Deliverable report

D7.5 – Public communication and dissemination activities (year 2)

WP7 – Communication, dissemination and exploitation

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DOCUMENT HISTORY

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V1	04/07/2024	Initial version	Petra Props, NIC
V2	19/08/2024	Updates	Petra Props, NIC
VF	23/08/2024	Final version	Petra Props, NIC

To request a change to this document, contact the Document Author.

CONFIGURATION MANAGEMENT

Nature of Deliverable		
R	Document, report (excluding the periodic and final reports)	X
DEC	Websites, patents filing, press & media actions, videos, etc.	
DEM	Demonstrator, pilot, prototype, plan designs	
OTHER	Software, technical diagram, algorithms, models, etc.	
ETHICS	Deliverables related to ethics issues.	
DATA	Data sets, microdata, etc	
DMP	Data Management Plan	

Dissemination level		
PU	Public, fully open, e.g., web (Deliverables flagged as public will be automatically published in CORDIS projects.)	X
SEN	Sensitive, limited under the conditions of the Grant Agreement	

ACRONYM/ABBREVIATIONS	
CA	Consortium Agreement (contractual document between members of the consortium)
EC	European Commission
EU	European Union
CDP	Communication and Dissemination plan
GA	Grant Agreement (contractual document between EC and beneficiaries)
IPR	Intellectual Property Rights
LCA	Life Cycle Analysis
TEA	Techno-Economic Analysis
WP	Work Package

Acknowledgements

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1 EXECUTIVE SUMMARY

1.1 Description of the deliverable content and purpose

This report, Public Communication and Dissemination Activities, is Deliverable D7.5, under WP 7, Task 7.2. Communication and Dissemination Activities.

This document provides a detailed report on the progress made in the implementation of the Communication and Dissemination Plan (CDP) in the second year of e-CODUCT implementation, presented in document D7.1. Communication and Dissemination Plan, and uses the same structure, updating each section in terms of the approaches chosen, the channels used and the results achieved.

The dissemination objectives, channels and methods used by the e-CODUCT project have been precisely defined and described in the 1st version of the CDP. They include "conventional" approaches, such as participation in events, publications and production of material (flyer, video) as well as web-related activities. The extensive use of online communication by e-CODUCT is also summarised together with analyses showing the use of the e-CODUCT website and relevant social media channels.

Several important relationships have also been established with sister projects and initiatives that can be used later to strengthen the dissemination.

1.2 Corrective action vs. Grant Agreement (if relevant)

N/A

2 DESCRIPTION OF THE DELIVERABLE OBJECTIVE AND CONTENT

The Public Communication and Dissemination Activities Report provides a detailed description of the progress made in implementing the project's communication strategy, as well as the communication tools and activities planned to achieve the project's objectives. This document presents the activities carried out during the second year of project implementation, with the main objective of promoting e-CODUCT's breakthrough innovations as the only way to achieve large-scale deployment of competitive carbon conversion alternatives. All communication activities carried out were coordinated between the project partners.

The document provides a general overview and detailed insight into the communication and dissemination activities as planned in the project proposal and CDP, as well as the efforts to ensure an efficient and timely implementation of the project. It provides the project partners with an overview of all communication activities.

The communication and dissemination activities follow the communication guidelines of the EC in terms of objectives, target groups and users, planned tools and channels, responsibilities and impact metrics. Through the communication and dissemination activities, the project partners build a strong identity for the project, with a logo and brand style, as well as templates for all external communication tools such as information leaflets, newsletters and flyers.

2.1 Purpose, scope and relationship to other deliverables

WP 7 is dedicated to the communication, dissemination and exploitation of the results of the e-CODUCT project, in order to achieve maximum impact.

This document, produced in the second year of the project, reports on the progress of the ongoing communication and dissemination work. The purpose of this document is to document the e-CODUCT communication and dissemination activities during the period from M12 (September 1, 2023) to M24 (August 31, 2024) of the project duration.

It uses the structure of the original CDP and updates and adds to the content of the CDP where activities have taken place. In particular, it reports on active dissemination-related tasks undertaken by partners during the reporting period.

This report is the second of 3 reports within T7.2 “Communication and dissemination activities”, i.e. (D7.4, D7.5, D7.6) developed in parallel with Task 7.4 “Intellectual property rights management”, and T8.5 “Data management“.

A detailed report of each activity is provided within each category (as above).

2.2 Document structure

The sections of this document are structured as follows.

After the introductory section 1 and the explanation of the deliverable objective (2), section 3 contains a report on the communication and dissemination and the activities that took place in the second year of the project. Section 4 contains a completed checklist of indicators used to measure the success of the dissemination work during the reporting period and section 5 draws a conclusion regarding the communication and dissemination work carried out so far.

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3 REPORT ON COMMUNICATION AND DISSEMINATION ACTIVITIES

3.1 Communication and dissemination approach

The e-CODUCT consortium is committed to communicate the developments and results of this project to a wide audience and to engage as many relevant stakeholders as possible on the importance of CO_2 reduction through the introduction of breakthrough and innovative electrified processes that replace fossil-based processes. In this way, the consortium aims to improve the process of technology transfer from the laboratory to the market and to establish new links with industrial partners.

WP7 consists of different tasks to plan and implement the communication activities of e-CODUCT.

The CDP provided in D7.1 is being followed by all partners during the entire course of the project and is being adapted as needed. The e-CODUCT project has adopted a two-way communication approach. WP7 partners provide material and support to all partners to help them communicate, and partners are strongly encouraged to provide the WP7 team with information on the ongoing impact of e-CODUCT activities. This open communication ensures that dissemination and awareness-raising activities remain current and targeted. Based on the approach described in the CDP, partners are encouraged to ensure continuous exchange of project information with different stakeholders at all levels, using the most appropriate communication tool to reach them. Evaluation methods are defined to support the achievement of the specific project objective of introducing electrified processes instead of fossil processes.

3.2 Target groups

The partners have identified the following target groups for their communication and dissemination activities:

- **Technology providers (industry)** - interested in transfer of new knowledge, e-CODUCT technology, exchange of experiences and providing guidance for policy recommendations;
- **Scientists' community (research & development)** - interested in replicating e-CODUCT concepts to other reactions and application areas (diversification)
- **National and European Policy Makers** - interested in the e-CODUCT technology for future deployment of electric technologies instead of current fuel-based ones and in policy recommendations

- **Standardization stakeholders and business associations** - ensure newly developed materials and electrified processes overcome non-technological market entry barriers such as normative and certification hurdles (e.g., CEFIC*, ESSENCIA*, etc).
- **Environmental sustainability stakeholders**
- **General public** – interested in possibilities of replacing fossil fuels with the use of new e-CODUCT technologies

3.3 Communication activities

All communication activities are carried out with the aim of raising awareness of the need to reduce CO_2 emissions and replace fossil fuels using new technologies.

To this end, all project partners implement the communication approaches provided by the lead communication partner in CDP, based on a balanced mix of promotional tools (website, social media content, newsletters, relevant public events at national/European level):

Table 1 Communication/dissemination means associated with respective objectives and target groups

Communication/Dissemination activities	Objective	Targeted Stakeholders	Timeline
WEB-based communication / dissemination			
Project website	Information and dissemination of knowledge Presentation of the results	All stakeholders	continuously
Social Media	Information and dissemination of knowledge Presentation of the results	All stakeholders	continuously
Project e-newsletters	Information and dissemination of knowledge Presentation of the results	All stakeholders - especially project Targeted stakeholders	Periodically based on project developments
EC Online Tools	Information and dissemination of knowledge Presentation of the results	All stakeholders - especially project Targeted stakeholders	Periodically based on project developments
Project presentation video	Information and dissemination of knowledge Presentation of the results	General public All interested stakeholders	As appropriate
Information flyer & publications	Information and dissemination of knowledge Presentation of the results	General public All interested stakeholders	As appropriate
EVENTS-based dissemination			
Project specific workshops organisation	Consultation, brainstorming, discussion and validation of project results and outputs	Relevant stakeholders of e-CODUCT	As appropriate according to the plan
Conferences, other events and workshops participation	Creating awareness Involvement of user groups and experts as well as a wider academic and expert community Presentation/validation of the technology	Communities of users and experts, core community of e-CODUCT, research community, other EU projects, general public	Continuously, based on the project developments

	Networking and collaboration with relevant stakeholders and other projects		
e-CODUCT's identity kit	Awareness creation and messages dissemination/communication	All	As appropriate to make sure the material is always available for the events
EU Platforms	Information and dissemination of knowledge Presentation of the results	EU initiatives to which the e-CODUCT partners belong (e.g., the Processes4Planet partnership, the European Energy Research Alliance (EERA), and other platforms (SETAC, Zero-Emission Platform, SusChem, Carbon Capture and Storage Association).	Continuously, based on the project developments
PRINT-based dissemination			
Printed dissemination material (posters, roll-up)	Information and dissemination of knowledge Presentation of the results	Relevant stakeholders (as above), general public, all interested stakeholders	As appropriate, based on project developments and results
PRESS-based dissemination			
Press and news releases	Awareness raising Media and other relevant "Multipliers" Engagement	All interested stakeholders	Periodically based on the project developments and results
Scientific publications			
Scientific papers and publications	Dissemination of knowledge to the relevant scientific community Presentation of the results	Research and academic community Other research projects	As appropriate, based on project phases and results
Patents and scientific publications in open access	Dissemination of knowledge to the relevant scientific community Presentation of the results	Research and academic community Other research projects	As appropriate, based on project phases and results
White paper	Dissemination of knowledge to the relevant stakeholders Presentation of the results	All interested stakeholders	As appropriate, based on project phases and results
Cooperation with sisters and other relevant projects and initiatives			
EU and National projects clustering activity	Exchange of information and knowledge Alignment of activities between relevant projects Cooperation in dissemination activities	EC sister and other relevant projects and initiatives	Continuously, as appropriate

3.3.1 e-CODUCT's identity kit

The identity kit materials (project logo, information flyer, templates, project logo, video etc.) were prepared and reported in D.7.4. Public communication and dissemination activities (year 1). The project identity kit was complemented with the project presentational roll-up in M18, which can be printed by the project partners and used at events for more effective project presentation.

The graphic design guide was distributed to all. It is considered mandatory that all partners who wish to create their own e-CODUCT related dissemination and promotion materials follow the guide.

Figure 1 e-CODUCT presentational roll-up design

3.3.2 Videos

According to the project's grant agreement, Annex 1 (Part A), two videos have to be made: the first at project launch, presenting the project context and process, and the second during project implementation, presenting project objectives, progress and achievements. The first video is available since M6 on the e-CODUCT website (https://e-coduct.eu/) and on the YouTube channel (https://www.youtube.com/@ecoduct2022/playlists), with 208 views on M23.

Figure 2 e-CODUCT video #1

3.3.3 e-CODUCT Project website

The project website https://e-coduct.eu/ is the main communication tool for disseminating and sharing information related to the project to all interested parties and contains details of the project objectives, actions, progress and results for both professionals and the public and is live and regularly updated with the content since M6 (M22: Nb. of unique visitors on the site: 994, Nb. of page views: 4.323).

The structure of the website has not changed over the course of year 2. In addition, it was upgraded with the WordPress "Newsletter" plugin, whose main advantages are an unlimited number of subscribers and spam check, as well as simplified newsletter creation and sending and other general features that are more user-friendly than those of Mailchimp`, the initial tool for e-CODUCT e-newsletter. The news section is regularly updated.

The website is maintained by an external contractor under agreement with NIC.

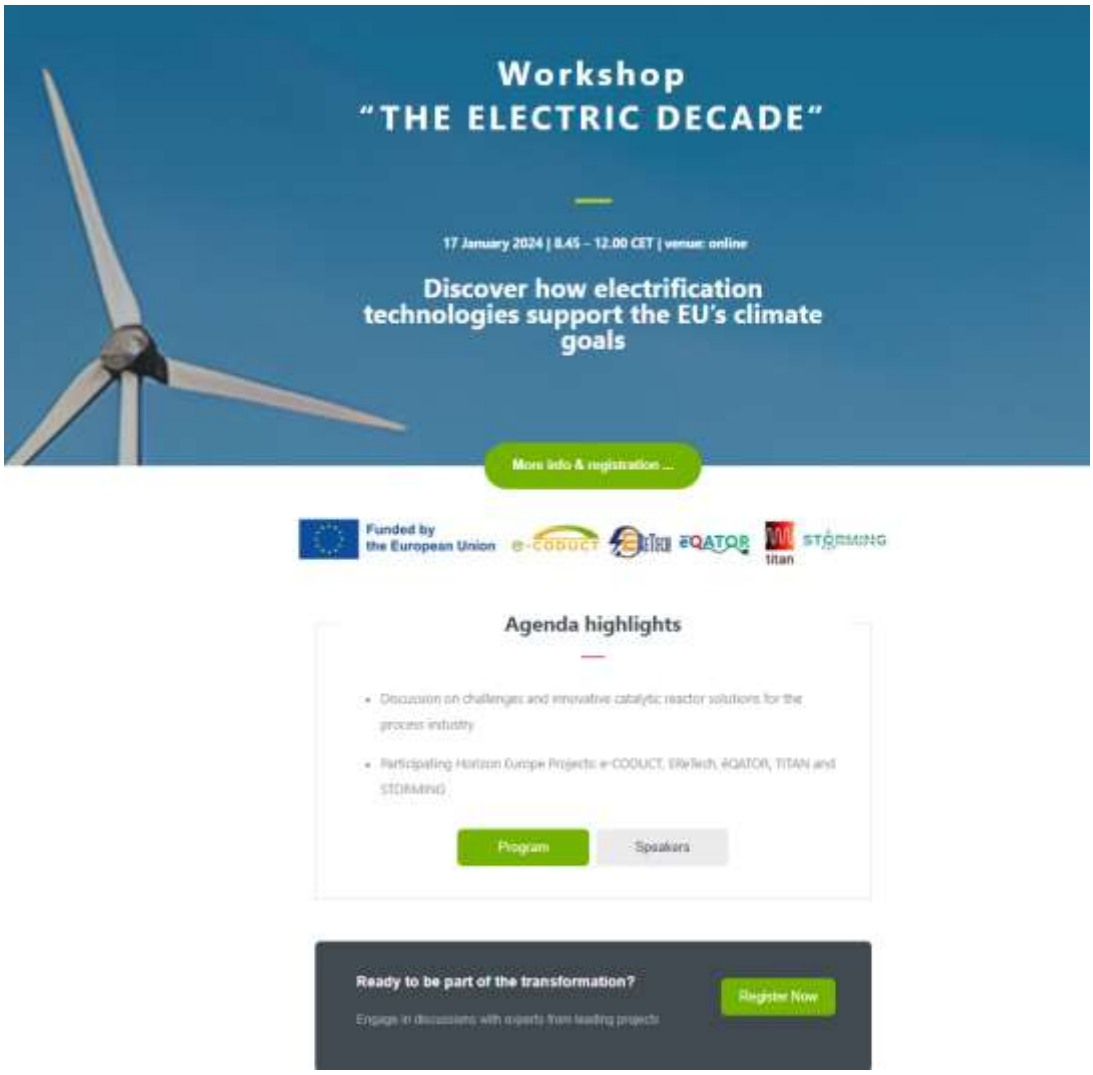

Figure 3 Example of e-Newsletter (WordPress plugin)

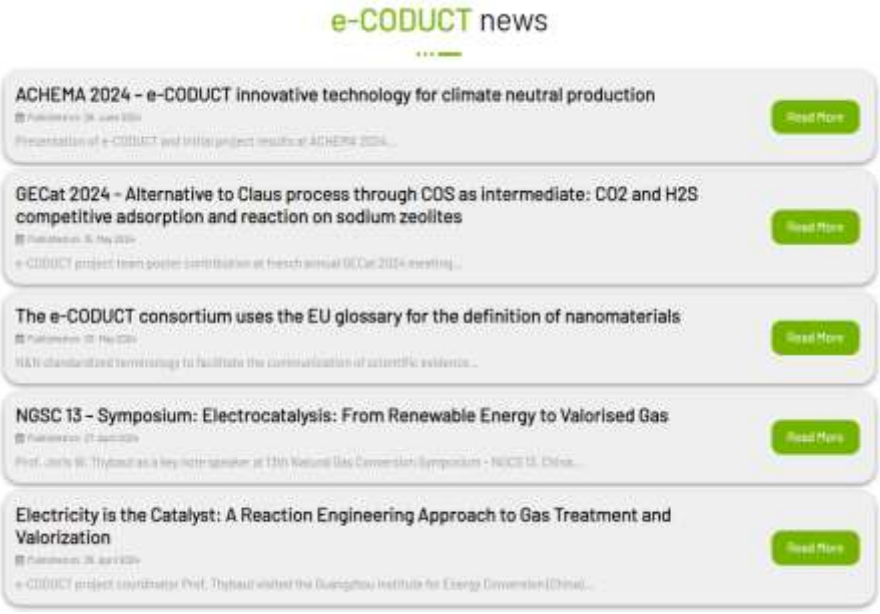

Figure 4 Screenshot of the updated section "News"

3.3.3.1 Website analytics

From the figure below, taken from the Google Analytics Platform, we can observe the following trend up to M24:

- Nb. of unique visitor on the site: 1.384
- Nb. of page views: 5.397

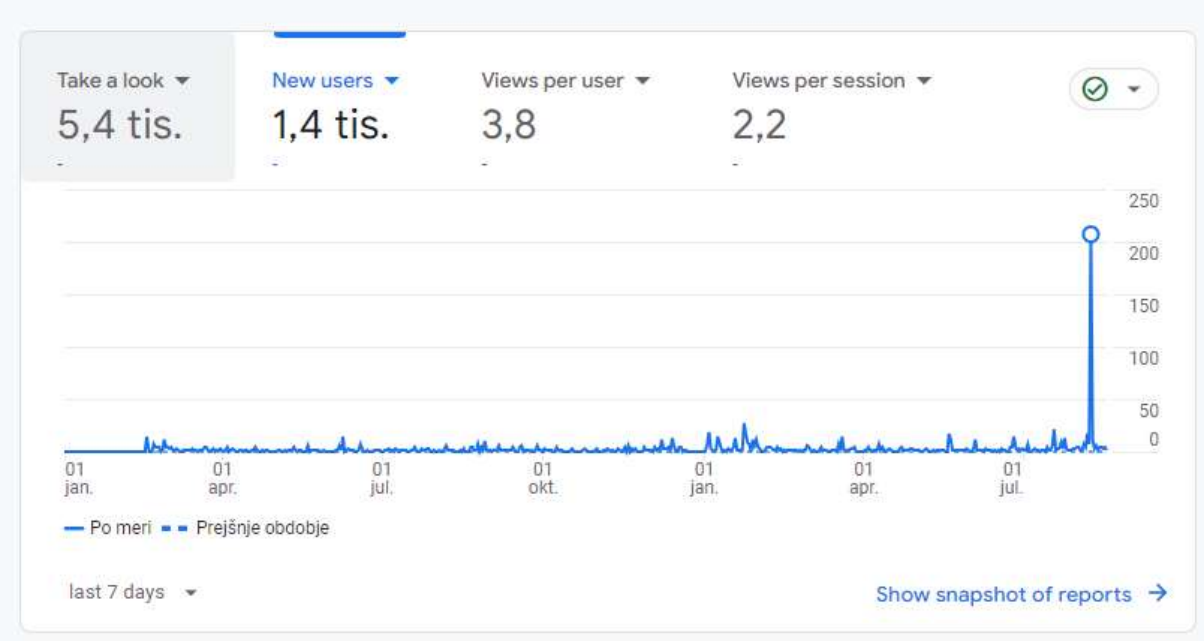

Figure 5 Google Analytics for www.e-coduct.eu - User Overview Analysis

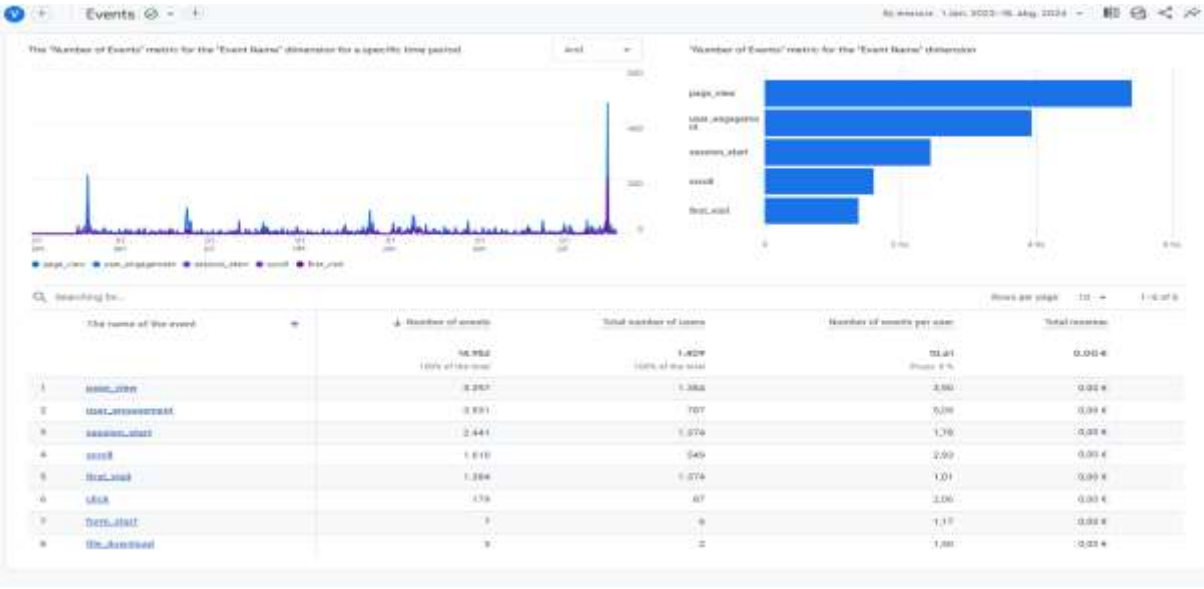

Figure 6 Google Analytics for www.e-coduct.eu – Events/Page view Analysis

The e-CODUCT webpage had on M22 14.952 total events, from which 5.397 page views and 1.384 first visits.

Figure 7 Google Analytics for www.e-coduct.eu - User Overview Analysis

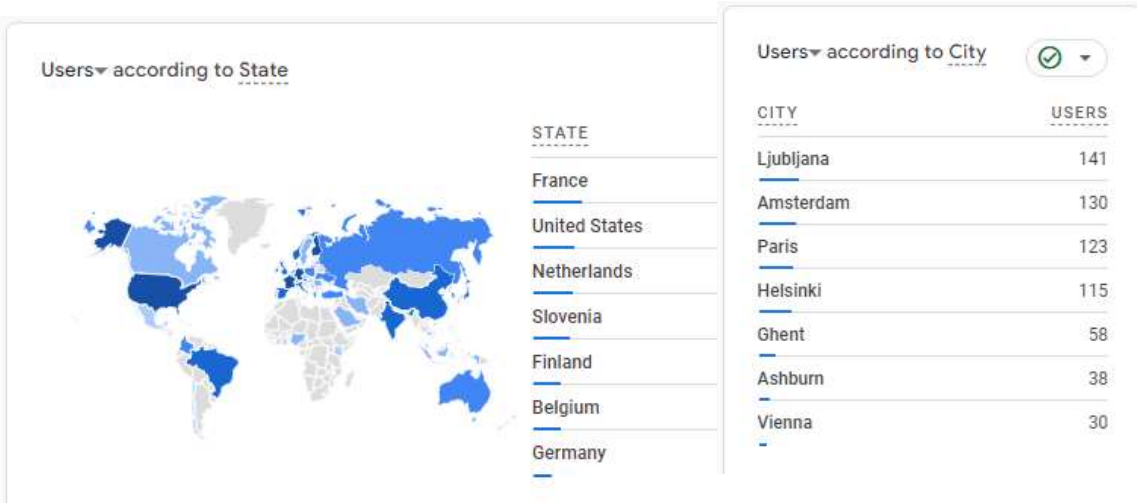

Figure 8 Google Analytics for www.e-coduct.eu - User Location Analysis (State/City)

A significant percentage of the visitors is located in France, followed by US, Netherlands and Slovenia.

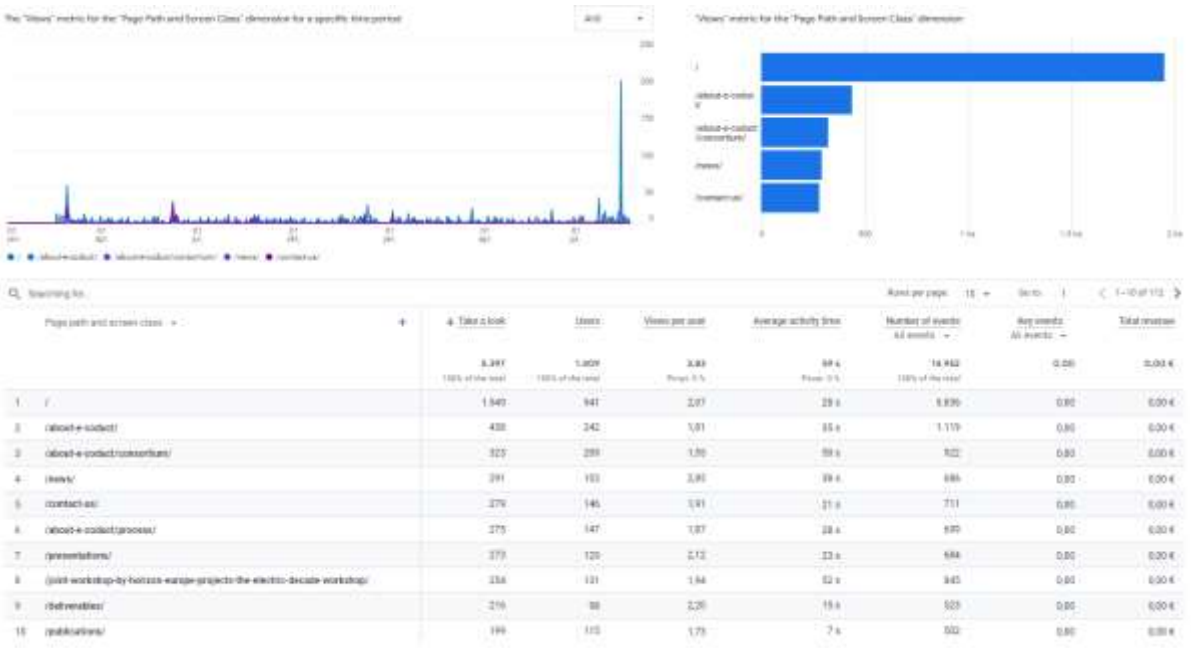

Figure 9 Google Analytics of www.e-coduct.eu - Page content Analysis

The analyses show that the homepage (/), about e-CODUCT and the consortium, news, about the e-CODUCT process and 1st workshop are the most visited pages, which means that users are interested in information about the project.

3.3.4 e-CODUCT Social Media

Social media are available from month 3 onwards. They are used to ensure the highest possible visibility of e-CODUCT on the internet, to increase the project's reach to the general public and to maintain awareness of e-CODUCT among a wider audience.

Various social networks (LinkedIn, YouTube, X) are used as a marketing tool to regularly promote the project's activities and results, while also encouraging a wider discussion on the topics related to e-CODUCT activities. The e-CODUCT social media are linked to the project's website and are complemented by the partners' own channels.

The website and social media profiles are managed by NIC. The project partners regularly inform the communication manager about their activities and fill in the communication and dissemination activity tracking file, which serves as information base for updating the e-CODUCT website and social media profiles.

3.3.4.1 LinkedIn

@e-coduct project https://www.linkedin.com/in/ecoduct/

LinkedIn is a business-oriented professional networking tool used by many as a source of information and inspiration, so a solid presence is necessary to reinforce the news on the page. It is therefore an important platform for discussions relevant to e-CODUCT, among experts in the field and various stakeholders in general. e-CODUCT maintains a LinkedIn profile page that allows to connect with relevant professionals and share most important news and developments with them. On the other hand, it gives the possibility to subscribe and post to the main groups relevant to the project's fields. The page

has currently (M24) 168 connections, 307 followers, 37 posts, 49.858 total impressions, 14.664 unique views in the last year.

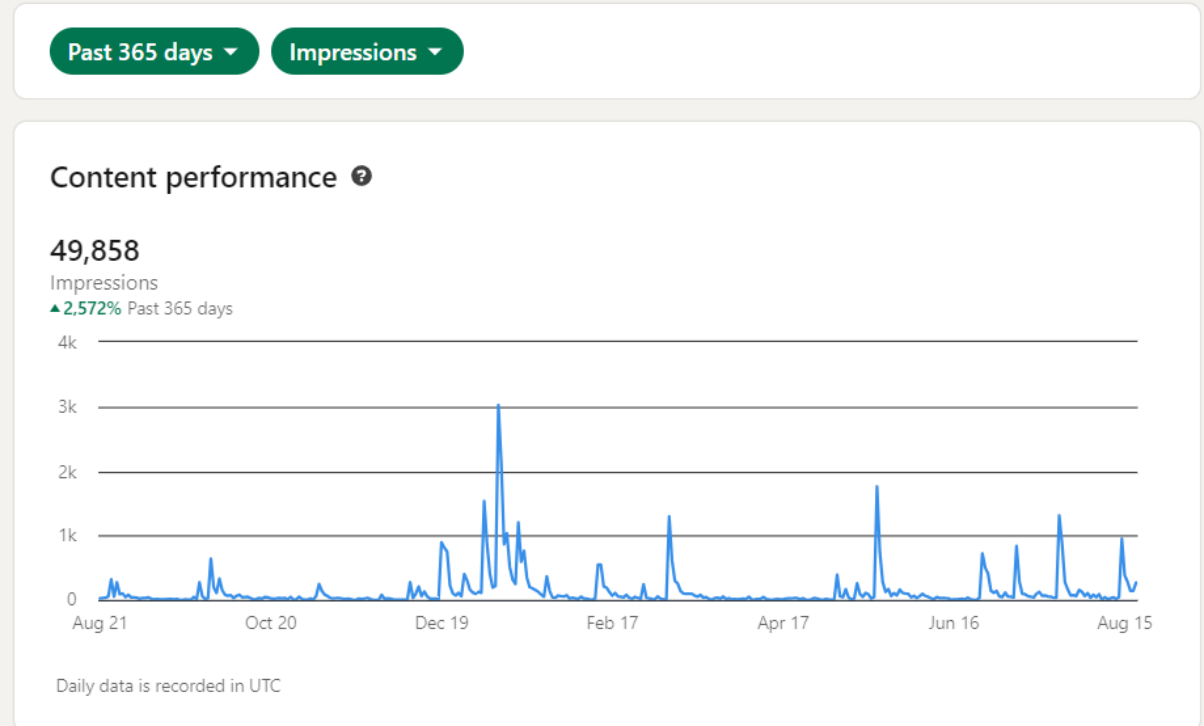

Figure 10 e-CODUCT LinkedIn statistics - Impressions (JUL23-AUG24)

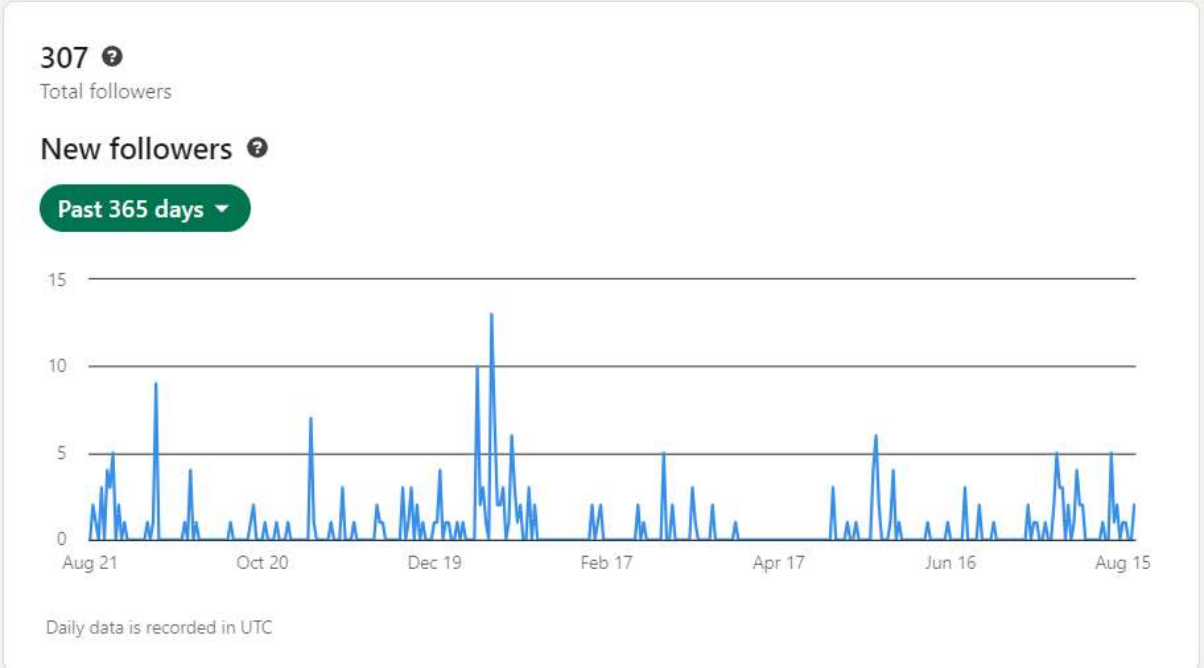

Figure 11 e-CODUCT LinkedIn statistics - Followers (JUL23-AUG24)

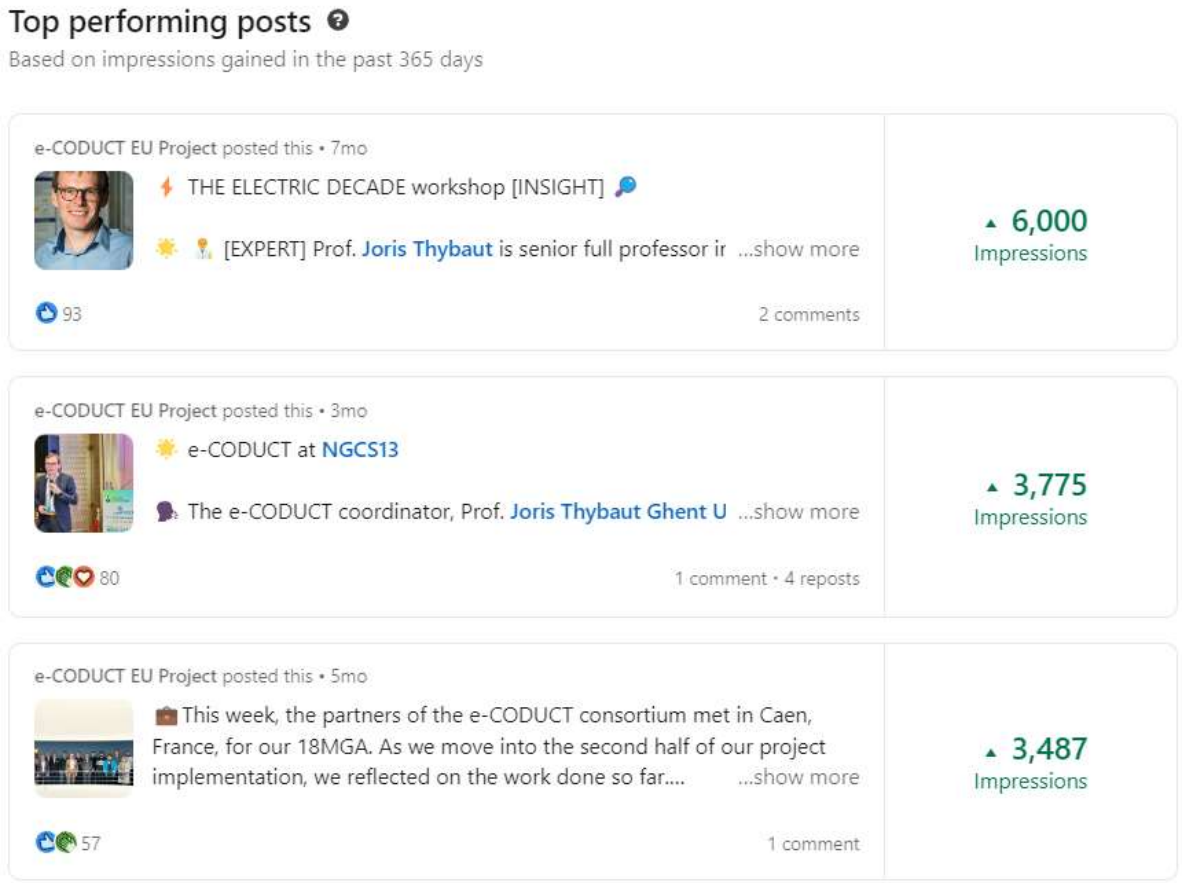

Figure 12 e-CODUCT LinkedIn statistics – Top performing posts (JUL23-AUG24)

3.3.4.2 X (previously Twitter)

X: @eCODUCT2022 https://twitter.com/eCODUCT2022

e-CODUCT has an active X account (@eCODUCT2022) as of M3 and has used the hashtag #e-CODUCT for its tweets. The X account is used to promote and disseminate e-CODUCT developments, news, events, results, etc. It also retweets relevant and interesting content from different sources.

As a Horizon Europe project, e-CODUCT follows the official X account for the Horizon Europe programme @HorizonEU and thus becomes part of the Horizon Europe project community on social media. Since the launch of the e-CODUCT account in December 2022, the project's X activities have resulted in 130 followers and 71 followed accounts (M24). The total number of tweets is 30.

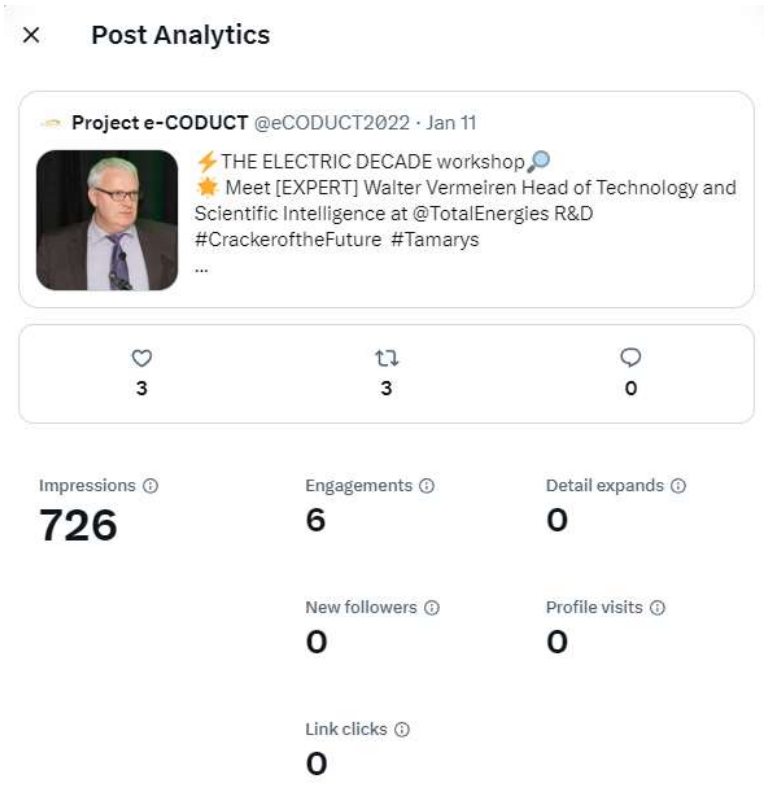

Figure 13 Example of post on X with the relevant statistics

3.3.4.3 YouTube

@**ecoduct2022** https://www.youtube.com/@ecoduct2022/about

YouTube works as a tool for communication with different stakeholders. e-CODUCT has its YouTube channel. As of August 2024, the first video has 207 views and the recording of the 1st project workshop "The Electric Decade" had 83 views.

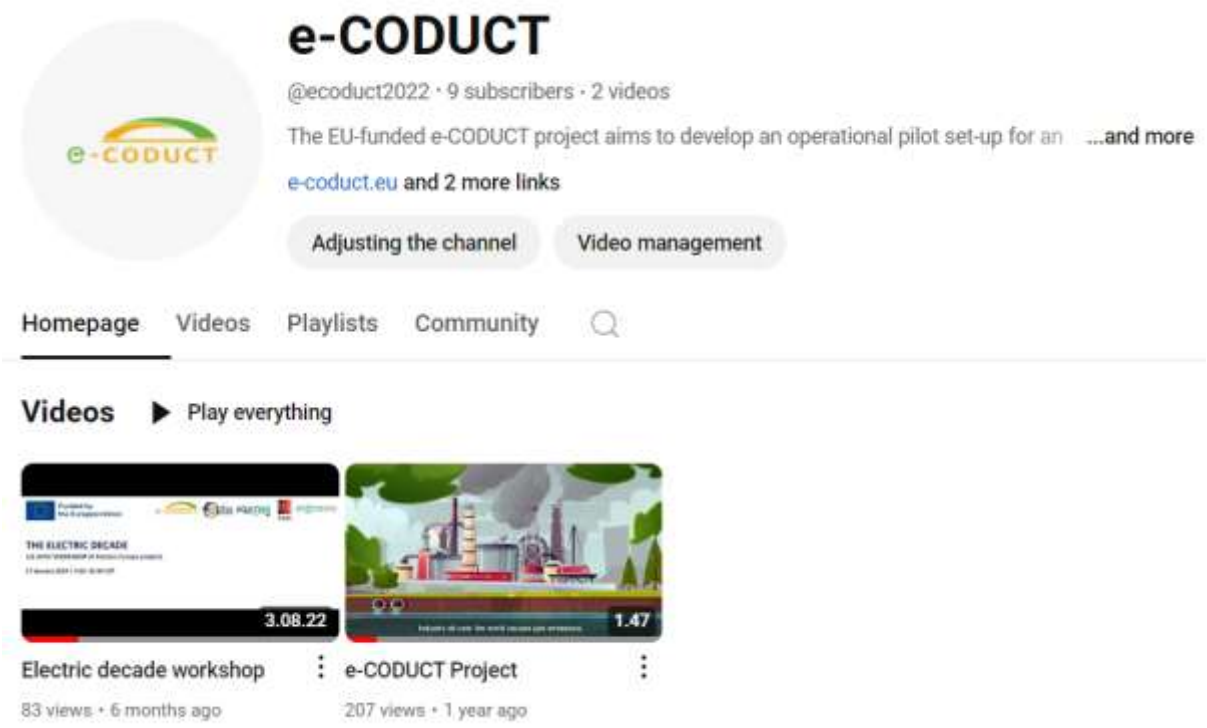

Figure 14 e-CODUCT YouTube profile

3.3.5 EC Online Tools

Horizon Magazine https://ec.europa.eu/research-and-innovation/en/horizon-magazine

A press release about the project was sent to the publisher RTD-HORIZON-MAGAZINE@ec.europa.eu. Horizon publishes three to five articles per week and in English only, and usually reports on research projects funded by the European Union (EU).

CORDIS EU research results https://cordis.europa.eu/en

The e-CODUCT second press release was sent to both EC Online Tools. On 16 August 2024 an article about e-CODUCT was published on CORDIS News: https://cordis.europa.eu/article/id/453191-reducing-greenhouse-gases-produced-by-heating-and-industry

3.3.6 Press, news and e-newsletter releases

The e-CODUCT project plans at least two press/news releases annually, covering specific topics and milestones, and promoting events, however the timetable depends on the project development and activities (e.g. project results, organisation of events). These are shared online, via social media, and the project website. A biannual e-newsletter keeps stakeholders informed about project progress, events, and conferences. The NIC is responsible for structuring, collecting/writing the content, layout and publishing the press/news releases and e-newsletters, while the project partners provide information on request and ensure the accuracy of the content.

3.3.6.1 Press releases

Due to the delay of the first project results, the second **press release** on certain topics was published in M23.

It is uploaded on the project website: https://e-coduct.eu/wp-content/uploads/2024/07/e-CODUCT-Press-release-JUL24_VF.pdf

e-CODUCT Horizon Europe Project:
Conversion of greenhouse gases into valuable chemicals through electrothermal catalysis

DEVELOPMENT OF A NOVEL ELECTROTHERMAL FLUIDISED BED REACTOR

Figure 15 e-CODUCT Press release

3.3.6.2 News

News items are published in website section “news” https://e-coduct.eu/news/ and are related to “results” section https://e-coduct.eu/presentations/ . 20 news items were published by M22.

Figure 16 Example of news on the e-CODUCT website

Presentations

Title/topic	Event	Partners	Event date/place	Link
1st International Green Carbon Conference	2023 International Green Carbon Science conference	UGent, CNRS	26-28 July 2023, Qingdao, Shandong, China	/
e-CODUCT: Electrified COS decomposition and subsequent methanol synthesis	YUCOMAT - Materials Research Society of Serbia -	NIC	4-8 September 2023, Herceg Novi, Montenegro	Poster
Hydrogen production from hydrochloric acid in modified PEM electrolyser	E2DT	NIC	22-25 October 2023, Palermo Italy	/
Industrial planning of electrically heated catalytic reactors with an intermittent power supply	UGent Faculty of Engineering and Architecture Research Symposium (FEARS)	UGent	26 October 2023, Ghent, Belgium	Poster
e-CODUCT: Electrified COS decomposition and subsequent methanol synthesis	VI Scientific Symposium	NIC	25-27 October 2023 Zrenjanin, Serbia	Poster

Figure 17 A list with e-CODUCT presentations at events.

Presentation material is available in pdf. form under "links" https://e-coduct.eu/presentations/ (Figure 17). Poster presented at YUCOMAT conference https://e-coduct.eu/presentations/ (Figure 18)

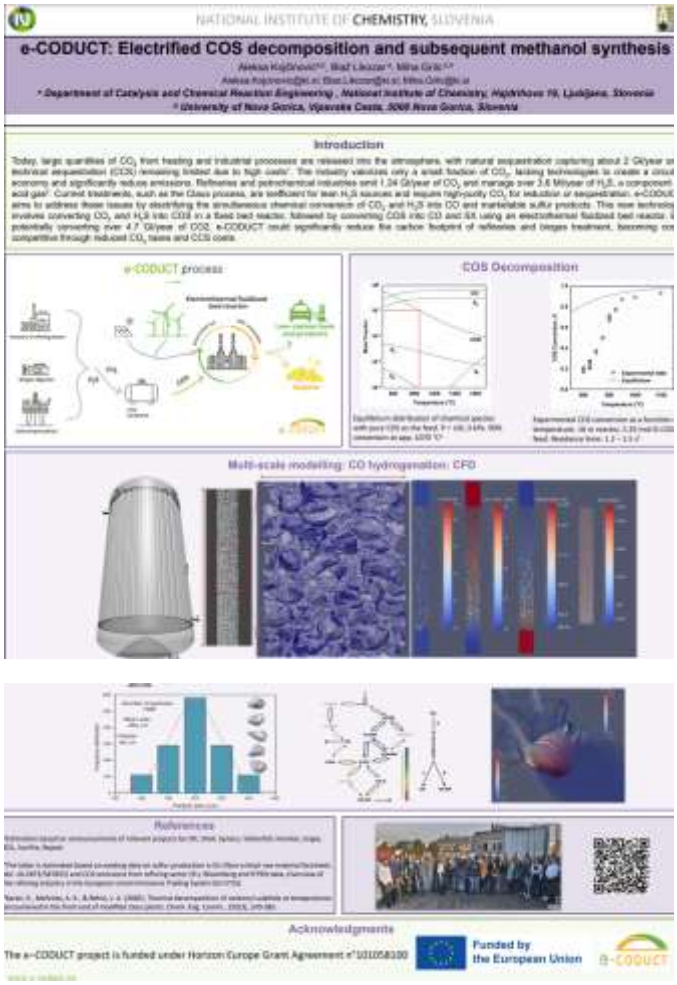

Figure 18 An example of a publicly available project presentation

3.3.6.3 e-newsletters

The aim of the six-monthly **e-newsletter** is to keep all interested parties informed about the progress of the project and contain information on project events and conferences where e-CODUCT will be presented. It has a direct connection with the project website and social media network and is produced in a form which enables partners its distribution to their internal communication channels.

Three newsletters were produced (M15, M17, M23). The second and third editions of the e-CODUCT e-newsletter (M15) were launched to communicate the first project workshop and key takeaways (M17); the fourth (M23) to communicate about the project progress.

2nd e-newsletter (M15): https://e-coduct.eu/newsletter/invitation-to-the-workshop-the-electric-decade/

3rd e-newsletter (M17): https://e-coduct.eu/newsletter/the-joint-event-of-the-horizon-europe-projects-the-electric-decade-workshop-2/

4th e-newsletter (M23): https://e-coduct.eu/newsletter/e-coduct-project/

Figure 19 e-CODUCT e-newsletter M15

Figure 20 e-CODUCT e-newsletter M17

Figure 21 e-CODUCT e-newsletter M23

Project partners are asked to fill in the information in the SharePoint table **e-CODUCT WP7_Report and Tracking of Communication and Dissemination Activities.xlsx,** each time they perform any communication activities. By the end of M24, this list amounted to 14 articles.

List of communication activities

Nb.	Communication activity name	Description	Target audience	Communication channel	Outcome	Status
1	e-CODUCT Press Release	1	Civil society	Press release	[illegible]	Delivered
2					[illegible]	
3					[illegible]	
4					[illegible]	
5					[illegible]	
6					[illegible]	
7					[illegible]	
8	e-CODUCT Project workshop	1	Research comm	Event (conference	1/2 project workshop "The Electric Decade" was organised in M17 by five Horizon Europe projects. Recording: https:	Delivered
9	linkedin page					Delivered
10	e-CODUCT Project identity kit					Delivered
11	e-CODUCT Project presentation video and flyer				1/2 video - https://youtu.be/[illegible] flyer - https://e-coduct.eu/wp-content/uploads/202	Delivered
12	e-CODUCT Newsletter	06-jun			1/6) Project presentation 2/6) invitation for the first project workshop 3/6) News about the conclusions of the first p	Delivered
13	e-CODUCT project website				Website - https://e-coduct.eu/	Delivered
14	e-CODUCT Press Release	2	Civil society	Press release	[illegible]	Delivered
15					[illegible]	
16					[illegible]	
17					[illegible]	
18					[illegible]	
19					[illegible]	
20	e-CODUCT Press Release	Interview dr Blaž Likozar	Civil society	TV/Radio Campaign	[illegible]	
21		CORDIS Article			[illegible]	

Figure 22 Articles published in media related to e-CODUCT Press release

3.4 Dissemination activities

Project partners are asked to fill in the information in the SharePoint table **e-CODUCT WP7_Report and Tracking of Communication and Dissemination Activities.xlsx** each time they perform any dissemination activities.

3.4.1 Publications

In order to keep the project participants' submissions, the respective SharePoint table has been created. Project partners are asked to fill in the information in the spreadsheet each time they make relevant publications. By the end of M22, this list amounted to 0 publications.

3.4.2 Events and workshops

To promote and disseminate the project results and raise awareness on advantages and opportunities of e-CODUCT's technology, partners are asked to disseminate project updates and results at relevant sector events.

Project partners are asked to fill in the information in the SharePoint table e-CODUCT WP7_Report and Tracking of Communication and Dissemination Activities.xlsx every time they attend relevant events. In advance, (international) events must be selected at which e-CODUCT can be presented - Sheet2 (Planned events). It is expected that the list is very dynamic and needs to be constantly updated.

International conferences and events - PLANNED

Nb.	YEAR	MONTH	FORMAT*	LOCATION	NAME OF THE EVENT	URL	ATTENDING PARTNER/S
1	2023	26-28 JULY	Hybrid	Qingdao, China	1st Green Carbon International Conference	tba	UGent, CNRS
2	2024	14-19 JULY	Live	Lyon, France	18th Internation Conference on Catalysis	https://www.icc-lyon2024.fr/	UGent, CNRS, NIC
3	2024	10-14 JUNE	Live	Frankfurt, Germany	ACHEMA	https://www.achema.de/en/	NIC, UGent
4	2024	17-20 Sept	Live	Warsaw, Poland	3rd International conference on unconvention	https://icrra2024.pw.edu.pl/ind	TotalEnergies
5	2024	8-11 Sept	Live	Ghent, Belgium	CAMURE-12 & ISMR-11	https://camure.ugent.be/	UGent
6	2024	21-25 April	Live	Xiamen, China	NGCS 13	https://www.ngcs13.com/	UGent
7							

Figure 23 Spreadsheet created to list planned participation in events

3.4.2.1 Dissemination events M1-M12

In the first year of the e-CODUCT project, partners attended two events to present the project activities:

1st Green Carbon international Conference

e-CODUCT Project is presented at 1st Green Carbon international Conference in China. Event Date: July 26-28, 2023 **Venue of the event**: Qingdao, Shandong, China, and online **Size-Audience:** 300

Impact: ICGC aims to provide an interdisciplinary academic exchange platform and academic community for scientific and technological innovation in the area of CO2 emission reduction and sustainable development. The conference focused on carbon resources, carbon conversion technologies, carbon life cycle management, and breakthrough developments in green carbon science. Valentin Valtchev (CNRS) and Joris Thybaut (UGent) were keynote speakers. Thybaut presented the topic Green Carbon Reaction Engineering: Catalyst and Process Design for Sustainability and the e-CODUCT project.

YUCOMAT - Materials Research Society of Serbia

e-CODUCT Project is presented at YUCOMAT - 24th Annual Conference on Material Science. Event Date: September 4-8, 2023 **Venue of the event**: Herceg Novi, Montenegro and online **Size-Audience:** 200

Impact: The Yugoslav Conference on Materials (YUCOMAT) is organized annually by the Materials Research Society of Serbia (MRS-Serbia) and is dedicated to advanced materials science and engineering. It attracts researchers, scientists and professionals from around the world to present and discuss the latest developments and innovations in materials science. Typical topics include nanomaterials, biomaterials, electronic materials and energy materials. The conference promotes networking, knowledge sharing and collaboration between participants, contributing to progress in the field. Aleksa Kojčinović (NIC) was presenting a poster “e-CODUCT: Electrified COS decomposition and subsequent methanol synthesis”.

3.4.2.2 Dissemination events M13-M24

In the second year of the e-CODUCT project, partners attended nine events to present the project activities:

E2DT 2023 - 2nd INTERNATIONAL CONFERENCE ON ENERGY, ENVIRONMENT & DIGITAL TRANSITION

The e-CODUCT Project has been presented at 2nd INTERNATIONAL CONFERENCE ON ENERGY, ENVIRONMENT & DIGITAL TRANSITION. Event Date: October 22-25, 2023 **Venue of the event**: Palermo, Italy **Size-Audience:** 300

Impact: The conference aims to bringing together researchers, engineers, executives, representatives of the institutions to map the transition towards net zero carbon and fully renewable energy, driven by the recognition that global CO2 emissions must be drastically reduced to keep global warming below the 1.5 °C target. The objective is to provide up-to-date evidence on positive and negative environmental effects of the energy transition and on new technologies to drive/accelerate it. Alen Rupnik (NIC) was presenting the e-CODUCT project within the topic “Hydrogen production from hydrochloric acid in modified PEM electrolyser”.

FEARS 2023 - UGent Faculty of Engineering and Architecture Research Symposium

The e-CODUCT project has been presented at the 21st Faculty of Engineering and Architecture Research Symposium. Event Date: October 26, 2023 **Venue of the event**: Ghent, Belgium **Size-Audience:** 300

Impact: FEARS is the most important meeting place for researchers at the Faculty of Engineering and Architecture, organised by the University of Ghent (UGhent) in Belgium. The event serves as a platform for students, professors and researchers to present their latest (engineering) research results. The aim of the event is to stimulate discussion, exchange knowledge and promote co-operation between participants and to achieve progress in theory and practise. Robert Hanusa (UGENT) presented the e-CODUCT process in a poster session, in which he introduced the original production planning model that takes into account the variability of renewable energies.

Adria Innovation Day 2023

The e-CODUCT Project has been presented at Adria Innovation Day 2023. Event Date: November 7-8, 2023 **Venue of the event**: Kranj, Slovenia **Size-Audience:** 20

Impact: The focus was on networking at the EIT RawMaterials RIS hub Adria event, the exchange of project ideas and the presentation of e-CODUCT to interested parties. Alen Rupnik (NIC) took part in the event.

2024 GFZ

The e-CODUCT Project has been presented during the 39th Groupe Français des Zéolithes Annual Meeting. Event Date: March 26-29, 2024 **Venue of the event**: La Rochelle, France **Size-Audience:** 20

Impact: The French Group of Zeolites is an association aimed to promote fundamental and applied research related to the science of zeolites and microporous materials. The annual meeting attracts delegates from France and other European countries. The 2024 topic were synthesis and formatting, applications for environment, energy and health. Marco Fabbiani/Vera Bikbaeva/Ludovic Pinard/Valentin Valtchev (LCS/CNRS), Hélène Rétot/Alexey Novikov (SGCREE/NORPRO) contributed with the poster session "Alternative to Claus process through COS as intermediate: CO_2 and H_2S competitive adsorption and reaction on sodium zeolites".

NGCS13

The e-CODUCT Project has been presented at the 13th Natural Gas Conversion Symposium – NGCS13 Event Date: April 21-25, 2024 **Venue of the event**: Xiamen, China **Size-Audience:** 800

Impact: NGCS is the most influential international conference on natural gas conversion, aiming to delve into the latest scientific and technological achievements in natural gas utilization and related resources/energy advances. Alen Rupnik (NIC) was presenting the e-CODUCT project within the topic "Hydrogen production from hydrochloric acid in modified PEM electrolyser". Joris W. Thybaut (UGENT) was a keynote speaker with the topic "Electrocatalysis: From Renewable Energy to Valorised Gas" and presented the e-CODUCT technology as a major step forward in the efficient reduction and valorisation of refinery off-gases.

GIEC

The e-CODUCT Project has been presented at the Guangzhou Institute for Energy Conversion. Event Date: April 26, 2024 **Venue of the event**: Guangzhou, China **Size-Audience:** 100

Impact: The Guangzhou Institute of Energy Conversion (GIEC) of the Chinese Academy of Sciences is the first state-owned R&D institution in the field of renewable energy in China with the most comprehensive research concept and the greatest influence. Founded in 1978, the institute is fully dedicated to the R&D of basic science in the field of new and renewable energy. It strives to achieve breakthroughs in key technologies and promote the commercialisation of market-ready innovative energy solutions needed to achieve the SDGs and carbon neutrality. GIEC has extensive collaboration with foreign partners in 50 countries and districts and has implemented more than 200 international programmes. Joris W. Thybaut (UGENT) presented the e-CODUCT technology "Electricity is the Catalyst: A Reaction Engineering Approach to Gas Treatment and Valorization".

GECat 2024

The e-CODUCT Project has been presented at the Congress of Groupe d'Etude en Catalyse. Event Date: May 14-17, 2024 **Venue of the event**: Hendaye, France **Size-Audience:** 100

Impact: The Groupe d'Etude en Catalyse (GECat) is a thematic group of DivCat (Division Catalyse de la Société Chimique de France). GECat organises annual thematic meetings with the aim of federating the French-speaking catalysis community, promoting exchanges between researchers and encouraging the integration of young researchers. Marco Fabbiani/Vera Bikbaeva/Valentin Valtchev (CNRS), Ludovic Pinard (ENSICAEN), Alexey Novikov and Hélène Rétot (NORPRO/SGCREE) from the e-CODUCT project team presented the e-CODUCT technology in a poster session on the topic "Alternative to Claus process through COS as intermediate: CO_2 and H_2S competitive adsorption and reaction on sodium zeolites".

ACHEMA 2024

The e-CODUCT Project has been presented at World Forum for the Process Industries. Event Date: June 10-14, 2024 **Venue of the event**: Frankfurt, Germany **Size-Audience:** 2.842 exhibitors from 56 nations/106.001 participants from 141 countries

Impact: ACHEMA is the world forum for chemical engineering, process engineering and biotechnology. The spectrum ranges from laboratory equipment, pumps and analysers to packaging machines, boilers and stirrers to safety technology, materials and software, thus covering the entire needs of the chemical, pharmaceutical and food-processing industries. The accompanying congress with scientific lectures and numerous guest and partner events complements the wide range of exhibition topics. The event showcased innovations in the process industry, including a focus on carbon neutral production and carbon capture and utilisation (CCU). Among the key technologies presented was e-CODUCT, a pioneering technology development in the field of CO_2 reduction and climate-neutral production. Joris W. Thybaut (UGENT) presented under the topic: e-CODUCT: Fast-Response electrically heated catalytic reactor technology for CO_2 reDUCTion.

18th ICC 2024

The e-CODUCT Project has been presented at the 18th ICC - INTERNATIONAL CONGRESS ON CATALYSIS. Event Date: July 14-17, 2024 **Venue of the event**: Lyon, France **Size-Audience:** 2000

Impact: ICC is the largest conference in catalysis bringing together between 1,500 and 2,000 people from the whole catalysis community every four years. The 18th ICC featured the state of the art of Catalysis in all its diversity reflecting the current societal needs and challenges for a better world including the environment, energy, mobility, and the circular economy. The e-CODUCT project was presented under three topics: 1) "Alternative to Claus process through COS as intermediate: CO_2 and H_2S competitive adsorption and reaction on sodium zeolites" by Marco Fabbiani/Vera Bikbaeva/Valentin Valtchev (CNRS), Ludovic Pinard (ENSICAEN), Alexey Novikov, Hélène Rétot (NORPRO/SGCREE): 2) "COS thermal decomposition as a step of e-CODUCT technology – simultaneous reduction of H_2S and CO_2 " by Igor Shlyapnikov/Miha Grilc (CONOT), Joris Thybaut/Klaus Jacobs (UGENT) and David Bajec/Matic Grom/Blaž Likozar (NIC); 3) "Electricity is in the catalyst: a reaction engineering approach to gas treatment and valorization" by Joris Thybaut (UGENT).

3.4.3 Project workshops

Aim: promote the developed e-CODUCT concept.

First workshop– 17.1.2024 (online)

Target group: policymakers, members of the European Parliament, representatives of regions, lobbyist organizations and other stakeholders.

Figure 24 1st e-CODUCT Workshop "The electric decade"

The main objective of the event was to present how to scale up various innovative electrification technologies for the chemical industry to ensure reaching the EU's climate goals. The event was organised by the e-CODUCT* project, co-organised by EReTech*, ēQATOR*, TITAN and STORMING. Two experts, Franz Hörzenberger (ArcelorMittal) and Walter Vermeiren (Total Energies), gave introductory insights into electrification. This was followed by presentations of the projects, a round table discussion and Q&A from the attendees. The moderator of the event was Prof. Joris W. Thybaut from Ghent University. The Electric Decade workshop was attended by 130 participants from various sectors. A follow-up event is envisaged towards the end of the projects (late 2025/early 2026). The recording is available on the e-CODUCT YouTube channel:

https://youtu.be/DCoaLeVKYnE?si=VTHShu13xRQ5PYix

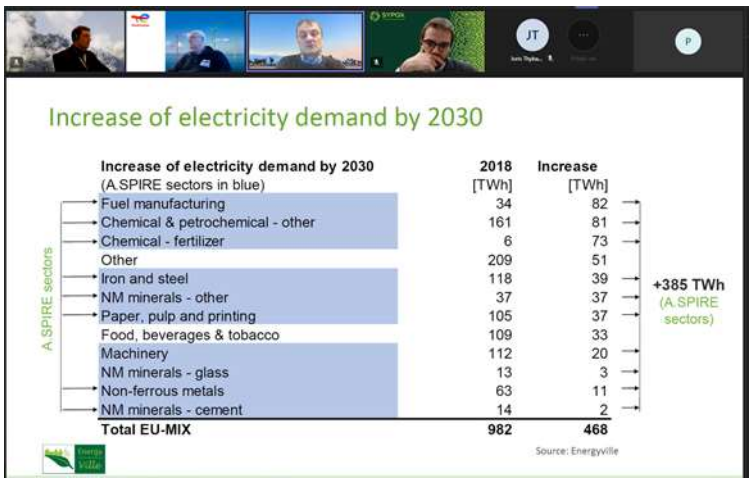

Figure 25 1st e-CODUCT Workshop - presentation

Second workshop in Slovenia (late 2025/early 2026 - Final conference)/TBD

Presenting the projects results in form of developed electrification technologies as solutions to reduce emissions, integrate renewable energy, enhance energy efficiency, promote circular economy principles, foster innovation, and drive the transformation of industries towards a more sustainable future.

3.4.4 Testing site visits

Aim: inform journalists about latest results and solutions developed in the project.

Timeline: Y3/TBD

3.4.5 Final conference

Aim: The event will take place at the National Institute of Chemistry (Ljubljana, Slovenia) in collaboration with the Trial Site. The Experimental Site will be used to its full potential within the project and will be open to the public to disseminate key findings and engage with an interdisciplinary group of stakeholders. The final conference will feature speakers from the fields of research and innovation, academia, business and policy makers.

Timeline: Y3

3.4.6 White paper

During the project, a white paper will be produced on the electrification of processes with a focus on the technology of e-CODUCT. This will include the technical results as well as the results on LCA, TEA, and social perception.

3.4.7 Patents and scientific publications in open access

Academic partners and other partners will prepare at least 10 patents and 16 publications in high-impact factor journals.

Project partners are asked to fill in the information in the SharePoint table e-CODUCT WP7_Report and Tracking of Communication and Dissemination Activities.xlsx each time they submit their relevant publications.

By the end of M22, this list amounted to 0 patents and scientific publications in open access. TOTB has completed the analysis of existing patent and non-patent literature. The summary allowed to identify the closest disclosures relative to the e-CODUCT technology. The study serves as a basis for a patentability study; 5 invention disclosures are currently under preparation, which would protect foreground and side ground for the e-CODUCT process.

3.4.8 EU Platforms

Besides the dissemination opportunities, e-CODUCT is also engaged in activities fostered by the international associations to which the project partners belong.

The project will take advantage of the wide reach of EU initiatives to which the e-CODUCT partners belong (e.g., the Processes4Planet partnership, the European Energy Research Alliance (EERA), and other platforms (SETAC, Zero-Emission Platform, SusChem, Carbon Capture and Storage Association). The e-CODUCT partners will take an active role in the European initiatives and present the main results and opportunities of the project. e-CODUCT will also be represented at the annual event of the SET plan. Each partner is responsible to become aware of the dissemination opportunities related to their linked association(s) and share the information with the WP7 leader.

By the end of M23, this list amounted to 0 EU Platforms.

3.4.9 EU and National project clustering activity

Organization of a joint workshop with (sister) Horizon Europe projects (see 3.4.3 Project Workshops).

3.5 Updated communication and dissemination activities plan

Table 2 Communication and dissemination action plan

Type	Description	Time	Responsible partner	Status
e-CODUCT logo	The e-CODUCT logo has been designed and will be used in all documents and publications of the project	M4	NIC, all PP	Completed
e-CODUCT PPT template	Template to be used for the project presentations	M6	NIC, BENEKI	Completed
e-CODUCT Project website	Online presence of e-CODUCT	M6	NIC, all pp	Completed
Twitter account	Create an X (Twitter) Account for disseminating project news & developments	M3	NIC	Completed
LinkedIn account	Create LinkedIn Account for disseminating project news & developments	M3	NIC	Completed
YouTube account	Create a YouTube Account for disseminating project videos	M3	NIC	Completed
Project presentation video	Produce first animated video for project presentation	M6	NIC, UGent, Total	Completed
Project Flyer	Design project flyer depicting the concepts of the project	M6	NIC, UGent	Completed
Project poster/roll-up – initial version	Design a poster to promote the project at different events. A poster template can also serve as a basis for creating new posters with updated content	M14	NIC	Completed

Infographics	Produce infographics depicting the results (in the advanced phase of the project, when meaningful results are already available)	M14-M36	NIC, UGent, TOTAL	Pending
Press Releases	M6 - The start / commencement of the Project M12 – The first results M18 – The joint workshop and project progress M24 – On project progress M30 - White paper on process electrification (e-CODUCT technical results, LCA, TEA and social perception) M36 - Presentation of the pilot demonstrational centre and finalization of the project.	M1-M36	NIC, all PP	Continuous
Publications	A considerable number of publications are expected at conferences and in professional journals	M12-M36	All PP	Pending
Events' participation	Participate in events (e.g. conferences, workshops, national events) to raise awareness of e-CODUCT and disseminate the results of the project	M1-36	All PP	Continuous
e-Newsletter	Dissemination of project news, achievements and events in the form of an e-newsletter	2per year	NIC, all PP	Continuous
e-CODUCT #1 Workshop	Joint (online) event with sister projects and related Horizon Europe projects. Topic – electrification of process in the next decade	M16	UGent, NIC, BENKEI, All PP	Completed
e-CODUCT #2 Workshop	To disseminate key findings and engage with an interdisciplinary group of stakeholders.	M24-M36	NIC, All pp	Pending
Testing site visits	Inform journalists about latest results and solutions developed in the project.	M24-M36	All PP	Pending
Final Conference	To disseminate key findings and engage with an interdisciplinary group of stakeholders. Involve speakers from the fields of research and innovation, academia, business and policy makers. Presentation of the pilot demonstration centre (Slovenia)	M34	NIC, CONOT, all PP	Pending
Video #2	Produce second video to present project results	M30	NIC, all PP	Pending
Cooperation with other projects / initiatives	Collaboration for mutual dissemination and knowledge exchange with other relevant projects & initiatives	M9-M36	UGent/ All PP	Continuous
White paper	Paper on electrification of processes with a focus on the technology of e-CODUCT to provide policy makers a clear view on the process issues	M34	TOTAL, UGent, all PP	Pending

4 COMMUNICATION AND DISSEMINATION KEY PERFORMANCE INDICATORS

Dissemination and communication activities are closely monitored and coordinated by WP7 leader to track all ongoing activities in this task (T7.2). In order to measure the impact of the activities carried out and to adapt the CDP to achieve the expected results and maximise visibility, a set of metrics has been developed and presented in the CDP (D7.1). These metrics provide a continuous overview of the scope and effectiveness of the dissemination and communication activities carried out.

The performance of e-CODUCT's communication channels and tools is analysed using a wide range of measurement tools and software, such as Google analytics, Twitter analytics and Page Insights from LinkedIn. To measure progress, achievable qualitative and quantitative targets were set during dissemination planning.

The following tables show the results of the communication and dissemination activities in the period M1 – M24:

Table 3 Key performance indicators - Communication

KPI - Communication	M12 result (overall)	M24 result (overall)	M36 result (overall)
Nb. of visits on the e-CODUCT website	1.695	4.323	-
Nb. of attended events and conferences	2	9	-
Nb. of registrations to e-CODUCT newsletter	416	433	-
Nb. of invitations to present e-CODUCT to stakeholders (EU Platforms)	0	0	-
Nb. of (online) articles published	0	0	-
Nb. of participants to webinars/workshops organised by e-CODUCT	0	130	-
Nb. of followers on X (Twitter)	18	130	-
Engagement of LinkedIn posts (impressions)	6.382	49.858	-
Nb. of followers on YouTube channel	2	2	-
Number of e-CODUCT videos views	167	208	-
Nb. of press and news releases	2	4	-

Table 4 Key performance indicators – Dissemination

A list and description of dissemination events/activities is gathered in section 3.4 Dissemination activities and published on the e-CODUCT webpage – section Results: https://e-coduct.eu/presentations/

Type of dissemination	Workshop/ Events organization or contribution*	Open-Access Journal articles**	EC online tools (Cordis/ Horizon EU)**	Conference papers***	General public presentation****	Video	White paper	Patents
UGENT	7	0	0	2	0	0	0	0
TOTB	2	0	0	0	0	0	0	0

NIC	4	0	2	1	1	1	0	0
PDC	0	0	0	0	0	0	0	0
CNRS- LCS	4	0	0	2	0	0	0	0
SG CREE	3	0	0	2	0	0	0	0
DECHEMA	1	0	0	0	0	0	0	0
BENKEI	0	0	0	0	0	0	0	0
CO NOT	1	0	0	1	0	0	0	0
Totals	**22**	**0**	**2**	**8**	**1**	**1**	**0**	**0**

*Number of events in which each partner has participated or presented the project
** Number of OA Journal Articles to which each partner has participated
***Number of press releases sent to EC
*** Number of contribution to papers/conference contributions published at conferences/congresses to which each partner has contributed
**** Media news, articles, interviews

Figure 26 List of events and related publications (posters/presentations/abstracts)

Dr. Blaž Likozar (NIC) presented the e-CODUCT project and its ground-breaking technology to the general public via a TV interview (in Slovene language) (Bloomberg Adria TV, 13 August 2024): https://si.bloombergadria.com/bloomberg-adria-tv/bloomberg-adria-tv/64508/so-lahko-toplogredni-plini-tudi-surovina/news

Figure 27 Dr Blaž Likozar from NIC (right), Bloomberg Adria TV

5 CONCLUSION

This report provides an overview of the communication and dissemination work carried out by the project in its second year of implementation. It summarises the main activities related to tasks 7.1, 7.2 and 7.3 carried out by the project partners. The communication and dissemination activities of the project were described in detail in the Communication and Dissemination Plan (presented in Deliverable D7.1 “Communication and Dissemination Plan” on M6). This is an internal tool that provides a consistent framework for all activities required to disseminate and maintain the concepts, achievements and technical and knowledge results developed within the project. It is an ongoing document that allows for any necessary adaptation. The consortium recognises that dissemination, communication and exploitation activities are essential throughout the project and are integrated into all work packages.

The main achievements of this period in terms of dissemination and communication are the confirmation of the project website as a high quality dissemination channel with an increasing number of visitors, the growth of the project’s social media channels and the first dissemination activities in the form of participation in (inter)national conferences and the successful organisation of the first project workshop “The Electric Decade” in January 2024 in collaboration with EQATOR and ERETECH, our sister projects, as well as with two other projects active in a similar area, TITAN and STORMING. The event had 130 participants and focussed on showcasing innovative electrification technologies that support the European Union's climate goals. A follow-up event is planned for late 2025/early 2026 to present the project results.

The project partners participated in 11 events and presented the project and the e-CODUCT technology as keynote speakers and in poster sessions.

During the period covered by the D7.5. (M13-M24), most of the activities originally proposed in the CDP were realised. However, due to some delays in the technical work packages of the project, the partners have not yet published papers in high impact journals. However, as explained at project and review

meetings, preparations are underway, which means that these objectives will be achieved in the third year of project implementation.

The promotional material has been upgraded with posters and roll-ups that can be widely used and distributed at upcoming events. Issues of the e-newsletter were distributed in December 2023, February 2024 and July 2024 to provide information about the first workshop and the progress of the project.

The electronic dissemination tools for the project (website, social media presence) have been in operation since the beginning of the project and are regularly used, as the consortium is convinced that web tools can be an important tool for the further dissemination of the vision and developments of e-CODUCT.

In order to measure the achieved impact of the proposed strategy and plan, a set of indicators has been defined and will be monitored and reported. After the second year of project implementation, some data remain below expectations (publications, participation in EU platforms) and need to be improved through various actions, e.g. publicising the research work, participation in conferences, events, meetings and cluster activities. It is expected that the communication activities will be continuously intensified during the third year of project implementation together with the research results of the project.