Deliverable report

D7.1 - Communication and Dissemination Plan

WP7 – Communication, dissemination and exploitation

Project Information	
Grant Agreement n°	101058100
Project Dates	September 1st 2022 – August 31st 2025

Funded by the European Union

Horizon Europe Grant Agreement n°101058100
e-CODUCT RESTRICTED – Under Consortium Agreement

Document status

DOCUMENT INFORMATION

Project Name	e-CODUCT
Deliverable Title/Number	D7.1
Deliverable Name	Communication and Dissemination Plan
Responsible beneficiary	NIC
Contributing beneficiaries	UGENT, BENKEI
Contractual delivery date	31/12/2022
Actual delivery date	16/02/2023
Dissemination level	Public

DOCUMENT APPROVAL

Name	Organisation	Role	Action	Date
Joris Thybaut	UGENT	Project Coordinator	Approval	16/02/2023
Gleb Veryasov	TOTB	Technical Coordinator	Approval	16/02/2023
Fabienne Brutin	Benkei	Administrative manager	Approval	16/02/2023

DOCUMENT HISTORY

Version	Date	Modifications	Authors
V0	21.12.2022	Initial version	Petra Props, NIC
V1	23.1.2023	Version after review by UGENT and BENKEI	Petra Props, NIC
V2	3.02.2023	Final Version	Petra Props, NIC
VF	16.02.2023	Approved version	Fabienne Brutin, Benkei

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 document, the Communication and Dissemination Plan (CDP), constitutes Deliverable D7.1, Communication and Dissemination Plan under WP 7, Task 7.1. The CDP forms the basis for the overall communication management of the project and contributes to the communication and dissemination needs of the different work packages and the overall project.

1.2 Corrective action vs. Grant Agreement (if relevant)

A 2-month shift in the delivery of this document is to be noted. This shift is related to the decision to include all achieved communication and dissemination activities and tools in the deliverable.

2 DESCRIPTION OF THE DELIVERABLE OBJECTIVE AND CONTENT

The CDP outlines the overall approach for implementing the project's communication strategy and presents in detail all communication tools and activities planned to achieve the project's objectives. This document will be followed throughout the project lifetime, with the main objective to promote e-CODUCT's breakthrough innovations, which are the only way to achieve large-scale deployment of competitive carbon conversion alternatives. All communication activities compiled in the CDP are coordinated between the project partners.

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

The CDP follows the communication guidelines of the EC and defines the objectives, target groups and users, planned tools and channels, responsibilities and impact metrics. It will provide communication guidelines for the partners and include the creation of a strong identity for the project, with a logo and brand style, as well as templates for all external communication tools such as information sheets, newsletters and flyers. Tailor-made information packs about the project will be produced for all participants and stakeholders.

The general objectives of the e-CODUCT Communication, Dissemination and Exploitation Work Package (WP7) are:

1) promote the project and ensure its visibility,

2) raise awareness and knowledge about innovative electrification processes as substitutes for fossil fuels and their (potential) use,

3) facilitate the use of pilot technologies and innovations among the largest possible number of market stakeholders.

The document consists of the following sections: an introduction to the project and the communication objectives (chapter 3), followed by a presentation of the target groups (chapter 4) and detailed presentation and dissemination activities (chapters 5 and 6); chapter 7 presents the visual identity of e-CODUCT, then chapter 8 presents the communication matrix, chapter 9 the responsibilities of the partners and the monitoring of the communication impact . The annexes are presented in chapter 11.

The CDP is a living document. It will undergo changes and adaptations throughout the life of the project and will be progressively updated based on the consortium's input. Regular reports will explain how the results achieved will be used and disseminated. Updates will include: an evaluation of the communication activities carried out in the previous period and an updated version of the CDP.

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3 PROJECT INTRODUCTION

3.1 Project overview

The EU-funded e-CODUCT project aims to develop a working pilot plant for an electrothermal catalytic reactor powered by renewable energy sources. The fluidised bed electrothermal reactor will produce industrially valuable carbon monoxide (CO) and sulphur (S) from carbon dioxide (CO2) and hydrogen sulphide (H2S). The conversion process will involve two steps: The reduction of CO2 and H2S to carbonyl sulphide (COS) and the decomposition of COS into CO and sulphur. e-CODUCT will optimise the reactor materials and catalysts and scale up to TRL6 to produce 16 t/year of CO, while reducing the reactor size by 50%. The proposed technology is already used in methane cracking for hydrogen and carbon production and could be adapted for other applications such as fluid catalytic cracking, steam cracking and dehydrogenation.

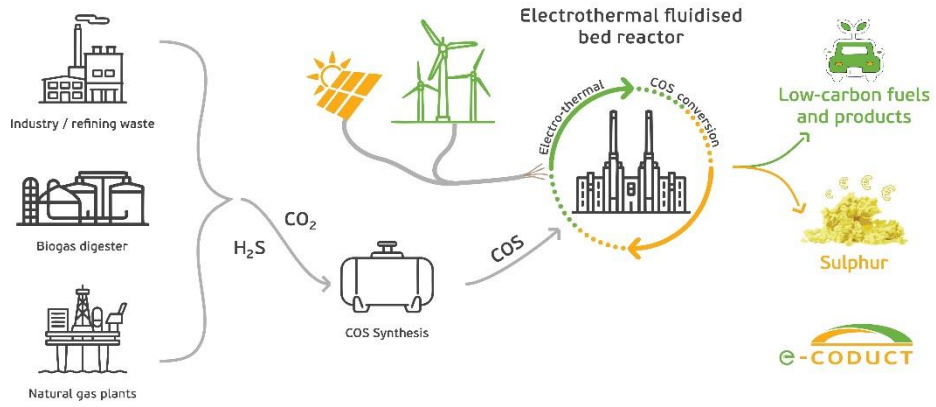


Figure 1 e-CODUCT process

3.2 Project in a nutshell

Table 1 Project in a nutshell

Project Akronym:	e-CODUCT
Project Title	Fast-response Electrically heated catalytic reactor technology for CO2 reDUCTion
Project duration:	1 September 2022 – 31 August 2025
Project Partners:	UNIVERSITEIT GENT (UGent) TOTALENERGIES ONE TECH BELGIUM (TOTB) KEMIJSKI INSTITUT (NIC) STICHTING PDC RESEARCH FOUNDATION (PDC) CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS (CNRS-LCS) SAINT-GOBAIN CENTRE DE RECHERCHES ET D'ETUDES EUROPEEN (SG CREE) DECHEMA GESELLSCHAFT FUR CHEMISCHE TECHNIK UND BIOTECHNOLOGIE (DECHEMA)

Project Akronym:	e-CODUCT
Project Title	Fast-response Electrically heated catalytic reactor technology for CO2 reDUCTion
	BENKEI (BENKEI) CENTER ODLICNOSTI NIZKOOGLJICNE TEHNOLOGIJE ZAVOD (CO NOT)
Budget EU grants	7.681.307,50€ 7.022.265,00€

Communication is a fundamental aspect of achieving good performance in a project. It is not only important to promote the project and its activities, to interest new people or to raise awareness, but must be understood as a particularly strategic field to work with the mission of the project and its objectives. Therefore, it is important the communication is planned throughout the whole project lifetime (M1-M36) in order to make it efficient and effective.

3.3 Project communication and dissemination

The e-CODUCT consortium is committed to communicating the developments and results of this project to a wider audience, as well as to engaging the largest possible number of relevant stakeholders to the importance of CO2 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 build new links with industrial partners.

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

The aim of this CDP is to describe the communication and dissemination objectives, outline the target groups and find the right communication and dissemination activities to reach them. Evaluation methods are defined to support the achievement of the specific project objective of introducing electrified processes instead of fossil-based processes.

3.4 Matrix of communication and dissemination objectives / target groups / messages / tools

Table 2 Matrix of communication and dissemination objectives / target groups / messages / tools

General objective	Specific objectives	Target Audience	Message	Tools (How)	Time frame	Why?
Develop and design the necessary tools for appropriate and effective dissemination and promotion of e-CODUCT activities and results to increase the visibility of e-CODUCT and increase the project's reach to the wider public	- Create a **website** and fill it with useful and interesting information so that we get regular visits. - Create **social media** channels to reach and engage with a diverse audience. - Create an **identity kit** with key information about the project that can be distributed at events, workshops, online, etc.	General public Media Stakeholders	Raising awareness about the necessity of decreasing CO2 emissions and replacing fossil fuels with the use of new e-CODUCT technologies	Website Social media Profiles Identity kit (project logo, project presentations, leaflets, flyers, banner, multimedia material (video)) e-newsletters News and press releases Series of testing site visits for journalists	M1-M36 Constantly based on project developments Toolkit - As appropriate to make sure the material is always available for the events	-To engage with stakeholders -Raise awareness of how European funds are spent -Show the success of European collaboration -Generate market demand
Reach and engage with a wide audience of relevant stakeholders at local, national, European, and international levels, thus leveraging opportunities for take up and exchanges.	- Engage with stakeholders through our social media channels to maximise opportunities - Use actively the social media channels to increase the engagement. - Issue a newsletter periodically to keep stakeholders informed. - Participate in webinars, conferences, and workshops to identify and connect with a	Public authorities on European national, regional and local level Industry and sectors of interest (Sectoral agencies)	Keep them updated on e-CODUCT progress and positive effects of e-CODUCT technology, engage them to create policies & legislation that stimulate/promote the technology	-Website -Social media Profiles -e-newsletters -News and press releases -European / national workshops /personal meetings -Use of European Commission tools: CORDIS, Horizon Magazine; Horizon Impact award; Research and innovation success (project) stories; yearly EU special-interest newsletter	M1-36	-Transfer new knowledge, gather useful feedback and exchange experiences for the increment of learning -Practical guidance for policy recommendations

	wider range of stakeholders. - Engage with other European projects related to e-CODUCT to cooperate in dissemination activities.					
Disseminate the project activities, make e-CODUCT results public and scientific results common good	- Present main outcomes, opportunities and advantages of developed e-CODUCT technology to all stakeholders - take an active role in European initiatives presenting the main outcomes and opportunities derived from the project - Active participation in relevant European Technology and Innovation Platforms and similar activities on the national levels. - Participate actively in e-CODUCT related industry events and conferences. - Organize webinars and workshops related to e-CODUCT studies.	Scientific community, Industry	know-how transfer among different research org. from the project partners countries Raise awareness of positive effects of new e-CODUCT technologies Create demand for e-CODUCT technology	- Practical guidance on project results and outputs through **Website, Newsletter, social media** - Open Science – knowledge and results (free of charge) for others to use - events participation / organization and face to face communication (workshops/webinars) - white paper on process electrification, with a focus on e-CODUCT's technology - Patents and scientific publications in open access (academic partners) – at least 10 patents and 16 publications in high-impact factor journals	M1-36 Periodically based on project developments	-Disseminating information regarding the opportunities and advantages reached during the project and onwards (lasting effects) -Replicate e-CODUCT concepts to other reactions and application areas (diversification) -Contribute to the advancement of State of the art

4 TARGET AUDIENCE

4.1 Technology providers (industry)

Manufacturing, energy and engineering companies engaged in the development of low carbon technology are needed to provide knowledge: acid gas industries, refineries (on Sulphur-rich crude oil and sour natural gas purification plants), steel and cement production.

Technology providers have to be updated about the progress and results of the project; we might ask them for their contribution for policy recommendations.

4.2 Scientists' community (research & development)

Additionally, partners will focus on know-how transfer among universities, research centers and organizations from project partners' countries from the natural sciences fields. They will benefit by having open access to scientific articles emanating from research activities as well as project deliverables, outputs and results. We will keep them updated by dissemination of project progress and results via e-Newsletters, the e-CODUCT Website and Social Media channels.

4.3 National and European Policy Makers

National public authorities such as national ministries supporting the development, research and innovation of low carbon technologies (environment, infrastructure, research and science, transport, energy, economy, finance) in all project partners' countries will be addressed to raise their awareness on the positive effects of the project. A first workshop in Brussels will be organized for policymakers, members of the European Parliament, representatives of regions, lobbyist organizations and other relevant stakeholders to present the project and benefits of the e-CODUCT technology for future deployment of the technologies. The time has come for industries, supported by policymakers, to enter the 'Electric Decade, for which e-CODUCT practice and licensed simulation tools can be used to plan the adoption of electric technologies instead of current fuel-based ones.

4.4 Standardization stakeholders and business associations

The aim is to ensure newly developed materials and electrified processes overcome non-technological market entry barriers such as normative and certification hurdles (e.g., CEFIC*, ESSENCIA*, etc).

4.5 Environmental sustainability stakeholders

LCA data in open access (e.g., EEA, EASP, CSR Europe etc.)

4.6 General public

The e-CODUCT must reach out to the public to promote activities and results, give visibility to the project and increase the project outreach to the public by raising awareness about the necessity of decreasing CO2 emissions and replacing fossil fuels with the use of new e-CODUCT technologies.

5 COMMUNICATION ACTIVITIES

All communication activities are carried out with the aim of raising awareness of the need to reduce CO2 emissions and replace fossil fuels using new technologies.

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

Table 3 Communication deliverables

Deliverable	Name	Description	Due Date	Dissemination level	Responsible partner
D7.1	Communication and Dissemination Plan	Setting up and keep updated	Dec 2022 M4 – regularly revised	Public	NIC
D7.2	Project website	Setting up and keep updated	Dec 2022 (M4 – monthly updates)	Public	NIC
D7.3	Project presentation video and project flyer	via Newsletters, Social Media channels and Websites	M6 – Feb 2022	Public	NIC
D7.4	Public communication and dissemination activities (year 1)	Report describing all public communication and dissemination activities and publication of articles (year 1).	M12 – Aug23	Public	NIC
D7.5	Public communication and dissemination activities (year 2)	Report describing all public communication and dissemination activities and publication of articles (year 2).	M24 – Aug 24	Public	NIC
D7.6	Public communication and dissemination activities (year 3)	Report describing all public communication and dissemination activities and publication of articles (year 3).	M36 – Aug 25	Public	NIC
D7.7	Exploitation and Business plan for industrial partners	Assessment of market fit for the technology of e-CODUCT project.	M34 – June 25	Sensitive	TOTB

D7.8.	Assessment of IPR issues for technology exploitation	Analysis of existing patents and open disclosures related to the foreground of e-CODUCT project.	M34 – June 25	Sensitive	TOTB
D7.9	Data management plan	A clear policy on the type and format of project generated data that will be publicly available.	M6 – Feb 23	Public	UGent

5.1 e-CODUCT's identity kit

The identity kit contains the project logo, public project presentations, leaflets, flyers, posters and multimedia material (video), as well as a PPT slide presentation to provide broad and uniform dissemination tools for all partners.

5.1.1 Information flyer

An information flyer will be prepared and available online and in a form for print from month 6. The flyer will contain general information about e-CODUCT and will be distributed by each partner to all its relations/contacts, the press, and other relevant stakeholders.

5.1.2 Videos

Two short promotional videos about the project objectives and activities will be created: one in month 6, and one when the project is coming to an end. They will help with the exploitation of the results and the toolkit. The videos will also be used at congresses and events, on social media, will be offered to news media, and will be placed on partners platforms like YouTube as well as on the e-CODUCT website.

5.2 Project website

The project website is the main entry point of the project for all interested parties and should contain details on the project objectives, actions, progress and results for both professionals and the public.

It contains a short and long description, all project details and project updates such as news, events and results. The project website will be updated monthly by the communication manager. Project partners are asked to provide the communication partner with regular updates (e.g., news, upcoming events) on the progress of the project.

e-CODUCT Project website: https://e-coduct.eu/

The website will be available from the start of the project up to five years beyond, so that the results will be accessible long after the end of the activities.

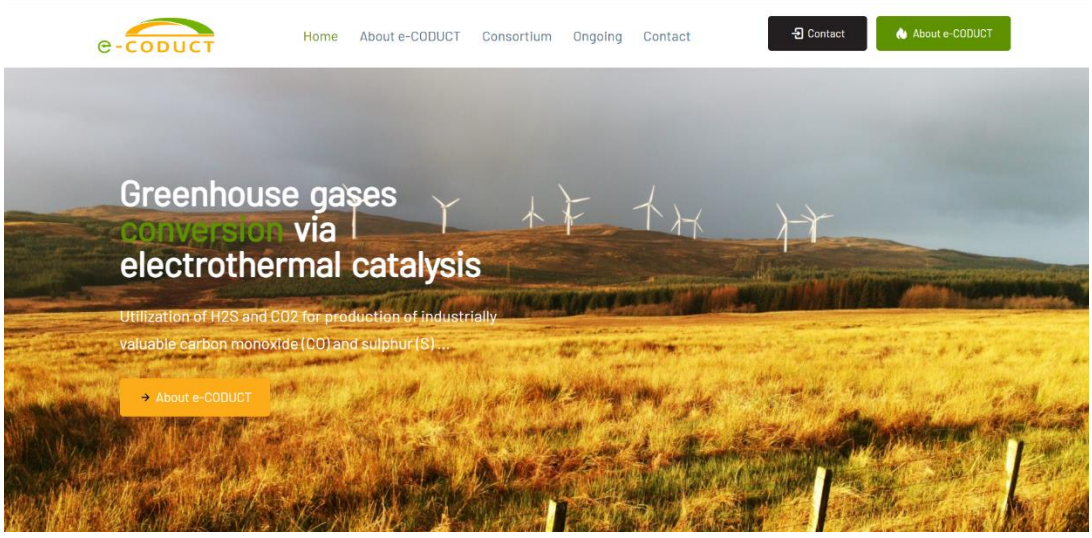
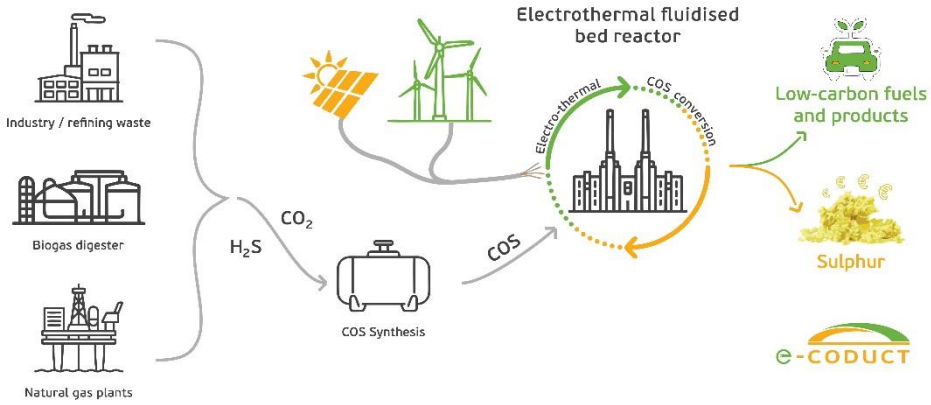


Figure 2 e-CODUCT website – home page

5.2.1 Project description on project partner websites

Each project partner must publish a short project description and links to the project website and social media profiles on their corporate website. This description must include objectives and results and highlight the financial support from the European Union:

> The e-CODUCT project aims at electrifying the simultaneous chemical conversion acid gas components (CO_2 and H_2S) into the platform molecule CO and marketable Sulphur using an electrothermal fluidized bed reactor (ETFB) technology. The corresponding process will comprise two steps: a first one for CO_2 and H_2S reduction into COS and a second step for COS decomposition into the platform molecule CO and Claus grade Sulphur. To demonstrate its valorization potential, CO will be converted into green methanol as final product using a third reaction (see Figure 1)The e-CODUCT consortium is composed of nine entities including industrial and academic partners spanning a complete value chain from material suppliers and engineers to modelling experts and technology providers. e-CODUCT will optimize and scale-up the reactor materials and catalysts to TRL6 to 16t/y of CO production while reducing reactor size by 50%, among others via the removal of heating units. Techno-economic and environmental assessment of the reactor performances will demonstrate -40% CAPEX and OPEX as well as -50% of GHG emissions. Optimization of operating conditions and reaction yield will be supported by fundamental (micro)kinetic modelling as well as industrial process planning accounting for variability of feedstock composition and renewable energy resources. Integrated conceptual design will fasten future scale-up and commercialization of the reactor demonstrator at TRL9 with a final capacity of 34kt of CO_2 converted per year. The e-CODUCT will provide a first-of-a-kind fast-response electrically heated catalytic reactor able to replace the conventional Claus unit for Sulphur recovery and simultaneous electro reduction of CO_2, allowing -50% energy demand for acid gas treatment in over 130 refineries in Europe by 2035. The process could then be diversified to other applications such as FCC, steam cracking and dehydrogenation and multiple sites as biogas digesters and gas plants representing 18,000 sites in Europe.



e-CODUCT process for conversion of acid gas (CO_2 and H_2S) into valorised CO and S

Duration: 36 Months
Start: 01.09.2022
End: 31.08.2025
Number of partners: 9
Total cost: 7.681.307, 50€
EU Contribution: 7.022.265, 00€
Program:

The e-CODUCT project is funded under Horizon Europe Grant Agreement n°101058100
CORDIS: https://cordis.europa.eu/project/id/101058100

Project consortium:

GHENT UNIVERSITY (Project coordinator)
TOTALENERGIES ONE TECH BELGIUM
NATIONAL INSTITUTE OF CHEMISTRY
PDC RESEARCH FOUNDATION
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS
SAINT-GOBAIN CENTRE DE RECHERCHES ET D'ETUDES EUROPEEN
DECHEMA GESELLSCHAFT FUR CHEMISCHETECHNIK UND BIOTECHNOLOGIE
BENKEI
CENTER ODLIČNOSTI NIZKOOGLJIČNE TEHNOLOGIJE - CO NOT

5.3 Project e-newsletters

A six-monthly newsletter will keep all interested parties informed about the progress of the project and will contain information on project events and conferences where e-CODUCT will be presented. It will have a direct connection with the project website and social media network. It will be available on the project and partners' website and distributed to all stakeholders.

5.4 Social media

Social media (LinkedIn, YouTube, Twitter) will be available from month 3. They will be used to ensure the highest possible visibility of e-CODUCT on the internet, to increase the project's reach to the wider public and maintain awareness for e-CODUCT among broader audiences. Communication will be complemented by the partners' own channels.

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

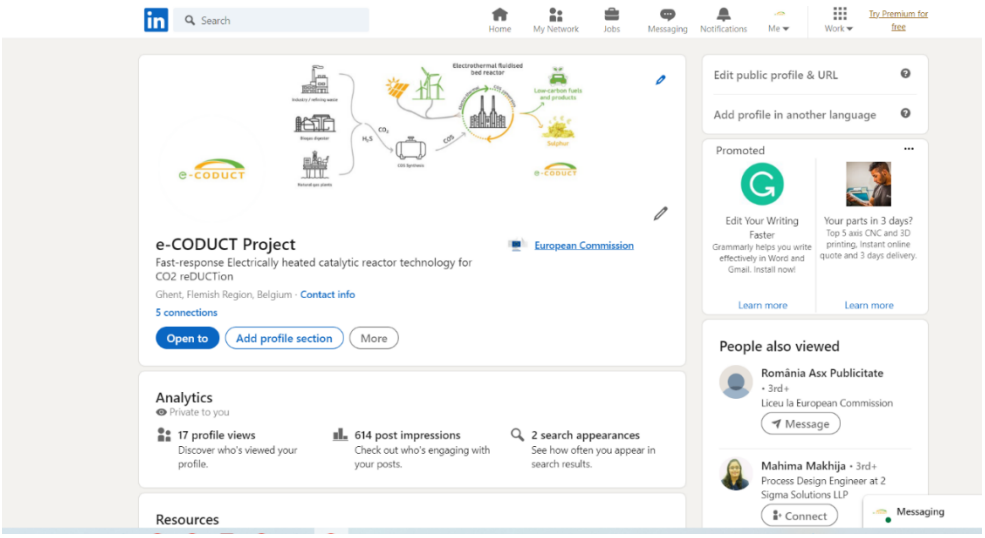


Figure 3 e-CODUCT LinkedIn profile

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

Figure 4 e-CODUCT Twitter profile

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

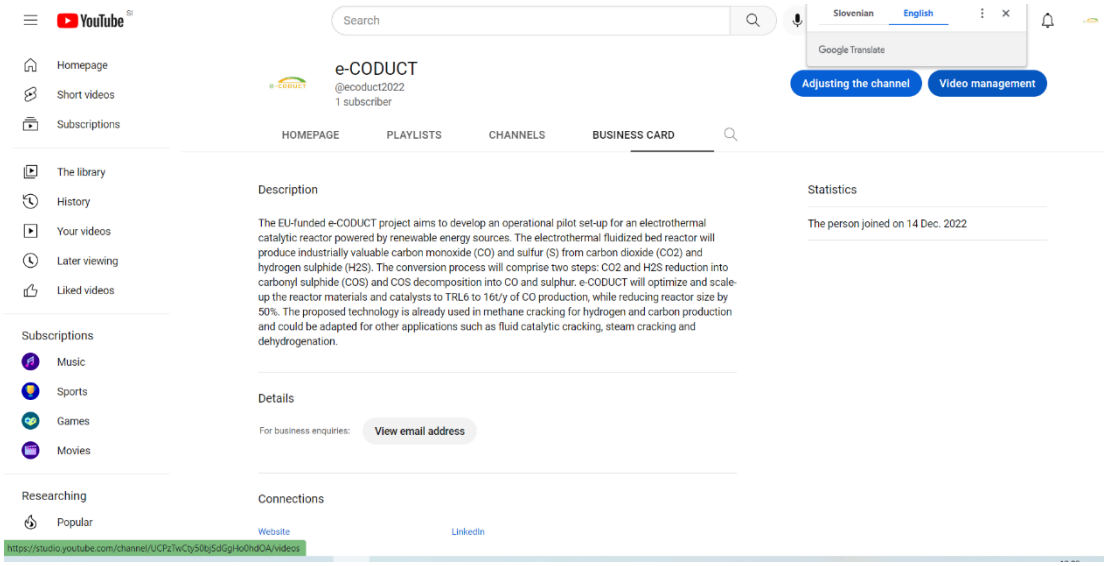


Figure 5 e-CODUCT YouTube profile

All partners are requested to share all project-related posts on their institutional profiles to ensure wide publicity for the project outcomes. For all social media posts on the project, it is recommended to use the hashtags #e-CODUCT #HorizonEurope #CO2Reduction #innovation #technology

When replying to a tweet, make sure it appears in the tweet feed so that it can be seen by more followers and appears in your timeline when viewed from desktop:

e-CODUCT on Twitter: @e-coduct project
e-CODUCT on LinkedIn: @eCODUCT2022

5.5 EC Online tools

Horizon Magazine, Project stories etc., as well as online European resources such as a yearly EU special-interest newsletter.

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

Horizon is an online-only, open-access magazine covering research and Horizon is an online-only, open-access magazine covering research and innovation, published in Brussels since 2013 by the European Commission. It covers a wide range of topics, including agriculture, energy, environment, frontier research, health, ICT, industry, policy, science in society, security, social sciences, space and trans

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Horizon publishes three to five articles per week and in English only and normally covers research projects funded by the European Union (EU).

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

CORDIS has a rich and structured public repository with all project information held by the European Commission such as project factsheets, participants, reports, deliverables and links to open-access publications.

CORDIS also produces its own range of publications and articles to make it easier for you to find relevant results that you can use in your domain. The print editions are in English while the web versions are also available in French, German, Italian, Polish and Spanish.

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5.6 Press and news releases

An average of at least 2 press/news releases per year are expected on specific project topics and milestones or to promote project events. These will be disseminated online, via social media and the website.

6 DISSEMINATION ACTIVITIES

This section addresses how to disseminate from an internal organizational perspective, clearly defining the partner's roles and responsibilities, and the communication workflows and procedures within the project, coordinated by the WP7 leader.

Dissemination will take place in all phases of the project (months 1 to 36), with the dual objective of creating awareness as well as receiving feedback from the identified target audience. Dissemination activities are expected to contribute to the validation of partial and overall project results. The project's dissemination plan identifies project outcomes and structures the consortium's main activities to spread the knowledge gained during the project. It aims to engage with a wide range of stakeholders, including authorities, policymakers, sector-representing organizations, and academics.

To approach public authorities and introduce them to the topic, project partners should organize workshops with public authority staff to familiarize them with the positive impact of the project results in terms of sustainable development and post-carbon approaches, and to explain what legislative adjustments, financial instruments, R&D support measures are needed to promote the uptake/upscaling of the technologies. During the project, a white paper on process electrification will be produced with a focus on e-CODUCT technology. It will include technical results as well as LCA, TEA and societal perception.

Dissemination of results:

- As soon as feasible, in a publicly available format, subject to any restrictions due to the protection of intellectual property, security rules or legitimate interests.
- At least **15 days (about 2 weeks) advance notice to the other beneficiaries**, together with sufficient information on the results that will be disseminated. Any other beneficiary may object within 15 days (about 2 weeks) of receiving notification if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the results may not be disseminated unless appropriate steps are taken to safeguard those interests.
- All beneficiaries must also comply with additional dissemination obligations if these are defined by the call.

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.

6.1 Publications

Dissemination activities conditions are described in the e-CODUCT CA section 8.4.

Main provisions applicable are:

- Provisions apply during the Project and for a period of 1 year after the end of the Project.
- Prior notice of any planned publication shall be given to the other Parties **at least 45 calendar days** before the publication. Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the Project Coordinator and to the Party or Parties proposing the dissemination, within 30 calendar days after receipt of the notice. If no objection is made within the time limit stated above, publication is permitted.
- A Party shall not include in any dissemination activity another Party's Results or Background without obtaining the owning Party's prior written approval, unless these are already published.

6.2 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.

6.2.1 Project workshops

Aim: promote the developed e-CODUCT concept.

Timeline:

First workshop in Brussels (Y1 - 2023)/TBD

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

Second workshop in Slovenia (Y3 - Final conference)/TBD

6.2.2 Testing site visits

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

Timeline: Y2 and Y3/TBD

6.2.3 Final conference

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.

> **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 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.

6.3 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.

6.4 Patents and scientific publications in open access

Academic 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.

6.5 EU Platforms

Besides the dissemination opportunities aforementioned, e-CODUCT will also actively engage with the 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 will be responsible to become aware of the dissemination opportunities related to their linked association(s) and share the information with the WP7 leader.

6.6 EU and National projects clustering activity

Necessary information related to policymaking (market failures, the European benchmark, systemic barriers to better European competitiveness, etc.) will be provided to project officers in the context of EU clustering activity. Partners will be active in the relevant European technology and innovation platforms and similar activities are also planned at the national levels.

Sister projects are EQATOR and EReTech.

EQATOR - Electrically heated catalytic reforming reactors

Using renewable power sources for the industrial production of chemicals from renewable carbon sources could reduce CO2 emissions significantly. The EU-funded eQATOR project plans to show how biogas could play such a role, by developing scalable catalytic reactor technology for the conversion of biogas to syngas. The reactor will be electrically powered and more efficient than existing tech, enabling conversion into higher-value products such as methanol, hydrogen, and synthetic fuels. The efficiency gains will be demonstrated by electrically heating the catalyst, either by resistive or microwave heating. Implementation of the eQATOR technology is estimated to decrease life-cycle CO2 emissions for syngas production by 60-80 % and save from 7 Mt CO2/year in 2030 to 45 Mt CO2/year in 2045.

EReTech - Electrified Reactor Technology

EReTech proposes to develop and validate at TRL 6 a transformative electrically heated reactor, together with the tailored catalyst for steam methane reforming, using a 250 kW unit. Based on SYPOX technology the reactor hosts ceramic supported structured catalyst, electrically heated by internal direct contact resistive heating elements. This allows achieving an energy efficiency close to 95%, i.e. nearly twice the value typical for gas-fired heat boxes, and a reactor volume that is two orders-of-magnitude smaller. As designed, the 250 kW reactor integrated with all required peripherals in a reforming skid will be used to produce approximately 400 kg/day of 99.999% pure H2. This is equivalent to the size of a commercially relevant biogas reforming plant for the decentralized production of renewable H2. The targeted design will allow to increase the power via parallelization, while scale-up will be conceptually targeted for larger capacities (>20 MW electrical input). EReTech final goal is to offer solutions for the decentralized market and for the decarbonization of existing or new centralized reforming plants.

COLLABORATION: at least one meeting after Y1 of the e-CODUCT implementation to present (non-confidential) abstracts and share knowledge.

7 CORPORATE DESIGN

All partners are obliged to use the European flag with funding statement and project logo on all their communication materials, outputs and deliverables (both paper and electronic) and to display it at events and on all related documents/materials. All requirements for the correct use of the logo, such as specifications, colours, position, are set out in the EU Graphic Design Guide and the e-CODUCT Graphic Design Guidelines.

7.1 Visibility — European flag and funding statement

Recipients of EU funding have the obligation to ensure that the EU emblem can easily be seen in a given context: communication activities related to e-CODUCT (including media relations, conferences, seminars, information material, such as brochures, leaflets, posters, presentations, etc., in electronic form, via traditional or social media, etc.), dissemination activities and any infrastructure, equipment, vehicles, supplies or major result funded by the grant must acknowledge EU support and display the European flag (emblem) and funding statement (translated into local languages, where appropriate):

Figure 6 Flag - Funded by the European Union

- The emblem must remain distinct and separate and cannot be modified by adding other visual marks, brands or text. Apart from the emblem, no other visual identity or logo may be used to highlight the EU support.
- The Grant Agreement number reference may also be given (**always in addition to the logo and not alone**):

The e-CODUCT project is funded under Horizon Europe Grant Agreement n°101058100

- When displayed in association with other logos (e.g., of beneficiaries or sponsors), the emblem must be displayed at least as prominently and visibly as the other logos.
- Any dissemination of results/information must indicate that it reflects only the author's view and that the EU/EC is not responsible for any use that may be made of the information it contains.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Graphics guide to the European flag (emblem)

https://european-union.europa.eu/principles-countries-history/symbols/european-flag_en

7.2 e-CODUCT Project logo

Project partners are requested to use the logo correctly as described in e-CODUCT Graphic Design Guidelines.pdf and to refer to the project website reference (https://e-coduct.eu/) and social media profiles (LinkedIn @e-coduct project, Twitter @eCODUCT2022 , YouTube @ecoduct2022) on all materials, outputs and deliverables (both hard copy and electronic) and to display it at events. The logo displayed must always be in a prominent place.

Figure 7 e-CODUCT logo

7.3 External Communication - Project presentation

To maximize the impact of the project communication, the style and image of all communications must be consistent. To that the brand manual will be available to all partners, consisting of:

- deliverable templates
- presentations templates
- e-CODUCT website
- e-CODUCT logos
- e-CODUCT social media background picture
- e-CODUCT social media profile picture
- promotional flyer
- Banner
- Poster
- other brand material.

In addition, all partners will have the communication guidelines available, consisting of:

- e-CODUCT short description
- e-CODUCT vision
- e-CODUCT facts & figures
- database of content used on different channels to be diffused in social media channels being adapted by the disseminating partner.

Deliverable 7.3 (Project presentation video and project flyer and Dissemination Material), due in month 6, will be elaborated in order to detail concrete materials of the project identity.

For appropriate external communication, a template has been prepared by month 6 with a brief project overview that includes all the visual elements required by the funding authority. All project partners should use this template as needed.

8 ACTIONS, ROLES AND RESPONSIBLITIES

All roles and responsibilities are distributed among all partners involved and structured according to the activities.

8.1 Communication actions matrix

Table 4 Communication actions matrix

	Develop and design the necessary tools for dissemination	Reach and engage with a wide audience of relevant stakeholders	Disseminate the project activities and messages in relevant events
Research & development	-Create the website - Open a LinkedIn group - Open a Twitter account - Open YouTube account -Project video	- Feed the website - Post regularly in LinkedIn group – Post regularly on Twitter -Send newsletters - Participate in industry events - publish articles	- Issue news and press releases – - Participate in industry / research events - participate at EU initiatives - Organize e-CODUCT events and workshops
Industry and Business	-Create the website - Open a LinkedIn group -Open a Twitter account - Open YouTube account -Project video	- Feed the website - Post regularly in LinkedIn group – Post regularly on Twitter -Send newsletters - Participate in industry events	- Issue news and press releases – - Participate in industry / research events - Organize e-CODUCT events and workshops - participate at EU initiatives
Authorities and policy makers	- Create the website - Issue an information flyer - Project video	- Feed the website - Post regularly in LinkedIn group – Post regularly on Twitter -Send newsletters - Participate in industry events -organize workshops	- Issue press releases - Participate in EU events - Organize e-CODUCT events and workshops - participate EU and National projects clustering activity
General public	-Create the website - Open a LinkedIn group -Open a Twitter account - Open YouTube account -Project video	- Feed the website - Post regularly in LinkedIn group – Post regularly on Twitter any -Send newsletters	- Issue press releases - Participate in public events - organize testing site visits for journalists

8.2 National Institute of Chemistry (communication lead partner)

The lead communication partner takes up the development and implementation of the CDP, which provides the background for:

- All communication activities (communication rules, templates and guidelines based on the grant agreement)
- Dissemination activities (marketing tools such as project identity kit, project videos, preparation and distribution of press releases and e-newsletter articles, website, creation and regular updating of social media)
- Promotion activities (organisation of activities to present the project to stakeholders and to present the project results at the final conference)

The lead communication partner will prepare e-CODUCT presentations with an overview of the project that can be used by the project partners to introduce the project.

8.3 UGENT/TOTB/BENKEI (Coordinating partners with supporting project partner)

The Lead Partner is responsible for the day-to-day management and administration of the project. This includes organising internal meetings and communication between the project partners.

8.4 All Project Partners

All partners contribute to the content on the website (NIC as lead communication partner will upload the content), newsletters and social media with contributions.

Support dissemination activities such as:

- Promote project results and news on the partner's website, project partner's newsletters and also when participating in relevant events.
- Disseminate social media content by sharing, liking and if appropriate, translating in the national language
- Assist with organization of final event
- Publish project results on the partner's website and present it at national and international events.
- Organize testing site visits for journalists
- Organize / participate at stakeholder workshops in their country
- Organize personal meetings or workshops with their authorities in their countries to introduce them to the policy recommendations
- Participate at EU platforms
- Participate at EU and National project clustering activities

9 COMMUNICATION AND DISSEMINATION KEY PERFORMANCE INDICATORS

Key elements of the dissemination strategies are the organisation of and participation in relevant national and international events, seminars, conferences and stakeholder workshops. Partners must always document their participation in such events and ensure that the correct project information is disseminated to interested parties. Partners must always inform the project management team about their participation or intention to participate in such events.

Communication and dissemination in e-CODUCT constitute an intensive and transversal piece of work involving all partners across the whole project's lifetime. This will be articulated by means of different activities using various tools and channels, both offline and online. To consolidate and keep good track of all the related activities, their level of accomplishment, and responsible partners, a single managing document "e-CODUCT WP7_Report and Tracking of Communication and Dissemination Activities.xlsx" has been created and made available to the project partners.

The document contains several sheets:

- **Cover page:** Sheet where all WP7 deliverables are listed
- **Planned events:** Sheet intended to gather all the information regarding planned and potentially interesting events where e-CODUCT partners intend to participate and/or contribute.
- **Publications –** Sheet for gathering information on published publications covering e-CODUCT topics. Partners must regularly update the list.
- **List of diss. activitites**– Sheet to detail all (international cooperation) events attended/implemented for dissemination activities within e-CODUCT project.

- **Twitter:** a comprehensive list of all tweets published through the e-CODUCT Twitter account @eCODUCT2022, including:
  - Tweet text
  - Classification, whether the tweet is disseminating content/news from e-CODUCT activities, "Retweeting" content from other Twitter accounts or publishing contents from relevant external websites, with a link to the content.
  - Date, so to have an overview, over time, of the impacts of this channel.
  - Related e-CODUCT WP/Task, if any in particular.
  - Number of "Re-tweets" and/or "Likes" that the tweeted has received.
  - Partner(s) involved, if any in particular.

- **LinkedIn posts**: a comprehensive list of all posts published through the e-CODUCT LinkedIn group/page:
  - Corresponding link
  - Date, so to have an overview, over time, of the impacts of this channel.
  - Other social media channels where the post was further disseminated (e.g., project website, Twitter, etc.)
  - Number of "Likes", comments and "Shares" that the post has received.
  - Partner(s) involved, if any in particular.

- **YOUTUBE posts**: a comprehensive list of all posts published through the e-CODUCT YouTube account:
  - Corresponding link
  - Date, so to have an overview, over time, of the impacts of this channel.

- Other social media channels where the post was further disseminated (e.g., project website, Twitter, etc.)
- Number of “Likes”, comments and “Shares” that the post has received.
- Partner(s) involved, if any in particular.

- **Other actions:** whatever actions the e-CODUCT partners carry out contributing to spreading the word on the project activities, its achievements, etc.

After each communication on the project, e-CODUCT collects feedback (either through surveys, collecting comments, analysing the impact of the communication - for example, the number of visits to the website, the number of downloads of a published document) to improve the communication and dissemination strategy and achieve optimal results.

9.1 Assessment

Every 12 months will be the time to evaluate which communication actions have worked out and which were not. This assessment is intended to help adapt the plan if necessary for the next period.

Key performance indicators (KPIs) are defined in Table 5 so the evaluation process will be fast and reliable.

Table 5 Key performance indicators - Communication

KPI - Communication	M12 target (overall)	M24 target (overall)	M36 target (overall)
Nb. of visits on the e-CODUCT website			
Nb. of attendees to events organised by e-CODUCT			
Nb. of registrations to e-CODUCT newsletter			
Nb. of invitations to present e-CODUCT to stakeholders			
Nb. of (online) articles published			
Nb. of participants to webinars/workshops organised by e-CODUCT			
Nb. of followers on Twitter			
Engagement of LinkedIn posts			
Nb. of followers on YouTube channel			
Number of e-CODUCT videos views			
Nb. of press and news releases			

Table 6 Key performance indicators - Dissemination

Type of dissemination	Workshop organization or contribution	Open-Access Journal articles	EC online tools	Conference papers	General public presentation	Video	White paper	Patents
UGENT								
TOTB								
NIC								
PDC								
CNRS - LCS								
SG CREE								
DECHEMA								
BENKEI								
CO NOT								
Totals								

10 CONCLUSION

This document may be updated during the project upon request or need.

It is kindly reminded to project partners that GA and CA will prevail on this document.