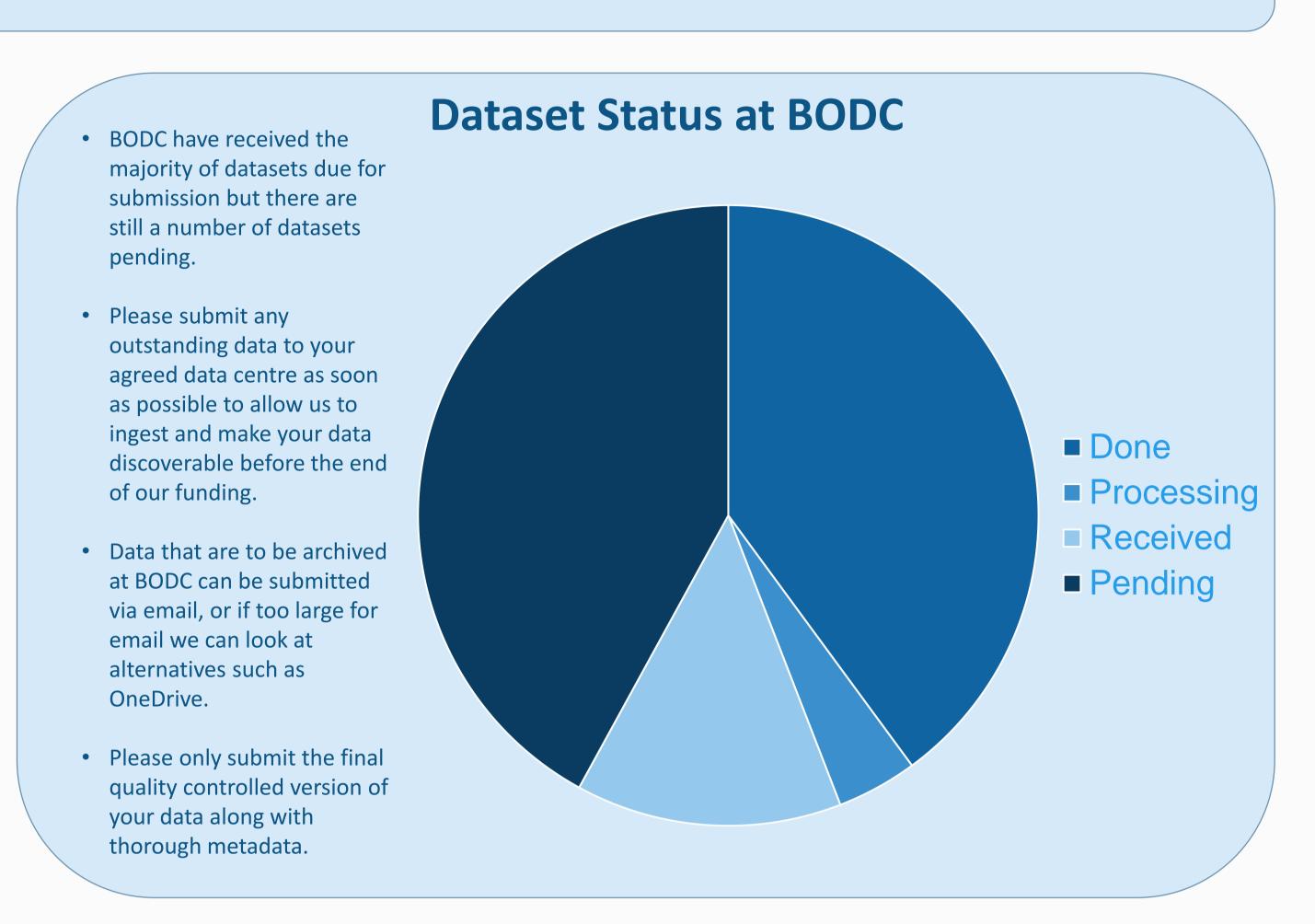


Changing Arctic Ocean Data Management

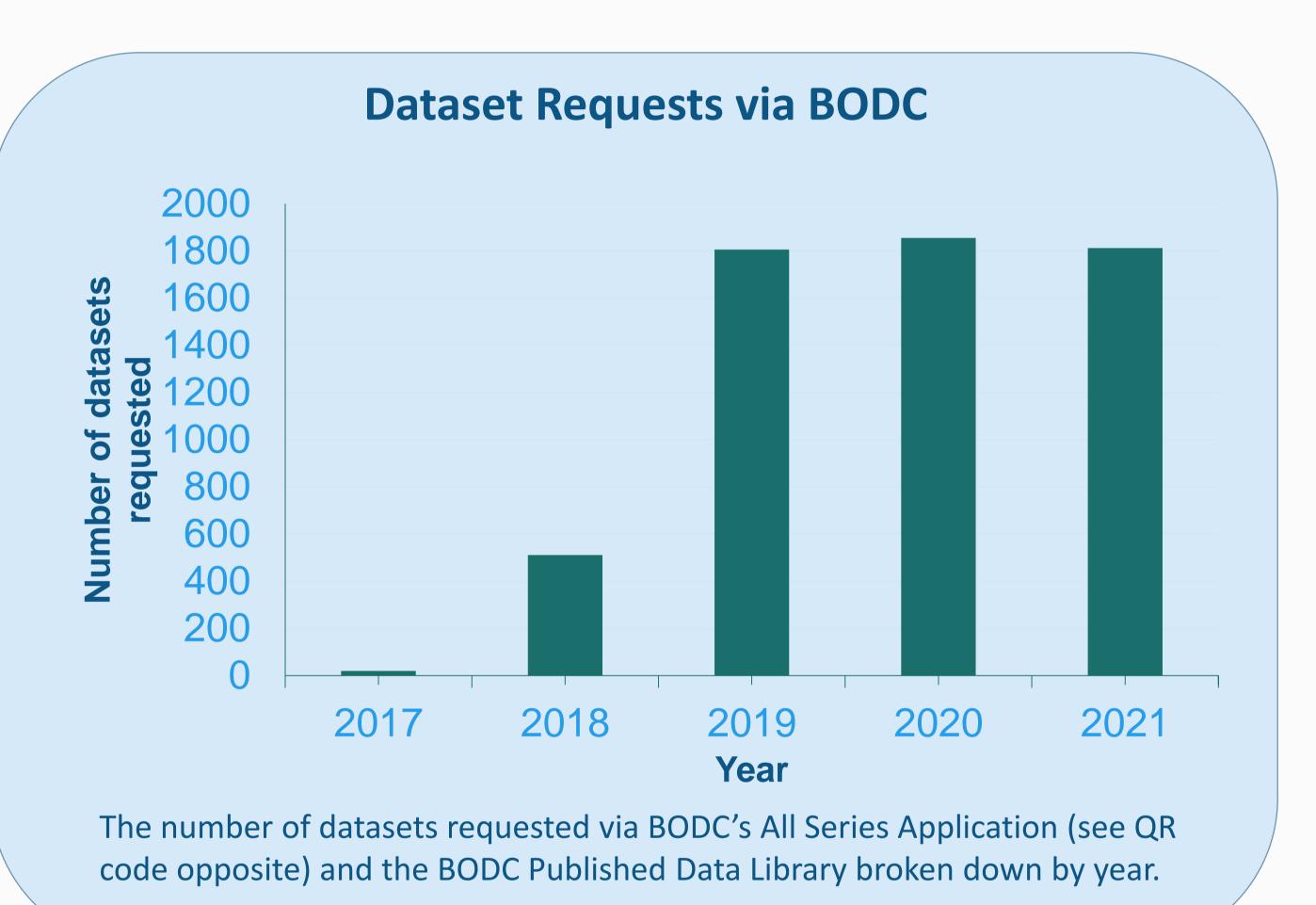
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British Oceanographic Data Centre, National Oceanography Centre

Data generated in the Changing Arctic Ocean (CAO) programme are managed between multiple data centres depending on the funding and data type. In the UK the data have been managed jointly between NOC British Oceanographic Data Centre (BODC) and BAS Polar Data Centre (PDC) with Pangea being the primary data centre for any German funded datasets. Each data centre apply in house procedures and make the dataset discoverable online, often accompanied by a Digital Object Identifier (DOI) for the dataset. This poster primarily looks at the data management of CAO data at BODC.

How data are managed at BODC Data Data are submitted to BODC received Accession Data are securely archived along with the metadata, and an accession is created with some key information, describing and giving context to the dataset & archive Dataset is processed and quality controlled using established BODC procedures, links are made with Data other related datasets, controlled vocabularies are applied, and data are transferred to a noningestion proprietary format Metadata Documentation is produced, describing the dataset, this includes linking to a European Directory of Marine Environmental Data (EDMED) record, which enhances the discoverability of the dataset records If requested, a Digital Object Identifier (DOI) will be minted for the dataset, allowing the dataset to be DOI Data The dataset is then considered ready for exposure, and will be available to download via the 'all series' website application, or ready to be served if requested via the BODC requests team exposed



Data Discoverability Data are discoverable and downloadable via a number of data portals depending on where the data are submitted. Data held by the Polar Data Centre are accessible via the PDC Discovery Metadata System (DMS): https://data.bas.ac.uk/. PDC data requests can be made through DMS or by emailing polardatacentre@bas.ac.uk. Data that were funded by the BMBF are archived at Pangaea - https://www.pangaea.de/. At BODC all Changing Arctic Ocean data are grouped together under an European Directory of Marine Environmental Data (EDMED) record which makes the data discoverable in European data infrastructure. Data processed and ingested by BODC are available for download through the 'All Data Series' application. This allows for filtering to aid accurate searching of data. Changing Arctic Ocean Programme Oceanographic dataset (2017-present) Changing Arctic Ocean Programme Oceanographic dataset (2017-present) Changing Arctic Ocean Programme Oceanographic dataset (2017-present)



Digital Object Identifiers (DOIs)

https://www.bodc.ac.uk/resources/inventories/edmed/report/6777/

The BODC **Published Data Library** provides snapshots of datasets that are archived using rigorous version management. This enables **citation**, such as in journal papers, through the assignment of a DOI in collaboration with the British Library.

There is increasing pressure from the scientific community for a **linkage** between **papers** published in the scientific literature and the **data** upon which they are based, and for a mechanism to **reward data collection** through **citation**.

The publication process exposes a **fixed copy** of an object and then manages that copy in such a way that it may be located and referred to over an **indefinite period of time**. There is a fundamental assumption that the copy of the object will be exactly the same each time it is referenced.

Benefits of a DOI:

- Provides a persistent link to your dataset
- Allows **credit** to be attributed to your work
- Allows data reuse and interoperability

BODC have published 56 DOIs for the Changing Arctic Ocean programme to date with 214 downloads.

PDC have published an additional 18 DOIs for the programme.

Year	Number of DOIs minted by BODC
2018	1
2019	13
2020	29
2021	13
TOTAL	56

