ODIP
Impact Assessment

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Description of work

The ODIP workshops and the ODIP prototypes as well as the resulting feedback will provide the ODIP partners with an insight into possible common standards and/or interoperability solutions. However implementing these solutions in practice might have significant implications for these operational systems. Their adoption may require modifications throughout the existing system from the portal to the distributed data providers. This work package will therefore discuss and analyse the potential impact of adopting the potential solutions. This will lead to the development of strategic analysis reports which will identify options for direct adoption of these solutions that are within the scope and timescale of the ODIP project and associated projects, such as SeaDataNet, Geo-Seas, EUROFLEETS, MyOcean and JERICO. This work package will provide feedback on implications for existing systems and tools to WP2 (ODIP working groups) and to WP3 (ODIP prototypes) to facilitate the adoption of common standards and/or interoperability solutions by other communities. It will also identify options which potentially have a wider application and which may be the subject of future larger scale projects. The analyses will also focus on the way that the chosen solutions will contribute to an improved foundation for an efficient engineering of the IODE Ocean Data Portal (+ GEOSS).
Proposed methodology

- Analyze the **functional enhancements** proposed within ODIP, consider prototypes but also cross-cutting activities (e.g. vocabularies) and networking.

- Analyze **implementation costs and delays** in operational systems (local and distributed).

- Analyze **maintainability** of the proposed solutions.

- Propose **scenarii for implementation** in infrastructures (SDN, R2R, AODN, ...) with target being IODE portal information flow streamlining.
ODIP scope reminder

“Contribute to the removal of barriers hindering the effective sharing of data across scientific domains and international boundaries”

- **Scope:** Marine observations/analysis
- **Objectives:**
  - **Effective** sharing
  - **Across** scientific **domains**
  - **Across** international **boundaries**
Impact analysis

- Any partner who identifies impact of ODIP on existing/new operational system he/she's in charge of, should contribute
- We'll discuss these impacts now, **decide on a persons in charge** who will **report on the impact**.
- Contribute, now or later, through google drive survey form:

  https://docs.google.com/forms/d/1eLMZMXo_P2A4kSI4vKezEKdWPY3EfAq75tK86xBjKw/viewform

(might be revised during workshop)
Prototype 1 impacts

- Use netcdf4 and share format conventions in US-NODC and SeaDataNet
- ...


Prototype 2 impacts

- Use geonetwork+harvesting to feed SDN CSR catalogue at BSH
- Feed EDMO with US and AUS marine organization descriptions
- ...
Prototype 3 impacts

- Use SWE as the standard for observations, sensors and platforms inside SeaDataNet/NODCs
- ...
Vocabularies, data citation, ...

- ...

Proposed scenarii (1/2)

- **Target** is “**effective** sharing of marine observations, **across domain, across boundaries**”, global portal being IODE ODP:
  - Effective → streamline data flows, identify appropriate actors
  - Across-domain → proper standards and references
  - Across boundaries → proper contributors involved
- Propose **recommendations** on usage of standards depending on the interfaces, for example:
  - From platform at sea or data providers to NODCs or GDACs: **SWE** and free data format.
  - From NODC to distributed data management networks, then IODE or others marine data services: **ISO19139** and **netCDF/ODV data format**
  - For any information, use sustainable and properly governed **SKOS** resources for controlled vocabularies
  - Ontologies in **RDF/OWL** for semantic translation of anything, **dataCite DOIs** for observation collections and products...
Proposed scenarii (2/2)

- Propose a global road map to implement the recommendations, thanks to the synthesis of the detailed impact analysis reports

- Distribute implementation roles among projects/infrastructures (POGO, ARGO, SDN, R2R, ...)