



Biorefineries for the valorisation of macroalgal residual biomass and legume processing by-products to obtain new protein value chains for high-value food and feed applications

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PROJECT INFORMATION

Project full title: Biorefineries for the valorisation of macroalgal residual biomass and legume processing by-products to obtain new protein value chains for high-value food and feed applications

Acronym: ALEHOOP

Call: H2020-BBI-JTI-2019

Topic: BBI-2019-S03-D3

Start date: June 1st 2020

Duration: 48 months

List of participants:

Partner no.	Type of partner	Name	Acronym	Country
1 (Coordinator)	SME	Contactica	CTA	Spain
2	SME	Isanatur	ISA	Spain
3	SME	Biozoon	BZN	Germany
4	SME	Biosurya	BIOYA	Spain
5	SME	Centiv	CENTIV	Germany
6	SME	Garlan	GARLAN	Spain
7	SME	Alginor	ALGI	Norway
8	LE	Nuscience	NUS	Belgium
9	LE	Indukern	IK	Spain
10	RTO	The Flanders Research Institute for agriculture, fisheries and food	EV-ILVO	Belgium
11	RTO	Anfaco	ANFACO	Spain
12	RTO	Tecnalía	TECNA	Spain
13	RTO	Technological University Dublin	TUDublin	Ireland
14	RTO	Universidad de Cádiz	UCA	Spain
15	RTO	Veterinary Research Institute	VRI	Czech Republic
16	RTO	Universidad de Vigo	UVIGO	Spain

DELIVERABLE DETAILS

Document Number:	D9.3
Document Title:	Data Management Plan
Dissemination level	PU – Public
Period:	PR1
WP:	WP9. Exploitation Activities
Task:	Task 9.2. Data Management Plan
Author:	CONTACTICA S.L.
Abstract:	<p>During the development of the ALEHOOP, an important amount of data will be generated, and this includes articles, reports, deliverables, datasheets from different analysis, surveys, among other. A management plan needs to be created in order to define the protocols of organization, sharing, ownership and publishing of those results. This document describes the policy adopted regarding the management of the ALEHOOP datasets.</p>

1 Data Summary

The data collection/generation within the project will be done with the purpose of achieving ALEHOOP objectives. This data will be used to validate the ALEHOOP ingredients for nutraceutical and cosmetic applications.

The collection of this data is necessary to enable 'reliable data' to know the potential of protein extraction in the ALEHOOP project. Preliminary business plans were made with data coming from previous years (i.e 2017, 2018) and the data of the year 2020 and following year are necessary to corroborate expected quantities of raw materials.

In addition, data coming from samples will be collected to determine not only the protein content but also other parameters (such as heavy metals and others) to ensure the safety of the raw materials for feed and food products.

1.1 Types and formats

The types of data generated/collected will depend on the WP. These will be updated during the project, when WPs begin to produce actual data.

In WP1, 3 types of data will be collected:

- Information data using questionnaires coming from companies, cooperatives and Fishing-brotherhoods, with data about quantities, current use, timing to collect the residues or by-products, etc. This is necessary to have a correct timing plan for further WPs
- Data of the accessibility of Laminaria Hyperborea from the Norwegian Institute of Marine Research (Havforskningsinstituttet). This data come from Norwegian institutions and they are useful to see the possibilities of the Laminaria Hyperborea. However, this raw material is available during all the year.
- Analytical data coming from the collected samples (physical samples). These data are necessary to know the characteristics of raw materials not only in terms of protein quantity, but also other parameters, such as microbial parameters or heavy metals that are necessary to guarantee the quality of the starting material to the final end-users.

Some type of data generated in WP2 at this first stage of the project is: Harvesting quantities will be tracked in internal logs. Nutritional, physic-chemical, and toxicological characterization results will be summarized in reports (MS word/pdf) including tabular data (Excel) with experimental results and literature references. Experimental setups for protein extraction will be summarized in lab reports, data on protein quantification will be presented in tables additionally, providing a better overview. Process designs will be presented in reports and flow diagrams (Visio).

The data collected or created during the ALEHOOP in WP8 project will include:

- A searchable portfolio of all relevant legislation
- Assessment of physical samples
- Experimental measurements from toxicological studies
- Data from statistical and in silico software

Typically formats of data to be generated/collected are:

- Word
- Excel
- Power Point
- Visio
- MS Project
- OpenOffice
- OpenDocument
- Office Open
- HTML (and other web based languages)
- ASCII
- .pdf
- .ps
- Rich Text Format
- .dwg
- AutoCAD, SolidWorks, Catia, UGS,
- And others

The collection of the data will come directly from own cooperatives or Fishing-brotherhoods that are collaborating in the project with data and also providing raw materials without economic benefit. Both data and analytical results will be obtained for the project as and is not a re-use of existing data. The data will be critical to the Information Management System developed during the project and of significant value to the end-user's partners in the project.

1.2 Origin

The origin of the data is from different sources:

- Legislative repositories
- Laboratory assessment of physical samples
- Experimental measurements from toxicological studies
- Data from statistical and in silico software
- Information data using questionnaires coming from companies, cooperatives and Fishing-brotherhoods
- Data of the accessibility of *Laminaria Hyperborea* from the Norwegian Institute of Marine Research (Havforskningsinstituttet)
- Analytical data coming from the collected samples (physical samples) coming from labs of ANFACO, Tecnalía and from a subcontracting Norwegian company.
- LCA data regarding materials, quantities and outputs will be provided by partners
- Emissions and resources use will be modelled using secondary data: Ecoinvent, ELCD, Agribalyse, World Food Database, etc. Literature can be also used as source of data if necessary.
- LCC data will be provided by partners
- S-LCA data will be provided by partners and official reports (WBO, national statistics reports, etc), databases (PSILCA, Social Hotspots database) and literature review.

1.3 Data Utility

The data generated will be useful for all ALEHOOP project partners, Legislative bodies, IP users, Customers and end-consumers, Stakeholders to see the “business plan” possibilities, all stakeholders in the project, Municipalities and associations to see the “impact” of the by-products and residues in specific regions. In addition, partners will have a better understanding of the environmental, economic and social performances of their products, as well as the potential improvements compared to current practices.

2 FAIR Data

2.1 Making data findable, including provisions for metadata

All kind of data that are directly, indirectly and remotely related to the project are to be stored. The data are to be collected and controlled by two persons before storing into the Company data system.

The different partners facilitate storing raw data from specific scientific- or analytical instruments. All files, databases and raw data is stored into servers or sites which are searchable from standard software. For data that need customized software for opening, searching or reading, the specific software will be available at the Company software platform.

For proprietary data formats, there will be stored a binary file, a ASCII character file, a .csv file or similar for import into common systems.

All data saved and stored in the Company data system, are to be marked or tags according to the current Company IT regulations.

The standard form of storing data are file and folder based. Files and folders are to be named with date and content (depending on the partner).

- Example for folder: YYYY-MM-DD-Content
- Example for file: YYYY-MM-DD-Content_Author

Long-term data storage will be done both in the Company servers, and in separate cloud-based system.

2.2 Making data openly accessible

Publishing of data are to be decided, depending on the IPR and the Exploitation Strategy (mostly for private companies).

By publishing data, all data necessary to understand the findings will be published in common format. Specific data will be supplied by demand.

The company own all intellectual rights to the data unless separate agreement is signed both by the Company and the data provider.

3 Allocation of resources

Cost of data storage, protection and accessibility are covered by the Company under other operating expenses. If there is additional cost for accessibility in specific project, the cost is allocated to the specific projects.

4 Data security

Alginor is using an online system (Projectplace.com) for organizing, storing and exchanging documents and data. The system requires safe login, local account and 2 level security for users to log in.

Back-up are done both by the supplier of the system (Projectplace), and by the company on local server excluded from external network, and into cloud-based system with 2-layer login.

Sensitive data are to be stored in Company office exclusively. In addition, sensitive data is backed-up into separate cloud-based servers with additional security levels.

5 Ethical issues

Partners follow GDPR. All data used and stored in the Company database will be anonymized and secured.