

Work Package 8 – Management

D8.2 – Data management plan version 2

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This document is the ALIGNED project (grant no. 101059430) Data Management Plan second version. It details how the project data generated in Work Package 1 -scientific framework, will be exploited or made accessible for verification and re-use and how the data will be curated and preserved. The design of the core part of this document is different from ALIGNED other deliverables as it was prepared in [ARGOS](#), an online tool.

PROJECTS DETAILS			
Project title		Aligning Life Cycle Assessment methods and bio-based sectors for improved environmental performance.	
Project acronym	ALIGNED	Start / Duration	01/10/2022 – 36 months
Type of Action	RIA	Website	www.alignedproject.eu

DELIVERABLE DETAILS			
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Executive summary

The ALIGNED project delivers a modelling framework to assess and optimize the environmental and socio-economic performance of bio-based industries. The project will collaborate with industries and representatives from five bio-based sectors: construction, woodworking, textile, pulp and paper, and bio-chemicals. This document provides the second version of data management plan (DMP) for the ALIGNED project. This version of the ALIGNED project elaborates the data management of first work package (WP 1). In this work package we have developed models and tools to be used to perform LCA in the bio-based sectors and related case studies.

The structure of this document is based on the guidelines and template provided for data management in Horizon Europe. This document was generated by ARGOS which is an online tool, supported by OpenAire and EUDAT that address and recommend the use of FAIR and Open best practices. The DMP is a living document and updated during the project.

License

License: [CC-BY-4.0](#)

Access Rights: [Public](#)

1. Deliverable 1.2: Framework for background life cycle inventory of bio-based sectors

It is an advanced, flexible, prospective, and multi-regional LCA inventory model. The model sets the basis for modifying current background database both for attributional and consequential LCAs through elaboration of tutorials and codes that can be used by the partners and LCA stakeholders in general.

This consists of an open-source model for background life cycle inventory of bio-based sectors consist of a set of documents, tutorials, and dataset.

Template: [Horizon Europe](#)

Type: [Dataset](#)

Brief description of the described research output

What kind of research output are you describing?

Workflows

Is it physical or digital?

Digital

Are you generating or re-using it?

Re-used

The workflows are developed using the [premise software](#). The software is licensed using BSD 3-Clause which permits modification, distribution, private and commercial use.

What is the type of the described dataset?

Simulation

What is its format?

The model description and tutorials are provided as word documents (.docx). Links and descriptions for python code is provided in these documents.

What is its expected size?

4.2 MB

Why are you collecting/generating or re-using it?

- To make informed decisions
- To improve a product
- To combine with other data

The prospective datasets obtained from premise will be applied to perform dynamic LCA studies in the work packages (WP) (2 - 6) and WP9.

To whom might it be useful ('data utility')?

- Researchers
- Research communities
- Decision makers

- Industry

Datasets

Does the described output use or support any published dataset?

No

Software

Does the described output use or support any software?

Yes

<https://github.com/polca/premise>

Making data findable, including provisions for metadata

What type(s) of persistent identifier(s) are used for the described dataset / output?

- Data identifiers
- Projects identifiers

DOI

Cordis

Will you provide metadata for the described dataset / output?

Yes

All deliverables are registered on Zenodo which generate DOI. In addition, all datasets and research outputs linked to Zenodo will also be linked to the [ALIGNED community](#) to ensure easy findability.

Datasets stored on Zenodo also links to the researchers, involved in the development a dataset will need to link their ORCID ID with

The [Cordis ID](#) (Grant number) for the project was referred to in the metadata of each output.

What type(s) of metadata?

Descriptive

Do the metadata use standardised vocabularies?

Yes

Are the metadata searchable?

Yes

How are searchable metadata provided?

Metadata repository

The models are searchable using Zenodo's metadata description, which allows the registration of keywords. In addition, all deposits on Zenodo are linked to the ALIGNED community built on Zenodo (<https://zenodo.org/communities/aligned-he/>)

Are keywords provided in the metadata?

Yes

bio-based, prospective LCA, background database, scenario analysis, premise

Are metadata harvestable?

Yes

As the datasets are deposited in Zenodo, "the metadata for individual records as well as record collections are harvestable using the OAI-PMH protocol by the record identifier and the collection name."

Repository

In which repository will the dataset / output be deposited?

OpenAIRE Research Graph

Zenodo

The DOI link to the repository is : 10.5281/zenodo.10842988

The dataset is also indexed on openAIRE website as it is linked with the CORDIS ID of the project.

Is the selected repository a trusted source?

Yes

- Follows repository standards
- Details terms of use
- Has an open access content policy
- Supports back up
- Provides Open Access content (free at the point of use)
- Assigns PIDs
- Follows metadata standards
- Supports mid- and long-term preservation

Does the repository(ies) assign datasets / outputs with persistent identifiers?

Yes

Does the repository(ies) resolve the identifiers to a digital object?

Yes, all data and metadata are retrievable by the globally unique persistent identifier.

Does the repository support versioning?

Yes

Data

What is the described dataset / output title?

Task 1.1 Methods for background life cycle inventory

How is the dataset / output shared?

Open

Are there any methods or tools required to access the dataset / output?

No

Is the described dataset / output supported by a data access committee?

No

Please specify how the dataset / output will be accessed during and after the project ends

After the project ends the research output will still be available on the Zenodo repository.

Please specify how long after the project has ended the dataset / output will be made accessible for

Zenodo supports long-term preservation, as the repository is projected to be maintained for the lifetime of the host laboratory CERN, defined as at least the next twenty years

Metadata

Will you provide metadata even if the described dataset / output can not be openly shared?

Yes

Under which license will metadata be provided?

Creative Commons Zero (CC0)

Do metadata provide information about how to access the described dataset / output?

Yes

The name and contact details of data depositor and curator are provided in the metadata. In addition, the metadata will include LCI specific metadata that will enable reusability specifically for future LCA research related to these sectors.

Will metadata remain available after the dataset / output is no longer available?

Yes

Meta data is mandatory for all dataset(s) uploaded on Zenodo. All datasets (and metadata) published on Zenodo are maintained for the lifetime of the repository (approximately 20 years).

Making data and other outputs interoperable

Does your (meta)data use a controlled vocabulary?

No

Have you applied a standard schema for your (meta)data?

Yes

What is the methodology followed?

Datacite metadata schema

What community-endorsed interoperability best practices are followed?

Depending upon the skills of practitioners a tiered approach has been adopted in the development of the workflows to obtain prospective background databases. The output databases are compatible with two widely used LCA software - Simapro and Brightway2.

Does the described dataset / output provide qualified references with other outputs?

Yes

All research outputs are cross referenced. There is a provision to specify identifiers of related publications and datasets on the DataCite metadata schema provided by Zenodo.

Increasing data and other outputs reuse

What internationally recognised licence will you use for your dataset / output?

Attribution-NonCommercial-ShareAlike 4.0

What reusability and / or reproducibility methods are followed?

- Readme files
- Codebooks

Will you provide the described dataset / output in the public domain?

Yes

Do you intend to ensure (re)use by third parties after your project finishes?

Yes

Is provenance well documented?

Yes

What documented procedures for quality assurance do you have in place?

- Set up of scientific and technical committee
- Use of tools for automatic checks
- Data conform to format specification
- Consistency verified with data models and standards

Data Security

What security measures are followed?

Data security related to access and storage not required as the data are available in the public domain and disclosure is not harmful to involved project partners.

What conditions do the security measures meet?

- Data access
- Data storage
- Data sharing

How will you preserve the described dataset / output in the long term?

The workflows are stored on Zenodo which provides long-term storage.

Ethical aspects

Are there any ethical or legal issues that can have an impact on sharing the described dataset / output?

no

Other

Do you make use of other procedures for data management?

No

2. Deliverable 1.2: Framework for foreground life cycle inventory of bio-based sectors

Open-source methodologies for:

- dynamic carbon accounting for forest plantations.
- identification of market constraints: geographical, production capacity, co-production, and policy.

The method includes both routines, datasets, and codes available open access in project repository and algorithms documented in guideline documents.

Template: [Horizon Europe](#)

Type: Dataset

Brief description of the described research output

What kind of research output are you describing?

Models

Is it physical or digital?

Digital

Are you generating or re-using it?

Re-used

The workflows are developed using a dynamic carbon flux model that was developed in a previous study but updated with a dataset of multiple tree species, an improved user interface and functionality to export results to LCA software.

A detailed method to model the competition for biomass availability considering potential supply constraints. Models and code to implement the calculations described in the method guideline is also provided.

In addition, this task also presents a method for structuring Life cycle inventory data.

What is the type of the described dataset?

Derived or compiled

The tutorial on using the carbon flux model to determine static and dynamic life cycle inventory is provided.

The model to identify marginal biomass supply is based on data obtained from FAOSTAT statistics on biomass availability.

What is its format?

The model description and tutorials are provided as .pdf documents. The dynamic Carbon Flux model is a Excel file.

The method for identification of biomass availability is also provided in .pdf documents. Code for implementation of calculations for marginal mix are available in several formats (.xlsx, .py, .ipynb and .R files).

What is its expected size?

14.5 MB

Why are you collecting/generating or re-using it?

- To share information
- To make informed decisions
- To improve a product
- To combine with other data

The dynamic forest carbon stock data and the aggregated LCI will be applied to perform dynamic LCA studies in the work packages (WP) (2 - 6) and WP9. Similarly, the method to model biomass availability will be used to model the biomass resource supply in all case studies in WP (2-6 and 9).

To whom might it be useful ('data utility')?

- Researchers
- Research communities

- Decision makers
- Education
- Industry

Publications

Does the described output support any scientific publication?

No

Is there a data availability statement provided along with the publication?

No

Datasets

Does the described output use or support any published dataset?

No

Software

Does the described output use or support any software?

No

Making data findable, including provisions for metadata

What type(s) of persistent identifier(s) are used for the described dataset / output?

- Data identifiers
- Projects identifiers

DOI

Cordis

Will you provide metadata for the described dataset / output?

Yes

All datasets and research outputs are uploaded on Zenodo and linked to the [ALIGNED community](#) to ensure easy findability.

Researchers associated with developing the dataset are linked with their ORCID ID on the specific Zenodo repository.

The [Cordis ID](#) (Grant number) for the project is referred to in the metadata of each output.

What type(s) of metadata?

Descriptive

Do the metadata use standardised vocabularies?

Yes

Are the metadata searchable?

Yes

How are searchable metadata provided?

Metadata repository

The models are searchable using Zenodo's metadata description, which allows the registration of keywords. In addition all deposits on Zenodo are linked to the ALIGNED community built on Zenodo (<https://zenodo.org/communities/aligned-he/>)

Are keywords provided in the metadata?

Yes

bio-based, life cycle inventory, life cycle assessment, life cycle data, consequential LCA, dynamic LCA, forest plantation, carbon stock, biomass constraints, biomass market

Are metadata harvestable?

Yes

As the datasets are deposited in Zenodo, "the metadata for individual records as well as record collections are harvestable using the OAI-PMH protocol by the record identifier and the collection name."

Repository

In which repository will the dataset / output be deposited?

OpenAIRE Research Graph

Zenodo

The dataset is also indexed on openAIRE website as it is linked with the CORDIS ID of the project.

Is the selected repository a trusted source?

Yes

- Follows repository standards
- Details terms of use
- Has an open access content policy
- Supports back up
- Provides Open Access content (free at the point of use)
- Assigns PIDs
- Follows metadata standards
- Supports mid- and long-term preservation

Does the repository(ies) assign datasets / outputs with persistent identifiers?

Yes

Does the repository(ies) resolve the identifiers to a digital object?

Yes, all data and metadata are retrievable by the globally unique persistent identifier. There are three DOI links to the three parts of this task:

1. Task 1.2 Methods for foreground life cycle inventory - Method for dynamic carbon accounting of forest plantation: [10.5281/zenodo.10843343](https://doi.org/10.5281/zenodo.10843343);
2. Task 1.2 Methods for foreground life cycle inventory - Method for addressing competition for biomass: [10.5281/zenodo.10843454](https://doi.org/10.5281/zenodo.10843454);
3. Task 1.2 Methods for foreground life cycle inventory - Method for addressing competition for biomass: [10.5281/zenodo.10843472](https://doi.org/10.5281/zenodo.10843472).

Does the repository support versioning?

Yes

Data

What is the described dataset / output title?

Task 1.2 Framework for foreground life cycle inventory of bio-based sectors

How is the dataset / output shared?

Open

Are there any methods or tools required to access the dataset / output?

No

Is the described dataset / output supported by a data access committee?

No

Please specify how the dataset / output will be accessed during and after the project ends?

After the project ends the research output will still be available on the Zenodo repository.

Please specify how long after the project has ended the dataset / output will be made accessible for?

Zenodo supports long-term preservation, as the repository is projected to be maintained for the lifetime of the host laboratory CERN, defined as at least the next twenty years.

Metadata

Will you provide metadata even if the described dataset / output cannot be openly shared?

Yes

Under which license will metadata be provided?

Creative Commons Zero (CC0)

Do metadata provide information about how to access the described dataset / output?

Yes

The name and contact details of data depositor and curator are provided in the metadata. In addition, the metadata will include LCI specific metadata that will enable reusability specifically for future LCA research related to these sectors.

Will metadata remain available after the dataset / output is no longer available?

Yes

Meta data is mandatory for all dataset(s) uploaded on Zenodo. All datasets (and metadata) published on Zenodo will be maintained for the lifetime of the repository (approximately 20 years).

Making data and other outputs interoperable

Does your (meta)data use a controlled vocabulary?

No

Have you applied a standard schema for your (meta)data?

Yes

What is the methodology followed?

Data Cite Schema

What community-endorsed interoperability best practices are followed?

Depending upon the skills of practitioners a tiered approach has been adopted in the development of the workflows to obtain prospective background databases. The output

databases are compatible with two widely used LCA software - Simapro and Brightway2.

Does the described dataset / output provide qualified references with other outputs?

Yes

All research outputs are cross referenced. There is a provision to specify identifiers of related publications and datasets on the DataCite metadata schema provided by Zenodo.

Increasing data and other outputs reuse

What internationally recognised licence will you use for your dataset / output?

Attribution-NonCommercial-ShareAlike 4.0

What reusability and / or reproducibility methods are followed?

- Readme files
- Codebooks
- Analyses

Will you provide the described dataset / output in the public domain?

Yes

Do you intend to ensure (re)use by third parties after your project finishes?

Yes

Is provenance well documented?

Yes

What documented procedures for quality assurance do you have in place?

- Set up of scientific and technical committee
- Use of tools for automatic checks
- Data conform to format specification
- Consistency verified with data models and standards

Data Security

What security measures are followed?

Data security related to access and storage not required as the data are available in the public domain and disclosure is not harmful to involved project partners.

What conditions do the security measures meet?

- Data access
- Data storage
- Data sharing

How will you preserve the described dataset / output in the long term?

The workflows are stored on Zenodo which provides long-term storage.

Ethical aspects

Are there any ethical or legal issues that can have an impact on sharing the described dataset / output?

no

Other

Do you make use of other procedures for data management?

No

3. Deliverable 1.2: Framework for Life Cycle Impact Assessment

Characterization factors for climate change and biodiversity impacts, formatted for import in major LCA software, and available open access on project repository. Linked to T1.3

Template: [Horizon Europe](#)

Type: [Dataset](#)

Brief description of the described research output

What kind of research output are you describing?

Workflows

Is it physical or digital?

Digital

Are you generating or re-using it?

Re-used

The deliverable presents a synthesis of the latest research and formulates a guidance for applying dynamic characterization factors and biodiversity impacts.

What is the type of the described dataset?

Derived or compiled

A synthesis of the latest research and existing climate change and biodiversity assessment frameworks tailored to LCA are provided. The sets of characterization factors, along with step-by-step tutorials – including import routines and calculation tools - to improve their usability.

What is its format?

The guide is available in PDF format, the Biodiversity CF tool and the Dynamic CF CC tool are Excel files, and the "Coding for biodiversity CF import" is available as a Jupyter notebook (.ipynb file).

What is its expected size?

4.8 MB

Why are you collecting/generating or re-using it?

- To share information
- To make informed decisions
- To improve a product
- To combine with other data

The guide aims to aid harmonization and scientific improvement of LCIA methodology for use for LCA practice and decision making.

To whom might it be useful ('data utility')?

- Researchers
- Research communities
- Decision makers

- Industry

Publications

Does the described output support any scientific publication?

No

Is there a data availability statement provided along with the publication?

No

Datasets

Does the described output use or support any published dataset?

No

Software

Does the described output use or support any software?

Yes

<https://jupyter.org/>

Making data findable, including provisions for metadata

What type(s) of persistent identifier(s) are used for the described dataset / output?

- Data identifiers
- Projects identifiers

DOI

Cordis

This research outputs is linked to Zenodo and linked to the ALIGNED community to ensure easy findability.

Researchers associated with developing a dataset are linked with their ORCID ID with datasets stored on Zenodo.

The Cordis ID (Grant number) for the project is referred to in the metadata of each output.

Will you provide metadata for the described dataset / output?

Yes

What type(s) of metadata?

Descriptive

Do the metadata use standardised vocabularies?

Yes

Are the metadata searchable?

Yes

How are searchable metadata provided?

Metadata repository

The models are searchable using Zenodo's metadata description, which allows the registration of keywords. In addition, all deposits on Zenodo are linked to the ALIGNED community built on Zenodo (<https://zenodo.org/communities/aligned-he/>)

Are keywords provided in the metadata?

Yes

Life cycle assessment, bio-based, industrial ecology, life cycle impact assessment, climate change, biodiversity, characterization factor

Are metadata harvestable?

Yes

As the datasets are deposited in Zenodo, "the metadata for individual records as well as record collections are harvestable using the OAI-PMH protocol by the record identifier and the collection name."

Repository

In which repository will the dataset / output be deposited?

OpenAIRE Research Graph

Zenodo

The dataset is available on Zenodo. All uploads can be found on <https://zenodo.org/communities/aligned-he/>

The dataset is also indexed on openAIRE website as it is linked with the CORDIS ID of the project.

Is the selected repository a trusted source?

Yes

- Follows repository standards
- Details terms of use
- Has an open access content policy
- Supports back up
- Provides Open Access content (free at the point of use)
- Assigns PIDs
- Follows metadata standards
- Supports mid- and long-term preservation

Does the repository(ies) assign datasets / outputs with persistent identifiers?

Yes

Does the repository(ies) resolve the identifiers to a digital object?

Yes, all data and metadata are retrievable by the globally unique persistent identifier.

The title is: Task 1.3 Framework for Life Cycle Impact Assessment and the DOI is 10.5281/zenodo.10843259

Does the repository support versioning?

Yes

Data

What is the described dataset / output title?

Task 1.3 Framework for Life Cycle Impact Assessment

How is the dataset / output shared?

Open

Are there any methods or tools required to access the dataset / output?

No

Is the described dataset / output supported by a data access committee?

No

Please specify how the dataset / output will be accessed during and after the project ends?

After the project ends the research output will still be available on the Zenodo repository.

Metadata

Will you provide metadata even if the described dataset / output cannot be openly shared?

Yes

Under which license will metadata be provided?

Creative Commons Zero (CC0)

Do metadata provide information about how to access the described dataset / output?

Yes

The name and contact details of data depositor and curator are provided in the metadata. In addition, the metadata will include LCI specific metadata that will enable reusability specifically for future LCA research related to these sectors.

Will metadata remain available after the dataset / output is no longer available?

Meta data is mandatory for all dataset(s) uploaded on Zenodo. All datasets (and metadata) published on Zenodo will be maintained for the lifetime of the repository (approximately 20 years).

Making data and other outputs interoperable

Does your (meta)data use a controlled vocabulary?

No

What community-endorsed interoperability best practices are followed?

Depending upon the skills of practitioners a tiered approach has been adopted.

Does the described dataset / output provide qualified references with other outputs?

Yes

All research outputs are cross referenced. There is a provision to specify identifiers of related publications and datasets on the DataCite metadata schema provided by Zenodo.

Increasing data and other outputs reuse

What internationally recognised licence will you use for your dataset / output?

Attribution-NonCommercial-ShareAlike 4.0

What reusability and / or reproducibility methods are followed?

- Readme files
- Codebooks

Will you provide the described dataset / output in the public domain?

Yes

Do you intend to ensure (re)use by third parties after your project finishes?

Yes

Is provenance well documented?

Yes

What documented procedures for quality assurance do you have in place?

- Set up of scientific and technical committee

- Use of tools for automatic checks
- Consistency verified with data models and standards

Data Security

What security measures are followed?

Data security related to access and storage not required as the data are available in the public domain and disclosure is not harmful to involved project partners.

What conditions do the security measures meet?

- Data access
- Data storage
- Data sharing

How will you preserve the described dataset / output in the long term?

The workflows are stored on Zenodo which provides long-term storage.

Ethical aspects

Are there any ethical or legal issues that can have an impact on sharing the described dataset / output?

no

Other

Do you make use of other procedures for data management?

No

4. Deliverable 1.2: Framework for interpreting uncertainty

Guidelines, tutorials and code for uncertainty and sensitivity analysis in bio-based sectors, available open access on project repository. Linked to T1.4.

This document presents practical approaches to handle uncertainty in the environmental assessments of bio-based products within the ALIGNED project. The primary aim is to improve decision making in the bio-based industries and sectors.

Template: [Horizon Europe](#)

Type: [Dataset](#)

Brief description of the described research output

What kind of research output are you describing?

Workflows

Is it physical or digital?

Digital

Are you generating or re-using it?

New

What is the type of the described dataset?

Simulation

What is its format?

The guide on the appraisal of uncertainty in the LCA of bio - based products is available as a pdf document. The tutorials are available in HTML and IPYNB formats. The test dataset is an Excel file.

What is its expected size?

4.3 MB

Why are you collecting/generating or re-using it?

- To share information
- To make informed decisions
- To improve a product
- To combine with other data

The methods of appraising uncertainty in the LCA of bio-based products are generated and compiled in order to aid the handling of uncertainty in other ALIGNED work-packages and in LCA practice.

To whom might it be useful ('data utility')?

- Researchers
- Research communities
- Decision makers
- Industry

Publications

Does the described output support any scientific publication?

No

Is there a data availability statement provided along with the publication?

No

Datasets

Does the described output use or support any published dataset?

No

Software

Does the described output use or support any software?

Yes

<https://www.python.org/>

Making data findable, including provisions for metadata

What type(s) of persistent identifier(s) are used for the described dataset / output?

- Data identifiers
- Projects identifiers

DOI

Cordis

All deliverables are registered on Zenodo which generate DOI. In addition, all datasets and research outputs linked to Zenodo will also be linked to the ALIGNED community to ensure easy findability.

Researchers associated with developing a dataset will need to link their ORCID ID with datasets stored on Zenodo.

The Cordis ID (Grant number) for the project is referred to in the metadata of each output.

Will you provide metadata for the described dataset / output?

Yes

What type(s) of metadata?

Descriptive

Do the metadata use standardised vocabularies?

Yes

Are the metadata searchable?

Yes

How are searchable metadata provided?

Metadata repository

The models are searchable using Zenodo's metadata description, which allows the registration of keywords. In addition, all deposits on Zenodo are linked to the ALIGNED community built on Zenodo (<https://zenodo.org/communities/aligned-he/>)

Are keywords provided in the metadata?

Yes

Are metadata harvestable?

Yes

As the datasets are deposited in Zenodo, "the metadata for individual records as well as record collections are harvestable using the OAI-PMH protocol by the record identifier and the collection name."

Repository

In which repository will the dataset / output be deposited?

OpenAIRE Research Graph

Zenodo

Once finalized, datasets are available on Zenodo. All uploads can be found on <https://zenodo.org/communities/aligned-he/> . The dataset is also indexed on openAIRE website as it is linked with the CORDIS ID of the project.

Is the selected repository a trusted source?

Yes

- Follows repository standards
- Details terms of use
- Has an open access content policy
- Supports back up
- Provides Open Access content (free at the point of use)
- Assigns PIDs
- Follows metadata standards
- Supports mid- and long-term preservation

Does the repository(ies) assign datasets / outputs with persistent identifiers?

Yes

Does the repository(ies) resolve the identifiers to a digital object?

Yes, all data and metadata are retrievable by the globally unique persistent identifier.

DOI of dataset is 10.5281/zenodo.10842719

Does the repository support versioning?

Yes

Data

What is the described dataset / output title?

Task 1.4 Framework for interpreting uncertainty of LCA in the bio-based sectors

How is the dataset / output shared?

Open

Are there any methods or tools required to access the dataset / output?

No

Is the described dataset / output supported by a data access committee?

No

Please specify how the dataset / output will be accessed during and after the project ends

After the project ends the research output will still be available on the Zenodo repository.

Please specify how long after the project has ended the dataset / output will be made accessible for

Zenodo supports long-term preservation, as the repository is projected to be maintained for the lifetime of the host laboratory CERN, defined as at least the next twenty years.

Metadata

Will you provide metadata even if the described dataset / output cannot be openly shared?

Yes

Under which license will metadata be provided?

Creative Commons Zero (CC0)

Do metadata provide information about how to access the described dataset / output?

Yes

The name and contact details of data depositor and curator are provided in the metadata. In addition, the metadata includes LCI specific metadata that will enable reusability specifically for future LCA research related to these sectors.

Will metadata remain available after the dataset / output is no longer available?

Yes

Meta data is mandatory for all dataset(s) uploaded on Zenodo. All datasets (and metadata) published on Zenodo will be maintained for the lifetime of the repository (approximately 20 years).

Making data and other outputs interoperable

Does your (meta)data use a controlled vocabulary?

No

Have you applied a standard schema for your (meta)data?

Yes

What is the methodology followed?

Datacite schema

What community-endorsed interoperability best practices are followed?

Depending upon the skills of practitioners a tiered approach has been adopted.

Does the described dataset / output provide qualified references with other outputs?

Yes

All research outputs are cross referenced. There is a provision to specify identifiers of related publications and datasets on the DataCite metadata schema provided by Zenodo.

Increasing data and other outputs reuse

What internationally recognised licence will you use for your dataset / output?

Attribution-NonCommercial-ShareAlike 4.0

What reusability and / or reproducibility methods are followed?

- Readme files
- Codebooks

Will you provide the described dataset / output in the public domain?

Yes

Do you intend to ensure (re)use by third parties after your project finishes?

Yes

Is provenance well documented?

Yes

What documented procedures for quality assurance do you have in place?

- Set up of scientific and technical committee
- Use of tools for automatic checks
- Data conform to format specification
- Consistency verified with data models and standards

Data Security

What security measures are followed?

Data security related to access and storage not required as the data are available in the public domain and disclosure is not harmful to involved project partners.

What conditions do the security measures meet?

- Data access
- Data storage
- Data sharing

How will you preserve the described dataset / output in the long term?

The workflows are stored on Zenodo which provides long-term storage.

Ethical aspects

Are there any ethical or legal issues that can have an impact on sharing the described dataset / output?

no

Other

Do you make use of other procedures for data management?

No

5. Deliverable 1.2: Framework for socio-economic assessment.

Open-source method for socio-economic assessment in bio-based sectors. Model code, calculators, and documentation available open access on project repository. Linked to project task T1.5.

Template: [Horizon Europe](#)

Type: [Dataset](#)

Brief description of the described research output

What kind of research output are you describing?

Models

Is it physical or digital?

Digital

Are you generating or re-using it?

Re-used.

This task builds on methods economic evaluation, social evaluation and multi - criteria decision analysis.

What is the type of the described dataset?

Simulation

What is its format?

The models are available on excel based tools supported by a set of tutorials available in pdf documents.

What is its expected size?

7.0 MB

Why are you collecting/generating or re-using it?

- To make informed decisions
- To develop a product
- To improve a product
- To combine with other data

To whom might it be useful ('data utility')?

- Researchers
- Research communities
- Decision makers
- Industry

Publications

Does the described output support any scientific publication?

No

Is there a data availability statement provided along with the publication?

No

Datasets

2.2.1 Does the described output use or support any published dataset?

No

Software

Does the described output use or support any software?

No

Making data findable, including provisions for metadata

What type(s) of persistent identifier(s) are used for the described dataset / output?

- Data identifiers
- Projects identifiers

DOI

Cordis

This research outputs is linked to Zenodo which generate DOI. In addition, all datasets and research outputs linked to Zenodo will also be linked to the ALIGNED community to ensure easy findability. Researchers associated with developing a dataset will need to link their ORCID ID with datasets stored on Zenodo.

The Cordis ID (Grant number) for the project are referred to in the metadata of each output.

Will you provide metadata for the described dataset / output?

Yes

What type(s) of metadata?

Descriptive

Do the metadata use standardised vocabularies?

Yes

Are the metadata searchable?

Yes

How are searchable metadata provided?

Metadata repository

The models are searchable using Zenodo's metadata description, which allows the registration of keywords. In addition, all deposits on Zenodo are linked to the ALIGNED community built on Zenodo (<https://zenodo.org/communities/aligned-he/>)

Are keywords provided in the metadata?

Yes

Are metadata harvestable?

Yes

As the datasets are deposited in Zenodo, "the metadata for individual records as well as record collections are harvestable using the OAI-PMH protocol by the record identifier and the collection name."

Repository

In which repository will the dataset / output be deposited?

OpenAIRE Research Graph

Zenodo

Once finalized, datasets are available on Zenodo. All uploads can be found on <https://zenodo.org/communities/aligned-he/>

The dataset is also indexed on openAIRE website as it is linked with the CORDIS ID of the project.

Is the selected repository a trusted source?

Yes

- Follows repository standards
- Details terms of use
- Has an open access content policy
- Supports back up
- Provides Open Access content (free at the point of use)
- Assigns PIDs
- Follows metadata standards
- Supports mid- and long-term preservation

Does the repository(ies) assign datasets / outputs with persistent identifiers?

Yes

Does the repository(ies) resolve the identifiers to a digital object?

Yes, all data and metadata are retrievable by the globally unique persistent identifier.

DOI of the dataset is 10.5281/zenodo.10843651

Does the repository support versioning?

Yes

Data

What is the described dataset / output title?

Task 1.5 Framework for socio-economic assessment

How is the dataset / output shared?

Open

Are there any methods or tools required to access the dataset / output?

No

Is the described dataset / output supported by a data access committee?

No

Please specify how the dataset / output will be accessed during and after the project ends?

After the project ends the research output will still be available on the Zenodo repository.

Please specify how long after the project has ended the dataset / output will be made accessible for

Zenodo supports long-term preservation, as the repository is projected to be maintained for the lifetime of the host laboratory CERN, defined as at least the next twenty years.

Metadata

Will you provide metadata even if the described dataset / output cannot be openly shared?

Yes

Under which license will metadata be provided?

Creative Commons Zero (CC0)

Do metadata provide information about how to access the described dataset / output?

Yes

The name and contact details of data depositor and curator are provided in the metadata. In addition, the metadata includes LCI specific metadata that will enable reusability specifically for future LCA research related to these sectors.

Will metadata remain available after the dataset / output is no longer available?

Yes

Meta data is mandatory for all dataset(s) uploaded on Zenodo. All datasets (and metadata) published on Zenodo will be maintained for the lifetime of the repository (approximately 20 years).

Making data and other outputs interoperable

Does your (meta)data use a controlled vocabulary?

No

Have you applied a standard schema for your (meta)data?

Yes

What is the methodology followed?

Datacite schema

What community-endorsed interoperability best practices are followed?

Depending upon the skills of practitioners a tiered approach has been adopted.

Does the described dataset / output provide qualified references with other outputs?

Yes

All research outputs are cross referenced. There is a provision to specify identifiers of related publications and datasets on the DataCite metadata schema provided by Zenodo.

Increasing data and other outputs reuse

What internationally recognised licence will you use for your dataset / output?

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What reusability and / or reproducibility methods are followed?

Readme files

Will you provide the described dataset / output in the public domain?

Yes

Do you intend to ensure (re)use by third parties after your project finishes?

Yes

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