Mapping Arctic Observing Systems and In Situ Data Collections

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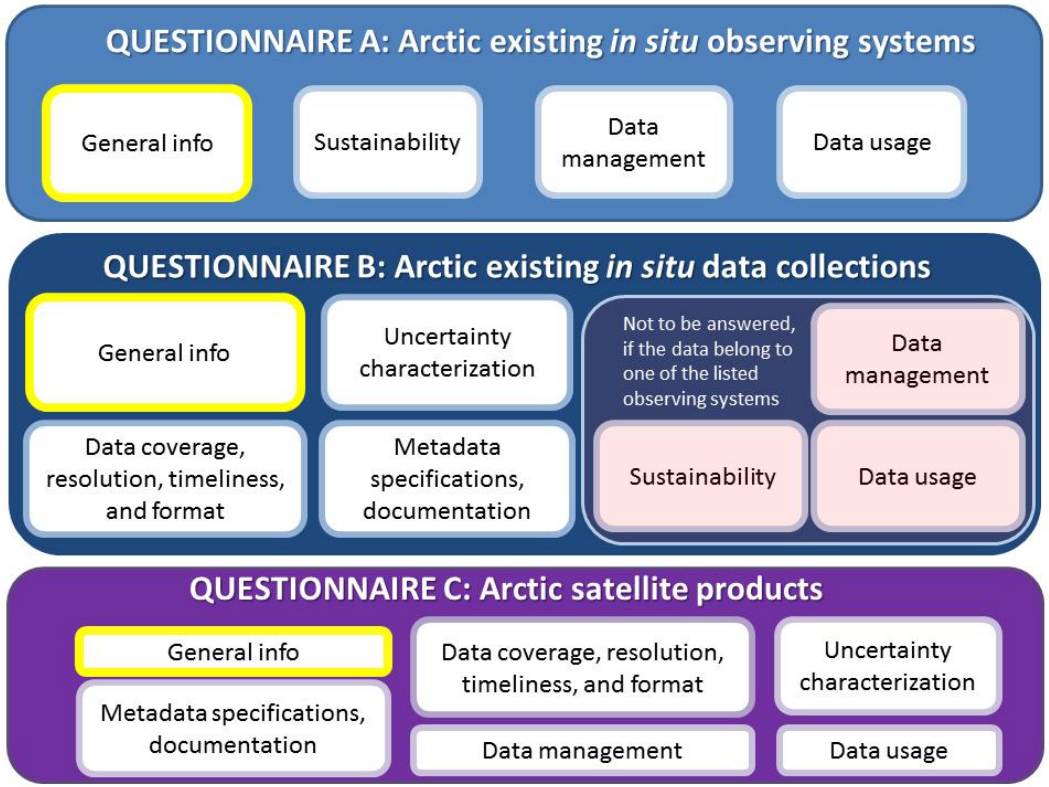
Mapping Arctic Observing Systems

H2020 INTAROS (2016-2021)

- Project under BG-09-2016 An integrated Arctic observation system coordinated by NERSC
- 35 partners from Europe; 12 international partners
- A survey of in situ observation systems and data collections was conducted
- Results used in gap analysis of Arctic in situ observation capacity
- Strong recommendations from EC and SAON to continue and extend the survey



INTAROS; https://intaros.eu/

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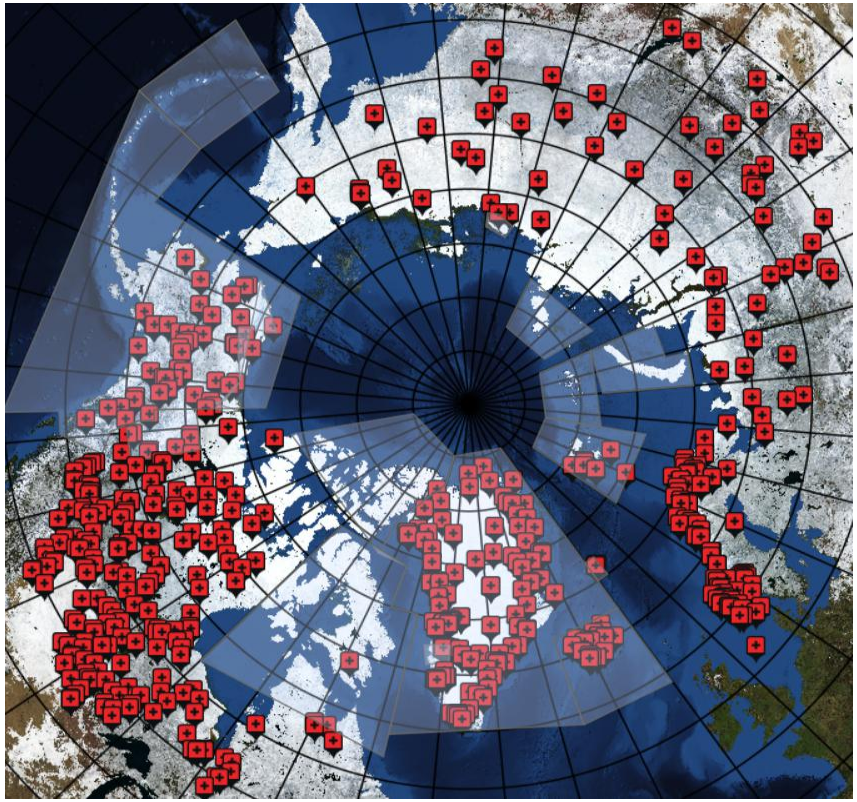
Mapping Arctic Observing Systems

Arctic Mapping:
From Mapping to Knowledge

- Spin off project from INTAROS funded by the Norwegian Ministry for Climate and Environment
- Builds on and extends the INTAROS survey
- Develops methodology and tools for keeping survey information updated and analyzing evolution over time
- Additional support from NERSC Basic Funding



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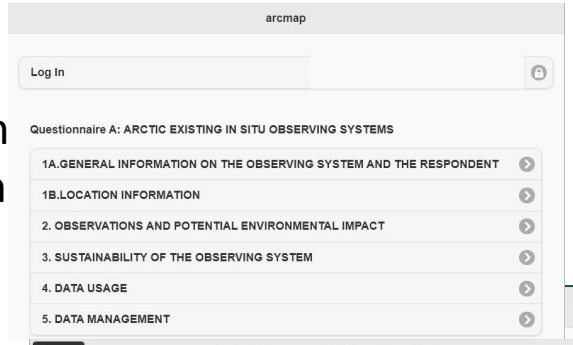
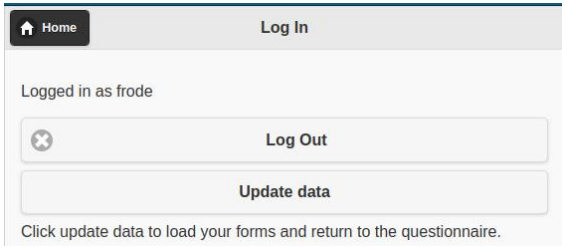
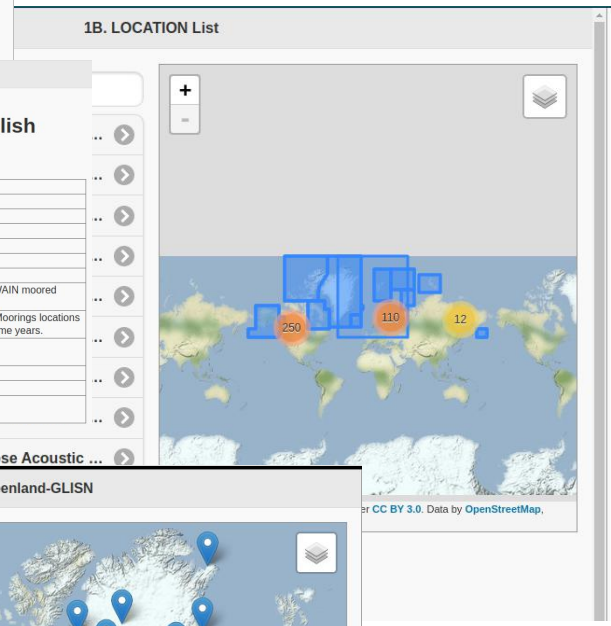
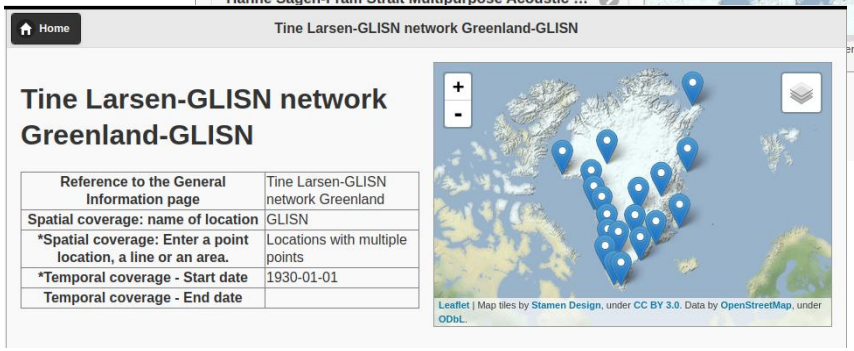
Mapping Arctic Observing Systems

- **ARCMAP** is a survey application situ observation systems and th collections
- Developed using open source frameworks wq and Django rest
- Runs in browser; no extra plugins needed
- Version 1 released mid Nov 2019 Polar Data Forum 3
- Updated since with e.g. rich plotting capabilities
- To get access please contact: kjetil.lygre@nersc.no









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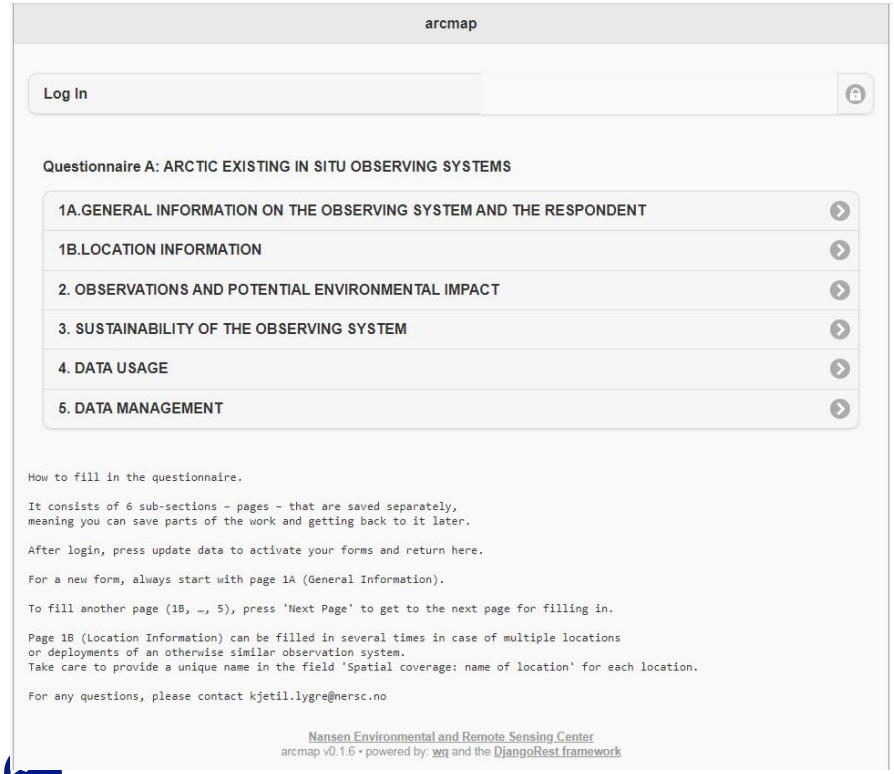
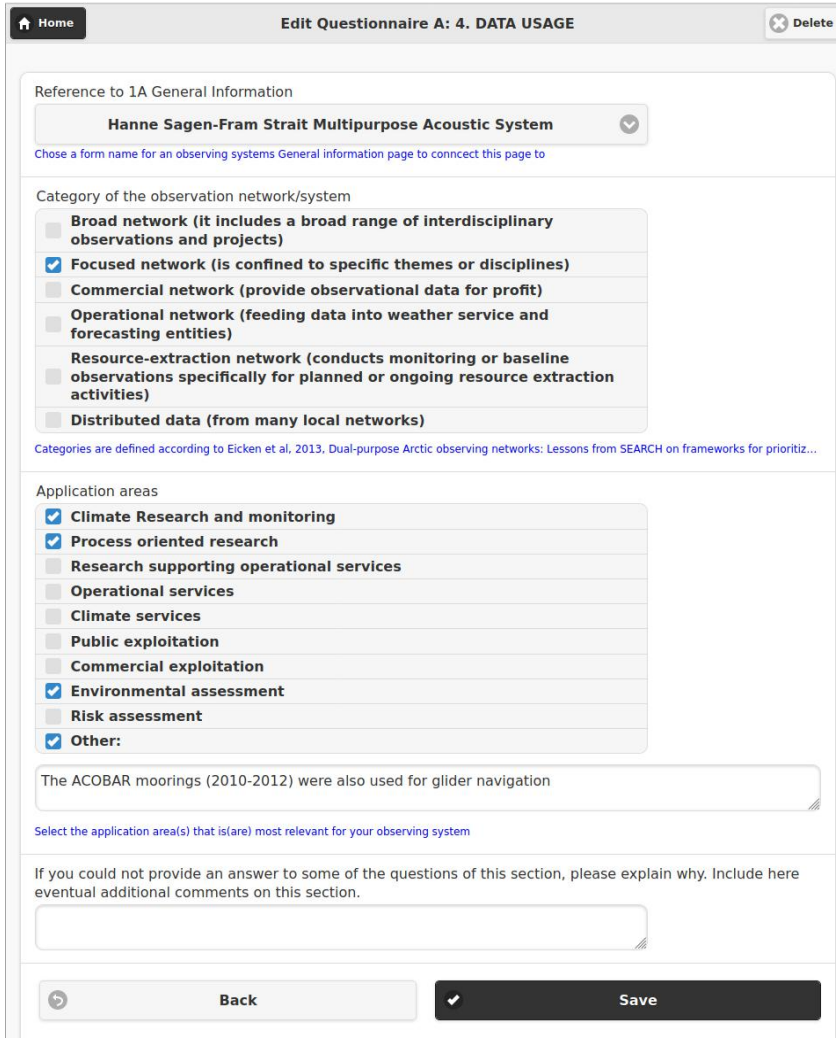
Mapping Arctic Observing Systems

- Easy to register new systems and data collections; parts can be stored individually





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Mapping Arctic Observing Systems

- Easy to update information; just edit relevants parts

Home | Edit Questionnaire A: 1A. GENERAL INFORMATI... | Delete

*Name of the respondent
Tine Larsen

*Affiliation of the respondent
GEUS

*Email address of the respondent
tbl@geus.dk

*Country of the respondent
Denmark

*Domain of the observing system
- [ ] Atmosphere
- [ ] Ocean and sea ice
- [x] Land including terrestrial cryosphere

You can select multiple domains

*Category of the observing system
- [ ] ATMOSPHERE: Surface-layer
- [ ] ATMOSPHERE: Tropospheric profiles
- [ ] ATMOSPHERE: Surface and tropospheric observations collected during field campaigns
- [ ] OCEAN: Fixed moorings
- [ ] OCEAN: Repeated sections
- [ ] OCEAN: Floats

Home | Tine Larsen-GLISN network Greenland | Edit

Tine Larsen-GLISN network Greenland

*Name of the respondent	Tine Larsen
*Affiliation of the respondent	GEUS
*Email address of the respondent	tbl@geus.dk
*Country of the respondent	Denmark
*Domain of the observing system	Land including terrestrial cryosphere,
*Category of the observing system	LAND: Permanent and temporary seismic stations,
Add other categories	
*Provide the name (or identification) of the observing system	GLISN network Greenland
General comments on the observing system	Real-time broand-band seismographs. Station spacing is very large, and some parts of the Arctic are not sufficiently covered
Project(s) or Monitoring Program under which framework the observing system was established (if relevant)	Danish Seismological Network and GLISN
*Contact details (email) for the observing system	seismology@geus.dk
URL of the observing system (if it exists)	http://glisn.info
*Institutional body coordinating the observing system or managing the observing platforms	GEUS (seismology@geus.dk), IRIS, GEOFON

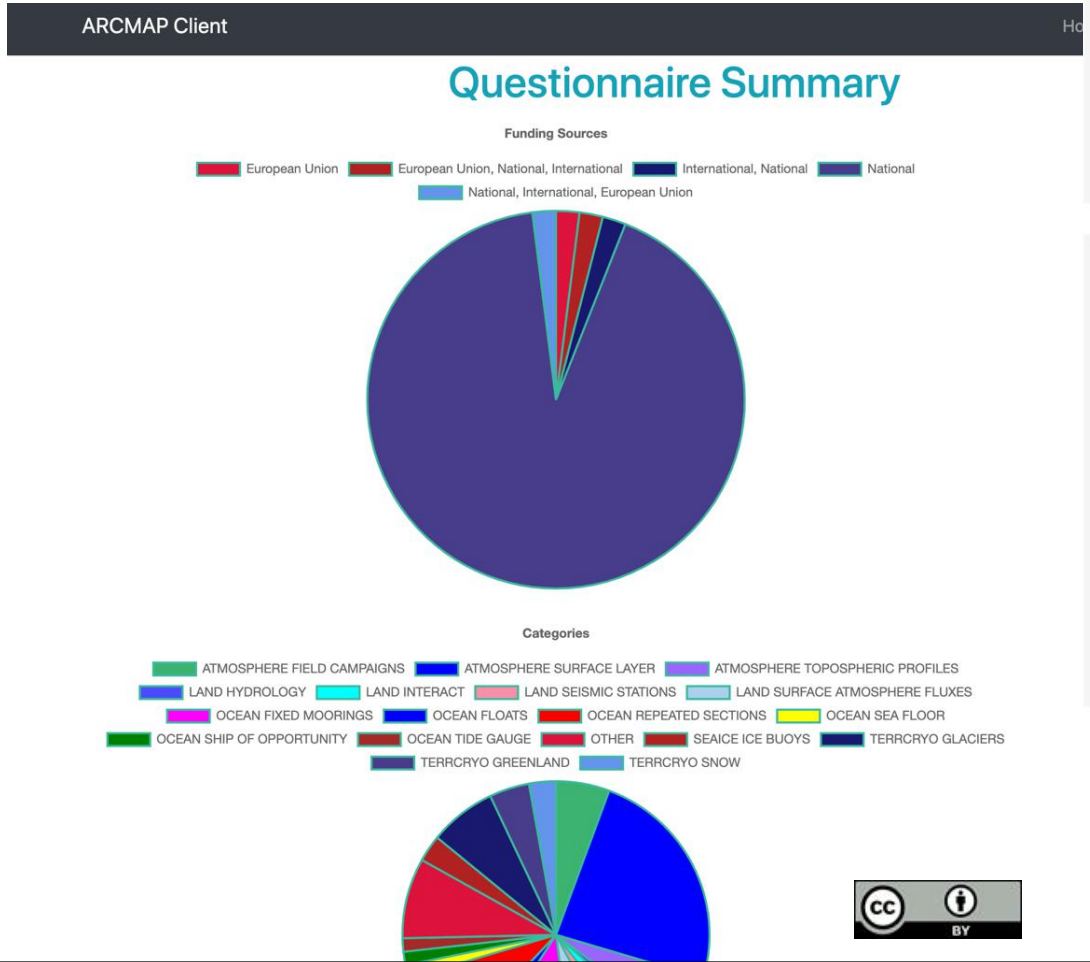
Home | Tine Larsen-GLISN network Greenland-GLISN

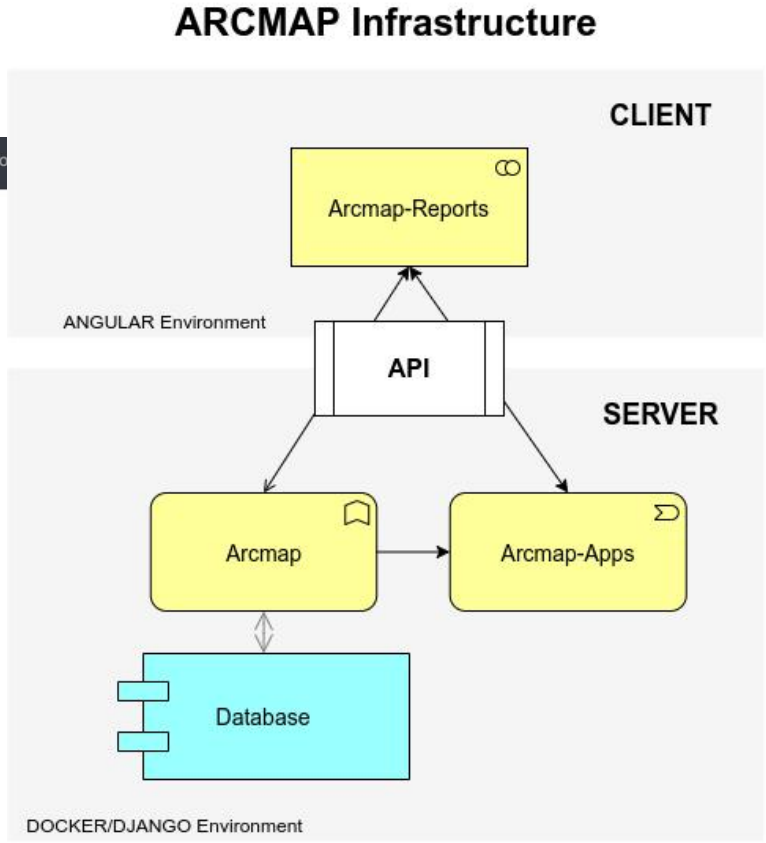
Tine Larsen-GLISN network Greenland-GLISN

Reference to the General Information page	Tine Larsen-GLISN network Greenland
Spatial coverage: name of location	GLISN
*Spatial coverage: Enter a point location, a line or an area.	Locations with multiple points
*Temporal coverage - Start date	1930-01-01
Temporal coverage - End date	

Mapping Arctic Observing Systems

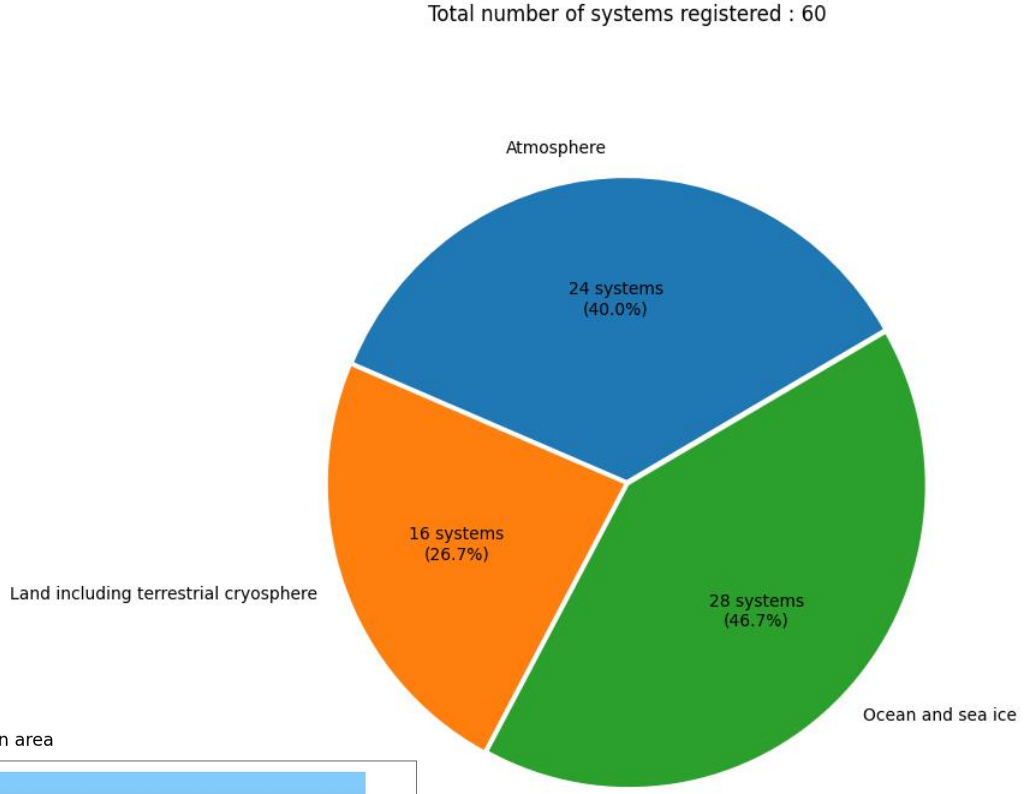
- Information is stored in database; flexible extraction and presentation

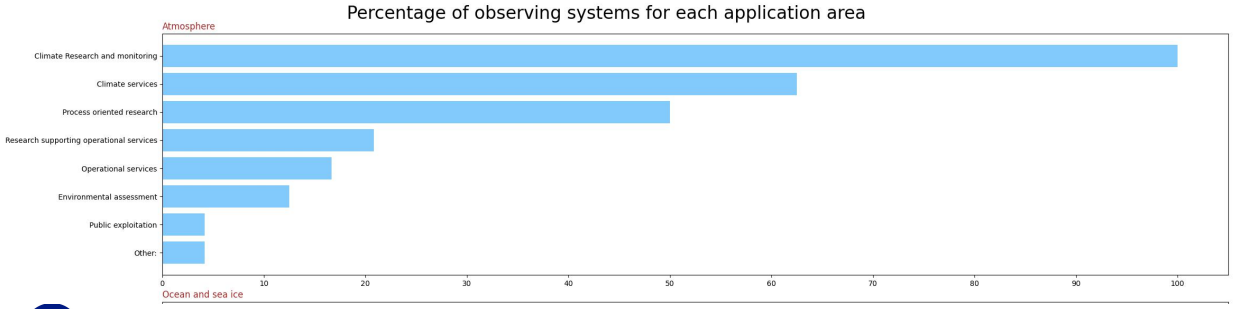




Mapping Arctic Observing Systems

- **ARCMAP** provides statistics and aggregated information for the surveyed observation systems, e.g.
  - Domain (sphere)
  - Application area
  - Variables observed
  - System maturity
  - Data storage
  - Observation period





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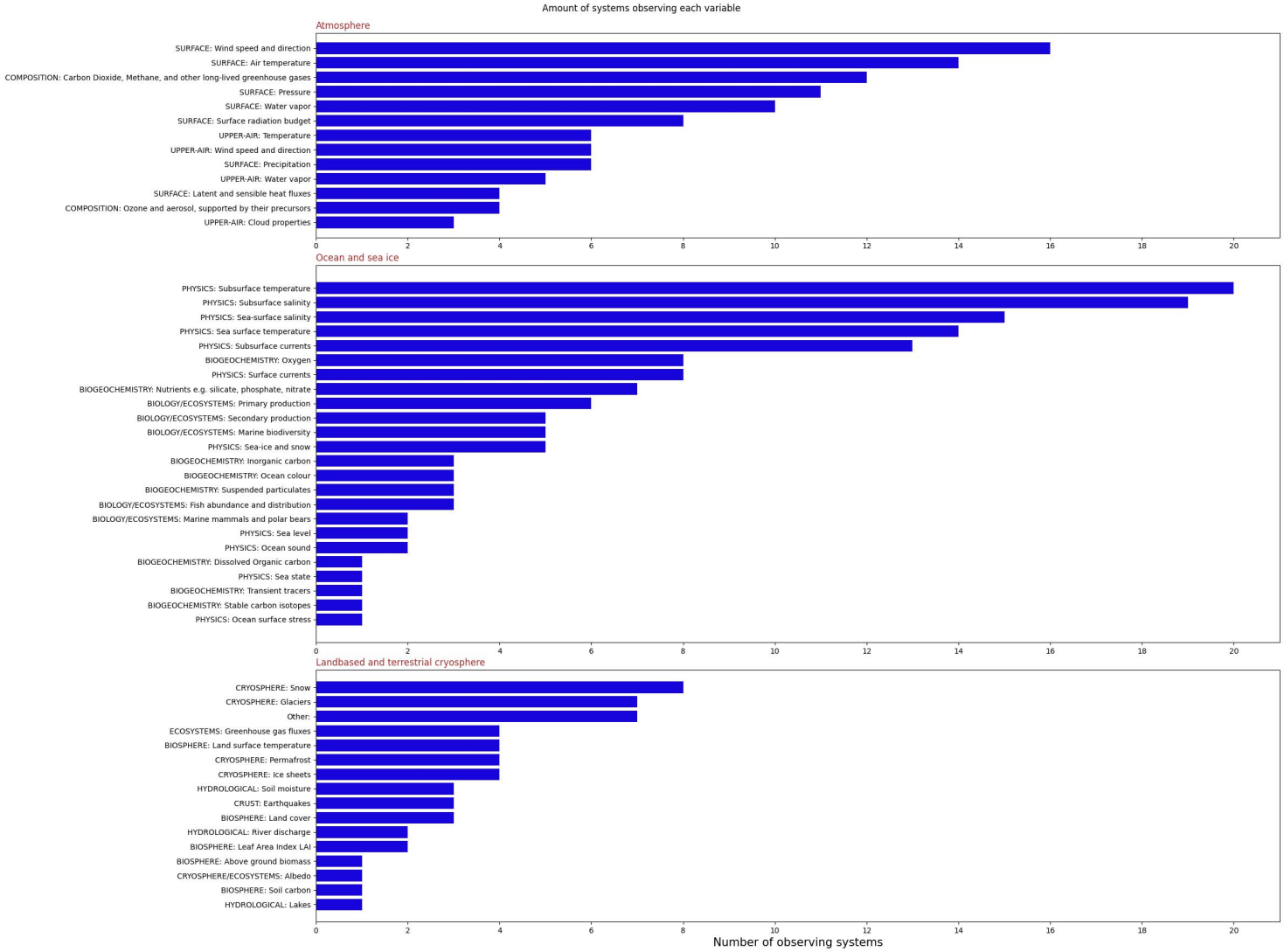

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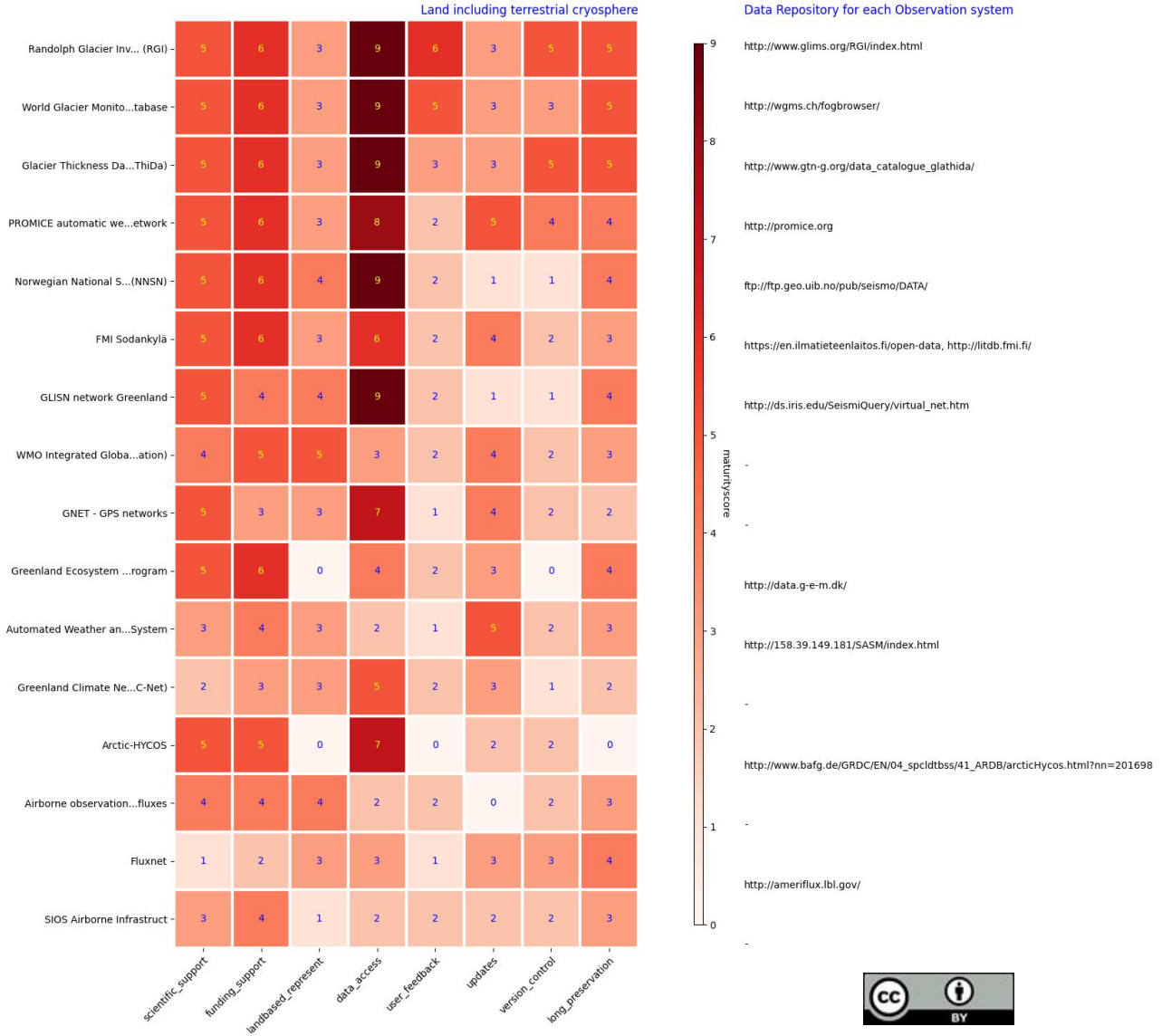

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Mapping Arctic Observing Systems

- **ARCMAP** planned extensions
  - Enhance map component and integrate in iAOS Portal

  - Develop new indicators and improve presentation capabilities further
  - Work with other projects and initiatives to develop exchange protocols for observing assets metadata
- **ARCMAP** can be accessed from https://ci.nersc.no/

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Mapping Arctic Observing Systems

Thank you!

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