GROOM II
GLIDERS FOR RESEARCH, OCEAN OBSERVATION & MANAGEMENT : INFRASTRUCTURE AND INNOVATION

OceanGliders

Glider data flow: OceanGliders and GROOM RI

Dan Hayes on behalf of the OceanGliders data management task team (OGDMTT) and GROOM II

GROOM II has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 951842

Data Flow

A bottleneck that needs international cooperation, which is underway, but in need of more participation and contributions.

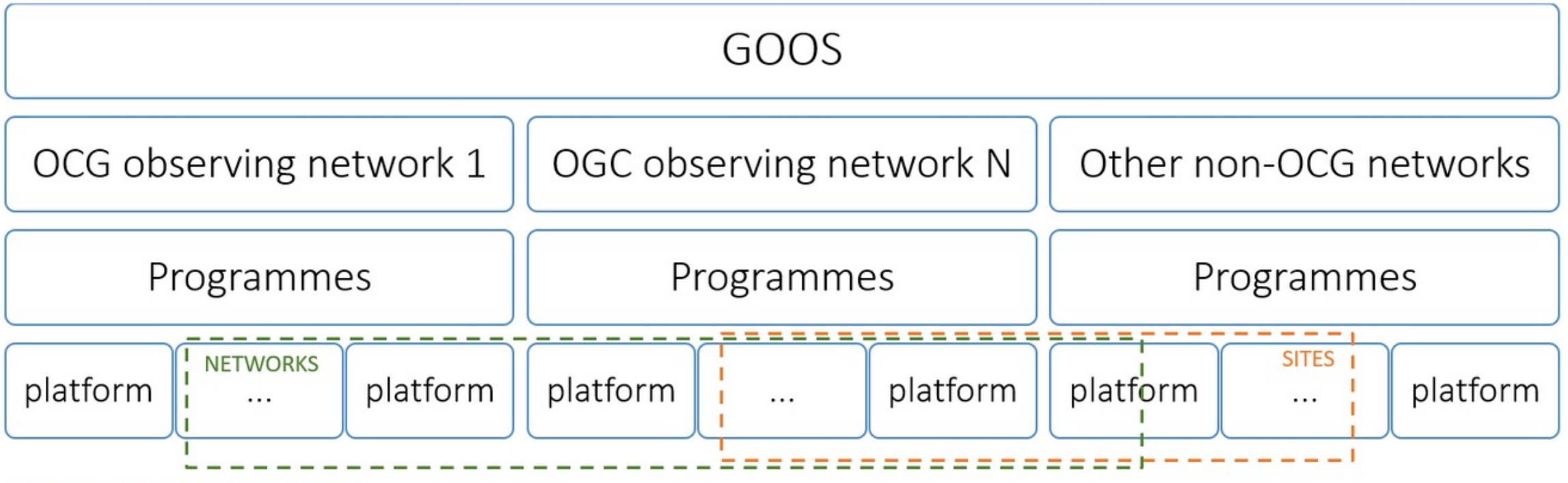
Outline

- Where are we* now?
  - OceanGliders, OG1.0, Vocabs, OceanOps
  - GROOM RI, AMRIT
  - EmodNET, Coriolis, Copernicus
- Where do we want to go? How to get involved?
- More Resources = More Progress

*think big

GOOS-OCG architecture in OceanOPS

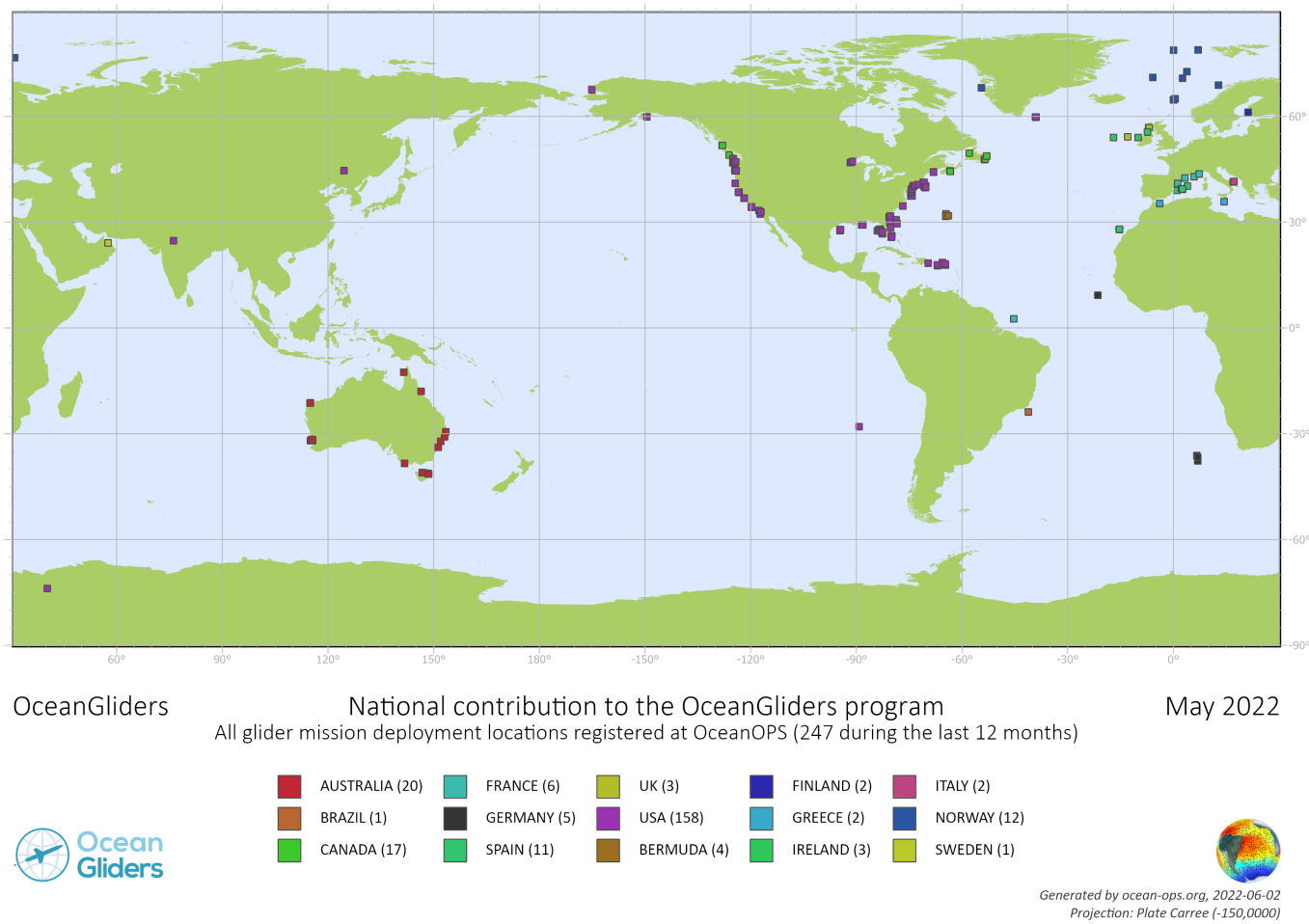
Monitoring the GOOS-OCG networks: OceanGliders is a Programme in GOOS, supported part-time by Victor Turpin and many volunteers like yourselves.



Activity of OceanGliders

Several Task Teams, including Data Management

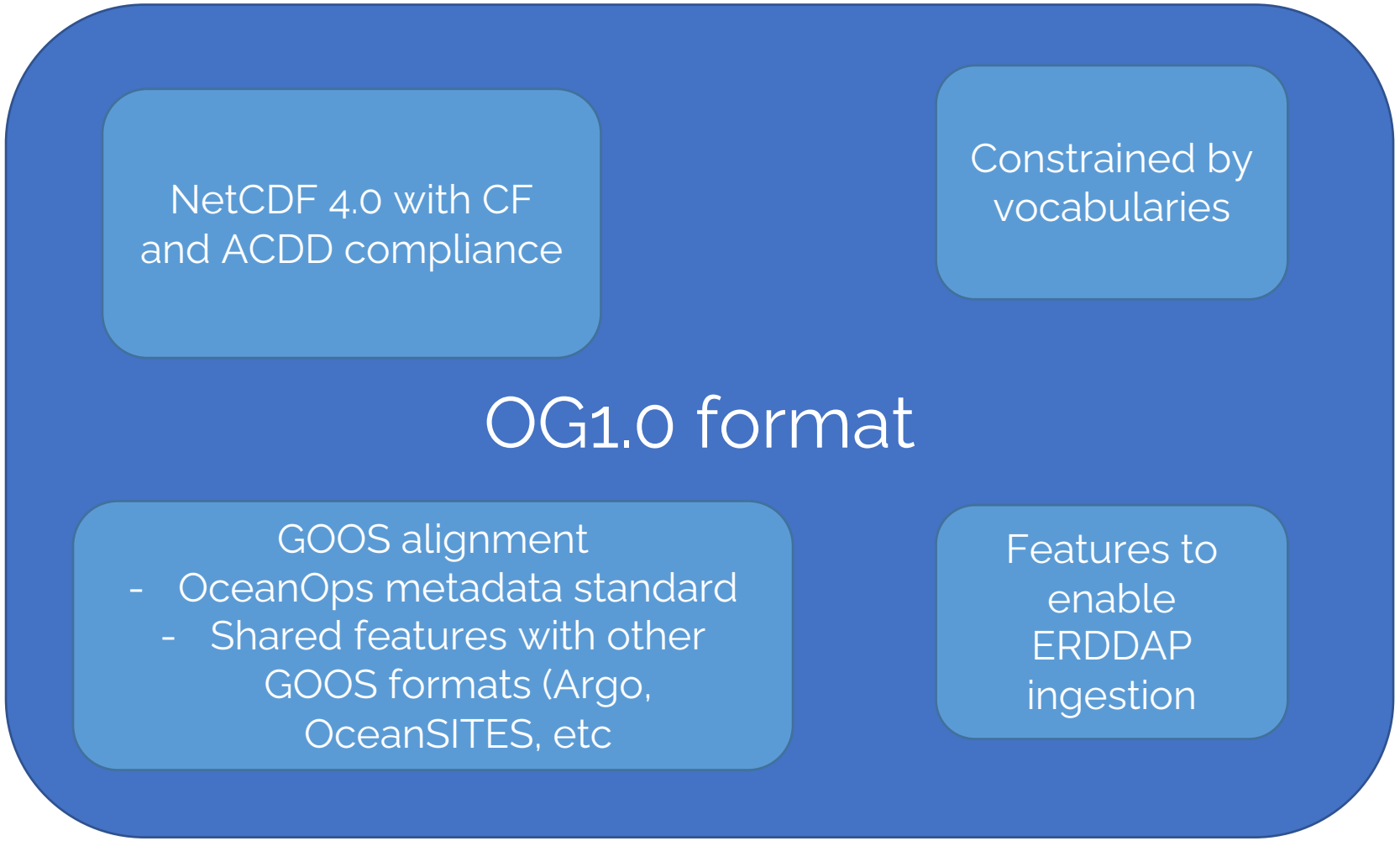
- Emma Gardner new co-chair
- Focused on OG1.0 format and BUFR so far
- New road map in discussion (on line)
- Session planned at IUGC 2024 (Sweden)
- Regular virtual meetings



Alignment with standards

The OG 1.0 format is being developed for the GOOS network to achieve a minimum level of interoperability globally

Designed for broad oceanographic community interoperability

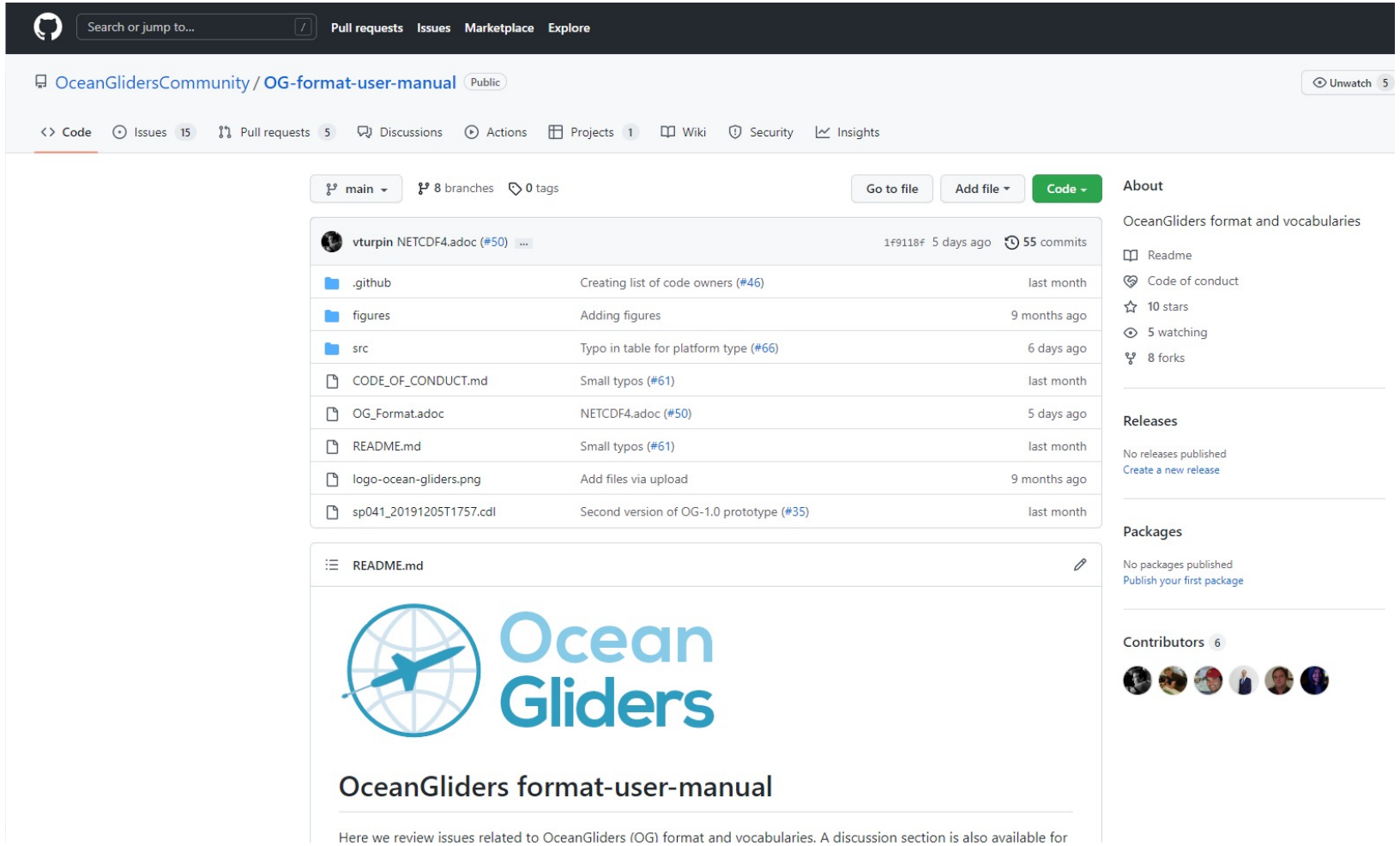


Community governance via GitHub

GitHub repository includes:

- Documentation
- Issues
- Pull requests with approvals
- Example files

https://github.com/OceanGlidersCommunity/OG-format-user-manual



Collection OG1

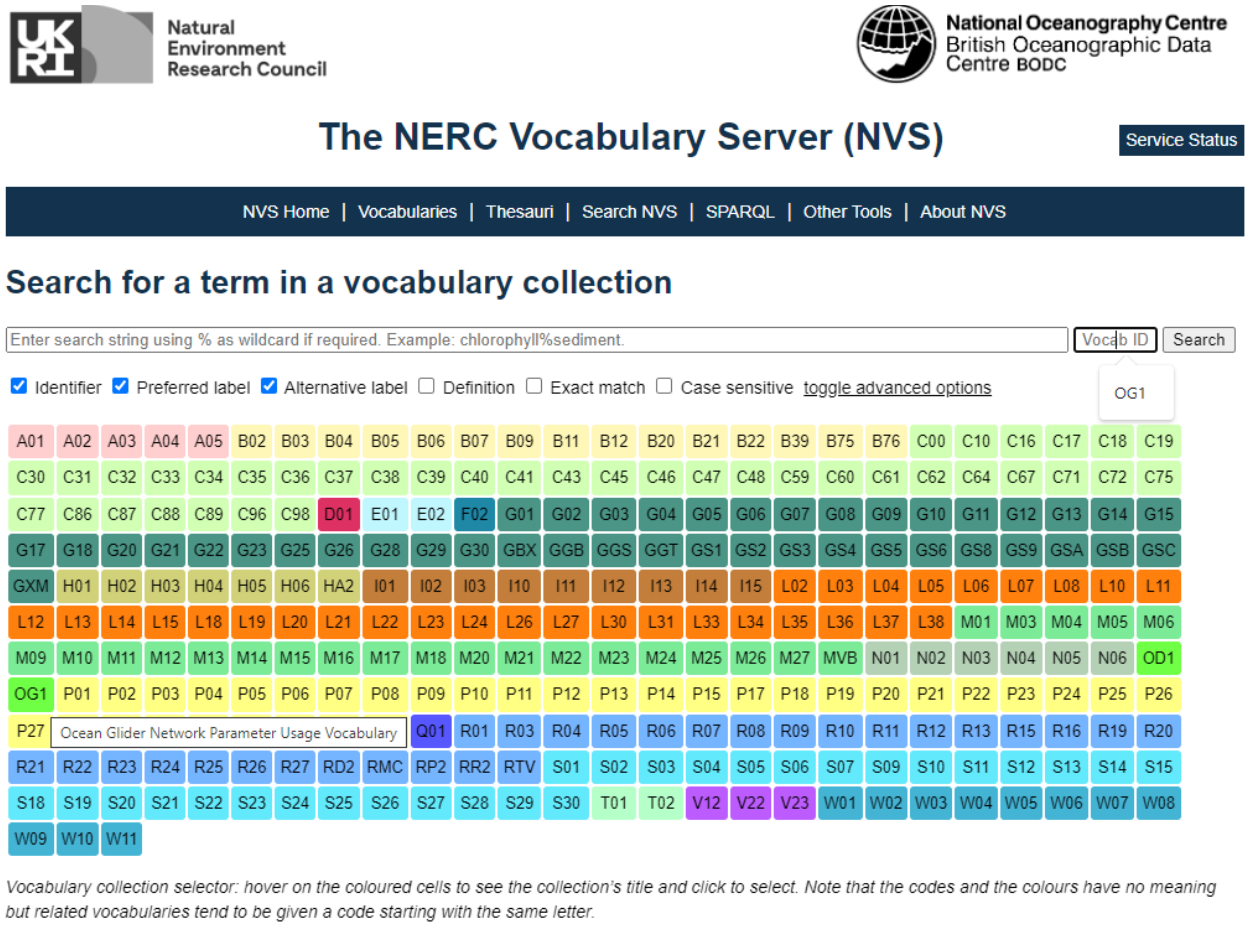
OG1 - Ocean Glider Network Parameter Usage Vocabulary

URI- https://vocab.nerc.ac.uk/collection/OG1/current/

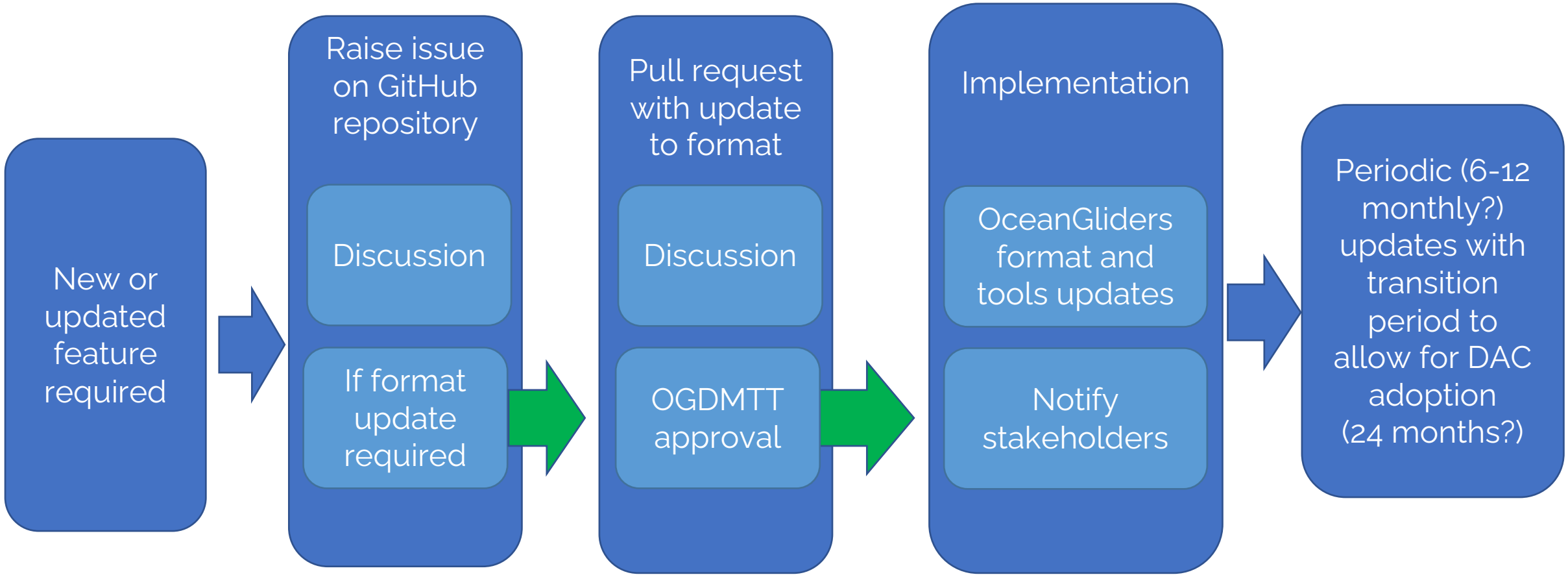
Governed by the Ocean Glider Data Management Task Team

89 terms (June 2022)

I2. (Meta)data use vocabularies that follow FAIR principles



OG 1.0 format evolution



Current status of the format

To be officially released at IUGC, Sweden (June 2024)

We encourage those with an interest and/or dependency in the format to engage with us via GitHub or directly.

Role of GROOM RI

Effort to formalize plan for glider-specific infrastructure, including data management

- Ending March 2024
- Documented plan
- Possible ESFRI application
- AMRIT (Advance Marine Research Infrastructures Together) now funded

Roadmap — GROOM II → **CHECK OUR DETAILED ROADMAP HERE**

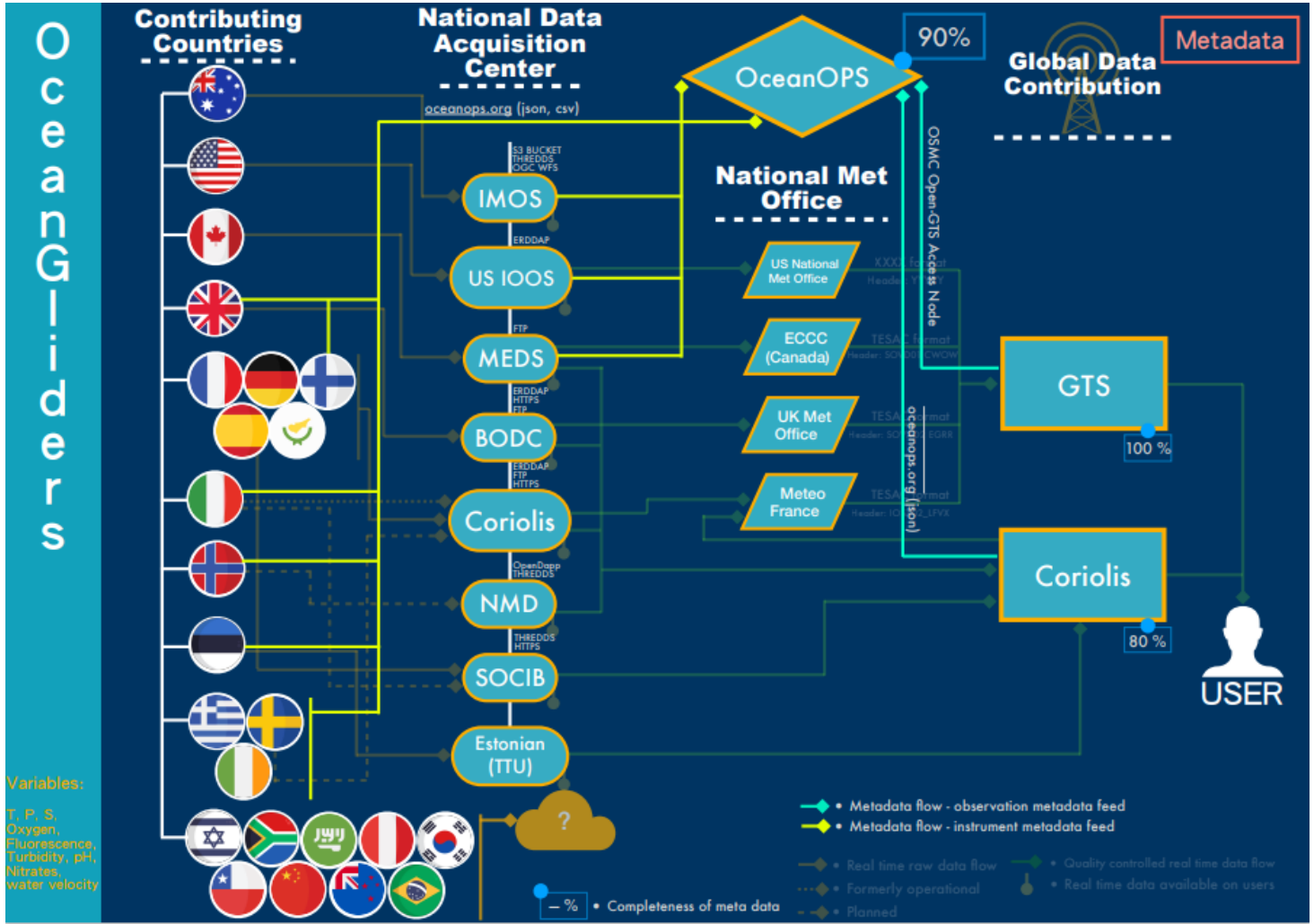
Research Infrastructure data management	1-2 years	5 years	10 years
Infrastructure	• Proposed structure for future developement (cloud-native services & open-source community development) • International agreement • Define the data portal's scope	• Operational exemplars of DAC & GDAC managed whith open-source community & deployed in EOSC • Tools and services aligned with international policies • Operational data portal	• Open source solutions for DAC & GDAC management (OceanGliders community) • Unambiguous and seamless data flows
Tools and services	• Scoping of FAIR data • Meeting with OceanGliders 1.0 format • Data visualisation requirements • WIS 2.0 - BUFR implementation • RTQC consensus on standard tests • Integration data methodologies into OBS framework	• FAIR data alignment with IOC data policy • Data visualisation and user interface for priority • WIS 2.0 - BUFR implemented • RTQC - standard tools • DMQC - 1-2 EOVs + cloud native tools • Alignment and publication of data methodologies whit OBS framework	• Data visualisation and user interface to meet the diverse range of users • RTQC- Operational BGC RTQC • DMQC - 90% of observed EOVs allowing for new ones to come through + cloud native tools • Sustainable & efficient route for new EOVs
Network management	• Agreement of the scope of MAS • Scope tools to harmonize metadata management & planning tools for EOOS observations	• Sensor and platform metadata integrated into the EOOS • Complete vocabulary collections • Agreement of the scope of MAS • Tools to harmonize metada management & planning tools for observations accross marine RI	• Planning and network management integrated in the EOOS • Globally recognised processes to entrain new sensors and platforms
Network evolution	• New networking groups on emerging sensors and platforms • Scope processes to entrain new sensors and capabilities	• Process to entrain new sensors and capabilities as part of wider OG activity	• Globally recognised processes to entrain new sensors and platforms
Skills and training	• Data skills audit	• Training courses on the gaps in data skills	• Training network and activities
The GROOM RI user community	• Define the user community	• Establish coordination groups and committees	• Sustainable data user community

Role of EmodNET, Coriolis, Copernicus

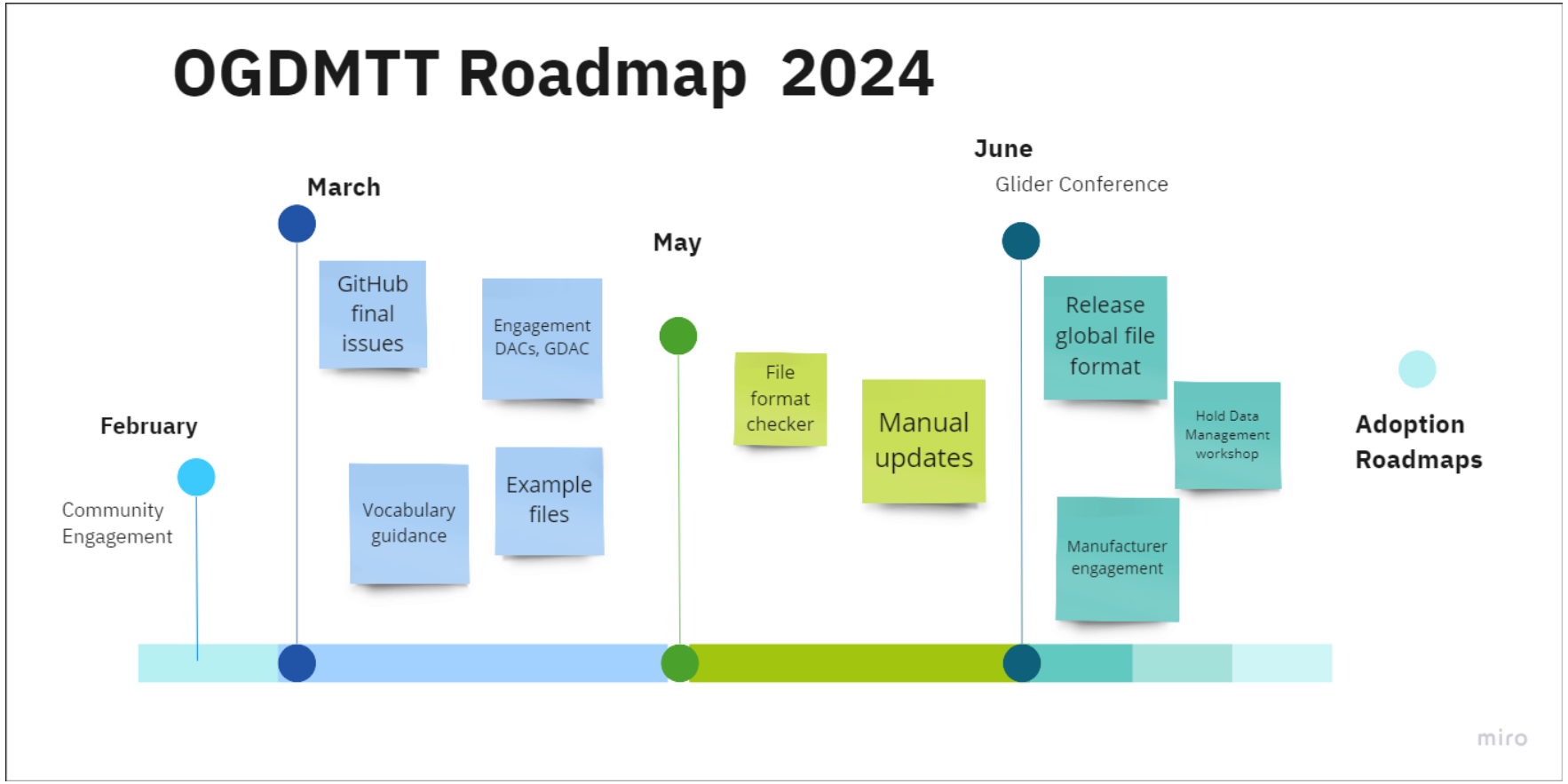
Effort to harmonize data flow and QC

- Complicated pathways for metadata and data
- Next speakers
- Next tasks in OGDMTT to help

From Victor Turpin, OceanOPS



Future Plans



Led by Emma Gardner, NOC

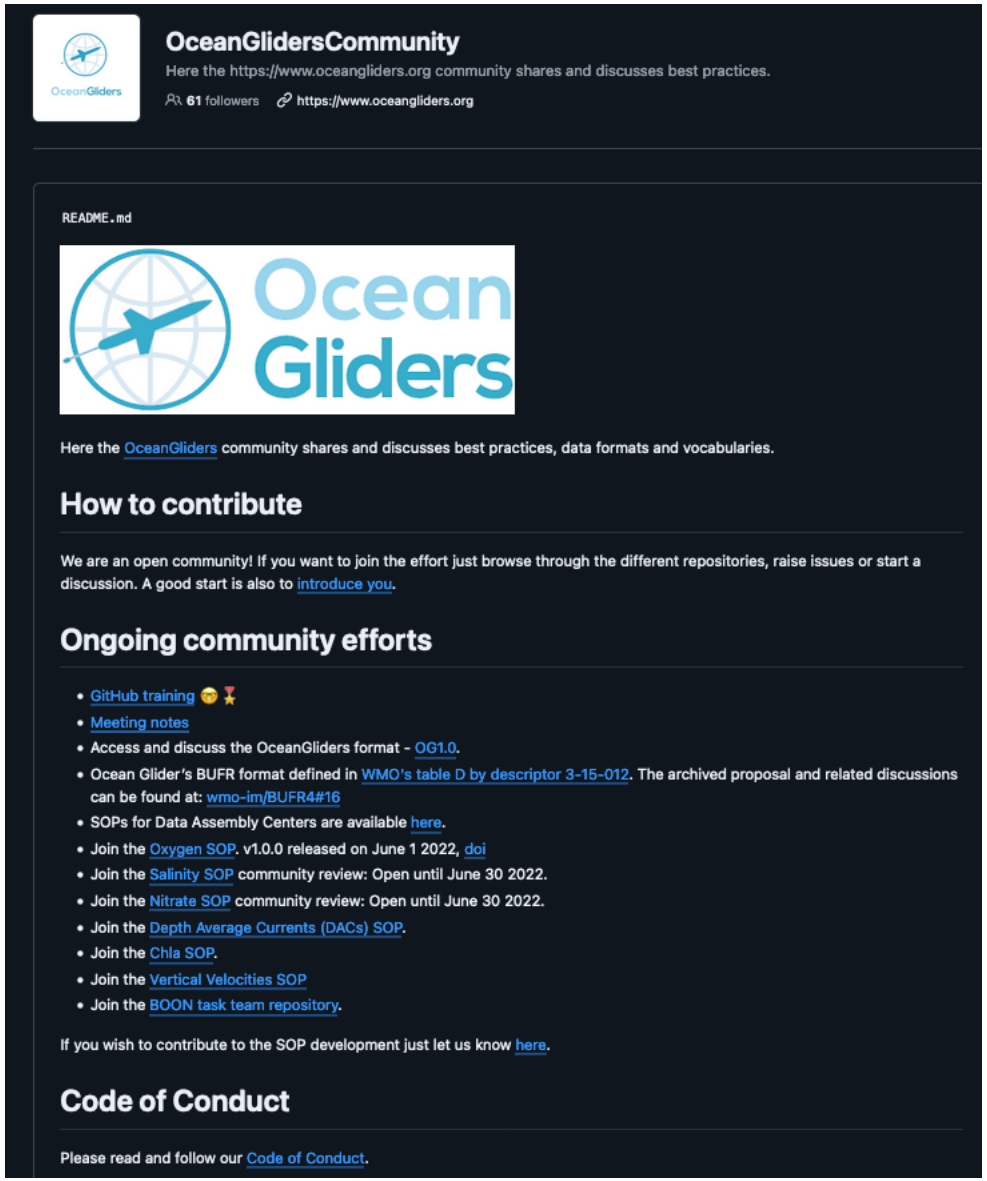
Future Plans (OGDMTT)

OG1.0 assimilation plan by Coriolis	Such plan would allow data providers to plan their own assimilation of the new format
RTQC	Register the decisions made along a few meetings in the past years. Similar to what was done for the data format, identify the common procedures used, and recommendations to be used. Connection to the OBPS.
Vocabularies	common database of SDN vocab codes for sensor data
delayed mode workflow - PI - DAC - GDAC?	Connection to the OBPS.
Federation from DAC to GDAC	
investigate which technical parameters to include in community format	
Global architecture	Central place to archive OceanGliders data under unique format?
Compliance checker	Be able to validate metadata
OG1.0 ADoption Roadmap	OG1.0 is a significant departure from the previous formats. DAC users may have processing chains written to work with the previous formats. A clear adoption plan needs to be created; will legacy formats and the new format coexist?. What are the timelines?
Alternative data format using groups	The feature groups is already used internally, so why not standardize early what could be one day a common public format? Note: It must be fully compatible with the main format (flat file without groups)
Example dataset on ERDDAP	Have a reference point for new users
OGDM Task Team work organisation	How to make progress, report, review on any topic
Merging the OG1.0 format and IOOS format?	Have a target date when both IOOS and OG 1.0 has the same format and announce it to users.

Led by Emma Gardner, NOC

How to get involved

- GitHub (OG1.0, BUFR, SOPs around parameters: HERE
- Road Map: HERE
- Last minutes discussing status: HERE



OceanGlidersCommunity

Here the https://www.oceangliders.org community shares and discusses best practices.

61 followers https://www.oceangliders.org

README.md

Here the OceanGliders community shares and discusses best practices, data formats and vocabularies.

How to contribute

We are an open community! If you want to join the effort just browse through the different repositories, raise issues or start a discussion. A good start is also to introduce you.

Ongoing community efforts

- GitHub training
- Meeting notes
- Access and discuss the OceanGliders format - OG1.0.
- Ocean Glider's BUFR format defined in WMO's table D by descriptor 3-15-012. The archived proposal and related discussions can be found at: wmo-im/BUFR4#16
- SOPs for Data Assembly Centers are available here.
- Join the Oxygen SOP. v1.0.0 released on June 1 2022, doi
- Join the Salinity SOP community review: Open until June 30 2022.
- Join the Nitrate SOP community review: Open until June 30 2022.
- Join the Depth Average Currents (DACs) SOP.
- Join the Chla SOP.
- Join the Vertical Velocities SOP
- Join the BOON task team repository.

If you wish to contribute to the SOP development just let us know here.

Code of Conduct

Please read and follow our Code of Conduct.

Thank you from the OGDMTT Steering Team

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