

Greenland Ecosystem Monitoring: Journey Towards Meeting The FAIR Principles

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Introduction

This presents the observations, lessons learned and ongoing activities in data management of [Greenland Ecosystem Monitoring \(GEM\)](#), with a focus on taking an independent arctic data repository towards open science and meeting the FAIR data principles (Findable-Accessible-Interoperable-Reusable). Requirements on data management and demands for following the FAIR principles are more common today than they were a few years ago - FAIR as a term was only coined in 2016. The field has been, and is developing rapidly and we are excited to be part in both general and arctic data communities.

1. Awareness

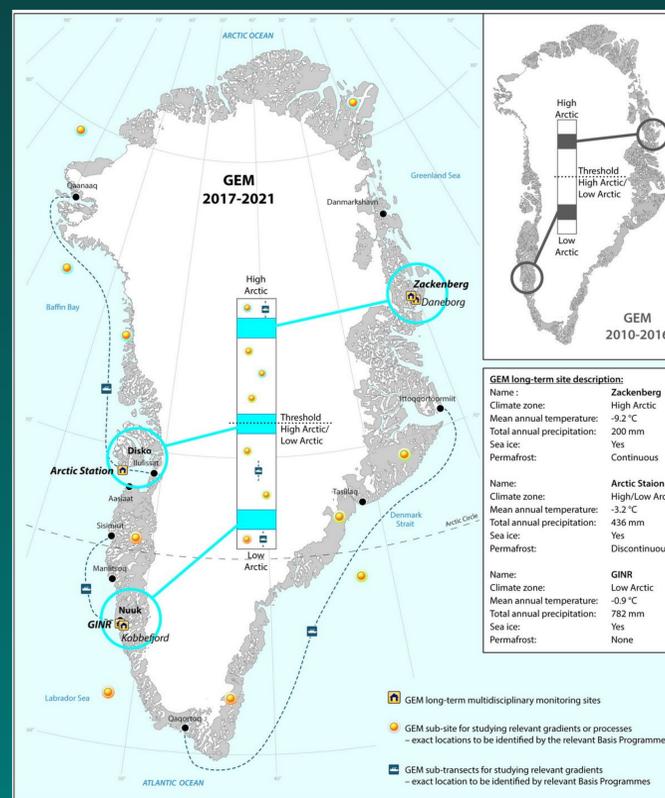
Awareness and drivers of FAIR within the circles of the GEM data repository.

First level: Requests from expert users of our open data website to improve it on many points - external influence.

Second level: Discussions and presentations in the project coordination group to make sure the data providers / scientists are involved in the reasoning, needs and choices for FAIR data.

An independent arctic data repository

Open Data - FAIR Principles



Third level: Implementing with reference to [GO-FAIR](#) and [RDA - Fair Data Maturity Model](#)

Daily use level: Dataset landing pages, DOIs, CC-BY-SA 4.0 license and improved metadata that's harvested by other arctic data portals, makes it much easier for people to find, understand and cite the datasets.

2. Community Knowledge and Guidance

Lifesaver: Targeted communities, tech-workshops with peer groups and guidance websites help us navigate and filter the uncertainty that abound when discussing standards, FAIR data, licenses, open science in an interdisciplinary context.

Title	Type
Research Data Alliance (RDA)	Community, top level
DataCite	Community, PID
INTERACT	Arctic data workshops
Arctic Data Committee	Arctic data workshops
GO-FAIR	Simple FAIR guidelines
QGreenland	Arctic data workshops

3. Key achievements and plans

- Extensive review and improvement of metadata.
- DataCite agreement and API integration to mint DOIs (identifiers).
- Making endpoints for portals to harvest our metadata (science-on-schema.org, DataCite Metadata Schema).
- Decisions on license terms taken within the project coordination group.

- Plans: interdisciplinary vocabularies, coretrustseal, big data, modernizing website, new integrations?: EOSC portal, Data-One

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