

# IPY Data Management

The snapshot, Interoperability and relation to WIS

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# Outline

- ▶ Briefly on achievements
- ▶ Metadata exchange
- ▶ IPY Operational Snapshot
- ▶ Technology and relation to WIS/GEOSS
- ▶ Open questions

# What has been done?

- ▶ The Data committee has defined a data policy
  - ▷ Workshop on data management
  - ▷ IPY metadata profile
- ▶ <http://www.ipydis.org/>
- ▶ Data coordinators in US, Canada(?), UK(?), Netherlands(?), China, Sweden and Norway
- ▶ Data released for IPY use by e.g. ECMWF and Space Communities
- ▶ Sparse and late data management activities

# IPY metadata profile elements

- *Entry ID (controlled)*
- Data set title
- Data set progress
- Data set summary
- Data set citation information including Online Resource
- *Parameters*
- *Locations*
- *ISO topic categories*
- Temporal coverage
- Spatial coverage
- Data center contact information
- Access restrictions
- Use constraints
- Data Set Language
- Metadata contact information
- *Metadata authority*
- *Metadata version*
- Last revision
- IPY flag
- *IPY Project ID*

# Exchange of metadata (1)

- ▶ Various technologies
- ▶ OAI-PMH
  - ▷ Low cost/easy to implement
  - ▷ Recommended for harvesting metadata by CEOS WGISS Interoperability Handbook 1.1 (draft)
- ▶ ISO23950 / Z39.50
  - ▷ Distributed search, WIS, GEOSS
  - ▷ Not recommended by CEOS WGISS unless compability with existing systems is sought.

# Exchange of metadata (2)

- ▶ Looking into OAI-PMH
  - ▷ DokIPY - Norwegian project involving NP, HI, METNO
  - ▷ NSIDC - linking to GCMD and Norwegian projects
- ▶ Have sent questions to several space agencies concerning potential support for OAI-PMH, or other machine readable interfaces
  - ▷ so far only ESA, EUMETSAT has responded in detail

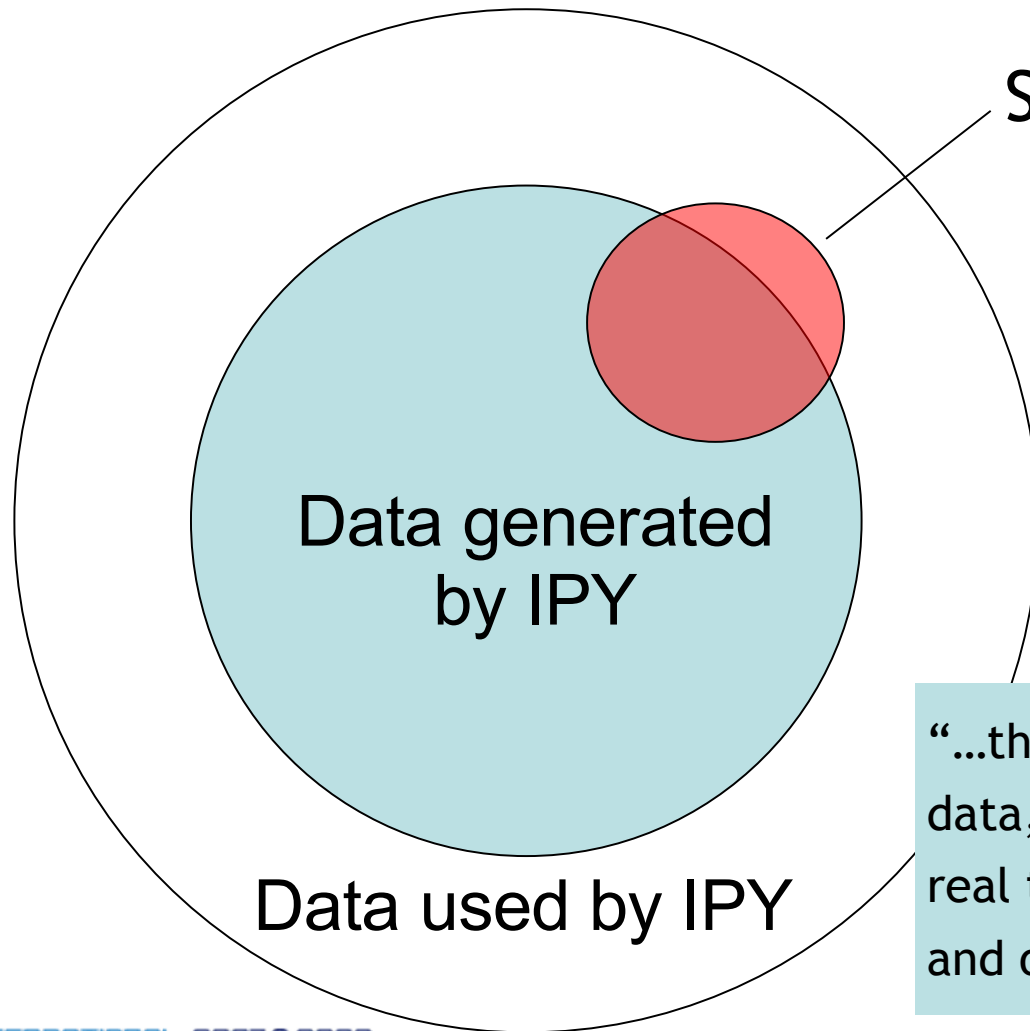


# The IPY operational snapshot

- ▶ Working on cataloguing WMO essential data (and to a certain extent data access)
- ▶ Working on ECMWF and HIRLAM NWP (METNO) access
- ▶ Working on THORPEX data sets in the North Atlantic winter 2008
- ▶ Working on drifters, POPs, ITPs, IMBBs, ...
- ▶ Examining metadata harvesting for space related data sets

# IPY Data Policy—Defining IPY Data

[http://www.ipy.org/Subcommittees/final\\_ipy\\_data\\_policy.pdf](http://www.ipy.org/Subcommittees/final_ipy_data_policy.pdf)



## Special Cases:

- Human subjects
- Intellectual property of LTK
- Where data release may cause harm

“...the IPY Joint Committee requires that IPY data, including operational data delivered in real time, are made available fully, freely and on the shortest feasible timescale.”



# IPY Operational Data Coordination Technology

- ▶ <http://ipycoord.met.no/>
- ▶ METAMOD 2.x DAR -> WIS (VGISC)
  - ▶ To integrate IPY or scientific needs more seamless with the WMO community
  - ▶ WIS (VGISC) trusted authorisation/access
  - ▶ Archives
- ▶ OpeNDAP -> THREDDS Data Server
  - ▶ Better support for WMO formats
- ▶ OAI-PMH
- ▶ OGC WMS (focusing at high latitudes)

IPY Operational Data Search - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://ipycoord.met.no/r1/sch/search.php

Latest Release Notes Fedora Project Fedora Weekly News Community Support Fedora Core 5 Red Hat Magazine

webmail.met.no GIIPSY Publications IPY Operational Data Search



IPY operational data coordination /Operational data search February 28, 2008

- HOME ...
- OPERATIONAL DATA OVERVIEW
- OPERATIONAL DATA SEARCH
- OPERATIONAL DATA QUESTIONNAIRE
- METADATA QUESTIONNAIRE
- OPENDAP

## IPY Operational Data Search

Search for IPY Operational Data. Use the links on the left hand side to access pages for setting search conditions. Then use the menu below to view results.

The catalogue contains datasets with references to actual data as well as metadata describing planned activities. Currently there are no direct connection from the planned activity descriptions to the corresponding datasets.

SHOW RESULTS	TWO-WAY TABLES	OPTIONS	HELP		
Name	Institutions	Areas	Activity types	Abstract	
<a href="#">conc</a>	met.no Meteorologisk Institutt	Northern Hemisphere	Space borne instrument		
<a href="#">type</a>	met.no Meteorologisk Institutt	Northern Hemisphere	Space borne instrument		
<a href="#">edge</a>	met.no Meteorologisk Institutt	Northern Hemisphere	Space borne instrument		
<a href="#">icedriftC4</a>	DMI Danish Meteorological Institute	Arctic Ocean	Space borne instrument	A 9 month ice drift data set based on VIS and IR data	
<a href="#">icedriftC2</a>	DMI Danish Meteorological Institute	Arctic Ocean	Space borne instrument	A 9 month ice drift data set based on VIS and IR data	
<a href="#">optimal</a>	DTU Technical	Arctic Ocean	Space borne	Ice_ocean_and_atmosphere parameters	

- TOPICS AND VARIABLES
- ACTIVITY TYPES
  - Space borne instrument
- OPERATIONAL STATUS
- INSTITUTIONS
- AREAS
- MAP SEARCH
- DATA COLLECTION PERIOD

Done

# IPY Operational Data Coordination

- ▶ Participating in the drafting of VGISC, a European contribution to WIS
  - ▷ Potentially this may in the future contain the catalogues of NCs
  - ▷ Technology links to GEOSS and INSPIRE
  - ▷ IPY Legacy



# Open questions

- ▶ To what extent is the CEOS WGISS Interoperability Handbook recommendations implemented in the agencies?
- ▶ To what extent is the Catalogue Interoperability Protocol for Earth Observation Metadata implemented in the agencies?