WP4: Data Forum

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Motivation

- INTERACT research stations generate data and metadata
  - Long term monitoring
  - Short term process studies
  - External data by individual scientists/ groups
- Research stations archive data and metadata (internal and external)
  - e.g. meteorological data
  - photos, maps, reports etc.
  - list of data acquired at the stations

Motivation

Gain

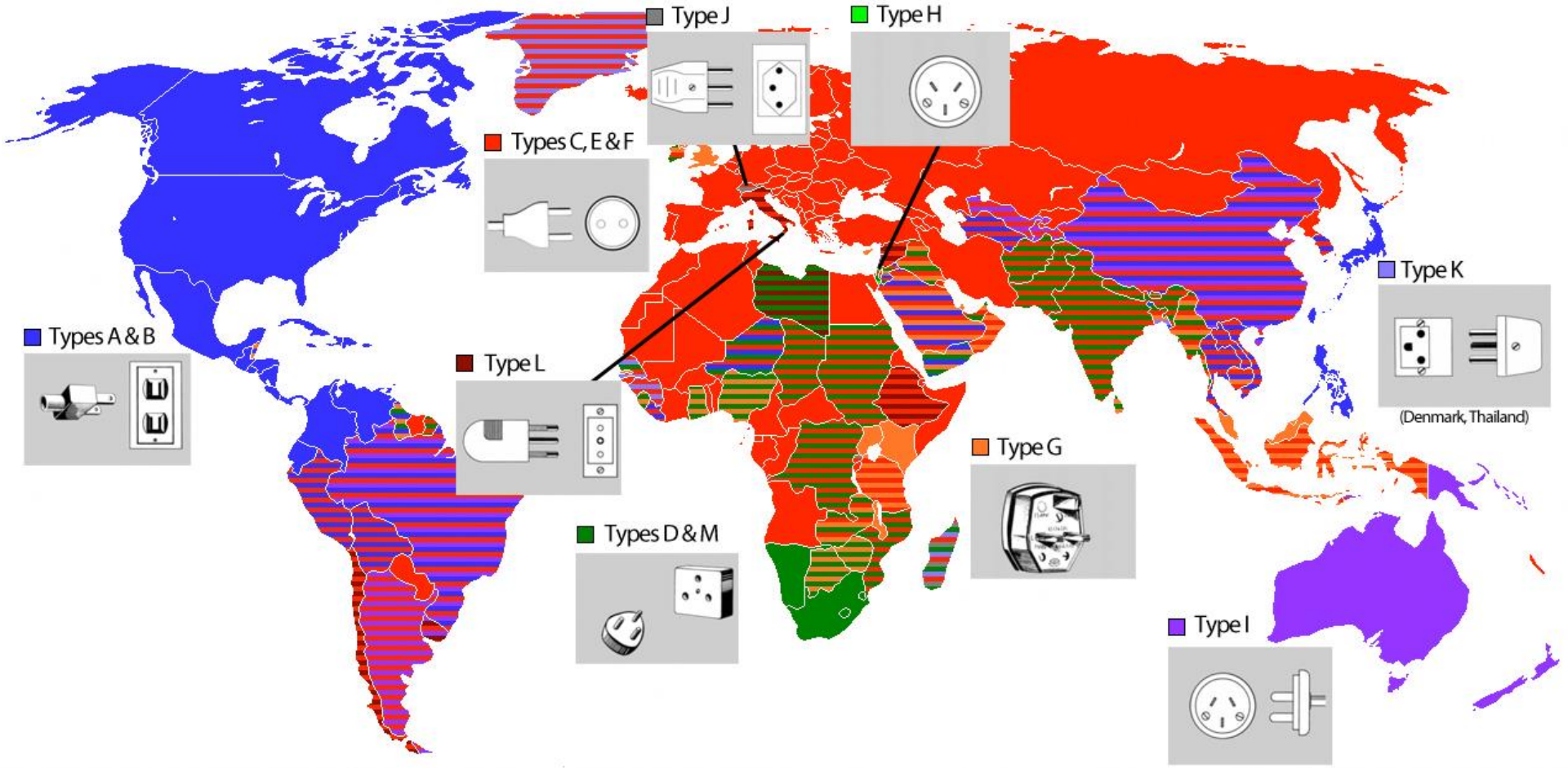
- Interoperability between Arctic station data management and accessibility of metadata and data

Comply with H2020 requirement for open data access

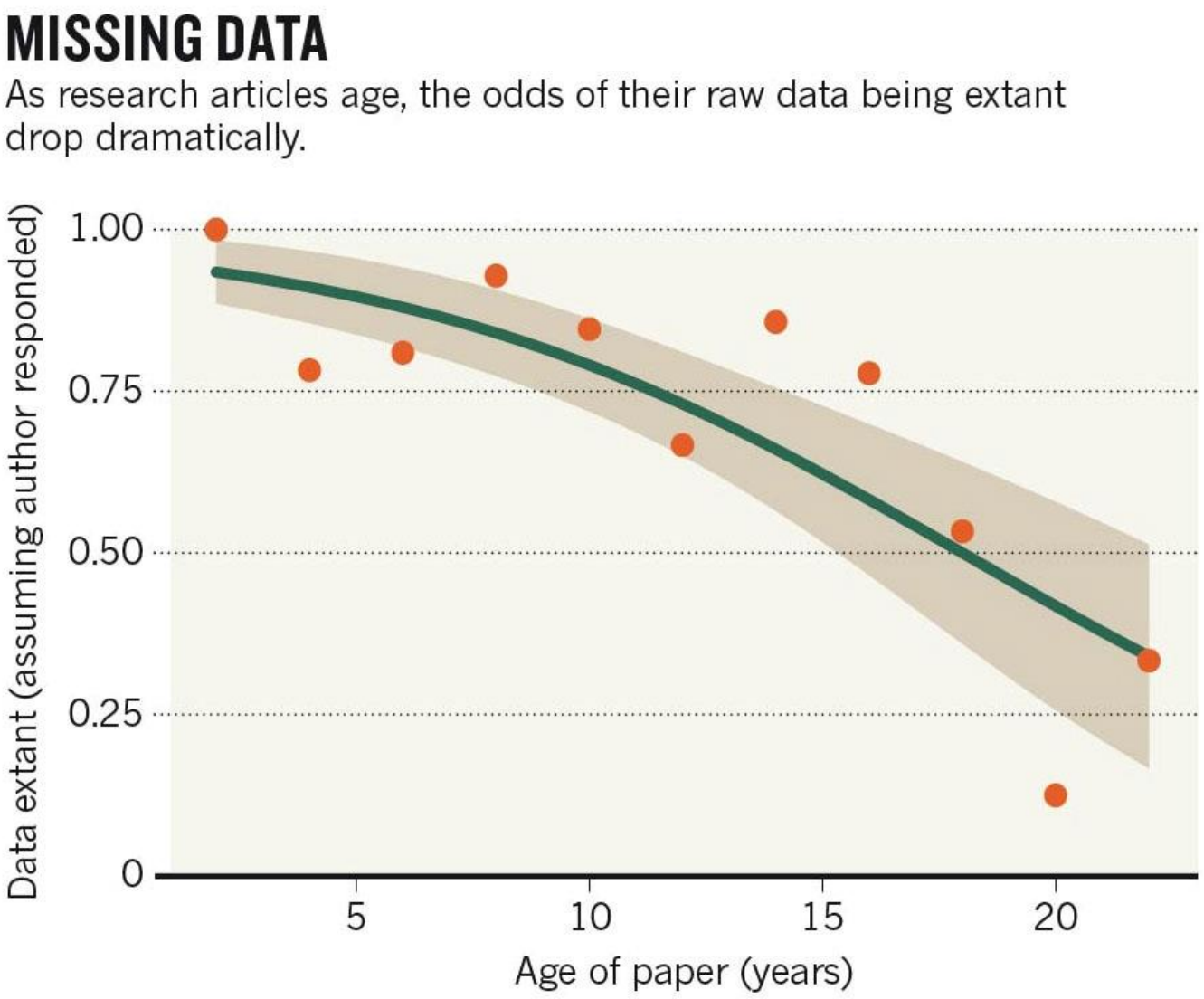
Avoid

- Redundancy of studies
- Loss of data

Interoperability



Data Management



http://www.nature.com/news/scientists-losing-data-at-a-rapid-rate-1.14416

Data sharing and standardization

Visibility improves relevance, impact, and funding

Duplication of efforts is avoided (unless desired)

Improves utilization of standard tools

Improves own usage of data

WP4 Data Forum: Objectives

- Analyse & identify
  - Current status and potential approaches to unified data management plan and system
  - Identify synergies with external activities
- Mitigate
  - Step by step in a prioritised implementation
  - Basic principles outlined in a data management plan
  - Working with the community through the INTERACT Data Forum
- Establish a demonstrator catalogue
  - Of available datasets
    - Go for the “easy wins” first
  - Through “INTERACT best practises”
- Link research stations
  - with observation networks and data repositories

WP4 Data Forum: Objectives

ZACKENBERG ECOLOGICAL RESEARCH OPERATIONS

Søg

- Zackenberg Research Station
- About
- News
- GEM Programme
  - **ClimateBasis**
  - GeoBasis
  - GlacioBasis
  - BioBasis
  - MarineBasis
- Access
- Price list
- Publications
- Data
- Maps and tools
- Weather
- Links
- Contact
- GEM

You are here: GEM Programme › **ClimateBasis**

ClimateBasis

The ClimateBasis programme monitors climate and hydrology in Zackenberg and Kobbefjord and is run by Asiaq - Greenland Survey. The collected data build base-line information on climate variability and trends for all the other sub-programmes within GEM and serve as a trustworthy foundation for adaptation strategies for the Greenlandic society. The stations are embedded in Asiaq's extensive climate and hydrology monitoring network. Furthermore, the run-off data is delivered to the World Hydrological Cycle Observing System (WHYCOS) and the Global Runoff Data Centre (GRDC) networks.

Atmospheric parameters are collected redundantly at each location on two separated masts with individual energy supply in order to be able to treat data gaps and sensor biases consistently. Hydrometric parameters are monitored on various automated stations. A challenging focus is put on the establishment of reliable stage-discharge relations, whose temporal stability depends on the river bed. At the river Zackenberg for instance, repeated glacier outburst floods require an updated stage-discharge relation every year, where the related field work is performed together with the GeoBasis sub-programme. Glaciological measurements (surface mass and energy balance, ice flow) complement the monitoring activities in Kobbefjord on a small mountain glacier and two fully equipped energy balance stations (one in Upernaviarsuk in South Greenland, one in Qaanaq in North Greenland) have been added to the sub-programme after 2012.

ClimateBasis Zackenberg Manual

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Jakob Abermann's CV

Further information about Asiaq

COMMENTS ON CONTENT: HENRIK SPANGGAARD MUNCH
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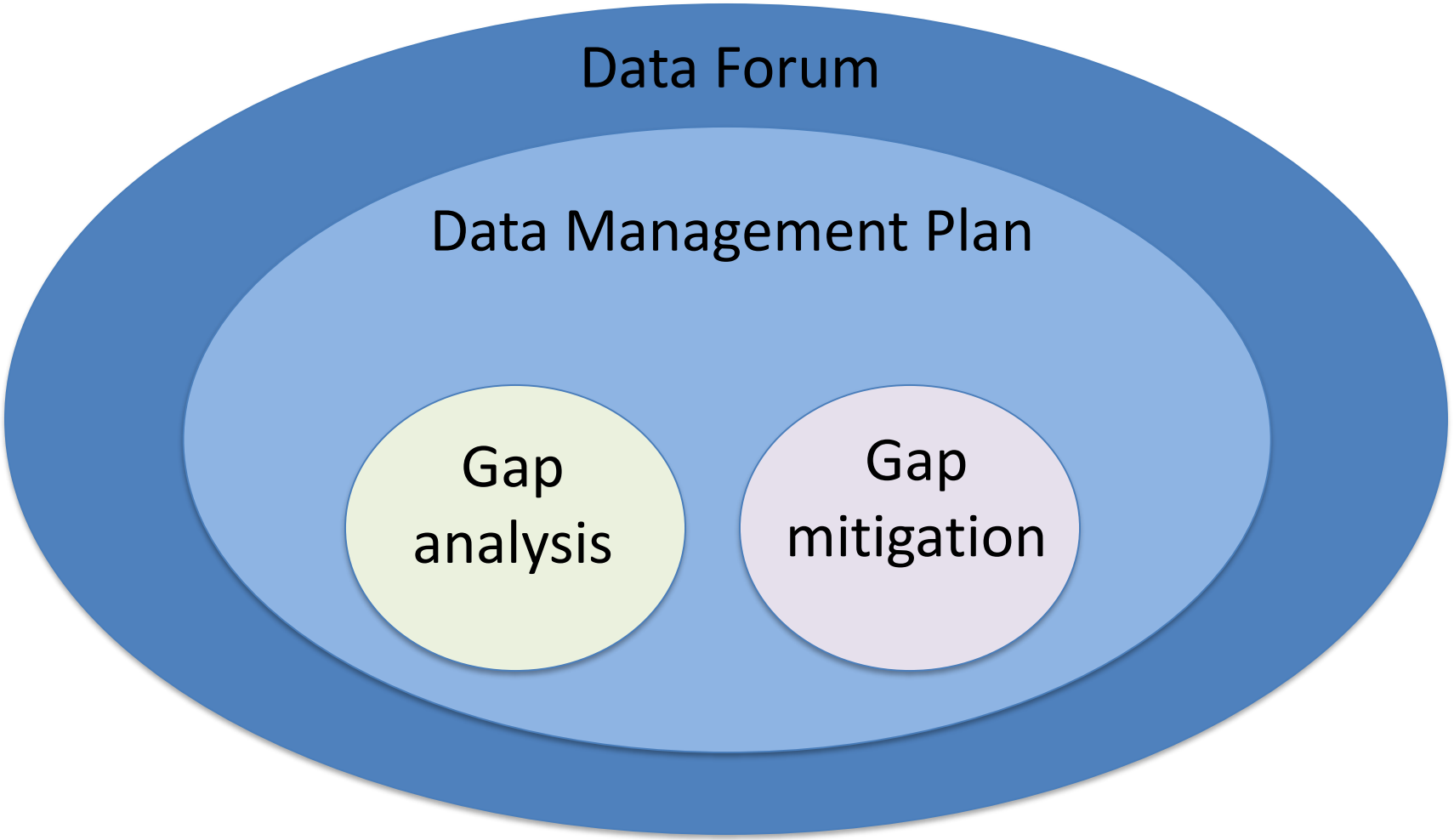
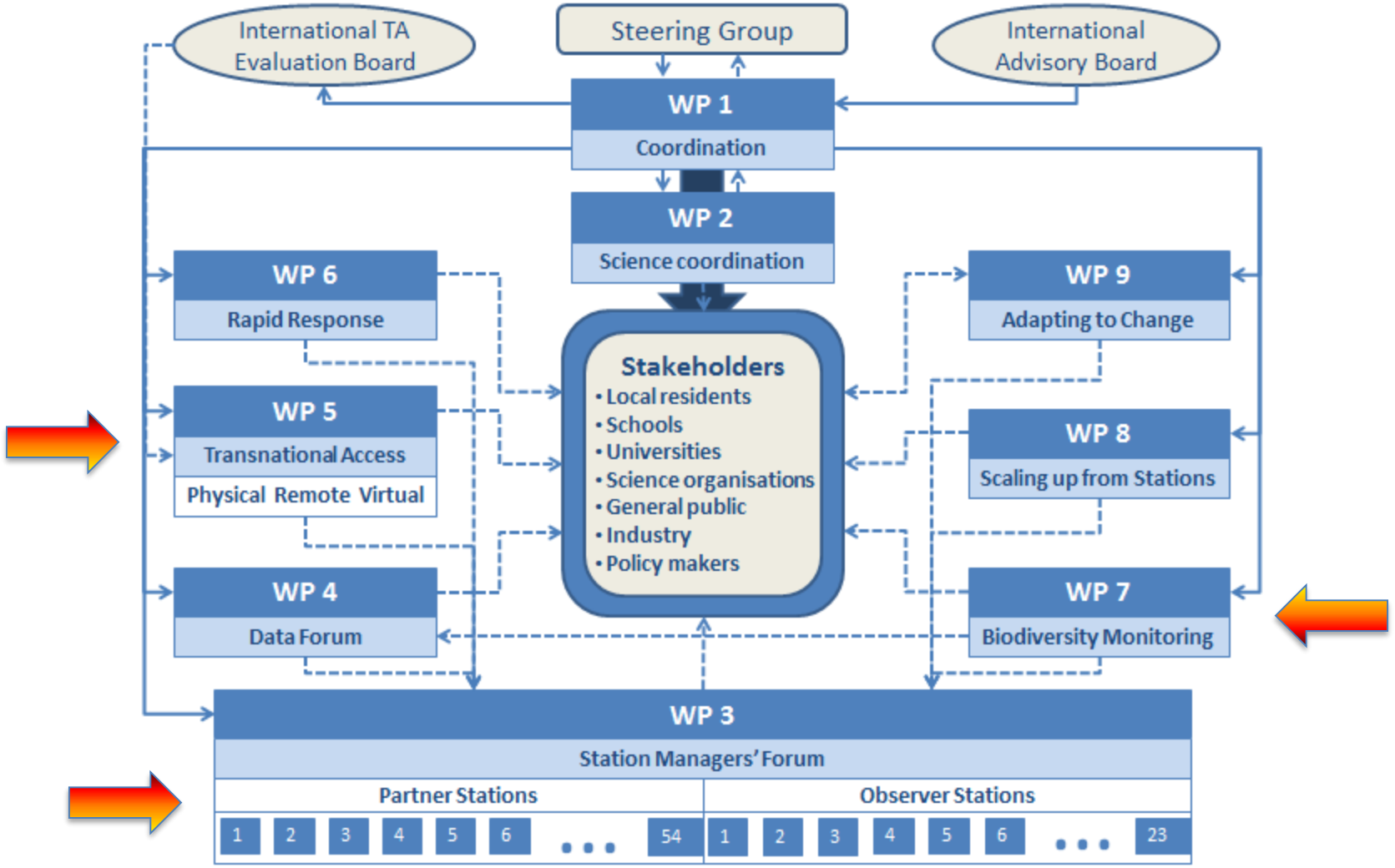
WP4 Task


Data Forum
Data Management Plan
Gap analysis
Gap mitigation

Synergies


International TA Evaluation Board
Steering Group
International Advisory Board
WP 1
Coordination
WP 2
Science coordination
WP 6
Rapid Response
WP 5
Transnational Access
Physical Remote Virtual
WP 4
Data Forum
Stakeholders
• Local residents
• Schools
• Universities
• Science organisations
• General public
• Industry
• Policy makers
WP 9
Adapting to Change
WP 8
Scaling up from Stations
WP 7
Biodiversity Monitoring
WP 3
Station Managers' Forum
Partner Stations
1 2 3 4 5 6 ... 54
Observer Stations
1 2 3 4 5 6 ... 23

WP4: Strategy

- Initially focus on discovery metadata
  - Ensure interoperability and information flow/streams
  - To establish a unified view of the INTERACT data space
  - Expose this to external frameworks (metadata standards)
- Move to interoperability at the data level when data discovery is working
  - Interoperability at the data level is required for interaction with larger frameworks
  - Bundling of similar data is required to be relevant for CalVal activities in larger programmes
  - While retaining the visibility of stations and scientists
- Develop guidance material
  - For stations
  - For scientists
  - Based on existing efforts within disciplines, RDA, ICSU, WMO etc
- Improve visibility and relevance of Interact for e.g. WMO and SAON activities
  - Through interaction with the Arctic Data Committee
  - Being pragmatic, working step by step, towards a long term vision

WP4 Deliverables and Milestones

D4.1: Data Management Plan (Month 6)

D4.2: Report on current data flows (Month 12)

- Gap analysis and bottlenecks

D4.3: Field guide to data repositories (Month 24)

- Mentoring of potential providers of TA virtual access

D4.4: Data Policy (Month 24)

Thank YOU!

- https://www.youtube.com/watch?v=N2zK3sAtr-4

Data Sharing

- Policy and Administration
  - Data policy
    - Defines how to behave
    - Roles and responsibilities
      - data ownership
      - data custodianship
- Collection and processing
  - Data quality
  - Data documentation and organization
  - Metadata
    - Granularity
    - Content
    - Context

- Use and preservation
  - Data life-cycle
    - Data maintenance
    - Data storage and archiving
  - data security/integrity
  - data dissemination
  - data publishing (DOI)
    - usage tracking (DOI)
  - data interpretation
    - Need standardised documentation to ensure correct interpretation