



Starting a new digital preservation programme in an old organisation



British
Geological
Survey

My journey into digital preservation


What was the problem (2013)?

- BGS had been around since 1837, the data centre since 1980s = we had LOTS OF STUFF of all sorts of formats, on all sorts of media, and of varying quality everywhere!
- Clearing out ROT = Old research project data also left on BGS shared drive – data was not FAIR
- Managing Objective EDRMS = what should we do with records with permanent retention?
- National Geoscience Data Centre (NGDC) = TNA Place of Deposit – but this only applied on analogue records

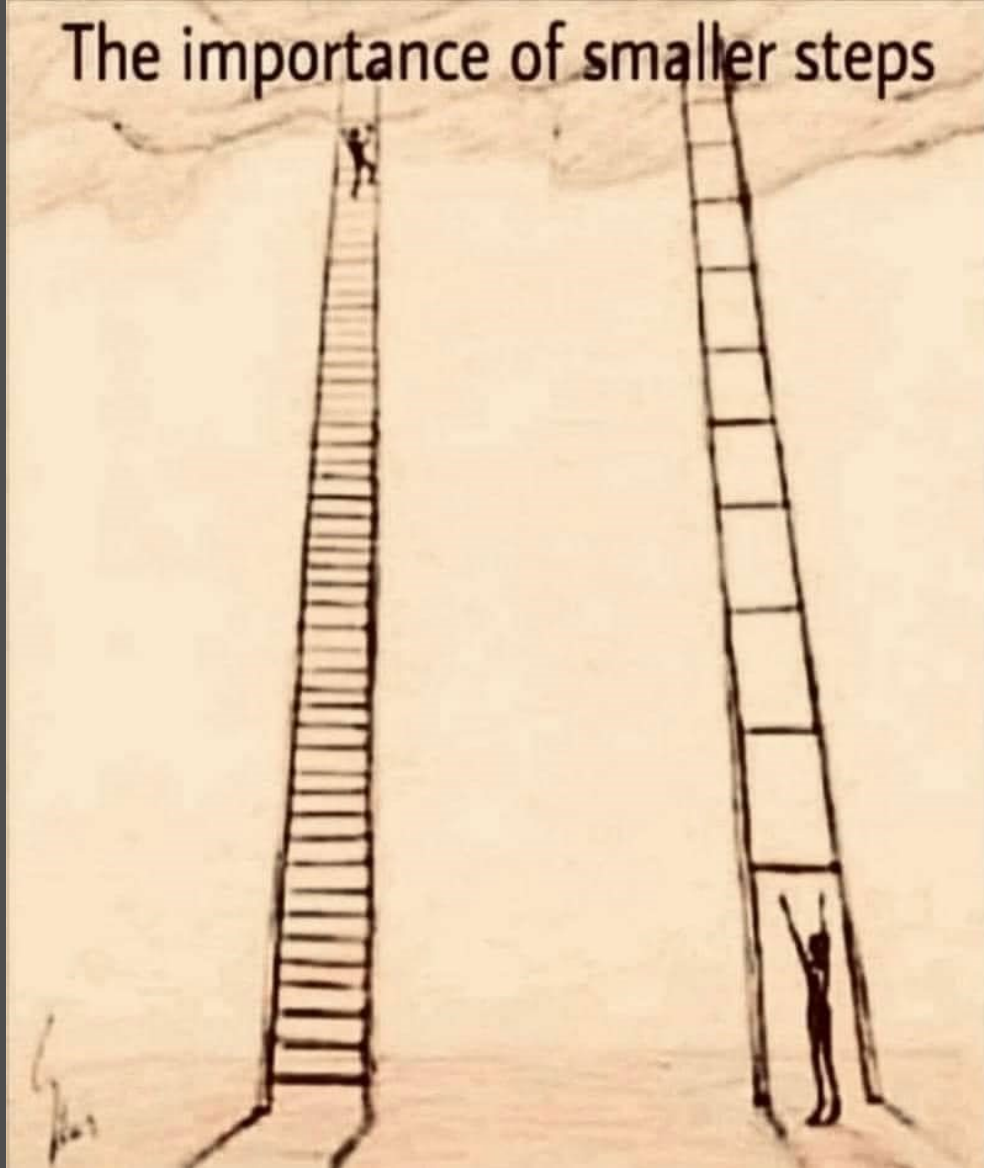


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Starting to tackle the problem 2014 – 2016

- Convinced BGS to fund my MSc in Information and Record Management and started learning!
 - Joined the DPC under the UKRI umbrella and started networking!
 - Dissertation “*Exploring digital preservation requirements: A case study from the National Geoscience Data Centre (NGDC)*” and started implementing!
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The importance of smaller steps



Sisu

Sisu (see'-soo) **noun**

Extraordinary endurance in the face of adversity • persistence, determination, guts • full of courage, tenacity, resolve, willpower, and an indomitable spirit

Building awareness and capability at BGS

- <https://www.bgs.ac.uk/news/byte-by-byte-developing-our-digital-preservation-capability/>
- Annual BGS instance of World Digital Preservation Day since its inauguration in 2017
- In-house Research Data Management annual training course to develop best practice amongst PhD students



External engagement

- Member of a number of DPC sub-committees
- Writing and publishing articles and blogs (RMJ, IRMS bulletin, BGS and DPC websites)
- Giving talks about our work at major conferences (IRMS Conference, DLM Forum, PV2018, iPres 2019)
- Giving talks at online workshops (ICA Third Workshop on Scientific Archives, eArchiving Geospatial Digital Records Preservation, DPC, RDA)



Expanding the programme

- 2017 Digital Preservation Policy V.1.
- 2018 DP Business Case approved
2018 CoreTrustSeal Certification
- 2019 DP Strategy V.1.
2019 Digital Research Data Survey
- 2020 Internal Report on Survey Findings
2020 DP Policy V.2.
- 2021 First BGS DP Team set up
2021 CoreTrustSeal Recertification
- 2022 DP Strategy being updated
- **2022-2023 - Department restructuring**



2023 onwards = part of BGS Data Governance

Long-term content preservation across BGS and NGDC

Digital preservation

BGS have a digital preservation team whose task it is to implement the [BGS digital preservation policy](#) and introduce best practice at BGS to ensure our research data assets remains robust and reusable in the long-term. It is led by [Jaana Pinnick](#) who can provide guidance to you. We also want to hear about any preservation challenges you have and help you find appropriate solutions.

Objective (EDRMS)

The BGS corporate system for electronic documents and records is Objective. To request new files and add users, or for other EDRMS queries contact [UKRI Records Management Team](#).

BGS digital tape archive

BGS maintains a tape archive for storing older digital content which we still need to retain but which does not require instant access. Data stored in the tape archive releases space on the active SAN and in most cases can be retrieved within 24 hours. For more information contact [Claire Shelley](#) or [Sally Stolworthy](#).

Physical data preservation

BGS has been developing expertise in storing physical samples for almost 200 years. The team can advise on the best storage strategy for all kinds of geological samples, from large drill core to microscope slides and everything in-between. By ensuring samples are stored and identified correctly they can be accessed many years later in order to verify existing research or to employ new analytical techniques.

- [Drillcore related enquiries](#)
- [Palaeontology, mineralogy and petrology collections](#)

BGS Library

The BGS library is part of a wider network, all information in regards to this can be found on the [NERC Library Service pages](#).

BGS corporate archive

The [BGS corporate archive](#) holds the administrative records of the Survey, records relating to Survey staff and records of individuals or groups in related fields. The archivist is [Andrew L Morrison](#) who can provide more information about the collections.

WDPD at BGS

Focus in 2023:

Merging the Digital Preservation Team and the new Data and Information Governance (DIG) Programme

Themes in 2023:

- Getting rid of ROT
- Environmental sustainability
- Launch of BGS DIG policy

Benefits of archiving your data with the National Geoscience Data Centre (NGDC)



Depositing datasets with the NGDC ensures that important research data will remain reusable in the long term. Whilst the Data Centre may not be there indefinitely, it has a better chance of surviving 100 years than people or single storage media.

Depositing data through the NGDC Data Deposit Portal is a straight-forward process. The portal helps you provide the data and associated metadata, as well as other relevant supporting documentation to facilitate future re-use. <https://www.bgs.ac.uk/services/ngdc/guidelines.html> (see image on the right).

Transferring data to the NGDC with appropriate terms and conditions improves safer and wider data sharing, as data on the BGS shared drives cannot be accessed by project partners and other external users and generates limited impact.



How deposited data DOIs can lead to unexpected discoveries



Dr Ciaran Beggan, Geophysicist, Edinburgh

In 2017, BGS geophysicist Ciaran Beggan was conducting research on the magnetic field of the ionosphere using data from an instrument at Eskdalemuir Observatory. The research involved processing a large amount of magnetic data and extracting key parameters of the magnetic vibrations at high frequency. Following the project end, a peer reviewed paper was published and the underlying dataset was deposited with the NGDC which was provided with a digital object identifier (DOI) to which they could refer to in publications. This process ensured their data adhered to FAIR principles and was reusable into the future.

"I find the process of depositing my data with the NGDC and generating a DOI to be very easy. I now deposit my data to make it available to other researchers."

Ciaran Beggan, BGS

Through the assigned DOI, access to the dataset was open. This allowed the data to be reused and reapplied by a group of Hungarian researchers at Nagyöcsény Observatory who were investigating how global lightning is affected by the El Niño Southern Oscillation (ENSO), which is a warmer and cooling of the oceans. Eskdalemuir is sited along the great-circle path which senses lightning changes in the Indian Ocean which is responsive to El Niño variations. The Hungarian group showed that there is a strong pre-cursor increase in lightning detected at Eskdalemuir prior to a large ENSO, making it useful for predictions (Williams et al, 2021).

By facilitating this open access, the original data could be reapplied in a completely new way, not first envisioned at initial collection and allows recognition of the efforts that BGS make to collect the data.

DIGITAL EVENTS PROJECT (RGGE) RAN FROM 1995-1998, OF CLIMATIC CHANGES ON MODERN SEDIMENTS. THE WORK AND FIELD TESTING, AND WENT ON TO SUPPORT A. FOLLOWING COMPLETION OF THE PROJECT MUCH OF THE PRETATIONS WERE STORED IN AN OPENLY ACCESSIBLE OF 2020, THE WEBSITE WAS NO LONGER ACCESSIBLE AND,

THIS DATASET WAS MIRACULOUSLY SAVED AND DEPOSITED



**Keep in
touch!**

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