





HYbrid TEChnologies for sustainable steel reheating – HyTecHeat

HORIZON-CL4-2022-TWIN-TRANSITION-01-16, Modular and hybrid heating technologies in steel production (Clean Steel Partnership) GA number:101092087

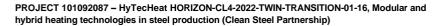
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# 2. Executive Summary

This document aims to facilitate project execution throughout the project in order to achieve the expected outcomes. The consortium partners will follow the procedures included in this deliverable to ensure a coherent and robust management of HyTecHeat activities according to methodology here presented. This deliverable includes useful information to guarantee satisfactory development of the project with reference to:

- √ General Data
- ✓ Governance Structure
- $\checkmark$  Communication procedures and tools
- ✓ Quality control (deliverables, IPR...)
- $\checkmark$  Risk analysis and management
- ✓ Project reporting
- $\checkmark$  Legal and financial aspects, among others (ANNEX).

This deliverable will assist all project partners to uphold the agreements and actions, and use the appropriate communication channels, addressing the specific required person/s depending on the scope of the activity. Through setting procedures that when followed ensure the management objectives it will aid in successful project management.





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# 4. List of Acronyms

AMGA CFS CP DLV	Annotated Model Grant Agreement Certificates on the Financial Statements Contingency plan Deliverable
DoA	Description of Action
EC	European Commission
EU	European Union
GA	General Assembly
KoM	Kick of Meeting
MA	Mitigation action
OSH	Occupational Safety and Health
PC	Project Coordinator
PM	Person Month
SC TL WP WPL	Steering Committee Task leader Work Package Work Package Leader





# 5. Governance structure

HyTecHeat consortium comprises a multidisciplinary team of 11 leading European research/academic institutions and large companies related to the project objectives. Therefore, a clear and robust governance structure will be in place to ensure a smooth and effective implementation of the project. This includes the definition and roles of the different management bodies, responsibilities, communication tools and flows and decision making.

This is a living document that can be adapted according to the needs of the project throughout its lifecycle. This document also refers to the HyTecHeat collaborative working space, Microsoft TEAMS, for supporting internal project management. All the methodology and information here presented in this deliverable is part of the knowledge and expertise CSM is applying to the projects coordinated by the beneficiary, following the EC procedures and fitting them to the specific needs of the project.

The organisational structure of the consortium shall comprise the following Consortium Bodies:

The Steering Committee as the ultimate decision-making body of the consortium

The Technical Committee as the supervisory body for the execution of the Project, which shall report to and be accountable to the Steering Committee

The IPR (Intellectual Properties Rights) Committee as the body which assists the Steering Committee for all which concerns the management of the knowledge generated during the project activities

The Coordinator as the legal entity acting as the intermediary between the Parties and the Granting Authority. The Coordinator shall, in addition to its responsibilities as a Party, perform the tasks assigned to it as described in the Grant Agreement and this Consortium Agreement.

Rina CSM is the Project Coordinator (PC) and is responsible for leading HyTecHeat Management Structure and chairing the Steering Committee (SC), the Technical Committee (TC) and Intellectual Property Rights Committee (IPRC). The PC will be responsible for the overall management of HyTecHeat and will be supported by the Steering Committee in aspects related to progress monitoring and project coordination.

Work Package Leaders (WPL) and Task Leaders (TL) are responsible for the overall management and coordination at WP and task level and the achievement of the defined results. All the Governance structure is defined in section 6 of the Consortium Agreement. Next subsections present the key relevant information pointing at specific person hosting the responsibilities. Below the periodicity of the project meeting

	Ordinary meeting	Extraordinary meeting
Steering Committee	At least twice a year	At any time upon request of the Steering Committee or 1/3 of the Members of the Steering Committee
Technical Committee	At least quarterly	At any time upon request of any Member of the Technical Committee

Details of roles and responsibilities from CA are reported in what follows

# 5.1 Project Coordinator

- Responsible partner: Rina CSM
- Represented by:





- Technical Coordinator: Guido Jochler (<u>guido.jochler@rina.org</u>). Responsible for the technical development and control.
- Project Manager: Filippo Cirilli (Filippo.cirilli@rina.org ). Responsible for administrative and financial control.

As the CA expresses in the section 6.4, the coordinator role must follow:

### "6.4.1

The Coordinator shall be the intermediary between the Parties and the Granting Authority and shall perform all tasks assigned to it as described in the Grant Agreement and in this Consortium Agreement

## 6.4.2

In particular, the Coordinator shall be responsible for:

- monitoring compliance by the Parties with their obligations under this Consortium Agreement and the Grant Agreement
- keeping the address list of Members and other contact persons updated and available
- collecting, reviewing to verify consistency and submitting reports, other deliverables (including financial statements and related certifications) and specific requested documents to the Granting Authority
- transmitting documents and information connected with the Project to any other Parties concerned
- administering the financial contribution of the Granting Authority and fulfilling the financial tasksdescribed in Section 7.2
- providing, upon request, the Parties with official copies or originals of documents that are in the sole possession of the Coordinator when such copies or originals are necessary for the Partiesto present claims.

If one or more of the Parties is late in submission of any Project deliverable, the Coordinator may nevertheless submit the other 'Parties' Project deliverables and all other documents required by the Grant Agreement to the Granting Authority in time.

The Coordinator shall not enlarge its role beyond the tasks specified in this Consortium Agreement and in the Grant Agreement.

## 5.2 Steering Committee

- Chaired by: Rina CSM
- Represented by: Filippo Cirilli
- Members: 1 representative from each project partner.
- Frequency for meetings: At least once per year
- Reporting to: European Commission.

Below definitions reported in the CA

#### 6.3.1 Steering Committee

In addition to the rules described in Section 6.2 (General operational procedures for all Consortium Bodies), the following rules apply:

6.3.1.1 Members6.3.1.1.1The Steering Committee shall consist of one representative of each Party (hereinafter Steering Committee Member).





### 6.3.1.1.2

Each Steering Committee Member shall be deemed to be duly authorised to deliberate, negotiate and decide on all matters listed in Section 6.3.1.2. of this Consortium Agreement.

#### 6.3.1.1.3

The Coordinator shall chair all meetings of the Steering Committee, unless decided otherwise in ameeting of the Steering Committee.

#### 6.3.1.1.4

The Parties agree to abide by all decisions of the Steering Committee. This does not prevent the Partiesfrom exercising their veto rights, according to Section 6.2.4.1, or from submitting a dispute to resolution accordance with the provisions of Settlement of disputes in Section 11.8.

#### 6.3.1.2 Decisions

The Steering Committee shall be free to act on its own initiative to formulate proposals and take decisions in accordance with the procedures set out herein.





In addition, all proposals made by the Technical Committee and/or by the IPR Committee shall also be considered and decided upon by the Steering Committee.

The following decisions shall be taken by the Steering Committee:

Content, finances, and intellectual property rights

- □ Proposals for changes to Annexes 1 and 2 of the Grant Agreement to be agreed by the GrantingAuthority
- □ Changes to the Consortium Plan
- □ Modifications or withdrawal of Background in Attachment 1 (Background Included)
- Additions to Attachment 3 (List of Third Parties for simplified transfer according to Section 8.3.2)
- □ Additions to Attachment 4 (Identified entities under the same

control)Evolution of the consortium

- □ Entry of a new Party to the Project and approval of the settlement on the conditions of the accession of such a new Party
- □ Withdrawal of a Party from the Project and the approval of the settlement on the conditions of the withdrawal
- □ Identification of a breach by a Party of its obligations under this Consortium Agreement or theGrant Agreement
- Declaration of a Party to be a Defaulting Party
- □ Remedies to be performed by a Defaulting Party
- Termination of a Defaulting Party's participation in the Project and measures relating thereto
- □ Proposal to the Granting Authority for a change of the Coordinator
- □ Proposal to the Granting Authority for suspension of all or part of the Project

 Proposal to the Granting Authority for termination of the Project and the Consortium Agreement.

partner	Representatives		
RINA-CSM	filippo.cirilli@rina.org; guido.jochler@rina.org;		
Tenova	enrico.malfa@tenova.com; alessandro.dellarocca@tenova.com		
NUNKI	guido.dalmoro@nunkisteel.it; jacopo.longhivienna@givagroup.it;;		
ΤΑΤΑ	mustapha.bsibsi@tatasteeleurope.com;		
SWERIM	gustav.haggstrom@swerim.se		
SSAB	erik.wessberg@ssab.com		
LINDE	anatoly.davydov@linde.com; david.muren@linde.com;		
AMMR	jean-luc.borean@arcelormittal.com;		
SNAM	Paolo.Marrelli@snam.it		
IDN	michele.perego@denora.com; patrick.scilabra@denora.com;		
TENARIS	fpraolini@tenaris.com; mmosconi@tenaris.com;		

Table 1. Steering Committee representative of HyTecHeat





## 5.3 Working Units: Work Package and Task Leaders

Work Package Leaders (WPL) are responsible for the overall management and coordination at WP level and achievement of the defined results. Each WPL will report periodically to the PC and also to the SC. Moreover, WPL will take the following responsibilities:

- Progress management (assuring all tasks are executed in line with the work program).
- Project quality management (ensure achievement of technical objectives, assure excellence in execution) linked with the WP.
- Review, approve and submit the deliverables from the WP, including technical and periodic reports to the Coordinator.
- Project dissemination.
- Report to the PC every 3 months.
- Report to the SC every 6 months.
- Formulate the implementation plan for the activities within the WP for the future period.
- Coordinate on a frequent basis the progress of the technical work under the WP.

Task Leaders (TL) are responsible for the execution and overall coordination of the tasks assigned to them in the implementation plan. Moreover, TL are responsible for the coordination of the partners involved in the task. TL must have a frequent dialogue and report to WP leader, and SC.





# 6. Communication procedures and tools

HYTECHEAT will make use of several project management tools, with online workspaces, mailing lists, etc. to facilitate partner cooperation, which is the backbone for project success. A professional communication tool, MICROSOFT TEAMS, will be used to organize regular meetings according to the schedules, and management procedures set for the multi- and bilateral contact between partners.

To ensure proper project execution at management and technical level, it is necessary to establish simple, easy to follow and effective communication flows and methods, guaranteeing that all the information is delivered in due time to the persons that need it.

# 6.1 Management Bodies

Meetings of the governing bodies and technical meetings are mainly focused on the monitoring of project progress, review of achievements, decision-making and conflict resolution, as well as technical discussion. The responsibility for hosting the meetings will be shared between the partners.

An annual General Assembly will be also carried out, for a global review of project activities and degree of progress of activities and analysis of deviations (if occurred)

As many times as needed during the project, face-to-face or teleconference/videoconference meetings should be organized between:

- Members of the same task.
- Task leaders and WP leader.
- Tasks participants and Task/WP leader.

The meetings of the management bodies are specially focused on monitoring overall project progress and reviewing achievement of milestones and objectives, decision-making on strategic issues and conflict resolution, as well as discussing other issues of interest.

Continuous communication among WPL and TL during the project lifetime is vital for project success. TL will inform WPL about the progress of the corresponding activities under the task, so the WPL can gain a higher-level vision of every activity carried out under the WP. The WPL will therefore maintain the overall vision of the WP ensuring the combined TL activities will achieve that vision.

The information, agenda, attendants, minutes, presentations, etc. will be uploaded and updated in the project shared area, and every document will be pointed there, avoiding the use of attachments in emails.

# 6.2 Meetings

# Representatives in meetings

According to section 6.2.1 of the HYTECHEAT CA:

"6.2.1 Representation in meetings

Any Party which is appointed to take part in a Consortium Body shall designate one representative (hereinafter referred to as "Member").

Any Member:

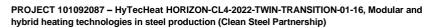
- should be present or represented at any meeting;
- may appoint a substitute or a proxy to attend and vote at any meeting;
- and shall participate in a cooperative manner in the meetings.

# Preparation and organisation of meetings

Following the HYTECHEAT CA sections 6.2.2 to 6.2.5, this section presents information that needs to be considered when any Consortium Body or partner must follow.

6.2.1 Representation in meetings





Any Party which is entitled to take part in a Consortium Body under this Consortium Agreement shall designate one representative (hereinafter referred to as "Member").

Any Member:

- should be present or represented at any meeting;
- may appoint a substitute or a proxy to attend and vote at any

meeting; and shall participate in a cooperative manner in the meetings.

- 6.2.2 Preparation and organisation of meetings
- 6.2.3 Convening meetings:

The chairperson of a Consortium Body shall convene meetings of that Consortium Body.

	Ordinary meeting	Extraordinary meeting
Steering Committee	At least twice a year	At any time upon request of the Steering Committee or 1/3 of the Members of the Steering Committee
Technical Committee	At least quarterly	At any time upon request of any Member of the Technical Committee
IPR Committee	At least once per year	At any time upon request of the Steering Committee or 1/3 of the Members of the Steering Committee

## 6.2.3.1 Notice of a meeting

The chairperson of a Consortium Body shall give written notice of a meeting to each Member of that Consortium Body as soon as possible and no later than the minimum number of days preceding the meeting as indicated below.

	Ordinary meeting	Extraordinary meeting
Steering Committee	45 calendar days	15 calendar days
Technical Committee	14 calendar days	7 calendar days
IPR Committee	14 calendar days	7 calendar days

## 6.2.3.2 Sending the agenda

The chairperson of a Consortium Body shall prepare and send each Member of that Consortium Body an agenda no later than the minimum number of days preceding the meeting







as indicated below.

Steering Committee	21 calendar days, 10 calendar days for an extraordinary meeting
Technical Committee	7 calendar days, 4 calendar days for an extraordinary meeting
IPR Committee	7 calendar days, 4 calendar days for an extraordinary meeting

6.2.3.3 Adding agenda items:

Any agenda item requiring a decision by the Members of a Consortium Body must be identified as suchon the agenda.

Any Member of a Consortium Body may add an item to the original agenda by written notice to all of theother Members of that Consortium Body up to the minimum number of days preceding the meeting as indicated below.

Steering Committee	14 calendar days, 7 calendar days for an extraordinary meeting
Technical Committee	2 calendar days





IPR Committee	2 calendar days

#### 6.2.3.4

During a meeting the Members of a Consortium Body present or represented can unanimously agree to add a new item to the original agenda.

#### 6.2.3.5

Meetings of each Consortium Body may also be held by tele- or videoconference, or other telecommunication means.

#### 6.2.3.6

Decisions will only be binding once the relevant part of the minutes has been accepted according to Section 6.2.5.2.

6.2.3.7

#### Decisions without a meeting

Any decision may also be taken without a meeting if

- a) the Coordinator circulates to all Members of the Steering Committee a suggested decision with a deadline for responses of at least 10 calendar days after receipt by a Party and
- b) the decision is agreed by 51 % of all Parties.

The Coordinator shall inform all the Parties of the outcome of the vote.

A veto according to Section 6.2.52 may be submitted up to 15 calendar days after receipt of this information.

The decision will be binding after the Coordinator sends a notification to all Members. The Coordinator will keep records of the votes and make them available to the Parties on request.

6.2.4 Voting rules and quorum

#### 6.2.3.1

Each Consortium Body shall not deliberate and decide validly in meetings unless two-thirds (2/3) of its Members are present or represented (quorum).

If the quorum is not reached, the chairperson of the Consortium Body shall convene another ordinary meeting within 15 calendar days. If in this meeting the quorum is not reached once more, the chairpersonshall convene an extraordinary meeting which shall be entitled to decide even if less than the quorum of Members is present or represented.

6.2.3.2





Each Member of a Consortium Body present or represented in the meeting shall have one vote.

## 6.2.3.3

A Party which the Steering Committee has declared according to Section 4.2 to be a Defaulting Party maynot vote.

## 6.2.3.4

Decisions shall be taken by a majority of two-thirds (2/3) of the votes cast.

6.2.5 Veto rights

#### 6.2.4.1

A Party which can show that its own work, time for performance, costs, liabilities, intellectual property rights or other legitimate interests would be severely affected by a decision of a Consortium Body may exercise a veto with respect to the corresponding decision or relevant part of the decision.

## 6.2.4.2

When the decision is foreseen on the original agenda, a Party may only veto such a decision during themeeting.

## 6.2.4.3

When a decision has been taken on a new item added to the agenda before or during the meeting, a Party may veto such decision during the meeting or within 15 calendar days after receipt of the draft minutes of the meeting.

A Party that is not appointed to participate to a particular Consortium Body may veto a decision within the same number of calendar days after receipt of the draft minutes of the meeting.

## 6.2.4.4

When a decision has been taken without a meeting a Party may veto such decision within 15 calendar days after written notice by the chairperson of the outcome of the vote.

## 6.2.4.5

In case of exercise of veto, the Members of the related Consortium Body shall make every effort to resolve the matter which occasioned the veto to the general satisfaction of all the Parties.

## 6.2.4.6

A Party may neither veto decisions relating to its identification to be in breach of its obligations nor to its identification as a Defaulting Party. The Defaulting Party may not veto decisions relating to its participation and termination in the consortium or the consequences of them.

## 6.2.4.7





A Party requesting to leave the consortium may not veto decisions relating thereto.

6.2.6 Minutes of meetings

## 6.2.5.1

The chairperson of a Consortium Body shall produce minutes of each meeting which shall be the formal record of all decisions taken. He/she shall send the draft minutes to all Members within 10 calendar days of the meeting.

## 6.2.5.2

The minutes shall be considered as accepted if, within 15 calendar days from receipt, no Party has sentan objection by written notice to the chairperson with respect to the accuracy of the draft of the minutesby written notice.

#### 6.2.5.3

The chairperson shall send the accepted minutes to all the Parties and to the Coordinator, who shall retain copies of them.

## 6.3.2 Steering Committee

In addition to the rules described in Section 6.2, the following rules apply:

#### Members

The Steering Committee shall consist of one representative of each Party (hereinafter Steering Committee Member).

## 6.3.1.1.2

Each Steering Committee Member shall be deemed to be duly authorised to deliberate, negotiate and decide on all matters listed in Section 6.3.1.2. of this Consortium Agreement.

#### 6.3.1.1.3

The Coordinator shall chair all meetings of the Steering Committee, unless decided otherwise in ameeting of the Steering Committee.

#### 6.3.1.1.4

The Parties agree to abide by all decisions of the Steering Committee. This does not prevent the Partiesfrom exercising their veto rights, according to Section 6.2.4.1, or from submitting a dispute to resolution accordance with the provisions of Settlement of disputes in Section 11.8.

#### 6.3.2.1 Decisions

The Steering Committee shall be free to act on its own initiative to formulate proposals and take decisions in accordance with the procedures set out herein.

In addition, all proposals made by the Technical Committee and/or by the IPR Committee shall also be considered and decided upon by the Steering Committee.





The following decisions shall be taken by the Steering Committee:

Content, finances, and intellectual property rights

- Proposals for changes to Annexes 1 and 2 of the Grant Agreement to be agreed by the GrantingAuthority
- □ Changes to the Consortium Plan
- □ Modifications or withdrawal of Background in Attachment 1 (Background Included)
- Additions to Attachment 3 (List of Third Parties for simplified transfer according to Section 8.3.2)
- Additions to Attachment 4 (Identified entities under the same

control)Evolution of the consortium

- □ Entry of a new Party to the Project and approval of the settlement on the conditions of the accession of such a new Party
- □ Withdrawal of a Party from the Project and the approval of the settlement on the conditions of the withdrawal
- Identification of a breach by a Party of its obligations under this Consortium Agreement or theGrant Agreement
- Declaration of a Party to be a Defaulting Party
- □ Remedies to be performed by a Defaulting Party
- Termination of a Defaulting Party's participation in the Project and measures relating thereto
- □ Proposal to the Granting Authority for a change of the Coordinator
- □ Proposal to the Granting Authority for suspension of all or part of the Project
- Proposal to the Granting Authority for termination of the Project and the Consortium
- □ Agreement
- □ Appointments

## 6.3.3 Technical Committee

In addition to the rules in Section 6.2, the following rules shall apply:

## 6.3.3.1 Members

The Technical Committee shall consist of one representative of each of the Parties which lead a WP: AMMR (WP1), Tenova (WP2, WP5), Swerim (WP3), Tata Steel (WP5), CSM SPA (WP6, WP7, WP8, WP9).

The Coordinator shall chair all meetings of the Technical Committee, unless decided otherwise by a majority of two-thirds.

## 6.3.3.2 Minutes of meetings

Minutes of Technical Committee meetings, once accepted, shall be sent by the Coordinator to the Steering Committee Members for information.





## 6.3.2.3.1

The Technical Committee shall prepare the meetings, propose decisions and prepare the agenda of the Steering Committee according to Section 6.3.1.2.

## 6.3.2.3.2

The Technical Committee shall seek a consensus among the Parties.

## 6.3.2.3.3

The Technical Committee shall be responsible for the proper execution and implementation of the decisions of the Steering Committee.

## 6.3.2.3.4

The Technical Committee monitor the effective and efficient implementation of the Project.6.3.2.3.5

In addition, the Technical Committee shall collect information at least every 6 months on the progress of the Project, examine that information to assess the compliance of the Project with the Consortium Plan and, if necessary, propose modifications of the Consortium Plan to the Steering Committee.

#### 6.3.2.3.6

The Technical Committee shall:

- support the Coordinator in preparing meetings with the Granting Authority and in preparing related data and deliverables
- prepare the content and timing of press releases and joint publications by the consortium or proposed by the Granting Authority in respect of the procedures of the Grant Agreement Article 17 and Annex 5 Section "Communication, Dissemination, Open Science and Visibility" and of Section 8 of this Consortium Agreement.

## 6.3.2.3.7

In the case of abolished tasks as a result of a decision of the Steering Committee, the Technical Committee shall advise the Steering Committee on ways to rearrange tasks and budgets of the Partiesconcerned. Such rearrangement shall take into consideration any prior legitimate commitments which cannot be cancelled.

#### 6.3.4 IPR Committee

In addition to the rules in Section 6.2, the following rules shall apply:

#### 6.3.4.1 Members

The IPR Committee shall consist of one representative of each of the Parties. The Coordinator shall chair all meetings of the Technical Committee, unless decided otherwise by a majority of two-thirds.





#### 6.3.4.2 Minutes of meetings

Minutes of Technical Committee meetings, once accepted, shall be sent by the Coordinator to the Steering Committee Members for information.

### 6.3.4.3 Tasks

6.3.3.3.1

The IPR Committee shall update the background and foreground knowledge status and the specific IPR situation throughout the lifetime of the Proposal.

## 6.3.3.3.2

The IPR Committee shall propose to the Steering Committee the IPR management strategy, to beincluded in the Exploitation Plan. Any submission or proposal of the IPR Committee to the Steering Committee shall be taken by the simple majority of the votes of the Members of the IPR Committee.

#### 6.3.3.3.3

The IPR Committee will support the Steering Committee in examining and approving the content of press releases and joint publications by the consortium or proposed by the Granting Authority in respectof the procedures of the Grant Agreement Article 17 and Annex 5 Section "Communication, Dissemination, Open Science and Visibility" and of Section 8 of this Consortium Agreement, verifying that no potentially patentable Result or Confidential Information are disclosed.

**1.1.1 Project management collaborative space: shared folder** MICROSOFT TEAMS is the tool that HYTECHEAT project is going to use to support the project management.

Below are the main applications of the MICROSOFT TEAMS system:

- File repository: Associated SharePoint to the site to enable the project intranet can host documents.
- Contact and mailing list, tasks and financial control, a single file named project conrtium.xls: <u>HYTECHEAT\_Contact\_List.xlsx</u>

One of the advantages of MICROSOFT TEAMS is the videoconference system included with all other functionalities. Besides face-to-face meetings, partners will hold as many meetings as necessary through the teleconference system available for the consortium. These meetings could include WP level issues, task level issues, GA or SC meetings; dissemination, etc.

These regular conferences will also deal with quality assurance plans and the management procedures set for multi and bi-lateral contact between partners.

MICROSOFT TEAMS is a powerful tool, having the following functionalities:

- Multiuser
- Desktop sharing
- Document sharing
- Chat
- Record of meetings
- Modify documents online, facilitating collaboration among partners. This functionality will enable that the whole consortium can work on the same document without the need of exchanging different versions through emails attachments

## 1.1.2 Contact list

In order to support communication within the consortium, a contact list has been uploaded in Excel format in MICROSOFT TEAMS and distributed among all partners. Thanks to the Excel file, it is





possible to select the persons involved and to contact several lists, as the ones presented below these lines:

All the members of this list are included within the MICROSOFT TEAMS system according to the partners' preferences provided to the Coordinator at the beginning of the project. Any modification can be uploaded directly in MICROSOFT TEAMS, but must be notified to the Project Manager (Filippo Cirilli, Filippo.cirilli@rina.org.

When a mail is sent, the reference "HYTECHEAT" must be included before other text in the subject line. The Project Coordinator team should be included in any mail regarding the evolution of the project.

Regarding external communication, the Project Coordinator (PC) is the central contact point with the EC and represents the consortium in interactions with the European partnership Processes4Planet. The PC will keep regular contact with the project adviser in this agency by different means, including the Funding and Tenders portal.

# 7. Quality control

Apart from the procedures to assess the quality of deliverables, this section deals with the issues related to general performance and execution of HYTECHEAT; and the quality of produced work and outcomes, falling under the responsibility of the PC and assisted by the Steering Committee. Quality procedures will ensure the scientific and technical quality of deliverables and technical reports, as well as the consistency of project outputs.

# 7.1 Quality procedure of deliverables

The project is structured into 9 WPs. The WPs structure is arranged in order to allow the integration of activities of all partners, , without duplication and overlapping of works. Below a a brief description of WP is reported:

WP1 - Individuation of reference industrial scenarios, data collection and definition of hybrid oxidation condition is focused on the collection of process data from industrial partners, in order to have the working reference situation. The oxidation and descaling condition will be also defined.

**WP2- Burner and combustion system design for hybrid heating.** In this WP the burner prototype and possible variants will be designed by using CFD as verification tool. A complete set of embedded burner sensors will be also identified in order to collect relevant data in the course of the foreseen laboratory and industrial tests.

**WP3 – Investigation of scale formation from hydrogen combustion**). In this WP oxidation tests on carbon & stainless steel grades will be carried out: scale growth, morphology/adherences, decarburization will be determined for a large variety of steel grades, allowing the definition of a sort of atlas of oxidation under H<sub>2</sub> burning atmosphere. Descaling tests will be also carried out

**WP4 – Laboratory tests of burner prototype and possible design improvements.** Laboratory tests are carried out for the existing burners and burner prototype to study flame stability and characteristics, NOx and CO emission performance. Data collection from the embedded sensors during experimental tests and successive post-processing by means of data analysis techniques will also allow the identification of possible modification to the burner design.

**WP5 – Demo cases realization and long-term industrial tests of multi-fuel H<sub>2</sub>/NG burners.** This WP is the core of the project. The DEMO CASES will be set up and long term trials will be carried out to assess the feasibility of Hybrid heating for downstream processes. DEMO cases will refer to reheating processes and ladle refractory preheating

**WP6 – Evaluation of the different scenarios for optimal multi-fuel H<sub>2</sub>/CH4 flexible operations.** This WP is devoted to collect all achieved results summarizing the effect of H<sub>2</sub> burning on scale growth and descaling for different steel grade and consequently to evaluate furnace modifications on the basis of the results from DEMo cases. This analysis will allow to carry out first evaluation of cost benefit deriving from H2 utilization in reheating furnaces and refractory preheating

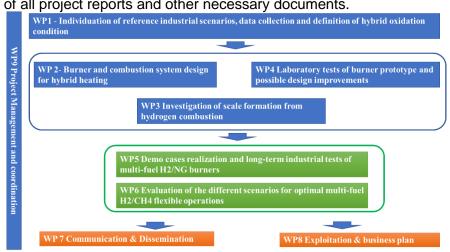




**WP7 – Communication & Dissemination.** The main objective of WP7 is the definition and implementation of the Dissemination and Communication strategy. The specific objectives are to define the Communication & Dissemination plan, to create awareness and interest in the wide audience and also to build interest and network with key stakeholders.

**WP8 – Exploitation & business plan.** The objectives of this WP are to collect all achieved results Based on results and data available from the market and literature an evaluation of cost benefit deriving from  $H_2$  utilization will be carried out. LCA analysis of the process will be also done. The trends of availability of green hydrogen will be taken into account. Also dissemination activities will be carried out according to a purposely prepared dissemination plan.

**WP9 – Project Management and coordination**. This WP is aimed at project coordination of the different work packages, organisation and managing of regular opportunities for the partners to meet and discuss about the content and the progress of the project. compliance of each partner with their obligations under this project (performance, time, cost) and subsequent successful on-time delivery of all project reports and other necessary documents.



## Project deliverables list is the following

Work Package	Deliverable Related No	Deliverable No	Deliverable Name	Description	Lead Beneficiar	Туре	Dissemination	Due Date
WP1	D1.1	D1	D1.10perating conditions of the reference industrial f	In this Deliverable the techr	Swerim AB	R		31 May 2023
WP1	D1.2	D2	Technical specifications of the multi-fuel burner proto			DEM		31 Aug 2023
WP1	D1.3	D3	Preliminary BOP and safety analysis for the possible	A Balance of Plant (BOP) w	SNAM S.P.A.	R	SEN	31 Aug 2023
WP2	D2.1	D4	Safety and hazards study report - for tests and indus	Definition of Safety and haz	SNAM S.P.A.	R	SEN	30 Nov 2023
WP2	D2.2	D5	Selected reduced/skeletal reaction mechanism of H2/	Selected reduced/skeletal r	TENOVA	R	PU	29 Feb 2024
WP2	D2.3	D6	Preliminary designs of multi-fuel H2/CH4 burner proto	Deliverablke devoted to stud	TENOVA	R	SEN	29 Feb 2024
WP2	D2.4	D7	Selection of embedded sensors for burner digitalization	Selection of embedded sen	TENOVA	R	SEN	30 Nov 2023
WP2	D2.5	D8	Construction of the burner prototype	Construction of the burner	TENOVA	R	SEN	31 May 2024
WP3	D3.1	D9	Evaluation of scale growth and morphology for all stee	Report with Evaluation of so	CSM SPA	R	PU	28 Feb 2025
WP3	D3.2	D10	Evaluation of descaling characteristics for all steel gra	Evaluation of descaling cha	Swerim AB	R	PU	28 Feb 2025
WP4	D4.1	D11	Electrolyser installation	Electrolyser installation for	IDN	DEM	PU	31 Aug 2024
WP4	D4.2	D12	System definition to work with H2 / NG blends with exi	System definition to work w	TATA STEEL NED	R	PU	31 May 2025
WP5	D5.1	D13	Assessment of H2 multifuel burner, tested in industrial	Assessment of H2 multifuel	TENOVA	R	PU	28 Feb 2026
WP5	D5.2	D14	Assessment of H2 utilization in current combustion sy	Assessment of H2 utilization	TATA STEEL NED	R	PU	28 Feb 2026
WP5	D5.3	D15	Assessment of ladle preheating with NG/H2 blends	Assessment of ladle prehea	NUNKI	R	SEN	28 Feb 2026
WP6	D6.1	D16	Report of the simulations of industrial furnaces operat	Report of the simulations of	TENOVA	R	PU	28 Feb 2026
WP6	D6.2	D17	Techno-economic analysis of industrial furnaces in H	Techno-economic analysis	CSM SPA	R	PU	31 May 2026
WP6	D6.3	D18	Report on conceptual scenario description and identif	Report on conceptual scena	CSM SPA	R	PU	31 May 2026
WP6	D6.4	D19	Guidelines for H2/CH4 operation of industrial furnace	Guidelines for H2/CH4 oper	TENOVA	R	PU	31 May 2026
WP7	D7.1	D20	Communication and Dissemination Plans; first draft	Communication and Dissen	CSM SPA	R	PU	31 May 2023
WP7	D7.2	D21	Creation of Website and social media channels	Creation of Website and so	CSM SPA	DEC	PU	31 May 2023
WP7	D7.3	D22	Communication and Dissemination Plans; mid-term and	Communication and Dissen	CSM SPA	R	PU	31 May 2024
WP7	D7.4	D23	Communication and Dissemination Plans; final	Communication and Dissen	CSM SPA	R	PU	30 Nov 2024
WP7	D7.5	D24	Release of final video	Release of final video involv	CSM SPA	DEC	PU	28 Feb 2026
WP8	D8.1	D25	Exploitation Plan: first draft	Exploitation Plan: first draft.	CSM SPA	R	PU	30 Nov 2023
WP8	D8.2	D26	Exploitation Plan: final report	Exploitation Plan: final repo	CSM SPA	R	PU	31 May 2026
WP8	D8.3	D27	Market analysis results and business plan	Market analysis results and	CSM SPA	R	PU	31 May 2026
WP8	D8.4	D28	Cost assessment and life cycle assessment	This report describes the the	CSM SPA	R	PU	31 May 2026
WP9	D9.1	D29	Project Handbook	Project Handbook accordin	CSM SPA	R		31 May 2023
WP9	D9.2	D30	Report containing the Key Performance Indicators	RINA-CSM will provide to th	CSM SPA	R	PU	30 Nov 2023
WP9	D9.3	D31	Data management Plan Preliminary release	Data management Plan Pre	CSM SPA	DMP	SEN	31 May 2023
WP9	D9.4	D32	Data management Plan Update	Data management Plan Upo	CSM SPA	DMP	SEN	30 Nov 2023





The table above reports the responsibility of the deliverable production the deliverable must be sent to coordinator fifteen days before deadline for quality check. The coordinator can ask to other WP leaders support for deliverable evaluation and checking

One of the responsibilities of the PC is to define procedures for the development and review of deliverables submitted to the EC.

The following items should be included in all project deliverables (as indicated in the templates available in: <u>HYTECHEAT templates</u>)

- Standard descriptors at the beginning of the document:
  - o Cover Page
  - Document Details
  - o Document history
  - o Disclaimer
- Content:
  - Executive Summary
  - Table of contents
  - List of Acronyms (if abbreviations are used throughout the deliverable)
  - o Introduction and objectives
  - o Body (Methodology / Results / Main analysis...)
  - Conclusions
  - References (if necessary)
  - Annexes, including all detailed technical information (if necessary)

An initial template for deliverables has been uploaded in TEAMS that may be finally adjusted once the project identity is finalised. All partners should make use of the template to ensure the same structure and format in project documents.

When a final version is obtained the process will be as follows:

- 1. This should be delivered to task participants by the Project Coordinator.
- 2. A copy will be uploaded to the intranet: D. Deliverables submitted
- 3. If public, the deliverable should be uploaded to the website.

Some important recommendations:

- It is important to use track changes for the reviews.
- Use the intranet to verify the review process.
- It is very important that the communication procedure is maintained between the WP Leaders and Task Leaders.
- Task leaders are encouraged to comment on the organization of work in the tasks with the WP Leader from the beginning:
  - The WP Leader has a wider vision of the WP and is aware of the relation of the task with other on-going tasks. WP Leader can give advice in the document preparation process.
  - WP Leader will end up revising and approving the deliverable, it is thus better if they are familiar with the objectives and work methodology from the beginning.

All deliverables should comply with:

- **Completeness**: Information must be complete, reliable and real. The background should be supported by references. The work done must be clearly explained to avoid misinterpretation of the foreground and background.
- Accuracy: Information focused on key issues and written in a way that takes into consideration the scope of the specific research work and its targeted audience.
- **Depth**: All information should be provided to the depth needed for the purpose of the reports and the project.





- Appearance and structure: Uniform appearance and structure (use the templates).
- Language: Orthography and correct grammar usage.
- **Timing**: Delays in the deliverable submission should be avoided or legitimate reasons for delay clearly explained to the EC to gain prior acceptance.

# 7.2 Project monitoring and reporting

All beneficiaries of HYTECHEAT project are requested to send a brief explanation of work progress to the PC prior to the SC meetings. This will be done through the WP leaders, which will be asked to gather this information from the corresponding Task Leaders and Task Participants. Furthermore, when other key issues and/or problems are found, they will be evaluated and communicated to the PC.

A warning alarm may be raised in the following cases, among others:

- **Time to submission of deliverable**: if, without previous notification by mail to the coordinator, one month before its delivery date no draft is available or 15 days after no deliverable is provided.
- **Conflict among participants**: if a conflict arises among some partners of a specific WP, for instance regarding IPR issues or execution of the project.
- **Risk management**: if a partner foresees a potential risk, either already identified or not, the PC should be informed with enough time to design and apply the appropriate contingency plan.

# 7.3 Corrective and preventive actions

An analysis of all the partners' reports and records shall be completed to determine areas for corrective actions, where necessary. Observations requiring corrective action are documented in a brief non-conformity report, with the following content:

- Deviation description
- Action list
- Partner(s) involved
- Author of the inspection

Any partner of the project may raise, by writing to the PC, such non-conformity regarding the work of another partner or external suppliers/subcontractors.

The PC is responsible for implementing and recording changes in the procedures, resulting from corrective actions. These procedures are established to ensure:

- Effective handling of all complaints
- Reports on non-conformities
- Assessment of the cause of non-conformities
- Recording the results of the investigation
- Determining the corrective and preventive measures needed to eliminate the cause of the nonconformity
- Application of controls to ensure that corrective actions are taken and are effective
- Ensuring that relevant information on actions taken is submitted for review

The PC is responsible for resolving issues under this procedure, within their area of responsibility. All complaints are to be assessed and corrective actions agreed. The GA must be informed of non-conformities and agree on the analysis of the non-conformity and the corrective measures proposed. Task leaders, WP leaders and PC will play a key role in identifying potential deviation and to define corrective measures, since they are monitoring the execution of the project activities at the different levels.

## 7.4 Conflict resolution

The Governing Bodies for HYTECHEAT have been defined and detailed previously including their competencies for decision making. Attempted resolution of decisions will be carried out through the





management bodies in increasing order of authority, going from the lower level (Task) upwards to the highest level (General Assembly) so long as the decision may be executed at that level, and under the management of the PC.

Any conflict between partners will be treated in a friendly and collaborative manner and will be communicated to the PC, who will aid communication to find the best solution for the project. If needed, the conflict can be taken to the GA.

Every partner within the consortium has signed a Consortium Agreement that states the procedure for conflicts resolution. The signed CA is uploaded in the intranet system

## 7.5 Occupational Safety and Health

During the project, every partner will ensure the Occupational Safety and Health (OSH) of the people involved in the project execution by complying with the legislation in force in the country where such activities are carried out.

In the event of concurrence of entities in the execution of a task or visits from other partners to a facility or site, the host partner or organisation will coordinate the activities communicating the possible risks and provide adequate prevention measures in accordance with the legislation in force in the country where such activities are carried out.

Partners are encouraged to contact their internal and/or external OSH services for support in all activities<sup>1</sup>.

# 8. Intellectual property rights (IPR)

8.1 RESULTS

8.1.1Ownership of results

Results are owned by the partner that generates them.

8.1.2 Joint Ownership Joint ownership is governed by Grant Agreement Article 16 with the following additions: Unless otherwise agreed:  $\checkmark$  each of the joint owners shall be entitled to use their jointly owned Results for non- commercial research activities on a royalty-free basis, and without requiring the prior consent of the other joint owner(s), and  $\checkmark$  each of the joint owners shall be entitled to otherwise Exploit the jointly owned Results and to grant non-exclusive licenses to third parties (without any right to sub-license), if the other joint owners are given: a. at least 45 calendar days advance notice; and b. Fair and Reasonable compensation.

8.1.3 Dissemination Prior notice of any planned publication shall be given to the other partners at least 30 calendar days before the publication. Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the PC and to the partner or partners proposing the dissemination within 30 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.

8.1.4 Exclusive license Where a partner wishes to grant an exclusive licence to its results and seeks the written waiver of the other partners pursuant to Grant Agreement Annex 5, Article 16. The other partners shall respond to the requesting partner within 45 calendar days of the request.

<sup>&</sup>lt;sup>1</sup> <u>Directive 89/391/EEC</u>, the so-called **OSH "Framework Directive"**, lays down the main principles to encourage improvements in the safety and health of workers at work. It guarantees minimum safety and health requirements throughout Europe while Member States are allowed to maintain or establish more stringent measures.

The Framework Directive is accompanied by further directives focusing on specific aspects of safety and health at work. Together they form the fundamentals of European safety and health legislation. Read more about specific <u>OSH areas of activity</u>.





#### 8.2 ACCESS RIGHTS

8.2.1 General principles

Each Party shall implement its tasks in accordance with the Description of the Action and shall bear sole responsibility for ensuring that its actions within the Project do not knowingly infringe third party property rights. Any Access Rights granted expressly exclude any rights to sublicense unless expressly stated otherwise. Access Rights shall be free of any administrative transfer costs. Access Rights are granted on a non-exclusive basis. Results and Background shall be used only for the purposes for which Access Rights to it have been granted. All requests for Access Rights shall be made in writing. The granting of Access Rights may be made conditional on the acceptance of specific conditions aimed at ensuring that these rights will be used only for the intended purpose and that appropriate confidentiality obligations are in place. The requesting Party must show that the Access Rights are needed

## Background

included In Attachment 1 of the C.A, the Parties have identified and agreed on the Background for the Project and have also, where relevant, informed each other that Access to specific Background is subject to legal restrictions or limits. Anything not identified in Attachment 1 shall not be the object of Access Right obligations regarding Background. Any Party may add further own Background to Attachment 1 during the Project by written notice to the other Parties. However, approval of the General Assembly is needed should a Party wish to modify or withdraw its Background in Attachment

## 8. 3.3 NON-DISCLOSURE OF INFORMATION

8.3.1 General principles All information in whatever form or mode of communication, which is disclosed by a Party (the "Disclosing Party") to any other Party (the "Recipient") in connection with the Project MIRIA during its implementation and which has been explicitly marked as "confidential" at the time of disclosure, or when disclosed orally has been identified as confidential at the time of disclosure and has been confirmed and designated in writing within 15 calendar days from oral disclosure at the latest as confidential information by the Disclosing Party, is "Confidential Information". The Recipients hereby undertake in addition and without prejudice to any commitment of non-disclosure under the Grant Agreement, for a period of 5 years after the end of the Project:  $\checkmark$ not to use Confidential Information otherwise than for the purpose for which it was disclosed:  $\checkmark$  not to disclose Confidential Information to any third party without the prior written consent by the Disclosing Party;  $\checkmark$  to ensure that internal distribution of Confidential Information by a Recipient shall take place on a strict need-to-know basis; and  $\checkmark$  to return to the Disclosing Party, or destroy, on request all Confidential Information that has been disclosed to the Recipients including all copies thereof and to delete all information stored in a machine-readable form to the extent practically possible. The Recipients may keep a copy to the extent it is required to keep, archive or store such Confidential Information because of compliance with applicable laws and regulations or for the proof of on-going obligations provided that the Recipient comply with the confidentiality obligations herein contained with respect to such copy for as long as the copy is retained. The Recipients shall be responsible for the fulfilment of the above obligations on the part of their employees or third parties involved in the Project and shall ensure that they remain so obliged, as far as legally possible, during and after the end of the Project and/or after the termination of the contractual relationship with the employee or third party.

## 8.3.2 Exceptions

The above shall not apply for disclosure or use of Confidential Information, if and in so far as the Recipient can show that:

 $\checkmark$  the Confidential Information has become or becomes publicly available by means other  $\checkmark$  than a breach of the Recipient's confidentiality obligations;  $\checkmark$  the Disclosing Party subsequently informs the Recipient that the Confidential Information is no longer confidential;  $\checkmark$  the Confidential Information is communicated to the Recipient without any obligation of confidentiality by a third party who is to the





best knowledge of the Recipient in lawful possession thereof and under no obligation of confidentiality to the Disclosing Party;  $\checkmark$  the disclosure or communication of the Confidential Information is foreseen by provisions of the Grant Agreement;  $\checkmark$  the Confidential Information, at any time, was developed by the Recipient completely independently of any such disclosure by the Disclosing Party; or  $\checkmark$  the Confidential Information was already known to the Recipient prior to disclosure or

the Recipient is required to disclose the Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order, subject to the provision Section 10.7 of the Consortium Agreement.  $\checkmark$  the Confidential Information was included in any safety data sheet supplied in observation of a legal or regulatory obligation.

8.3.3 Degree of care The Recipient shall apply the same degree of care regarding the Confidential Information disclosed within the scope of the Project as with its own confidential and/or proprietary information, but in no case less than reasonable care.

8.3.4 Communication of disclosure of confidential information Each Party shall promptly advise the other Party in writing of any unauthorised disclosure, misappropriation, or misuse of Confidential Information after it becomes aware of such unauthorised disclosure, misappropriation, or misuse.

8.3.5 Compulsory disclosure If any Party becomes aware that it will be required, or is likely to be required, to disclose Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order, it shall, to the extent it is lawfully able to do so, prior to any such disclosure:  $\checkmark$  notify the Disclosing Party, and  $\checkmark$  comply with the Disclosing Party's reasonable instructions to protect the confidentiality of the information

# 9. Risk analysis and management

HYTECHEAT risks have been addressed by breaking the work plan into an achievable set of smaller developments. This will enable the consortium to monitor progress and to address the progressive reduction in risk. The WPs have been broken into tasks in such a way as to end at milestone control points, enabling the assessment of the progress of both the WP and its inter-relationship with the entire project. Inter-relationships between individual and particularly high-risk work packages and tasks have been evaluated, and the tolerance for under delivery or delay on each contributing task and individual packages assessed.

The risk management plan has been based on existing and effective risk management practices and more specifically the Continuous Risk Management paradigm.

Project risks describe the impact on the project such as diminished quality of the results, increased costs, delivery delays or failure.

Since the control of the project risks is a continuous process, the PC will oversee continuous monitoring, and there will be a dedicated section in each SC meeting. Each task and WP leader will review the status of each task's achievement for risks identification.

The risk management plan incorporates the following activities:

- 1. Continuous monitoring: Continuous assessing of risks.
- 2. Risks assessment: Determining which risks are important to address.
- 3. Contingency plans: Implementing strategies and actions to deal with those risks.

# 9.1 Continuous monitoring

The continuous risk management approach has the following elements:

- Identify: makes all known potential or real project risks explicit before they arise.
- Analyse: transforms risk data into decision making information.





- Plan: translates risk information into decisions and mitigation actions and implements those actions.
- **Track**: monitors risk indicators and mitigation actions.
- **Control**: Corrects for deviations from the risk mitigation plans.
- **Communicate**: enables the sharing of all information throughout the project; it is the cornerstone of effective risk management among the Consortium.

This continuous monitoring of the risks implies continuous updates during the whole project lifecycle.

## 9.2 Risk assessment and mitigation actions / contingency plan

A first version of the mitigation actions/contingency plan (MA/CP) for each evaluated risk is included in Table 2. The risks are also included in the project's Grant Agreement.

Table 2. Risk evaluation, mitigation, and contingency planning

## 9.3 International social and health context

The COVID-19 epidemic is now under a different control than years ago.

Project Coordinator will be in close contact with the demo responsible to ensure this risk is considered in the work and purchase planning to avoid negative impact with further delays.

Rina CSM has its own crisis management unit and project coordinator will refer to this unit to give indications to project consortium.





# 10. Project Reporting

The purpose of the project reporting is for the PC and the EC to review the performance of the project, to ensure the best value for money and that the project is on track for successful delivery. It is also for the PC and project manager to follow the technical progress and use of resources, for continued smooth deployment of the project and implementation of corrective actions where necessary.

Project partners should thus ensure that their work and effort are fully and correctly reflected in the reports they submit.

Three types of project reports are required: Periodic reports, Final report and Interim reports.

Further information about the timing, procedures and responsibilities will be delivered by the PC and explained to the partners before requests for reports are made.

Table 3 shows the expected calendar of the project reports.

Table 3. Expected calendar for project reports2

# 10.1 Interim reports

The objective of the Interim reports is to ensure that project spending is continuously in sync with technical project progress as well as to track both spending and technical progress to the plan of record as described in the EC-Grant Agreement Annex I (DoA). Moreover, interim reports are of great use to the partners and Project Manager and Project Coordinator to then prepare Periodic Reporting. The partners shall fill in the report with two points of view:

- Financial view: spent budget and PM devoted during the specific period will be reported using an Excel file provided by PC.
- Technical view: a very short description of their participation in each task during the specific period of report in the same Excel file commented above.

This technical report has a twofold motivation: monitor the advance of work in the task, and also have an initial description of work for future Official Periodic Reporting to the EC.

Contributions from partners will need to be collected by the PC well in advance of the deadline, in order to process the contributions, assemble the reports, and review and approve them before the delivery deadline.

# 10.2 Periodic reports

The aim of Periodic reports is for the EC to ensure that project spending is in sync with technical project progress as well as to track scientific, technical and financial progress according to the workplan as described in the EC-Grant Agreement Annex I (DoA).

The report is officially delivered by the PC to the EC as per the HYTECHEAT Grant Agreement article 21.2.

In order to submit the periodic report, all partners must have a financial signatory appointed on the participant portal. This action was already covered during the Grant Agreement Preparation phase, when PC was in close contact with each of the beneficiaries to fulfil all the needs ahead in the Participant Portal.

The Periodic Report consists of two items:

- periodic technical report.
- periodic financial report.

As explained in the Consortium Agreement, the following payments will be made by EC to the coordinator, who must then distribute the payments between the partners:

- two pre-financing payment at the beginning of the project;
- one or more interim payments, following the requests for interim payment on the basis of the Periodic Reports.
- one payment of the balance, after the end of the project.

The EC will carry out three technical reviews. Alternatively, these reviews may be carried out by an external reviewer who will analyse the progress report and prepare a review report for the Commission. The project officer will confirm how to proceed.





# 1.1.1 Periodical technical report

The technical report will be composed of:

- Publishable summary compiled by the PC.
- Project objectives for the period compiled by the PC on the basis of the WP leaders' inputs.
- Explanation of the work carried out by the partners.
- Work progress and achievements during the period (including deviations between the work foreseen in the DoA and the actual work performed) – compiled by the WP Leaders and assembled/reviewed by the PC.
- Deliverable and milestone tables compiled by the WP Leaders and assembled/reviewed by the PC.
- Project management during the period compiled by the PC.
- Update of the plan for exploitation and dissemination of the results compiled by the WP8 Leader related to Dissemination and Exploitation on the basis of the contributions of all partners.
- The answers to the "questionnaire", covering issues related to the action implementation and the economic and societal impact, in the context of Horizon Europe. More information may be found in article 21. "Reporting" of the EC-Grant Agreement.

# 1.1.2 Periodical financial report

The financial report will be composed of:

- Explanation of the use of the resources and information on subcontracting compiled by the PC using the contributions of all partners.
- Individual financial statements provided by all partners to the PC through the participant portal.
- Periodic summary financial statement created automatically by the electronic exchange system, consolidating the individual financial statements and including the request for the interim payment (except for the last reporting period).
- The individual financial statements of the last period must also detail the receipts of the action (as described in Article 5 and Article 6. of Grant Agreement).

## 10.3 Final reports

After the last periodic report, the PC shall submit the final report within 60 days after the end of this last reporting period, this means that, considering the end of the project in M48 (November 2026), the Final report should be submitted by M50 (31<sup>st</sup> January 2027).

The final report consists of two items: final technical report and final financial report.

## 1.1.1 Final technical report

- Overview of the results and their exploitation and dissemination compiled by the WP6 Leader related to Dissemination and Exploitation activities, using the contributions of all partners.
- Conclusions of the project.
- Socio-economic impact of the action compiled by the PC.
- 1.1.2 Final financial report
- Final summary financial statement, created automatically by the participant portal.
- Any required Certificates on the Financial Statements (CFS) of each partner, if the partner requests a total EU contribution of EUR 430.000 or more.

More details on the reporting requirements, as well as the corresponding templates in the Horizon Europe Reporting guidelines will be uploaded in the intranet once they are available from the Participant Portal.





# 11. Legal and financial aspects

All partners are responsible for adherence to the guidelines, it is therefore essential that all partners are familiar with the Horizon Europe "Annotated Model Grant Agreement (AMGA)" especially with regard to the financial issues, eligible costs and cost claims.

For further details partners are encouraged to consult both the above-mentioned guidelines and the project manager if there are any doubts.

# 11.1 Amendments

An amendment is necessary whenever there is a need to change the Grant Agreement (or the core part or the Annexes). The amendment process is ruled by the Grant Agreement article 39. Some cases where an amendment is necessary are:

- Removal of a beneficiary whose participation is terminated.
- Adding a new beneficiary.
- Change of beneficiary due to partial takeover.
- Adding/Removing a linked third party.
- Change of coordinator.
- Change of coordinator's bank account for payments.
- Change of the action's title and/or acronym.
- Change of the starting date, action duration or reporting periods.
- Changes to Annex I (Description of the Action):
  - Significant change of the action tasks (e.g. if tasks are added/removed) or of their division among the beneficiaries.
  - Changes concerning in-kind contributions provided by third parties or subcontracts (strongly advised!).
  - Changes concerning the tasks to be carried out by linked third parties and related costs (including if a linked third party is removed).
  - Changes concerning Grant Agreement options.
- Changes to Annex II (Estimated budget):
  - Budget transfer of amounts between beneficiaries or between budget categories (or both) which are linked to a significant change in the action's work (i.e. Annex 1).
  - A budget transfer to a form of costs that is not used by the beneficiary (i.e. with 0 EUR costs in Annex 2) except for transfer of amounts within the budget category A. 'personnel costs'.

## Internal Procedure towards and Amendment request

The procedure to be followed towards an amendment request is the following:

- 1. A partner communicates a change need to the PC providing a justification.
- 2. The PC confirms if this change needs an amendment request. Advice from the project officer may be requested if needed at this stage.
- 3. The modification is communicated to the SC for evaluation and approval.
- 4. Since the amendments take time to be processed, several changes will be gathered and included in a single amendment request as long as this is feasible and convenient.
- 5. The PC drafts the new Annex I and/or Annex II and distributes it to the consortium.
- 6. The consortium (General Assembly) approves the new Annex I to be proposed to the EC.
- 7. The PC may consult the project officer while drawing up the request, who can review the request informally and provide valuable feedback. Reasons for the amendment must be provided at this stage.
- 8. The PC prepares the supporting documents.
- 9. The PC completes the amendment request in the Participant Portal.
- 10. The PC submits and signs the amendment request.
- 11. The EC checks if the request is valid and requests any additional information/documents, if required. The PC provides clarifications within 15 calendar days.





- 12. The EC assess the amendment requests within the next 45 days
- 13. If accepted, the amendment enters into force on the day the Commission signs it.
- 14. After communication of approval from EC, the PC will distribute the new version of the Grant Agreement and confirm the entry into force.
- 15. The amendment will take effect (the changes to the Grant Agreement will start to apply) either:
- On the day of its entry into force (last signature of the amendment), or
- On the specific date indicated and agreed in the amendment.
- In justified cases it may be retroactive.
- If a request involves more than one change, these can take effect on different dates.

Requests proposing more than one change to the Grant Agreement are considered as a package and may be accepted or rejected as an indivisible whole.





# 12. Templates

At the submission of this report (M3), the project identity set is not finished yet and the C&D plan is ongoing (the C&D plan it the deliverable 7.1, with deadline 31 May 2023)

In any case, a template for deliverable and project logo are available in project common repository Templates for periodical reports will be available in the second project semester

For periodical presentation also the template has been foreseen by the coordinator and reported in the C&D plan

The periodical presentation should also report the Wp addressed and a short abstract with main achievement, and eventual deviations occurred and countermeasures taken





## 13. Conclusions

The procedures described in this deliverable, D1.1: "Project Handbook", form the basis for the execution of management tasks in the project. Adherence to the procedures should ensure that the management objectives of HYTECHEAT are met.

The Governance Structure of the HYTECHEAT project was defined, describing all the execution bodies. Moreover, the main contact and the proxy of each partner for the General Assembly and Steering Committee have been defined.

The communication procedures and the tools for a smooth management of the project were explained.

The criteria and general characteristics of the quality control procedures were outlined in this deliverable, including the timeline of the review process. This procedure will help the Consortium avoid delays in the submission of deliverables to the participant portal and avoid delays in the achievement of milestones.

In addition, procedures for management of issues related to intellectual property rights and risk analysis and management will help HYTECHEAT members avoid problems during project execution and implement mitigation actions when problems arise.

Finally, the project reporting procedures, the legal and financial aspects, the initial draft templates and standard documents of the project and the useful links were explained.

This document will be subject to updates during project execution if the activities are modified or the partners agree on changes requiring updates.





# Annexes

LEGAL AND FINANCIAL ASPECTS

General conditions of eligible costs In order to be considered as eligible the costs of the action shall comply with the following requirements:

 $\checkmark$  Actual incurred by the beneficiary.

 $\checkmark$  Incurred during the duration of the project, except for costs relating to the last periodic report and final report.

✓ Indicated in the estimated budget set out in EC-Grant Agreement Annex II.

 $\checkmark$  Incurred in connection with the action as described in Annex I and necessary for its implementation.

✓ Identifiable and verifiable, recorded in the accounts of the beneficiary and, in the case of any contribution from third parties, recorded in the accounts of the third parties. ✓ Comply with the applicable national law on taxes, labour and social security. ✓ Reasonable, justified and must comply with the principle of sound financial management, in particular regarding economy and efficiency. ✓ For unit and flat-rate costs, they must be calculated according to the procedures indicated in EC-Grant Agreement Article 6.1. ✓

The main type of costs that are usually considered eligible include therefore: • Direct personnel costs • Direct costs of subcontracting • Other direct costs • Travels • Equipment • Other goods and services • Indirect costs (flat-rate) Details on the different categories are given in the Draft "Annotated Model Grant Agreement (AGA)" available on the internet or in TEAMS and also in this same document under Section 8 and this link . The following are some important explanations related to the major cost categories. For a more complete explanation of these subjects refers to EC-Grant Agreement Article 6.2. Direct personnel costs Costs which are related to personnel directly hired by the partner in accordance with its national legislation and that work under the sole technical supervision and responsibility of the partner, both on a permanent and on a temporary basis. Personnel costs should reflect the total remuneration: salaries plus social security charges (holiday pay, pension contribution, health insurance, etc.) and other statutory costs included in the remuneration, in accordance with the normal practices of the partner. Bonuses are generally not considered eligible, unless specific criteria are met. While costs of benefits in kind (company car, vouchers, etc.) may be accepted only if they are justified and in conformity with the usual practices of the beneficiary. Costs for natural persons working under a direct contract with the beneficiary other than an employment contract

the person works under the beneficiary's instructions and, unless otherwise agreed with the beneficiary, on the beneficiary's premises; the result of the work carried out belongs to the beneficiary, and  $\checkmark$  the costs are not significantly different from those for personnel performing similar tasks under an employment contract with the beneficiary. The costs of personnel seconded by a third party against payment Conditions included in EC-Grant Agreement Article 9.4 are met. Costs of SME owners SME owners who are working on the project and who do not receive a salary are eligible personnel costs, if they correspond to the amount per unit set out in Annex 2 to the G.A. multiplied by the number of actual hours worked on the action. Costs of 'beneficiaries that are natural persons' In particular, natural persons not receiving a salary are eligible personnel costs, if they correspond to the amount per unit set out in Annex 2 to the G.A. multiplied by the number of actual hours worked on the action. Direct cost of subcontracting As a rule, beneficiaries must have the capacity to carry out the work themselves. Subcontracting is derogation to this rule and is limited to specific cases indicated in EC-Grant Agreement Annex I (DoA). Any subcontract, the costs of which are to be claimed as an eligible cost, must be awarded according to the principles of best value for money (best price-quality ratio), transparency and equal treatment. Framework contracts between a participant and a subcontractor, entered into prior to the beginning of the project that are according to the participant's usual management principles may also be accepted. All partners shall consider that subcontracting costs





that have not been indicated in EC-Grant Agreement Annex I (DoA) are not eligible. In this regard, all partners shall verify indications of the EC-Grant Agreement as well as of the "Annotated Grant Agreement". Other direct costs Travel costs As a general rule, actual travel and subsistence costs relating to the project may be considered as direct eligible costs, providing they comply with the beneficiary's usual practices and are adequately recorded, like any other cost. There is no particular distinction regarding the eligibility of costs incurred for travelling outside or in Europe. However, depending on the financial impact of the travel it is highly recommended to discuss eligibility with the PC, who will then ask for the agreement of the Project Officer. Travel costs must be needed for the work in the project, or for activities related to it (e.g. presentation of a paper explaining the results of the project in a conference). Travel costs related to a conference where no specific project-related work will be performed or presented by the beneficiary would not be eligible. Where it is the usual practice of the partner to consider travel costs as indirect costs, they cannot be charged as direct eligible costs, but only as indirect costs. On the other hand, if the contractor considers this category of costs on a direct basis, the same category (other travel and subsistence costs not attributed directly to projects) cannot be charged as indirect costs. Equipment Only equipment purchased for the purposes of carrying out the project and after the start date of the project can be charged as direct costs

Each beneficiary must determine depreciation of any durable equipment purchased on the basis of the actual percentage of use in the project and according to their accounting procedures and international accounting standards. Partners are advised to obtain a statement from their accountants to this effect to be placed on the project file for evidence at audit. It is noted that depreciation cannot be spread over a period exceeding the useful life of the equipment. Partners should be aware that not doing so and charging the full price of an asset in one single year might be considered an "excessive" cost, and therefore be considered ineligible. The costs of renting or leasing equipment, infrastructure or other assets are eligible if they don't exceed the depreciation costs of similar equipment, infrastructure or assets and do not include any financing fees. Other goods and services This budget category covers the costs for goods and services that were purchased for the action (or contributed in-kind against payment), including among others:  $\checkmark$  Consumables or supplies.  $\checkmark$  Dissemination costs (including open access) and conference fees for presenting project-related research.  $\checkmark$  Costs related to IPR. √ Costs for certificates on financial statements (CFS). √ Translation costs. If it is the beneficiary's usual accounting practice to consider some of these costs as indirect costs, they cannot be declared as direct costs. Other goods and services must be declared as actual costs and be charged with the purpose of carrying out the project and after the start date of the project. Indirect costs Indirect costs are eligible if they are declared on the basis of the flat-rate of 25 % of the eligible direct costs excluding subcontracting and costs of in-kind contributions provided by third parties which are not used on the beneficiary's premises

## General conditions of eligible costs

In order to be considered as eligible the costs of the action shall comply with the following requirements:

- Actual incurred by the beneficiary.
- Incurred during the duration of the project, with the exception of costs relating to the last periodic report and final report.
- Indicated in the estimated budget set out in EC-Grant Agreement Annex II.
- Incurred in connection with the action as described in Annex I and necessary for its implementation.
- Identifiable and verifiable, recorded in the accounts of the beneficiary and, in the case of any contribution from third parties, recorded in the accounts of the third parties.
- Comply with the applicable national law on taxes, labour and social security.
- Reasonable, justified and must comply with the principle of sound financial management, in particular regarding economy and efficiency.

For unit and flat-rate costs, they must be calculated according to the procedures indicated in EC-Grant Agreement Article 6.1.

The main type of costs that are usually considered eligible include therefore:

- Direct personnel costs
- Direct costs of subcontracting
- Other direct costs
- Travels
- Equipment
- Other goods and services
- Indirect costs (flat-rate)

Details on the different categories are given in the Draft "Annotated Model Grant Agreement (AMGA)" available on the internet and also in this same document under Section 12 and this <u>link</u>. Following are some important explanations related to the major cost categories. For a more complete explanation of these subjects refer to EC-Grant Agreement Article 6.2.

#### **Direct personnel costs**

Costs which are related to personnel directly hired by the partner in accordance with its national legislation and that work under the sole technical supervision and responsibility of the partner, both on a permanent and on a temporary basis.

Personnel costs should reflect the total remuneration: salaries plus social security charges (holiday pay, pension contribution, health insurance, etc.) and other statutory costs included in the remuneration, in accordance with the normal practices of the partner.

Bonuses are generally not considered eligible, unless specific criteria are met. While costs of benefits in kind (company car, vouchers, etc.) may be accepted only if they are justified and in conformity with the usual practices of the beneficiary.

- Costs for natural persons working under a direct contract with the beneficiary other than an employment contract
- the person works under the beneficiary's instructions and, unless otherwise agreed with the beneficiary, on the beneficiary's premises;
- o the result of the work carried out belongs to the beneficiary, and
- the costs are not significantly different from those for personnel performing similar tasks under an employment contract with the beneficiary.
- The costs of personnel seconded by a third party against payment
- Conditions included in EC-Grant Agreement Article 9.4 are met.

#### Costs of SME owners

SME owners who are working on the project and who do not receive a salary are eligible personnel costs, if they correspond to the amount per unit set out in Annex 2 to the G.A. multiplied by the number of actual hours worked on the action.

#### Costs of 'beneficiaries that are natural persons'

In particular, natural persons not receiving a salary are eligible personnel costs, if they correspond to the amount per unit set out in Annex 2 to the G.A. multiplied by the number of actual hours worked on the action.

#### Direct cost of subcontracting

As a rule, beneficiaries must have the capacity to carry out the work themselves. Subcontracting is derogation to this rule and is limited to specific cases indicated in EC-Grant Agreement Annex I (DoA).

Any subcontract, the costs of which are to be claimed as an eligible cost, must be awarded according to the principles of best value for money (best price-quality ratio), transparency and equal treatment. Framework contracts between a participant and a subcontractor, entered into prior to the beginning of the project that are according to the participant's usual management principles may also be accepted.

All partners shall consider that subcontracting costs that have not been indicated in EC-Grant Agreement Annex I (DoA) are not eligible.

In this regard, all partners shall verify indications of the EC-Grant Agreement as well as of the "Annotated Model Grant Agreement".

## Other direct costs

#### **Travel costs**

As a general rule, actual travel and subsistence costs relating to the project may be considered as direct eligible costs, providing they comply with the beneficiary's usual practices and are adequately recorded, like any other cost.

There is no particular distinction regarding the eligibility of costs incurred for travelling outside or in Europe. However, depending on the financial impact of the travel it is highly recommended to discuss the eligibility with the PC, who will then ask for the agreement of the Project Officer.

Travel costs must be needed for the work in the project, or for activities related to it (e.g. presentation of a paper explaining the results of the project in a conference). Travel costs

related to a conference where no specific project-related work will be performed or presented by the beneficiary would not be eligible.

Where it is the usual practice of the partner to consider travel costs as indirect costs, they cannot be charged as direct eligible costs, but only as indirect costs. On the other hand, if the contractor considers this category of costs on a direct basis, the same category (other travel and subsistence costs not attributed directly to projects) cannot be charged as indirect costs.

#### Equipment

Only equipment purchased for the purposes of carrying out the project and after the start date of the project can be charged as direct costs.

Each beneficiary must determine depreciation of any durable equipment purchased on the basis of the actual percentage of use in the project and according to their accounting procedures and international accounting standards.

Partners are advised to obtain a statement from their accountants to this effect to be placed on the project file for evidence at audit.

It is noted that depreciation cannot be spread over a period exceeding the useful life of the equipment. Partners should be aware that not doing so and charging the full price of an asset in one single year might be considered an "excessive" cost, and therefore be considered ineligible.

The costs of renting or leasing equipment, infrastructure or other assets are eligible if they don't exceed the depreciation costs of similar equipment, infrastructure or assets and do not include any financing fees.

#### Other goods and services

This budget category covers the costs for goods and services that were purchased for the action (or contributed in-kind against payment), including among others:

- Consumables or supplies.
- Dissemination costs (including open access) and conference fees for presenting projectrelated research.
- Costs related to IPR.
- Costs for certificates on financial statements (CFS).
- Translation costs.

If it is the beneficiary's usual accounting practice to consider some of these costs as indirect costs, they cannot be declared as direct costs.

Other goods and services must be declared as actual costs and be charged with the purpose of carrying out the project and after the start date of the project.

#### Indirect costs

Indirect costs are eligible if they are declared on the basis of the flat-rate of 25 % of the eligible direct costs excluding subcontracting and costs of in-kind contributions provided by third parties which are not used on the beneficiary's premises.