HORIZON EUROPE PROGRAMME
HORIZON-JTI-CLEANH2-2024

GA No. 101192342

Direct seawater electrolysis technology for distributed hydrogen production

SWEETHY - Deliverable report

D1.3 – Project Identity

Deliverable No.	D1.3		
Related WP	WP1		
Deliverable Title	Project Identity		
Deliverable Date	2025-06-30		
Deliverable Type	REPORT		
Dissemination level	Public (PU)		
Author(s)	Fleur Pijper (UNR) Martina Cotti (UNR)	2025-06-04	
Checked by	Olesia Danyliv (RISE)	2025-06-23	
Reviewed by	Anna Molinari (UNR) All Partners		
Approved by	Olesia Danyliv (RISE)	2025-06-24	
Status	Final		

Document History

Version	Date	Editing done by	Remarks
V1.0	2025-05-23	Fleur Pijper (UNR)	First draft
V1.1	2025-06-02	Martina Cotti (UNR)	Reviewed
V2.0		All	SWEETHY partners
V3.0	2025-06-23	Fleur Pijper (UNR)	Updated version
FINAL	2025-06-24	Olesia Danyliv (RISE)	Approved

Project Summary

SWEETHY will develop an advanced technology for direct seawater electrolysis that will be able to produce H_2 and O_2 under intermittent conditions accounting for the coupling to renewable power sources (especially wind, PV). The electrolyser will be based on an anion exchange membrane (AEM) operating in natural or alkaline seawater, and the SWEETHY technology will be developed along three dimensions:

a) Materials optimization. To meet the specific requirement of seawater environment the project will focus on corrosion resistant and selective PGM-free electrocatalysts for hydrogen and oxygen evolution reactions, on AEM with high selectivity for transporting hydroxide anions and with anti-fouling properties, as well as on novel anti-corrosion coatings for bipolar plates and porous transport layers prepared by plasma spraying and electrodeposition.

b) Electrolyser stack prototyping. The project will exploit a novel stack architecture which uses hydraulic cell compression to host advanced materials and to produce H_2 at high pressure. Beneficial functions of the targeted unique stack are related to scalability and maintainability that will be tremendously improved in comparison to conventional AEMWE stacks.

c) Sustainability analysis. The project will conduct studies (LCA, TEA) to evaluate the circularity of the electrolyser system and its integration into renewable-power systems and to explore an efficient by-product utilization way through industrial symbioses. These studies will feed back to materials optimization and stack development from the beginning of the project. Complementing LCA, social LCA and techno-economic analyses/optimization by qualitative work ensures both environmental, economic, and social sustainability.

Combining these three dimensions, SWEETHY will utilize Mediterranean seawater from the coast of Messina, Italy, to test its electrolyser with the goal to withstand more than 2000 h of operation, to produce 20 g_{H2}/h with a degradation rate lower than 1%/100h. In addition, SWEETHY will demonstrate how the operation of the electrolyser can ensure an optimized revenue concerning by-products and grid services.

Public Summary

This deliverable report defines the corporate identity of SWEETHY, comprising the following key elements:

- The project's logo and colour scheme.
- Templates for documents, reports, and PowerPoint presentations (intended for use by the consortium).
- The bi-annual electronic newsletters.
- The project brochure.
- The project website.
- The project's LinkedIn profile.

These items are intended to support and enhance the visibility of the project online and during events. They will become of standard use in the case of presentations, deliverables, milestones, meeting documentation, and reporting throughout the project.

In month 4 (M4) of the project, a dedicated public website was launched at the domain https://sweethy.eu/. The website serves as the main platform to showcase SWEETHY's results, engage a broad audience, and provide a contact point for those interested in the project's events, progress, and outcomes. The website will be regularly updated and maintained to ensure all information remains up to dated.

The deliverable highlights the importance of a consistent project identity, explaining the role of each component. Visual examples of the developed identity elements will also be provided to illustrate the descriptions.

Contents

List of Figures

1 Introduction

This report represents the third deliverable for Work Package 1 (WP1) – Project Management and DEC activities 1. Deliverable 1.3 sets the basis to fulfil one of the four objectives of WP1, namely:

- Ensure maximal project visibility and impact by efficiently communicating project innovations towards relevant target audiences and connect with other Clean Hydrogen projects and relevant stakeholders to explore synergies aiming to combine efforts on communication/dissemination of key messages and results.

Establishing a strong corporate identity—such as the creation of a project website and dissemination materials—is complementary to the careful planning and executing of targeted dissemination activities. This deliverable focuses on the essential tools and materials needed to effectively inform a broad range of stakeholders. The project identity needs to be clear and easy to identify and has to support the following expected dissemination and communication activities:

- **Development of promotional tools throughout the project:** Creating materials (such as brochures, flyers, videos) to promote the project during its duration.
- **Online dissemination via the project website and social media platforms:** Sharing information and updates about the project through the website and LinkedIn.
- **Networking activities with professionals and presentations at conferences and events:** Connecting with peers and presenting the project at meetings to share knowledge and encourage collaboration.
- **Press releases and publishing of articles in specialized magazines and scientific journals:** Sending official news announcements and writing articles to raise awareness of the project and its results among specific audiences.

Effective project dissemination is a key to raising awareness and promoting the project throughout its lifecycle. By engaging in these activities, the project not only captures the attention of potential stakeholders but also attracts interest from other projects with shared objectives. Possible stakeholders could be industries, research peers, and policymakers, who can easily discover and connect with the project through its dissemination efforts.

Under Task 1.4, this deliverable presents the SWEETHY logo, colour scheme, templates, and website—all contributing to a consistent project identity. The development was led by Uniresearch (UNR) with input from all project partners.

The structure and content of this deliverable are based on management procedures applied by UNR for other similar Research and Innovation Actions (and approved by the project coordinator).

2   Project's identity

Creating a strong and cohesive project identity is essential for clear communication and successful dissemination of project results. The project identity includes all visual and branding components that shape the public perception of the project, such as logos, templates, and graphic standards. This chapter details the development, guidelines, and implementation of the project identity materials, which will form the basis for all communication and dissemination efforts throughout the duration of the project.

A dedicated visual identity has been created for SWEETHY to effectively represent the project. This identity consists of a project logo, a bespoke icon, selected fonts, colour palettes, and templates for both written documents and presentations (see Chapter 3 for details).

2.1   Project logo

A logo (Figure 2.1) and an icon (Figure 2.2) have been specially designed for the SWEETHY project. They are available in various formats and resolutions, allowing for effective use across different communication and dissemination materials, such as the website, document templates, flyers, and other items.

The core of the project is reflected in the logo through three key concepts: seawater-fed, electrolysis technology, and green hydrogen production.

- **Seawater** is symbolized by the wave element and the blue-green color palette.
- **Electrolysis** is represented by the shape of the icon and the graphical depiction of two 'poles'.
- **Hydrogen** is emphasized through the use of the abbreviation (HY) in the project name, highlighting its significance within the project.

Figure 2-1 Project logo

Figure 2-1 Project icon

The colour scheme for the logo and the icon has been established (Figure 2.3) and will be consistently applied across templates for text documents, reports, presentations, and other materials used in DEC activities.

PANTONE 3272 (Sea Blue)
C:99 M:0 Y:48 K:0
R:0 G:165 B: 153
HTML: 00A599

PANTONE 124 (Yellow)
C: 0 M:32 Y:100 K:0
R: 234 G: 171 B:0
HTML: EAAB00

Figure 2-2 The Colour scheme

2.2   Project brochure and poster

A project brochure has been created for the SWEETHY project (Figure 2.4). The brochure aims to raise awareness of the project among a broad audience, including specific target groups.

The brochure will be disseminated through the following channels:

- **Target group database/mailing list**
  The brochure will be emailed to interested individuals and organizations included in the project's predefined contact list, such as stakeholders, researchers, and industry professionals.
- **Project website**
  The brochure will be published on the official SWEETHY project website, making it accessible for all visitors to view or download.
- **Printed copies for consortium partners**
  Physical copies will be distributed to project partners within the consortium for further use.
- **Conferences and exhibitions**
  These printed brochures will also be shared at relevant scientific conferences and industry events to increase the project's visibility.

The brochure's design, including colours and graphics, aligns with the project logo to ensure consistency with the SWEETHY visual identity. It contains clear and essential information about SWEETHY, the project's partners, objectives, key facts and figures, concept, and approach (as presented in Figure 2-4). Contact details for the project coordinator and dissemination team will also be included.

Additionally, if required, a setup for future dissemination purposes will be created in the form of a poster. Photos and text will be added according to the necessary information and topic.

PARTNERS

RI.SE

UNIRESEARCH

Consiglio Nazionale delle Ricerche

SINTEF

ProPuls

Institute of Engineering Thermodynamics DLR

Institut de la Corrosion French Corrosion Institute

CEN mat

cidetec > surface engineering

The project is supported by the Clean Hydrogen Partnership and its members. Co-funded by the European Union under Grant Agreement N° 101192342. However, the views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or the Clean Hydrogen Partnership. Neither the European Union nor the granting authority can be held responsible for them.

Clean Hydrogen Partnership

Co-funded by the European Union

About SWEETHY

SWEETHY is a 4-year project co-funded by the European Union, focused on creating a new and advanced electrolysis system. The goal is to produce 20 g_{H2}/h using renewable energy and seawater, without prior purification steps.

SWEETHY in figures

> Duration: 48 months

> Start date: March 2025

> EU Funding: 3.999.768 €

> Partners: 9 from 7 different countries

Contact

Coordination:
Olesia Danyliv (RISE, olesia.danyliv@ri.se)
Live Mölmen (RISE, live.molmen@ri.se)

Dissemination:
Martina Cotti (UNR, m.cotti@uniresearch.com)
www.sweethy.eu

SWEETHY

O_2 + alkali H_2 + brine

Alkali solution

Seawater + alkali

Europe's Cutting-Edge Direct Seawater Electrolysis Platform

SWEETHY leverages the innovative AEMWE (anion exchange membrane water electrolysis) technology for which it will develop new and cost-effective materials, capable of withstanding highly corrosive saline conditions. The developed electrolyser stack will ultimately secure > 2000 h of operation under a 1%/100 h degradation rate.

Objectives

1 Development of corrosion resistant components for AEMWE electrolyser

2 Development and testing of short scalable 0.5 kW stack with direct sea water feed

3 Research market opportunities for utilization of electrolyser by-products (brine)

4 Minimize environmental impact of electrolyser

Concept

The project approaches the challenges of sea water electrolysis from three perspectives: **The material development, The sustainability analysis and The electrolyser configuration.** Materials for each electrolyser component will be screened with the goal to improve their corrosion resistance in saline conditions. Sustainability and economical principles will integrate and guide the screening, in order to identify the most crucial trade-offs between cost, efficiency and durability. Finally, SWEETHY's materials will be integrated in a modular and scalable electrolyser configuration, fed by sea water and operating under dynamic conditions, typical of renewable energy sources.

Approach

The key innovations include:

Material Development
- Electrocatalysts: PGM (platinum group metals)-free Ti/Ni alloys via 3D nanoparticle supports and electrodeposited foams/nanowires for high durability in saline/alkaline media.
- Membranes: Modified AionFLX™ with anti-fouling layers, zwitterionic additives, nanofillers, and sustainable materials.
- Polar plates & PTL (porous transport layer): Ti-based anti-corrosion coatings (plasma/electrodeposition) for extended durability.

Sustainability Analysis
- Interaction electrolyser with environment
- Sustainability guide for material development
- Integration electrolyser with industry and energy system
- Health, jobs, local value creation
- Guides eco-design and industrial integration.

Electrolyser Configuration
- Modular 10-cell AEMWE stack
- 20 g H2 h-1 at 20 bar for 2000 hours
- Handles intermittent energy input
- Feed of seawater + KOH
- Explores Mg recovery from brine

Figure 2-3 The project brochure

3 Project templates

In line with the established SWEETHY project identity, a complete set of templates has been developed to guarantee uniform document formatting. These templates serve as tools for project management and partners, facilitating project execution and enhancing overall efficiency.

3.1 Document templates

Templates have been developed to support various project-related activities:

- **Meeting Agenda Template**: Figure 3.1 shows the designed template for meeting agendas.
- **Meeting Minutes Template**: Figures 3.2 displays the created template for meeting minutes.

Agenda   GA N° 101192342

SWEETHY	MC/GenA/WPxx Meeting
	Day/Month/Year
	TIME- XXX till XXXX CET
	Online via TEAMS/Address
Meeting organiser	Name organisation(s)
Type of meeting	Meeting
Notes by	Name(s)

Agenda

Item No	Timing	Topic	Presenter
1			
2			
3			
4			

Figure 3-1 Agenda template

Figure 3-2 Minutes template

- **Deliverable Template:** These templates are available to all partners and are designed to document project deliverables (Figure 3.3). They include essential sections such as the cover/title page, an executive publishable summary (for confidential documents), a general overview of the work, conclusions, risk register, and the required EU acknowledgment and disclaimer. This comprehensive format helps partners clearly describe each deliverable in detail.

- **Milestone Template:** Additionally, a separate milestone reporting template (Figure 3.4) has been created. This user-friendly document provides a clear structure for outlining achievements, methodologies, timelines, responsible parties, and includes a section for public information. It supports effective communication and dissemination throughout the project.

- **News and Results Templates:** These templates have been specifically designed for dissemination purposes, and partners are encouraged to use them to document the project's (interim) results. They can also be used when reporting on events attended by project representatives, helping to ensure consistent and effective representation of the project (Figures 3.5 and 3.6).
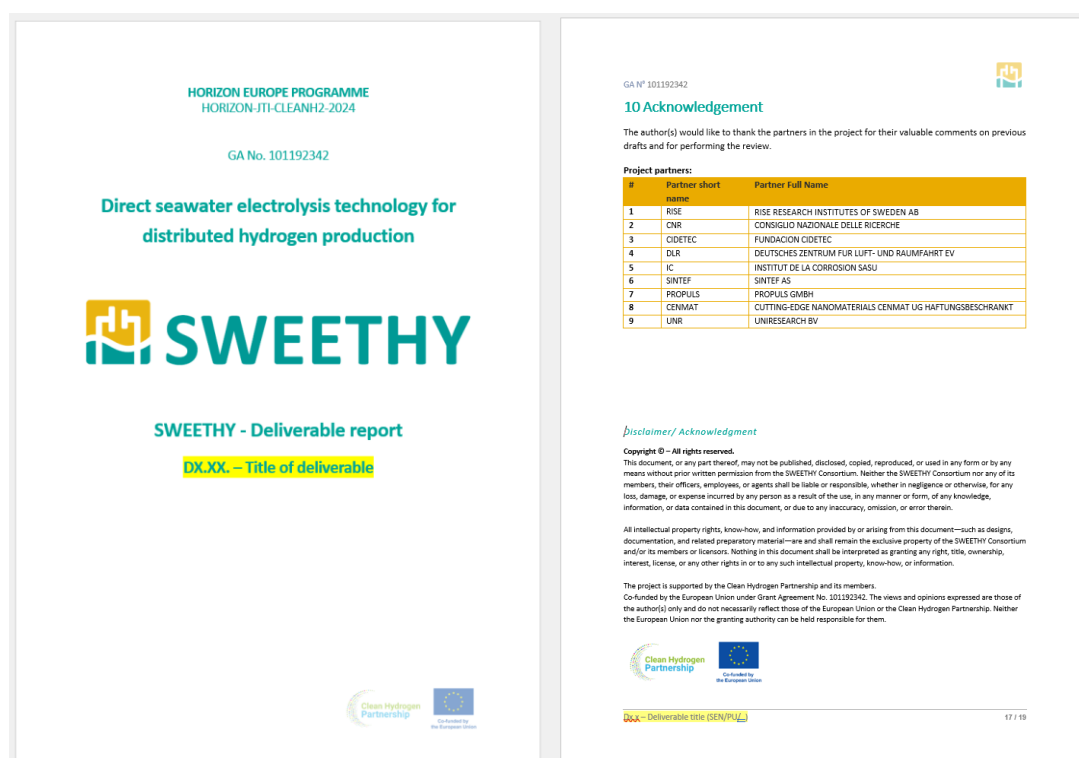
Figure 3-3 Deliverable template document (front and acknowledgement page)
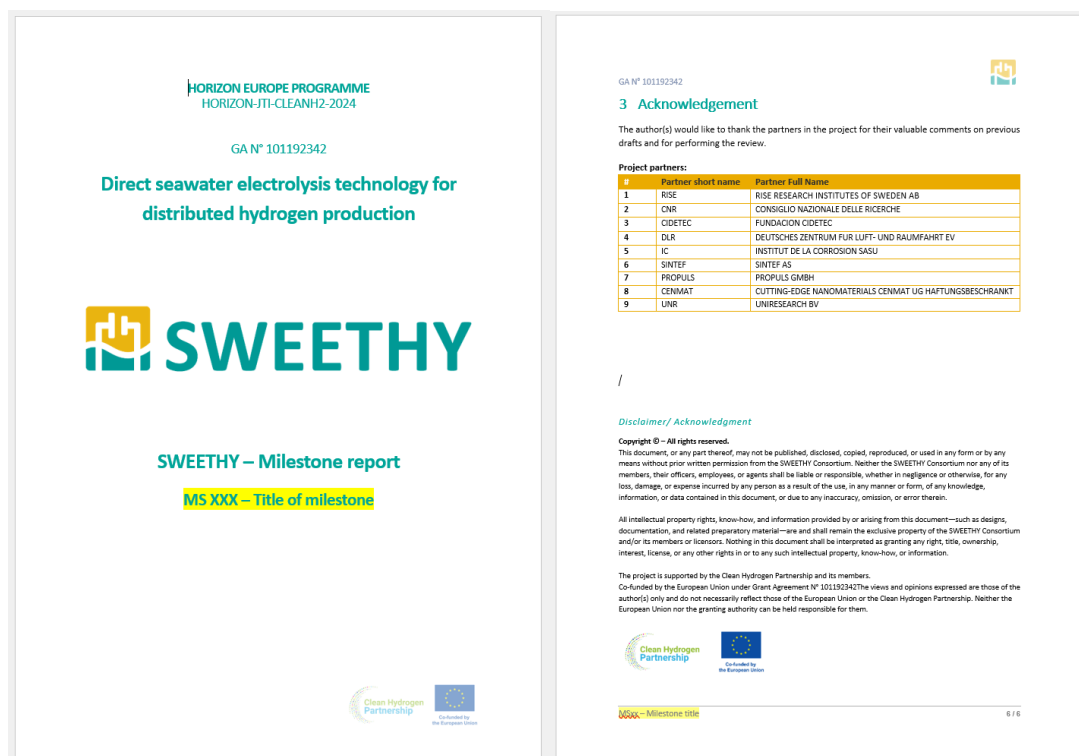
Figure 3-4 Milestone template document (front and acknowledgement page)

Figure 3-5 News template document

Figure 3-6 Results template document

3.2 Report template

Two weeks before the start of the periodic report, a template for the technical section of the Periodic Reporting, along with instructions, will be distributed. These templates will align with the project's identity and will be used to report on technical progress and key achievements.

3.3 Newsletter template

Throughout the SWEETHY project, a bi-annual electronic newsletter will be published for the public. This newsletter is distributed to both consortium members and dedicated subscribers. Each edition provides updates on the project's progress, highlights achievements from the preceding six months, summaries events attended by project partners, and shares relevant information about SWEETHY partners or related topics. Key features of the newsletter include:

- Project logo
- News section
- Events section
- Facts and Figures of the project
- Partners' logos with links to the partners' specific pages
- Disclaimer/ Acknowledgement

Figure 3-7 Subscription form to SWEETHY's Newsletter

3.4 Presentation templates

Presentation templates have been created to meet the needs of engaging presentations for meetings, workshops, and conferences. Specific templates have been developed for Work Package (WP) meetings and for SWEETHY General Assemblies (GenA).

This approach ensures that all presentations are consistent with the project's visual identity, maintaining uniformity across different platforms and events. The templates are designed to improve communication during key project updates, providing a standardized and visually cohesive format for presenting information during meetings.

Figure 3-8 Presentation template slides

4 Project website and social media

In M4 of the project, the SWEETHY public website was launched at the domain: https://sweethy.eu/. Designed by UNR with input from all project partners, the website serves as a key platform for showcasing SWEETHY's results, providing a point of contact to those interested in the project's events, progress and outcomes. The site will be regularly updated and maintained to ensure all information stays up to date.

4.1 Website structure and homepage

The public website has been designed to act as a contact point for third parties and the general public, who are interested in the progress and/or outcomes of the SWEETHY project. It offers detailed information about planned activities and highlights the project's anticipated impact. It has a navigation menu structure which provides pages with different content. The site employs a scrollable webpage format to ensure a smooth and engaging user experience. Navigation is simplified with six main tabs: Project, Results, News/Events, Partners, and Contact. Each tab is carefully organized to cover different aspects of the project, guiding visitors through various areas of interest.

The homepage (Figure 4.1) presents the fundamentals of the project. On the homepage, visitors can easily explore the main elements of the project by scrolling through the page. The homepage is organized into key sections, including:

- Project introduction where the project mission is outlined, with links to the project's Concept, Objectives, Approach and Results.
- Facts and Figures of the project.
- SWEETHY News.
- SWEETHY Partners with links to the partners' specific page.
- Media kit with project logo.
- Links to a contact form to get in touch with the project coordinator and LinkedIn channel.
- EU acknowledgement and disclaimer.

Figure 4-1 Homepage website

4.2 Website sections

The main section "**Project**" gives a general overview of the SWEETHY objectives, concept, approach and structure.

In the "**Results**" section, the website features an interactive timeline showcasing project updates, with results organized by their month of achievement. Also a button with expected and achieved results is displayed for visitors to check which deliverables are published or are yet to come.

The "**News/Events**" section is regularly updated with items related to the project and its partners. This includes press releases, participation in workshops, conferences, and other meetings, updates on

---

interim results, and various initiatives from consortium partners. The section will also highlight upcoming events such as (online) conferences, webinars, symposia, workshops, SWEETHY General Assemblies, and other relevant activities that project partners will attend. Additionally, past events in which partners have participated will be listed on the Events page.
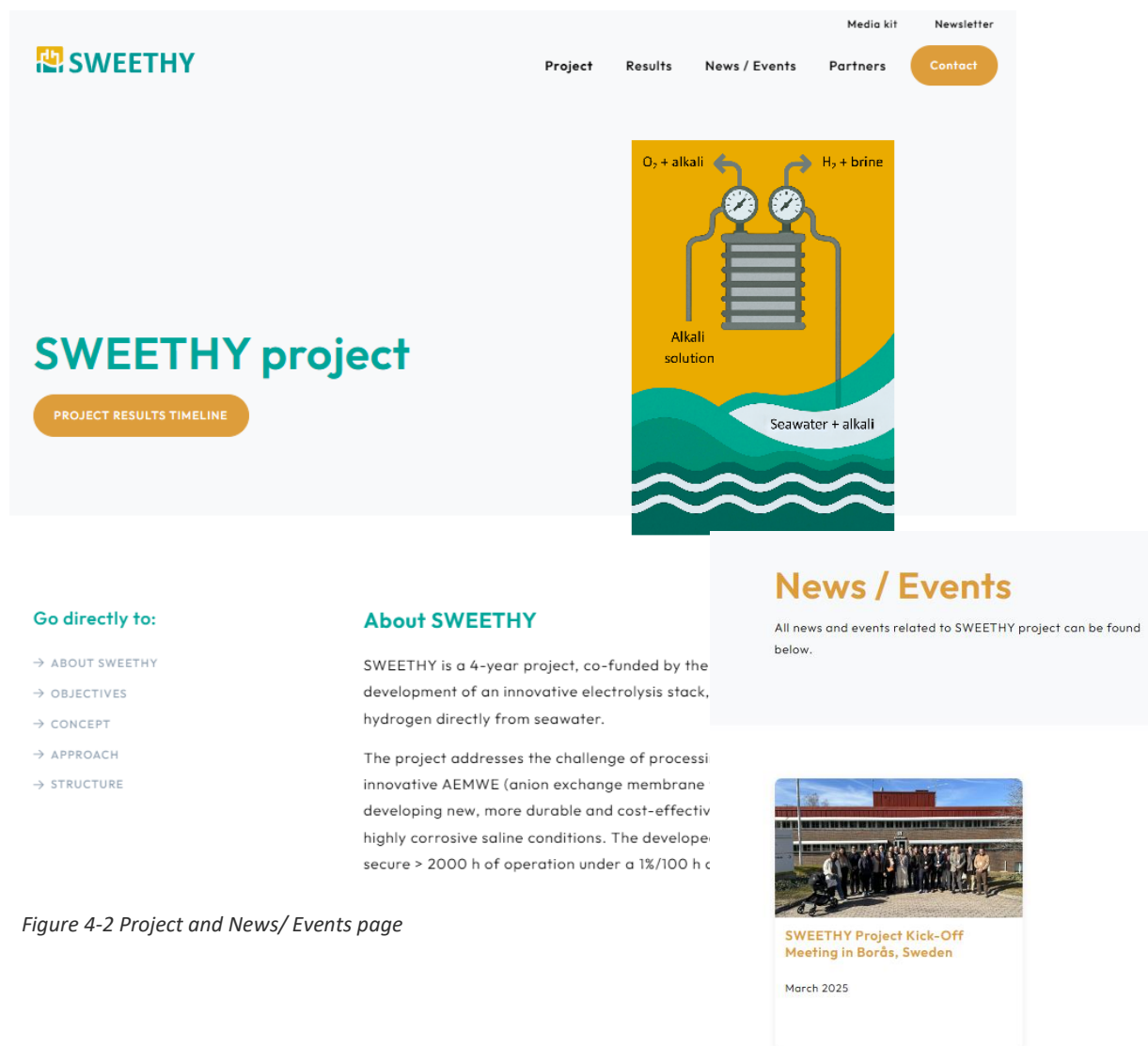
Figure 4-2 Project and News/ Events page

The "**Partners**" section offers detailed information about each participant in the SWEETHY project. It includes a list of partners, a map showing their geographical locations, and displays their logos. Figure 4.3 provides an overview of the content and layout of the Partners page. By clicking on a logo, visitors can access a brief description of the organization, learn about their role in the project, and find a direct link to their company website.

At the bottom of every page and section on the website, the EU funding acknowledgment is prominently displayed, as shown in Figure 4.4. This acknowledgment features the European Union flag and the text "Co-funded by the European Union." In addition, the support by Clean Hydrogen

partnership is also mentioned. Additionally, a **disclaimer/copyright** page has been included on the website.

Figure 4-3 Website partners section and example of partner description
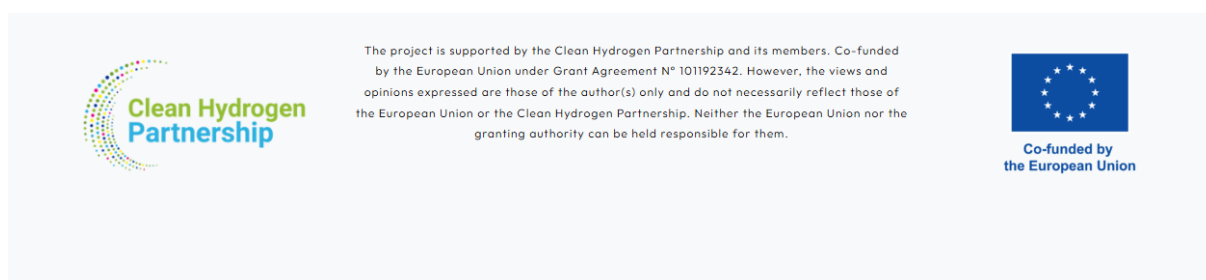
Figure 4-4 Acknowledgement

4.3   Social media – LinkedIn account

The SWEETHY project regularly shares updates, news, and events via its LinkedIn profile. The SWEETHY LinkedIn page is accessible through the LinkedIn button at the bottom of the website page (Figure 4.5). The page is managed and updated by the Dissemination, Exploitation and Communication (DEC) lead (UNR) and features updates on the project's progress and partners.

The LinkedIn page for the project was set up at M1, page already gained (in a couple of months) 85 followers.

This strategy fosters a strong online presence, enhances collaboration within the professional network of the partners and increases the project's visibility.
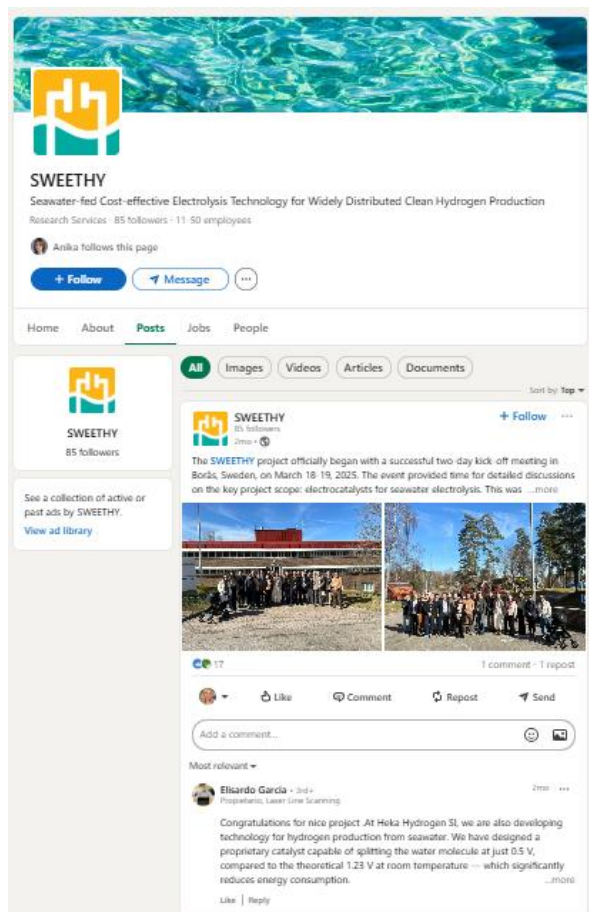
Figure 4-5 LinkedIn page(left) and LinkedIn button (below)
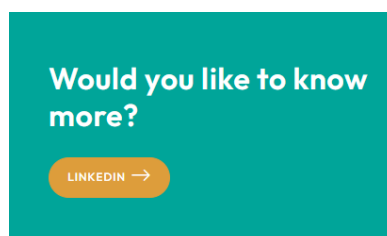
5 Deviations from Annex 1

There are no deviations from the description of this deliverable as given in Annex I of the Grant Agreement.

6 Acknowledgement

The author(s) would like to thank the partners in the project for their valuable comments on previous drafts and for performing the review.

Project partners:

#	Partner short name	Partner Full Name
1	RISE	RISE RESEARCH INSTITUTES OF SWEDEN AB
2	CNR	CONSIGLIO NAZIONALE DELLE RICERCHE
3	CIDETEC	FUNDACION CIDETEC
4	DLR	DEUTSCHES ZENTRUM FUR LUFT- UND RAUMFAHRT EV
5	IC	INSTITUT DE LA CORROSION SASU
6	SINTEF	SINTEF AS
7	PROPULS	PROPULS GMBH
8	CENMAT	CUTTING-EDGE NANOMATERIALS CENMAT UG HAFTUNGSBESCHRANKT
9	UNR	UNIRESEARCH BV