D6.1: STAKEHOLDER MAPPING

V3.0

TECHNICAL REFERENCES

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1.1 PROJECT TH2ICINO

Through the development and demonstration of a comprehensive ecosystem comprised of six repeatable use cases connected to the stages of the hydrogen value chain, Project TH2ICINO (Towards H2ydrogen Integrated eConomies In NOrthern Italy), aims to facilitate the EU's deployment of micro hydrogen economies. To facilitate replication and eventual growth of the project, the hydrogen valley demonstration will focus on the four pillars of the hydrogen value chain: (i) hydrogen production, (ii) hydrogen storage, (iii) hydrogen distribution, and (iv) hydrogen consumption, in such way transmitting the first state of TH2ICINO. The outcomes will verify a Master Planning Tool (MPT), after which its reproducibility could be examined. Technically speaking, to assess various possible scenarios and optimize solutions, while taking technological limitations into account, the initial stage will involve modeling, simulation, and scenarization from the electrolysis plant to the end user. Following the identification of the best solutions, an implementation phase will bring the ecosystem's novel concept to life and produce measurable outcomes that will feed the MPT.

1.2 WP6: TASK 6.1

Work Package 6 (WP6), precisely Task 6.1, focuses on the definition of the wider value chain and identification of further stakeholders. To assess the scope of work of this Task, two phases, following the identification and mapping of stakeholders, are identified:

- **Phase 1) Mapping:** To improve result exploitation, mapping is essential to a successful stakeholder communication and engagement strategy. Based on their position in the future value chain, a visual stakeholder map (such as a Mind-Map) was developed, and disclosed to the consortium of the Project. Partners and other pertinent entities will be included in the process' definition of a larger local value chain. Stakeholders were divided by influence and interest, to help identify important parties to eventually prioritize. The subsequent communications plan and resource allocation will be guided by this map, and a GDPR shall be followed when handling all data to the consortium.

- **Phase 2) Stakeholders awareness & engagement workshop**: At least two stakeholder workshops will be held during the second phase of the deliverable development, preferably one early to collect requirements and suggestions, and another at a later stage to receive inputs during the piloting period. Ideally, the first workshop will take place in an accessible Ticino site, which may be supplied by partners. The final demonstration site will host the second workshop, which will be results-oriented and will evaluate the impact on the community, cross-cultural barriers, and possible future co-investors.

Phase 1 leads to the development of Phase 2, therefore they are interconnected. The two workshops, as deeply described further on under Section 4.2, are essential to better assess stakeholder engagement. The first workshop is planned for the11th of March 2025, and will aim to stimulate the interest of the stakeholders with potential high influence on the Project lifecycle. It is with this objective that the business-oriented mapping (section 3.3.2) was developed.

The second workshop will be focused on raising awareness and commitment, and will mainly involve civil society stakeholders..

1.3 STAKEHOLDER ENGAGEMENT PLAN

To satisfy Task 6.1, a Stakeholder Engagement Plan (SEP) has been prepared within this document. The SEP outlines the engagement process that has been undertaken for the Project, as well as engagement activities conducted at an earlier stage by Partners for WP7 and recommended for Project life development. Precisely, the different parts of the Task will be presented as well as the results obtained.

This SEP aims to ensure that engagement is free of manipulation, interference, coercion, and intimidation. It also aims to ensure that stakeholder engagement is conducted based on timely, relevant, understandable and accessible information, in a culturally appropriate format. In this way, the SEP seeks to ensure that stakeholder

groups are given sufficient opportunity to voice their opinions and concerns, and that these concerns influence Project decisions where applicable.

2. LEGISLATIVE FRAMEWORK

The stakeholder engagement, will need to continue throughout the Project phases in accordance with the relevant Standards and Guidelines led by:

- ✓ Competent national authorities such as Mayors, Regional Authorities, Ministries that are involved in the decision making of the Project's related aspects.

2.1 NATIONAL LEGISLATIVE REQUIREMENTS

The Italian national legislation does not provide specific legislative frameworks in relation to stakeholder engagement.

Dissemination of project information and consultation with stakeholders are two key objectives of the project's social activities. The consultation process involves opening a direct channel of communication with stakeholders to inform them about the characteristics of the project, the timing, the willingness to listen to the views of stakeholders and seek shared solutions, including those relating to design.

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3. STAKEHOLDER IDENTIFICATION AND ANALYSIS

3.1 INTRODUCTION

The identification of the stakeholders is the first step to implement an effective stakeholder engagement process and provide stakeholders with details on the Project and gather their feedback on the scope, approach and key issues. Stakeholder Engagement builds a two-way dialogue process which is an ongoing approach through a general Project cycle.

The main emphasis of the engagement is in fact to present the Project to a wide range of stakeholders' level that includes Government institutions / agencies, Enterprises, Non-Governmental Organization (NGOs) and other key groups as well as to local communities and the public at large and provide communication channels to receive and handle their feedback.

In this context, stakeholder mapping is considered an essential process of research, debate, and discussion that draws from multiple perspectives to determine a key list of stakeholders across the entire stakeholder spectrum. These stakeholders consist of individuals, groups, and organizations that may be impacted or likely to be impacted directly or indirectly by the Project and have interest or are able to influence the Project.

3.2 OBJECTIVES

The objectives of these stakeholder engagement activities are to:

- Ensure the timely provision of relevant and understandable information to stakeholders.
- Create a process that provides opportunities for stakeholders to express their views, concerns and complaints, and allow the to consider and respond to them.
- Engage in proactive dialogue with external stakeholders regarding TH2ICINO activities and impacts.
- Maintain awareness of safety and environmental issues among communities in the vicinity of Project facilities.
- Monitor community attitude to the Project.
- Manage and monitor the effectiveness of any corrective actions implemented because of stakeholder concerns or complaints during Project activities.
- Manage and report on the closing out of stakeholder concerns or complaints.
- Comply with the IFC PS requirements on stakeholder engagement, consultation and participation.

The purpose of the Stakeholder identification and analysis is to provide guidance for achieving these objectives, by establishing and maintaining a constructive relationship with affected people and other interested parties over the life of the Project and maintaining the "social license to operate" and broad public support.

The SEP details the consultation and participation strategy for the Project, which:

- Defines the Project's requirements concerning disclosure and consultation.
- Identifies stakeholder groups that could be affected by or may have an interest in the Project.
- Ensures that such stakeholders are appropriately engaged through a process of disclosure of information and meaningful consultation on environmental and social issues that could potentially affect them.
- Maintains a constructive relationship with stakeholders on an ongoing basis through meaningful engagement during Project implementation that is done in a comprehensible manner adapted to the local cultural context.

This SEP is a 'living document' which will be updated periodically during the construction phase to summarize results achieved (i.e. to record consultations undertaken, issues raised, actions taken); to describe lessons learned and any changes to the consultation process; and to outline the schedule for on-going and future interactions.

3.3 STAKEHOLDER IDENTIFICATION

As for reference, the International Finance Corporation (IFC) defines stakeholders as: "persons, groups or communities external to the core operations of a Project who may be affected by the Project or have interest in it. This may include individuals, businesses, communities, local Government authorities, local nongovernmental and other institutions, and other interested or affected parties" (IFC, 2012). Based on this definition, stakeholders are divided into two types:

- Affected communities – persons, groups and other entities within the Project Area that are directly influenced (actually or potentially, positively or adversely) by the Project and/or have been identified as most susceptible to change associated with the Project, and who need to be closely engaged in identifying impacts and their significance, as well as in decision-making on mitigation and management measures.
- Non-community stakeholders may be able to influence decisions on the Project or have an interest in the Project.

To develop an effective stakeholder engagement meeting, as for the workshops that are planned for the scope of work of this project, it is necessary to identify stakeholders and understand their needs and expectations for engagement, as well as their priorities and objectives in relation to the proposed Project. This information is then used to tailor engagement to each type of stakeholder. As part of this process, it is particularly important to identify individuals and groups who may find it more difficult to participate and those who may be differentially or disproportionately affected by the Project because of their marginalized or vulnerable status. Stakeholder identification, especially when concerning the vulnerable groups or individuals that are not highly visible or well represented, is an important first step in any engagement process, as well as an ongoing aspect of engagement throughout the life of the Project.

The strategy of stakeholder identification and involvement arises from the need to know the most relevant concerns of stakeholders that should be considered in the Project implementation. In this context, several meetings and discussion groups shall be undertaken with the potentially affected parties and stakeholders.

3.3.1 TH2CINO STAKEHOLDERS MAPPING

During Phase 1 of the development of Task 6.1, 29 stakeholders were identified, including 3 financing entities, 5 institutions, 3 local and regional authorities, 7 enterprises groups, TH2CINO Consortium (9 partners), 2 employees categories, 2 sensitive receptors, 2 groups of Population directly affected by the Project (PAPs), 3 Associations (NGO etc.), and 2 media channels. Each of them was then categorized depending on their type, with the following division and related colors:

- **D =** Key Stakeholders (blue)
- **A =** Potentially Active (yellow)
- **I =** Other Interested Parties (green)

Table 1 lists all the stakeholder groups identified during the first phase of Deliverable 6.1.

TABLE 1: STAKEHOLDERS IDENTIFIED FOR TH2ICINO PROJECT

Stakeholder Group	Stakeholder	Subcategories	Type	Project Connection
Financing entities	European Funding Program		(D)	European funding program for the period 2021-2027 created to strengthen the role of the European Union as a global leader in science, research, and innovation
	Banks and Financial Services		(I)	Stakeholders interested in offering loans, grants, and financial products for hydrogen infrastructure development
	Investors and Venture Capitals		(I)	Stakeholders interested in providing funding for hydrogen projects and startups
Institutions	European Commission		(D)	European institution responsible for implementing research and innovation funding programs (Horizon Europe). It is a stakeholder with political and strategic interest in the success of the project.
	ENAC		(D)	National Civil Aviation Authority; leader of the SAVES initiative and convener of the national table on hydrogen in airports. Sets the national framework for hydrogen use in airport logistics; relevant to WP2 activities at Malpensa (infrastructure design, permitting)
	ENEA		(D)	National agency for energy and sustainable development; provides technical-scientific support on hydrogen technologies to ENAC in the SAVES

Stakeholder Group	Stakeholder	Subcategories	Type	Project Connection
				initiative with expertise on hydrogen integration; indirectly contributes to WP2 and WP6 through technical and innovation guidance
	Ministry of Infrastructure and Transport		(D)	Ministry is responsible for managing national infrastructure networks serving transportation means and land, maritime, and aeronautical transport.
	Ministry of Environment and Energy Security		(D)	Ministry responsible for developing and implementing environmental policies, promoting renewable energies, and coordinating activities aimed at environmental protection and conservation of natural resources.
Local and Regional Authorities	Lombardy Region		(D)	Authority responsible for part of the territorial planning and management of public services in the area affected by the Project
	Varese Province		(D)	Authority responsible for part of the territorial planning and management of public services in the area affected by the Project
	Busto Arsizio Municipality		(D)/(I)	Authority responsible for coordinating and planning territorial development, managing public services in the area affected by the Project
Enterprises	Mobility	Public Transport Operators	(I)	Potential beneficiaries of the project could be involved in providing hydrogen-powered transportation services
		Freight forwarders - Road/intermodal transport operator		

Stakeholder Group	Stakeholder	Subcategories	Type	Project Connection
		Transport organizations/ associations		
		Passengers and Freight Terminal Operators		
		Public Entities (e.g. Municipalities) and Enterprises Federations/Associations		
	Energy	Green Energy producers	(I)	Potential beneficiaries of the project could be involved both in the production of energy needed to power the Hydrogen Valley and in the utilization of the produced energy
		Renewable Energy Companies		
		Utility companies (gas, electric)		
		Chemical Companies (producing hydrogen as a byproduct)		
	Industry	Industrial gas companies	(I)	Potential beneficiaries of the project, as potential users of the surplus hydrogen produced
		Chemical Companies (non-producing hydrogen as a byproduct/uncertain, TBD)		
		Heavy Industry		

Stakeholder Group	Stakeholder	Subcategories	Type	Project Connection
	Construction/Engineering/Consulting	Design & Engineering Companies/Consulting Services	(I)	Potential beneficiaries of the project, involved in the provision of components, assembly of electrolyzers, compressors, and the related distribution system
		TIER 1/TIER 2 (High-Level Parts & Assemblies Suppliers)		
		Machinery and apparels for different tiers		
		OEM (Original Equipment Manufacturer)		
	IT	Technological Innovators	(I)	Potential beneficiaries of the project involved in developing software for managing hydrogen.
	Service Producers		(I)	Potential beneficiaries of the project, involved in the provision of components, assembly of electrolyzers, compressors, and the related distribution system
	Contractors and Subcontractors		(I)	Potential partners who will be involved in the management of works or operations functional to the project (construction, urban planning, workforce)
TH2CINO PARTNERS	Consortium		(D)	Partners directly involved in the Project as part of the Consortium
Employees	Direct Workers		(A)	Workers from the companies directly involved, tasked with the construction and maintenance of the plant components during the construction and operation phases
	Indirect Workers		(A)	Workers from indirectly involved companies (subcontractors) tasked

Stakeholder Group	Stakeholder	Subcategories	Type	Project Connection
				with the construction and maintenance of the plant components during both the construction and operation phases.
Sensitive Receptors	Residents of the Project area of influence		(A)	People affected by the main impacts of constructions works
	Commercial activities are directly affected by the construction activities		(A)	
"Population directly affected by the Project (PAPs)"	Malpensa citizens		(I)	Project beneficiaries may experience impacts (positive/negative) during the construction and operation phases.
	Mobility users		(I)	
Associations (NGOs etc.)	National and International environmental NGOs		(I)	Potential partners advocating for sustainable and responsible development of hydrogen technologies
	Local environmental associations		(I)	Potential partners for planning sustainable project development.
	Pro loco associations		(I)	Potential partners to ensure that the project also promotes local development.
Media	Regional and local Media		(I)	Potential partners who will have a role in disseminating information and spreading details about the Project
	International Media		(I)	

3.3.2 TH2CINO BUSINESS STAKEHOLDERS IN GREEN HYDROGEN SUPPLY CHAIN

In addition to the stakeholder mapping presented in Section 3.3.1, which categorizes project stakeholders based on their influence and potential impact using the introduced methodology, a supplementary (draft) stakeholder mapping has been developed. This mapping aims to support one of the key objectives of the Th2CINO project: expanding business opportunities related to hydrogen production and its value chain in the Ticino area. The mapping identifies the categories of companies most likely to be involved in each phase of the value chain:

- PRODUCTION: use of green electricity for separate hydrogen from oxygen or natural gas to extract hydrogen from methane
- CONDITIONING: liquefaction/compression
- STORAGE: short-term stockage of hydrogen in gas/liquid state
- TRANSPORT: transportation of H2 via pipelines, tank trucks, tank ships
- MARKET: Hydrogen Consumption for Heating and Feedstock (Gray H2 Replacement) - Import/Export

In total, alongside project partners, 3 stakeholders from regional authorities have been identified, as well as 20 enterprises, including 1 IT company, 4 from Construction/Engineering/Consulting, 3 from the industry sector, 6 energy companies, and 6 mobility firms, in addition to 9 partners. The image below illustrates the stakeholder mapping, highlighting the phases in which these stakeholders would be engaged.

This mapping will be particularly useful for organizing the first workshop of phase 2.

		SUPPLY CHAIN	PRODUCTION	CONDITIONING	STORAGE	TRANSPORT	MARKET
		description of the stage -->	use of green electricity for separate hydrogen from oxigen or natural gas to extract hydrogen from methane	liquefaction/compression	short-term stockage of hydrogen in gas/liquid state	transportation of H2 via pipelines, tank trucks, tank ships	Hydrogen Consumption for Heating and Feedstock (Gray H2 Replacement) Import/Export
LEVEL	CATEGORY	STAKEHOLDER SUBCATEGORY					
authorities	Local/Regional	Lombardia					
		Busto Arsizio					
		Varese					
enterprises	Mobility	Public transport operators					
		Freight forwarders					
		Transport organisations/associations					
		Freight Terminal Operators					
		Maritime and Aviation Companies					
		H2 Transport - and Distribution operators					
	Energy	Green energy producers					
		Renewable Energy Companies					
		Utility companies (gas and electric)					
		Power generation companies					
		Oil and Gas companies (transitioniting)					
		Chemical Companies (producing hydrogen as a byproduct)					
	Industry	Industrial Gas Companies					
		Chemical Companies (non producing hydrogen as a byproduct)					
		Heavy Industry					
	Construction/Engineering/Consulting	Design & Engineering Companies/Consulting Services					
		TIER 1/TIER 2 (High-Level Parts & Assemblies Suppliers)					
		Machinery and apparels for different tiers					
		OEM (Original Equipment Manufacturers)					
	IT	IT Companies					
the Project	TH2ICINO Partners	RINA					
		ARTELYS					
		LHYFE					
		CIRCE					
		EMISIA					
		SEA					
		AIR PULLMAN					
		CONFINDUSTRIA VARESE					
		COMUNE BUSTO ARSIZIO					

FIGURE 1: MAPPING OF POTENTIAL BUSINESS STAKEHOLDERS IN THE HYDROGEN SUPPLY CHAIN

4. APPROACH TO STAKEHOLDER ENGAGEMENT

4.1 PHASE 1

As outlined in Section 1.2, **Phase 1 of Task 6.1** was dedicated to the systematic identification, classification, and visualization of stakeholders relevant to the TH2ICINO project. This phase aimed to establish a foundational understanding of the wider hydrogen ecosystem in Northern Italy, particularly in relation to the project's implementation area and objectives.

The process began with the compilation of a preliminary list of stakeholders (Table 3.1), drawn from partner contributions, regional consultations, and project planning assumptions. The purpose of this step was to ensure a comprehensive overview of all individuals, organizations, institutions, and interest groups that could directly or indirectly influence, or be influenced by, the deployment of the hydrogen value chain.

Following internal validation and approval from the Consortium, the **project supply chain** was mapped. This mapping distinguished between upstream (production and infrastructure), midstream (storage, logistics), and downstream (end-users and regulators) actors, offering a structured view of the roles and responsibilities of different stakeholder categories within the ecosystem.

Finally, a **visual stakeholder map** was developed and disseminated to all partners. This representation illustrates the connections between categories, sectors, and influence pathways, supporting further engagement and communication planning. The mapping process complies with GDPR requirements for stakeholder data handling and aligns with the project's transparency and inclusion objectives.

4.1.1 STAKEHOLDER MATRIX

To prioritize engagement efforts, a **Stakeholder Matrix** (Figure 4.1) was developed. This tool plots each identified stakeholder along two axes: **Level of Interest** in the TH2ICINO project, and **Level of Influence/Impact** on its outcomes. Stakeholders located in the **upper-right quadrant** of the matrix—those exhibiting both high interest and high influence—are recognized as **key stakeholders**. These include:

- Private-sector actors and project-level partners directly involved in TH2ICINO implementation
- Regional and local authorities with permitting and policy roles (e.g., Region Lombardia, Provincia di Varese)
- European-level institutions and funding agencies (e.g., the Clean Hydrogen Partnership)

These stakeholders represent critical allies and decision-makers whose buy-in is essential to project success. Their perspectives and involvement shape the regulatory, technical, and social acceptance environment for the hydrogen valley.

At the **opposite end of the spectrum**, in the lower-left quadrant, are groups with limited interest and minimal impact potential—such as mainstream media outlets and segments of the general public not yet engaged. Slightly above them in interest, but still peripheral in influence, are **employees** and **civil society representatives**, grouped under "other interested parties."

Meanwhile, categories such as **research institutions and academia**—although not primary decision-makers—are positioned in the **medium-high influence** region, due to their contributions to technical innovation, data interpretation, and long-term replication potential. They share this space with **regional authorities**, representing a second tier of active and potentially catalytic stakeholders.

This matrix supports a tiered engagement strategy, where resources and communications are concentrated on high-impact actors while ensuring inclusion and transparency across the full stakeholder spectrum.

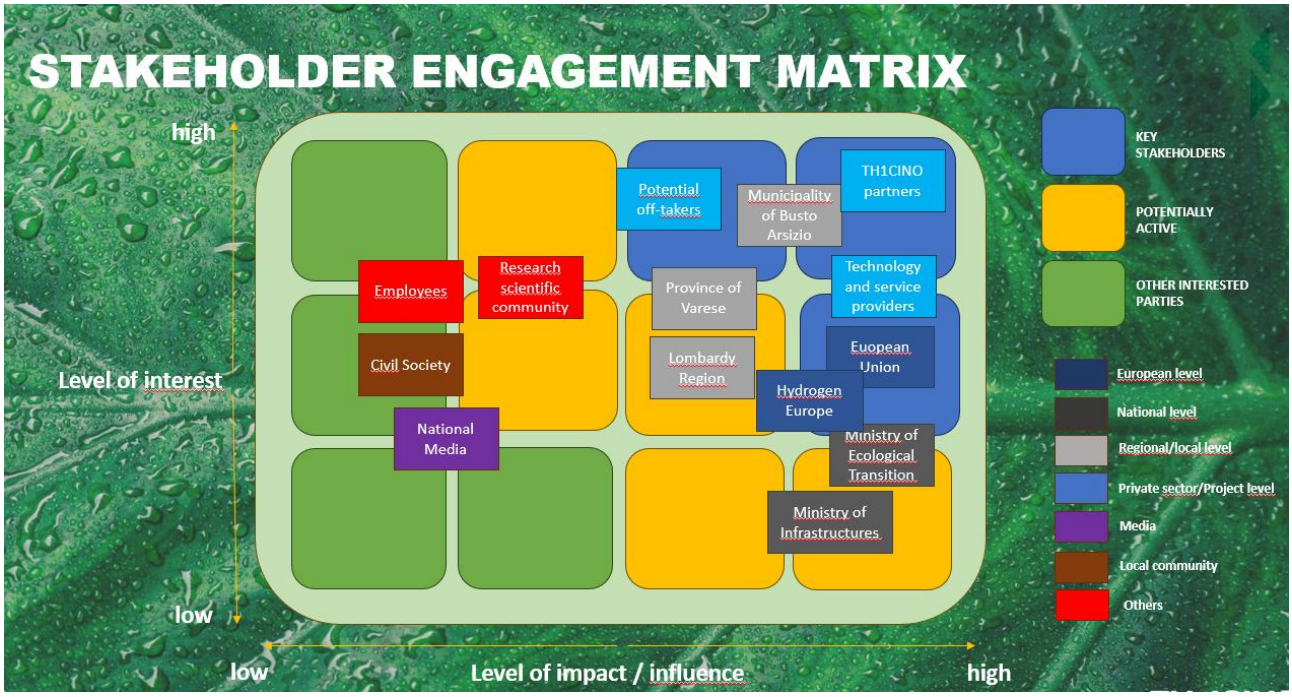

FIGURE 2: STAKEHOLDER MATRIX

4.2 PHASE II

As previously mentioned under section 1.2 of this Report, Phase II of Task 6.1 focuses on raising stakeholders' awareness and engagement, especially through the realization of two different workshops, one introductory to the Project and the other more related to further stages of the Project.

4.2.1 4.2.1 STRATEGIC ENGAGEMENT THROUGH THE SAVES INITIATIVE

For regulatory and permitting authorities, most notably **ENAC**, engagement was initiated from the outset to ensure early institutional alignment and reduce uncertainties associated with the deployment of hydrogen infrastructure in airport environments. As part of this effort, **SEA**, in coordination with several project partners, identified a national-level initiative launched in 2023 by **ENAC** (Italian Civil Aviation Authority) and **ENEA** (National Agency for New Technologies, Energy and Sustainable Economic Development). The initiative took the form of a **call for expressions of interest**, seeking concrete use cases to support the integration of hydrogen and sustainable aviation fuels into airport logistics operations.

FIGURE 3: OPEN CALL ENAC FOR EOIS

In response, a proposal was submitted highlighting **Malpensa Airport (MXP)** as a candidate site. The proposal outlined technical work already underway, identified potential applications within airport logistics chains, and demonstrated alignment with the strategic objectives of the national programme. Following a competitive review process, **MXP and Fiumicino Airport (FCO)** were selected to join a dedicated **working group** coordinated by ENAC and ENEA. This group was tasked with developing technical guidance and regulatory recommendations, informed by practical case studies, to support the safe and effective adoption of hydrogen technologies within Italian airports.

This collaboration formed the foundation of the **SAVES initiative** (Sustainable Aviation and Energy Vectors for Airports). SAVES was established as a structured platform for knowledge exchange, involving regulators, airport operators, technology providers, energy developers, and academic institutions. Its purpose is to coordinate national efforts related to hydrogen deployment in aviation, share technical knowledge, and identify barriers that require regulatory or operational solutions. The working table convened under SAVES continues to function as an active forum for dialogue between institutional stakeholders and technical actors involved in hydrogen integration.

Participation in SAVES enabled direct engagement with ENAC and ENEA from the early stages of technical planning. This engagement has proven particularly valuable in aligning design and permitting processes with national policy priorities and future regulatory developments. Through structured dialogue, it has been possible to anticipate permitting requirements, identify safety and siting constraints, and adapt technical strategies accordingly—particularly for the hydrogen production, distribution, and refuelling assets foreseen at Malpensa Airport under WP2. The exchange has gone beyond regulatory consultation. Project partners have actively contributed operational data, technical specifications, and projected use cases for hydrogen applications at the airport. These contributions were integrated into the SAVES knowledge base, supporting the development of national guidelines that reflect real deployment scenarios. In turn, participation in SAVES has provided institutional visibility and created conditions for smoother regulatory acceptance at both the national and regional levels.

A key outcome of this collaboration was the **technical site visit to LHYFE's hydrogen production facility in France**, attended by representatives from ENAC, ENEA, and SEA. The visit allowed participants to review a full-scale green hydrogen production process, discuss safety measures, and examine operational interfaces relevant to an airport setting. This hands-on exposure helped clarify expectations and contributed to a shared understanding of how hydrogen infrastructure might be safely integrated into aviation environments in Italy.

The cooperation between the technical partners and the institutions involved in SAVES has taken the form of a **back-to-back collaboration**, in which the development of site-specific infrastructure and national-level regulatory planning have progressed in parallel, informing and reinforcing each other. This dual-track approach has enabled faster progress in the identification of applicable permitting pathways, technical validation processes, and the administrative steps required to move from concept to implementation. Malpensa Airport has become a **national demonstration site**, where hydrogen production, logistics, and use will be piloted and evaluated under real conditions, not only as a testbed for the TH2ICINO technical concepts, but also as a reference case for future replication at other Italian airports.

This working group has focused on **knowledge exchange, regulatory dialogue, and the drafting of practical guidance** to support the integration of hydrogen solutions within airport environments. The **scope of the SAVES initiative** addressed the broader energy transition of the aviation sector, with particular attention to the adoption of sustainable energy carriers across the entire airport logistics chain. This includes both **airside and landside mobility**, as well as applications in **building energy use, fuel supply, storage infrastructure, and distribution systems**. The overarching objective of the initiative was the development of **national guidelines for hydrogen deployment in Italian airports**.

FIGURE 4: NATIONAL GUIDELINES FOR INTRODUCTION OF HYDROGEN IN THE LOGISTIC CHAINS ITALIAN AIRPORTS

4.2.2 STAKEHOLDER AWARENESS

The first workshop will be held on the 11th of March 2025 with the aim of informing participants by providing key information about the topic or Project, while also enhancing their understanding of the challenges, opportunities, and impacts involved. It aims to engage stakeholders actively, encouraging constructive dialogue and gathering valuable feedback.

FIGURE 5: STAKEHOLDER AWARENESS WORKSHOP

The business-oriented mapping presented in Section 3.3.2 has proven particularly useful for this first workshop, which is focused on informing potential future business partners, investors, and companies already involved in the hydrogen value chain that could benefit from the project. The workshop aims to build awareness and commitment, motivating participants to take informed actions. Additionally, it facilitates networking opportunities, enabling participants to collaborate and form relationships. Finally, the workshop sets the stage for defining shared goals and establishing clear next steps for the future, ensuring alignment and continued progress.

Beyond this first event organized by the Th2CINO consortium, to date, the Th2CINO Project has participated in multiple events to raise awareness and understand how to engage and with whom. Especially thanks to the work done in conjunction with WP7 tasks, the following activities and channels have been identified, as shown in the table below.

TABLE 2: IDENTIFIED COMMUNICATION CHANNELS

Main activities and channels	When	Means of verification	Status	Deviations
A dedicated, user- and mobile-friendly **website**. The open part of the website is used for both D&C of results. Public deliverables can be downloaded from the website.	M4	At least 10,000 website views, 3,000 unique visitors' views by M48.	Published in M5, updated every three months if necessary.	Delay due to many reviews of the contents by consortium. The means of verification is not available while analytics have not been implemented yet.

Strong **project identity**, including logo, branding style and templates (PowerPoint, Word) for all internal and external communication materials.	M3	Logo and branding style and templates are used by all partners in communication materials and deliverables.	Project identity has been defined in D7.1 "Visual identity of TH2ICINO" in M2 and all the material is used by partners.	Roll-up has been added to the project material while it is useful during events.
Proactive use of **social media** (LinkedIn, YouTube, X) for distributing contents and enlarging TH2ICINO community.	M2 - M48	300 social media followers by M48.	Opened profiles in LinkedIn, YouTube and X in M3. Reached 231 followers.	
2 short **videos**: n.1 outlining TH2ICINO objectives and expected results; n.2 to cover the project's achievements.	M6 and M45	1st video by M6 and 2nd video at end.	Video n.1 ready in M10, uploaded on website and YouTube.	Delay due to many reviews of the contents by consortium.
2 **leaflets**: one shortly after the beginning of the project representing the project**.** objectives, partners and expected results; another one in M36.	M6 and M36	1st leaflet by M6 and 2nd leaflet by M36.	Leaflet n.1 ready in M6, uploaded on website and printed.	
Participation in **events** (physical and/or online), including distribution of leaflets and positioning a poster, roll-up.	M6 - M48	At least 25 events where materials are distributed by M48.	Partners attended 26 events with different contribution: project presentation, leaflet distribution, positioning of a roll-up, networking.	
Non-scientific articles, interviews in sector journals.	M1 - M48	At least 4 by M48.	One article on TH2ICINO has been published on Varesefocus (IT) in M2.	
Content-based **workshops** organized to involve relevant stakeholders.	M1 - M48	3 workshops by M48. 1st on "Relevance of Hydrogen Valleys in a Future Hydrogen Economy" (M24). 2nd on "H2 Retrofitting and	To be defined.	

		Hydrogen opportunities in Mobility" (based on WP4 results). 3rd on "TH2ICINO Valley launch" (M48).		
Project **e-handbook** and practice abstracts.	M48	More than 25 technical project e-publication downloads.	To be done at the end of the project.	
Collaboration with relevant **stakeholders and EU communities and projects**. Create synergies with similar projects and some of the existing valleys already presented.	M48	Join the Hydrogen Valley Partnership. At least 1 joint event/webinar with other H2Vs.	Participation in EU Research Days during European Hydrogen Week 2023 (M3), Hydrogen Valleys Days in M10, European Hydrogen Week 2024 in M15.	
Newsletters about achievements, news updates, events…	M6 - M48	7 newsletters (six-monthly)	The first newsletter is foreseen at M16.	Delay due a set-up different from the expected one. The newsletter is not managed with a CMS but with a classic email box. Moreover, there were few subscribers and few results available, so the newsletter would have been quite ineffective.
Scientific and technical publications.	M12 – M48	At least 5 by the end of the project.	The first scientific publication is foreseen around M17-M19 by CIRCE.	
Stakeholder engagement activities.	M1 - M48	6 events with stakeholders: industrials, energy providers, technology providers, mobility. An online course will be organized involving relevant stakeholders on "H2 Retrofitting and Hydrogen opportunities in Mobility".	2 awareness workshops are foreseen in 2025, according to T6.1.	

		Guided visits to the production, storage and consumption sites will be organized towards the end of the project. 2 conferences with an own stand/joint valley booth.		
Press releases: dedicated press releases to a network of journalists in Europe who are active in H2 production, ammonia and decarbonization of industries.		4 press releases.	One press release has been made for the launch of the project in M1.	
Non-scientific articles and open days/ lectures at schools/ trainings will be organised to create awareness.		4 non-scientific articles. 4 open days/ lectures/ trainings.	One non-scientific article has been published on Varesefocus (IT) in M2; one lesson held in Italian secondary school and one lesson at university in England.	

Moreover, here below a list provided by D7.1 mentions all the events attended by the consortium between M4 - M15. Additionally, in D7.2 other 11 events attended by partners during M1 – M3 have been described in detail. Finally, 26 events have been attended by the partners of the Project.

TABLE 3: EVENTS ATTENDED

Name	Date	Location	Contribution	Partner attending
European Hydrogen Week 2024	18-22/11/24	Bruselles Expo, Bruselles - BE	Exhibitors, networking	RINA-C, LHYFE
Ecomondo	5-6/11/24	Riminifiera, Rimini - IT	Visitor, networking, leaflet distribution	CONVA
Hydrogen Expo	12/9/2024	Piacenza Expo, Piacenza - IT	Visitor, networking, leaflet distribution	CONVA
European Hydrogen Valleys Investment Forum 2024	5/9/2024	Riga - LV	Pitch presentation of TH2ICINO project	RINA-C
Hydrogen Valley Days	17-18/06/2024	Bruselles - BE	Visitors, networking	RINA-C, SEA, ART
Electric Boat Show	8/6/2024	Laveno Mombello, Varese - IT	Project presentation, roll-up	CBA

"Sustainable Air Transport Operations and Planning"	28/05/2024	University of Salford Manchester - UK	Project presentation during lesson	SEA
Hydrogen Valleys Summit - Session "H2 Valleys – what we can learn from each other?"	24/4/2024	Poznań Congress Center, Poznan - PL	Project presentation	SEA
Passenger Terminal Expo 2024	16-18/04/2024	Messe Frankfurt - DE	Project presentation	SEA
16th IEA Task 30 Electrolysis Workshop	3/4/2024	Politecnico di Milano, Milan - IT	Project presentation	CONVA
Week of science	15/03/2024	ITE-LL Gadda Rosselli, Gallarate - IT	Project presentation	CBA, CONVA
KEY - The energy transition expo	1/3/2024	Fiera di Rimini, Rimini - IT	Project presentation (two different speeches)	CONVA, SEA
GPPS Energy & Aviation Forum 2024	17-18/01/2024	Zurich, Switzerland - CH	Project presentation	CIRCE
OLGA EU Green Deal project: shaping Green Airports & Smart Cities	13/12/2023	Zagreb Airport, Zagreb - HR	Project presentation	SEA, RINA-C
1° Convegno Nazionale Idrogeno nel trasporto pubblico su gomma	4/12/2023	Sede TPER, Bologna - IT	Visitor, networking	CBA

4.2.3 FUTURE EVENTS

According to the events attended during the first year of project, the list of conferences and fairs where partners could participate in is constantly updated: some events take place annually, so it is easier to plan the participation, others are identified on course.

This table presents **a list of events that could be interesting for TH2ICINO in the next 12 months**.

TABLE 4: EVENTS OF INTEREST FOR TH2ICINO

Name of the event	Date	Location/ Online	Target group
KEY - The energy transition expo	5-7/03/2025	Fiera di Rimini, rimini - IT	Different stakeholders in hydrogen and energy field
World Hydrogen 2025 Summit & Exhibition	20-22/05/2025	Rotterdam Ahoy, Rotterdam - NL	
Hydrogen Expo	21-23/05/2025	Piacenza Expo, Piacenza - IT	
European Hydrogen Week 2025	Autumn 2025	Brussels Expo, Brussels - BE	

5. CONCLUSIONS

Task 6.1 has set the stage for strong stakeholder engagement in the TH2ICINO project, identifying and mapping stakeholders such as public authorities, private enterprises, end-users, research institutions, and civil society. This structured engagement approach balances institutional priorities with community inclusion and market development.

Phase 1 focused on the identification and categorization of stakeholders according to their influence and interest, resulting in the development of a detailed Stakeholder Matrix and value chain mapping. This work enabled the project to prioritise engagement efforts and align communication strategies with the expected impact of each stakeholder group. The matrix guided the development of targeted engagement activities and will continue to serve as a dynamic tool for monitoring stakeholder positioning as the project evolves.

Phase 2 builds on this framework by transitioning into active engagement through awareness-raising and consultation workshops. The first workshop, scheduled for March 2025, aims to introduce the project to key actors in the hydrogen value chain, stimulate dialogue, and build momentum around future collaboration. The second workshop will deepen engagement with a broader audience, including local communities, to foster understanding, transparency, and public support.

A cornerstone of the stakeholder strategy has been the strategic engagement through the **SAVES** initiative, which has significantly enhanced institutional collaboration at the national level. Through early alignment with ENAC and ENEA, TH2ICINO has contributed to and benefited from the national dialogue on hydrogen integration in airport environments. This collaboration resulted in Malpensa Airport being selected as a demonstrator site, and it fostered the **co-development of national guidelines** that are informed by real deployment scenarios. The project's role within the SAVES working table has helped reduce regulatory uncertainties and strengthened its position as a testbed for replication across other Italian airports.

Looking forward, the outcomes of Task 6.1 will continue to shape how stakeholder engagement is managed across technical, regulatory, and societal dimensions. The framework established here will directly support the upcoming business model development (Task 6.2), exploitation strategy (Task 6.3), and long-term cooperation planning (Task 6.4). Furthermore, it will act as a reference point for aligning external communication activities under WP7 and for tracking stakeholder commitment and responsiveness through project monitoring tools.