SYMBIOSIS

Project Management and Quality Assurance Plan

Deliverable 1.1

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CONSORTIUM - LIST OF PARTNERS

Partner no.	Short name	Name	Country
1	UIC	UNION INTERNATIONALE DES CHEMINS DE FER	FRANCE
2	FEHRL	FORUM DES LABORATOIRES NATIONAUX EUROPEENS DE RECHERCHE ROUTIERE FEHRLAISBL	BELGIUM
3	UPM	UNIVERSIDAD POLITECNICA DE MADRID	SPAIN
4	CERTH	ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	GREECE
5	PGE-ENERGETYKA	PGE ENERGETYKA KOLEJOWA SPOLKA AKCYJNA	POLAND
6	MINUARTIA	MINUARTIA ESTUDIS AMBIENTALS SL	SPAIN
7	ITALFERR	ITALFERR SPA	ITALY
8	SLU	SVERIGES LANTBRUKSUNIVERSITET	SWEDEN
9	FFE	FUNDACION DE LOS FERROCARRILES ESPANOLES	SPAIN
10	CENTRALESUPELEC	CENTRALESUPELEC	FRANCE
11	FC.ID	FCIENCIAS.ID - ASSOCIACAO PARA A INVESTIGACAO E DESENVOLVIMENTO DE CIENCIAS	PORTUGAL
12	SNCF	SOCIETE NATIONALE SNCF	FRANCE
13	SNCF-RESEAU	SNCF RESEAU	FRANCE
14	KONNEKTABLE	KONNEKT ABLE TECHNOLOGIES LIMITED	IRELAND
15	H&Z	HZ UNTERNEHMENSBERATUNG AG	GERMANY
16	RPS	OCHRANA DRACOV NA SLOVENSKU ZDRUZENIE	SLOVAKIA

17	IFEU	FEU - INSTITUT FUR ENERGIE- UND UMWELTFORSCHUNG HEIDELBERG GGMBH	GERMANY
18	UKCEH	UK CENTRE FOR ECOLOGY & HYDROLOGY	UNITED KINGDOM
19	ICSI	RESILIENCE RISING UK	UNITED KINGDOM
20	UNIVLEEDS	UNIVERSITY OF LEEDS	UNITED KINGDOM
21	NETWORK RAIL	NETWORK RAIL INFRASTRUCTURE LIMITED	UNITED KINGDOM

EXECUTIVE SUMMARY

This document provides a comprehensive Project Management and Quality Assurance Plan for the SYMBIOSIS project. The plan is organised as follows:

- **Project Management**: Includes the project's organisational structure, detailing roles and responsibilities across the Steering Committee, Coordination Team, Work Package, and Task Coordinators. Procedures for meetings, risk management, and internal communication are also outlined, along with monitoring and self-assessment processes.
- **Deliverables and Milestones**: Describes the deliverable management process, including tracking, reporting, and milestone assessment to ensure project progress and accountability.
- **Document Management**: Details about standardised templates, document coding, and classifications for various project documents such as reports, technical contributions, meeting minutes, and presentations to ensure consistency in project documentation.
- **Quality Assurance**: Outlines the Quality Plan, defining the roles within the quality management process and the steps required to maintain the quality of deliverables and other project outputs.
- **Intellectual Property Rights (IPR):** Addresses the handling of IPR within the project, ensuring appropriate management of intellectual contributions.
- **Conclusions:** Summarises the project's organisational and quality approach, emphasising the strategic alignment with project goals and quality standards. This structured approach will facilitate effective management and quality assurance, supporting project objectives and stakeholder satisfaction.

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INTRODUCTION

The Project Management and Quality Assurance Plan outlines the essential processes to be implemented throughout the SYMBIOSIS project lifecycle, ensuring that deliverables meet the required standards. This document serves as a framework for guiding project activities in alignment with the Grant Agreement (GA) and Consortium Agreement (CA).

It details practical guidelines for daily project management and addresses key aspects such as performance measurement criteria, reporting protocols, and review processes. Additionally, the plan provides an overview of the organisational structure, decision-making processes, communication strategies, and document management procedures. The development of this plan is informed by critical foundational documents and meetings, including:

- The SYMBIOSIS Grant Agreement – GA Number 101177281
- The SYMBIOSIS Consortium Agreement
- PRINCE2 – Managing Successful Projects with PRINCE2, 2017
- SCT meetings held on September 26 and October 31, 2024.

1. GOVERNANCE AND PROJECT MANAGEMENT

1.1. ORGANISATION STRUCTURE

The SYMBIOSIS project will apply PRINCE2-aligned quality and risk management principles to ensure the project meets its objectives and produces high-quality outputs. The project will benefit from a structured approach to governance, leveraging the expertise of a dedicated project coordinator to facilitate active participation among consortium partners and other stakeholders.

As a Coordination and Support Action (CSA), SYMBIOSIS will promote European collaboration across diverse stakeholders in the transport and energy sectors. Effective quality and risk management will enhance collaboration and ensure that the project harnesses the diverse knowledge and skills of its members. Clear lines of communication and coordination are essential to maximise these benefits.

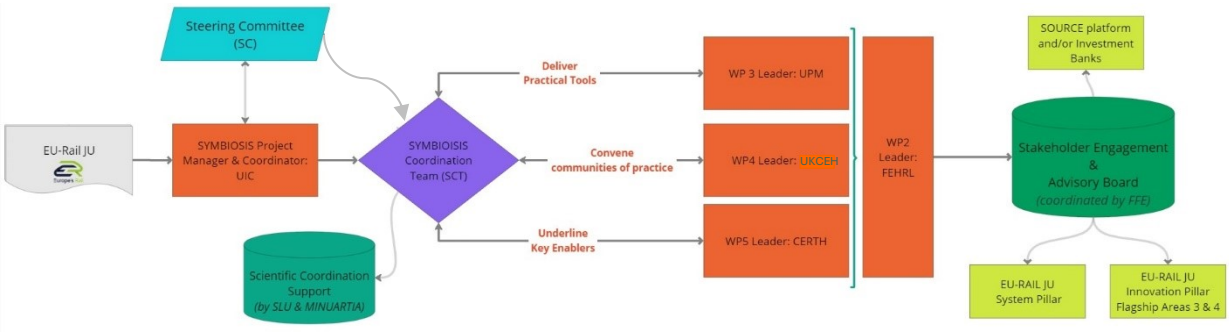

Figure 1: Organisation Structures – provided from the GA

An effective organisational structure, illustrated in Figure 1, ensures the governance and project management throughout the project lifecycle. This structure includes a Steering Committee, a Coordination Team, a Stakeholder Engagement and Advisory Board, and Scientific Coordination Support, each with distinct roles and responsibilities.

1.1.1. STEERING COMMITEE

The Steering Committee (SC) is the project's highest decision-making body, responsible for overall project governance. Chaired by the Project Coordinator (UIC), the SC meets at least annually with members of the SYMBIOSIS Coordination Team (SCT). The SC includes one representative from each consortium member as defined in the CA and GA. Its primary responsibilities are:

- Ensuring project implementation aligns with the EU-RAIL strategy and SYMBIOSIS objectives.
- Managing Consortium and Grant Agreements.
- Overseeing the delivery of SYMBIOSIS project deliverables and fostering coordination with related initiatives.

1.1.2. COORDINATION TEAM

The SYMBIOSIS Coordination Team (SCT) serves as the project's technical decision-making body. Led by the SCT Leader (UIC), it convenes regularly with Work Package (WP) leaders to review proposed approaches, methodologies, and deliverables, ensuring they align with the CSA framework. The SCT engages in various activities within WP1 to review and approve key documents such as the Project Management and Quality Assurance Plan and Data Management Plan and the consortium's budget, validates expenditures, and supports the Project Coordinator in preparing meetings with Europe's Rail Joint Undertaking (EU-RAIL). It also oversees partner management, approves exploitation and communication plans, and manages the Advisory Board (AB) and scientific coordination support, in collaboration with FEHRL. The SCT leader will also oversee the activities of the advisory board and scientific coordination support, aligning with the needs of other SCT members under FEHRL's guidance.

1.1.3. WORK PACKAGE COORDINATION

WP Leaders oversee the progress and deliverables of their assigned WPs, conducting continuous monitoring and escalation of issues or risks to the SCT. Additionally, WP leaders are integral members of the SCT, contributing to the overall technical decision-making and coordination efforts within the project.

1.1.4. TASK COORDINATION

Each Work Package is divided into tasks led by Task Leaders who coordinate and ensure the execution of activities within each task. Task Leaders bring together the relevant partners and report quarterly to the WP Leader on progress, supporting robust quality control and risk management. Their responsibilities include:

Objectives:

- Achieving the goals set at Task and WP levels.
- Conducting periodic reporting and troubleshooting of technical challenges.

Activities:

- Scientifically monitoring and coordinating task execution.
- Implementing guidelines as per WP Leader instructions.
- Making decisions with WP Leader approval.
- Reporting task progress through quarterly meetings.

1.2. WORKING PROCEDURE

1.2.1. MEETINGS

The SYMBIOSIS project will implement a structured framework for meetings and reporting to facilitate effective communication and decision-making. The meetings and reports will include:

- Steering Committee (SC) Meetings: As outlined in the GA, SC members will convene annually at the General Assembly. This meeting will focus on strategic governance and alignment with project objectives.
- SYMBIOSIS Coordination Team (SCT) Meetings: Ordinary SCT meetings will be held at least once a month. However, the frequency may be adjusted based on project needs. Extraordinary meetings can be convened at any time upon written request from any member. Scientific Coordination Support and Stakeholder Engagement meetings will also be combined.
- Work Package (WP) Meetings: Regular WP meetings will be scheduled according to the specific requirements of each WP. The Project Coordinator may attend these meetings as appropriate to ensure alignment with overall project goals and facilitate communication across the consortium.
- EU-RAIL Review Meetings: There will be two review meetings with the EU-RAIL held with EU-RAIL representatives: one after Month 18 (M18) and another at the end of the project in Month 36 (M36). These meetings will serve the following purposes.
    - First Review Meeting (M18): Assess technical and scientific progress, review and approve deliverables, and evaluate periodic reports.
    - Final Review Meeting (M36): Review the overall technical and scientific outputs and evaluate the overall outcomes of the project, conduct a financial review, and discuss future industrial and exploitation perspectives.

This structured approach to meetings and reporting will ensure comprehensive oversight, facilitate the delivery of quality outputs and enhance the potential of successful project outcomes.

1.2.2. PREPARATION OF MEETINGS

To maximise efficiency, smaller and online meetings will be preferred over larger gatherings whenever appropriate. It is crucial to invite only those individuals directly involved with the meeting topics to ensure focused discussions.

Preparation Guidelines:

1. **Advance Planning**: Each meeting should be well-prepared, with objectives, agendas, and required contributions from attendees defined at least two weeks prior to the meeting. This ensures that participants have ample time to prepare.

2. **Documentation**: If specific documents or reports are to be discussed, draft materials should be shared well in advance, allowing participants sufficient time to review and provide feedback.

3. **Scheduling**: Meeting dates should be agreed upon and selected with enough notice to ensure the availability of all concerned participants. When possible, meetings of different purposes should be combined to optimise travel time and costs.

4. **Travel Information**: Detailed travel information should be provided to all participants well ahead of time.

5. **Online Meetings**: To facilitate participation and reduce logistical complexities, online meetings will be preferred for reviewing progress on WP or task activities.

Facilitator Responsibilities: Each meeting will have a designated facilitator responsible for:

- Coordinating administrative arrangements and preparing the agenda in collaboration with participants.
- Liaising with the logistics assistant at the meeting venue to arrange accommodation for attendees.
- Reporting on the status of meeting preparations and follow-ups to participants.
- Distributing relevant documents prior to the meeting.

Participant Responsibilities: All attendees should contribute to meeting preparation by:

- Providing working documents in advance, typically in the form of discussion papers. These should be distributed before the meeting to allow participants to prepare adequately.
- Contributing to the agenda.
- Ensuring timely registration for the meeting.
- Preparing any necessary presentations.

1.2.3. INTERNAL COMMUNICATION

A project space has been set-up by the Project Coordinator via Microsoft SharePoint and the UIC Extranet. Communication within the project will be conducted through various channels, including:

- Phone calls, online tools (e.g. MS Teams, UIC Extranet, etc.)
- Meetings (online, in-person with hybrid settings)
- Email

A contact list can be found on the project SharePoint and will continuously be kept up to date.

1.2.4. RISK MANAGEMENT

The management structure outlined in Figure 1 ensures that risks are promptly communicated to the project Coordinator via the Work Package (WP) Leaders. The SYMBIOSIS Coordination Team (SCT) is responsible for risk management, evaluating potential new risks on a monthly basis and discussing relevant mitigation strategies as necessary. In alignment with PRINCE2 methodology, major project risks and contingency measures have already been identified, as outlined in the Grant Agreement (GA). This will facilitate effective risk monitoring and management throughout the project lifecycle. Moreover, the risk register process will undergo regular reviews and updates at least quarterly to ensure its ongoing relevance and effectiveness. Any significant issues identified will be escalated to the SCT as needed. Additionally, any contingency plans will be formulated through the risk management process, in line with PRINCE2 methodology, and will be reported and periodically updated to both the project management team and the SCT.

1.2.5. MONITORING PROCESS AND SELF-ASSESSMENT

Continuous self-assessment and evaluation activities will be prioritised at the project level. The SCT is responsible for assessing the fulfilment of project objectives and proposing corrective actions based on their scope of work within the Steering Committee. Evaluation Process will be performed at monthly SCT meetings:

- Continuous assessment and evaluation will be integrated into project activities, ensuring that objectives are consistently achieved.
- The SCT will actively gather feedback from participants and stakeholders to inform the evaluation process, enabling timely adjustments to strategies as needed.

This structured approach to preparation, communication, risk management, and monitoring are in line with PRINCE2 methodologies and will ensure effective project governance and successful achievement of project objectives.

1.3. DELIVERABLES

The following table is taken from the Grant Agreement list of deliverables.

Table 1: List of Deliverables – provided from the GA

N°	Deliverable name	WP	Lead	Type	Dissemination level	Due Date (in months)
D1.1	Project Management and Quality Assurance Plan	1	UIC	R	PU	2
D1.2	Data Management Plan	1	UIC	R	PU	6
D1.3	Data Management Report	1	UIC	R	PU	36
D2.1	Communication, dissemination & Exploitation plan	2	FEHRL	R	PU	6
D2.2	Knowledge Transfer and Capacity Building Strategy	2	ICSI	R	PU	18
D2.3	Stakeholder analysis and recommendations	2	FFE	R	PU	34
D2.4	Communication, dissemination & exploitation report	2	FEHRL	R	PU	36

D2.5	Report on the R&I strategic recommendations	2	FEHRL	R	PU	36
D2.6	Knowledge & Learning Hub	2	ICSI	R	PU	36
D3.1	Impact Assessment Tools for Linear Infrastructures	3	UPM	R	PU	20
D3.2	Harmonised methodology to prioritise NbS for Climate-Resilient Infrastructure	3	MINUARTIA	R	PU	30
D3.3	Decision support Guidelines to reinforce Blue and Green Infrastructure on transport and energy infrastructure	3	MINUARTIA	R	PU	34
D3.4	Biodiversity-CO2 calculator for the railway sector. Methodology, case studies and its evaluation.	3	UPM	R	PU	34
D4.1.	Report on 'Transformative Insights and Strategies for Biodiversity Monitoring in European Railway'	4	UKCEH	R	PU	12
D.4.2	Advancements in Automated Biodiversity Monitoring for European Railways	4	UKCEH	R	PU	25
D4.3	Assessment of the benefits and challenges to integrating real-time biodiversity data into rail infrastructure GIS and BIM alongside data on economic performance and carbon emissions	4	CENTRALESUPELEC	R	PU	30
D4.4	Recommendations for new approaches for standardised biodiversity monitoring.	4	UKCEH	R	PU	36
D5.1	Analysis report on assessing societal priorities on sustainable transport development.	5	CERTH	R	PU	23

D5.2	Recommendations for enhancing cross-cutting biodiversity and climate policies on railway infrastructure.	5	FFE	R	PU	30
D5.3	Recommendations on environmental impact assessment of the cumulative effects of pairing infrastructure development.	5	CERTH	R	PU	36
D5.4	Recommendations for mainstreaming biodiversity within the procurement process, as well as for improving the disclosure regarding biodiversity in the supply chain in compliance with the new standards	5	ITALFERR	R	PU	36

1.4. MILESTONES

The following table is taken from the Grant Agreement List of milestones.

Table 2: List of Milestones – provided from the GA

N°	Milestone name	Related WPs	Due date (in month)	Lead
MS1	Kick-off meeting.	1	M1	UIC
MS2	Creation of Project website.	2	M2	UIC
MS3	Stakeholder engagement and participation framework	2	M6	FFE
MS4	Deploy to understand practices for biodiversity monitoring across European rail operators.	4	M8	UKCEH
MS5	Preliminary analysis of impact assessment tools and stakeholder synergy exploration.	3	M10	UPM

MS6	Internal report on the evaluation and enhancement of stakeholders' involvement in decision-making processes and transport policy formulation.	5	M10	CERTH
MS7	Detailed assessment of the variability in practice between operators and opportunities for standardisation and harmonisation of best practice for biodiversity monitoring and reporting.	4	M11	UKCEH
MS8	Interim Report - Strategy on Knowledge Transfer & Learning Hub.	2	M12	ICSI
MS9	Preliminary draft of integrated ecological connectivity, biodiversity and climate risk mapping developed with stakeholder feedback.	3	M18	UPM
MS10	Analysis report on adapting the CSRD for the development of transport infrastructure networks in harmony with biodiversity conservation and ensuring ecological connectivity.	5	M20	CERTH
MS11	Testing of new approaches to biodiversity data collection to inform standardisation and integration with other railway asset management information.	4	M22	UKCEH
MS12	Preliminary report on the 'State of the Art' about railway ecological asset design and management, with special focus on the application of NbS and other measures to reinforce BGI in railway infrastructure.	3	M24	UPM
MS13	Preliminary report on indicators and criteria for mainstreaming biodiversity in procurement strategies and sustainability reporting according to CSRD requirements regarding procurement.	5	M24	ITALFERR
MS14	An inventory of the numerical simulation tools available to forecast biodiversity change and trajectory and identification of key biodiversity metrics for conservation and restoration suited for integration in a DT.	4	M24	UKCEH
MS15	Analysis report on biodiversity data flow of different scale in the reporting processes and Follow up Framework on policies and	5	M24	CERTH

	strategic planning in connection with environmental impact assessment.			
MS16	Preliminary report on enhancing cross-cutting biodiversity and climate policies on railway infrastructure.	5	M28	CERTH
MS17	Preliminary report with guidelines for and standardised biodiversity monitoring programme.	4	M30	UKCEH

2. DOCUMENT MANAGEMENT

2.1. TEMPLATES

The official language of the project documents is English. To improve the readability of documents, it is recommended to use the active voice with simple and clear English terms. Short sentences are preferred over long ones.

To ensure homogeneity across the documents produced in the scope of the project, and their compliance with the guidelines given by the EU-RAIL (where applicable), templates have been prepared:

- Deliverables;
- Agenda of Meetings;
- Minutes of Meetings including attendance list;
- General presentation PPT;

The abovementioned document templates are distributed to all project partners along with this Quality Plan; they are made available in the dedicated SYMBIOSIS TEAMS folder, as well as the updates to templates which may occur during the project lifetime. The use of official document templates, as appropriate, is mandatory for any document to be produced.

2.1.1. DOCUMENT CODE STRUCTURE

The identification code contains the six following sections: [Project] – [Domain] – [Type] – [Owner] – [Number] – [Filename]

- [Project] is SYMBIOSIS for all SYMBIOSIS documents;
- [Domain] is the relevant domain in the project (SCT, SC, AB or WP/Task);
- [Type] is one letter defining the document category;
- [Status] is one letter defining the document category (Draft, Final, Submitted);
- [Owner] is the trigram of the deliverable leader organisation;
- [Number] is an order number allocated by the publisher when the document is created (date_hour);
- [Version] required to be renumbered when major modification is completed.

Example : SYMBIOSIS-T1.3-D1.3-D-UIC-20241024-1700-v1

2.1.2. DOCUMENT TYPES

This information will be used to set up the identification code. Documents are classified among the following types:

Table 3: Document classification

Letter	Name	Description
A	Administrative	Any administrative document except contractual documents
C	Communication materials	Meeting Agenda, Presentation or Minutes
D	Deliverable	Deliverable identified as such under the Grant Agreement
E	EC documents	Document provided by EC (general rules, guidelines or EC experts documents)
L	Legal documents	Consortium Agreement, Grant Agreement and their approved amendments
M	Model (template)	MS-Office document templates including SYMBIOSIS visual identity
P	Periodic Report	All periodic reports except those listed as deliverables. May be a WP intermediate report or a project intermediate report requested by the Grant Agreement but not listed as deliverable.
R	Risk Sheet	Excel document for risk register in line with Prince2 methodology
T	Technical contribution	Technical document contributing to a task/deliverable but not part of the deliverable
W	Proposal	Proposal for changes to the Consortium Agreement or Grant Agreement
X	External Document	Document produced by non-members of the consortium (e.g., papers, reports, external public deliverables, etc.) that, upon authorisation of the author(s), are shared with the project due to its relevancy.

2.2. DOCUMENTS TO BE PRODUCED IN THE SCOPE OF THE PROJECT

2.2.1. PERIODIC REPORTS

The project duration, as stated in the GA, is 36 months. The project is divided into two reporting periods of equal duration:

- P1: from month 1 to month 18. This period will focus on setting up the project, initial stakeholder engagement, and developing early frameworks.
- P2: from month 19 to month 36. The second period will focus on analysis, refining methodologies, testing, and producing final reports.

As defined in the GA, the Coordinator must submit a periodic report at the end of each reporting period. This is a contractual obligation.

The Periodic Report must include a technical and a financial report. The coordinator must submit a final report to the ERJU within 60 days after the end of the last reporting period.

2.2.2. DELIVERABLES

Deliverables refer to the results/information to be provided within a WP. The WP Leaders will have the responsibility to ensure that all deliverables are produced as planned. To facilitate the timely submission of high-quality deliverables, WP leaders are required to prepare in advance a specific timetable for the report development. The timetable should be included in the WP project plan.

All deliverables are listed in the List of Deliverables of the GA. For each deliverable, the following information is identified:

- the title of the deliverable and the associated WP,
- the lead consortium partner and the delivery date,
- the type of the deliverable: Report (Document, report),
- the dissemination level: Public (PU).

Each official deliverable should include the official cover page (included in the template). The author is requested to complete the cover page with the following information:

- project details,
- document details,
- document History,
- list of partners (i.e. technical contributors).

Each official deliverable must also include an **Executive Summary** (as per the template), where the author provides a concise synthesis of the document's key content, briefly explaining each main section. This summary should offer a comprehensive overview, as it will be carefully reviewed by the EU-RAIL reviewers.

The Table of Contents, List of Figures and List of Tables must be included in each deliverable, covering all sections and sub-sections up to the third level. All tables/lists should be updated after the document is completed. If the document does not include any figures or tables, the list of figures and the list of tables should be removed.

For each revision, the new document should contain the **Document History** with the revision number, the date of issue and a brief description of the major changes with reference to the previous version. For the first revision, the document history will contain the indication "First draft". The final version of the approved deliverable should contain the indication "Final version after SCT approval".

The coordinator may use deliverables as a basis for evaluating the status of a WP and assess its level of success (achievement of expected results). The status of the deliverables should be reported on a regular basis to the coordinator.

2.2.3. TECHNICAL CONTRIBUTIONS

Technical contributions are documents describing the inputs of the consortium partners to a deliverable. Technical contributors shall be included in the "Consortium – List of partners" section. All fields included in the "Document History" table are mandatory and a document cannot be approved without a complete table. Moreover, this template includes the document's status table (Described in the 2.2.2 deliverable section).

2.2.4. AGENDA OF MEETINGS

The agenda and minutes template used for meetings should contain the following information (included in the template):

- domain (SC/ SCT /WP/Task) to which the document refers,
- date with start and end time, time zone,
- venue of the meeting (online/hybrid with a link),
- content (item).

Content of the agenda should be tailored to the specific needs and purpose of the meeting. Documents related to the agenda items can also be shared in a reminder section.

2.2.5. MINUTES OF MEETINGS

Content of the minutes should be tailored to the agenda and reflect the specific needs and items discussed in the meeting. Minutes must highlight key decisions and outline follow-up actions (included in the template).

2.2.6. PRESENTATIONS

Document status can be set as "Draft" or "Final". A document is to be considered "Draft" until it is subject to the approval. Depending on the nature of the document, this approval can be done by the SCT (e.g. for deliverables), WP, Task or Advisory Board members. Once approved, the status of a document changes to "Final".

2.2.7. TEMPLATE DESIGN GUIDELINES

This section outlines the general guidelines for designing additional document templates. All document templates should include predefined headers and footers.

- **Cover Page:** The footer on the cover page should include the official project logo (along with the project's acronym), the contract number, and the European flag. Authors must not modify the header included in the template. The cover page must always feature the statement: "Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or Europe's Rail Joint Undertaking. Neither the European Union nor the granting authority can be held responsible for them."
- **Header:** On all pages other than the cover page, the header should contain the document code, title, and date of issue. Authors are responsible for inserting the document code and issue date, ensuring they match the corresponding information on the cover page.
- **Footer:** On all pages except the cover page, the footer should display the page number. Page numbering should be generated automatically using the word processor's built-in functions and must not be modified.

If the document contains multiple sections, the author must ensure that the header and footer are used consistently throughout each section.

3. QUALITY

Quality management is achieved through the implementation, monitoring, and documentation of the procedure and responsibilities established in the quality management plan, consistent with PRINCE2 methodology.

3.1. QUALITY PLAN FOR DELIVERABLES

The quality review process follows three steps organised in a structured hierarchy with defined roles:

i) Initial Review (by the Task Leader),
ii) Second Review (by the Work Package Leader),
iii) Final Review (by members of the SCT and SC).

Each deliverable will be assigned to at least two internal reviewers, one of whom will be the relevant Work Package (WP) leader and/or a member of the Scientific Coordination Team; if the task leader serves in one of these roles, they should appoint an additional reviewer to ensure a thorough assessment.

Roles within the Quality Management Process

- **Task Leader**: Throughout the duration of a task, the Task Leader is responsible for monitoring the progress of all products against specific and measurable quality criteria. The Task Leader must escalate any quality concerns to the WP Leader and, if necessary, to the SCT.
- **Work Package Leader:** Oversees the first-level review of project deliverables. Any comments or corrections identified in this process must be addressed before a deliverable can be forwarded to the SCT. If serious concerns arise, indicating that recommendations cannot be implemented within the required timeframe before submission to the SCT, the Work Package Leader or Task Leader must notify the coordinator immediately. The SCT may then convene a meeting to establish a contingency strategy.
- **SCT (SYMBIOSIS Coordination Team):** Holds ultimate responsibility for the quality of all deliverables produced in the project. Each member of the SCT will be given the opportunity to review each deliverable, with a Principal Reviewer assigned by the WP leaders to collate feedback and ensure appropriate actions are taken. Feedback from the SCT must be thoroughly addressed and incorporated before a deliverable can be passed to the SC.
- **Advisory Board (AB)** members will be invited as needed to provide ad-hoc feedback and insights on project milestones and draft deliverables. To ensure timely engagement, deliverables requiring AB review will be pre-defined, and this information will be shared with the Work Package (WP) leader, who will present it at SCT meetings. This process will enable AB members to indicate their preferred level of involvement in advance. AB members will define their level of engagement by selecting one of the following options:
    - NO: No engagement.
    - INFORMED: Communication is one-way and may not be very engaging.
    - CONSULTED: This level allows AB members to share opinions, information, good practices, and experiences.
    - INVOLVED: At this level, AB members are fully engaged and can provide resources, data, reviews, and more.

3.2. QUALITY PLAN FOR OTHER PRODUCTS

The quality plan for products other than the deliverables defined in the GA should be established at the task's outset. The level and formality of the quality process will be determined by the Task Leader, with input from other partners to identify and validate specific targets and expectations. If necessary, the SCT will provide support and input, along with assistance from the WP leader.

The SCT will monitor the quality of each output (i.e. task products). Any quality concerns should be escalated from the Task Leaders and Work Package Leaders to the SCT for further consideration.

4. INTELLECTUAL PROPERTY RIGHTS (IPR)

In the context of the SYMBIOSIS GA, foreground IPR is defined as any inventions (whether patentable or not) and applications thereof, patents, registered designs, copyright material including computer software, and technical know-how and other information. Background IPR is defined as "pre-existing know-how" and only covers the "access rights" to it.

The Consortium has already identified background IPR in the CA (listed in Annex 1). The Consortium will monitor IPR topics to update the CA Annex 1, adding specific amendments in case more information (background) should be formally included in the CA. In case of any issues related to foreground or background of IPR, handling procedures will be discussed internally and where required, Annex 1 of the CA will be updated accordingly.

To this end, the WP2 Leader will manage all issues regarding IPR, and if needed, the WP2 Leader will escalate issues to SCT. No partner will exploit or disseminate any project output that is not listed in the GA without the formal agreement from all partners for the output to be disseminated.

If background IPR are needed during the project, access rights will be granted to project partners in need-to-know basis during project implementation, which will further elaborate on topics of ownership, access rights, communication of knowledge, and confidentiality, among others.

5. CONCLUSIONS

The Project Management and Quality Assurance Plan serves as a guide for the SCT and consortium partners, clarifying their roles and responsibilities in delivering the SYMBIOSIS project effectively. This document complements the Grant Agreement and Consortium Agreement. Additional guidelines are available on the EC Participant Portal.