



STRATEGY CCUS

A viable **solution** for a **sustainable** future

D6.5. DATA MANAGEMENT PLAN

(Final version)

Release Status: Final

Author: Romain F H Viguer, Scottish Carbon Capture & Storage, Edinburgh, EH1 1LZ

Date: 24 January 2022

Filename and version: STRATEGY_CCUS_DMP_v02.docx

Project ID NUMBER 837754

STRATEGY CCUS (H2020-LC-SC3-2018-2019-2020/H2020-LC-SC3-2018-NZE-CC)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



Document History

Location

This document is stored in the following location:

Filename	STRATEGY-CCUS-DMP_Final
Location	BRGM Sharepoint

Revision History

This document has been through the following revisions:

Version No.	Revision Date	Filename/Location stored:	Brief Summary of Changes
V1	28 Jun 2019	STRATEGY_CCUS_DMP v01	First version with annex
V2	31 Jan 2022	STRATEGY_CCUS_DMP v02	Final version with updated tables 3.1, 3.2 and 3.3 and updated annex

Authorisation

This document requires the following approvals:

AUTHORISATION	Name	Signature	Date
WP Leader	Romain F H Viguier		31/01/22
Project Coordinator	Fernanda de Mesquita Lobo Veloso		31/01/22

Distribution

This document has been distributed to:

Name	Title	Version Issued	Date of Issue
		Public	00/00/0000



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



© European Union, 2022

No third-party textual or artistic material is included in the publication without the copyright holder's prior consent to further dissemination by other third parties.

Reproduction is authorised provided the source is acknowledged.

Disclaimer

The information and views set out in this document are those of the author(s) and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



Executive summary

The Data Management Plan provides a summary of data and information on making the data FAIR (findable, accessible, interoperable and re-usable). The document follows the European Commission's Guidelines on FAIR Data Management in Horizon 2020 (version 3.0 from July 26th 2016) and provides information related to the collected data; purpose, utility, accessibility and re-usability.

This version is the final version of the Data Management Plan (DMP).



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



Table of Contents

1	The project.....	6
2	Introduction.....	7
3	Data summary	8
3.1	Summary of research data types	8
3.2	Reuse of existing data	12
3.3	Data utility	13
4	FAIR data	13
4.1	Making data findable, including provisions for metadata.....	13
4.1.1	Metadata	14
4.1.2	Digital object identifiers (DOIs).....	14
4.1.3	Data access statement	15
4.2	Making data openly accessible.....	15
4.2.1	Categorisation of data access.....	15
4.3	Making data interoperable	16
4.3.1	Data formats.....	16
4.3.2	Data files.....	16
4.3.3	Naming conventions	16
4.4	Increase data re-use (through clarifying licenses)	17
4.4.1	Data licensing	17
4.4.2	Embargos	17
4.4.3	Ensuring long-term usability.....	17
4.4.4	Quality assurance.....	18
5	Allocation of resources	18
6	Data security.....	18
7	Ethical aspects	18
8	Resources for DMP development	18
	DATA MANAGEMENT QUESTIONNAIRE	19



D6.5. Data Management Plan

1 The project

Countries bordering the North Sea (Norway, UK, the Netherlands) have already started to elaborate and jointly discuss strategic plans for CCUS development involving offshore storage in deep saline aquifers or depleted hydrocarbon fields under the North Sea. However, these countries represent only 15% of the CO₂ emissions included in the EU ETS. There is thus an urgent need for the rest of Europe to engage in strategic planning for CCUS development, giving priority to local storage solutions before looking at wider European connection schemes.

The objective of the STRATEGY CCUS project is to develop strategic plans for CCUS development in Southern and Eastern Europe in the short term (up to 3 years), medium term (3-10 years) and long term (more than 10 years).

Specific objectives are to:

- Develop local CCUS development plans, with local business models, within promising start-up regions
- Develop connection plans with transport corridors between local CCUS clusters, and with the North Sea CCUS infrastructure, in order to improve performance and reduce costs, and contribute to build a Europewide CCUS infrastructure.

Eight promising regions, within seven countries, representing 45% of the European industry and energy's emissions in 2016, are studied in the STRATEGY CCUS project. They were selected according to criteria relevant for the development of CCUS in Europe: presence of an industrial cluster, possibilities for CO₂ storage and/or utilization, potential for coupling with hydrogen production and use, previous studies already carried out, and a political will.

The eight promising regions are:

1. Paris basin in France
2. Rhône valley in France
3. Ebro basin in Spain
4. Lusitanian basin in Portugal
5. Northern Croatia
6. Galati area in Romania
7. West Macedonian area in Greece
8. Upper Silesia in Poland

STRATEGY CCUS project is a Coordination and Support Action and builds on past and ongoing projects and activities carried out at national and European levels. The project will then go further by developing and evaluating integrated development scenarios. STRATEGY CCUS mapped existing information and evaluate future scenarios for CCUS development, based on jointly agreed methodologies and approaches, which considered multidisciplinary



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



aspects, such as technical issues, regulatory framework and local policies, as well as the needs and concerns of citizens, stakeholders and public authorities. Sharing and comparing the progress made in each promising region is leading to mutual learning and to new innovative ideas for refining and improving each regional detailed plan and for boosting the deployment of the CCUS technology in Europe.

2 Introduction

STRATEGY CCUS is committed to open data access, long-term archiving and availability after the funding period of the project has finished. The data management follows the guidelines on FAIR data management in Horizon 2020 program. The data management plan describes the life cycle for data to be collected, processed and generated by the project and ensure research data will be retrievable, accessible, interoperable and re-usable.

Partners are required to:

- deposit the data in the recognised research data repository Zenodo (<https://zenodo.org/>).
- as far as practicable, take measures to enable third parties to access, mine, exploit, reproduce and disseminate this research data.

Open data is data that is free to access, reuse, repurpose, and redistribute. This Data Management Plan (DMP) defines certain datasets to remain closed according to the principle "as open as possible, as closed as necessary". As part of making data findable, accessible, interoperable and re-usable (FAIR), this Data Management Plan includes information on:

- the handling of research data during and after the end of the project
- what data will be collected, processed and/or generated
- which methodology and standards will be applied
- whether data will be shared/made open access
- how data will be curated and preserved (including after the end of the project)

Overall data management for the project will be undertaken by UEDIN (UK) as lead of Communication Dissemination and Exploitation with support from the project co-ordinator and the co-ordination of data generated by individual work packages resting with individual work package lead organisations. Data manager for STRATEGY CCUS has responsibility for coordinating and managing the collation and archiving of STRATEGY CCUS data to ensure long-term data management complies with current best practice to allow continued data availability.

For data management support and assistance with archiving data, contact the STRATEGY CCUS Data Manager, Romain Viguier: romain.viguier@ed.ac.uk.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



3 Data summary

The purpose of the data collection/generation in STRATEGY CCUS is to provide trusted data, information, methodologies and evaluation tools regarding the planning of CCUS infrastructures in Europe, to support the development of CCUS infrastructure in Europe.

The project is collecting existing data related to local industrial clusters and existing data related to the subsurface in order to evaluate scenarios for CCUS development. The Data collected/generated by STRATEGY CCUS is varied and include industrial emissions, geophysical data, and personal data on participants in stakeholder perception survey as part of STRATEGY CCUS human science aspect.

Data management is part of each work package. A Data Management Questionnaire (DMQ), at the end of this document, will be sent to WP leaders to gather information on the data outputs. WP leaders are requested to forward to task and sub-task leaders as required. The DMQ is a data management planning tool to help identify data that are of long-term interest and to inform data management requirements.

The status of data will be declared as open access or confidential with any restrictions specified. The overall size of the data generated by the project is unknown at this stage. More information/detail will be added to the Data Summary and more information on specific data within the work packages will be known as the project progresses.

3.1 Summary of research data types

A summary of data types is presented below. More information on specific data within the work packages is known in the next table 3.2. Summary of datasets.

Table 3.-1 Summary of research data types

Data types	Data formats	Open/ Restricted/ Confidential	Embargo period
GIS map datasets	.html, .GeoJSON, .shapefile, GeoPackage, Raster,	Restricted	
Web map	.html	Open	
PDF maps	.pdf	Open	
Public deliverables	.pdf	Open	
Confidential deliverables	.pdf	Confidential	
Dataset of interview transcripts (task 3.2)	.pdf	Confidential	
Survey dataset (task 3.4)	.xlsx	Restricted (upon request, a data set containing only data that maintain participants' anonymity will be shared)	
TEA CCUS scenario evaluation tool	.xlsx	Restricted	



Educational resources, Posters, Infographics	.html, .pdf	Open	
Recorded webinars	.mov	Open	
Videos	.mov	Open	
Content on social media (e.g., tweets, posts)	.html	Open	



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



Table 3.-2 Summary of datasets

WP/Task/ Deliverables	Dataset	Volume	Format	Access	Contact	Organisation	Archive	When
WP1,2,3,4,5,6	Deliverables (Documents and reports)		.pdf	Confidential	Fernanda ML Veloso	Brgm	Brgm archive	
WP1,2,3,4,5,6	Deliverables (Documents and reports)		.pdf	Open	Fernanda ML Veloso	Brgm	Zenodo	
WP2, WP3	Public webinars	215MB	.mov, .mp4	Open	Romain Viguier	UEDIN	YouTube	
WP2	Database related to storage and industrial emitters in Paris Basin (France)	25MB	Google .kml, shapefile .shp, GeoPackage .gpkg Excell .xlsx	Restricted *	Fernanda ML Veloso	Brgm	Brgm, UEvora	
WP2	Database related to storage and industrial emitters in Rhone Valley (France)	100MB	Google .kml, shapefile .shp, GeoPackage .gpkg Excell .xlsx	Restricted *	Isaline Gravaud	Brgm	Brgm, UEvora	
WP2	Database related to storage and industrial emitters in Lusitanian basin (Portugal)	900MB	Google .kml, shapefile .shp, GeoPackage .gpkg Excell .xlsx	Restricted *	Júlio Carneiro	UEvora	UEvora	
WP2	Database related to storage and industrial emitters in Ebro basin (Spain)	1600MB	Google .kml, shapefile .shp, GeoPackage .gpkg Excell .xlsx	Restricted *	Paula Canteli	IGME	UEvora	
WP2	Database related to storage and industrial emitters in Galati Area (Romania)	700MB	Google .kml, shapefile .shp, GeoPackage .gpkg Excell .xlsx	Restricted *	Alexandra Dudu	GeoEcomar	UEvora	
WP2	Database related to storage and industrial emitters in Northern Croatia (Croatia)	300MB	Google .kml, shapefile .shp, GeoPackage .gpkg Excell .xlsx	Restricted *	Domagoj Vulin	UniZG	UEvora	
WP2	Database related to storage and industrial emitters in Upper Silesia (Poland)	1500MB	Google .kml, shapefile .shp, GeoPackage .gpkg Excell .xlsx	Restricted *	Krzysztof Stańczyk	GIG	UEvora	
WP2	Database related to storage and industrial emitters in West Macedonia (Greece)	130MB	Google .kml, shapefile .shp, GeoPackage .gpkg Excell .xlsx	Restricted *	Pavlos Tyrologou	CERTH	UEvora	



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



WP2	Web maps (interactive GIS maps)	100MB	.html	Open	Paulo Mesquita	UEvora	Website will stay live for two years after the project ends	2024
WP3, T3.2	Transcripts of the interviews	10.2MB	.pdf	Confidential	Sabine Preuß	Fraunhofer	Fraunhofer CIEMAT	
WP3, T3.4	Survey data	293KB	.xlsx	Restricted	Sabine Preuß	Fraunhofer	Fraunhofer CIEMAT	
WP5; T5.1	TEA CCUS Scenarios Evaluation tool	20MB	.xlsx	Restricted	Anders Nermoen	NORCE	Brgm	
WP6	Infographics	1.2MB	.pdf .png	open	Romain Viguier	UEDIN	UEDIN	
WP6	Posters	5.4MB	.pdf	open	Romain Viguier	UEDIN	UEDIN	
WP6	Project briefings (23.2mb)	23.2MB	.pdf	open	Romain Viguier	UEDIN	UEDIN	
WP6	News articles		.html	open	Romain Viguier	UEDIN	UEDIN	
WP6	Project website	1680 MB	.html	open	Romain Viguier	UEDIN	Website will stay live for two years after the project ends	April 2024

(*) Data related to emitters and storage units can be reused for commercial studies, future projects, and other uses, only with the consent from the data owners.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



3.2 Reuse of existing data

Existing data were collected and used within several work packages. This includes data from project partners and third parties.

Table 3.3 Reuse of existing data

WP/Task	Reuse of existing data	Source
WP2/Ebro basin	Digital elevation model, Bathymetry, Landcover, Roads, Railways, Rivers and streams, Water bodies, Protected areas, Existing pipelines, Planning zones, Other restrictive zones, Marine planning zones, Seabed surface type, Offshore cables	IGN, AMONDNET, SIOSE, CNIG, IGN, MITECO, IEO, ENAGAS, CNMC, IDE Aragon, GENCAT, GVA, ICGC, EMODNET, IHM,
WP2/Galati Region	Digital elevation model, Bathymetry, Roads, Railways, Rivers and streams, Water bodies, Existing pipelines	https://www2.jpl.nasa.gov/srtm/ https://portal.emodnet-bathymetry.eu/# https://www.openstreetmap.org
WP2/Lusitanian basin	Digital elevation model, Bathymetry, Landcover, Roads, Railways, Rivers and streams, Water bodies, Protected areas, Existing pipelines	https://www2.jpl.nasa.gov/srtm/ https://www.hidrografico.pt/op/33 https://portal.emodnet-bathymetry.eu/# https://snig.dgterritorio.gov.pt/rndg/srv/por/catalog.search#/metadata/b498e89c-1093-4793-ad22-63516062891b https://www.openstreetmap.org http://www2.icnf.pt/portal/ap REN (Redes Energéticas Nacionais)
WP2/Paris basin	Digital elevation model, Landcover, Roads, Railways, Rivers and streams, Water bodies, Protected areas, Existing pipelines, Planning zones, Other restrictive zones	BRGM, GrtGaz
WP2/Rhone Valley	Digital elevation model, Landcover, Roads, Railways, Rivers and streams, Water bodies, Protected areas, Existing pipelines, Planning zones, Other restrictive zones, Marine planning zones	BRGM, GrtGaz, Corine Land Cover Data
WP2/Northern Croatia	Digital elevation model, Bathymetry, Landcover, Roads, Railways, Rivers and streams, Water bodies, Protected areas, Existing pipelines, Planning zones	https://www2.jpl.nasa.gov/srtm/ https://land.copernicus.eu/pan-european/corine-land-cover/clc2018?tab=download https://www.openstreetmap.org http://www.bioportal.hr/gis https://www.plinacro.hr/default.aspx?id=162



WP2/Upper Silesia	Digital elevation model, Roads, Railways, Rivers and streams, Water bodies, Existing pipelines	https://www2.jpl.nasa.gov/srtm/ https://www.openstreetmap.org geoportal.gov.pl
WP2/West Macedonia	Digital elevation model, Bathymetry, Landcover, Roads, Rivers and streams, Water bodies, Protected areas, Existing pipelines, Industrial area, Dams, Energy Grid, Ports,	http://eros.usgs.gov/#/Find_Data/Products_and_Data_Available/gtopo30_info Greek Biotope/Wetland Centre Corine 2016 http://www.geodm.gr/ http://www.geodata.gov.gr/ , https://geodata.gov.gr/dataset/udrographiko-diktuo/resource/abfca78b-5d9c-45d4-b8d3-bed102517aa0 , https://floods.ypeka.gr/index.php?option=com_content&view=article&id=301&Itemid=803 , https://floods.ypeka.gr/egyFloods/gr09/maps/GR09_P01_S4_geology.jpg http://www.geodata.gov.gr/ https://www.tap-ag.gr/ Public Power Corporation Regional Development Agency of West Macedonia Port Authorities
WP3	Statistical data for quota sampling of the survey (T3.4)	EUROSTAT
WP5	The data collected by WP2 were used in developing the scenarios in WP5	WP2 (see above)

3.3 Data utility

The datasets from the STRATEGY project are useful to projects such as PilotSTRATEGY in which further research is being developed on assessing the feasibility of CO₂ storage in deep aquifers. The re-use of data avoids possible duplication and support the development of CCUS project at regional level. The data will also be useful to regulators in the various promising region to establish and amend an appropriate regulatory regime to ensure the appropriate development of CCUS infrastructure in Europe.

4 FAIR data

4.1 Making data findable, including provisions for metadata

Data should be discoverable, with fully searchable metadata to inform prospective users of the data prepared to recognised data management standards and published in data repositories.

A listing of datasets will be maintained on the STRATEGY CCUS website with links to the data, giving a central source of information describing data associated with the project. This will be coordinated between the data manager and the project dissemination team at the



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



University of Edinburgh. Release of datasets will be made publicly known through the project website and social media accounts.

4.1.1 Metadata

Datasets generated will be INSPIRE compliant, with full metadata conforming to Directive 95/46/EC of the European Parliament and DOI (Digital Object Identifiers) where appropriate. Metadata containing details of the dataset will be captured in a standardised discovery metadata format which complies with ISO standard 19115.

The Research Data Alliance provides a [Metadata Standards Directory](http://rd-alliance.github.io/metadata-directory/) (<http://rd-alliance.github.io/metadata-directory/>)

Partners completing metadata should ensure that this is of high-quality enabling users in future to find a dataset and determine if they wish to use it. Metadata must include a good explanatory title and an accurate concise description (e.g. what, where, when, how, why, who).

4.1.2 Digital object identifiers (DOIs)

It is recommended that Digital Object Identifiers (DOIs) are applied to archived datasets where appropriate to enable citation of the information, particularly when data are referenced in a publication. This is a pre-requisite of leading science journals.

The DOI:

- allows data to be cited in the same manner as a scientific journal article
- enables credit to be assigned the dataset creators
- recognises the value of the data
- and the effort that has gone into its creation

- ensures the discoverability, permanence and stability of the dataset

A DOI can be assigned before the dataset is released so that it can be referenced in the associated publication and the dataset can be released, when notified, at the time as the publication. Datasets can be cross-linked back to the article.

Data can be archived without a DOI as not all data are appropriate for a DOI. For a dataset to be assigned a DOI, it must be provided to the data repository in good condition, with appropriate metadata and of a suitable level of technical quality. The data repository will be responsible for ensuring the data meets the required level of quality.

A DOI gives assurance to future users that the dataset is:

- Stable
- Complete
- Permanent
- Of good technical quality



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



The data repository is giving its stamp of approval, saying that the dataset is complete and that all the necessary metadata are available.

4.1.3 Data access statement

Partners must include a statement in their publication(s) describing how to access the data (or a statement explaining why access to underlying data has been restricted). If data are openly available, the name(s) of the data repositories should be provided, as well as any persistent identifiers (e.g., DOI) for the dataset.

4.2 Making data openly accessible

Due to the high level of public and industry interest in the potential impacts of shale gas and CCS, the default position for the project will be for all finalised datasets to be open access. It is a requirement that all open data are accessible for the long-term. This makes the research process more robust by enabling validation of results and maximising the value obtained from publicly-funded data. All public (written) deliverables should also be archived.

Data should be archived as open access which:

- underpins a publication
- has long-term interest with potential for re-use (including currently unforeseen uses)
- validates research findings
- is worth keeping

Benefits of open access:

- Accelerations of the research and discovery process
- Avoidance of the duplication of research efforts
- Enhanced opportunities for collaborations
- Broader and faster opportunities for the adoption and commercialisation of research findings

4.2.1 Categorisation of data access

However, not all data generated by STRATEGY CCUS must be open. The need to balance openness and protection of scientific/commercial information should be taken into account and certain datasets may need to remain closed according to the principle "as open as possible, as closed as necessary".

Project datasets should therefore be categorised. It should be carefully considered which data can be made public (open access) from the onset, which should be placed under temporary embargo (< 2 years) before open release, and which must remain confidential. WP leaders should discuss with their work package participants/task leaders to determine this.

There is not a need for a separate data access committee, but this will be an item for discussion on Project Management Board meetings.

Examples of data which could be closed or restricted:



- Confidential information
- External industry data
- Commercial sensitivity/interest (e.g., new tools being developed with potential for patenting)
- Data with IPR issues
- Sensitive data containing personal information

Participant consent may also need to be obtained. This should be agreed during early stages of the project.

IPR and innovation for the project should be considered to ensure there are no conflicts between data sharing and these.

If certain datasets cannot be shared (or need to be shared under restrictions) the restrictions associated with the data must be valid/reasonable. Metadata should include a statement specifying any restrictions.

For confidential data, it is recommended that a discovery metadata record is published to signpost that the data exists without necessarily archiving the data. This should contain a brief description, which directs any potential user to the data owner contact if more information is required or to discuss the possibility of data access, which could lead to future collaborations. It should be discussed with the participants if they wish to advertise their (confidential) data in this way or if they prefer to make no information available in some cases.

4.3 Making data interoperable

- Data produced in the project should be interoperable and standard open formats should be used to allow data re-use.
- Data should be usable without the need for communication with the data creator.

4.3.1 Data formats

- The format must be well documented and conform to widely accepted standards.
- The format must be readable by tools that are freely available now and are likely to remain freely available in the future.

4.3.2 Data files

Parameters in data files should either be labelled using an internationally recognised standard, or by local labels that are accompanied by clear, unambiguous plain text descriptions.

- Data must be accompanied by sufficient usage metadata to enable its reliable reuse. Some of this may be embedded within the data files. If not it should be included as additional documents.
- Data should be quality controlled by the data creator before archiving.

4.3.3 Naming conventions



Partners are encouraged to use data and metadata vocabularies, standards and methodologies where these exist to make data more interoperable. Data should conform to [INSPIRE](#) where appropriate or other appropriate international standards.

4.4 Increase data re-use (through clarifying licenses)

4.4.1 Data licensing

Data will be licenced to permit the widest re-use possible. The Creative Commons Attribution (CC-BY) licence with the appropriate acknowledgement is recommended for maximum dissemination and use of open access data. This licence lets others use the data for any purpose, as long as the data creator and the STRATEGY CCUS project is acknowledged.

The EU funding acknowledgement: "European Union (EU)" & "Horizon 2020" should be included. An example acknowledgment statement is provided below.

This data set is available under CC-BY Licence, subject to the following acknowledgement: "Data supplied by permission of Edinburgh University and funding provided by "European Union (EU)" and "Horizon 2020" under the STRATEGY CCUS project.

The appropriate licence must be specified when data is deposited. See <https://creativecommons.org/licenses/> for more information on the CC-BY license and other types of Creative Commons licences.

For more information on data licences, refer to Ball, A. (2014). 'How to License Research Data'. DCC How-to Guides. Edinburgh: Digital Curation Centre. Available online: <http://www.dcc.ac.uk/resources/how-guides/license-research-data>.

4.4.2 Embargos

Research data will be made available as soon as possible. Data received by a data repository as open access will be made available for re-use without delay once the data and metadata have been verified and archived in the system.

Datasets may be deposited in a data repository with an embargo if necessary, in order to exploit data, publish results or seek patents, after which the data will be released as open access. The duration of the embargo or a release date must be specified. This should be no longer than 2 years in order to make the data available as soon as possible. If necessary, a review date can be set rather than automatic release and the depositor will be contacted at that time. Please notify the data manager if data can be released before the embargo has passed (e.g., when the related paper is published). During the embargo a metadata record will be visible but not the data.

4.4.3 Ensuring long-term usability

Data will be archived for the long-term and it is intended that it remains re-usable for as long as possible. Data repositories used must have measures in place to ensure data does not become obsolete or unusable.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 837754



4.4.4 Quality assurance

Quality assurance processes should be part of the metadata. Any laboratory data should meet appropriate QA standards.

5 Allocation of resources

Data management costs as covered as part of the grant. WP6 lead will cover data manager role and the project co-ordinator, Brgm has allocated data storage resources to ensure long-term data management complies with current best practice to allow continues data availability.

Beyond the end of the project, data archived in the repositories will be preserved and maintained for the long-term using the data repository resources. The costs associated with this will not be substantial.

6 Data security

Sensitive data should be encrypted when transferring.

7 Ethical aspects

All data must conform to the EU General Data Protection Regulation (GDPR) when personal information is involved. Data can be anonymised if needed.

There may be sensitives with some data which means it is unsuitable for sharing. This should be decided by the data generator in discussion with the WP lead and Coordinator.

8 Resources for DMP development

The Research Data Alliance provides a [Metadata Standards Directory](#) that can be searched for discipline-specific standards and associated tools.

The [EUDAT B2SHARE](#) tool includes a built-in license wizard that facilitates the selection of an adequate license for research data.

Useful listings of repositories include:

[Registry of Research Data Repositories](#)

Some repositories like [Zenodo](#), an OpenAIRE and CERN collaboration, allow researchers to deposit both publications and data, while providing tools to link them.

Other useful tools include [DMP online](#) and platforms for making individual scientific observations available such as [ScienceMatters](#)



DATA MANAGEMENT QUESTIONNAIRE

To refine the STRATEGY CCUS’s data management plan, it would assist if you could complete this questionnaire and upload it to the project SharePoint, in the following folder:
(Documents/WP6/Data_Management_Plan/)

This will help identify and categorise project data and any potential problem areas.

1	Work package			
2	Task			
3	Contacts			
	Name			
	Organisation			
	e-mail			
4	Project timescale of data collection/production, from		to	
	Project timescale of data collection/production, from		to	
5	Where will you deposit data for long-term archiving?			
6	When do you expect to deposit data?			
7	Specific datasets			
8	All data will not necessarily be appropriate for long-term preservation with a data repository. Which of the above datasets may not be appropriate to deposit?			
9	Will you be providing any software?			
	If yes, please provide more details			
	Are there likely to be any licensing requirement?			
10	Are you using any existing data from project partners?			
	If yes, please provide some details			
11	Are you using any external third-party data?			
	If yes, please provide some details			
12	Does data require an embargo before open access release?			
	If yes, please provide some details			
13	Is any data confidential or restricted?			
	If yes, please provide some details			
14	Are there any intellectual property rights or commercial sensitivity issues that will restrict access to data?			
	If yes, please provide some details			
15	Please add any other comments or issues regarding data and data management			





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837754

