SEMPRE-BIO.

Deliverable 7.10 Project Management Plan v1

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Project Information

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Deliverable Information

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WP nº	7
WP leader	Cetaqua
Contributing partners	All
Author	Oriol Casal Valls
Contributors	Ana Paz Agudo
Reviewers	All partners
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Summary

D7.10-Project Management Plan has been developed by CETAQUA within WP7 tackling the issues related to Project governance as well as Administrative and financial management (T7.1). Accordingly, it describes a common basis for communication among the beneficiaries in the consortium. It includes a list of important documents to be used by partners, a description of the SEMPRE-BIO governance structure, details on the internal communication mechanisms and relevant aspects of quality assurance.

This Project Management Plan has been agreed by and shared with all project partners

Document log

VERSION	DATE	AUTHOR	DESCRIPTION OF CHANGE
V0.1	16/12/2022	Oriol Casal Valls	First draft for partner review
V1.0	22/12/2022	Oriol Casal Valls	Submitted to portal

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Content

Acronym Glossary

CA	Consortium Agreement
DoA	Description of Action
EAB	External Advisory Board
EC	European Commission
EU	European Union
GA	Grant Agreement
HE	Horizon Europe
IP	Intellectual Property
IPR	Intellectual Property Rights
PC	Project Coordinator
PSB	Project Steering Board
RP	Reporting Period
SEMPRE-BIO	SEcuring doMestic PRoduction of cost-Effective BIOmethane
STC	Scientific & Technical Committee
WBS	Work Breakdown Structure
WP	Work Package

1. Introduction

This document is developed as part of the SEMPRE-BIO (SEcuring doMestic PRoduction of cost-Effective BIOmethane) project, which has received funding from the European Union's Horizon Europe's program (HORIZON-CL5-2021-D3-03-16), under the Grant Agreement 101084297.

The Project Management Plan corresponds to the Deliverable 7.10 of Work Package 7 (WP7 - Project management). The specific objectives of WP7 include:

- Establish an effective and ethical financial and technical management of the project
- Monitor and adjust the implementation plan if necessary
- Establish effective communication channels (consortium-Commission)
- Organize the midterm and final review events

This document provides an organized and harmonized set of practical guidelines, procedures and support documents that can be used for optimizing the project implementation. It will be kept up to date as needed throughout the project lifecycle.

This document is to be used as a reference by all partners to efficiently develop their individual and collective activities and contribute to the global objective of the project.

After this introduction, the structure of the deliverable is organized in the following sections:

2. Key Documents.
3. Governance Structure.
4. Internal Communication.
5. Rules for implementing a Horizon Europe project
6. Documents and resources
7. Internal quality control
8. Gantt Chart
9. WBS

2. Key Documents

This is the list of key documents that will be addressed all along the project execution:

1) Grant Agreement (No. 101084297) – the contract concluded between the EC (representing the EU) and the beneficiaries under which the parties receive the rights and obligations (e.g. the right of the Union's financial contribution and the obligation to carry out the research and development work). The Grant Agreement consists of the basic text and annexes, including Annex 1– Description of the action (DoA) - part A and part B. The DoA (Annex 1 part A) is also a key document to be taken into account given that it compiles a specific description of the tasks that will be carried out along the project and the expected results, deliverables and milestones to be obtained.

2) Consortium Agreement: the internal agreement signed between the members of the consortium establishing their rights and obligations with respect to the implementation of the action in compliance with the grant agreement.

All SEMPRE-BIO partners have one copy of these documents. It is important to note from the outset of the project that visibility of EU funding is mandatory while promoting the project actions. Please use always:

a. The EU emblem - High-resolution emblems can be found here:

https://europa.eu/european-union/about-eu/symbols/flag_en

and,

b. The following text: The SEMPRE-BIO project has received funding from the European Union's Horizon Europe programme (HORIZON-CL5-2021-D3-03-16), under Grant Agreement number 101084297.

3. Governance Structure, Project roles, and Responsibilities

The SEMPRE-BIO Governance Structure is illustrated in Figure 1. The composition, roles and responsibilities of all management levels are described below. Specific operational roles for the Consortium bodies are described in the Consortium Agreement. Reading the Consortium Agreement carefully is thus advisable.

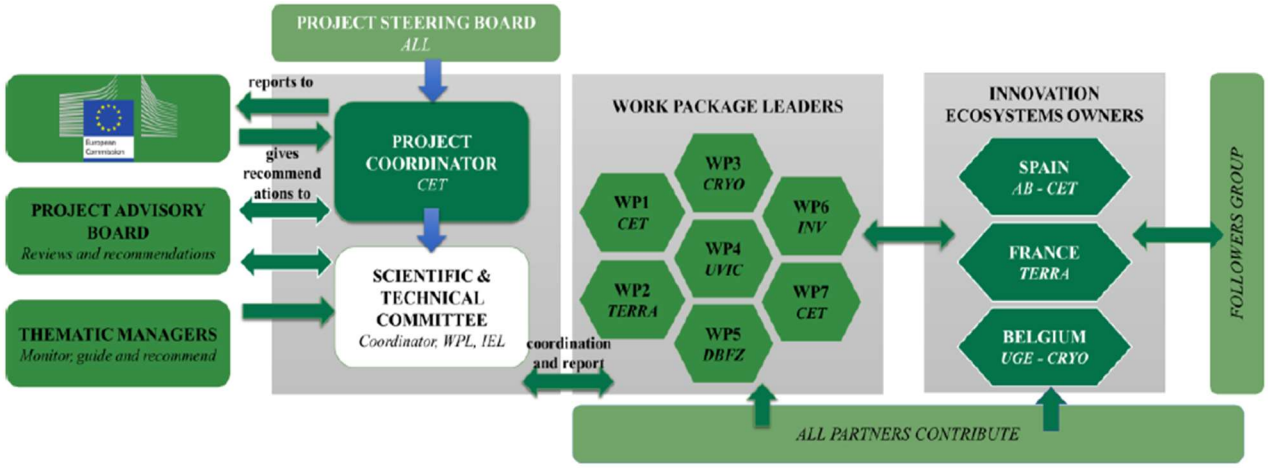


Figure 1. Governance structure of the SEMPRE-BIO project

3.1. Project Coordinator (PC)

The Leading partner in the consortium, CETAQUA, is the Project Coordinator (PC), who acts as the intermediary between the consortium and the European Commission (EC). All administrative and financial issues will be translated to the EC in real time and, in the opposite direction, all suggestions and/or recommendations given by the European Commission will be transferred to the consortium. Thus, the PC will be in charge of the day-to-day coordination of SEMPRE-BIO. The Coordinator shall, in addition to its responsibilities as a Party, perform the tasks assigned to it as described in the Grant Agreement and the Consortium Agreement:

- The management of the overall legal, contractual, ethical, financial and administrative issues of the project in close collaboration with the different boards specialized in each of the specific topics

- The single point of contact between the consortium and the EC. The PC, thus, will be in charge of gathering the necessary and updated information from the partners in order to report the Project progress in a proper manner, ensuring that the quality standards have been reached or in case of any change or relevant conflict appearing. Each participant will nominate an Administrative Contact Person who will be the contact point of its entity for legal, financial and reporting matters
- Monitoring project progress by collecting all periodic activities and evaluating key achievements, planned activities, progress towards deliverables and main concerns
- Monitor compliance by the Parties with their obligations
- The resolution of doubts that may arise through direct communication or through the private area/message boards of Basecamp, that will include discussion forums in order to offer a common space for sharing queries and clarifications
- Chairing the project meetings
- Keep updated and available the contact list of the Parties and other contact persons

- Dealing with any relevant matters not foreseen in the proposed management structure

The PC has the support and assistance of the Programmes and Operations Department of Cetaqua, specifically dedicated to project management, consortium coordination, quality-assurance, intellectual property regulation, administrative reporting, and financial monitoring.

Additionally, in order to have a complete overview of the progress of an Action and the Project, the PC will work in close collaboration with the different boards described in Figure 1.

3.2. Project Steering Board (PSB)

The Project Steering Board (PSB) is the decision-making body of the Project. It consists of one representative from each participant, and it is chaired by the PC. It will meet twice a year at the General Assemblies (once virtually and once presential). They may also meet virtually according to the needs of the project (upon written request of a Member of the Project Management Team or 1/3 of the Members of the Project Steering Board). The General Assembly dates have been agreed to by all partners at the kick-off meeting.

The PSB is composed by the 16 organizations that participate in the project, as can be seen in Table 1, ordered as in the Grant Agreement and with the short names that should be used.

Table 1. SEMPRE-BIO Consortium (Project Steering Board)

Participant nº	Participant organization name (short name)	Country
1	CETAQUA, Centro Tecnológico del Agua, Fundación Privada (CET)	Spain
2	Aigües de Barcelona, Empresa Metropolitana de Gestió del Cicle Integral de l'Aigua S.A. (AB)	Spain
3	Cryo Inox S.L. (CRYO)	Spain
4	DBFZ Deutsches Biomasseforschungszentrum Gemeinnützige Gmbh. (DBFZ)	Germany
5	Danmarks Tekniske Universitet (DTU)	Denmark
6	Inveniam Group (INV)	Spain
7	Propuls (PROPULS)	Germany
8	SINTEF AS (SINTEF)	Norway
9	Terrawatt (TERRA)	France
10	Transports Metropolitans de Barcelona (TMB)	Spain
11	Universiteit Gent (UGE)	Belgium
12	Universitat de Vic (UVIC)	Spain
13	Biogas-E (BIOGAS-E)	Belgium
14	Innolab (INNOLAB)	Belgium
15	Naturgy (NAT)	Spain
16	NV De Zwanebloem (NV)	Belgium

The PSB will gather Project results from the STC and inputs from the External Advisory Board (EAB), in order to fulfil the following tasks:

- Decisions and approval
    - To approve the implementation of the project, including deliverables and achievement of milestones
    - To validate the adoption of contingency plans if necessary
    - To agree on modifications, including budget redistributions and task schedule variations. This includes:
        - To vote for requests of changes to the European Commission Grant Agreement, and decide on inclusions or exclusions from the consortium
        - To vote for changes to the Consortium Agreement, including withdrawals of background included
- Reporting and coordination
    - To discuss and assess the general progress and project achievements in relation to the Description of the Action (DoA)
    - To promote gender equality, ensuring gender balance in decision-making and in research terms
    - To ensure that beneficiaries respect the recruitment and working conditions for the researchers defined in the EC Grant Agreement
- Dissemination
    - To assess the dissemination level of all Deliverables
    - To approve all press releases and joint publications of the consortium in compliance with the EC Grant Agreement
    - To provide its opinion on all publication plans with regards to the risks that such publications could imply for the protection or use of foreground
    - To organize Stakeholder events to present the aims and objectives of the project and gathering and transferring the views of stakeholders to help formulate the overall strategic direction of future activity
- Exploitation
    - To monitor results to be protected and advising partners on the means of protection
    - To provide its opinion on planned granting of exclusive licenses to foreground to third parties if they could be contrary to the European economy or to security or ethical principles
    - To review the plan for the use and dissemination of foreground
    - To resolve disagreements on the necessary character of access rights between partners
    - To review contributions to jointly-owned foreground and corresponding shares
    - To follow up IP issues to make easy that partners reach agreements with third parties for use of the foreground (such as licensing or confidentiality agreements)

3.3. Scientific & Technical Committee (STC)

The Scientific & Technical Committee (STC) is the supervisory body for the execution of the Project which shall report to and be accountable to the Project Steering Board (PSB). It is composed by beneficiaries which are Work Package Leaders and/or Innovation Ecosystem Owners: Cetaqua (CET), TerraWatt (TERRA), CryoInox SL (CRYO), UVic, DBFZ, Inveniam (INV), Aigües de Barcelona (AB) and UGent (UGE). Each beneficiary will be represented in the STC with a representative, with a total of 8 representatives. See in Table 2 the beneficiaries composing the STC.

Table 2. SEMPRE-BIO Scientific & Technical Committee

Participant nº	Participant organization name (short name)	Country
1	CETAQUA, Centro Tecnológico del Agua, Fundación Privada (CET)	Spain
2	Aigües de Barcelona, Empresa Metropolitana de Gestió del Cicle Integral de l'Aigua S.A. (AB)	Spain
3	Cryo Inox S.L. (CRYO)	Spain
4	DBFZ Deutsches Biomasseforschungszentrum Gemeinnützige Gmbh. (DBFZ)	Germany
6	Inveniam Group (INV)	Spain
9	Terrawatt (TERRA)	France
11	Universiteit Gent (UGE)	Belgium
12	Universitat de Vic (UVIC)	Spain

It will closely follow-up the progress of the Project in both technical and non-technical perspectives, as well as the quality and the delivery on time of the deliverables. The STC will have the whole vision of the project progress, ensuring the proper implementation and interrelation between Work Packages.

The PC (CET) will chair the STC meetings, which will be held face-to-face or virtually on a six-month basis coinciding with the Project Coordination Meetings. There will be also virtual meetings with an approximate frequency of 1 per month and whenever necessary upon written request of a Member of the Scientific & Technical Committee.

The Scientific & Technical Committee shall be responsible for the following tasks (more detail can be found in the Consortium Agreement):

- To report the progress of the Work Packages and any other necessary updates to the PSB. Proper execution and implementation of the decisions of the PSB.
- To coordinate on a day-to-day basis the progress of the technical work under the WP
- To communicate any plans, deliverables, documents, and information connected with the WP between its participants and, if relevant, to the PSB
- To organize the work and outputs of the WP and resolving any conflict arising according to the project protocols
- To follow up decisions made by other consortium bodies insofar as they affect the WP
- To review each of the Deliverables of the WP before submitting them to the EC
- To monitor the effective and efficient implementation of the Action
- To collect information at least every 6 months on the progress of the Action, examine that information

to assess the compliance of the Action with the Action Plan and, if necessary, propose modifications of the Action Plan to the Project Steering Board

- To support the Coordinator in preparing meetings with the Funding Authority and in preparing related data and deliverables

3.4. External Advisory Board (EAB)

The External Advisory Board (EAB) is a group of external experts that ensure the scientific and technical quality of the project. It will provide an additional process of quality control, advice, and validation of the vision, global impact and outreach of the project. It is appointed and steered by the PSB. The EAB will be composed during the first 6 months of the project.

Frequent interaction will be sought between the PSB and the EAB in order to gain insights on the evolutions in the state of the art and to obtain validation of the methodologies adopted. Progress reports will be sent to the EAB so as to obtain feedback about project results during the implementation. At the same time, the EAB will make recommendations to the PSB with a view to achieving impacts.

The EAB will get together once a year (at least most of its members) with the PSB for discussion of findings, challenges and opportunities. The Project Coordination Meetings will be used to host these meetings. The EAB will also be asked to review key project deliverables, and assess difficulties and priorities identified by the PSB. In addition, the EAB will also be the link to international initiatives by benchmarking, promoting and supporting the route to market of SEMPRE-BIO technologies.

3.5. Other bodies: Work Package Leaders, Innovation Ecosystem Owners and Thematic Managers

Work Package Leaders (Cetaqua, CryoInox, DBFZ, Inveniam, TerraWatt and UVic) are in charge of leading and coordinating their respective Work Packages. They answer directly to the Project Coordinator and must manage the beneficiaries involved at each WP. They must make sure that the deliverables are of sufficient quality before they are shared for review with the PC and that they are submitted in due time. Furthermore, they must ensure scientific and technical coordination within each WP as well as with other WPs if the Action requires so (e.g. link to WPs 1, 5 and 6) and give scientific support to the Innovation Ecosystem.

Innovation Ecosystem Owners must ensure the project activities at local level meet end-user needs and adhere to the Grant Agreement of the SEMPRE-BIO project.

Finally, Thematic Managers, who are:

- Innovation: Oriol Casal (Cetaqua)
- IPR & Exploitation: John Crockett (Inveniam)
- Data: Bernd Wittgens (SINTEF)
- Communication and dissemination: Laia Mencia (Inveniam)

Must monitor and guide project activities about these topics and keep each other informed and aligned by direct communication of progress and any occurrences, special needs of the project or deviations from the GA.

4. Internal Communication

Virtual and face-to-face meetings will take place to monitor the progress of the project and to develop corrective measures where needed. In Table 3 there is a summary of the main expected meetings. It is worth noting that all the ordinary face to face meetings, will take place during the Project Coordination Meetings.

The Project Coordination Meetings of the PSB will be hosted twice a year, and besides having some plenary sessions to report the advancements of the WPs and case studies, it will also have parallel technical meetings, the STC and PSB meetings, and once a year, the EAB meetings.

Table 3. SEMPRE-BIO official project meetings

Item	Ordinary meeting	Extraordinary meeting
Project Steering Board	Twice a year (once presential, once virtually)	At any time upon request of the STC or 1/3 of the members of the Project Steering Board
Scientific & Technical Committee	At least quarterly, virtually.	At any time upon request of any Member of the STC
External Advisory Committee	Once a year: online or virtual meeting.	-
Work Package	Up to the WP leader judgement	At any time upon request of any participant in the WP

Virtual meetings will be held regularly by conference calls with the aim to:

- Discuss the work progress within specific Work Packages / groups of work
- Define responsibilities and actions to take
- Agree on any potential amendments to the work plan
- Share ideas and clarify questions / doubts

The official tool to perform virtual meetings is Google Meet since Basecamp (see 4.1 Basecamp) does not have that functionality. In case of unavailability the meeting organizer will decide the best alternative. The general rules for the project meetings are the following:

- The partners will receive an invitation to the meeting (if necessary, a Doodle will be launched in advance to find the most optimal date to everyone)
- The invitation will include the agenda for the call and preparatory work for each participant in case that is needed
- After the meeting, the attendees will receive a preliminary version of the minutes for their validation
- The final minutes of the meeting will be shared via email and in the shared folder of the project
- The follow up actions/next steps defined in each conference call will be listed in the meeting minutes to allow for a clear understanding of responsibilities and to better track the progress of the project

4.1. Basecamp

After deep analysis, and considering that several beneficiaries have a formal internal ban on the two most popular and widely platforms for collaborative work (Microsoft Teams and Google), an alternative platform has been selected as the environment for the internal communication and management of the project: Basecamp.

Basecamp is a user-friendly platform where partners share ideas, check pending tasks and have access to the most up-to-date documents and information. The objective of this platform is therefore to set up an effective virtual communication between SEMPRE-BIO partners.

It also allows file sharing and posting messages on message boards. Finally, it enables the scheduling of tasks, among many other features that enable remote collaboration. However, it does not have a functionality for online meetings, so Google Meet will be used for that purpose.

4.2. Contacts

The SEMPRE-BIO contacts list is available in Basecamp and it is continuously updated according to the corresponding changes in the participants and contact data occurring throughout the project.

It includes a detail on the roles of each participant and its contribution to each work package, together with all the contact information: name, role, email and phone. Table 4 compiles the main contacts of the SEMPRE-BIO project.

Table 4. SEMPRE-BIO project contacts and details

Partner nº	Partner	Name	Role	E-mail address	Phone nº
1	CET	Oriol Casal	Project Coordinator	oriol.casal@cetaqua.com	+34 676 198 645
1	CET	Joana Tobella	Project Coordinator Support	joana.tobella@cetaqua.com	
1	CET	Julia Gens	Financial Program Department	jgensfe@cetaqua.com	
1	CET	Mònica Alsina	Financial Program Department	monica.alsina@cetaqua.com	+34 639 954 642
1	CET	Ana Paz Agudo	Financial Program Department	ana-paz.agudo.ext@cetaqua.com	
1	CET	David Pacheco	Communication technician	david.pacheco.ext@cetaqua.com	+34 673 414 909

1	CET	Maria Jesús Llorens	Social Area Manager	mariajesus.llorens@cetaqua.com	
2	AB	Mario Ruiz Mateo	Project Contact	mruizm@aiguesdebarcelona.cat	
2	AB	Eva León	Project Contact	eleon@aiguesdebarcelona.cat	
2	AB	Cristina Sedeño	Financial Contact	csedeno@aiguesdebarcelona.cat	
3	CRYO	Andrea Munaretto	Project Contact	andrea.munaretto@fiorentin.com	
3	CRYO	Sergi Forns	Financial Contact	sforns@cryoinox.com	
3	CRYO	Ismael Callejón	Project Contact	icallejon@cryoinox.com	
4	DBFZ	Jaqueline Daniel-Gromke	Project Contact	jaqueline.daniel-gromke@dbfz.de	
4	DBFZ	Sylke Tessmann	Financial Contact	sylke.tessmann@dbfz.de	
5	DTU	Panagiotis Tsapekos	Project Contact	ptsa@kt.du.dk	
5	DTU	Irini Angelidaki	Project Contact	iria@kt.dtu.dk	
5	DTU	Minna Dahl	Financial Contact	mini@adm.dtu.dk	
6	INV	Laia Mencia	Project Contact	laia@inveniam-group.com	
6	INV	Júlia Gomez	Project Contact	julia@inveniam-group.com	
6	INV	Nazih Toubal	Project Contact	nazih@inveniam-group.com	
6	INV	Víctor Suñol	Financial Contact	victor@inveniam-group.com	
7	PROPULS	Ulrich Rost	Project Contact	ulrich.rost@propuls.de	
7	PROPULS	Jeffrey Roth	Project Contact	jeffrey.roth@propuls.de	
7	PROPULS	Philipp Neuhaus	Project Contact	philipp.neuhaus@propuls.de	
7	PROPULS	Jörg Neumann	Financial Contact	neumann@propuls.de	
8	SINTEF	Bernd Wittgens	Project Contact	bernd.wittgens@sintef.no	+47 926 6 160
8	SINTEF	Kari Schei	Financial Contact	kari.schei@sintef.no	+47 928 39 898
8	SINTEF	Olaf Trygve Berglihn	Project Contact	Olaf.trygve.berglihn@sintef.no	+47 982 30 460

9	TERRA	Pierre-Yves Mocaer	Project Contact	pymocaer@gmail.com	
9	TERRA	Yann Mercier	Project Contact	yann.mercier@terrawatt.fr	
9	TERRA	Eric Suñol	Financial/Project Contact	eric-sunol@terrawatt.fr	
10	TMB	Mario Canet	Project Contact	mcanet@tmb.cat	
10	TMB	Ismael Uruen	Financial Contact	iuruen@tmb.cat	
11	UGent	Cagri Akyol	Project Contact	cagri.akyol@ugent.be	
11	UGent	Shruti Katti	Project Contact	shruti.katti@ugent.be	
11	UGent	Erik Meers	Project Contact	erik.meers@ugent.be	
11	UGent	Evi Michels	Financial Contact	evi.michels@ugent.be	
12	UVic	Lídia Paredes	Project Contact	lidia.paredes@uvic.cat	
12	UVic	Pablo Martín Binder	Project Contact	pablomartin.binder1@uvic.cat	
12	UVic	Oscar Antonio Osegueda	Project Contact	oscarantonio.osegueda@uvic.cat	
12	UVic	Mabel Mora	Project Contact	mabel.mora@uvic.cat	
12	UVic	Anna Rovira Andújar	Financial Contact	anna.rovira.andujar@uvic.cat	
12	UVic	Albert Palou	Financial Contact	albert.palou@uvic.cat	
13	BIOGAS-E	Céline Wyffels	Project Contact	celine.wyffels@biogas-e.be	
13	BIOGAS-E	Tine Vergote	Project Contact	tine.vergote@biogas-e.be	
13	BIOGAS-E	Isabel Vanneste	Financial Contact	Isabel.Vanneste@howest.be	
14	INNOLAB	Amr Chamaa	Project Contact	amr.chamaa@innolabfrance.fr	
14	INNOLAB	Bernard Willems	Project Contact	bw@innolab.be	
14	INNOLAB	Jean-Baptiste Joos	Financial Contact	jbj@innolab.be	
15	NAT	Noelia Guzmán	Project/Financial Contact	nguzmans@naturgy.com	
15	NAT	John Chamberlain	Project Contact	jchamber@naturgy.com	
16	NV	Wannes Masscheleyn	Project/Financial Contact	wannes.masscheleyn@gmail.com	

5. Rules for implementing Horizon Europe projects

The implementation of the SEMPRE-BIO project should follow the rules and guidelines for Horizon Europe projects. The Grant Agreement (GA) is the document which sets out the rights and obligations and the terms and conditions applicable to the grant awarded to the SEMPRE-BIO partners for implementing the SEMPRE-BIO project. The following is a series of important points / rules to be considered.

5.1. Reporting

The reporting process allows the EC to follow the project closely and to ensure that it is implemented as stated in the GA and in conformity with the financial rules. The GA gives an overall picture of the progress of the project, in relation to the original and revised plans. It also provides a review of incurred costs.

The SEMPRE-BIO project lasts 42 months and has 3 reporting periods:

- RP1: from month 1 (01/11/2022) to month 18 (30/04/2024)
- RP2: from month 19 (01/05/2024) to month 30 (30/04/2025)
- RP3: from month 31 (01/05/2025) to month 42 (30/04/2026)

There will be one progress report per period submitted to the Project Coordinator during the project (3 in total). These will be used to follow the progress and the budget use of the project, as well as to detect any deviations from the work plan. The internal progress reports focus on the progress of the activities and on the financial reporting (expenses). The reports will be requested in the following months (mid-term ahead of the formal periodic report to the EC):

- 1st Project review – end of month 18 (April 2024)
- 2nd Project review – end of month 30 (April 2025)
- 3rd Project review – end of month 42 (April 2026)

RV needs to be compiled and submitted to the EC at the end of each reporting period (within 60 days following the end of the reporting period). It includes:

- A periodic technical report (explanation of the work carried out; overview of the progress; publishable summary; answers to questionnaire)
- A periodic financial report (individual financial statement; explanation of the use of resources; periodic summary financial statement)

This is the specific procedure for the periodic report (all steps in 60 days):

1. All beneficiaries receive a notification and log on to the Participant Portal (day 0)
2. All beneficiaries share with Cetaqua all costs they have to claim and Cetaqua checks and reviews them (day 0 – 30)
3. All beneficiaries complete their own Financial Statement (see example in Figure 5) and their contribution to the Technical Part of the Periodic Report. Beneficiaries e-sign and submit their Financial Statements to the Coordinator (day 31 – 35)
4. The Coordinator approves the elements of the Periodic Report & submits to the EU Services (day 35-60)
5. The EU Services review the submitted Periodic Report and accept or reject it
6. Interim Payment (90 days from reception of periodic reports)

Partners should refer to the guidelines on the Participant Portal to understand what exactly is expected from them (login to ECAS needed):

https://webgate.ec.europa.eu/fpfis/wikis/display/ECResearchGMS/Periodic+Reporting

A final report must be submitted within 60 days following the end of the last reporting period (in addition to the periodic report for the last reporting period). It must include:

- A final technical report (overview of the results and their exploitation and dissemination; the conclusions of the action; the socio-economic impact)
- A final financial report (final summary financial statement – created automatically by the electronic exchange system; a certificate on the financial statements – in some cases)

At the end of the project and for the final financial report, beneficiaries which request a total financial contribution of 430,000.00 € or more must provide a certificate on the financial statement (CFS). The certificate must be issued by an external auditor, using the template in Annex 5 of the Grant Agreement.

Partners should keep the signed original in their files while the Coordinator submits the CFSs as a scanned copy (PDF) together with the financial statement for the final reporting period of each partner concerned. Costs based on lump sums, flat-rates (e.g. indirect costs) or unit costs are not included in the 430,000.00 € limit.

In addition to the periodic reporting to the EC, the Project Coordinator will monitor the progress of the project through regular internal progress reports.

5.2. Financial aspects

The 'maximum grant amount' is 9,926,447.75 € (nine million nine hundred and twenty-six thousand four hundred forty-seven EURO and seventy-five eurocents).

The grant reimburses 100% of the eligible costs of the beneficiaries that are non-profit legal entities and 70% of the eligible costs of the beneficiaries and the affiliated entities that are profit legal entities (see Article 6 of GA) ('reimbursement of eligible costs grant') (see Annex 2 of GA).

The estimated eligible costs of the action are 11,753,080.00 € (eleven million seven hundred and fifty-three thousand eighty EURO).

Eligible costs (see Article 6) must be declared under the following forms ('forms of costs'):

a) for direct personnel costs:
   - as actually incurred costs ('actual costs') or
   - on the basis of an amount per unit calculated by the beneficiary in accordance with its usual cost accounting practices ('unit costs').

Personnel costs for SME owners or beneficiaries that are natural persons not receiving a salary (see Article 6.2, Points A.4 and A.5) must be declared on the basis of the amount per unit set out in Annex 2a (unit costs);

b) for direct costs for subcontracting: as actually incurred costs (actual costs);
c) for direct costs of providing financial support to third parties: not applicable;
d) for other direct costs:
- for costs of internally invoiced goods and services: on the basis of an amount per unit calculated by the beneficiary in accordance with its usual cost accounting practices ('unit costs');
- for all other costs: as actually incurred costs (actual costs);
e) for indirect costs: on the basis of a flat-rate applied as set out in Article 6.2, Point E ('flat-rate costs');
f) specific cost category(ies): not applicable.

The 'final grant amount' depends on the actual extent to which the action is implemented in accordance with the Agreement's terms and conditions.

This amount is calculated by the Agency — when the payment of the balance is made (see Article 21.4) — in the following steps:

Step 1 — Application of the reimbursement rates to the eligible costs

Step 2 — Limit to the maximum grant amount

Step 3 — Reduction due to the no-profit rule

Step 4 — Reduction due to substantial errors, irregularities or fraud or serious breach of Obligations

More detailed information about the grant amount, form of grant, reimbursement rates, forms of cost, eligible and illegible costs can be seen in Chapter 3 of the Grant Agreement.

5.3. Review Meeting and Audits

The SEMPRE-BIO Review Meetings (with the EC) are currently planned by the Project Officer for months 21, 33, and 42.

Regarding audits:

During the implementation of the project or afterwards, the EC checks, reviews, investigates, and audits the proper implementation of the project and its compliance with the grant agreement.

The EC may order an audit to the grant during the project or at any time up to 2 years after the final payment. Any claimed ineligible costs will be recovered or deducted from the next payment.

In the context of checks, reviews, audits or investigations, partners must make available records and other supporting documentation that proves the proper implementation of the action and that the costs they declare as eligible (for a period of five years after the payment of the balance).

The audit statement costs are considered contracting, and not subcontracting.

6. Documents and resources

European Commission resources / documents

- Annotated Model Grant Agreement

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf

- Participant Portal Horizon Europe Online manual

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-grants-manual-lev

- Page on the Research participant portal where partners can find useful documents dedicated to Horizon Europe projects:

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html

Communication, Dissemination, Data Management

- Communication in the Horizon Europe manual

http://ec.europa.eu/research/participants/docs/h2020fundingguide/grants/grantmanagement/communication_en.htm

- All the issues concerning Exploitation, Dissemination and Business Plan for results will be developed in WP6 by INVENIAM.
- Dissemination (GA article 29) is a separate obligation (e.g. through scientific articles and conferences)

http://ec.europa.eu/research/participants/docs/h2020fundingguide/grants/grantmanagement/dissemination-of-results_en.htm

- Communication EU research and innovation: guidance for project participants

http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020guidecomm_en.pdf

- The Data Management Plan will be developed in WP7 by CETAQUA
- Guidelines on Open Access to Scientific Publications and Research Data

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

IPR (Intellectual Property Rights)

- To learn more about the Horizon Europe rules regarding intellectual property, please read article 16 of the Grant Agreement.

- IPR Helpdesk

https://www.iprhelpdesk.eu/

- Your Guide to IPR in Horizon Europe

https://www.iprhelpdesk.eu/sites/default/files/documents/EU_IPR_Guide-to-IP-H2020.pdf

- Intellectual Property Rights (IPR) is another important issue that will be tackled in task 6.3, within the deliverable 6.4 IP Strategy Plan.

Finance Helpdesk

- Checks, Audits, Investigations

http://www.finance-helpdesk.org

7. Quality assurance, Control and Risk Management

7.1. Quality Assurance

The Deliverables identified in the DoA shall be delivered to the EC within the deadlines and in accordance with the conditions specified in the Grant Agreement (to be used as an indicator that the project is progressing on time).

The Deliverables are developed by the Deliverable lead beneficiary with support from the respective task contributors and submitted to the EC by the Project Coordinator through the electronic exchange system.

The SEMPRE-BIO PSB, STC and the EAB all play an important role in the quality assurance of the project.

Table 5 summarizes the deliverables that will be developed throughout the project, the entity with main responsibility to develop it, the internal reviewer and the external reviewer(s) being defined to ensure such quality.

Table 5. List of deliverables with due date month, month and lead

nº	Deliverable nº in WP	Due date month	Month	Lead
D1	D1.1	9	July 2023	Cetaqua
D2	D1.2	10	August 2023	Cetaqua
D3	D1.3	18	April 2024	Cetaqua
D4	D1.4	42	April 2026	Inveniam Group
D5	D1.5	42	April 2026	Inveniam Group
D6	D2.1	8	June 2023	DTU
D7	D2.2	28	February 2025	Cetaqua
D8	D2.3	36	October 2025	Cetaqua

D9	D2.4	36	October 2025	Cetaqua
D10	D2.5	40	February 2026	TMB
D11	D3.1	7	May 2023	Innolab cvba
D12	D3.2	24	October 2024	UGent
D13	D3.3	40	February 2026	Cryo Inox SL
D14	D4.1	12	October 2023	DBFZ
D15	D4.2	36	October 2025	UVIC
D16	D4.3	36	October 2025	UGent
D17	D4.4	42	April 2026	UVIC
D18	D5.1	8	June 2023	SINTEF
D19	D5.2	18	April 2024	SINTEF
D20	D5.3	42	April 2026	DBFZ
D21	D5.4	12	October 2023	DBFZ
D22	D5.5	36	October 2025	SINTEF
D23	D6.1	5	March 2023	Inveniam Group
D24	D6.2	6	April 2023	Inveniam Group
D25	D6.3	12	October 2023	Inveniam Group
D26	D6.4	12	October 2023	Inveniam Group
D27	D6.5	42	April 2026	Inveniam Group
D28	D7.1	6	April 2023	Cetaqua
D29	D7.2	24	October 2024	Cetaqua
D30	D7.3	36	October 2025	Cetaqua
D31	D7.4	6	April 2023	Cetaqua
D32	D7.5	24	October 2024	Cetaqua
D33	D7.6	36	October 2025	Cetaqua
D34	D7.7	42	April 2026	UGent
D35	D7.8	18	April 2024	Cetaqua
D36	D7.9	42	April 2026	Cetaqua
D37	D7.10	2	December 2022	Cetaqua
D38	D7.11	18	April 2024	Cetaqua
D39	D7.12	36	October 2025	Cetaqua

7.2. Quality Control

Control methods will be used to monitor deviations from plan and attempts to return to plan. Feedback from internal and external advisors will be used to monitor progress towards the project objectives. Risk management will be used as a proactive approach towards managing deviations from Grant Agreement plan.

Revision and review process for:

- Official EC report submissions - deliverables & periodic reports
- Public material

Before submitting to the European Commission, each deliverable will undergo a Peer Review to ensure they meet acceptable technical and quality standards. This review process will be documented in the change history of the document. If it is refused, the deliverable will be modified taking into account the remarks and then a new review carried out. Reviews will focus on correcting errors such as:

- technical ambiguities or inconsistencies,
- non-conformance to the philosophy and concepts developed in the description of work (Grant Agreement, Annex 1),
- non-conformance to the requirements laid down by the EC.

Reviewers: WP leader (if they are not the main writer), Coordinator or Project Manager (or Support Team) and/or another partner nominated by the coordinator.

Furthermore, partners will be required to periodically report to the Project Coordinator every 6 months on technical issues, tasks progress and financial matters.

7.3. Risk Management

A Risk is the potential of a situation or event to impact on the achievement of specific objectives.

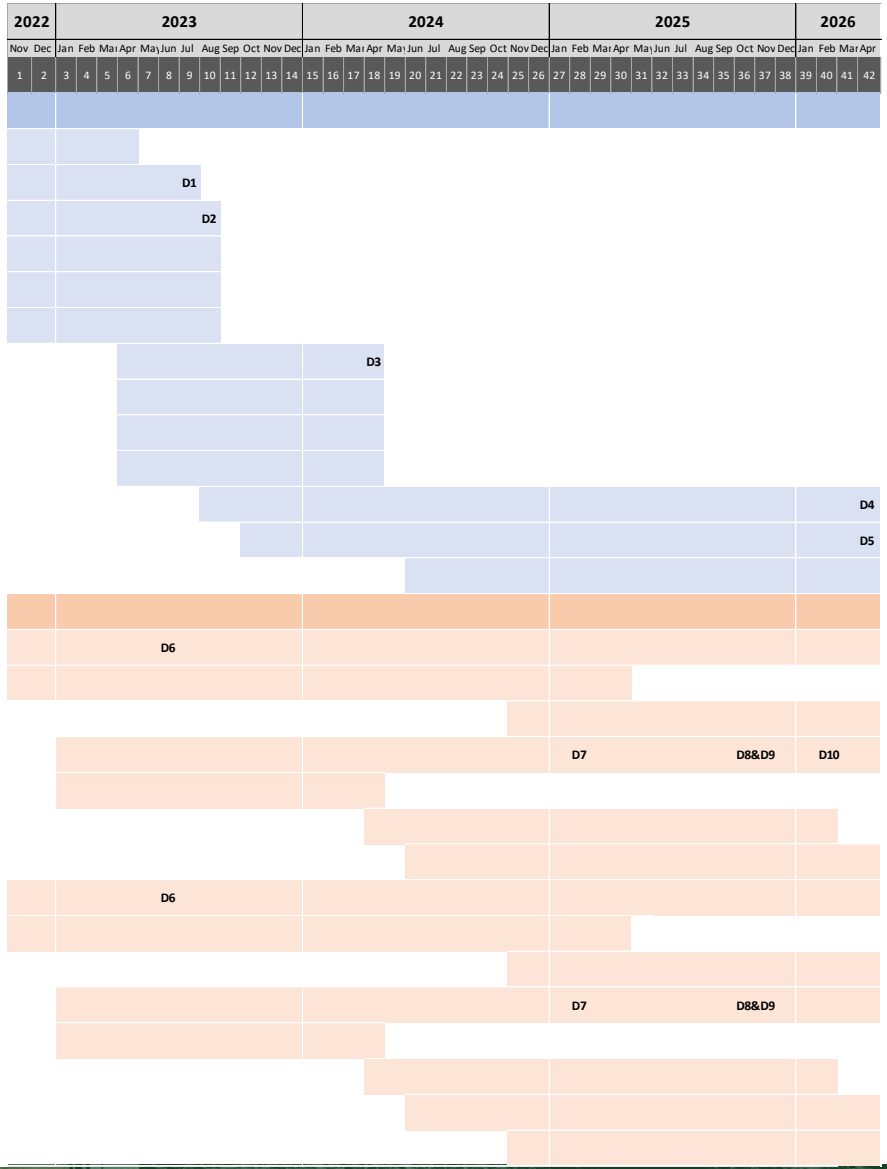
Risk Management is the process of identifying, assessing, planning, and implementing responses to ensure that uncertainty and negative impact of risks is reduced to an acceptable level. It is a measure put in place to deal with the dynamic nature of project work and is effectively the process of anticipating what might not go to plan and putting actions in place to ensure the project is not negatively impacted.

During SEMPRE-BIO risks will be monitored as a continuous activity throughout the project duration. Approach is based on early identifications and rapid reaction to events that could affect the project outcomes. Risks will form part, or the progress monitoring process so will be identified and reviewed at progress and technical meetings and status reported in Work Package Interim Management Reports and EC Periodic Reports.

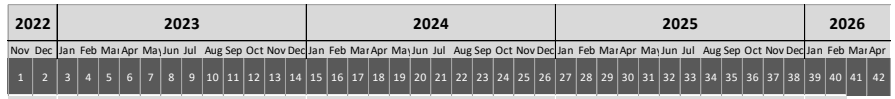
A risk register will be continually updated and monitored. When a risk is identified contingency and mitigation actions will be agreed including date or frequency of review. Separate meetings to address specific risks will be arranged if necessary. The Risk owner will be agreed and identified in the risk register. All partners will be responsible for identification and updating risks and communicating them to the Project Coordinator.

8. Gantt Chart

TASK	LEAD & PARTICIPANTS	START	END
WP1: European Biomethane Innovation Ecosystems	CET, ALL	1	42
Task 1.1 Baseline of site conditions and KPIs	CET, DTU, TERRA, UGE	1	6
Task 1.2 Designing and organising SEMPRE-BIO EBIEs	CET, ALL	1	9
Task 1.3 Design of the three cases demo sites	CET, DTU, SINTEF, PROPULS, TERRA, CRYO, UGE, UVIC	1	10
Subtask 1.3.1 Baix Llobregat case (CS-I) demo design	CET, DTU, SINTEF, PROPULS, AB	1	10
Subtask 1.3.2 Bourges case (CS-II) demo design	TERRA, DTU	1	10
Subtask 1.3.3 Adinkerke case (CS-III) demo design	CRYO, UGE, UVIC	1	10
Task 1.4 Demo plant construction and installation	CET, PROPULS, SINTEF, TERRA, CRYO, UGE, DTU, AB	6	18
Subtask 1.4.1 Constructing pilot system components and installation at CS-I	CET, PROPULS, SINTEF, AB	6	18
Subtask 1.4.2 Constructing pilot system components and installation at CS-II	TERRA, DTU	6	18
Subtask 1.4.3 Constructing pilot system components and installation at CS-III	CRYO, UGE	6	18
Task 1.5 Implementation and management of EBIEs	INV, CET, DTU, SINTEF, PROPULS, TERRA, CRYO, UGE, UVIC, NAT, BIOGAS-E	10	42
Task 1.6: Training actions on SEMPRE-BIO results	INV, CET, DTU, UGE, UVIC	12	42
Task 1.7 Technology Evidence Base	SINTEF, CET, DTU, PROPULS, TERRA, CRYO, UGE, UVIC, NAT	20	42
WP2: Biomethane Production Technologies for Greenfield Scenarios	TERRA, CET, PROPULS, SINTEF, DTU, NAT, TMB	1	42
Task 2.1 Development of ex-situ methane production process with biogas as CO2 source	DTU, CET	1	42
Subtask 2.1.1 Reactor configuration experimentation and optimization	DTU, CET	1	30
Subtask 2.1.2 Microbial community analysis	DTU, CET	25	42
Task 2.2 Operation of the bio-methanation Baix Llobregat demo site and data analysis	CET, SINTEF, PROPULS, DTU, TMB	3	42
Subtask 2.2.1 Design of experiments	CET, SINTEF, PROPULS, DTU	3	18
Subtask 2.2.2 Operation of the demo site	CET, TMB	18	40
Subtask 2.2.3 Operating data analysis	CET, PROPULS, SINTEF, DTU, NAT	20	42
Task 2.3 Development of syngas bio-methanation	DTU, TERRA	1	42
Subtask 2.3.1 Reactor configuration experimentation and optimization	DTU, TERRA	1	30
Subtask 2.3.2 Microbial community analysis	DTU, TERRA	25	42
Task 2.4 Operation and process analysis of the pyrolysis and bio-methanation Bourges demo site	TERRA, DTU	3	42
Subtask 2.4.1 Design of experiments	TERRA, DTU	3	18
Subtask 2.4.2 Commissioning, operation and process optimization of the demo site	TERRA	18	40
Subtask 2.4.3 Operating data analysis	TERRA, DTU	20	42
Subtask 2.4.4 Characterization of the other pyrolysis products (biochar and bio-oil)	DTU, TERRA	25	42



TASK	LEAD & PARTICIPANTS	START	END
WP3: Integrating Biomethane Upgrading Technology in Downscaling and Retrofitting Scenarios	CRYO, UGE, MASS, INNOLAB, BIOGAS-E)	1	40
Task 3.1 Energy profile & renewable energy integration scenarios	INNOLAB, UGE, MASS	1	7
Task 3.2 Cryogenic upgrading demo site operation and data analysis	CRYO, UGE, MASS, INNOLAB	3	40
Subtask 3.2.1 Design of experiments	CRYO	3	18
Subtask 3.2.2 Operation of demo site	CRYO, UGE, MASS, INNOLAB, BIOGAS-E	18	40
Subtask 3.2.3 Operating data analysis	CRYO, UGE, MASS, INNOLAB, BIOGAS-E	20	40
Task 3.3 Study towards further business case optimization by addressing biogas & biomethane based by-product costs (and valorisation)	UGE, MASS, INNOLAB	12	24
WP4: Advanced technologies for efficient valorisation of CO2 from biomethane streams	DBFZ, UVIC, DTU, UGE, INNOLAB	1	42
Task 4.1 Opportunities for the valorisation of CO2 extracted from biogas	DBFZ, UVIC, DTU, UGE	1	12
Task 4.2 Validate and demonstrate the technical and economic feasibility to produce marketable biopolymers and biochemicals from CO2	UVIC, UGE, INNOLAB, DTU	3	30
Task 4.3 Validate and demonstrate the technical and economic feasibility to produce marketable alternative protein sources from CO2	UGE, UVIC, INNOLAB	3	30
Task 4.4 Digital marketplace for regional valorisation of exceeding CO2	UVIC, INNOLAB	36	42
WP5: Economic Assessment & Market Uptake	DBFZ, ALL	1	42
Task 5.1 Process Specification	SINTEF, ALL except INV	1	8
Task 5.2 Process Design and Integration	SINTEF, ALL	6	30
Task 5.3 Techno-economical evaluation and GHG impact	DBFZ, ALL	18	42
Task 5.4 Analysis of legal framework conditions and market uptake	DBFZ, ALL	3	42
Task 5.5 Societal impact analysis	SINTEF, ALL	30	36
WP6: Connect, Communicate, Exploit, Replicate	INV, ALL	1	42
Task 6.1 Plan for dissemination, communication, and exploitation	INV, ALL	1	4
Task 6.2 Implement plan for dissemination and communication	INV, ALL	3	42
Subtask 6.2.1 Website, Video, and Materials Production and Communication	INV, ALL	3	42
Subtask 6.2.2 Academic Dissemination activities	INV, ALL	25	42
Subtask 6.2.3 Industrial Dissemination activities	INV, BIOGAS-E, NAT	4	42
Task 6.3 Development of an IP strategy	INV, CET, TERRA, CRYO, PROPULS	1	42
Task 6.4 Develop the business model and business plan for commercialization of the technologies	INV, CET, TERRA, CRYO, PROPULS, BIOGAS-E	25	42
Task 6.5 Participation and collaboration with other EU projects via Biorefine Cluster Europe	UGE, ALL	1	42



TASK	LEAD & PARTICIPANTS	START	END
WP7: Project Management	CET, ALL	1	42
Task 7.1 Administrative and financial management	CET, ALL	1	42
Task 7.2 Quality assurance and risk management	CET, ALL	1	42
Task 7.3 Responsible Research Innovation (RRI) and human involvement	UGE, CET, DTU, UVIC, BIOGAS-E	1	42
Task 7.4 Data requirements planning and management	CET, ALL	1	42
Task 7.5 Establish and manage an external advisory board	CET, ALL	1	42

2022		2023												2024												2025												2026			
Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
D37														**D38**																				**D39**							
					D28																		**D29**												**D30**						
																																									D34
					D31									**D35**									**D32**												**D33**						**D36**

9. Work Breakdown Structure