEVEL			
PU	Public, fully open	Х	
СО	Confidential, restricted under conditions set out in Model Grant Agreement		
CI	Classified, information as referred to in Commission Decision 2001/844/EC		

EXECUTIVE SUMMARY

CAPARDUS will organize a series of dialogue meetings, workshops and research schools in Greenland, Svalbard, Canada and Arctic Russia. In connection with these events and interactions with community-based observing systems, personal data is collected from invited participants and contributors to work in CAPARDUS. Procedures for protecting personal data is described in a separate deliverable, D10.2 POD Requirement no.2. To support the case studies in WP2-WP5 and the development of a framework for Arctic standards in WP1, a survey has been designed to map the awareness and use of norms and conventions in the sectors addressed by the project. In addition, community-based data is collected for certain of these systems, on fishing, hunting and herding activities carried out by members of the engaged local communities. This document described how research survey data, including personal data (name and email only), and community-based monitoring data collected as part of CAPARDUS will be managed in accordance with the GDPR, the FAIR Data Principles and the CARE Principles for Indigenous Data Governance.

Table of Contents

1.	INTRODUCTION	2
2.	USAGE OF EXISTING METADATA FOR DIGITAL RESOURCES	2
3.	MANAGEMENT OF RESEARCH SURVEY DATA	2
4.	MANAGEMENT OF COMMUNITY-BASED DATA	<u>3</u>

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1. Introduction

Capacity-building in Arctic Standardisation Development (CAPARDUS) is a Coordination and Support Action funded by Horizon 2020 under H2020-LC-CLA-07-2019: The changing cryosphere: uncertainties, risks and opportunities, topic d) Arctic Standards. The overall objective of CAPARDUS is to establish a comprehensive framework for development, understanding and implementation of Arctic standards. The framework will integrate standards used by communities active in the Arctic including research and services, Indigenous and local communities, commercial operators and governance bodies. This will support sustainable economic development, safe activities, emergency prevention and response, and improved understanding and conservation of the environment.

CAPARDUS will organize a series of dialogue meetings, workshops and research schools in Greenland, Svalbard, Canada and Arctic Russia. In connection with these events and interactions with community-based observing systems, personal data will be collected from invited participants and contributors to the work in CAPARDUS. In addition, community-based data is collected for certain of these systems, on fishing, hunting and herding activities carried out by members of the engaged local communities.

2. Usage of existing metadata for digital resources

The project will not produce any new scientific or community-based data, but will deal with metadata for digital resources such as documents. In designing and demonstrating the Arctic Common Practices System (WP6), semantic and vocabulary community standards will be used and, where needed, extended to a) identify content in the documents and b) standardize key metadata describing them. In the tagging of Arctic common practice documents in WP6, semantic and controlled vocabulary descriptors generated through mining document content and metadata will be openly accessible via common interchange formats on the web (e.g. JSON, RDF). Similarly, document metadata will also be made available online. Further, any Arctic-specific extensions to these ontologies during CAPARDUS (which will be credited as such) will be openly available via their web-based and W3C-compliant distribution channels.

Metadata describing the Arctic common practice documents gathered during WP6 will be archived in a publicly available and open repository (e.g. GitHub) following the project's completion. This will allow the prototyping outcomes and demonstration of the ABPS be taken up to develop a fully-fledged system following this project. Arctic extensions to ontologies required to capture CAPARDUS phenomena and stakeholder concerns will be preserved in the ontologies which have been sustained in the long-term by federated repositories. Ontology curators and editors will ensure the quality of these extensions and will be engaged through WP6 (AWI).

The organisation and person responsible for storage of metadata for digital resources is:

- All regions: Alfred-Wegener-Institut für Polar und Meeresforschung (AWI). Pier Luigi Buttigieg, pier.buttigieg@awi.de.

3. Management of research survey data

The CAPARDUS project has focus on documenting norms and conventions ranging from guidelines, practices, standards to regulations within selected areas important for people living and working in the Arctic. NERSC has, with input from other partners, created a web survey for mapping the awareness and use of norms and conventions within different sectors, such as tourism, planning and management, health, offshore operations, education and research. The survey addresses the development of guidelines and how they are connected to regulations, within the different sectors. Finally, there are questions about access to data and sharing of knowledge within the thematic areas (i.e. sectors).

The survey is designed to collect research data for the case studies in regions addressed by CAPARDUS (Greenland, Svalbard, Russia, Canada and USA), and can easily be adapted to specific information requirements. This can be done by modifying the list of relevant norms and conventions to those that are most relevant for the specific region (e.g. Svalbard Treaty and Norwegian governmental documents for the Svalbard case study).

The survey is following the ethical guidelines for questionnaire surveys from the Norwegian National Research Ethics Committees (https://www.forskningsetikk.no/en/resources/the-research-ethics-library/methods/questionnaire-surveys/) and the EU GDPR checklist (https://gdpr.eu/checklist/). The survey responses will be stored according to the FAIR principles, by the lead partner for each of the case studies. Individual responses will not be published, only statistics and summaries, as part of project reports, presentations and papers. All respondents will have to actively agree to this by accepting such use before filling in the survey, Contact information (optional input to allow lead partner for the case study to invite respondents to workshop or other meetings) will not be shared with anyone outside the CAPARDUS project.

The organisations and persons responsible for storage of survey data are:

- Greenland: Nordic Agency for Development and Ecology (NORDECO). Finn Danielsen, fd@nordeco.dk.
- Svalbard: Nansen Environmental and Remote Sensing Center (NERSC). Torill Hamre, torill.hamre@nersc.no.
- Russia: Nordic Agency for Development and Ecology (NORDECO). Finn Danielsen, fd@nordeco.dk.
- Canada: Exchange for Local Observations and Knowledge for the Arctic (ELOKA), University of Colorado, Boulder. Noor Johnson, Noor Johnson@Colorado.EDU.
- USA: Alaska Arctic Observatory and Knowledge Hub (AAOKH), University of Alaska Fairbanks, Olivia Lee, oalee@alaska.edu

4. Management of community-based data

Data collected by members of the involved local communities on fishing, hunting and herding of reindeers, will be managed by the respective local community observing system, according to common practices for community-based monitoring. The operator of each local community observing system is responsible for the safe storage and secure access to data collected by members of their local communities. The community based monitoring data will be managed according to the FAIR Data Principles and the CARE Principles for Indigenous Data Governance.

CAPARDUS will cooperate with the following community-based observing systems. The contact persons, who are responsible for data management in each of the CBM systems, are listed below and most of them are participants in the project.

- Greenland: Piniakkanik Sumiiffinni Nalunaarsuineq (PISUNA; Ministry of Fisheries, Hunting and Agriculture, Att. Nette Levermann, e-mail nele@nanoq.gl; Qeqertalik Municipality, Att. Paviarak Jakobsen, e-mail paja@qeqertalik.gl; Greenland Association of Fishermen and Hunters (KNAPK), e-mail knapk@knapk.gl).
- Svalbard: Environmental Monitoring by Expedition Cruise Operators (NERSC, Att. Lisbeth Iversen, e-mail lisbeth.iversen@nersc.no; NORDECO, Att. Michael K. Poulsen, e-mail mkp@nordeco.dk).
- Yakutia, Arctic Russia: Yakutia Community-Based Monitoring (Centre for Support of Indigenous Peoples of the North, Att. Rodion Sulyandziga and Nikita Vronskii, e-mail rodion@mailbox.org and nvronski@gmail.com).
- Canada: Exchange for Local Observations and Knowledge for the Arctic (ELOKA; University of Colorado, Boulder, Att. Noor Johnson, e-mail Noor.Johnson@Colorado.EDU).
- Alaska: Alaska Arctic Observatory and Knowledge Hub (AAOKH; University of Alaska Fairbanks, Att. Olivia Lee, e-mail oalee@alaska.edu).

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Project partners:

No	Acronym	Participant Legal Name	Country
1	NERSC	STIFTELSEN NANSEN SENTER FOR MILJO OG FJERNMALING	
2	NORDECO	NORDISK FOND FOR MILJØ OG UDVIKLING	DK
3	Ilisimatusarfik	Ilisimatusarfik, Grønlands Universitet, University of Greenland	GL
4	AWI	Alfred-Wegener-Institut Helmholtz-Zentrum fur Polar- und	DE
		Meeresforschung	
5	IEEE	IEEE France Section	FR
6	NINA	STIFTELSEN NORSK INSTITUTT FOR NATURFORSKNING NINA	NO
7	UCPH	KOBENHAVNS UNIVERSITET	DK
8	NIERSC	Scientific foundation Nansen International Environmental and Remote	RU
		Sensing Centre	
9	ARC-HU	Arctic Research Centre, Hokkaido University	JP

Subcontractors

ELOKA	Exchange for Local Observations and Knowledge of the Arctic	USA
UAF/IARC	University of Alaska Fairbanks/ International Arctic Research Center	USA
CSIPN	Center for Support of Indigenous Peoples of the North	Russia
E84	Element 84	USA