



British Oceanographic
Data Centre
National Oceanography Centre

Evolving and Sustaining Ocean Best Practices III - Community input

A personal viewpoint
Gwen Moncoiffe

My profile

- Personal experience as a young post-doc research and sea-going scientist, and 20-year experience in ocean data management
- Familiar with data management practices from a number of international networks including in the past: WOCE, GLOBEC, IMBER, SOLAS, more recently: GEOTRACES, ARGO
- Lead the vocabulary management group (VMG) at BODC
 - Responsible for maintaining, growing and further improving the NERC Vocab Server (NVS)
 - Manages content of externally- and internally-governed vocabularies
 - Supports SeaDataNet / EMODnet communities
 - Increasingly requests from other communities to add content to SeaVox Device Catalog (L22), SDN Device categories (L05), SeaVox Platform Categories (L06), BODC Parameter Usage Vocabulary (P01)
- Work closely colleagues involved in SensorML / SenseOcean / AtlantOS / ARGO vocabulary and linked data developments
- Co-chair of Research Data Alliance WG on semantic interoperability of observable properties
 - RDA is a community-driven initiative aimed at building the social and technical infrastructure to enable open sharing and re-use of data (across all domains)

Key questions

- How do we determine if there are gaps in observing methods?
- What are the priority areas for expanding BP implementation?
- How should the OBP Project team work with others in the community?
- Which external drivers should be prioritized (e.g. SDG)

OBPS as a TOOL

- Register existing BP and BP candidates
- Catalog
- Discover
- Evaluate
- Recommend
- Record adoption
- Review
- Re-evaluate, deprecate and supersede



Cataloguing needs to include information about:

- Community(ies) behind the BP
- Application type(s)
- Regional variations
- Environmental variations (e.g. challenging or extreme environments)
- EOV, SDG connections
- Data Life Cycle stage(s) to which it applies

**OBP Life Cycle
management**

How do we determine if there are gaps in observing methods?

- Continue to develop the UI so that it can support cross-community analysis of OBP
 - User-friendly browsing and listing
 - Allow people to comment, evaluate, and tag BP
 - Display endorsement by communities
 - Use carefully selected controlled vocabularies as tags (need to help user quickly decide whether the BP document is worth exploring further or not)
- If focusing on EOVS-related OBP need to establish a matrix EOVS vs BP taking into account
 - Main stages in the DLC (data collection, NRT/DM processing, QA/QC, documentation, metadata capture, publication, archive/exchange format, discovery, re-use including aggregation/integration into products, etc.)
 - Environmental/regional variations
- Establish an OBP review process by engaging the relevant communities and existing WGs/IG/International networks and programs

DataOne.org best practices search UI

[View All Best Practices](#)

The development of the DataONE Best Practices database was a collaborative effort across many individuals ([credits](#)).

Search Best Practices

Search by Keyword in title

Search by Keyword in Body

Filter by tag

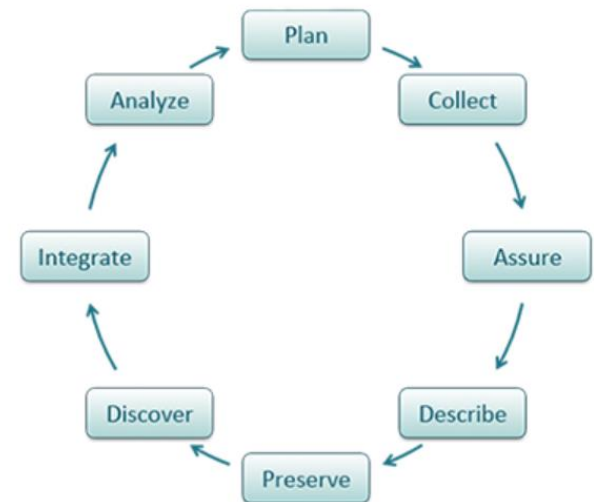
- access
- analyze
- annotation
- assure
- backup
- calibration
- citation
- coding
- collect

Filter by Data Life Cycle

collect

Search

Reset



What are the priority areas for expanding BP implementation?

- In situ sensor data (including BP for reference discrete measurements)
 - Connected to one or several EOVs/SDGs
 - Used by many networks
- Focus on mature data types initially
 - the most stable / least disputed / best understood sets of BPs across their entire lifecycle
 - E.g. salinity/temperature/O₂? + chl-a fluorescence?
 - Use as examples for other sensor data types to follow
- Promote linking OBP to data (and referencing OBP in publications)

How should the OBP Project team work with others in the community?

- Connect with teams and individuals involved in developing BP
- Create an open BP forum (if not already done)
- Interactive user-friendly tool would help attract contributors and promote the resource.
- Need to connect with non-oceanographic initiatives too e.g. Research Data Alliance and CODATA: IG/TG/WG on interoperability, earth sciences, FAIR enablement, linking publications to datasets (scholix.org)

Concluding remarks

- What is a best practice for one community or a given application might not be for another – need to show community endorsement for given applications
- Explore how to make the best of existing tools / platforms like github
- Link between best practices and standards – community BP needed to help conform to standards – e.g. SWE marine profile
- Multi-lingual browsing options should be considered at some point in the future (greater uptake worldwide, specially in coastal areas) – even if the BP themselves are in english although eventually some would also be available in other languages



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Making Sense of Changing Seas



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