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BIObec

Preparing the creation of Bio-Based Education Centres to meet industry needs and boost the contribution of the bioeconomy to societal challenges

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Scheduled Data Management Plan (DMP) Updates

The DMP is a document that evolves during the lifespan of the project and registers all relevant changes in the life-cycle of all the research data sets of BIOBEC project. Updated versions of the DMP have already been planned (see table below). Moreover, this document will be updated whenever important changes in the data or the data management policy occur.

Issue	Expected by project month (M)
Initial DMP	6
Final DMP	30

Partner Acronyms

Partner extended name (country)	acronym
ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	UNIBO
UNIVERSITAET HOHENHEIM	UHOH
ITÄ-SUOMEN YLIOPISTO	UEF
IRISH BIOECONOMY FOUNDATION	IBF
MUNSTER TECHNOLOGICAL UNIVERSITY	MTU
FUNDACION CORPORACION TECNOLOGICA DE ANDALUCIA	CTA
CONSIGLIO NAZIONALE DELLE RICERCHE	CNR
FBCD AS	FBCD
INSTITUT NATIONAL DES SCIENCES ET INDUSTRIES DU VIVANT ET DE	APT
L'ENVIRONNEMENT – AGROPARISTECH	AFI
UNIVERSIDAD AUTONOMA DE BARCELONA	UAB
FUNDACJA EDUKACJI I DIALOGU SPOLECZNEGO PRO CIVIS	PRO-CIVIS
SUSTAINABLE INNOVATIONS EUROPE SL	SIE
STICHTING IHE DELFT INSTITUTE FOR WATER EDUCATION	IHE
WAGENINGEN UNIVERSITY	WU
FVA SAS DI LOUIS FERRINI & C	FVA
UNIVERSITAET FUER BODENKULTUR WIEN	BOKU
INSTYTUT BADAN EDUKACYJNYCH	IBE
TRAKIYSKI UNIVERSITET	TRU
ZEMEDELSKY VYZKUM, SPOL SRO	ART



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The Data Management Plan (DMP)

The DMP is a document that provides details regarding all the research data collected and generated within the BIObec project. In particular, it explains the way research data are handled, organized, licensed and made openly available to the public, and how they will be preserved after the project is completed. The DMP also provides motivations when versions or parts of the project research data cannot be openly shared on account of third-party copyright issues, confidentiality or personal data protection requirements or when open dissemination could jeopardize the project's achievements.

This version represents the final DMP of the BIObec project, with all the data sets produced during the research.

1. Data Summary

The aim of the project is to create a holistic framework for developing and establishing multilevel Bio-Based Education Centres (BBECs) that are flexible enough to answer the present and future needs of the industry and of the surrounding ecosystem at local, regional and/or national levels.

The project collected and generated several types of data:

- 1. Data from re-analysis of existing data sets;
- 2. Qualitative and quantitative data from existing documentary sources; and
- 3. Data from surveys, questionnaires, interviews and focus groups.

Research teams have agreed to convert research data from proprietary formats to well-known and documented open formats in order to facilitate accessibility and reusability (Tab.1).

Table 1 - Summary of data format

Type of data	Formats used during data processing	Formats for sharing reuse and preservation
Numerical	.xls/.xlsx	.csv, .ods
Textual	.docs, .odt, .csv, .ppt, .pdf, .json	.docs, .odt, .csv, .ppt, .pdf, .json
Video	.mp4, .mpg, .avi, .wmv	.mp4, .mpg, .avi, .wmv
Images	.jpeg, .png	.ipegpng

Documentation files explaining all relevant details regarding data collection, processing methodologies and quality assurance are deposited along with the data sets in .odt, .rtf or .pdf format.

The existing data reused in the course of the project are from different sources: scientific literature, grey literature, other projects' deliverables, conference papers, and public European data.

The data produced can be of interest to different potential users. They may include researchers, policymakers, public administrations, educational organizations, companies and business organizations, Non-Governmental Organizations, trade unions.







Moreover, information about data volume can be found in the descriptive tables in Annex I.

2. FAIR Data

This DMP follows the EU guidelines¹ and describes the data management procedures according to the FAIR principles². The acronym FAIR identifies the main features that the project research data must have in order to be findable, accessible, interoperable and re-useable, allowing thus for maximum knowledge circulation and return on investment.

2.1 Making data findable, including provisions for metadata

At the moment of publication of project results, each research team deposited and described the relative underlying data sets in institutional or public data repositories that can attribute persistent unique identifiers to the deposited items. Partners were strongly recommended to use the persistent unique identifiers (DOI or Handle) to cite the data sets as underlying data within their research publications. The chosen data repositories support standard descriptive metadata to ensure data sets indexing and discoverability. In particular, they all support Dublin Core and DataCite Metadata Schema. Moreover, they comply with the OpenAIRE 3.0 requirements for data archives. As a consequence, the project data sets are visible via the OpenAIRE portal, facilitating project reporting procedures (see Table 2 for the list of the chosen data repositories).

Specific keywords derived, when possible, from thesauri and controlled vocabularies were associated with each data set to enhance semantic discoverability.

BIObec research data are organized in data sets, which are named collections of data units with the same focus and scope. In this DMP, are suggested the following common rules for data set naming in order to improve data visibility, discoverability, citation and permanent online tracking. The recommended data set title structure consists of:

PROJECT ACRONYM. WPnumber. WP title or description specifying WP aims. Tasknumber. Task title or description specifying Task aims. additional information specifying coverage and nature of data (if necessary). version number (optional, in case of revisions to help identify the updates, especially in repositories that do not track versioning automatically)

Furthermore, it was recommended to add the version number of the data set at the end of the title in case of data revisions to help identify the data set updates, especially in repositories that do not track versioning automatically (see Annex I for data set names, unique identifiers and descriptions).

The DMP recommends also the following rules for file naming:

for data set file(s)

¹ Guidelines on FAIR Data Management in Horizon 2020 (Version 3.0, 26 July 2016), http://ec.europa.eu/research/participants/data/ref/h2020/grants manual/hi/oa pilot/h2020-hi-oa-data-mgt en.pdf ² The FAIR data principles (Force11 discussion forum), https://www.force11.org/group/fairgroup/fairprinciples







[PROJECT ACRONYM] WPnumber Tnumber coverage or other content specifications_date (YYYYMMDD)_vn.file extention

for readme file(s)³

[PROJECT ACRONYM] WPnumber_Tnumber_coverage or other content specifications_date (YYYYMMDD)_vn_README.file extention

WPnumber means "work package number" Tnumber is "task number", and vn is the "version number" (in case of data revisions or updates).

2.2 Making data openly accessible

As a guiding principle, BIObec seeks to make research data openly available, whenever possible, in order to allow dissemination, validation and re-use of research results. To this purpose, all the files have been converted to standard and well-documented open formats and the data sets have been deposited together with all relevant documentation and explanations.

Restrictions to access are applied only in the following cases:

- when collected data belongs to third parties which have denied permission to share them on account of confidentiality and proprietary issues;
- protection of personal data of key informants involved in surveys, focus groups, interviews, and case studies;
- when the availability of the data would mean that the project's main aim might not be achieved (reasons will be explained in the accessibility details relating to each data set described in Annex I);

As a consequence, all possible and legitimate actions and strategies are adopted to allow data sharing including:

- Obtaining copyright permissions from third-party data owners to be allowed to re-use, reproduce and distribute the collected data;
- Converting the files to standard open formats;
- Providing all relevant documentation and explanation for the data and the data sets;
- Obtaining the consent of stakeholders involved in focus groups and anonymizing and aggregating the data of interviews;
- In case of copyright on raw data derived, collected or elaborated from pre-existing databases or from other original sources (i.e. papers, journal articles, book chapters, reports, video and audio sources), collected data have been made available if the reproduction and sharing were allowed by expressed permission of the right holders or by applicable copyright exceptions and exemptions. Specifically, reproductions and communication of brief excerpts of texts and of other protected works are permitted for illustration purposes for scientific research, provided that the source, including the author's name, is acknowledged and that the use does not conflict with the exploitation of the original source and does not unreasonably prejudice the legitimate interests of right holders. Otherwise, only aggregate data resulting from the analysis will be openly

³ A "README" file is a document containing relevant information about data set authorship, terms of reuse and responsibilities, explaining data set content and structure, collection procedures and analysis (such as file specifics, methodologies, codebooks of variables, data sources, and further necessary notes). (See Annex II to visualize the suggested README file template).







published. Anyway, when the sources are freely available on-line in their original repositories, but direct reproduction is not allowed, a detailed account of how the data set was created from the original data will be provided, together with the specification of open repositories from where the original data sets are available. Raw data consisting of full texts will not be made available without copyright holders' permission.

For data that fall under some of the restrictions described above and for which it is not possible to take any action to make them shareable, the EU allows complete closure or restricted access to them. BIObec DMP indicates the versions or parts of the data sets that cannot be freely shared providing the specific motivations in Annex I.

At the time of publication of results, researchers deposit the project data that can be shared in a data repository in order to guarantee their discoverability, access and preservation beyond the project end.

The data repositories chosen by partners are both institutional and public repositories. They guarantee long-term preservation and attribute persistent unique identifiers to the archived data sets (such as DOI or Handle). They support open licenses and different access levels. Finally, they adopt descriptive metadata standards as required by the OpenAIRE Guidelines and allow cross-linking between publications and the relevant data sets.

Each different data set is deposited by the team that is responsible for the data collection and management in the repository of their choice.

Table 2 – Summary of repositories. The following table shows the repositories for data sets publication and preservation chosen by BIOBEC partners

Partner	Repository name	URL	Туре
UNIBO	AMS Acta	https://amsacta.unibo.it/	Institutional
инон	Zenodo	https://zenodo.org/	Multi-
0	2011040	11000.018/	disciplinary
UEF	Zenodo	https://zenodo.org/	Multi-
<u> </u>	2011040	11000.018/	disciplinary
IBF	Zenodo	https://zenodo.org/	Multi-
101	Zenodo	11ttps://2c110do.org/	disciplinary
MTU	Zenodo	https://zenodo.org/	Multi-
14110	2011000	11ttp3.//2c110d0.01g/	disciplinary
СТА	Zenodo	https://zenodo.org/	Multi-
CIA	Zenodo	11ttp3.//2c110d0.01g/	disciplinary
CNR	Zenodo	https://zenodo.org/	Multi-
CIVIX	Zenodo	nttps://zenouo.org/	disciplinary
FBCD	Zenodo	https://zenodo.org/	Multi-
TOCO	Zenodo	11ttp3.//2c110d0.01g/	disciplinary
APT	INRAE	https://data.inrae.fr/	Institutional
UAB	Zenodo	https://zenodo.org/	Multi-
OAD	Zenodo	nttps://zeriodo.org/	disciplinary
PRO-	Zenodo	https://zenodo.org/	Multi-
CIVIS	2611000	ittps://zeriodo.org/	disciplinary
SIE	Zenodo	https://zenodo.org/	Multi-
JIL	Zenodo	intips.//zenouo.org/	disciplinary
IHE	Zenodo	https://zenodo.org/	Multi-
INE	Zenodo	iittps.//zeiiouo.org/	disciplinary
wu	Zenodo	https://zenodo.org/	Multi-
""	2011000	11ccp3.//2c110d0.01g/	disciplinary









Partner	Repository name	URL	Туре
FVA	Zenodo	https://zenodo.org/	Multi- disciplinary
воки	Zenodo	https://zenodo.org/	Multi- disciplinary
IBE	Zenodo	https://zenodo.org/	Multi- disciplinary
TRU	Bulgarian Open Science Portal (BPOS)	https://bpos.bg/	Multi- disciplinary
ART	Zenodo	https://zenodo.org/	Multi- disciplinary

Table 3 – Features of the chosen repositories

Repository name	Туре	Permanent ID	OpenAIRE compatibility?
AMS Acta	Institutional	DOI	OpenAIRE 3.0 (OA, Funding)
Zenodo	Multi-disciplinary	DOI	OpenAIRE Basic (DRIVER OA)
Bulgarian Open	Multi-disciplinary	DOI	OpenAIRE PUBREPOS V4.0
Science Portal			
(BPOS)			
Dipòsit Digital de	Institutional	DOI	OpenAIRE 2.0+ (Driver OA, EC
Documents de la			Funding)
UAB - DDD			
INRAE	Institutional	DOI	OpenAIRE Data (Funded,
			Referenced Datasets)

For each deposited data set, all relevant documentation explaining data collection procedures and analysis (such as codebooks, methodologies, etc.) was made available along with the data, in order to guarantee intelligibility, reproducibility and validation of the project findings. Moreover, the deposited documentation specifies the tools and software recommended to reproduce and reuse the data, when necessary (see Tab.5 for examples of tools and software enabling reuse of the dataset).

Furthermore, for better information, the repositories that were used by the research partners for any publications deriving from the project data are shown in Tab.4.

Table 4 – The chosen repositories for scientific publications

Team	Repository	URL	
UNIBO	IRIS	https://cris.unibo.it/	
UEF	eRepo	https://erepo.uef.fi/	
MTU	SWORD	https://sword.cit.ie/	
CNR	PEOPLE	https://intranet.cnr.it/people/	
		https://hal-	
APT	HAL	agroparistech.archives-	
		ouvertes.fr/	
UAB	DDD	http://ddd.uab.cat	
WU	eDepot	https://edepot.wur.nl/	
воки	Zenodo	https://zenodo.org/	
TRU	Bulgarian Open Science Portal (BPOS)	https://bpos.bg/	









2.3 Making data interoperable

All data sets were described using standard descriptive metadata, such as Dublin Core and DataCite Metadata Schema in order to ensure metadata interoperability for indexing and discoverability. All relevant documentation explaining codebooks, users' manuals, data collection procedures and analysis were made available along with the data in order to guarantee intelligibility, reproducibility and validation of the project findings.

To allow data exchange and re-use among researchers, institutions, organisations, countries, etc., partners converted all shareable data from proprietary formats and made them available in well-known and documented open formats (see Tab.1 for details), as much as possible compliant with available (open) software applications.

Table 5 – Summary of tools and software for enabling re-use of the data sets

Tools/software
OpenOffice or LibreOffice
CSV viewer
Free images/video viewers

2.4 Increase data re-use (through clarifying licences)

BIObec distributes the shareable data by adopting licenses that allow re-use of the data and of the data sets in their entirety by other scholars and stakeholders. The data sets are made available, unless otherwise stated, under CC BY 4.0.

In general, data are made openly available as underlying data necessary to validate the research results immediately at the time of publication of public reports and scientific papers. Data are given full citation from official project publications and web site and they are made available through institutional or public data repositories compliant with OpenAIRE requirements⁴ (See Tab.2).

It is possible that an embargo period may be applied to some data sets to allow full exploitation of research results by the partners.

The research data that are made openly available are deposited in open formats in repositories that guarantee long term preservation of archived items, therefore they will be re-usable by third parties after the end of the project.

2.5 Allocation of resources

Making data FAIR requires an investment of money and researchers' time. In the BIObec case, the cost of data preservation after the project end are null because the chosen repositories do not apply fees for archiving and data curation.

During the project, a cloud storage solution was adopted to share data among partners. The cost to activate and maintain it for the duration of the project was covered by the project budget. The budget covered also the costs related to the project website setting up.

⁴ OpenAIRE, For Data Providers https://www.openaire.eu/intro-data-providers







Costs related to data management and documentation, conversion of proprietary data files into open formats, and deposit procedures can be estimated at about 3-5% of the amount of Person-Months assigned to each Partner for the research activities. A special case is represented by the time-consuming activities related to the processing of interviews (i.e. transcription, translation and anonymization). Processing costs were estimated, for each Partner involved, about 0.1 Person-Months/hour of audio recording. Moreover, the activities related to the DMP (such as providing guidance on data management and open access issues, coordinating the Partners, and preparing the DMP) cost about 3 Person-Months a year for the whole duration of the project.

Responsible for data management are the data sets creators who are generally the team leaders directly involved in research data organization and collection (see Table 6). Researchers are encouraged to identify themselves with the unique persistent identifier ORCID. Registration is free of charge for researchers and allows for automated linkages between the researched identity and his research activities and outputs.

Team	Leader	ORCID ID (if available)	mail
UNIBO	Viaggi, Davide	0000-0001-9503-2977	davide.viaggi@unibo.it
UHO	Mayorga-Duarte, Lina	0009-0005-9981-2969	lina.mayorgaduarte@uni-hohenheim.de
UEF	Jouni Pykäläinen	0000-0003-3427-9954	jouni.pykalainen@uef.fi
MTU	Mc Mahon, Helena	0000-0002-4416-0300	helena.mcmahon@mtu.ie
CTA	García Alegre, María	0009-0007-9684-1304	maria.garcia@corporaciontecnologica.com
CNR	Torreggiani, Armida	0000-0002-5392-8641	armida.torreggiani@isof.cnr.it
FBCD	Tybirk, Knud	N/A	kt@foodbiocluster.dk
UAB	Barrera-Corominas, Aleix	0000-0002-3129-6284	aleix.barrera@uab.cat
SIE	Garcia, Rocío	N/A	rociogarcia@sustainableinnovations.eu
IHE	Dupont, Capucine	0000-0002-3045-7867	c.dupont@un-ihe.org
FVA	Albertini, Susanna	0000-0002-7330-8722	albertini@fvaweb.it

Table 6 - Summary and contacts of the research team leaders.

Moreover, partners are encouraged to identify and cite all contributors (See Tab.7) participating in data management activities, specifying their roles according to a given standard vocabulary (DataCite Metadata Schema).

Table 7 – Summary of team members involved in the data sets collection and management.

Team	Member	ORCID ID (if available)	Role
UNIBO	Rinaldi, Giacomo Maria	0000-0002-1500-4579	Co-Creator
UHOH	Lewandowski, Iris	0000-0002-0388-4521	Co-Creator
мти	Scott-Hayward, Fiona	0009-0008-2897-5316	Co-Creator
WITO	Savage, Eve	N/A	Co-Creator
CTA	Dueñas Sánchez, Rafael	0000-0002-5497-0825	Co-Creator
CNR	Vineis Claudia	0000-0003-4670-5586	Co-Creator
CNIX	Varesano Alessio	0000-0002-5497-4842	Co-Creator
FBCD	Lund, Jan	N/A	Co-Creator
FVA	Marinelli, Selenia	0000-0002-7412-7835	Co-Creator
FVA	Ferrini, Louis	0000-0002-8503-9873	Co-Creator

Keys for "Role" column: Data Collector (such as survey conductors, interviewers...), Producer (person responsible for the form of a media product), Project Member (a researcher indicated in the GA), Researcher (an assistant to one of the authors who helped with research, data collection, processing and analysis but is not part of team indicated in the GA), Research Group (the name of a research institution or group that contributed to the data set).

(See Annex I for details about data management responsibilities related to each project data set).







2.6 Data security

At each institution, research data were stored in computers, laptops, intranets or hard-drives accessible through institutional passwords periodically modified according to national law provisions for data security and protected by regularly updated antiviruses. None of the project data was left inadvertently available. All the research materials stored in computers were subject to regular backup in order to safeguard them from accidental losses.

All the data were password protected. If mobile devices were used to store data files (e.g. backup files), they were kept in a safe place accessible only to the researchers involved or were encrypted with ad-hoc software.

A cloud storage solution (i.e. OneDrive) was adopted for data sharing among research teams. In this case, as well, regular backup of the data was performed to ensure data recovery. In addition, all Partners were asked to keep local updated copies of all their files.

2.7 **Ethical aspects**

Partners in charge of data collecting followed the protocols described for each task and complied with this Data Management Plan and with the Ethics Deliverable of Work Package 7 "Ethics Requirements". As established in the Grant Agreement and in the Ethics Deliverables submitted through the participant portal, recruited participants were informed in an unambiguous way about what is collected, why it is collected, who is the data controller and who is the joint controller (if any). According to GDPR, informed consent was requested where necessary each time was needed during the life of the project and depending on the activities carried out. Data acquisition was restricted only to information essential to the project's success. Data collection activities followed rigorous confidentiality rules to ensure the participants' privacy and only aggregated or anonymized data were shared between partners, when necessary.

Further detail information on how all the data were managed during and after the project is available in the deliverables of Work Package 7 "Ethics Requirements".

2.8 Other issues

The BIObec project does not adopt any other procedures for data management than the ones mentioned in the previous sections of this DMP.

Data sets overview 3.

The following table (Tab.8) offers an overview of the data sets submitted from the project which are described more in detail in Annex I.

Table 8 - Data sets list.

Table acronyms and abbreviations: n^2 data set progressive number, LB = WP lead beneficiary, PP = project phase (starting month-ending month), CT = creator team in charge of curating the data set, C=collected, G=generated, A=available, IP=in progress, NYA=not yet available.

n°	WP	LB	TASK or SUBTASK	PP	СТ	DATA SET	STATUS
1	1	инон	1.2	M1-M7	UAB	Survey and focus group results to identify European and Regional needs, opportunities and expectations to bio-based education/training model	А









n°	WP	LB	TASK or SUBTASK	PP	СТ	DATA SET	STATUS
2	1	инон	1.3	M3-M7	инон	BIOBEC-WP1-T.1.3- Best practice cases	Α
3	1	инон	1.4	M6-M9	инон	D1.3 Report on expectations on future BBEC: Understanding the regional conditions as basis for the design of the BBECs	А
4	2	MTU	2.1	M1-M9	MTU	BIObec.WP2. T2.1. BBEC Framework Design	Α
5	2	MTU	2.2	M3-M14	UNIBO	BIOBEC. WP2. Framework Validation. T2.2	Α
6	3	FBCD	3.3	M14-M22	FBCD	D 3.3 - Report on detailed budget for running and maintaining the six BBEC and financial plan	А
7	3	FBCD	3.3	M14-M22	SIE	BIOBEC-WP3-T3.3- InvestmentReadinessLevel	А
8	3	FBCD	3.3	M14-M22	SIE	BIOBEC-WP3-T.3-3- AdditionalFundingSources	А
9	3	FBCD	3.5	M14-M24	FBCD	D3.5. Overall exploitation and sustainability plan	А
10	3	FBCD	3.5	M14-M24	FBCD	D3.6. Report on WP 3 Stakeholder Workshop	Α
11	4	СТА	4.1.1	M18-M30	CNR - CTA	D4.1 Report on regional workshops	Α
12	4	СТА	4.1.2	M18-M30	CNR- CTA	Report on cross fertilisation seminar	Α
13	4	CTA	4.2.1	M18-M30	CTA	D4.2 Roadmap Report for BBEC Replication	Α
14	4	СТА	4.2.2	M18-M30	FVA	D4.6_BIObec exploitation plan	Α
15	4	СТА	4.3	M18-M30	СТА	D4.3- Report on results of the capacity building workshop	Α
16	4	СТА	4.4	M20-M30	SIE	D4.4 BIObec's e-learning materials	Α
17	5	SIE	5.2	М9	FVA	D5.5 Project videos - First version	Α
18	5	SIE	5.2	M24	FVA	D5.6 Project videos - Second version	Α
19	5	SIE	5.3	M1-M15	FVA	D5.7 – Report on stakeholder engagement and mobilization – first version	Α
20	5	SIE	5.2	M1-M30	SIE	BIObec's website analytics	Α
21	5	SIE	5.2	M1-M30	SIE	BIObec's social media analytics	Α
22	5	SIE	5.2	M1-M30	SIE	BIObec dissemination table	Α
23	5	SIE	5.2	M1-M30	SIE	BIObec materials: Poster, brochure, presentation, roll-up and project templates	Α









Annex I: Data sets tables

The analytic descriptions of the expected data sets of BIOBEC project are reported in this Annex organized by work-packages.

WP1 - REGIONAL BIOECONOMY ECOSYSTEM NEEDS AND EXPLOITATION

WP1 provides a thorough analysis of needs, expectations and opportunities for future BBEC in regional Bioeconomy ecosystems.

Lead: UHOH

Participants: All partners

Months: M1-M9

1	Available	Survey and focus group results to identify European and Regional needs, opportunities and expectations to bio-based education/training model
ID [ID	type]	https://doi.org/10.5281/zenodo.10649783 [Zenodo, DOI]
Versi	on	1
Team	n in charge	UAB
Creat	tor/s	Barrera-Corominas, Aleix [UAB]
Conti	ributor/s	-
Conta	act Person/s	Barrera-Corominas, Aleix [UAB, <u>aleix.barrera@uab.cat</u>]
		This dataset was used to produce the "Report on European and regional analysis of the needs, opportunities and expectations to bio-based education/training model" in the framework of BIObec project (101023381-H2020-BBI-JTI-2020).
Contents		The data provide information about the needs and expectations of the main stakeholders (Academics / Researchers / Consultants / Educational Administrators / Nonprofit foundations / Clusters) regarding the design, development and implementation of Bio Based Education Centres across different European Regions. The survey used asked the informants to provide their opinion regarding different statements in a scale from 1 (strongly disagree) to 5 (strongly agree). The focus group include open questions focused on the topics described.
Data format		Text (.pdf) .csv
Data	volume	3.3MB
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.



1	Available	Survey and focus group results to identify European and Regional needs, opportunities and expectations to bio-based education/training model
Related publication/s		Barrera-Corominas, A.; Gairín, J., Mercader, C. et al. (2022). Report on European and regional analysis of the needs, opportunities and expectations to bio-based education/training model. BioBEC
		Barrera-Corominas, A. y Gairín Sallán, J, (2023). Reflexiones, a proposito del proyecto BioBEC, en torno a cómo debería certificarse la formación que adquieren los profesionales del sector bio industrial de Europa. Presented at X Congreso Iberoamericano de Pedagogía "A ras de tierra. Educación, inclusión, justícia social" Organized by Sociedad Española de Pedagogía and the Universidad Iberoamericana Ciudad de México in México DF (México) 21/08/2023 – 25/08/2023

WP1 - REGIONAL BIOECONOMY ECOSYSTEM NEEDS AND EXPLOITATION

WP1 provides a thorough analysis of needs, expectations and opportunities for future BBEC in regional Bioeconomy ecosystems.

Lead: **UHOH**

Participants: All partners

Months: M1-M9

2	Available	BIOBEC-WP1-T.1.3- Best practice cases
ID [IE	type]	https://doi.org/10.5281/zenodo.10629427 [Zenodo, DOI]
Versi	on	1
Team	n in charge	инон
Creat	tor/s	Mayorga-Duarte, Lina [UHOH]; Lewandowski, Iris [UHOH]; Urmetzer, Sophie [UHOH]
Cont	ributor/s	-
Conta	act Person/s	Mayorga-Duarte, Lina [UHOH, <u>lina.mayorgaduarte@uni-hohenheim.de</u>]
Contents		This report is delivered as an output of the BIObec project (H2020-BBI-JTI-2020). We present a compilation and analysis of the most relevant best practice cases across Europe that may serve as models for the six Bio-based Education Centres (BBEC) as targeted by the BIObec project. By shedding light on the stakeholders involved, educational formats, organisational and infrastructural models, as well as potential success and failure factors, we are able to develop guidelines for the design of the envisioned regional BBECs.
Data	format	Text (.pdf)
Data	volume	1.9MB



2	Available	BIOBEC-WP1-T.1.3- Best practice cases			
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.			
Related publication/s		-			

WP1 - REGIONAL BIOECONOMY ECOSYSTEM NEEDS AND EXPLOITATION

WP1 provides a thorough analysis of needs, expectations and opportunities for future BBEC in regional Bioeconomy ecosystems.

Lead: **UHOH**

Participants: All partners

Months: M6-M9

3	Available	D1.3 Report on expectations on future BBEC: Understanding the regional conditions as basis for the design of the BBECs
ID [ID	type]	https://doi.org/10.5281/zenodo.10630423 [Zenodo, DOI]
Versi	on	1
Team	in charge	инон
Creator/s		Mayorga-Duarte, Lina [UHOH]; Lewandowski, Iris [UHOH]; Urmetzer, Sophie [UHOH]
Conti	ributor/s	All partners
Conta	act Person/s	Mayorga-Duarte, Lina [UHOH, <u>lina.mayorgaduarte@uni-hohenheim.de</u>]
Conte	ents	This report is delivered as an output of the BIObec project. We present a compilation of the regional assessments regarding the stakeholders, the needs, expectations, and opportunities of each of the six pilot cases for Bio-based Education Centres (BBECs) that are being conceptualized throughout the BIObec project. These are: The Mediterranean Europe Hub, the North-West Europe Hubs-Finland, the BIObec North-West Europe-Denmark, the BIObec North-West Europe-Ireland, the BIObec Central-East Europe-East, and the BIObec Central-East Europe-Germany. Special attention is given to the comparison of the BBECs which sheds light on the commonalities and differences between the six BBECs in order to provide a useful basis for the further developments of each of the BBECs in the frame of the working packages to come.
Data format		Text (.pdf)
Data	volume	4.7MB
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.



3	Available	D1.3 Report on expectations on future BBEC: Understanding the regional conditions as basis for the design of the BBECs
Related publication/s		-

WP2 – DESIGN THROUGH CO-CREATION OF OPERATIONAL MODEL OF BBEC

Based on the opportunities and needs identified in WP1, WP2 provides a co-creation process to design and develop the BBEC operational framework and models that have been further investigated (tested) in the project, empirically working on the 6 pilot cases identified at the stage of project writing.

Lead: MTU

Participants: IHE, All partners

Months: M1-M9

4	Available	BIObec.WP2. T2.1. BBEC Framework Design
ID [II	type]	https://doi.org/10.5281/zenodo.10527412 [Zenodo, DOI]
Versi	on	1
Team	n in charge	мти
Creat	tor/s	McMahon, Helena [MTU]; Dupont, Capucine [IHE]; Savage, Eve [MTU]
Cont	ributor/s	All partners
Cont	act Person/s	Scott-Hayward, Fiona [MTU, fiona.scotthayward@mtu.ie]
Contact Person/s Contents		This dataset contains Deliverable 2.1 from the BIObec project and includes (i) Desk Research to create an INVENTORY OF BEST PRACTICE to inform and enhance BBEC design and (ii) Creation of a comprehensive CENTRE READINESS LEVEL FRAMEWORK SURVEY to inform the BBEC co-creation workshops and future centre design All 19 BIObec consortium partners submitted at least one example of best practice in education and/or industry and circa 30 best practice examples have been collected showcasing examples from a European and international perspective. Based on the inputs from the Inventory of Best Practice a survey has been created to profile the capabilities of the six BBEC locations and highlight opportunities for collaboration that will support BBEC design. This survey comprises 22 questions and was administered to all 19 partners with an accompanying guidance document these activities provide the basis for T2.2 and T2.3 of WP2.
Data format		Text (.pdf)
Data	volume	4.6MB
Acces	ssibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license



4	Available	BIObec.WP2. T2.1. BBEC Framework Design
Relat publi	ed cation/s	-

WP2 - DESIGN THROUGH CO-CREATION OF OPERATIONAL MODEL OF BBEC

Based on the opportunities and needs identified in WP1, WP2 provide a co-creation process to design and develop the BBEC operational framework and models that have been further investigated (tested) in the project, empirically working on the 6 pilot cases identified at the stage of project writing.

Lead: MTU

Participants: All partners

Months: M3-M14

_	Assailable	DIODEC WD2 Francourly Validation T2 2
5	Available	BIOBEC. WP2. Framework Validation. T2.2
ID [IE	type]	https://amsacta.unibo.it/id/eprint/7458/ [Amsacta, DOI]
Versi	on	1
Team	n in charge	UNIBO
Creat	tor/s	Viaggi, Davide [UNIBO]; Rinaldi, Giacomo Maria [UNIBO]
Conti	ributor/s	All partners
Conta	act Person/s	Viaggi, Davide [UNIBO, davide.viaggi@unibo.it]
Contact Person/s Contents		This dataset contains best practice examples and survey data produced within the Horizon 2020 project BIObec. The Centre Readiness Level Framework Survey design was informed by the compilation of the 29 best practice examples collected and further collated in conjunction with inputs from project activities. All 19 BIObec partners completed a comprehensive report in response to 23 survey questions generating a detailed profile of each BBEC location about their thematic expertise, learner profiles, knowledge & network capabilities, business model, roles & functions and innovation supports as well as their commitment to the project. Furthermore, other valuable stakeholders have been involved in the fulfilment of the survey, to begin the cooperation with a network of actors both internal and external to the project. The analysis of the surveys contributed to setting the profile of each regional Bio-Based Education Centre. The template of the survey is also provided.
Data	format	Text (.docx; .pdf)
Data	volume	13 MB
Acces	ssibility	Data available under Creative Commons Attribution (CC BY) 4.0 license.



5	Available	BIOBEC. WP2. Framework Validation. T2.2
Relat publi	ed cation/s	-

WP3 provides detailed plans for implementation of the BBEC covering vocational, academic, and life-long learning, in a coordinated and consistent form. The specific objective of Task 3.3, which is reported in this deliverable is to provide an economic analysis of the feasibility of the centres, including a detailed screening of potential funding sources and models.

Lead: FBCD

Participants: All partners

Months: M14-M22

6	Available	D 3.3 - Report on detailed budget for running and maintaining the six BBEC and financial plan
ID [IE	type]	https://doi.org/10.5281/zenodo.10410247 [Zenodo, DOI]
Versi	on	1
Team	n in charge	FBCD
Creat	tor/s	Tybirk, Knud [FBCD]; Jan Lund [FBCD]; Pablo Ariño [SIE]
Contributor/s		Lina Mayorga [UHOH], David Viaggi & Giacomo M. Rinaldi [UNIBO], Katri Rusanen [UEF], Damian Kuznowicz [Pro-Civis], Fiona Scott-Hayward [MTU], and Kevin Ryan [IBF]
Contact Person/s		Tybirk, Knud [FBCD, kt@foodbiocluster.dk]
Contents		This document is the BIOBEC project (contract no. 101023381) corresponding to D 3.3 (M 22) led by FBCD. This document contains an analysis of the budgets and additional funding sources to evaluate the financial sustainability of the BBECs.
Data	format	Text (.pdf)
Data	volume	2.3MB
Acces	ssibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Relat publi	ed cation/s	-



Investment Readiness Level - Self-assessment — BIOBEC This document will provide you with some guidelines on how the investment readiness level assessment was conducted for each of the BBECs, which is part of Economic Requirements for BBEC task to identify the financial needs of the BBECs and to develop a tailored financial plan for each of them.

The overall goal is to provide innovative pathways and strategies with regard to access to financial resources, to encourage the economic sustainability of the implementation and maintenance phase of the BBECs, and eventually ensure their lifelong continuation of them.

Lead: SIE

Participants: UEF, UHOH, PROCIVIS, UNIBO, FBCD, MTU

Months: M14-M22

Potential users for the dataset include BBECs partners and potential investors.

7	Available	BIOBEC-WP3-T3.3-InvestmentReadinessLevel
ID [ID type]		https://doi.org/10.5281/zenodo.10521853 [Zenodo, DOI]
Versi	on	1
Team	in charge	SIE
Creator/s		Ariño, Pablo [SIE]
Contr	ributor/s	Rusanen, Katri [UEF]; Mayorga, Lina [UHOH]; Kuznowicz, Damian [PRO-CIVIS], Rinaldi, Giacomo Maria [UNIBO], Tybirk, Knud [FBCD], Savage, Eve [MTU]
Conta	act Person/s	Ariño, Pablo [SIE, pabloarino@sustainableinnovations.eu]
Contact Person/s Contents		Self-assessment of each BIOBEC to define their current Investment Readines Level based on 6 dimensions: A) Competence and structure of the BBEC: This dimension assesses the competency and structure of the leadership team and staff of the innovative education center. The questions in this dimension are designed to evaluate the level of expertise and experience of the CEO, board members, and employees, as well as the overall structure and organization of the education center. B) Markets: This dimension evaluates the market potential of the innovative education center. The questions in this dimension are designed to assess the size and growth potential of the target market, as well as the unique value proposition that the education center offers to its target market. C) Talent: This dimension assesses the quality and availability of talent within the innovative education center. The questions in this dimension are designed to evaluate the education center's strategy for attracting and retaining top talent, as well as its culture of learning and professional development. D) Technology landscape: This dimension evaluates the education center's use of technology in its teaching practices and curriculum. The questions in this dimension are designed to assess the education center's access to technology tools and hardware, as well as its plan for integrating technology into its teaching practices.



7	Available	BIOBEC-WP3-T3.3-InvestmentReadinessLevel
		 E) Financials: This dimension assesses the financial sustainability of the innovative education center. The questions in this dimension are designed to evaluate the education center's business model, as well as its projected revenue, expenses, and profits. F) Economic: This dimension evaluates the potential economic impact of the innovative education center on the local community. The questions in this dimension are designed to assess the education center's ability to create jobs and increase productivity, as well as its potential risks or challenges.
Data	format	.xlsx
	volume	41.4kB
Acces	ssibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Relat publi	ed cation/s	-

Additional Funding Sources.

Lead: SIE

Participants: UEF, UHOH, PROCIVIS, UNIBO, FBCD, MTU

Months: **M14-M22**

Potential users for the dataset include BBECs partners.

8	Available	BIOBEC-WP3-T.3-3-AdditionalFundingSources
ID [ID type]		https://doi.org/10.5281/zenodo.10522025 [Zenodo, DOI]
Version		1
Team	n in charge	SIE
Creat	tor/s	Ariño, Pablo [SIE]
Contributor/s		Rusanen, Katri [UEF]; Mayorga, Lina [UHOH]; Kuznowicz, Damian [PRO-CIVIS]; Rinaldi, Giacomo Maria [UNIBO]; Tybirk, Knud [FBCD]; Savage, Eve [MTU]; Garcia, Maria [CTA]
Contact Person/s		Ariño, Pablo [SIE, pabloarino@sustainableinnovations.eu]
Contents		Excel file with information about potential local/regional/national funding sources to foster further development of BIOBECs.
Data format		.xlsx
Data volume		89kB
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.



8	Available	BIOBEC-WP3-T.3-3-AdditionalFundingSources
Related publication/s		-

This document is the BBEC project (contract no. 101023381) corresponding to D 3.5 (M22) led by Food & BioCluster Denmark. This report aims to report on expectations for future BBECs, elaborated as a summary of results from Task 3.1-3.5 and the regional and pan-European workshops.

Lead: FBCD

Participants: All partners

Months: M14-M24

9	Available	D3.5. Overall exploitation and sustainability plan
ID [ID type]		https://doi.org/10.5281/zenodo.10410169 [Zenodo, DOI]
Versio	n	1
Team	in charge	FBCD
Creato	or/s	Tybirk, Knud & Lund, Jan [FBCD]
Contri	butor/s	Lina Mayorga [UHOH]; David Viaggi & Giacomo M. Rinaldi [UNIBO]; Katri Rusanen [UEF]; Damian Kuznowicz [Pro-Civis]; Fiona Scott-Hayward [MTU]
Contac	ct Person/s	Tybirk, Knud [FBCD, kt@foodbiocluster.dk]
Conte	nts	The EU's Bioeconomy Strategy updated in 2018 has a focus on the development of competencies to strengthen European competitiveness and create jobs. Education and training providers are to deliver skills to unfold the economic value within the bioeconomy. For this reason, the project BIOBEC has been working to prepare for the establishment of six biobased education centres/hubs within the EU. This report summarizes some of the steps taken in WP 2 and WP 3 to gather info and to organize the processes and stakeholders locally. The objective is to develop an Exploitation and Sustainability Plan building on the initial Business Model Canvas in WP 2 and the outcome of task 3.3 (the economic models) for their long-term viability. The intention was to follow a strict common methodology, but we have experienced that the educational systems and the traditions for cooperation, financing and governance vary considerably, and therefore, the development of locally adapted BBECs have followed six local strategies to pursue the common goals.



9	Available	D3.5. Overall exploitation and sustainability plan
		This report builds on the Business canvas models formulated in WP 2 and the parallel work in D 3.2 on the Governance of the centres, D 3.3 on the financial
		models and budgets of the BBECs and D 3.4 on the foreseen activities of the BBECs. None of the BBECs have started yet and this feasibility study shows promising opportunities, but also pinpoint the challenges ahead towards the BBECs. All have uncertainties concerning income generation, as the BBEC concept has not been tried before. We compare the market analysis and the marketing strategies in the six regions. The interest is there, and we hope that the willingness of the biobased sector to pay for lifelong learning is there to stay competitive and develop new jobs. But this will not happen without strong and visible commitment by the involved institutions, a focused marketing action and networking with the relevant institutions and potential customers. The analysis of the economic and financial viability of the centres shows varying degrees of optimism and has opened the
		eyes for more preparatory work to make the BBECs economically sustainable. This is a broad variety of activities and suggested specific courses to be developed across traditional silos and sectors and we expect to cooperate closely with traditional educational institutions to fill in the gaps and prepare the workforce (and existing teachers) with new competencies needed in the Bioeconomy. The plans for the organisation and the governance of the six BBECs are in most
		cases to start a new organisation as a project or a hub in a BBEC partner organisation and from there developing into an independent organisation as the business model becomes clearer and more sustainable. In other cases, the BBECs are expected to start a new organisation with external funding. In all cases, a broad steering/advisory board is foreseen as this is very dependent on close networking with the industry.
		Based on the work so far, we expect that 'real' BBECs will be started during the next 1-2 years. We see the BBEC project as a transnational feasibility study and very valuable contacts and experiences have been shared across countries. Only the future can show and document whether the planned BBECs are sustainable in the local realities. A conclusion from this is that the project has experienced that we need locally adapted BBEC hubs, to be able to become realized in the near future.
Data	format	Text (.pdf)
Data	volume	1MB
Acces	sibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Relat publi	ed cation/s	-



This document is the BIObec project (contract no. 101023381) corresponding to D 3.6 (M24) led by Food & Bio Cluster Denmark. This report aims to report on the WP 3 stakeholder workshop held in Tralee, Ireland, June 27th, 2023, and the local processes towards the BBECs, including local stakeholder engagement activities in preparation of the plenary workshop.

Lead: FBCD

Participants: All partners

Months: M14-M24

10 Available	D 3.6. Report on WP 3 Stakeholder Workshop
ID [ID type]	https://doi.org/10.5281/zenodo.10410247 [Zenodo, DOI]
Version	1
Team in charge	FBCD
Creator/s	Tybirk, Knud & Lund, Jan [FBCD]
Contributor/s	Lina Mayorga [UHOH]; David Viaggi & Giacomo M. Rinaldi [UNIBO]; Katri Rusanen [UEF]; Damian Kuznowicz [Pro-Civis]; Fiona Scott-Hayward [MTU]
Contact Person/s	Tybirk, Knud [FBCD, kt@foodbiocluster.dk]
Contents	This report summarizes the iterative process of creation of Bio-Based Education Centres (BBECs) in six regions. The co-creation with massive involvement of local Stakeholders and IRWG members is a prerequisite for the creation of sustainable BBECs. This report focuses on the description of the process, while the contents and the outcomes are described in deliverable D3.5. The nature of the bioeconomy is cross-disciplinary and cross-sectorial and this involves naturally a number of traditional educational institutions with a view of future needs. The process had a climax during the Stakeholder workshop held in Ireland in June 2023 where the Advisory Board (AB) and the Implementation and Replication Working Group (IRWG) contributed to the sharing of experiences from the preparation processes in each region. We are now at a stage where 'real' BBECs are prepared for in each region, but not founded nor financed yet and this is the coming challenge that the process of roll-out and replication of the ideas from the project will continue during the months and years to come.
Data format	Text (.pdf)
Data volume	2.2MB
Accessibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s	-



This document is the outcome of BIOBEC project related to the six BBEC regional roll-out (contract no. 101023381) corresponding to D4.1 (M28) led by CNR and CTA. This document contains the summary of the activities conducted and the information collected through Task 4.1.

Lead: CNR, CTA

Participants: FBCD, MTU, UEF, UHOH, UNIBO, PRO CIVIS

Months: M18-M30

11	Available	D 4.1 Report on regional workshops
ID [ID typ	e]	https://doi.org/10.5281/zenodo.10566697 [Zenodo, DOI]
Version		3
Team in o	charge	СТА
Creator/s	5	Torregiani, Armida [CNR]; García Alegre, Maria [CTA]; Dueñas-Sánchez, Rafael [CTA]
Contribut	tor/s	Tybirk, Knud [FBCD]; Scott-Hayward, Fiona [MTU]; Rusanen, Fiona [UEF]; Mayorga-Duarte, Lina [UHOH]; Rinaldi, Giacomo Maria [UNIBO]; Kuznowicz, Damian [PROCIVIS]
Contact P	Person/s	Torregiani, Armida [CNR, <u>armida.torreggiani@isof.cnr.it</u>] García Alegre, Maria [CTA, <u>maria.garcia@corporaciontecnologica.com</u>] Dueñas-Sánchez, Rafael [CTA, <u>rafael.duenas@corporaciontecnologica.com</u>]
Contents		Two sets of data have been collected during the execution of this subtask: (1) testimonials given by representatives of the six pilot Bio-Based Education Centres (BBECs), describing their pathway experience, from the initial design to their feasibility validation and sustainability assessment, and (2) comments and inputs provided by quadruple helix stakeholders regarding their interests, needs, and points of view related to the barriers and opportunities faced by the BBECs, as well as about opportunities for collaboration and synergies with other related initiatives. The data generated is mostly unique when related to the experience of the BBEC pilots. Data related to the comments and inputs provided by quadruple helix stakeholders have been a combination of both unique and publicly available. Potential users of these data will include all quadruple helix stakeholders with interests in skills development and specialised education. The main conclusions have been collected in a best-practices document that is part of the BIObec e-learning materials.
Data forn	nat	Text (.pdf)
Data volu	ıme	2.9MB



11	Available	D 4.1 Report on regional workshops
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s		D4.4 BIObec's e-learning materials.

This document is the outcome of BIOBEC project related to the cross-fertilisation seminar organized by CTA with the partners to promote a peer-to-peer exchange of lessons and best practices activities, corresponding to D4.1 (M28) led by CNR and CTA. This document contains the summary of the activities conducted and the information collected through Task 4.1.

Lead: CNR, CTA

Participants: FBCD, MTU, UEF, UHOH, UNIBO, PRO CIVIS

Months: M18-M30

12	Available	Report on cross fertilisation seminar
ID [ID type]		https://doi.org/10.5281/zenodo.10566697 [Zenodo, DOI]
Version		3
Team in	charge	СТА
Creator/s		Torregiani, Armida [CNR]; García Alegre, Maria [CTA]; Dueñas-Sánchez, Rafael [CTA]
Contributor/s		Tybirk, Knud [FBCD]; Scott-Hayward, Fiona [MTU]; Rusanen, Fiona [UEF]; Mayorga-Duarte, Lina [UHOH]; Rinaldi, Giacomo Maria [UNIBO]; Kuznowicz, Damian [PROCIVIS]
Contact Person/s		Torregiani, Armida [CNR, armida.torreggiani@isof.cnr.it] García Alegre, Maria [CTA, maria.garcia@corporaciontecnologica.com] Dueñas-Sánchez, Rafael [CTA, rafael.duenas@corporaciontecnologica.com]
Contents		A cross-fertilisation seminar has been organized by CTA with the partners of the six pilot Bio-Based Education Centers (BBECs) to promote peer-to-peer exchange of best practices and lessons learnt during the execution of the project. Representatives from the Implementation and Replication Working Group (IRWG) and Bio-based Industries Consortium (BIC) have also been invited to the event. The testimonials, inputs and comments provided by the participants have been recorded in videos and captured by designated notetakers in the breakout sessions. The data have been subsequently processed to capture the parts that are relevant to the objectives of the BIObec project, develop a narrative, and compile the main conclusions in a best-practices document that is part of the BIObec e-learning materials.
Data format		Text (.pdf)



Data volume	2.9MB
Accessibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s	D4.4 BIObec's e-learning materials.

This document is the BIOBEC project (contract no. 101023381) corresponding to D4.2 (M28) led by CTA. This report provides a report on the Roadmap Report for BBECs Replication based on the results from T4.2.1.

Lead: CTA

Participants: All partners

Months: M18-M30

13 Available	D4.2 Roadmap Report for BBEC Replication
ID [ID type]	https://doi.org/10.5281/zenodo.10567405 [Zenodo, DOI]
Version	1
Team in charge	СТА
Creator/s	Hurtado, Antonio [CTA]; Dueñas Sánchez, Rafael [CTA]; García Alegre, María [CTA]
Contributor/s	-
Contact Person/s	Dueñas Sánchez, Rafael [CTA, <u>rafael.duenas@corporaciontecnologica.com</u>] García Alegre, María [CTA, <u>maria.garcia@corporaciontecnologica.com</u>]
Contents	Comments and ideas have been collected from all the project partners and members of the Implementation and Replication Working Group (IRWG) to develop a roadmap for the establishment of Bio-Based Education Centers (BBECs) by third parties. The data generated have likely been a combination of both unique and publicly available data consisting of expert points of view regarding the process that interested third parties should follow both to assess their readiness and to establish a BBEC. A co-design event has been organised by CTA, in collaboration with all the project partners and the IRWG, to foster the exchange of ideas for the creation of a comprehensive roadmap for the design and implementation of BBECs by third parties. Inputs and comments from event participants have been video-recorded and/or captured by designated notetakers. Subsequently, the data have been cleaned and processed manually to select the parts that are relevant to the objectives of the BIObec project, and later organised according to the stages identified for the design and implementation of BBECs. Finally, the data thus processed and



13	Available	D4.2 Roadmap Report for BBEC Replication
		analyzed have been used to develop a self-assessment tool for use by interested third parties.
Data format		Text (.pdf)
Data volume		1.4MB
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s		D4.4 BIObec's e-learning materials.

WP4 will provide a roadmap for replication among future potential EU BBECs, capitalising all the knowledge and outputs generated through previous WPs.

Lead: CTA

Participants: All partners

Months: M18-M30

14	Available	D4.6_BIObec exploitation plan
ID [ID type]		https://doi.org/10.5281/zenodo.10706517 [Zenodo, DOI]
Version		1
Team in o	harge	FVA
Creator/s	3	Marinelli, Selenia [FVA]
Contribut	tor/s	Albertini, Susanna [FVA]
Contact P	Person/s	Albertini, Susanna [FVA, communication@fvaweb.it]
Contact Person/s Contents		BIObec aims to represent the starting point for the deployment of feasible Biobased Education Centres (BBECs) across Europe. The exploitation plan will enable the full rollout of these centres and it is developed based on all the actions performed to boost the continuation and replicability of them. Specifically, this document outlines the main exploitable results of BIObec and incorporates them into a document listing potential target groups and avenues for their exploitation, including methodologies and tools in order to have the BBECs developed as a lighthouse at international level, promoting European research and education.
Data forn	nat	Text (.pdf)
Data volume		1.2MB



14	Available	D4.6_BIObec exploitation plan
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s		-

This document is the BIObec project (contract no. 101023381) corresponding to D4.3(M30) led by CTA. This report provides a summary of the activities conducted and the results of the workshop collected through Task 4.3.

Lead: CTA

Participants: All partners

Months: M18-M30

15	Not yet available	D4.3 Report on results of the capacity building workshop
ID [ID typ	e]	https://doi.org/10.5281/zenodo.10708129[Zenodo, DOI]
Version		1
Team in o	charge	CTA
Creator/s	5	García Alegre, María [CTA]; Dueñas-Sánchez, Rafael [CTA]
Contribut	tor/s	-
Contact Person/s		Dueñas Sánchez, Rafael [CTA, <u>rafael.duenas@corporaciontecnologica.com</u>] García Alegre, María [CTA, <u>maria.garcia@corporaciontecnologica.com</u>]
Contents		The report summarises the methodology used for the design, the analysis and the main aspects achieved during the BIObec capacity building workshop. This capacity building workshop was organised by CTA and BIObec partners with the primary objective of transferring the BIObec methodology to stakeholders for its implementation in third part regions/countries. The presentation and the feedback, suggestions, and comments from event participants have been recorded in a video, being part of D4.4. The data have been subsequently cleaned, processed, and analysed manually to select the parts that are relevant to the objectives of the BIObec project, and to make any required adjustments to the project outputs.
Data format		The data is provided in form of texts, tables and images in digital form (.pdf).
Data volume		1.8MB
Accessibility		Open Access on Zenodo License: Creative Commons Attribution 4.0 International



15	Not yet available	D4.3 Report on results of the capacity building workshop
Related publication	on/s	D4.4 BIObec's e-learning materials.

This document is the BIObec project (contract no. 101023381) corresponding to D4.4 (M30) led by SIE. This report provides a report on the e-learning materials for BBECs Replication based on the activities carried out during the project.

Lead: SIE

Participants: All partners

Months: M18-M30

16	Available	D4.4 BIObec's e-learning materials
ID [ID type]		https://doi.org/10.5281/zenodo.10695781 [Zenodo, DOI]
Version		1
Team in o	charge	SIE
Creator/s	5	Matilla, Daniel [SIE]
Contribut	tor/s	-
Contact F	Person/s	Matilla, Daniel [SIE, danielmatilla@sustainableinnovations.eu]
Contents		This document presents a report on the BIObec's e-learning materials created by the end of the project. It is a detailed guide on how the materials were created and added to the project website. It can serve as a guide to anyone who is interested on replicating the Bio-Based Education Centers (BBECs) or just knowing more about the BIObec project results and experience.
Data format		Text (.pdf)
Data volume		змв
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s		-



WP5 - BIOBEC DISSEMINATION, COMMUNICATION AND STAKEHOLDER ENGAGEMENT

This deliverable provides a brief description of the design and development of the first of two BIObec project videos due in M9. The first video was design and developed by partner FVA.

Lead: FVA

Participants: All partners

Month: M9

Potential users for the dataset are BIObec IRWG members and stakeholders interested in being informed about the project.

17	Available	D5.5 Project videos - First version
ID [ID type]		https://doi.org/10.5281/zenodo.10370545 [Zenodo, DOI]
Version		1
Team	n in charge	FVA
Creat	tor/s	Ferrini, Louis [FVA];
Conti	ributor/s	Marinelli, Selenia [FVA]; Albertini, Susanna [FVA];
Conta	act Person/s	Ferrini, Louis [FVA, communication@fvaweb.it]
Contents		This document is the Biobec project videos – First version (contract no. 101023381) corresponding to D5.5 (M9) led by FVA. This document describes the project First video produced by the BIObec project, whose main objective is to ensure motivated co-creation, stakeholder involvement, dissemination and communication.
Data	format	Text (.pdf)
Data volume		832kB
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s		-

WP5 - BIOBEC DISSEMINATION, COMMUNICATION AND STAKEHOLDER ENGAGEMENT

The second BIObec project video was designed and developed by partner FVA with the contribution from all partners. The scope of this second video was to present the 6 Bio-based Education Centres (BBECs).

Lead: FVA

Participants: All partners

Month: M24



Potential users for the dataset are BIObec IRWG members and stakeholders interested in a) being part of the 6 BBECs already established; b)replicating the format after the project's conclusion.

18 Available	D5.6 Project videos - Second version
ID [ID type]	https://doi.org/10.5281/zenodo.10370753 [Zenodo, DOI]
Version	1
Team in charge	FVA
Creator/s	Ferrini, Louis [FVA];
Contributor/s	Marinelli, Selenia [FVA]; Albertini, Susanna [FVA]; Vavassori, Valentina [FVA]
Contact Person/s	Ferrini, Louis [FVA, communication@fvaweb.it]
Contents	The first contents have been elaborated by FVA and shared with all partners to receive feedbacks and additional contents. The interviews to all the 6 BBECs representatives were registered in the context of the consortium meeting in Vienna the 5-6 of September 2023. FVA have produced a short and a long version of the video, to fulfil the partners requests for an adaptable format to be used in the context of the different type of events and to target different audiences. In the long version the first part emphasises the common characteristics of all the BBECs such as target audiences, stakeholder that supports the BBECs, while in the second part all the 6 BBECs present their unique characteristic. The long version contains only titles and background music. The short version, after a very brief part of all the BBECs common characteristics, goes directly to the presentation of the 6 BBECs. To shorten the duration, but still communicate the important points, a voice over was added to this version.
Data format	Video (.mp4)
Data volume	BBECs_2nd_promovideo_long: 322.59 MB BBECs_2nd_promovideo_short: 261.46 MB
Accessibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s	-

WP5 - BIOBEC DISSEMINATION, COMMUNICATION AND STAKEHOLDER ENGAGEMENT

This document is the BIObec project Report on stakeholder engagement and mobilization (contract no. 101023381) corresponding to D5.7 (M15) led by FVA. It contains reports on the first 15 months of stakeholder engagement and mobilization, including methodologies to animate the discussion, promote mutual learning, good practices exchange and co-creation among BIObec stakeholders and outcomes stemming from the first IRWG workshop.

Lead: FVA

Participants: All partners



Months: M1-M15

Potential users for the dataset are entities interested in deploying effective methodologies to engage stakeholders, animate the discussion, promote mutual learning, good practices exchange and co-creation.

19 Available	D5.7 – Report on stakeholder engagement and mobilization – first version
ID [ID type]	https://zenodo.org/records/10370413 [Zenodo, DOI]
Version	1
Team in charge	FVA
Creator/s	Marinelli, Selenia [FVA];
Contributor/s	Albertini, Susanna [FVA]; Ferrini, Louis [FVA]
Contact Person/s	Marinelli, Selenia [FVA, communication@fvaweb.it]
Contents	Stakeholder engagement and mobilization is a central part of BIObec strategy. The project seeks to set the basis for the development of Bio-Based Education Centers (BBEC) in six different European regions to answer the needs of the bio-based industry at local, regional, and national levels. These BBECs are expected to ensure a wide geographical coverage in Europe and address a wide range of topics linked to the variety of value chains and the different institutional contexts, paving the way for replication in other regions. The core nucleus for the future implementation of the BBECs is the Implementation and Replication Working Group (IRWG), that will participate to project initiatives in the role of stakeholders and will facilitate the replication of the BIObec's experience beyond the project's efforts. The IRWG members are local stakeholders, interested in implementing and replicating the BBECs experience in other EU Regions and countries by co-developing a roadmap applicable for potential additional BBECs across Europe. This document describes BIObec approach for stakeholder engagement and mobilization, including the strategy to select the IRWG members, promote contacts and facilitate the debate, mutual learning, good practices exchange and collaboration on challenges towards the creation of BBECs, ensuring motivation and lively involvement of stakeholders throughout the project. Since bioeconomy and education are typically crosscutting issues, this document also reports on the synergies and collaborations established with other projects and initiatives during the first 15 months of the project.
Data format	Text (.pdf)
Data volume	2.4MB
Accessibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s	-



WP5 - BIOBEC DISSEMINATION, COMMUNICATION AND STAKEHOLDER ENGAGEMENT

WP5 will provide a bundle of activities for dissemination and communication, as well as for the active involvement of the community of actors potentially participating in the implementation and replication of the Centres.

Lead: SIE

Participants: All partners

Months: M1-M30

Potential users for the data sets of this WP include researchers, policymakers, public administrations, educational organizations, companies and business organizations, Non-Governmental Organizations, trade union.

20	Available	BIObec's website analytics
ID [ID type]		https://doi.org/10.5281/zenodo.10630574 [Zenodo, DOI]
Versio	on	1
Team in charge		SIE
Creator/s		Garcia, Rocío [SIE]
Contributor/s		-
Contact Person/s		Garcia, Rocío [SIE, rociogarcia@sustainableinnovations.eu]
Contents		This document shows all the analytics from the BIObec's webpage, from the beginning of the project to its month 29 (January 2024).
Data format		.xlsx
Data v	olume/	30.2kB
Acces	sibility	Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Relate public	ed ation/s	-

WP5 - BIOBEC DISSEMINATION, COMMUNICATION AND STAKEHOLDER ENGAGEMENT

WP5 will provide a bundle of activities for dissemination and communication, as well as for the active involvement of the community of actors potentially participating in the implementation and replication of the Centres.

Lead: SIE

Participants: All partners

Months: M1-M30



Potential users for the data sets of this WP include researchers, policymakers, public administrations, educational organizations, companies and business organizations, Non-Governmental Organizations, trade union.

21	Available	BIObec's social media analytics
ID [ID type]		https://doi.org/10.5281/zenodo.10523316 [Zenodo, DOI]
Version		1
Team in charge		SIE
Creator/s		Garcia, Rocío [SIE]
Contributor/s		-
Contact Person/s		Garcia, Rocío [SIE, rociogarcia@sustainableinnovations.eu]
Contents		In this folder can be found all the LinkedIn and X (formerly Twitter) analytics from the BIObec project's accounts, since beginning of the project.
Data format		.zip
Data volume		11.9MB
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s		-

WP5 - BIOBEC DISSEMINATION, COMMUNICATION AND STAKEHOLDER ENGAGEMENT

WP5 will provide a bundle of activities for dissemination and communication, as well as for the active involvement of the community of actors potentially participating in the implementation and replication of the Centres.

Lead: SIE

Participants: All partners

Months: M1-M30

22	Available	BIObec dissemination table
ID [ID type]		https://doi.org/10.5281/zenodo.10523266 [Zenodo, DOI]
Version		1
Team in charge		SIE
Creator/s		Garcia, Rocío [SIE]
Contributor/s		-



22	Available	BIObec dissemination table
Contact Person/s		Garcia, Rocío [SIE, rociogarcia@sustainableinnovations.eu]
Contents		This sheet specifies all the partners' contributions to communicate and disseminate the BIObec project along its entire duration. Links to social media posts, website articles or scientific publications can be found inside it.
Data format		.xlsx
Data volume		104.1kB
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s		-

WP5 - BIOBEC DISSEMINATION, COMMUNICATION AND STAKEHOLDER ENGAGEMENT

WP5 will provide a bundle of activities for dissemination and communication, as well as for the active involvement of the community of actors potentially participating in the implementation and replication of the Centres.

Lead: SIE

Participants: All partners

Months: M1-M30

23	Available	BIObec materials: Poster, brochure, presentation, roll-up and project templates
ID [ID type]		https://doi.org/10.5281/zenodo.10523238 [Zenodo, DOI]
Version		1
Team in charge		SIE
Creator/s		Garcia, Rocío [SIE]
Contributor/s		-
Contact Person/s		Garcia, Rocío [SIE, rociogarcia@sustainableinnovations.eu]
		This folder contains all the communication materials created for the communication and dissemination of the BIObec project, as well as for the internal communication within the project members. There, it can be found:
Cont	ents	The roll-up used in fairs, congresses, events, etc. to promote the project. A brochure that outlines the main information from the project. A presentation about the BIObec project. A poster for the promotion of the project. PPT and .doc templates for the partners' internal communication.



23	Available	BIObec materials: Poster, brochure, presentation, roll-up and project templates
Data format		.zip
Data volume		49.2MB
Accessibility		Data available under Creative Commons Attribution (CC BY) 4.0 International license.
Related publication/s		-



Annex II: "README" file template

A "README" file is a document that will be deposited with each dataset, containing relevant information about data set authorship, terms of reuse and responsibilities, explaining data set content and structure, collection procedures and analysis (such as file specifics, methodologies, codebooks of variables, data sources, and further necessary notes). The template of the README file that will be used by [PROJECT ACRONYM] is shown here.

README file

Data Set Title: "[insert title as defined in the DMP]"

Data Set Author/s: Name Surname (Affiliation), ORCID (if available);

[Add one or more creators, if present]

Data Set Contributor/s: Name Surname (Affiliation), ORCID (if available);

[Add one or more contributors, if present. Otherwise, cancel this line]

Data Set Contact Person/s: **Name Surname** (Affiliation), ORCID (if available), email; [Add one or more contact person]

Data Set License: this data set is distributed under a (INSERT LICENSE)

[Insert the chosen license as indicated in the DMP: e.g. "this data set is distributed under a Creative Commons Attribution 4.0 International (CC BY 4.0) license, https://creativecommons.org/licenses/by/4.0/"]

Publication Year: (insert YEAR)

Project Info: [insert PROJECT ACRONYM] ([project full title], funded by European Union, Horizon 2020 Programme. Grant Agreement num. [insert grant agreement number]; [insert project website url]

Data set Contents

The data set consists of:

[Indicate the files that compose the dataset and their name and format.

WE <u>STRONGLY SUGGEST YOU</u> TO FOLLOW THE EXAMPLES PROVIDED FOR THE FILE NAMING, MATCHING THE DATASET FILENAME WITH THE README ONE

In the following examples the data sets were composed by only one file. In case the dataset consists of more files you can name them as described and put them in a compressed folder. In this case readme file name should match the compressed folder name]

EXAMPLE1

1 textual qualitative file saved in .rtf format

"ProjectAcronym_WP3_T3-2_ItalyInterviews_20161221_v01.rtf"

[structure of the filename "ProjectAcronym_insert WP number_insert Task number, e.g. T3.2_ insert Content Describing Keywords_insert date YYYYMMDD_insert version, if needed.format" Suggested format:



- -for textual qualitative data .rtf or .txt
- -for tabular quantitative and qualitative data .csv avoid proprietary formats such as .doc/.docx and .xls/.xlsx]
- 1 README file

"README_ProjectAcronym_WP3_T3-2 _ItalyInterviews_20161221_v01.rtf"

[Same naming as the dataset file. Preferred format .rtf/.txt, allowed format .pdf]

EXAMPLE2

- 1 tabular quantitative file saved in .csv format
 "ProjectAcronym_WP7_T7.3_Questionnaire_Sweden_20170905.csv"
- 1 README file

"README_ProjectAcronym_WP7_T7-3_Questionnaire_Sweden_20170905.rtf"

Data set Documentation

Abstract

....

[Insert a brief abstract describing the content of the dataset]

Content of the files:

• file [Insert filename] contains ...

[Provide a brief description of the content of the file/s. This is an example of how you could start]

- file [Insert filename] contains ...
- ...

File specifics

•••

[Provide useful info regarding file conversion etc... (Optional)

Please indicate instruction/technical info in order to allow potential users to correctly visualize and reuse your data (e.g. specific software, ...).

In case of data converted in open formats it could be useful to provide some further information. For example if you deposit for long term preservation a .csv file derived from an excel you can describe the conversion. Here is an example of description of conversion using libre office calc software:

To create the .csv files, "LibreOffice Calc" version: 5.1.4.2 (portable) was used, with the following specifics:

- •Character set Europa occidentale (Windows-1252/WinLatin1)
- •Field delimiter « , » (comma)
- •Text delimiter « " » (quotes)]

Notes

...

[Related to the whole dataset or to single files of a multi-file dataset (Optional)]

Data sources

•••



[Optional]

Methodologies

•••

[If necessary to understand how to reuse data]

Codebook of variables

•••

[If necessary to understand the meaning of the variables]

Instructions, examples and footnotes in should be deleted from final version