EXSOLUTION-BASED NANOPARTICLES FOR LOWEST COST GREEN HYDROGEN VIA ELECTROLYSIS

Quality Assurance Plan
(Deliverable D7.3)

The project is supported by the Clean Hydrogen Partnership and its members		
PU	Public, fully open	x
SEN	Sensitive, limited under the conditions of the Grant Agreement	☐
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NOTICES

For information, please contact the project coordinator, Mari Šavel, e-mail: mari.savel@stargatehydrogen.com. This document is intended to fulfil the contractual obligations of the EXSOTHyC project, which has received funding from the Clean Hydrogen Partnership and its members, concerning deliverable D7.3 described in contract 101137604.

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Table of revisions

Version	Date	Description and reason	Author	Affected sections
v0.1	12.04.2024	1st draft created	Mari Savel	all
V0.2	14.04.2024	Review	Maximilian Demnitz	all
V0.3	15.04.2024	Integrating the comments	Mari Savel	all
V1.0	15.04.2024	Final version	Mari Savel	all

List of Partners

Stargate Hydrogen Solutions OÜ (Stargate)
University of St Andrews (St Andrews)
Agfa-Gevaert NV (AGFA)
Eindhoven University of Technology (TUE)
Fraunhofer IFAM (IFAM)
PO – Project Officer

List of Abbreviations

DoA – Description of Action

EC – European Commission

GA – Grant Agreement

QA – Quality Assurance

WP – Work Package

WPL – Work Package Leader

1 Objectives

The aim of the project Quality Assurance Plan is to provide a leadership strategy that would ensure clear communication and operation in the project. It has been designed to achieve unambiguous responsibilities for scientific and exploitation tasks, to have clear decision and governance structures, and ensuring a transparent level of cooperation between all partners.

2 Management Structure

The EXSOTHyC consortium is comprised of five partners and is coordinated by Stargate. Work Package Leaders (WPLs) are firmly supported by the rest of the consortium members (see also the explicit roles and partner expertise in Description of Action (DoA) Section 3 Implementation). The main tasks of management are:

- Coordination of general administrative, financial, legal, scientific, and technology activities
- Establishment and operation of EXSOTHyC decision making bodies and procedures
- Monitoring and supervision of project procedure, time and risk management
- Establishment of efficient communication among partners, towards the European Commission (EC)
- Knowledge, intellectual property, innovation and sustainability management during and after the project lifecycle

The management structure comprises of:

- The Project Coordinator
  - Scientific and Executive
- The General Assembly
  - Consists of partner delegates from each partner organisation
- Work Package Leaders
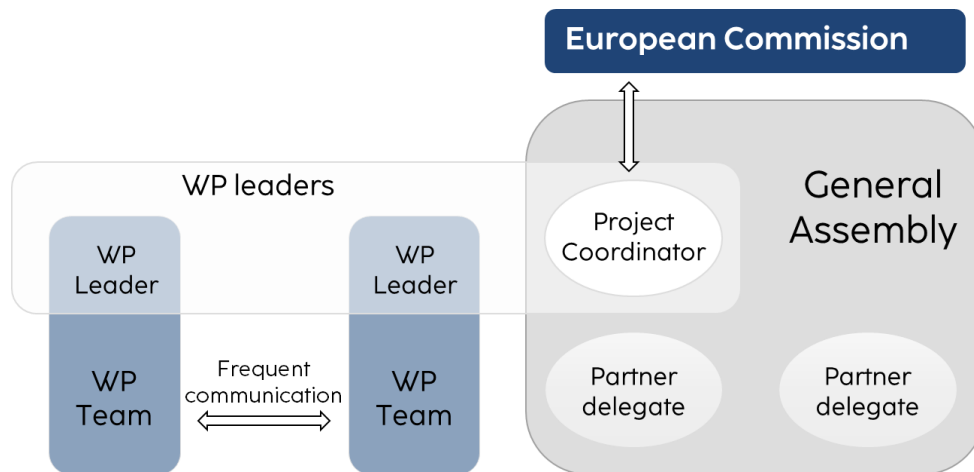 - Coordinating work package implementation via the WP team

Figure 1. EXSOTHyC management structure.

2.1 Project Coordinator

The Project Coordinator (Stargate) has full power and responsibility to make decisions guaranteeing the success of the project. The Coordinator is responsible for monitoring the scientific achievements, ensuring the accomplishment of the technical objectives, and promoting project visibility. The Coordinator works in close cooperation with the WPLs.

The Coordinator's tasks include:

- Provision of the project's communication backbone (EC, project partners)
- Supporting administrative requests by the partners
- Regulating all financial aspects
- Maintenance of the consortium- and other agreements
- Coordination and preparation of project meetings (incl. distribution of meeting minutes)
- Integration of documents, maintaining data and document repositories, version management
- Reporting to the commission (deliverables, periodic reports)
- Monitor project bi-weekly progress for continuous rating of the achievements, objectives, tasks, work packages with global view of the overall project
- Take the actions to avoid/minimize any technical risk and resolve any conflict

2.2 The General Assembly

The General Assembly (GA) consists of representatives of all partners, chaired by the Project Coordinator. The GA is the main body that discusses and decides on all managerial and technical aspects of the project. GA decisions are based on a voting procedure and quorum defined in the Consortium Agreement.

Face-to-face meetings of the GA are planned twice a year or on one of the partners' requests for the GA to convene. In addition, regular weekly teleconferences will be held. The responsibilities of the General Assembly are:

- Progress monitoring and technical quality control
- Innovation and knowledge management and other related activities
- Risk assessment
- Deciding on disputes concerning technical matters between WPs
- Re-arranging work distribution within WPs if necessary
- Mediating and resolving inter-partner conflicts
- Review and amendment of the Grant- or Consortium Agreement in needed

2.3 Work Package Leaders

The Work Package Leaders (WPLs) ensure the delivery of results of their WPs and report on progress to the whole consortium. WPLs are responsible for planning, progress control, quality management, and successful completion of their WP and the interactions with other WPs according to the work plan.

The WPLs together with the Project Coordinator will be responsible for maintaining an overall view of progress and direction as well as ensure that the technical contributions within related WPs are coherent and complimentary in achieving a complete system. They are expected to spot potential problems in connecting different elements of the work and to suggest countermeasures, which will enable the project to deliver the maximum possible benefit.

Table 1 the WPLs of EXSOTHyC

WP	WP Title	Lead	Start	End
1	Electrode development	IFAM	2	32
2	Zirfon with reduced gas cross-over	Agfa	1	32
3	Catalyst coated membrane development	TUE	1	18
4	Dynamic operation stability	TUE	1	36
5	Integration and validation	Stargate	8	36
6	Dissemination and exploitation	Stargate	1	36
7	Management	Stargate	1	36

3 Communication

The primary tools for communication are email and Microsoft Teams. For file uploads and safekeeping, a SharePoint cloud service is being used. Public documents will be uploaded to the EXSOTHyC website (www.exsothyc.com).

The constant information about the project-related topics (meeting organisation, requirements from the commission, upcoming events, etc.) is being communicated regularly via e-mail and during the regular consortium meetings.

3.1 Project meetings

Regular consortium wide meetings are held every second week. Regular face-to-face (or virtual) GA meetings with all partners are held twice a year.

An agenda of the meeting is put together and distributed by the Project Coordinator before the meeting. The project meetings include progress reports by all WPLs and discussions regarding upcoming tasks, deliverables, financial aspects, and any deviations from the original plan as well as any other topics related to the project. Minutes of all meetings will be taken and distributed within a week after the event. All minutes are stored in the shared project folder "Meetings_EXSOTHyC".

In case of outside restrictions that will not permit some members to take part in the biannual GA meeting, concessions will be made to either have a virtual meeting instead or broadcast the meeting through a secure channel so that all members of the consortium will be able to attend.

3.2 Work Package meetings

Regular WP-specific technical meetings[1] will be held for individual WPs as appropriate. WPL are responsible for regular communication between their WP members. They will ensure that everyone is aware of their assignments, sub-tasks have been completed in a timely manner, and if needed, escalate risks and problems to the Project Coordinator level.

Many tasks in WPs depend on previous deliverables of the project. The Project Coordinator will make any official documentation available to the new task leader, but the leaders themselves are responsible for communicating the details of their findings among themselves.

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[1] Concerns technical WPs 1-5

4 Reporting

4.1 Reporting to the European Commission

The Project Coordinator is responsible for the communication between the consortium and the Project Officer (PO) at the European Commission, Ms. Eleni Kontonasiou. The constant updates about the project have been communicated directly via email.

The Project Coordinator will collect input from all partners and provide overall progress reports to the PO. Also any possible problems concerning the entire project such as serious delays, financial matters, contract matters, or necessary changes of partners will be communicated to the European Commission immediately.

In addition, a constant status overview will be shared with the consortium and the European Commission, where the following information will be included:

- Progress toward the scientific and technological objectives
- Overall status of WPs, deliverables, and milestones
- Open issues and risks
- Deviations and corrective actions
- Effort spent
- Incurred costs

4.2 Reporting of deliverables and periodic reports

A project logo, CVI and templates for deliverable reports and PowerPoint presentations have been created and distributed (responsible partner Stargate). These will be used in any external and official internal communications, providing a design standard for the whole project.

Despite all upcoming deliverables being discussed during the project meetings, the Project Coordinator reminds each partner well ahead of the deadline to start preparing the deliverable. The reports must be reviewed by at least one other partner before final submission to the European Commission. The European Commission directives will be used in the submission of each deliverable.

Before the end of each period, templates and direction will be sent out to each partner on how to submit periodic reports. Expenses will be reviewed periodically, at least every 12 months.

5 Knowledge Management

All information that is needed to perform work and results will be made available for all partners via:

- Internal Document Management System– a shared versioned repository accessible to all partners
- Security mechanisms will be implemented, assessed monthly, and appropriate measures taken
- The project webpage (www.exsothyc.com) contains general information open to the public (to be noted that the official deadline was by month 6, however, we managed to design and put the website live already by month 3)