All compulsory questions have been answered, DMP ready for review.

If you need to update your data centre, please refer to Chapter 6.

NERC Environmental Data Service
Grant Data Management Plan

Grant name:	Great British Chemicals
NERC ID:	UKRI/EP/C002199/1
Grant Reference:	UKRI/EP/C002199/1

Document Details

Creation Date:	14:45, February 17, 2026
Based on:	NERC EDS DMP, 0.0.21 (nerceds:nerc-eds-dmp:0.0.21)
Description:	This Data Management Plan (DMP) summarises the data management tasks and responsibilities in your science grant. It is a live document to be updated with content as required and reviewed during the lifetime of the grant.
Copyright of DMP:	Natural Environment Research Council
Scope of DMP:	*This Data Management Plan document summarises staff responsibilities, data collection policies, resourcing of data management, data quality, IPR considerations, policies on access to data and data dissemination during the grant and arrangements for long-term management of data beyond the project. Necessary details are set out in supplementary documents stored with key grant documentation.*

Policies applicable to data and models in this research:	Data Protection Act 2018, General Data Protection Regulation (GDPR) NERC Data Policy
Created by:	()

Timeline

First 3-6 months of grant:	We will identify what datasets will be generated and will work with a NERC data centre to update the proposal DMP to fully consider all planned data activities during the grant.
During the grant:	We will review the DMP regularly (at least annually) and update as necessary to reflect changes. Detailed planning will start for the deposit of any datasets identified as of long-term value 6-9 months before grant end.
End of grant:	We will review the DMP to confirm that the Preservation Plan has been implemented for each dataset identified as of long-term value.

**Datasets can and should be deposited to the relevant NERC data centre as soon as they are complete. The data centre will issue a Digital Object Identifier (DOI) and implement any agreed embargo on data access.*

|In this document, blockquotes are used to highlight detailed responses provided by users in free-text questionnaire answers.|

DOIs issued for datasets archived at a NERC data centre can be used as a persistent citation reference and link to discover information about the dataset. Archiving data at the NERC data centre (or agreed alternative) will help you meet NERC Data Policy, satisfy the requirements of science journals and the NERC Data Centres, comply with legal data-sharing obligations under UK law and can ensure their reusability in the future for you and the scientific community as a whole.

1. Grant Information

Grant Title:	Great British Chemicals
Grant Acronym:	GBC
NERC ID:	UKRI/EP/C002199/1
Grant Reference:	UKRI/EP/C002199/1
Proposal:	More information on the proposal can be found here.
Grant Start:	2025-08-01
Grant End:	2032-07-31
Funders:	Engineering and Physical Sciences Research Council (EPSRC) (We are aware of the funders data policy and data requirements.) Natural Environment Research Council (NERC) (We are aware of the funders data policy and data requirements.)
Contributors:	**Primary contact:** Tom Franklin (University of Sheffield), Nimisha Tripathi (University of Greenwich) **Grant manager:** Tom Franklin (University of Sheffield) **Data manager:** Nimisha Tripathi (University of Greenwich) **Quality manager:** Peter Styring (University of Sheffield), Elizabeth Gibson (Newcastle University), Mike George (University of Nottingham) **Researcher:** Nimisha Tripathi (University of Greenwich), Peter Styring (University of Sheffield), Elizabeth Gibson (Newcastle University), Mike George (University of Nottingham), Alberto Roldan-Martinez (Cardiff University), Alex Cowan (University of Liverpool), Alex Hughes (Newcastle University), Arze Karam (Durham University), Chris Hardacre (University of Manchester), Colin Hills (University of Greenwich), David Lewis (University of Manchester), Fanran Meng (University of Sheffield), James McGregor (University of Sheffield), James Rae (University of St Andrews), John Irvine (University of St Andrews), Jon Mckechnie (University of Nottingham), Maria Val Martin (University of Sheffield), Martyn Poliakoff (University of Nottingham), Matt Rosseinsky (University of Liverpool), Mo Zandi (University of Sheffield), Oliver Heidrich (Newcastle University), Paul Webb (University of St Andrews), Peter Licence (University of Nottingham), Rachel Smith (University of Sheffield), Richard Catlow (Cardiff University), Russell Davenport (Newcastle

University), Sergio Vernuccio (University of Southampton), Tom Howard (Newcastle University), Trevor Farren (University of Nottingham), Umair Jamal (University of Sheffield)

We are not yet sure if this project will require more than one full DMP.

2. Re-using data

2.1 Existing datasets used in this grant

Third party or existing datasets that will be used for this grant:

Dataset/Database title: EcoInvent

Brief description: LCA and TEA data

Data are available from: An external partner, A repository

Conditions of use: It is available under a different licence , Commercial licence

Format of third party data: tabular, numerical

Size/Quantity: Not applicable (data not stored locally)

Person Responsible for Third Party Data: Information not supplied.

Dataset/Database title: GaBi

Brief description: LCA and TEA data

Data are available from: An external partner, A repository

Conditions of use: It is available under a different licence , Commercial licence

Format of third party data: numerical, tabular

Size/Quantity: Not applicable (data not stored locally)

Person Responsible for Third Party Data: Information not supplied.

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3. Creating and collecting data

This project will create or collect environmental research data, models or other data-related tools.

Observational or experimental data

We will acquire observational or experimental data in this project.

Observational or experimental data will be collected by:

- External party
- Staff in the grant, with our own or third party equipment

We will be using instruments or facilities to collect data.

We will be using the following quality control processes:

- Calibrating measurements
- Running repeat samples or repeating measurements
- Using standard or described data capture methods commonly used in our field
- Processes to validate or check data during or upon collection before further analysis
- Processes to automatically test data for correctness when recording/entering into a database
- Using controlled vocabularies

A wide range of researchers could be interested in our data, and therefore we need a plan to publish our data.

Models

We will use the following to generate new datasets:

- New model(s) produced by this grant
- New versions of pre-existing model(s)
- Pre-existing, documented model(s)

We will not make the model output available to others because there are licensing restrictions to consider

Information products

We will produce an information product as part of this project.

Other data types

Type of data collected:

- Questionnaires/surveys

Physical samples

We will be storing physical samples. The place(s) of storage during the grant will be:

- Laboratories of the partner institutions
- Third-party industrial collaborators

Data formats

The data produced by this project will be in the following format(s):

- Comma-Separated Values (csv)
- Graphics Interchange Format (gif)
- Portable Document Format (pdf)
- JPEG/JPEG2000 (jpeg, jpg, jp2)
- Raw data (all)
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CARE Principles

The CARE principles do not apply to the data in this project.

4. Processing and analysing data

This project is processing or analysing data.

File system and data storage

We are using a file system with files and folders to store data.

We will not be using a relational database to store data.

Shared workspace

We will not be using a shared workspace during this grant.

5. Preserving and sharing data

Data volume is > 100 GB but < 1 TB so might cause an issue with storage or costs

Our data cannot become completely open, with or without an embargo period.

There are legal reasons why (some of) our data cannot be completely open. There are no privacy reasons why our data cannot be open.

There are IP reasons why our data cannot be open.

It is clear who owns the data and documents. Someone will be given decision power to move documents or data to a new place after the project has finished.

5.1 Datasets this grant plans to create

Environmental Datasets

Title	Description	Format	License	Size	IPR	Is data derived?	Date Generated	Preservation Plan	Deposit Date	Embargo	Repository	Person Responsible
Environmental datasets	Green chemicals/LCA, digital twins, hazard assessment, sustainable chemical production. While these may not generate environmental occurrence or toxicity data in real samples, these still are relevant environmental datasets.	Comma-Separated Values (csv) No specific software required.	available under another licence: TBC, Potentially commercially sensitive data	Between 100GB and 1TB	Newcastle University and others	Partially	2032-06-30	**Sent to a repository.**	2032-06-30	Yes - up to the maximum allowable under the NERC data policy	**National Geoscience Data Centre (NGDC)**	Nimisha Tripathi, Russell Davenport

Information Products

Title	Description	Format	License	Size	IPR	Is data derived?	Date Generated	Preservation Plan	Deposit Date	Embargo	Repository	Person Responsible
Simulations of Electrochemistry	Data out from the model (listed below) to	Comma-Separated Values (csv)	available under another	Between 1GB and 100GB	Cardiff University	No	2028-07-31	**Sent to a repository.**	2028-07-31	Would like to discuss	National Geoscience	Alberto Roldan-Martinez

Title	Description	Format	License	Size	IPR	Is data derived?	Date Generated	Preservation Plan	Deposit Date	Embargo	Repository	Person Responsible
Interface Dynamics	understand interactions and dynamics at electrode interfaces	No specific software required.	licence: Information not supplied.							with Data Centre	Data Centre (NGDC)	
Microkinetic Modelling of Photocatalytic Transformations	Data generated as a result of the microkinetic modelling (listed below) of photocatalytic transformations for CO2 reduction and H2 production	Comma-Separated Values (csv) No specific software required.	available under another licence: Information not supplied.	Between 1GB and 100GB	University of Southampton	No	2028-07-31	**Sent to a repository.**	2028-07-31	Would like to discuss with Data Centre	National Geoscience Data Centre (NGDC)	Sergio Vernuccio
Digital Twin of the UK Chemical Supply Chain	Data resulting from modelling the resource flows with the UK chemical sector via a digital twin	Comma-Separated Values (csv) **Specific software required**: Siemens Technomatix, https://plm.sw.siemens.com/en-US/tecnomatix/;	available under another licence: Information not supplied.	Between 1GB and 100GB	University of Sheffield, Siemens	Partially	2028-07-31	**Sent to a repository.**	2032-07-31	Would like to discuss with Data Centre	National Geoscience Data Centre (NGDC)	Mo Zandi
LCA, TEA and MFA Data	Life cycle assessment (LCA), techno-economic analysis (TEA) and material flow analysis (MFA) data generated to understand the economic viability and technological readiness of novel technologies for	Comma-Separated Values (csv) **Specific software required**: SimaPro, https://simapro.com/craft/; GaBi/Sphera, https://sphera.com/;	available under another licence: Information not supplied.	Between 100GB and 1TB	University of Sheffield, University of Nottingham, Newcastle University	Partially	2028-07-31	**Sent to a repository.**	2032-07-31	Would like to discuss with Data Centre	National Geoscience Data Centre (NGDC)	Fanran Meng, Jon Mckechnie, Oliver Heidrich

Title	Description	Format	License	Size	IPR	Is data derived?	Date Generated	Preservation Plan	Deposit Date	Embargo	Repository	Person Responsible
	the UK chemical sector.											

5.2 Models this grant plans to create

Title	Description	Date created	Preservation Plan	Deposit Date	Embargo	Repository	Person Responsible
Electrochemistry Interface Model	Used for studying the interactions and dynamics occurring at electrodes during electrochemical reactions	2028-07-31	**Retained or archived in a public github repository or other versioned code repository.** We will not be adding a reference to the published model to at least one catalogue, the model will be stored in a repository that is the prime source for re-use in the field.	2028-07-31	Would like to discuss with Data Centre	**Code repository URL not given or not yet known** We will provide metadata alongside the published model. There will not be different versions of this model over time. **No specific software** required.	Alberto Roldan-Martinez
Microkinetic Model of Photocatalytic Transformations	Used to study CO2 reduction and H2 production under processes conducted under visible light irradiation	2028-07-31	**Retained or archived in a public github repository or other versioned code repository.** We will not be adding a reference to the published model to at least one catalogue, the model will be stored in a repository that is the prime source for re-use in the field.	2028-07-31	Would like to discuss with Data Centre	**Code repository URL not given or not yet known** We will provide metadata alongside the published model. There will not be different versions of this model over time. **No specific software** required.	Sergio Vernuccio
Digital Twin of the UK Chemical Supply Chain	An AI-driven model depicting the UK chemical supply chain to	2028-07-31	**Retained or archived in a public github repository or other**	2032-07-31	Would like to discuss with Data Centre	**Code repository URL not given or not yet known** We will provide metadata	Mo Zandi

Title	Description	Date created	Preservation Plan	Deposit Date	Embargo	Repository	Person Responsible
	better understand resource flows and exploitation opportunities		**versioned code repository.** We will not be adding a reference to the published model to at least one catalogue, the model will be stored in a repository that is the prime source for re-use in the field.			alongside the published model. There will not be different versions of this model over time. **Specific software** required: https://plm.sw.siemens.com/en-US/tecnomatix/;	

5.4 Physical samples this grant plans to collect

Title	Description	Size	Owner	Preservation Plan
Catalysts	Catalysts for CO2 conversion to chemicals	Small	University of Liverpool, University of Sheffield, University of Manchester	It will be archived in the following specialised facility: University storage (at respective institutions) and will be kept as long as technically possible
Chemicals from captured CO2	Chemicals derived from the conversion of CO2 - alcohols, olefins, C10-14 molecules	Medium	University of Sheffield, University of Liverpool, University of Manchester, University of St Andrews	It will be archived in the following specialised facility: University storage (at respective institutions) and will be kept as long as technically possible
Captured CO2	Captured Co2 from flue gases and/or direct air capture (DAC)	Large	University of Sheffield, University of St Andrews	It will not be kept in perpetuity. Reasons why not given.
Mineralised products	Construction products from waste and CO2	Small	University of Greenwich	It will be archived in the following specialised facility: University of Greenwich and will be kept for a fixed period of/until It will be archived in the University's storage facility and will be kept for the lifetime of the project.
Chemicals and mineralised products	Secondary metabolites from biomass and construction materials from biomass waste	Small	University of Greenwich	It will be archived in the following specialised facility: University of Greenwich and will be kept for a fixed period of/until It will be archived in the University's storage facility and will be kept for the lifetime of the project.