

INTAROS – Integrated Arctic Observation System

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Coordinator: Stein Sandven

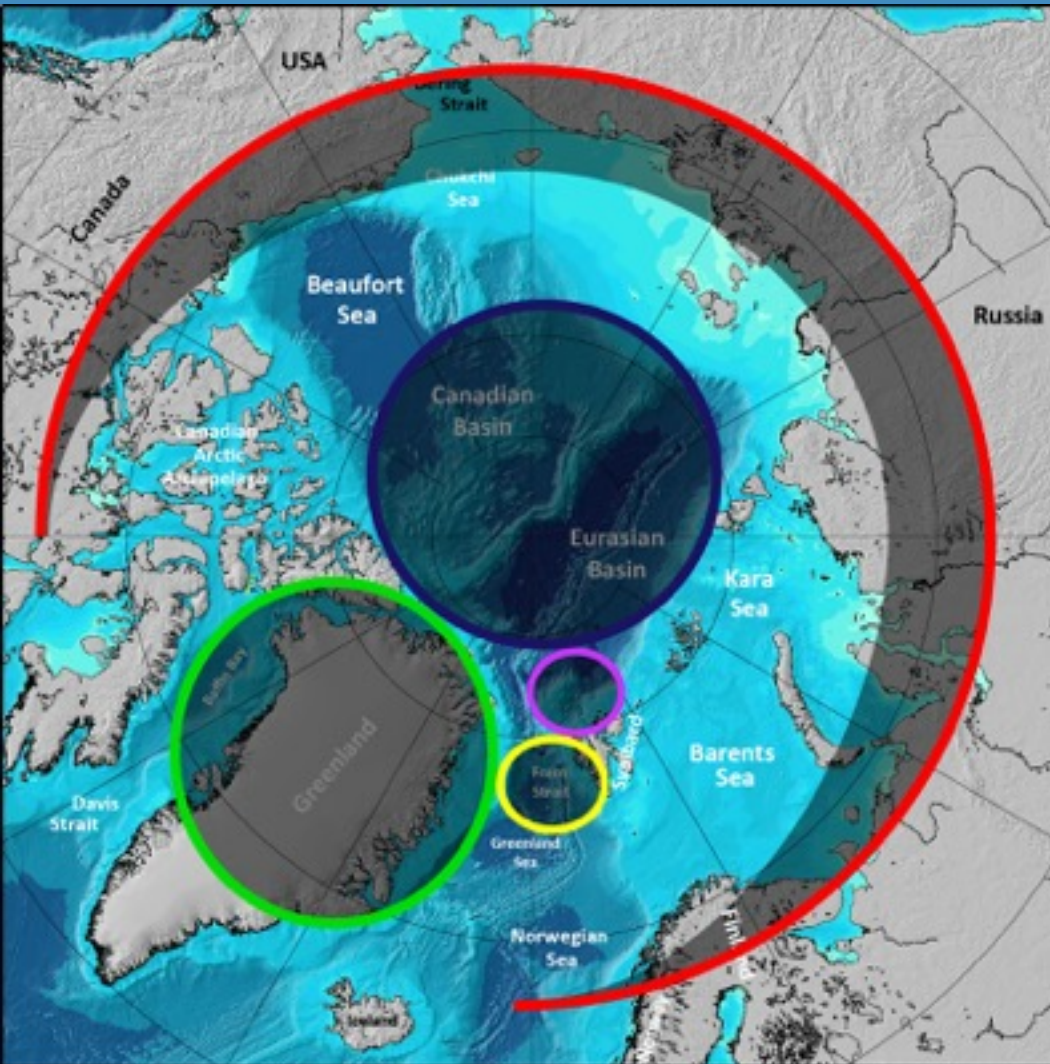
Nansen Environmental and Remote Sensing Center,
Norway

Total budget: 15.5 mEuro - 49 partners from 20 countries

Start date: 01 December 2016 - Duration: 5 years



INTAROS overall objective



to develop an efficient integrated Arctic Observation System by

- extending,
- improving and
- unifying

existing and evolving systems in the different regions of the Arctic

An integrated Arctic Observing System needs to cover

- Atmosphere
- Ocean
- Terrestrial themes

at appropriate temporal and spatial scales and resolution.

The largest gaps are in the in-situ observation network,
which should provide:

- data not obtained from remote sensing and numerical models
- data needed for validation of remote sensing and numerical models

Specific objectives

- ❑ Establish a *Pan-Arctic* forum for collaboration across EU and non-EU countries and transnational organisations (WP1)
- ❑ Develop a *Roadmap* for building a sustainable Arctic observing system (WP1)
- ❑ *Exploit existing observing systems and databases* (WP2)
- ❑ *Fill gaps* of the present in situ observing systems (WP3)
- ❑ Enhance *community-based* observing programmes (WP4)
- ❑ Develop and implement *the iAOS platform* for integration of multidisciplinary data from distributed repositories (WP5)
- ❑ Demonstrate *assimilation* into climate models (collaboration with BLUE ACTION + +)
- ❑ Conduct application studies using iAOS to selected stakeholders

EU's Arctic project cluster 2016-2017

EU PolarNET
Coordination action

INTAROS
observing systems
(NERSC)

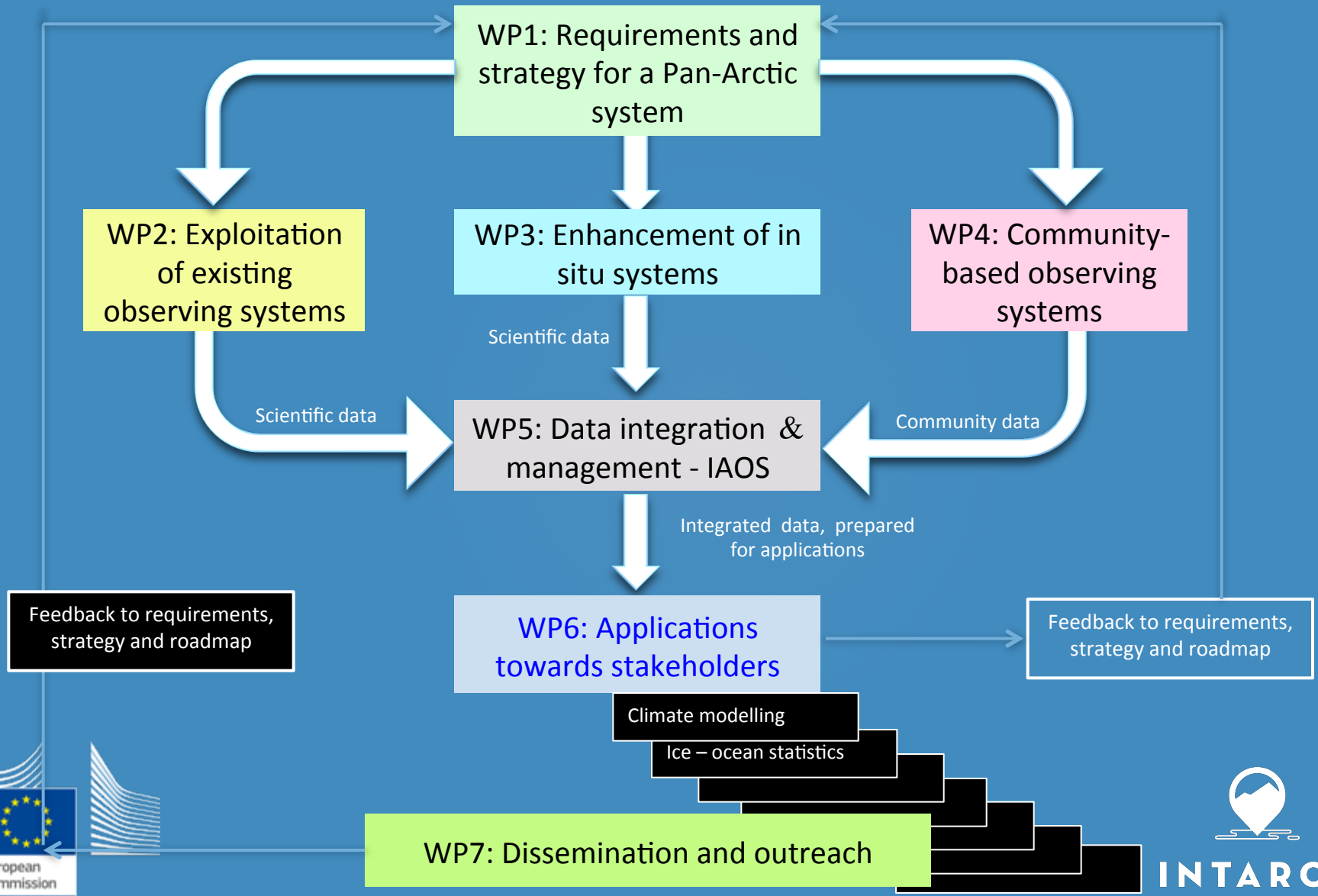
APPLICATE
Modelling – forecasting
(AWI: T. Jung)

**Arctic
permafrost**

BLUE ACTION
Modelling – forecasting
(DMI: S. Olson)

Infrastructure projects: ENVRI, INTERACT,
ACTRIS, ICOS, SIOS, ++

Workpackage structure



Stakeholder engagement in INTAROS

- First workshop in Brussels 05 May 2017 with invited participants, addressing relative high-level requirements across the various disciplines and stakeholder groups.
- Dialogue with decision makers and policy bodies, jointly with other Arctic projects and the Commission
- Stakeholders in each of the thematic areas (Atmosphere, Ocean and Seafloor, Sea ice, Marine Ecosystem, Terrestrial sciences, Glaciology, Natural hazards, and Community-based monitoring
- Stakeholder and Innovation Advisory Panel, ca 5 members, will be appointed and participate in the project
- Follow-up workshops



Stakeholder categories

- Science – through projects and programmes, in particular climate and environment
- Service providers: e.g. weather and ice services (Copernicus services)
- Government agencies: e.g. national institutes, fishery directorate, oil directorate, coastal directorate, ++
- European / international agencies/bodies: EU, EEA, ESA,
- Private sector: e.g. shipping, oil/gas, fishery, tourism, ++
- International programmes: e.g. SAON, AMAP, IPCC, GCOS, GOOS, WMO or ECMWF, ++
- NGO's
- Local communities



Application studies for specific stakeholder groups

- Climate modelling and prediction
- Marine ecosystem understanding and management
- Ice-ocean statistics for decision support and risk analysis
- Natural hazards
- Greenhouse gases exchanges – atmosphere, ocean, land
- Local community interaction with scientific observing systems
- Support to marine and maritime industries
- Demonstration for fisheries and environmental agencies

Challenges addressed in this workshop

- (1) Coordination and collaboration between data providers and stakeholders in the pan-Arctic region in order to better use existing systems and resources
- (2) Improvement of the observing platforms and sensors, filling of gaps in the observing network and facilitate for year-round operation
- (3) Data sampling, transmission, calibration, processing, archiving and retrieval of required variables and build distributed and connected databases
- (4) How to develop sustainability of the observing systems

Initial requirement for an integrated Arctic Observation System

A document is in preparation where comments and recommendations from the workshop will be included (deliverable D1.1)

Who wants to be members of the INTAROS stakeholder group ?

Follow-up workshops, jointly with other Arctic projects

Project web-site: <http://intaros.eu>

