



**Producing novel non-plant biomass feedstocks
and bio-based products through upcycling and
the cascading use of brewery side-streams**

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Data Management Plan – 1st version

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Executive Summary

The Data Management Plan (DMP) is the document that outlines from the start of the project the main aspects of the lifecycle of research outputs, notably including data.

This includes their provenance, organisation and curation, as well as the adequate provisions for their access, preservation, sharing, and eventual deletion, both during and after the project.

The overall aim is to specify data management and protection measures during the project as well as within 5 years after its completion. The DMP will be aligned with Guidelines FAIR Data Management in Horizon Europe (findable, accessible, interoperable and re-usable). Non confidential data will be available in non-proprietary format. The personal data collected will include basic personal data, such as email. No sensitive information such as religion and health state will be gathered. Personal data will be handled in line with the General Data protection Regulation (2016/679/EU).

The first version of the Data Management Plan is published on Month 6, the interim version on Month 36 and the final version on Month 46.

1 Data Summary

1.1 Will you re-use any existing data and what will you re-use it for? State the reasons if re-use of any existing data has been considered but discarded.

The results, allocated in repositories, from previous researching experiences related to the project activities, included in the background of each partner might be used by each of them for the implementation and development of their tasks.

1.2 What types and formats of data will the project generate or re-use?

1.2.1 Type of data:

1.2.1.1 *Scientific and Technical implementation (WP 1-5)*

- Quantitative data: To be completed during the course of the project.
- Qualitative data: To be completed during the course of the project.
- Personal data (human volunteers): Name, gender, age, telephone, email address, etc.

1.2.1.2 *Techno-economic, LCSA and Biodiversity study (WP6)*

- Quantitative data: To be completed during the course of the project.
- Qualitative data: To be completed during the course of the project.

1.2.1.3 *Communication, dissemination and Coordination (WP 7 and 8)*

- Quantitative data: number of attendants to project meetings or dissemination events, number of media impacts, etc
- Qualitative data: evaluation questionnaires, pictures, videos, etc
- Personal data (members of the consortium, communication and dissemination targets, etc): Name, gender, age, telephone, email address, etc.

1.2.2 Formats of data:

The main documents or files generated through the project will be:

- **Technical reports (TR).** In these documents the members of the consortium will describe stages or processes of the project, will analyze them and/or will summarize the obtained conclusions. They will consist of detailed information regarding technical aspects and topics of the project development and progress. Whether this TRs will be shared or not will be discussed by the members of the consortium after its preparation considering IPR issues, the level of detail within the description of the process, of the design or of the results and so on.
- **Scientific publication (SP).** The data and information selected for scientific publications in peer reviewed journals will be consulted with the members of the consortium.
- **Deliverables (D).** These documents will consist of the documents that must be delivered to the European Commission in which the consortium describes and summarizes the progress of the project, more specifically of its tasks. Each work package has its own deliverables in which, following a

established template, the consortium explains the task done, the issues overcome, the obtained results and the following steps to it.

- **Amendments (AMD).** Along the road of the project's progress, changes and unforeseen events may occur. These changes and events might require a modification of the Grant Agreement. For this purpose, a certain document, called Amendment, is prepared. In these documents, the consortium justifies the required modification and establishes the new terms of some specific point of the agreement and project. The AMDs are sent to the European Commission, agreed by them and kept by the consortium, leaving the latest AMD as the updated and validated version of the agreement.
- **Power point presentations (PPT).** Along the project duration, several presentations will be done for internal meetings or external expositions, such as in fairs. As for the external expositions, the presentation will be shared firstly with the rest of the consortium and agreed by it. After the consortium's feedback or acceptance, the presentation will be shared with its members via mail or common repository, so that all of them have it.
- **Videos (V) or virtual platforms (ZOOM, TEAMS, etc.).** This type of documents consists of media files of project meetings, conferences, symposiums, workshops, seminars, etc. In every possible occasion these meetings, seminars or so will be recorded and shared with the members of the consortium.

Quantitative data and metadata will be requested, stored and transferred in comma-separated values CSV format. To facilitate the data exchange, MS Excel compatible files including comma separated and .xls(x) format will be also accepted. For statistical purposes, other formats might include .sas7bdat (SAS), .RData (R), .SAV (SPSS), .mat (matlab).

Qualitative data will be requested, stored and transferred in open formats (e.g. docx, pdf, mp4, avi, ppt, jpg, etc.).

Where applicable data formats may be migrated when new technologies become available and are proved robust enough to ensure digital continuity and continued availability of data.

1.3 What is the purpose of the data generation or re-use and its relation to the objectives of the project?

Accurate data collection is essential to maintaining the integrity and results of CHEERS project. Both the selection of appropriate data collection instruments and clearly delineated instructions for their correct use reduce the likelihood of errors occurring.

The purpose of the research data generation in CHEERS is to implement, validate and disseminate 5 biotechnological routes in 2 novel platforms (Insect and Microbial), which are based on new bioprocesses and/or innovative biofermentor configurations combined with sustainable downstream processes (DSPs).

CHEERS objectives also include the demo-scale formulation, characterization and validation of the market value of the bio-based products and the drafting of an ad-hoc roadmap of scientific knowledge transfer of the new biotechnology value chains to the main stakeholder. Some of the validations require the collection of personal data.

- Validation via 100 human volunteers with 200L insect protein drinks using insect flour.
- Validation of 100 kg of caproic acid-based feed ingredient using >120 pigs.

- Validation of 150 kg of Cl₂-based disinfectant (11% Cl₂) for sanitation in breweries and wastewater disinfection.
- Validation of 2 kg of ectoine-based cosmetic (~1% ingredient) with 30 volunteers.
- Validation of 150 kg of petfood (~5% SCP) with 75 dogs

Finally, the impacts of CHEERS solutions on the environment, including on biodiversity, will be thoroughly evaluated through environmental data collection and will lead to specific data generation.

1.4 What is the expected size of the data that you intend to generate or re-use?

It will be evaluated during the course of the project, but the expected size will range depending on the data set, from a few kbytes to several terabytes.

1.5 What is the origin/provenance of the data, either generated or re-used?

The results from research activities, trials, validation and assessments, carried out during project execution are going to be the principal output data from the project.

Personal data of volunteer participants will be collected and processed during project activities, such as validations. Coordination, communication and dissemination activities will also lead to personal data collection.

Data collected and generated during project execution will be used by CHEERS project researchers as an input for escalation from short scale trials to validation trials.

1.6 To whom might your data be useful ('data utility'), outside your project?.

- Related projects and consortiums developing their activity under HE and other funded programmes such as Life, Interreg, Eurostars, etc
- European Commission services and European Agencies
- EU National Bodies
- Big companies and SMEs
- The academia and broader scientific community
- The general public, including ONG's, consumer associations, schools, etc

2 FAIR data

2.1 Making data findable

2.1.1 Will data be identified by a persistent identifier?

The assignment and management of persistent identifiers (PIDs) to the data will be assessed in the course of first year of the project, starting with a proof of concept carried out by the CHEERS consortium and an evaluation of available PID services (either managed by the European Commission or third parties organisations)

2.1.2 Will rich metadata be provided to allow discovery? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

All data will have an associated metadata document (stored as a .txt file) which describes key aspects of the data.

The CHEERS metadata will be compliant with two European metadata standards, namely:

1. INSPIRE metadata elements for spatial data sets and services (see these elements in the INSPIRE Metadata Regulation: <http://data.europa.eu/eli/reg/2008/1205/oj#d1e600-14-1>)
2. The "DCAT application profile for European data portals" (DCAT-AP), developed in the framework of the EU ISA Programme. The European Data Portal is implementing the DCAT-AP as the common vocabulary for harmonising descriptions of datasets harvested from several data portals of 34 countries. The DCAT-AP specification is available at: https://joinup.ec.europa.eu/asset/dcat_application_profile/

2.1.3 Will search keywords be provided in the metadata to optimize the possibility for discovery and then potential re-use?

Search keywords will be provided for optimizing possibilities for discovery and re-use. To be completed during the course of the project.

2.1.4 Will metadata be offered in such a way that it can be harvested and indexed?

Metadata will include documentation of analytical methods and procedures used to conduct experiments, collection and analysis of samples and tests in the CHEERS work packages. This metadata will be stored in an internal common repository with the data, and also available in all resulting types of documents (publications, technical reports, deliverables, etc.)

The metadata accompanying the generated data will include information such as: the project name, type of document (deliverable (D), data tables (DT), amendments (AMD), etc.) names of the researchers/persons involved in the data creation/collection and their role in the project, dates of data collection and analysis, how data was collected, and a summary of methods used to collect and analyze data. This metadata will be given a specific name and stored along with the data.

2.2 Making data accessible

2.2.1 Repository

2.2.1.1 Will the data be deposited in a trusted repository?

The data and associated metadata, documentation and code will be deposited in an internal common repository of the consortium. As for the chosen data to publish, it will be deposited in an open access platform.

Regarding scientific publications, at the time of publication at the latest, a machine-readable electronic copy of the published version or the final peer-reviewed manuscript accepted for publication will be deposited in a trusted repository for scientific publications.

Universidad de Valladolid (UVa) will deposit their open and shared data at UVaDOC (Documentary Repository of Universidad de Valladolid <https://uvadoc.uva.es/>) following its Open Access policy, framed in the context of the HR Excellence in Research (HRS4R, Human Resources Strategy for Researchers).

UVaDOC is a multidisciplinary repository whose objective is to allow open access to the documentation generated by the UVa researching, teaching and institutional activity. Its objective is to increase the visibility and dissemination of its contents and to guarantee their preservation.

2.2.1.2 Have you explored appropriate arrangements with the identified repository where your data will be deposited?

UVa will comply with the requirement of publishing in Open Science (Open Data and Open Access) in its official repository (UVaDOC). Nevertheless, the “Plan Estatal I+D+I”, as you can see in <https://www.ciencia.gob.es/stfls/MICINN/Prensa/FICHEROS/2018/PlanEstatalIDI.pdf>, indicates that “all situations in which data have to be protected for reasons of confidentiality, security, protection, etc., will be respected; as well as when data are necessary for the commercial exploitation of the results obtained”.

Any investigation containing personal data must comply with the provisions of data protection legislation. In Spain, the norm that regulates these aspects is [Organic Law 3/2018, of December 5, on the Protection of Personal Data and guarantee of digital rights](#).

Data collections and databases will be protected by intellectual property, according to art. 12 of [Royal Legislative Decree 1/1996, of April 12, which approves the revised text of the Intellectual Property Law](#).

2.2.1.3 Does the repository ensure that the data is assigned an identifier? Will the repository resolve the identifier to a digital object?

UVaDOC, Uva Repository allows:

- Unity: All documents are stored in the same database, making it easier to retrieve them.
- Standardization: All documents are described with metadata according to international standards, making them retrievable from Internet search engines and harvesting services.
- Increased visibility: The author sees the impact of his or her work increase.
- Communication: Providing professors and researchers with this self-archiving tool facilitates communication and exchange of scientific information among members of the UVa scientific community. It contributes to the wider dissemination of their work.

- Evaluation: It reflects the intellectual activity of the university. It allows the evaluation of the research results of the university.

2.2.2 Data

2.2.2.1 *Will all data be made openly available? If certain datasets cannot be shared (or need to be shared under restricted access conditions), explain why, clearly separating legal and contractual reasons from intentional restrictions. Note that in multi-beneficiary projects it is also possible for specific beneficiaries to keep their data closed if opening their data goes against their legitimate interests or other constraints as per the Grant Agreement.*

As per Article 17 and Annex 5 of the Grant Agreement, each beneficiary must ensure open access (free of charge online access for any user) to all peer-reviewed scientific publications relating to its results. This allows the scientific community greater access to the knowledge generated in the project.

In particular, the beneficiary must:

- As soon as possible and at the latest on publication, deposit a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication in a repository for scientific publications
- Ensure open access to the deposited publication – via the repository – at the latest:
 - On publication, if an electronic version is available for free via the publisher, or
 - Within six months of publication in any other case.
- Ensure open access – via the repository – to the bibliographic metadata that identify the deposited publication.

The bibliographic metadata must be in a standard format and include all of the following:

- The terms “European Union (EU)” and “Horizon 2020”
- The name of the action, acronym and grant number
- The publication date, and length of embargo period if applicable, and
- A persistent identifier (e.g. DOI).

The consortium partners will identify which data will be made openly available and which cannot be shared (or need to be shared under restriction), including the reason why access is restricted in the latter case. Details on the repository, the methods and tools necessary to access the data will be included in future versions of the DMP. The consortium aims at using the project website (or other easily accessible repositories) as repository for open accessible (public) data, ensuring easy access to anyone interested.

Data released will be previously discussed and agreed in the framework of the general assembly to deal with the statements collected in the GA and CA. Data generated in the project will be placed in a repository (UVaDoc) until it is ready to be published as an open access article. This data will be accessible by the scientific community for validating the article’s results and conduct further research through data mining.

Access to data could be done from any computer or mobile device with internet connection. Data will be accessible using broadly extended operative systems such as Windows or Linux. Most of the deliverables will be shared as default, as well as data for dissemination describing the results and quality of the products.

2.2.2.2 *If an embargo is applied to give time to publish or seek protection of the intellectual property (e.g. patents), specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.*

This will be assessed in the second or final version of the DMP

2.2.2.3 Will the data be accessible through a free and standardized access protocol?

The data and associated metadata, documentation and code will be deposited in an internal common repository of the consortium. As for the chosen data to publish, it will be deposited in an open access platform.

2.2.2.4 If there are restrictions on use, how will access be provided to the data, both during and after the end of the project?

Data will be restricted when it is necessary to allow the protection and exploitation of results. The Project partners intend to generate data that potentially leads to patents and therefore some data may be restricted during the project to allow partners sufficient time to protect the intellectual property (IP). The IPR manager will continually monitor potential IP. Every effort will be made to ensure that unnecessary delays in release of data/results does not occur, but the ability of partners to protect IP will not be compromised in doing so.

All copyright and Intellectual Property issues respect to all the data generated during the project will be managed by the IPR manager of CHEERS project.

2.2.2.5 How will the identity of the person accessing the data be ascertained?

The identity of the person accessing the data will be ascertained by enabling the possibility of obtaining the IP or perhaps asking some simple information questions, such as location and nature of the user (enterprise, university, individual...). This information might be used for market analysis and business plan reasons.

2.2.2.6 Is there a need for a data access committee (e.g. to evaluate/approve access requests to personal/sensitive data)?

The figure of Data Protection Officer (DPO) has been assigned to AINIA's Corporate Secretary - Legal Counsel. A data committee is not already conformed but will be the object of future meetings.

2.2.3 Metadata

2.2.3.1 Will metadata be made openly available and licenced under a public domain dedication CC0, as per the Grant Agreement? If not, please clarify why. Will metadata contain information to enable the user to access the data?

Metadata of deposited data must be open under a Creative Commons Public Domain. Dedication (CC 0) or equivalent (to the extent legitimate interests or constraints are safeguarded), in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: datasets (description, date of deposit, author(s), venue and embargo); Horizon Europe funding; grant project name, acronym and number; licensing terms; persistent identifiers for the dataset, the authors involved in the action, and, if possible, for their organisations and the grant. Where applicable, the metadata must include persistent identifiers for related publications and other research outputs.

2.2.3.2 How long will the data remain available and findable? Will metadata be guaranteed to remain available after data is no longer available?

Data will remain available and findable during 5 years after the end of the project. Metadata will remain available after that point up until 10 years after the end of the project.

2.2.3.3 Will documentation or reference about any software be needed to access or read the data be included? Will it be possible to include the relevant software (e.g. in open source code)?

All data will be published using standard file formats (txt, pdf, csv etc.) and therefore will be accessible through standard and commonly used office software. It is not expected to develop data in uncommon or

specialized software. Should it be required we would provide the required open source to access and analyse the data.

2.3 Making data interoperable

2.3.1 What data and metadata vocabularies, standards, formats or methodologies will you follow to make your data interoperable to allow data exchange and re-use within and across disciplines? Will you follow community-endorsed interoperability best practices? Which ones?

All data will be published using standard file formats (docx, xlsx, txt, pdf, csv etc.) as noted above, and therefore will be interoperable and ready to be exchanged and re-used.

Researchers involved in the project are registered in different databases and research networks to interact with other researchers, for instance Researchgate, Scopus or Web of Science. They are registered in ORCID or Scopus, systems to uniquely identify researchers, which implies the contact information is available for the research community.

2.3.2 In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies? Will you openly publish the generated ontologies or vocabularies to allow reusing, refining or extending them?

It is not expected to use uncommon or specific ontologies or vocabularies. Should it be required we would provide mappings to more commonly used ontologies.

2.3.3 Will your data include qualified references to other data (e.g. other data from your project, or datasets from previous research)?

CHEERS data will include qualified references to other data (previous project data or previous research data) whenever needed.

2.4 Increase data re-use

2.4.1 How will you provide documentation needed to validate data analysis and facilitate data re-use (e.g. readme files with information on methodology, codebooks, data cleaning, analyses, variable definitions, units of measurement, etc.)?

Information regarding the reusability of the data will be provided for each dataset separately. The consortium partners provided relevant information on embargo periods and the intended period that their data will remain reusable.

An unique data identifier and access to links associated to public repositories will be provided when data are deposited.

For publication, gold open access is the preferred option; therefore, data susceptible of publication will be available upon publication. The data that is published in Open Access will be reusable and this data will be

provided under a CC-BY licence (<https://creativecommons.org/licenses/>). This approach will increase data re-using.

Non confidential data will be available for its use by third parties after the end of the project, as it is going to be published as open access articles.

2.4.2 Will your data be made freely available in the public domain to permit the widest re-use possible? Will your data be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?

All copyright and Intellectual Property issues respect to all the data generated during the project will be managed by the IPR manager of CHEERS project.

2.4.3 Will the data produced in the project be useable by third parties, in particular after the end of the project?

Information regarding the reusability of the data will be provided for each dataset separately. The consortium partners provided relevant information on embargo periods and the intended period that their data will remain reusable.

Unique data identifier and access to links associated to public repositories will be provided when data are deposited.

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Non confidential data will be available for its use by third parties after the end of the project, as it is going to be published as open access articles.

2.4.4 Will the provenance of the data be thoroughly documented using the appropriate standards?

CHEERS data will include detailed information on the provenance of the data (either previous project data or previous research data) in a standardized way.

2.4.5 Describe all relevant data quality assurance processes.

To ensure data quality, data will be collected by skilled researchers, research assistants, and technicians with the appropriate competencies and training to use the relevant analytical equipment and instruments for data collection tasks. The equipment employed has checks to ensure data integrity at the point of collection. Data quality will further be maximized by applying appropriate statistical analysis methods and tools to minimize the possibility of “misleading” results/points arising due to stochastic noise or analytic interferences. Furthermore, the data collected will include metadata on the analytical equipment and instruments used for data collection. Data checksums will be used to ensure that files copied from local RDM (Remote Desktop Manager) provisions to public repositories are done faithfully.

3 Other research outputs

3.1 In addition to the management of data, beneficiaries should also consider and plan for the management of other research outputs that may be generated or re-used throughout their projects. Such outputs can be either digital (e.g. software, workflows, protocols, models, etc.) or physical (e.g. new materials, antibodies, reagents, samples, etc.).

As other research outputs, CHEERS has put in place a website www.cheers-project.eu

3.1.1 Users

The access and / or use of this website attributes the condition of USER, that accepts, from such access and / or use General Conditions of Use reflected here.

3.1.2 Use of the website

www.cheers-project.eu provides access to services or data (hereinafter “the contents”) on the Internet belonging to SISTERS or to third parties to which the USER can access. The USER assumes responsibility for the use of the website.

The USER agrees to make appropriate use of the content that CHEERS offers through its website and, with an enunciative but non-limiting character, and not to use it for:

To engage in illegal activities, illegal or contrary to good faith and public order.

Differing content or propaganda of a racist, xenophobic, illegal pornography, terrorism advocacy or human rights violation.

Provide damage to the physical and logical systems of CHEERS, its suppliers or third parties, to introduce or disseminate in the network computer viruses or any other physical or logical systems that are likely to cause the aforementioned damages.

3.1.3 Intellectual property

All distinctive signs, trademarks, trade names, contents, structure, design and presentation of the elements and any other information appearing on this website are property of CHEERS by itself or of third parties as a transferee and are protected by intellectual property rights.

The user is not allowed to reproduce, transform, distribute, publicly communicate and, in general, any other form of exploitation of the elements referred to in the previous section without express authorization of CHEERS.

The user shall refrain from using means that may suppress, alter, circumvent, or manipulate any security devices or security systems that may be installed and that carry a risk or damage to the website and / or its contents.

CHEERS is not responsible for the possible improper use that third parties make of this web page, or the information transmitted through it to third parties. The use of the contents that the user can make and the possible consequences, damages or derived damages, are of the exclusive responsibility of the USER. CHEERS is excluded from damages caused to users by the use of links, directories and search tools, which allow users to access websites owned and / or managed by third parties as well as the presence of viruses or other malicious code in content that can cause any type of damage to the computer system, electronic documents or user files. CHEERS reserves the right to exercise any legal action it deems appropriate arising from any unlawful use by third parties of the contents of its website.

3.1.4 Exclusion of guarantees and responsibility

CHEERS shall not be liable, in any case, for damages of any nature that could cause, by way of example: errors or omissions in the contents, unavailability of the website or the transmission of viruses or malicious or harmful programs in the content, despite having taken all necessary technological measures to avoid it.

3.1.5 Modifications

CHEERS reserves the right to make modifications without prior notice, as it deems appropriate in its website, being able to change, delete or add both the contents and services provided through it and the way in which they appear presented or located in its website.

3.1.6 Links

In the event that links or hyperlinks to other Internet sites are provided on the domain name, CHEERS will not exercise any control over such sites and contents. In no case will CHEERS assume any responsibility for the contents of any link belonging to a third party website, nor guarantee the technical availability, quality, reliability, accuracy, comprehensiveness, validity and constitutionality of any material or information contained in any of said hyperlinks or other Internet sites. Likewise, the inclusion of these external connections will not imply any type of association, merger or participation with connected entities.

3.1.7 Generalities

CHEERS will pursue the breach of the conditions as well as any improper use of its website by exercising all civil and criminal actions that may correspond to it in law.

3.1.8 Modification of the present conditions and duration

CHEERS may at any time modify the conditions here determined, being duly published as they appear here.

3.1.9 Applicable legislation and jurisdiction

The relationship between CHEERS and the USER will be governed by current Spanish regulations and any controversy will be submitted to the Spanish Courts and Tribunals.

3.2 Beneficiaries should consider which of the questions pertaining to FAIR data above, can apply to the management of other research outputs, and should strive to provide sufficient detail on how their research outputs will be managed and shared, or made available for re-use, in line with the FAIR principles.

CHEERS respects the privacy of its users and complies with the General Data Protection Regulation 2016/679 of the EU. This Privacy Policy explains how we collect, use, disclose, and safeguard user information.

3.2.1 Comments Comments

When visitors leave comments on the site we collect the data shown in the comments form, and also the visitor's IP address and browser user agent string to help spam detection. An anonymized string created from your email address (also called a hash) may be provided to the Gravatar service to see if you are using it. The Gravatar service privacy policy is available here: <https://automattic.com/privacy/>. After approval of your comment, your profile picture is visible to the public in the context of your comment.

3.2.2 Media

If you upload images to the website, you should avoid uploading images with embedded location data (EXIF GPS) included. Visitors to the website can download and extract any location data from images on the website.

3.2.3 Contact Forms

CHEERS uses contact forms to collect information about the for collaboration purposes. Innovarum (website administrator), collects and saves this information in local servers. To subscribe, the user must consent to the privacy policy conditions described in this point. CHEERS collects the following data for identification purposes:

Email: this information is compulsory to submit the form & to allow for future collaboration.

Basic widely public information on the initiative or project that wishes to collaborate with CHEERS.

3.2.4 Cookies

Cookies are small text files that are used to store small pieces of information. The cookies are stored on your device when the website is loaded on your browser. These cookies help us make the website function properly, make the website more secure, provide a better user experience, and understand how the website performs and analyse what works and where it needs improvement.

For more information, read our [Cookie Policy](#), which explains what cookies are and how we use them. You should read this policy to understand what cookies are, how we use them, the types of cookies we use i.e, the information we collect using cookies and how that information is used and how to control the cookie preferences. You can at any time change or withdraw your consent from the Cookie Declaration on our website: www.cheers-project.eu

3.2.5 Embedded content from other websites

Articles on this site may include embedded content (e.g. videos, images, articles, etc.). Embedded content from other websites behaves in the exact same way as if the visitor has visited the other website.

These websites may collect data about you, use cookies, embed additional third-party tracking, and monitor your interaction with that embedded content, including tracking your interaction with the embedded content if you have an account and are logged in to that website.

3.2.6 Analytics

This website uses Google Analytics services to understand how the website performs, how the USER interacts with the website, keeping our services secure, to provide the user with a better and improved user experience and help speed up future interactions with the website.

For more information on the cookies used in order to carry out this task, visit our [Cookie Policy](#).

3.2.7 How long we retain your data

If you leave a comment, the comment and its metadata are retained indefinitely. This is so we can recognize and approve any follow-up comments automatically instead of holding them in a moderation queue. An anonymized string created from your email address (also called a hash) may be provided to the Gravatar service to see if you are using it. The Gravatar service privacy policy is available here: <https://automattic.com/privacy/>.

4 Allocation of resources

4.1 What will the costs be for making data or other research outputs FAIR in your project (e.g. direct and indirect costs related to storage, archiving, re-use, security, etc.) ?

CHEERS project's budget includes direct costs for data management up to 40,000.00 €. These costs are related to congress and seminars fees attendance for dissemination and communication actions and collecting data, and publication of open access scientific articles with project results and publication in specialized media, IPR registrations and patent processing.

Additionally, personnel effort for Data Management is included in the Dissemination and Communication effort, which is 140 PM.

4.2 How will these be covered? Note that costs related to research data/output management are eligible as part of the Horizon Europe grant (if compliant with the Grant Agreement conditions)

These costs will be covered by the CHEERS project budget.

4.3 Who will be responsible for data management in your project?

All members will be responsible for data management, since it will be generated and handled by all.

The Data Management Plan to ensure the safe data collection, handling and storing will be led by AINIA's Corporate Secretary - Legal Counsel, in the role of Data Protection Officer (DPO), which will oversee proper data management and protection on the consortium level.

4.4 How will long term preservation be ensured? Discuss the necessary resources to accomplish this (costs and potential value, who decides and how, what data will be kept and for how long)?

In terms of long-term preservation, the consortium will agree during the project on how data will be kept and for how long, considering the preservation for at least the duration of the project and as voluntary the follow-up once the project ends.

5 Data security

5.1 What provisions are or will be in place for data security (including data recovery as well as secure storage/archiving and transfer of sensitive data)?

CHEERS will use methods that emphasize easy access and extended contact and trust building among participants. The following guidelines will be followed in order to ensure the security of the data:

- Store data in at least two separate locations to avoid loss of data.
- Encrypt data if it is deemed necessary by project researchers
- Limit the use of USB flash drives

For the duration of the project, datasets will be stored on the responsible partner's storage system. Every partner is responsible to ensure that the data are stored safely and securely and in full compliance with European Union data protection laws. After the completion of the project, all the responsibilities concerning data recovery and secure storage will go to the repository storing the dataset.

If chosen as a storage method, the repository would allow the storage of data for a period of at least 10 years. Its file management and security information is available from the website. It is important that the data that is necessary to validate the results included in any Project publication is stored under these or similar conditions to ensure open access and maximum reuse of the data.

As for data security, each member will keep their own data with a safe copy (in a removable hard disk or similar device) for enabling a potential back-up in case its needed. Furthermore, the platforms used to share the data are reliable in terms of preservation and curation. Access to a specific data will be restricted only to the CHEERS consortium and access to third parties can be granted upon request.

5.2 Will the data be safely stored in trusted repositories for long term preservation and curation?

During the implementation of CHEERS project the consortium members will collect data in various forms, e.g. pen and paper, photos, videos, electronic documents. For the purpose of the project documentation this data will be stored individually by each partner. For this, the respective organizational rules and regulations of each partner with respect to data storage and security apply.

Curating and preserving data takes time, so criteria such as those outlined below should be considered in the decision-making process:

- Does the data support validation of your findings?
- Do the data outputs have long term value?
- Can the data be re-used?
- Is it necessary to keep the data as evidence or for legal reasons?

The data collected in this project along with the metadata will be stored in an internal common repository of the consortium. As for the chosen data to publish, it will be deposited in an open-access platform.

6 Ethics

6.1 Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? These can also be discussed in the context of the ethics review. If relevant, include references to ethics deliverables and ethics chapter in the Description of the Action (DoA).

No ethic issues are expected. The personal data collected will include basic personal data, such as name, age, email. No sensitive information such as religion and health state will be gathered. Data will be anonymized or pseudonymised up to the level as to not interfere with the quality of the research.

Legal issues will be prevented by making data available following the principle ‘as open as possible as closed as necessary’. Open access will be granted unless it would:

- be against the beneficiary’s legitimate interests, including regarding commercial exploitation, or
- be contrary to any other constraints, in particular the EU competitive interests or the beneficiary’s obligations under the Grant Agreement and the Consortium Agreement;

6.2 Will informed consent for data sharing and long term preservation be included in questionnaires dealing with personal data?

Questionnaires including with personal data will include informed consent.

7 Other issues

7.1 Do you, or will you, make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones (please list and briefly describe them)?

We don’t expect to use any other procedure for data management.



CHEERS

**Producing novel non-plant biomass feedstocks
and bio-based products through upcycling and
the cascading use of brewery side-streams**

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