DE-centralised Cloud labs fOr inDustrialisation of Energy materials

DELIVERABLE 6.1

Plan for dissemination and exploitation including communication activities

Organisation: EQY

Main authors: Lisa CAMACHO, Mathilde TOUTON & Solène FOVELLE

Date: 31.05.2024

DELIVERABLE 6.1 – VERSION n°4

WORK PACKAGE 6

Funded by the European Union

Nature of the deliverable		
R	Document, report	X
DEM	Demonstrator, pilot, prototype	
DMP	Data Management Plan	
OTHER	Software, technical diagram, etc	

Dissemination level		
PU	Public (*fully open*)	X
SEN	Sensitive (*limited under the conditions of the Grant Agreement*)	
EU CI	EU Classified (*eu-restricted, eu-confidential, eu-secret under Decision 2015/444*)	

Deliverable No.	6.1
Dissemination level	Public
Work Package	WP6: Communication, Dissemination and Exploitation
Task	T6.1: Plan for dissemination and exploitation including communication activities
Lead beneficiary	EQY
Contributing beneficiaries	ALL
Due date of deliverable	M6 – 31/05/2024
Actual submission date	31.05.2024

Quality procedure			
Date	Version	Reviewers	Comments
29.03.2024	V1	Solène Fovelle	
23.04.2024	V2	Michael Eikerling, Jens Eller, Andreas Glüsen, Antonio M. Chaparro, Marcelo Carmo, Andreas Müller, Steven Holdcroft, Ivano Eligio Castelli, Frauke Richter, Tristan Asset, Ulrich Sauter, Rafael Mayo Garcia	
	V3	Marcelo Carmo, Joël Pauchet	
17.05.2024	V3	Antonio M. Chaparro	
23.05.2024	V4	Solène Fovelle	
31.05.2024	V4	Kourosh Malek	

Acknowledgements
This report is part of the 57 deliverables from the project "DECODE" which has received funding from the European Union's Horizon Europe research and innovation program under grant agreement N° 101135537. More information on the project can be found at www.decode-energy.eu.

Document objective and executive summary

The Plan for Dissemination and Exploitation (including communication activities) of DECODE delineates the consortium's communication and dissemination goals, target audiences, strategies for overcoming communication barriers, and the channels for dissemination. It highlights the strategies to implement said activities and to monitor their impact. This document also presents the strategies to exploit DECODE's results and to clearly define and protect the ownership of results. The presented plan will be updated as needed throughout the project.

Table of Contents

List of Figures

Abbreviations

Introduction

This plan sets out a strategy for the dissemination and public promotion of project outcomes and it presents actions taken to stimulate an effective engagement of stakeholders in relevant project activities.

Dissemination stands for the public disclosure of the results of the project. It is an active process of promotion and awareness-raising starting from the beginning of the project. It describes how research results will be made known to the relevant stakeholder groups (including research peers, industry and other commercial actors, professional organisations, policy makers), to enable them to exploit results for their own work. Since the industrial sector and the research community are the target groups to benefit most from DECODE, efforts will be laid specifically on disseminating project results and technological advances to these groups.

Communication involves the use of various media, both traditional and online, to reach a wider audience. Contents are communicated in more broadly accessible terms to help the general public understand the scope and the goals of the project. The aim is to foster broader awareness of and buy-in on path-breaking advances in the de-fossilisation of the global energy economy that DECODE is poised to **enable**.

For all communication and dissemination activities detailed below, reference to the EU funding will be made: "**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 or HADEA. Neither the European Union nor the granting authority can be held responsible for them**."

1. Dissemination Activities

1.1 Dissemination Target Groups & Key Messages

Relevant target groups and key messages for DECODE have been classified into four categories described in the Table 1 below:

Table 1: Four dissemination target groups and key messages

WHO	**Scientific community:** Researchers & engineers in materials physics, (electro-)chemistry (for energy) and electrochemical process engineering; researchers & engineers specialised in fuel cells and electrolysers; researchers & engineers specialised in the field of hydrogen technology research and industrial development; researchers & engineers specialised in the study of transport phenomena in porous media; members of EERA, the largest European energy-oriented research organisation. Researchers & engineers involved in modelling and/or experimental characterization in the above topics.
WHAT	The scientific community will be highly impacted by the results of DECODE, which will contribute to the general progress in the field of upscaling and integration of new materials for energy applications. Focus areas include clean energy materials and technologies and especially water electrolysis and fuel cell technologies. **Feedback expected:** Transferring and adopting results, initiating new collaborative research proposals, launching new research collaborations, and training young researchers (through dedicated Master's level courses and summer schools).
WHO	**Industrials including SMEs, business supporting organisations:** Representatives of target groups like developers of diagnostic or of testing equipment; energy materials developers; industries active in the development of energy materials and their integration into electrochemical cells; customers who concentrate on basic materials characterisation methods; industry research labs actively looking to participate in and leverage cloud-connected labs; companies developing manufacturing processes; players within mid- to down-stream value chain: component and cell developers, device manufacturers, component vendors.
WHAT	A wide range of industrial stakeholders will benefit from the DECODE platform. All platform's benefits (performance, speed, cost) will be communicated, and a realistic business case and exploitation strategy will be offered, involving such stakeholders. **Feedback expected:** Gaining interest in further exploitation of achieved results.
WHO	**Policy makers:** European Commission, EIC, EMIRI, Inter-governmental mission innovation, NGOs.
WHAT	Information regarding the performance, speed and cost benefit of the DECODE decentralised platform will be shared with policy makers, and particularly the EU. **Feedback expected:** Facilitating acceptance and adoption.
WHO	**General public**
WHAT	Up-to-date and fact-based information on advances in energy technology development and on the future perspectives of different technology options in the green and sustainable energy technology sector. Up-to-date and fact-based information on the progression in the development and deployment of autonomous and AI-orchestrated laboratory infrastructure, equipment and processes. **Feedback expected:** Public awareness and endorsement for new developments.
WHO	**Universities and high schools, science communicators**
WHAT	Making aware of the increasing interest of hydrogen technologies, electrolysers and fuel cells, to become earlier a part of the contents of basic science and technology courses. **Feedback expected:** Increase the number of new professionals dedicated to hydrogen the personnel dedicated to these technologies.

Based on the audience to target, tailored messages (including the examples below) will be developed to optimally meet the requirements of each group.
In addition, reference to the EU funding will be made whenever possible: "**DECODE has received funding from the European Union's HORIZON EUROPE research and innovation programme under grant agreement N°101135537**".

1.2 Dissemination Tools and Channels

Dissemination tools and channels will be the following:

- **Scientific and technical publications;**
- **Conferences and events (attended or organised);**
- **Links to existing initiatives and cooperation with other projects;**
- **Workshops, trainings and summer schools.**

The purpose, the target audience, the content, a proposed schedule and impact tracking indicators will be detailed for each relevant dissemination tool/channel below.

1.2.1 Scientific And Technical Publications

Purpose

DECODE partners will publish publications, reports and results (according to the intellectual property rights protection strategy defined in the Consortium Agreement and the open-access objective) in the scientific literature, dedicated peer-reviewed journals and magazines with the aim to share scientific, technical and demonstration results of the project.

Target audience

These scientific and technical publications will be aimed at reaching the **scientific community, policy makers and industrials.**

The content

The publications' content will vary depending on its specific topic and hence the journal it is published in (Table 3). The publisher will be selected once the co-authors have been authorised to publish by the Steering Committee (SC). Relevant information to be shared publicly will be made available either by gold open access publication or through the project communication channels. Publications will be made available on the website, under the "Results" section.

Table 3: Journals targeted for DECODE publications

Topic	Partner(s) involved	Journals targeted
Spectro-electrochemistry (e.g., local pH measurments coupled with electrochemistry, synchrotron-based methods coupled with electrochemistry, etc.); assessement of the ionomer-electrocatalysts interactions by electrochemical & spectro-electrochemical methods.	ICPEES@CNRS_Unistra	Journal of the American Chemical Society
Interface theory and simulation, from ideal to realistic interfaces ; deciphering the local reaction environment; theory and simulation-based mechanistic understanding of electrocatalytic processes.	FZJ, DTU, ULEI	Journal of Chemical Theory and Computation
Interface theory and simulation, from ideal to realistic interfaces; deciphering the local reaction environment; theory and simulation-based mechanistic understanding of electrocatalytic processes; fundamental understanding of the reaction rate distribution in porous electrodes; physical models of lifetime and performance.	FZJ, DTU, ULEI	Nature Communications
Theory and simulation-based mechanistic understanding of electrocatalytic processes; fundamental understanding of the reaction rate distribution in porous electrodes; physical models of lifetime and performance	FZJ. DTU, ULEI	ACS Catalysis
Deciphering the local reaction environment; theory and simulation-based mechanistic understanding of electrocatalytic processes; fundamental understanding of the reaction rate distribution in porous electrodes.	FZJ, DTU, ULEI	ChemElectroChem
Physical models of lifetime and performance of electrochemical energy devices. Modeling-based diagnostcis and data analytics.	FZJ, CEA, CIEMAT	Journal of the Electrochemical Society
PEMFC fundamentals	CIEMAT	Electrochemical Society
Assessement of the ionomer-electrocatalysts interactions by modeling and electrochemical & spectro-electrochemical methods.	FZJ, CEA, ULEI, ICPEES@CNRS_Unistra	ACS Applied Energy Materials
Spectro-electrochemistry (e.g., local pH measurments coupled with electrochemistry, synchrotron-based methods coupled with electrochemistry, etc.); assessement of the ionomer-	ICPEES@CNRS_Unistra, FZJ, CEA, CIEMAT	Journal of Physical Chemistry

electrocatalysts interactions by electrochemical & spectro-electrochemical methods. Interface theory and simulation, from ideal to realistic interfaces; deciphering the local reaction environment; theory and simulation-based mechanistic understanding of electrocatalytic processes; fundamental understanding of the reaction rate distribution in porous electrodes; physical models of lifetime and performance		
Spectro-electrochemistry (e.g., local pH measurments coupled with electrochemistry, synchrotron-based methods coupled with electrochemistry, etc.); assessement of the ionomer-electrocatalysts interactions by electrochemical & spectro-electrochemical methods. Theory and simulation-based understanding of electrocatalytic processes; fundamental understanding of the reaction rate distribution in porous electrodes; physical models of lifetime and performance	ICPEES@CNRS_Unistra, FZJ, DTU, ULEI, CEA, CIEMAT	Electrochimica Acta
Spectro-electrochemistry (e.g., local pH measurments coupled with electrochemistry, synchrotron-based methods coupled with electrochemistry, etc.); assessement of the ionomer-electrocatalysts interactions by electrochemical & spectro-electrochemical methods.	ICPEES@CNRS_Unistra	Angewandte Chemie
PEMFC applications to small power and portable electronic devices	CIEMAT	Applied Energy
Studies of transport impedance phenomena in PEMFC	CIEMAT	Electrochimica Acta, Journal of Power Sources
Modelling of GDL manufacturing: hydrophobic treatment and MPL coating (1-2 publications)	CEA, INPT	Journal of Power Sources, Journal of Electrochemical Society
Transport properties of GDL based on 3D images of carbon substrate and modelling of manufacturing steps (1 -2 publications)	CEA, INPT	Journal of Power Sources, Journal of Electrochemical Society
Modelling of electrodes manufacturing (1-3 publications)	CEA, INPT	Journal of Power Sources, Journal of Electrochemical

		Society

Completing the scientific/technical publications in journals, DECODE public deliverables (Table 4) will be published on the project website, under the "Resources" tab.

Table 4: List of DECODE deliverables intended for public access

WP N°	D. N°	Deliverable Name	Lead Ben	Due Date
WP1	D1.1	New knowledge (PR1) gained on LRE and DRR throughout the entire electrode structure and the ensuing enhanced activity-durability descriptors	CNRS	31-Jul-25
WP4	D4.1	Report on the demonstration of the data flow via defined interfaces between DECODE cloud database and partners databases	HTE	30-Nov-26
WP4	D4.2	Results of the baseline case (PEFC) demonstration (PR7)	BOSCH	31-May-27
WP4	D4.3	Results of the exploratory cases (PEWE, AEWE, AEFC) demonstration (PR7)	NEL	30-Nov-27
WP5	D5.2	Data management Plan	FZJ	31-May-24
WP6	D6.1	Plan for the dissemination and exploitation including communication activities	EQY	31-May-24
WP6	D6.2	Report on communication and dissemination activities	EQY	30-Nov-27

Schedule

Publications will be made available in a timely manner according to the deliverables' deadlines and results' obtention.

Impact tracking

The impact of publications will be monitored on a regular basis, providing information on the journal, the authors, the partners involved, the audience targeted.

Key indicators	Poor impact	Good impact	Excellent impact
Number of scientific publications per year	< 10	20	> 20
Number of publication downloads	< 200	> 2000	> 2000

1.2.2 Conferences and Events

Purpose

DECODE researchers will attend a minimum of 30 outreach events in the form of seminars, conferences, and side events at labs and EU/international scales. Besides, the consortium will organise a conference in Germany in year 4 of the project that will focus on topics centred around DECODE themes and it will provide opportunities to inform about and highlight methodical and scientific-technical advances made within the project.

Target audience

All identified target audiences will be targeted with these events.

Content and schedule

Table 5 provides an overview of events whose thematic foci resonate well directions of DECODE research. DECODE researchers will meet highly interested and competent expert audiences. The awareness for novel approaches taken and original results obtained in the DECODE project will be multiplied at such events. Valuable feedback will be collected that can help refine DECODE goals and approaches. Events organized by DECODE will raise awareness for specific Future Labs concepts developed and deployed through the project.

Table 5: Indicative timetable of planned events and conferences organised/attended by DECODE partners

Name of the event	Date	Location	Partner(s) involved/attending
EcatalytiX	April 3-5, 2024	Strasbourg, France	Organizer: ICPEES@CNRS_Unistra; Attending: ULEI, PSI, etc.
Electrochemical Society (ECS) meeting	May 18-22, 2025	Montréal, Canada	FZJ
Baltic Electrochemistry Conference: Finding New Inspiration 2 (BEChem 2024)	April 14-17, 2024	Tartu, Estonia	FZJ
International Symposium on Solid Oxide Fuel Cells (SOFC-XIX)	July 13-18, 2025	Stockholm, Sweden	
36th Topical meeting of the International Society of Electrochemistry (ISE)	May 26-29, 2024	Šibenik, Croatia	
37th Topical meeting of the ISE	June 9-12, 2024	Stresa, Italy	FZJ
38th Topical meeting of the ISE	September 8-11, 2024	Manchester, UK	FZJ
76th Annual Meeting of the International Society of Electrochemistry	September 7-12, 2025	Mainz, Germany	ICPEES@CNRS_Unistra, FZJ, CIEMAT
European Materials Research Society (E-MRS), Spring 2024	May 27-31, 2024	Strasbourg, France	
European Materials Research Society (E-MRS), Fall 2024	September 16-19, 2024	Warsaw, Poland	
European Materials Research Society (E-MRS), Spring 2025	May 26-30, 2025	Strasbourg, France	DTU
GRC on fuel cells	July 28-August 2, 2024	Smithfield, Rhode Island, United States	PSI

ModVal – 20th Symposium	March 13-14, 2024	Baden, Switzerland	ICPEES@CNRS_Unistra, DTU, CEA and PSI
ModVal – 21th Symposium	2025	Switzerland	CEA
European Hydrogen Energy Conference	March 6-8, 2024	Bilbao, Spain	CIEMAT
European Fuel Cell Forum (EFCF)	July 2-5, 2024	Lucerne, Switzerland	
European Fuel Cell Forum (EFCF)	July 1-4, 2025	Lucerne, Switzerland	CEA
International Conference on Electrolysis and Analytical Chemistry (ICEAC)	July 19-20, 2024	Rhodes, Greece	
6th International Caparica Conference on Chromogenic and Emissive Materials (6th IC3EM-2024).	7 – 11 July 2024	Costa de Caparica, Portugal	ICPEES@CNRS_Unistra
Brazilian Materials Research Society (B-MRS)	29 September – 3 October 2024	Santos, São Paulo, Brazil,	ICPEES@CNRS_Unistra
European Energy Research Alliance (EERA) – JPC meeting #34	March 11-12, 2024	Brussels, Belgium	FZJ, CIEMAT
European Energy Research Alliance (EERA) – Annual Strategy Meeting	May 14-15, 2024	Brussels, Belgium	FZJ, CIEMAT
European Energy Research Alliance (EERA) – JPC meeting #35	Fall 2024	Brussels, Belgium	FZJ, CIEMAT
European Corrosion Congress EUROCORR 2024	September 1-5, 2024	Paris, France	CIEMAT

Impact tracking

The impact of participation in events will be monitored as partners are participating in / organising relevant events through a common spreadsheet tracker.

Key indicators	Poor impact	Good impact	Excellent impact
Number of presentations at international conferences		20	> 20
Number of people attending per event		100	> 100

1.2.3 Cooperation with other projects

Throughout the project lifetime, relations with **other projects,** existing/future Horizon Europe projects or other national projects **on related topics** will be initialized and nurtured as conducive in view of enhancing the pool of available data, facilitating methodical advances, and increasing the awareness for and adoption of DECODE's scientific-technical results and methodical developments.

Sister projects' will be contacted through their Coordinators and collaboration opportunities, including but not limited to, joint dissemination of results will be exploited.

Table 2: Potential projects with which collaboration is envisioned (non-exhaustive list)

Project	Inputs to DECODE	Partner
Profile Areas 2000-2024	Access to research and the respective infrastructure of all the faculties of the RWTH Aachen University.	**RWTH**
FURTHER-FC 2020-2024	The numerical models developed will be made available to DECODE as much as possible (Consortium Agreement)	**CEA, PSI, INPT**
HERCULES 2021-2024	The workflows developed will be integrated in the DECODE platform.	**DTU**
ELHYPORT 2021-2024	Experimentation results will be made available to DECODE.	**CIEMAT**
StoRIES 2021-2025	Mutual benefit from interlinking research infrastructure offered by facilities in StoRIES with the DECODE Future Labs infrastructure.	**FZJ-IEK-13**
HyThroughGen 2021-2025	Devices and workflows developed within HyThroughGen regarding automated fabrication of catalyst layers and their electrochemical characterisation.	**FZJ-IEK-11**
GCMAC 2021-2026	Knowledge in AI-driven accelerated materials development using data analytics and high-performance computing will be used in DECODE.	**FZJ-IEK-13, FZJ-IEK-14**
Fabbri_PRIMA 2021-2026	Synchrotron based *operando* method development.	**PSI**
UTILE 2022-2024	Methods for ML-enabled imaging data, meta-data management, and data analytics will be used in DECODE.	**FZJ-IEK-13, FZJ-IEK-14**
HyPE 2021-On-going	Modelling schemes, modelling results and relevant data will be shared with DECODE.	**ICPEES@CNRS_UNISTRA**
NIMPHEA 2023 - 2027	Developement of GDE cells and tools to understand the ionomer-electrocatalyst-phosphoric acid interactions shall be integrated in DECODE.	**ICPEES@CNRS_UNISTRA**
HyInnoLyze 2021-2024	Methods for the characterisation of cell degradation and measurement data can be made available to DECODE.	**FZJ-IEK-14**
HyInnoCells 2022-2024	Materials and measurement data can be made available to DECODE.	**FZJ-IEK-14**
HyInnoCells II 2024-2027	Materials, methods and measurement data can be made available to DECODE.	**FZJ-IEK-14**
DigiCell 2024-2026	Mutual benefit from sharing results and interlinking modelling and characterisation methods.	**FZJ-IEK-14**
BIG-MAP 2020-2023	The DECODE infrastructure will be integrated with the BIG-MAP infrastructure creating a synergetic environment for materials discovery.	**FZJ-IEK-14, DTU**

BATTERY 2030+ CSA2 and CSA3 2020-2026	Define standards for research data management, protocols and ontologies for the battery EU ecosystem.	**DTU**

Purpose

The goal will be to identify synergies of DECODE with other similar or related projects (possibly with involvement of DECODE partners) and seek to seize benefits through collaboration. Joint actions with other projects may also focus on amplifying public acceptance, outreach and impact through coordinated information releases on novel technical developments or path-breaking innovations.

Target audience

All relevant projects and initiatives. Special focus on projects funded under the call HORIZON-CL4-2023-RESILIENCE 01-39 (CSA).

The content

DECODE will link activities with researchers and partners of other projects (Table 2). Discussions and exchanges with other relevant existing Horizon Europe projects and newly identified projects will be proactively sought when potential synergies are seen. A special relationship will also be built with the sister project funded under the same call as DECODE, i.e., HyWay (coordinated by VTT), DigiCell (coordinated by KEYSIGHT), and MaMMoS (coordinated by DONAU).

Schedule

This will take place throughout the life of the project.

Impact tracking

The collaboration with other projects will be monitored and efficiency and relevance of implemented actions will be analysed during consortium meetings and periodic reports.

Key indicators	Poor impact	Good impact	Excellent impact
Number of relations with relevant projects	< 2	8 – 15	> 8
Number of participations to events/workshops/task groups organised by the EMMC and EMCC	< 2	3 – 5	> 5
Number of joint activities with RESILIENCE-01-39 (CSA)	< 2	2 – 4	> 4

1.2.4 Workshops, trainings and summer schools

Purpose

Findings of the project will be migrated into training and workshop material to be widely disseminated and implemented in different types of activities detailed below.

Target audience

These events will be aimed at reaching the **scientific community (including next generation of future experts), policy makers, industries in the sustainable energy business and the general public**.

The content

Three types of activities with specific content will be delivered:

2 **M.Sc. courses**, e.g., the courses in modelling and characterisation for energy materials, interface theory and computational electrocatalysis, AI for accelerated materials modelling and design modelling and characterisation for energy materials organised by FZJ-IEK-13 and the course of energy conversion and storage organised by UNISTRA;

3 **Demonstration workshops** both organised by project partners (CIEMAT, DTU, FZJ) and external ones. These workshops include data handling, MAPs, standards and ontologies;

A two-days workshop will be organised by CIEMAT to provide a general introduction to the DECODE project and presentations of the latest developments in fuel cell research by each partner. Presentations from invited researchers, industry or government will be included. Attendance is open to scientific community, students, and general public. CIEMAT groups will show some of the facilities used for DECODE. The presentations will be available on the DECODE page. In case of time constraints, it is possible to extend the workshop to a third day or to combine the partners' presentations to shorten them.

Tentative program:

	Day 1	**Day 2**
Morning	Opening Introduction to DECODE Invited Partners 1-4	Invited Partner 9-13 Discussion
	Discussion Visit CIEMAT	
Lunch		
Evening	Partners 5-8	Partners 14-16

	Discussion Dinner	Discussion Farewell

Dates: 2025 or 2026

4 **HQP training campaigns** covering cutting edge know-how in theory and computation as well as digitalisation and materials informatics, organised by FZJ-IEK-13 with participation and contributions from all project partners;

5 **Summer schools** organised by FZJ-IEK13 and HZB.

DECODE will be hosting a week-long training summer schools focused on the "Acceleration and Automation of Energy Materials Integration". The school will cover multiple aspects of materials acceleration methodologies using AI/ML, in-line and off-line characterization techniques and Modeling-based component and cell diagnosis. This includes experimental aspects of automated synthesis and characterization, integrating simulation methods in materials design, and machine learning methods for de-centralized labs. Experts from different fields will hold lectures and provide hands-on tutorials on their subjects. participants will:

- Learn transversal skills for automating materials characterization and resultant data collection and management.
- Form connections with other researchers directly involved in accelerated discovery and integrations across Europe
- Tour autonomous labs and see them in operation, discuss considerations directly with researchers.

Schedule

This will take place throughout the life of the project.

Impact tracking

The workshops, trainings and summer schools will be monitored, and efficiency and relevance of implemented actions will be analysed during consortium meetings and periodic reports.

Key indicators	Poor impact	Good impact	Excellent impact
Number of demonstration workshops organised	< 2		> 2
Number of HQP training campaigns	< 2	3	> 3
Number of summer schools organised	< 2	2	> 2
Number of students participating to the M.Sc. courses	< 50	50	> 50
Number of participants per HQP training	< 60	60	> 60

2. Communication Activities

The aim of DECODE's communication activities is mainly to reach the **general public.** However, the communication strategy implemented in DECODE will also allow to raise the awareness of **all relevant stakeholders** of the DECODE project (identified in **Table 1**).

The channels, purpose, content, schedule and impact tracking indicators (KPIs) of DECODE's communication strategy are detailed thereafter.

2.1 Communication toolkit

Purpose

EQY developed a communication toolkit for DECODE's project and made it available to all partners on the project's SharePoint. The aim of this communication toolkit is to provide partners with all the tools they need to communicate uniformly and effectively, whether in real or virtual situations.

Content

This toolkit includes:

- **DECODE's graphic charter.** This document (overview in Annex 2) defines the visual identity of DECODE. It entails the project's:
  - **logo** (Figure 1),
  - **typography**, (overview in Figure 3)
  - **colours' palette** (overview in Figure 4)
  - and **templates** for Word and PowerPoint presentations. (Figure 5)

  The main objective of the graphic charter is to ensure uniformity and coherence between the different communication supports developed and spread during the project. It will allow the project to be easily recognisable.

- **Physical promotional materials.** These are effective communication tools for a wide audience, as they present in a succinct and easily understandable way the concept and objectives of the DECODE project, its innovations, and how the results will impact societies. They are therefore a good way to raise awareness on the importance of the development and integration of clean energy materials and technologies. They include:
  - **roll-ups** (to be coming)
  - and **flyers.** (Figure 2)

  They are a simple way to disseminate information about the project and can easily be placed on stands, tables or boards in public areas or universities, and distributed during events. They are also available for download on the website.

Both follow the same design model and present the project's main objectives, methodology, and expected results.

- **Digital promotional supports**, following the same logic, will also be developed and spread throughout the project, namely:
  - **infographics and visuals** for social media communication campaigns or for the website,
  - And **two videos** to be shared on the project's Youtube channel, website and social media (LinkedIn). The first one will present the project's objectives, concept and innovations, whereas the second one will present its final results.

    For each one, a storyboard with descriptions and animation suggestions will be prepared by **EQY** and converted into a short video presenting the project in a simple manner, accessible to a non-expert audience by an external video production company.

Schedule

DECODE graphic charter, as well as its physical materials (roll-up and a flyer) were developed at the very beginning of the project by **EQY**.

Concerning DECODE digital supports, infographics and visuals will be developed by **EQY** progressively, according to the evolution of the project and thus its communication needs. The project presentation video will be developed at the beginning of the second year of the project, whereas the closing video will be developed at the end of the project.

Impact tracking

The physical promotional materials will be used as support for all events. The number of units distributed per event will be used as indicators.

The videos will be available on digital platforms (see above) which will enable partners to easily monitor the number of views.

Key indicators	Poor impact	Good impact	Excellent impact
Flyers or digital brochure distribution per event	< 50	500 – 1,000	> 1,000
Views of the video at the end of the project	< 500	2,500 – 5,000	> 5,000

DECODE

Figure 1 - Logo

Figure 2 - DECODE flyer

Typography

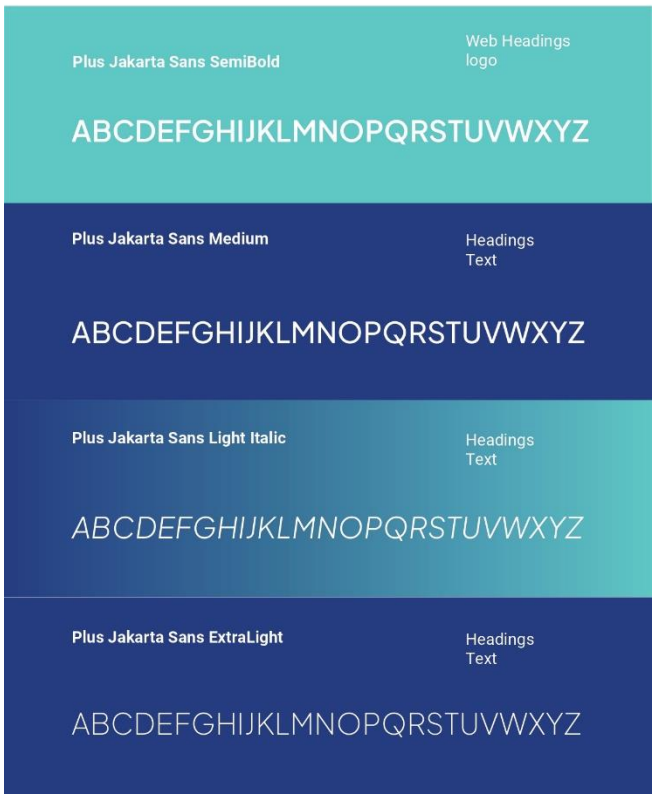


Figure 3 - DECODE typography

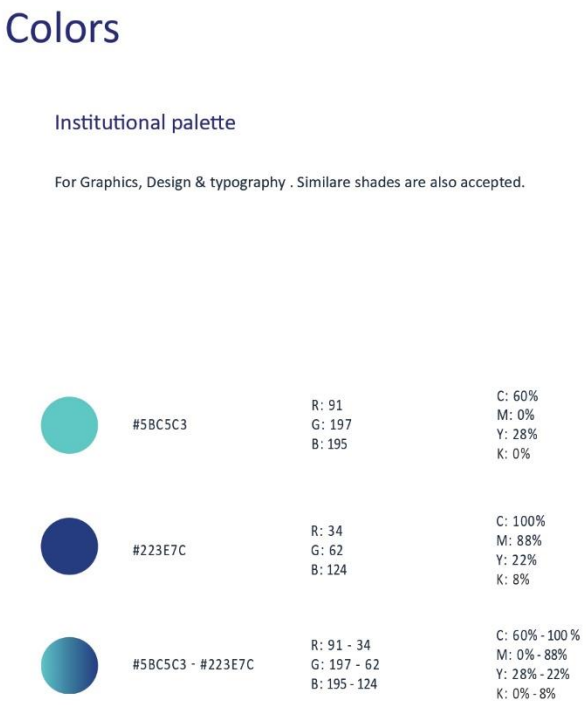


Figure 4 - DECODE color palette

Figure 5 - DECODE PPT template

2.2 Project Website

Figure 6 - DECODE's website homepage

Purpose

The project website (www.decode-energy.eu) will be DECODE's main communication tool. Indeed, it will contain all relevant information about the project and its latest news, both for the general public and the target groups previously identified.

Its link will appear in all project communication materials as well as on the partners' websites.

The website will be available in English.

Content

The structure of DECODE website is as follows:

- **Home page:** The homepage includes an overview of the key project's information (see figure 6), followed by a map of Europe including the partners' logos, as well as a short, textual description of the project.
- **About:** highlighting the project's major assets, the key elements of the DECODE platform (i.e. IRL, DECODE FABRIC, and CPU), a detailed diagram of the project's innovations and activities, and a paragraph about the consortium.
- **Contact us**: a contact form that readers can fill-in.
- **Resources:** This section will be updated by the partners as project milestones are achieved and public deliverables are approved by the European Commission.
- **News & events:** The partners will maintain contact with project followers and stakeholders and share with them upcoming events where DECODE partners will be present.
- **Footer:** The footer includes the EU acknowledgement, as well as the links to DECODE's social media platforms and newsletter's registration.

Schedule

The English version of the website was made available by **EQY** at the beginning of the project (Month 6), in close collaboration with the partners. The website will be regularly updated by **EQY**, following the progresses and news of the project (e.g., presentation of public deliverables as listed in Table 1.4, achievement of milestones, ...), as well as the participation in events. The objective is that the website remains a lively space.

Impact tracking

The impact of the website will be periodically analysed by means of the Google Analytics tool, collecting the location of visitors and other relevant information.

Key indicators	Poor impact	Good impact	Excellent impact
Visits per year on the project website	< 1,000	5,000-7,000	> 7,000

2.3 Social Media

Purpose

DECODE activities on social media aim at enhancing the overall visibility of the project and attracting a wider audience.Moreover, social media will enable partners to establish links with related projects and researchers, as well as with the HADEA funding agency, since these platforms allow for interactions. This could enable or contribute to the formation of a DECODE community enduring after the project's end. A social media guide for LinkedIn is developed in Annex, to support partners in using the project account.

Content

The contents shared will be mostly general and popularised. They will invite the reader to visit the project website, subscribe to the Newsletter, watch the video, and provide the reader with more information on the project (e.g. partners' presentation, easily understandable presentation of the objectives and concept of the project, regular presentations of the progress made through achieved Work Packages, etc.). Posts will also include:

1) Project press releases,
2) Announcements of progress,
3) News on conferences and meetings,
4) News on milestone achievements and public deliverable publications,
5) Information about forthcoming events and updates about recent events,
6) News on research and developments on related issues from all over the world.

Communication campaigns are planned throughout the project and summarized in Table 6.

Schedule

The social media accounts were created at the very beginning of the project. Their management will be ensured by **EQY** throughout the project. High-impact campaigns will be implemented at least once a year, to present projects developments and results.

Table 6: Indicative social media campaigns timetable and details

Date	Topic	Partners involved	Communication Support
Throughout the whole project	Republication of diverse social media contents relevant for DECODE readers (e.g.: information on related projects, interesting innovations in the field, articles, ...)	EQY, ALL	Text.
Throughout the whole project	Information about forthcoming and recent events related to DECODE.	EQY, ALL	Text, infographics, pictures.
Throughout the whole project	One or more publication(s), including pictures, after each Consortium Meeting.	EQY, ALL	Text, pictures.
November 2023 to January 2024	General introduction of the project: announcement of the project's launch, brief presentation of the project, kick-off meeting.	EQY	Text, infographics, pictures.
April 2024	More specific and visuals-based presentation of the project's concept and innovations.	EQY	Text, infographics.
April 2024	Consortium's presentation.	EQY, ALL	Text, infographics.
May 2024	Launch of the website: incitation and link to visit.	EQY	Text, infographics.
May 2024; and then, every 6 months	Forthcoming publication of the Newsletter: incitation and link to register.	EQY	Text, infographics.
2nd half of 2024 – 1st half of 2025 (tbc)	"Meet our team": each partner is interviewed and presents him- or herself, as well as his or her role in the project.	EQY, ALL	Short videos (around 1 minute).
March 2025	Publication of interviews with women involved in the project to mark International Women's Day. Theme: role in the Decode project and pursuing a career in science as a woman.	EQY	Text, pictures.
August 2025 (M20)	End of WP1: progress achieved	EQY, WP Leader (CNRS)	Text, infographics, pictures.
December 2025 (M24)	End of WP2: progress achieved	EQY, WP Leader (PSI)	Text, infographics, pictures.

March 2026	Publication of interviews with women involved in the project to mark International Women's Day. Theme: role in the Decode project and pursuing a career in science as a woman.	EQY	Text, pictures.
March 2027 (M39)	End of WP3: progress achieved	EQY, WP Leader (FZJ)	Text, infographics, pictures.
March 2027	Publication of interviews with women involved in the project to mark International Women's Day. Theme: role in the Decode project and pursuing a career in science as a woman.	EQY	Text, pictures.
December 2027 (M48)	End of WP4: progress achieved	EQY, WP Leader (HTE)	Text, infographics, pictures.
December 2027 (M48)	End of the project: summary of the work achieved, presentation of the key results, closing event.	EQY, FZJ, ALL.	Text, infographics, pictures.

Impact tracking

The impact of communication and dissemination activities on social media will be carried out on a regular basis fed with statistics from Google analytics.

Key indicators	Poor impact		Good impact	Excellent impact
Posts per year on social media	<20	20-30	>30	
Views per post on social media	<500		500-1,000	>1,000
Views per year on social media posts	<10,000		10,000-30,000	>30,000
Total size of follower communities	<300		300-500	>500

2.4 Newsletters

Purpose

Bi-annual Newsletters will be sent to the people who registered to the mailing list, to provide an update on the recent news of the project and to maintain contact with the audience interested in the

project.

The content

The newsletter will gather the following information:

- Overview of the DECODE project, its objectives and partners;
- Ongoing activities, and results achieved (when relevant);
- Upcoming news and events, as well as recent events (e.g., include pictures of the past events, such as conferences or consortium meetings, to make the content livelier).

Schedule

Newsletters will be produced and distributed using MailChimp starting at M6 and every 6 months to detail the project activities and will be uploaded on the website and shared on social media.

Impact tracking

Key indicators	Poor impact	Good impact	Excellent impact
Number of people who have subscribed to the newsletter	<100	100-300	>300
Percentage of people opening the newsletter	<30%	30-50%	>50%

2.5 Popular Scientific Articles and Press Releases

Purpose

Over the lifetime of the project, DECODE partners will publish at least 5 popular science articles, as well as press releases at important stages of the project's evolution. The aim of these publications is to make the project more visible and more understandable for a wide, non-expert audience.

The content

The popular scientific articles will focus on specific technical aspects of DECODE, while remaining easily understandable. All partners will be invited to contribute to their writing, according to their expertise and activities in the project.

With regards to press releases, they will inform the general public and target audiences of important progresses of the project (e.g., achievement of significant milestones, important results, ...).

Schedule

As for scientific/technical publications, popular scientific articles and press releases will be published

all along the project, in proper times according to results' obtention and deliverables' publications.

Impact tracking

Following indicators will be used to track the impact of DECODE articles and press releases.

Key indicators	Poor impact		Good impact	Excellent impact
Number of popular science articles published	< 5		5-7	>7
Number of reads per article	<500	500-1000	>1000	

3. Exploitation strategy and business case

Key elements of the exploitation strategy of the DECODE project are to enhance industrial uptake of modelling-based tools and novel characterization techniques. Integration of these assets into the DECODE platform will enable rapid discovery and characterisation workflows to achieve high effectiveness and sustainability of the value-chain, connecting (up- and down-stream) materials developers to component developers, component integrators, device manufacturers and system developers.

The economic prospects of key technologies for the clean H_2 sector, viz. polymer electrolyte membrane fuel calls and water electrolysers (PEMFC and PEMWE), hinge on ground-breaking technological innovations in electrode materials fabrication and integration. Addressing the scientific and technical challenges to materials development and integration (electrocatalyst and ionomer), electrode design and optimization, and component development, therefore, represents opportunities that are likewise pressing as well as commercially attractive.

We will consider all the measures regarding the possibility of patenting, trade-secret, copyright or confidential know-how for the major project outcomes. The exploitable outcomes include modeling and characterization methods and tools that have been validated and assessed in terms of the DECODE Integration Readiness Level (IRL) prior to being deployed on the platform, as well as analytics and orchestration modules, including DECODE Foundry and DECODE CPU. Such measures will be agreed beforehand among the partners, following the Consortium Agreement (CA). The CA document addresses, in particular, the use of background patents, the exploitation of results and patenting/licensing issues. Partners also describe in the CA ways to exploit the results beyond the project duration. After the generation of exploitable project results, the project coordinator, in cooperation with the partners involved, takes measures for the potential patenting of the results and for the exploitation of the results within and outside the partnership (license/licensing agreements). The technology transfer office at FZJ will be consulted to help ensure that IPR is protected.

Individual partner exploitation plans

All partners will increase their knowledge and know-how on the topics covered by the project and will take measures aiming to ensure effective exploitation of the results in their future activities. Each partner has already an initial plan for an effective concrete use of the project's results. Yet first elements are given below.

Project outcomes, results or knowledge created		Planned Exploitation Activities
ACA: ULEI, CNRS/UNISTRA, SFU, INPT, DTU, RWTH	• Molecular pH/potential probes to assess electrolyte/electrode properties. • Detailed understanding between local electrolyte properties, mass transfer and rates of electrocatalytic reactions (OER/ORR) at various electrodes and in various pH media. • Pore network simulations of drying processes. • Accelerated computational workflows for interfaces. • Data management plan embedded with ontology. • *Operando* measurements at interface and electrode structures using neutron scattering. • *Operando* synchrotron beam-based novel catalysts and ionomer-modified interfaces and electrode at well controlled humidity conditions.	· Peer-reviewed publications and invited presentations. · Workshop on autonomous materials modelling and on research data management. · Release of datasets and trained models. · Follow-up projects. · Open access to the developed numerical codes. · Novel ionomer materials implemented and tested.
RTO: IEK13, IEK-11, IEK-14 CEA, PSI, CIEMAT, CNRS, HZB	• Semi-automated material and component characterisation. • Improved interconnected data-infrastructure. • New methods for modelling and characterisation of electrochemical interfaces. • Understanding two-phase flow transport in porous media with mixed wettability. • Description of CL 3D microstructure and multiscale model of CL. • Improved and better validated two-phase flow models to analyse and simulate water management scenarios. • First seamless modelling workflow from raw materials to device performance. • Collaboration network able to provide a full characterisation of fuel cell and electrolysers from materials to device. • New repository of data related to materials curated under FAIR principles.	• Follow-up projects and collaborations including: the concept of open data-sharing and processing across institutions. • Extend to a wider range of reactions and technology variants. • Application of *operando* methods to a wider range of applications. • Transfer of investigation methods or of models to other technologies. • Set-up an 'open' European numerical platform for two-phase flow modelling in and PTL. • Adoption of agnostic methodology to other applications.• Patents (at least 2). • Exploitation by the whole community.
SME & IND: BOSCH, HTE, NEL	• BOSCH: Workflow and suite of models, characterisation techniques and data techniques for accelerated development process.	• BOSCH: transfer approach to development of other technologies in BOSCH portfolio to enhance virtual engineering toolkit; accelerated and improved product development for next generation of fuel cell and electrolyser

	• HTE: laboratory service & equipment development to foster and speedup research. • NEL: novel characterisation methods and powerful modelling will help NEL to accelerate deployment and commercialisation of next generation electrolyser systems.	stacks and system components based on validated models and workflows. • HTE: address new business activities in existing customer portfolio with new and faster research tools; establish collaboration network with industry partners in the field of hydrogen industry. • NEL: accelerate deployment and commercialization of stacks and next generation electrolyser systems.

DECODE exploitation strategy by industry partners

As part of the exploitation plan (**D6.1**), partners will also determine solutions to go beyond achieved results after the end of the project, by identifying remaining obstacles, requirements and actions involved in reaching higher TRLs. The individual exploitation plans of academic and RTO partners are presented in section 2.2.1.2 (i). To enable full exploitation of DECODE results by **BOSCH**, **HTE** and **NEL**, the developed workflow will need to be adapted to internal test equipment and engineering models and will need to be extended to larger scales (stack or system levels) to harness their full potential for accelerating product development. DECODE will therefore play an important role in facilitating the screening and validations of advanced materials, and thus accelerate the development of the next generation electrolysers with TRLs over 7. Due to its specific position within the hydrogen value chain as a full-scale R&D and development service provider, **HTE** does not foresee any additional development steps needed for commercialisation. Data quality and reproducibility will be important parameters for the successful market introduction. Successful use case will support market acceptance practices.

Business case. Polymer electrolyte membrane water electrolysers and fuel cells (PEMWE and PEMFC) are among the most promising technologies for large scale hydrogen production and usage They are suitable for sectors encompassing transportation, grid-scale storage and renewable firming due to their combination of compact system design, high pressure tolerance, rapid load following ability and suitability for high current density operation.

The overall development goal for the current generation of electrolyzers is to take the technology from an emerging stage to mainstream, from MW to GW scale, at much lower cost (< €2200/kW), high durability > 50,000 hours while approaching 80% LHV efficiency. Increasing the manufacturing capacity, technological advances in materials and components are needed to fully exploit the environmental and commercial potential of water electrolyzers along the value chain. One of the main innovative concepts, currently at the early commercialization, is establishing high throughput labs of future via reduced cost of equipment, test specimen, labour and energy. This overall strategy aims to innovate the design-to-device process from materials modification to integration and demonstration. Various modification approaches will be applied to create nanostructured frameworks with a fine-tuned porous structure and to integrate novel ionomers as electrode and membrane ingredients into next-generation PEMWEs.

We will harness correlative data analytics and predictive modeling, developed and tested jointly with industry partners, to steer optimization at component and cell levels and devise an optimal design, integration and optimization strategy and workflow. Overall, this strategy will provide an optimization toolbox that enables the systematic and thus resource-saving and accelerated exploration of the multidimensional feature and parameter space. It will be tailored towards specific objectives and KPIs, delineated above.

The proof of concept in this project will have significant economic impact on adopting power-to-gas systems that are primarily utilized for renewable grid-scale services. The work will open-up the potential for using power-to-gas to integrate renewable sources into the grid (grid applications) and the gas pipeline or the hydrogen network (gas applications). There is a need for developing cost effective materials and components for PEMWE to make their application for grid-scale storage technologies a reality from both cost and performance points of view. The successful demonstration of the design strategy implemented in DECODE can reduce the cost of CCM fabrication by up to 10 times and increase the production capacity by a factor of 15-50. The value proposition in a plausible business case will include fully integrated and novel characterisation methods to be synchronized towards the needs for integration in a production line; on-line and cloud-enabled characterisation as necessary to ensure agility of manufacturing and multi-application production lines; and alignments among different industry players for standardization and joint access to automated discovery, integration, fabrication and testing capabilities.

DECODE's business case utilises its CPU functionalities, the integration FABRIC, and the IRL scoring system to manage data and workflows between decentralised partner labs. It will provide an unprecedented depth in technical interactions and velocity of development to the actors along the energy materials value chain. This will result in rapid advancement of TRL from material discovery to device integration. Collectively, the consortium members have aligned vision and strong commercial interests in clean electrochemical energy technologies through the development and industrialisation of materials for green hydrogen technologies. They have identified the gaps in energy materials development and recognised that DECODE will provide critically needed solutions.

DECODE will serve as central framework for data management and workflow orchestration to accelerate the materials discovery processes at **HTE**. At completion of this project, DECODE will deliver critical capability to **HTE** by digitalisation of R&D in hydrogen technology in various vertical markets (electrolysis and fuel cells, flow batteries), contributing to the *European Green Deal* and helping achieve energy independence from oil & gas. The table below presents **HTE**'s preliminary business plan, expected revenues and job creation:

	2029	2031	2033
Jobs creation	20	40	60
Screening test rigs (number of units)	1-3	2-4	4-6
Sales of test rigs (turnover in k€)	3 000-5 000	4 000-7 000	7 000-1 0000

DECODE will deliver improvements to BOSCH's electrochemical energy converters (fuel cells & electrolysers) during product, system and components development, by making the improvement cycle faster and more targeted to specific applications. BOSCH estimates that **significant savings during the development process could be achieved thanks to DECODE results** (see KPI3, 9 and 13). This will bolster an incremental development approach (comparable to today's software development) for hardware products as complex as fuel cells and electrolysers, leading to an increased market share, increased turnover, strengthened competitiveness, and markedly increased revenue. DECODE's technology will contribute to **BOSCH** delivering to the Energy Strategy of the European Commission. This acceleration will bring about substantial the efficiency gains in engineering and production, and it will create a substantial number of jobs in Europe. It can be expected that **BOSCH, as one of the major players in the field, can achieve 20-30% of the automotive PEFC stack market volume**, as they typically do in other business areas. According to a market study performed by FEV, the following figures can be expected in 2025, 2030 and 2035.

Number of PEFC stacks to	2025	2030	2035

be produced	World	Europe	World	Europe	World	Europe
Heavy duty commercial vehicles	29 839	5 454	138 806	63 968	348 201	160 845
Light commercial vehicles	17 409	11 598	179 521	85 493	312 695	114 048
Passenger car	79 873	0	1 616 977	289 905	4 588 906	1 485 271
TOTAL	**127 120**	**17 052**	**1 935 304**	**439 365**	**5 249 802**	**1 760 164**

DECODE's novel cloud-enabled platform of integrated characterisation-modelling methodologies will help **NEL** to accelerate deployment and commercialisation of stacks and next generation electrolyser systems. DECODE's solutions will be applied by **NEL** to the following sectors: **Energy Storage** (need for balancing out fluctuations in renewable energy production in order to guarantee a stable energy supply diverges from the fluctuating nature of need for scale-up in commercial deployment of renewable energy technology solutions for large scale introduction of renewable energy is dependent on energy storage solutions), **Transportation**: refuelling for medium and heavy-duty vehicles and light duty vehicles for long range applications and **Sustainable chemical production**. The table below presents **NEL**'s projected job creation numbers and expected trade of products resulting from project's results.

	2029	2031	2033
Jobs creation	20	100	500
Stacks and electrolyser systems of the next generation	100	1 000	10 000

4. Benchmarking and contribution to standardisation

Affordable and cost-effective energy storage and conversion solutions can significantly enhance stability and security of European energy landscape. These emerging technologies can provide multiple services along the value chain of the electricity grid, enabling increased penetration of renewable energy in future energy and electricity mix.

There is an increasing momentum of energy markets in Europe to drive the existing sources of electricity with renewable energy sources such as wind and solar. Scalable production of green hydrogen has the potential to significantly boost the penetration of renewable sources. However, for large-scale deployment (with a horizon of 2030), it will be imperative to enhance the power of existing commercialized PEMWE units from sub-megawatt (up to 0.5 MW) to multi-megawatt (100 MW) scale. Cost reduction effort via scaling production volume is no longer a viable option for introducing these technologies to the market at scale. Instead, innovations are required to integrate various key steps, including standard lab-to-lab abd scale-to-scale test protocols along the supply chain of materials and component development and device integrations. Standardization, in particular, is the key element.

The main challenges that are addressed in terms of benchmarking will include lack of key-elements for enhancing industrial uptakes of tools, models and novel characterization techniques; slow adoption of rapid-discovery and characterisation. This will lead to poor longevity and sustainability of the value-chain; large amount of expensive, full-scale device testing that slows down the development process.

5. Monitoring of dissemination, exploitation and communication activities

The implementation and results of communication and dissemination activities will be monitored and, if necessary, corrective actions will be put in place. Regular review of the strategy (at least at each consortium meeting, i.e., each six months) will enable DECODE to identify areas where the communication and dissemination strategy should be updated to better meet the objectives and set performance indicators. Moreover, an update of this deliverable at mid-term of the project (M24) will allow to share this updated strategy.

All DECODE communication and dissemination activities will be assessed using the following criteria:

- **Appropriateness**, i.e., suitability for a particular target group;
- **Effectiveness**, i.e., capability of eliciting a strong response or call to action from a particular target group;
- **Targetability**, i.e., capability to reach a target group;
- **Economic**, i.e., dissemination without any burdensome aspect or costs;
- **Measurability**, i.e., capability of being measured and distinguished with reasonable amount of effort and accuracy.

The collected information will be compiled and updated in several reports:

- Reviews at monthly progress meetings;
- Reports on dissemination and communication activities every 6 months at consortium meetings;
- Project technical reporting.

Conclusion

The Plan for dissemination and exploitation including communication activities will serve as a basis for the partners to conduct communication, dissemination, and exploitation activities for the DECODE project. The plan will regularly be updated throughout the duration of the project.

Annex 1 – Social media guide

EQY produced a social media guide at the beginning of the project to coordinate the accounts and the contents that will be communicated over the DECODE project's lifetime.

1. Social media accounts

Social media play a key role in day-to-day communication and, more widely, to support the dissemination of the project and other related activities. They also enable to follow and communicate commonly with DECODE' sister projects that are also active on these channels.

LinkedIn will be basically the main account to deliver complete and regular communication. With a basis of **2-3 posts per week** maximum, different types of posting are foreseen as described above. It will focus on the presentation of the project partners and main results but also relaying dissemination events or relevant activities external to the project.

2. Guidelines on how to build a post

a. How to gain visibility

The key to improving our visibility on LinkedIn is t**o engage with the other members of our network**. In terms of ratio, we need to engage 80% of the time and create the remaining 20%. Please note that liking isn't enough to improve our visibility.
We advise to comment judiciously (I.e. by giving your opinion, by sharing a related article, by helping someone with a question) and to participate in certain comments (those you deem relevant).

b. How to structure a post

- On the visual: select catchy picture, infographics, statistics...etc Propose easy concept.
- In the description:
- Start with a title presenting the subject of your post (in case of an event, include practical information such as location, date, time...etc)
- Main content: keep it simple and concise, using key words (which can be technical terms). Think of the post as a teaser for the project website.
- Tag/mention other initiatives and projects
- Mention the granting authority: European Health and Digital Executive Agency (HADEA)
- Hashtags to be quoted when relevant:

#decode #project #hadea #horizoneurope #digitalplatform #futurelabconcept #physicaltheory #modelling #design #operandocharacterisation #testingfunctionalmaterialsandcomponents #materialsdigitalisation #cloudconnectedlaboperations #industrialgradecomponentintegration

- List of partners to tag:

Forschungszentrum Jülich | Robert Bosch GmbH | hte GmbH | Nel Hydrogen | RWTH Aachen University | Commissariat a l'Energie Atomique et aux Energies Alternatives | Paul Scherrer Institut PSI | Leiden University | Centre national de la recherche scientifique | University of Strasbourg | Toulouse INP | DTU - Technical University of Denmark | Helmholtz-Zentrum Berlin | Simon Fraser University | Euroquality - Tinexta Group Nel Hydrogen | RWTH Aachen University | Commissariat a l'Energie Atomique et aux Energies Alternatives | Paul Scherrer Institut PSI | Leiden University |

Centre national de la recherche scientifique | University of Strasbourg | Toulouse INP | DTU - Technical University of Denmark | Helmholtz-Zentrum Berlin | Simon Fraser University | Euroquality - Tinexta Group | Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (CIEMAT)

3. Example of post text for the project presentation

🚀 We are delighted to announce the launch of the ♻️ DECODE project, which aims to create a #DigitalPlatform to connect multiple labs to boost efficiency and **accelerate development and innovation in ⚡ clean energy materials and technologies**!

Funded by the EU European Health and Digital Executive Agency (HaDEA), the ♻️ DECODE project (DE-centralised Cloud labs fOr inDustrialisation of Energy materials) will develop a platform expected to find wide adoption in the clean technology field in the longer run, including 💡 **nergy harvesting**, **conversion and storage**, 💦 **clean water technologies**; and the 🧪 **synthesis of value-added chemicals and fuels**.

The core of the platform comprises three elements:
➡️ the #DECODE FABRIC that connects adaptative multi-scale modelling and characterisation suites in a matrix-like structure;
➡️ a scoring **concept to assess moelling and caracterisation** suites in terms of their integration readiness level (IRL);
➡️ and an **AI-enabled central n**t that processes the IRL scores, performs the technology mapping to the FABRIC and orchestrates contributions in modelling and characterisation from partner labs.

Together**, **let's build the first de-centralized cloud-connected labs for Hyrgen techois!

Follow our project's page for future updates on the DECODE project platform!

🌎 Project partners ⬇️
Forschungszentrum Jülich | Robert Bosch GmbH | hte GmbH | Nel Hydrogen | RWTH Aachen University | Commissariat a l'Energie Atomique et aux Energies Alternatives | Paul Scherrer Institut PSI | Leiden University | Centre national de la recherche scientifique | University of Strasbourg | Toulouse INP | DTU - Technical University of Denmark | Helmholtz-Zentrum Berlin | Simon Fraser University | Euroquality - Tinexta Group |Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (CIEMAT)

#decode #project #hadea #horizoneurope #digitalplatform #futurelabconcept #physicaltheory #modelling #design #operandocharacterisation #testingfunctionalmaterialsandcomponents #materialsdigitalisation #cloudconnectedlaboperations #industrialgradecomponentintegration

Annex 2 – Graphic Charter

Graphic charter

Typography - logo - templates

This project has received funding from the European Union's Horizon Europe Research and Innovation Program under Grant Agreement No 101135537.

Summary

Logo

Construction for a font size 50 pt

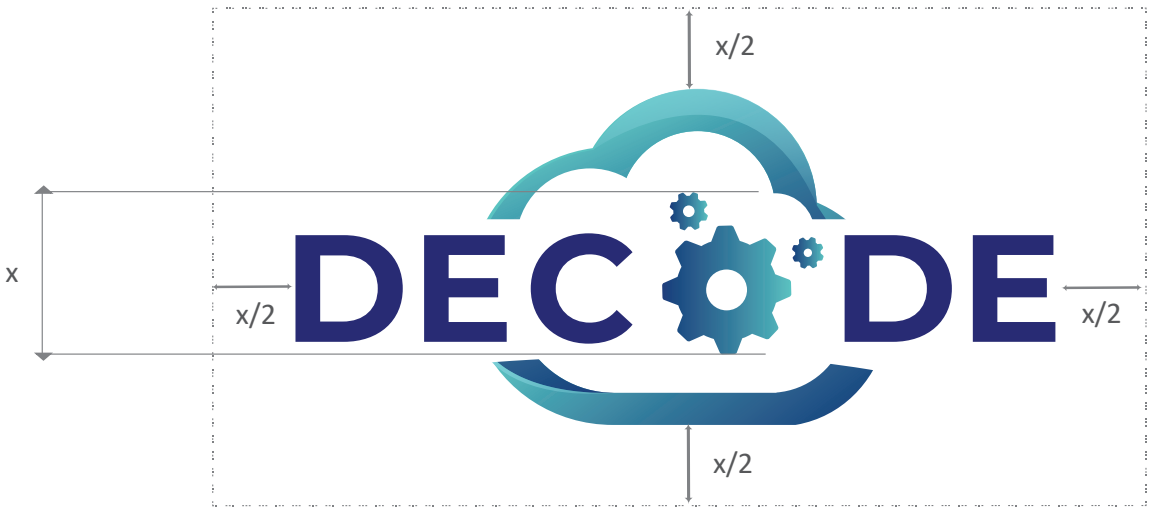
Typography: Montserrat

Montserrat is a sans serif font with a good performance on screen. Its anatomy gives it a great personality and also makes it useful for reading on screen.

What if the logo needs to be smaller than 20px?

If the logo needs to be used in small format - under 20px - it remains in one line.

Protection zone



What you cannot do with this logo

Distortion

Rotation

Put the logo in a box

Change colors and font

Allowed variations

No color declinaison is allowed except for white logotype on logo's colors background and white part of the logo depending on the background color for better contrast.

Colors

Institutional palette

For Graphics, Design & typography . Similare shades are also accepted.

	#5BC5C3	R: 91 G: 197 B: 195	C: 60% M: 0% Y: 28% K: 0%
	#223E7C	R: 34 G: 62 B: 124	C: 100% M: 88% Y: 22% K: 8%
	#5BC5C3 - #223E7C	R: 91 - 34 G: 197 - 62 B: 195 - 124	C: 60% - 100 % M: 0% - 88% Y: 28% - 22% K: 0% - 8%

Typography

Plus Jakarta Sans SemiBold

Web Headings
logo

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Plus Jakarta Sans Medium

Headings
Text

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Plus Jakarta Sans Light Italic

Headings
Text

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Plus Jakarta Sans ExtraLight

Headings
Text

ABCDEFGHIJKLMNOPQRSTUVWXYZ