Towards a European-wide harmonised transport-specific LCA Approach

TranSensus LCA

Coordinated and Support Action (CSA)
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Data Management Plan

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APPROVAL STATUS

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Approval on behalf of the SC	Fraunhofer IST	Felipe Cerdas	Date: 11.08.2023 Signature: Felipe Cerdas

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REVISION Table

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Version 1	03.08.2023	Submitted to SC for review
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Revision	26.10.2023	Incorporation of FAIR Principles (Ch. 2.1)

EXECUTIVE SUMMARY

The following Data management plan (short DMP) will summarize the types of data that will be generated and handled throughout the TranSensus LCA project. The aim is to provide an overview of exploitation strategies, accessibility, administration and storage. This DMP is not a static document but will be revised and updated by the project consortium regularly or when necessary.

Data are understood as a description of the conceptual approach, the recommended method-ologies and tools, or how to obtain data but no actual, specific data of a product will be generated as needed to perform an LCA. In terms of validating the proposed approach, non-sensitive, public available or anonymized data will be used.

Table of Contents

Glossary

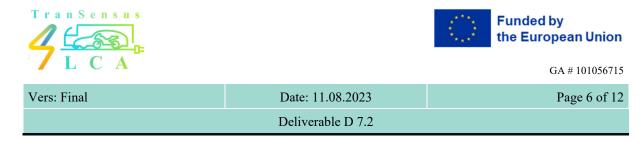| Abbreviation	Explanation	Abbreviation	Explanation
AB	Advisory board	GDPR	general data protection regulation
CSA	Coordinated and Support Action	HQLCA	Project in context LCA of the EIT Raw Materials
Ecoinvent	Public LCA database	LCA	Life cycle assessment
GaBi	Commercial LCA database	SotA	State of the Art

I. Introduction

TranSensus LCA will moderate the consensus-building process for a European-wide single LCA approach with all relevant stakeholders. The conceptual framework for such a transport-specific LCA will be developed within the project by uptaking and refining the known SotA based on a Needs & Gaps analysis, by building on relevant past and ongoing activities (projects, working groups of associations or networks, standardisation efforts, …). These insights will be merged into one consistent approach considering environmental, economic and social aspects. Where open gaps are identified, recommendations and processes will be derived to remove them. Furthermore, key elements for implementing a single LCA approach and framework at the European level will be described and tested. As such, *TranSensus LCA* is not researching new methodologies or tools, **nor generating real-life data**, but will provide the needed framework to implement and conduct a consistent and comparable assessment of the environmental footprint over the lifetime.

This Data Management Plan (DMP) will outline the datasets used, how they are managed and how personal date are handled.

II.   Datasets generated and used in TranSensus LCA

Within *TranSensus LCA* the SotA in terms of methodologies and tools as well as common practices regarding LCA will be identified and analysed. Based on this analysis, gaps and needs will be identified. Both serves as basis for the conceptualisation of a LCA approach which will be harmonised iteratively with all stakeholders from the road transport sector. As such, data are understood as a description of the conceptual approach, the recommended methodologies and tools, or how to obtain data but **no actual, specific (real-life) data of a product** will be generated as needed to perform an LCA. In terms of validating the proposed approach, non-sensitive, public available or anonymized data will be used (e. g. from existing database like GaBi, Ecoinvent or HQLCA). A summary of datasets generated and used is given in Table 1.

Table 1.   Data generated and used per task

Task	Data type	Data Format	Origin of data
WP 1: Screening & Evaluation of LCA concepts & approaches			
1.1	Review of current practices	Word Document	Desk search, questionnaire, provision by partners
1.2	Analysis of needs and gaps	Word document	Desk research, interviews
WP 2: Conceptualise LCA approach			
2.1	Data structure & ontology	Word document, Excel file, PowerPoint	Desk research, existing databases, provision by partners
2.2	Specification of goal & scope	Word document, PowerPoint	Desk research, provision by partners
2.3	recommendations on foreground/background data choices, data collection, data quality requirement, allocation rules	Word document, PowerPoint	Desk research, provision by partners
2.4	Description of Impact Categories, Stakeholder Categories and Impact subcategories	Word document, PowerPoint	Desk research, provision by partners
	Impact assessment guideline	Word document, PowerPoint	Transensus LCA
2.5	Recommendations for conducting sensitivity analysis, scenario analysis and uncertainty analysis	Word document, PowerPoint	Desk research, Transensus LCA, provision by partners
	Conceptualisation of decision-making and frontloading processes	Word document, PowerPoint	Desk research, Transensus LCA, provision by partners
2.6	Description of use cases	Word document, Excel file, PowerPoint	Provision by partners, existing data bases

WP 3: Consensus Building with Advisory Boards			
3.1	Description of TranSensus LCA approach	Word document, PowerPoint	TranSensus LCA
3.2	Review of TranSensus LCA approach	e-mail, word document, Excel file	Advisory boards
3.3	LCA on test case performed with TranSensus LCA approach	Word document, Excel file, PowerPoint	Advisory boards, TranSensus LCA
WP 4: Wider Stakeholder Engagement			
4.1	Contact data of members of the advisory boards, Liaison Group and International Collaboration Group	Excel file	associated stakeholders
	Contact data of externals	Excel file	External stakeholders
4.2	Recommendation and remarks on TranSensus LCA approach	e-mail, word document, Excel file	Liaison group, public consultation
	Final TranSensus LCA approach	Word document, PowerPoint	Liaison Group, TranSensus LCA
4.3	Roadmap for implementation	Word document, Excel file, PowerPoint	Advisory boards, Liaison Group, steering committee
WP 5: Guidelines & Standards			
5.1	none	-	-
5.2	Guidelines for on a consensus-based LCA approach	Word document, PowerPoint	TranSensus LCA
5.3	Dissemination material to promote the guidelines	Word document, PowerPoint	TranSensus LCA
WP 6: Outreach & Dissemination			
6.1	Study on Transferability	Word document	Desk research, provision by partners and associates
6.2	Dissemination material	Word document, PowerPoint, Internet, Prints	TranSensus LCA
WP 7: Project Management			
	Contact data lists	Excel file	Provision by partners, associates and externals

II.1 Applicability of FAIR Principles

As outlined in the previous section, no data will be generated within TranSensus LCA which allows the application of the FAIR principles. The overall aim is to describe a framework for a harmonised LCA on basis of public available information. All information used will be referenced in the public available deliverables so that every interested stakeholder can access them. No new data set or new software tools will be developed.

However, the TranSenus LCA consortium recognises the FAIR principles and will apply the following principles to reports (which summarizes all findings) and data sets generated unplanned:

a) *Making data findable*

All deliverables which are marked public will be assigned a Digital Object Identifier (DOI) before published on the project website. The DOI will be obtained by publishing the report on the Fraunhofer repository Fraunhofer Publica (https://publica.fraunhofer.de/home). For unplanned data sets and data not published in the reports, a DOI will be generated via DataCite Fabrica (https://doi.datacite.org) which is free of charge for academics. The data itself will be stored on Fraunhofer OwnCloud taking into account personal data protection rules.

b) *Making data openly accessible*

The Fraunhofer repository, on which all public reports will be listed, fulfils the demand for open access. As such, all reports are openly accessible. In case of other data sets it is assumed that they can be provided through Microsoft Office applications (Word, Excel, ….). A such, new specific tools or softwares are needed to access them via internet. However, access will only be granted if a legitim interest in accessing the data is proven. The access can be requested through the project secretariat until 5 years after end of the project. Afterwards, all data will be made public without restrictions.

c) *Making data interoperable*

The principle of interoperability does not apply to publications. In case of unplanned data, only MS Office applications are used ensuring interoperability.

d) *Increase data re-use*

All publications are made available ensuring re-use without any limitations. In case of unplanned data licencing is not foreseen and can be used free of charge (if legitim interest has been proven).

The application of the FAIR principles within TranSensus LCA does not requires additional resources nor budget and is part of the project secretariat tasks.

III. Data Management Plan

Due to the nature of *TranSensus LCA* as a Coordination and Support Action only data is expected to be generated within or gathered for the project as defined in Chapter 2. Aside from sensitive personal data most of the results and the data used in the CSA are defined as "public" documents and will be available to the community after approvement by the Project Officer. Personal data handling is addressed in Chapter 4. All data is stored and shared on safe and secure partner servers such as the Fraunhofer OwnCloud or access regulated Microsoft Teams based on SharePoint.

Table 2. Data generated and used per task

Task	Data type	Dissemination level	Data storage location
WP 1: Screening & Evaluation of LCA concepts & approaches			
1.1	Review of current practices	Public	Fraunhofer OwnCloud, MS Teams, website
1.2	Analysis of needs and gaps	Public	Fraunhofer OwnCloud, MS Teams, website
WP 2: Conceptualise LCA approach			
2.1	Data structure & ontology	Public	Fraunhofer OwnCloud, MS Teams, website
2.2	Specification of goal & scope	Public	Fraunhofer OwnCloud, MS Teams, website
2.3	recommendations on foreground/background data choices, data collection, data quality requirement, allocation rules	Public	Fraunhofer OwnCloud, MS Teams, website
2.4	Description of Impact Categories, Stakeholder Categories and Impact subcategories	Public	Fraunhofer OwnCloud, MS Teams, website
	Impact assessment guideline	Public	Fraunhofer OwnCloud, MS Teams, website
2.5	Recommendations for conducting sensitivity analysis, scenario analysis and uncertainty analysis	Public	Fraunhofer OwnCloud, MS Teams, website
	Conceptualisation of decision-making and frontloading processes	Public	Fraunhofer OwnCloud, MS Teams, website
2.6	Description of use cases	Public	Fraunhofer OwnCloud, MS Teams, website

WP 3: Consensus Building with Advisory Boards			
3.1	Description of TranSensus LCA approach	only for use for Advisory Boards and partners	Fraunhofer OwnCloud, MS Teams
3.2	Review of TranSensus LCA approach	only for use for Advisory Boards and partners	Fraunhofer OwnCloud, MS Teams
3.3	LCA on test case performed with TranSensus LCA approach	only for use for Advisory Boards and partners	Fraunhofer OwnCloud, MS Teams
WP 4: Wider Stakeholder Engagement			
4.1	Contact data of members of the advisory boards, Liaison Group and International Collaboration Group	only for use by TranSensus LCA partners, confidential	Fraunhofer OwnCloud, MS Teams
	Contact data of externals	only for use by TranSensus LCA partners, confidential	Fraunhofer OwnCloud, MS Teams
4.2	Recommendation and remarks on TranSensus LCA approach	only for use for Liaison Group and partners	Fraunhofer OwnCloud, MS Teams
	Final TranSensus LCA approach	Public	Fraunhofer OwnCloud, MS Teams, website
4.3	Roadmap for implementation	Public	Fraunhofer OwnCloud, MS Teams, website
WP 5: Guidelines & Standards			
5.1	none	-	-
5.2	Guidelines for on a consensus-based LCA approach	Public	Fraunhofer OwnCloud, MS Teams, website
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6.1	Study on Transferability	Public	Fraunhofer OwnCloud, MS Teams, website
6.2	Dissemination material	Public	Fraunhofer OwnCloud, MS Teams, website
WP 7: Project Management			
	Contact data lists	only for use by TranSensus LCA partners, confidential	Fraunhofer OwnCloud, MS Teams

IV.   Personal Data Protection

The *TranSensus LCA* consortium confirms that it will strictly adhere to Chapter V of the General Data Protection Regulation 2016/679 and national laws. Each project partner ensures that local, national and EU-wide legislation are applied when working on the project tasks. Collecting and handling personal data will be done sensitively, transparently and only in the extent that is necessary for unobstructed progress in the project. During the project each person will be able to achieve access to the stored data related to themselves, withdraw consent and request the destruction at any time.

IV.1 Personal data collected

Independent of the level of involvement only the following personal data will be collected if given consent:

- First name and surname
- Affiliation (company name, name of institution, name of association)
- Department
- E-mail address
- Phone #

In *TranSensus LCA* no sensitive personal data, such as ethnicity, sexual preference, physical characteristics, health status, financial situation or family situation, will be collected.

Besides, personal data might be collected during face-to-face meetings (e. g. General Assembly, public workshops, project meetings) or online meetings (e. g. via MS TEAMS or GoTo). In this context, personal data are additionally understood as photographs, audio and video recordings or webstreaming material (non exclusive). Upon registration and at the start of the meeting, the participants will be informed about the collection of personal data. Participants will receive an opt-out option, if they prefer that their images are neither recorded, nor published. In such cases, the meeting organizer will redact this information before any publication. Online meetings will only be recorded if all participants give consent.

The origin of collected personal data is outlined in Table 3 for the various stakeholders groups. All collected personal data are made accessible only within the consortium.

Table 3.   Origin of personal data

Origin of Data	Data format	Data storage location
Beneficiaries and associated partners		
collected via e-mail and excel file	Excel file, MS Outlook mailing list	Secure company servers such as Fraunhofer OwnCloud, MS Teams, local computer

Members of the Advisory Boards, Liaison Group and International Collaboration Group		
collected via e-mail	Excel file, MS Outlook mailing list	Secure company servers such as Fraunhofer OwnCloud, MS Teams, local computer
Partnerships & Associations		
main contact as published on respective homepage, personal contact	Excel file, MS Outlook mailing list	local computer
External stakeholders		
Registration for newsletter, e-mail contact, registrations for events, business cards received in conferences, workshops or other events	Excel file, MS Outlook mailing list	local computer
All		
Photographs, audio and video recording, webstreaming of meetings, workshops and other events	photographs e. g. as jpeg, audio and video files, e. g. as mp4	Secure company servers such Fraunhofer OwnCloud, local computer

IV.2 Data administration and management

Personal data (or data that contain personal data) gathered by a consortium member remain in the care of that consortium member and will not be distributed to any other consortium member or any party outside of the consortium. All data will be stored on secure and access-controlled servers, platforms or local computes preventing access by non-authorized persons.

In case a dataset contains personal data, it is the responsibility of the consortium partner who created the dataset to purge any personal data from the original dataset and thereby create a separate storage in which the personal data (identifying information) resides for referencing purposes only. Referencing is necessary, in case a particular individual wishes to withdraw their consent for use of their data in TranSensus LCA.

TranSensus LCA will comply with the EU general data protection regulation (GDPR). The GDPR recognizes a number of subjective rights for data subjects, who are identified or an identifiable natural person. Upon request, TranSensus LCA will provide information on the procedures that have been implemented for data collection, storage, protection, retention and destruction; and confirmation that they comply with national and EU legislation.