

INTAROS Roadmap work

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Section 1. Introduction

Use background text from proposal

Section 2. Strategies, objectives and requirements for Arctic observing systems

- Formulation of the main reasons why we should develop Arctic observing systems in <scientific discipline> in the next 10 years.
- Extraction from existing strategy and requirement documents

Subsections

2.1 Objectives and scope: related to climate and environment

2.2 Users and their requirements, differentiating between user categories

2.3 Priorities with <scientific discipline> and what should be minimum standards

2.4 International agreements, legal issues

Section 3. Physical infrastructure, platforms and sensors used for data collection

- What physical systems exist and are considered to be robust and sustainable for data collection in <scientific discipline>
- What new platforms/sensors for data collection are evolving and can potentially play an important role in the next 10 years
- Consider all types of platforms: satellite-based, ground-based, airborne, underwater and in situ systems
- Satellite systems are planned and implemented by space agencies, including Copernicus programme, in a 5 – 10 year perspective (see space plans)
- The INTAROS Roadmap will focus on the non-satellite systems

Subsections

3.1 Land-based observing systems

3.2 Ocean-based observing systems

3.3 Other systems: aircraft, drones, cables

Section 4. Implementation and operation of the systems

- Variables to be observed, focus on in situ components
- Multidisciplinary systems – collaboration across scientific disciplines
- From automated/autonomous to human-operated systems
- From ad hoc research observations to operational data production
- Engagement of citizen science and community-based systems
- Observing strategy, sampling in space and time, logistical constraints
- How in situ systems should complement satellite systems
- Existing networks and programmes: how to sustain them

Subsections

4.1 Land-based systems

4.2 Ocean-based systems



Section 5. Data production, dissemination and management

Build on existing data streams for the scientific disciplines,

How will new technology improve data production and dissemination in the next 10 years ?

- Handling data on sensor and platform level
- Transferring data products to data infrastructures
- Near-realtime data versus delayed mode data

Subsections

5.1 Atmosphere:

5.2 Terrestrial:

5.3 Marine:

5.4 CBM-Citizen science:



Section 6. Organisation and the role of various actors

Section 7. Governance and funding

Section 8. The main challenges in implementation of Arctic observing systems

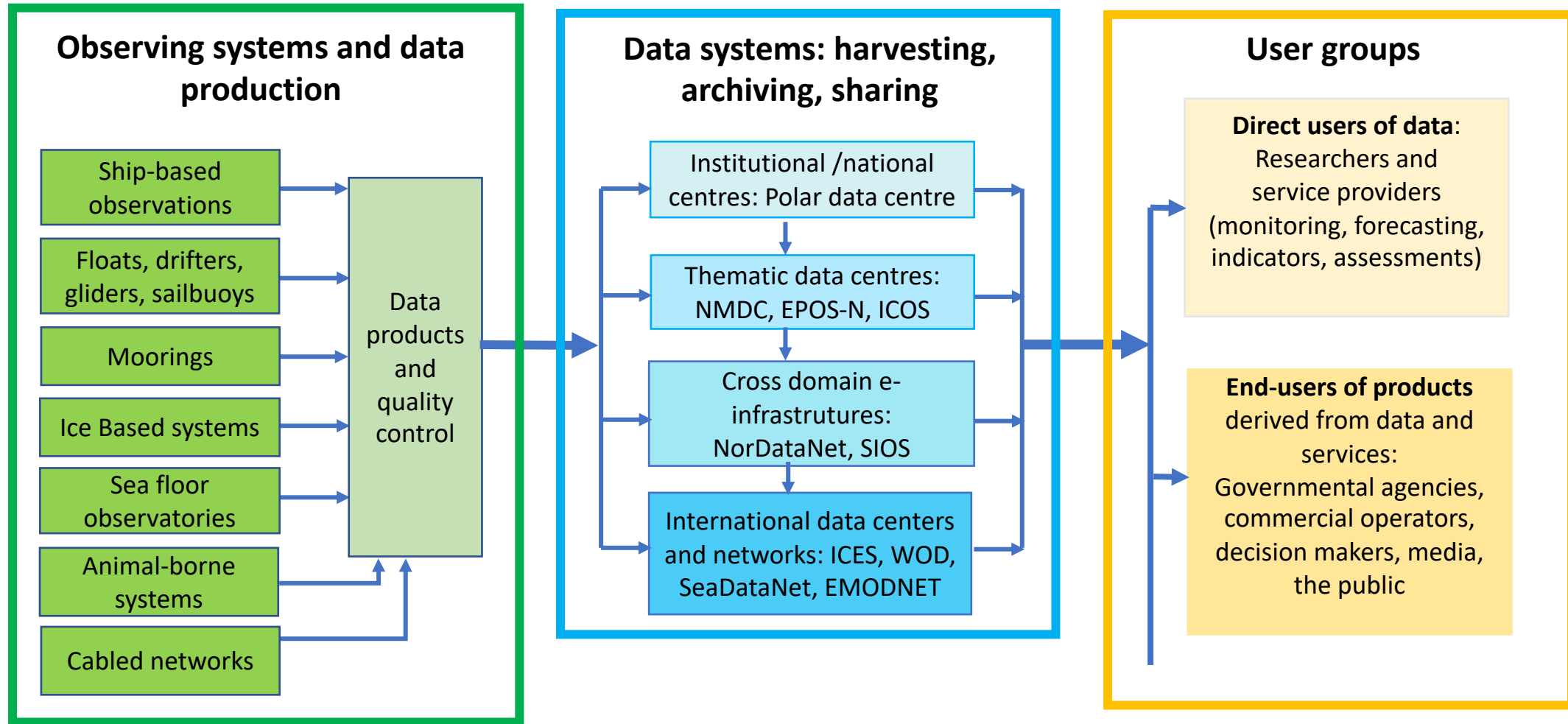
8.1 Land-based systems

8.2 Ocean-based systems

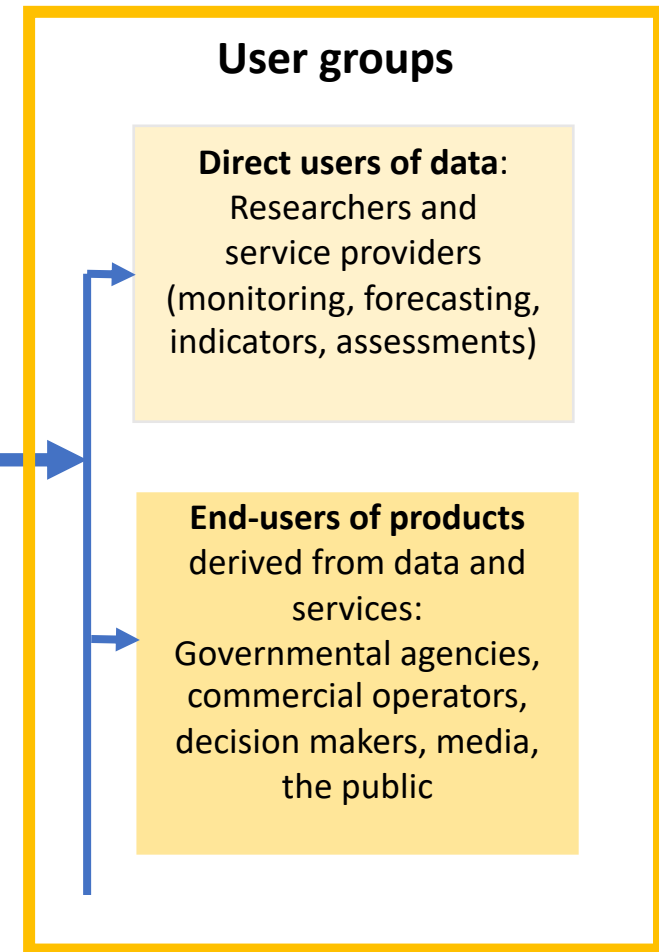
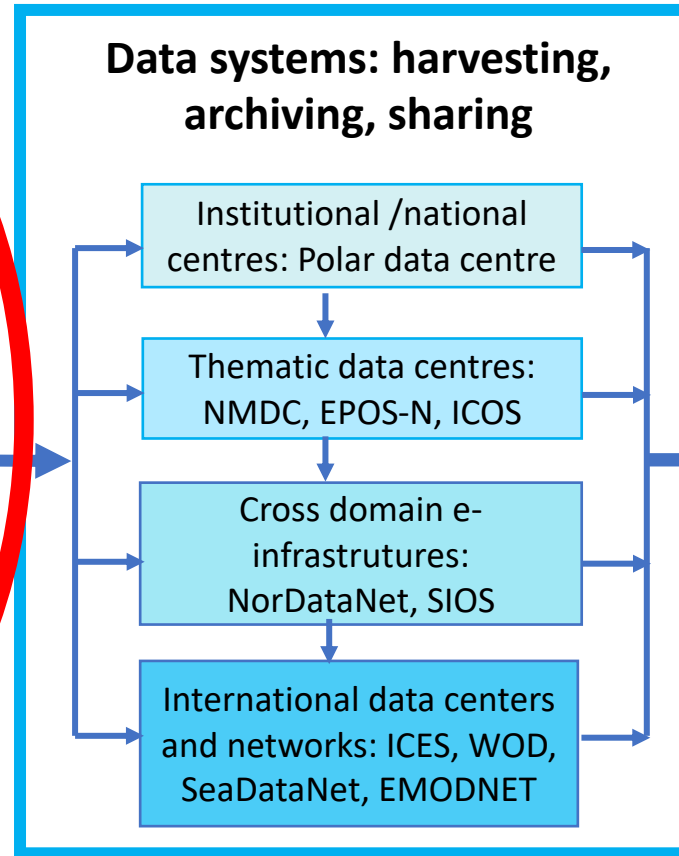
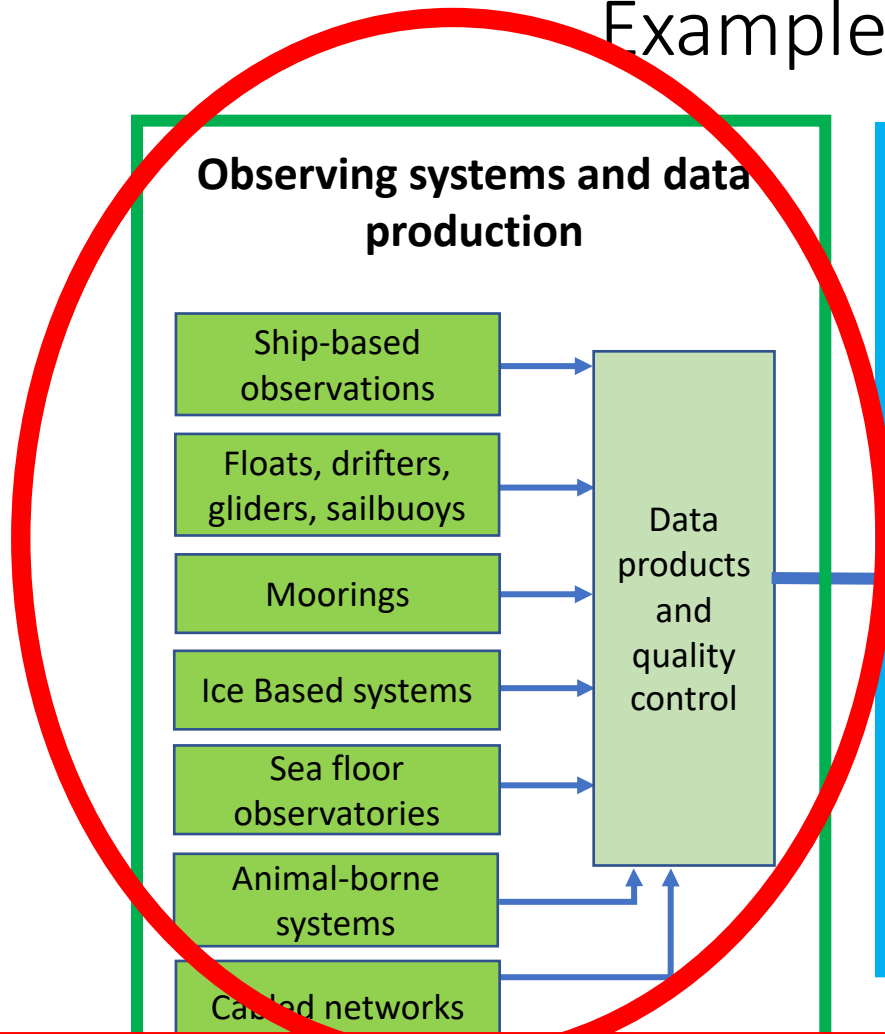
Section 9. Useful links and background documents

Appendices

Data production and delivery chain for Arctic data: Example: ocean observing systems



Data production and delivery chain for Arctic data: Example: ocean observing systems



**Focus of the INTAROS
Roadmap**

