

Dissemination and Communication Plan v3





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DELIVERABLE D7.7 Dissemination and Communication Plan v3

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Version History

v	Author	Date	Brief Description
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2.3	Estefania Lopez	January 16, 2023	First version with initial content for all sections
2.5	Estefania Lopez	February 8, 2023	Final draft for internal review
3.0	Estefania Lopez	February 23, 2023	Available for submission to the EC



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Executive Summary

The present deliverable D7.7, entitled Project Dissemination and Communication Plan v3 (version 3), is the last version of the Deliverables generated within the framework of task 7.1 Project Communication, Dissemination and Exploitation. This version is an update of Deliverable 7.6 Dissemination and Communication Plan v2, which was presented in M18 of the project, updating as well the deliverable 7.1 Dissemination and Communication Plan v1. This new version is presented in order to incorporate potential changes and to establish the final steps regarding the dissemination strategy.

This deliverable establishes a guideline about strategies, and work-flows for partners to follow when developing the activities related to communication in order to reach our target stakeholders and show them the benefits of the D^2EPC project, and to ensure that D^2EPC outcomes are widely distributed to the appropriate target communities, at appropriate times, via appropriate channels in a fashion that can contribute to the sustainable use of its results.

The overall objective of this strategy is to maximise the impact of the project activities and final results among stakeholders. To achieve this, it will take advantage of the consortium's multiplier networks, the links already created with other sister projects, and the sustained interaction with key stakeholders.

The European Union's Horizon 2020 research and innovation programme is aware that communication plays an important role in making sure a European project has a real and lasting impact. Besides, communication is important not only to ensure transparency and the exchange of knowledge but also to raise public awareness of the benefits of the projects financed by the European Union's H2020 programme.



Table of Contents

1	Inti	oduction9
	1.1	Scope and objectives of the deliverable9
	1.2	Structure of the deliverable10
	1.3	Relation to Other Tasks and Deliverables10
2	D^2	2EPC Dissemination
	2.1	Objectives of the dissemination
	2.2	Dissemination strategy11
	2.3	Presentations at academic conferences and workshops12
	2.4	Scientific Publications14
	2.4.	"D^2EPC: Next Generation Digital and Dynamic Energy Performance Certificates"
	2.4. in th	² "D^2EPC Requirements' Survey-Current status findings, limitations, and information on the gaps be existing EPC schemes, calculation procedure, and standard"
	2.4.	"Next-Generation Energy Performance Certificates. What novel implementation do we need" 16
	2.4. mar	4 "Next-generation energy performance certificates. Users and stakeholders requirements and ket's needs"
	2.4. cert	5 "An enhanced framework for next-generation operational buildings energy performance ificates"
	2.4.	6 "First evidences of energy performance certificate operational rating: The case of Cyprus" 19
	2.4.	 "Digital Twin application on next-generation Building Energy Performance Certification scheme" 20
3	D^2	21 2EPC Communication
	3.1	D^2EPC Communication strategy21
	3.2	Internal Communication tools21
	3.3	External Communication tolos21
	3.3.	1 Communication channels
	3.4	Evaluation and Monitoring Communication activities26
	3.5	Linking D^2EPC with other ongoing projects
4	Tim	eline of activities
5	Cor	nclusions
6	Ref	erences



List of Figures

Figure 1- Accepted paper at SpliTech 202115
Figure 2- D^2EPC Requirements' Survey16
Figure 3- Next-Generation Energy Performance Certificates. What novel implementation do we need
Figure 4- Next-generation energy performance certificates. Users and stakeholders requirements and market's needs
Figure 5- An enhanced framework for next-generation operational buildings energy performance certificates
Figure 6- First evidences of energy performance certificate operational rating: The case of Cyprus
Figure 7- Digital Twin application on next-generation Building Energy Performance Certification scheme
Figure 8- News & Events section on the website22
Figure 9- 3rd Press Release25
Figure 10- Related projects section

List of Tables

Table 1- Indicative List of D^2EPC Relevant events & conferences 2023	13
Table 2- D^2EPC Social Media Channels	23
Table 3- Indicators of assessment	27



List of Acronyms and Abbreviations

Term	Description	
вім	Building Information Modelling	
EC	European Commission	
EPC	Energy Performance Certificate	
ESCO	Energy Services Company	
QCB	Quality Control Board	
SDG	Strategic Development Goal	
SKM	Specific Key Messages	
WP	Work Package	



1 Introduction

1.1 Scope and objectives of the deliverable

The deliverable D7.7 Dissemination and Communication Plan v3, presents an update of the Deliverable 7.6 Dissemination and Communication Plan v2. As noted above, this deliverable, in turn, was the updated version of the D7.1, which in its first version presented a common strategy for communicating and disseminating the activities of D^2EPC to ensure that the results of D^2EPC were widely distributed to the appropriate target communities, at the appropriate times, through the appropriate channels, so that they can contribute to the sustainable use of its results.

This new version, D7.7 Dissemination and Communication Plan v3, reflects what the project has achieved so far compared to what was planned in the second version of this Plan, in terms of Communication and Dissemination. It also highlights the steps to follow in the last months of the project. Following the progress of the different activities and the obstacles encountered, some changes have been made in order to improve the functioning of the Communication and Dissemination Plan and, consequently, to achieve the objectives established in the first version.

The main objectives already established in D7.1 and D7.6, remain the same:

- To promote activities and facilitate the exchange of knowledge between the main stakeholders in the area of regular energy classification of buildings, based on their operational performance, policymakers, industry, research community and business;
- To disseminate information on the D^2EPC project and its main results;
- To communicate and facilitate new and better connections between different consortia by making use of the existing network and framework built around other H2020 Projects funded with the same or similar objectives;
- To highlight the interaction with relevant European and non-European research initiatives in terms of improving the actual energy performance of buildings in the EU Member States;
- To inform and work with transnational project actors to offer and facilitate learning and development of the results and value brought by the project outcome and the processes used in the action;
- To achieve high visibility of the project and promote active interaction with key stakeholders which are necessary elements to build project familiarity and raise awareness among stakeholders;
- To provide the wider public with advance notice of possible future plans and actions, which strengthens collaboration links with partners and helps to establish and reinforce a wider networking activity.

Ensuring that:

- The project outputs will be fully exploited in the most effective manner, i.e. the scaling-up of the demonstrated solutions will be facilitated;
- The knowledge gained through the project, and more generally the information generated by the project, can be made available to all interested organisations;
- The elements of excellence of the project can be reused and replicated in other projects, becoming a benchmark and triggering new developments in the field and beyond;
- The project reaches decision-makers to contribute to improving future policies;



• The benefits that the project's outcomes will bring to society (services, employment, economy) in alignment with the Paris Agreement and UN SDGs are well pointed out.

1.2 Structure of the deliverable

D7.7 Dissemination and Communication Plan v3 is structured according to the following sections:

Section 2 D^2EPC Dissemination includes objectives of the dissemination strategy, he presentations at academic conferences and workshops and the different scientific publications done so far and the links to them.

Section 3 describes the project's Communication Strategy, the Internal Communication tools and the External Communication tools concerning the different communication channels created in the project. It also includes the Evaluation and Monitoring of Communication activities with a review of the KPIs, and a final part with the Links of D^2EPC with other sister projects.

Section 4 provides an overview of the timeline of activities.

1.3 Relation to Other Tasks and Deliverables

D7.7 Dissemination and Communication Plan v3 is the result of the activities that have been and will be carried out throughout the life of the project and within the framework of the dissemination and exploitation of its results. It extends to all the activities carried out by the partners according to their individual dissemination plan, and the guidelines on how the partners should carry out the external communication activities (conferences, publications, news webs) as well as the tools of use for the internal communication between the partners throughout the project.

This document has been a "living document" throughout the project, guiding communication and dissemination.

This version of the deliverable is the last official update following the plan of the application form. This Deliverable D7.7, together with Deliverables D7.9 Established internal and external communication channels and materials, and D7.11 Report on Dissemination Activities v3, which will be presented in M36, are the last steps in terms of Communication and Dissemination.



2 D^2EPC Dissemination

2.1 Objectives of the dissemination

The objectives of the dissemination strategy remain the same as in the previous versions of this deliverable, which are to identify and organize the activities to be performed to maximize the influence/impact of the project and to promote commercial, and secondary exploitation routes of the project results. To ensure the widest possible dissemination of the project and to increase its impact and outreach, D^2EPC dissemination objectives have been set around six pillars:

- i. Demonstrate the improvement of the user-friendliness of EPCs in terms of clarity and accuracy of the information provided
- ii. Achieve greater user awareness of the energy efficiency of buildings
- iii. Demonstrate the primary energy savings triggered by the project (in GWh/year)
- iv. Promote Sustainable Energy Investments driven by the project (in millions of euros)
- v. Reduce greenhouse gas emissions (in tCO₂-eq/year) and/or atmospheric pollutants (in kg/year) caused by the project
- vi. Disseminate the respective project outcomes to the widest possible community of potential beneficiaries.

2.2 Dissemination strategy

The dissemination strategy set out at the beginning of the project, specifically in D7.1, was created following the principles and good practices planned by the partners and were in line with the EC Guidelines¹ for successful dissemination.

The focus of D^2EPC's overall dissemination strategy is the identification and mapping of target stakeholders and an understanding of their needs and characteristics in order to tailor clear and concise messages to different target audiences. This has also ensured and will ensure throughout the project, the use of the most appropriate and efficient dissemination channels and communication tools and drives the development of appropriate material by the target stakeholders. Furthermore, a time plan is defined, helping all the project partners to implement the communication and achieve the dissemination and exploitation objectives in the last part of the project implementation.

On this point, there have so far been no relevant changes to report in this version of the report.

¹ Dissemination & Exploitation of results - EC guidelines



2.3 Presentations at academic conferences and workshops

Throughout the life of the project, the D^2EPC consortium has been attending high-level academic conferences and workshops organized by national, European and international organizations involving and/or representing the energy efficiency research communities and in those scientific forums dealing with the topic of improving technical, economic and environmental approaches in the design and operation of sustainable buildings through EPC dynamics.

Despite the difficulties encountered during the first year of the project, generated by the COVID-19 pandemic, the consortium tried to attend as many events as possible. In Deliverable 7.6, a list of internal and external workshops, conferences and participation in events other than conferences or workshops was attached.

A list of the activities attended by the consortium since the submission of D7.6 up to now (M19-M30), is attached below. The rest of the events attended from now until the end of the project will be included in the Deliverable D7.11 Report on Dissemination Activities v3.

• Internal workshops

- Workshop in 4th plenary meeting WG1 and WG2: Discussion on Methodology and Digital Platform. 8/3/2022. Hybrid: 38 attendees. 8-9.3.2022;
- Workshop in 6th plenary meeting on Platform Integration. Hybrid: 41 attendees. 19.1.2023.

• External workshops

- D^2EPC Workshop on Building Performance Assessment Towards Next-Generation EPCs. 30.05.2022;
- CrossCert workshop: Die n\u00e4chste Generation der Energieausweise Startwebinar. 31.05.2022. 70 attendees;
- Organisation of external Workshop "Building performance assessment towards Nextgeneration EPCs". 8.6.2022. 43 attendees;
- Sister projects workshop: DIE NÄCHSTE GENERATION DES ENERGIEAUSWEISES HERAUSFORDERUNGEN & MÖGLICHKEITEN (the next generation of EPCs-Challenges and possibilities) 14.06.2022. 74 attendees;
- Organisation of external Workshop WP5 "D^2EPC Methodology and tools for EPC Assessors"- 12.7.2022.
- Next Gen EPC cluster 3rd Non-Disclosure Agreement (NDA) workshop. 13.12.2022;
- fresco webinar "Next generation EPC". 23.01.2023.

• Conferences

- $\circ \quad {\sf CLIMA~2022.~Presentation~of~some~results~of~d2epc~project.~22-25.5.2022.~Rotterdam;}$
- EU Green week- 2022 Hybrid event. 1.6.2022;
- Energy and Climate Transformations 20-23 June, University of Manchester, UK;
- $\circ~$ X-tendo and U-cert Final conference- 6.7.2022;
- Sustainable Places 2022: "Energy Performance Certificates: Measuring building performance and adding operational rating" Nice (Francia) & online. 07.09.2022;
- CrossCert hybrid event: Energy Efficient Buildings: Next Generation Energy Performance Certificates. 28.09.2022.



- Participation in an event other than a conference or a workshop:
 - ο E--Poster accepted at ESAΦweek2021. 11-15.10.2021. Hybrid event;
 - Article² "Experts say it's time to change the energy performance certification system for buildings" by KTU. 15.10.2021;
 - Presence in the Ninth Edition of the Energy Efficient Buildings (EeB) Public Private Partnership (PPP) Project Review. By the ECTP and its Energy Efficient Buildings Committee. 02.2022;
 - 22nd Brandenburg Energy Day "Ways to a climate-friendly transformation of the Brandenburg economy". Brandenburg. 12.5.2022;
 - D^2EPC was featured in the 2nd brochure on EU-funded smart Building Innovation, prepared by SmartBuilt4EU;
 - 5 pages as dedicated section for the Next Gen EPC cluster in the European Energy Innovation disseminated at EUSEW. 09.2022³;
 - Publication of a result on the Horizon Results Platform⁴. 01.2023;
 - $\circ~$ Inclusion of the D^2EPC SRI calculation sub-component in the SRI Implementation tools website. 01.2023^5;
 - Interview in the InControl magazine⁶. 01.2023;
 - Interview with Euronews on the advancements and challenges of the energy sector in Cyprus⁷. 02.2023;
 - A common policy recommendations supporting the EPBD, together with sister projects- *Under development*.

To boost attendance at events and conferences, a list of events and conferences identified for the year in question is created each year. This table is shared in the consortium's internal Sharepoint. For both 2021 and 2022 these lists were created and shared with partners. The list of events with possible interest for 2023 (until August 2023) is attached below. Please note that this list is a living document in which partners can add events they find relevant:

Events/Conferences /Webinars	Date/location
BIM World	5-6 April, 2023. Paris, France
World Sustainable Energy Days	28 February- 3 March 2023. Wels, Austria
SBE23	22-24 March. Thessaloniki, Greece
Berliner Energietage	3-5 May 2023. Online
Berliner Energietage	22-23 May 2023. Berlin
Smart Building Conference (SBC)	31 January 2023. Barcelona, Spain
IoT Solutions World Congress	31 January - 2 February 2023. Barcelona, Spain
8th Annual Global Conference on Energy	6-8 June 2023. Paris, France
Efficiency	
IoT World Forum 2023	7-8 June 2023. London, United Kingdom
E-World energy & water Essen	23-25 May 2023. Essen, Germany
Embedded world 2023 DIGITAL	14-16 March 2023. Nuremberg, Germany
EU Sustainable Energy week	20-22 June 2023. Hybrid and Brussels, Belgium.

Table 1- Indicative List of D^2EPC Relevant events & conferences 2023

² <u>Article</u>

³ European Energy Innovation- Autumn 2022

⁴ <u>D^2EPC WebGIS Tool</u>

⁵ D^2EPC SRI calculation tool

⁶ Interview in the InControl Magazine

⁷ Interview with Euronews on the advancements and challenges of the energy sector in Cyprus



RealTime Conference	To be confirmed
European BIM Summit	Date to be confirmed. Barcelona, Spain

2.4 Scientific Publications

It was stated in the application form that results of the D^2EPC will be organized into key themes, to develop a minimum of 4 peer-reviewed articles per year, book chapters, and reports intended for scientific audiences. These scientific products will cover theoretical, conceptual, and methodological issues and key results.

Up to this point in the project, there are seven publications created and released by members of D^2EPC and focused on D^2EPC-related work. They can be found on the website under Project Results.

The scientific publications issued so far are the following ones:

• First year:

- 1. "D^2EPC: Next Generation Digital and Dynamic Energy Performance Certificates";
- 2. "D^2EPC Requirements' Survey-Current status findings, limitations, and information on the gaps in the existing EPC schemes, calculation procedure, and standard".

• Second year:

- 3. "Next-Generation Energy Performance Certificates. What novel implementation do we need";
- 4. "Next-generation energy performance certificates. Users and stakeholders requirements and market's needs";
- 5. "An enhanced framework for next-generation operational buildings energy performance certificates".

• Third year:

- 6. "First evidences of energy performance certificate operational rating: The case of Cyprus";
- 7. "Digital Twin application on next-generation Building Energy Performance Certification scheme".

Furthermore, there are two pending publications:

- 8. "Integration of Human Comfort Indicators in a Holistic Framework of Next-Generation Energy Performance Certificates" to the Healthy Buildings Conference 2023 that will take place June 11 – 14 in Aachen, Germany. – Prepared by KTU, HYP, FRC and CERTH: under preparation;
- 9. A publication for the MDPI journal, in the "Buildings" section. Title: "Healthy, Digital and Sustainable Buildings and Cities": under preparation.



During the remaining life of the project, partners are strongly encouraged to continue publishing scientific papers. Despite having established an average of 4 publications per year in the application Form, it has been difficult to achieve them at the beginning of the project development, as the results of the project have been emerging along with the progression of the tasks and WPs. This is why, in this last stage of the project, it is expected to achieve the total of 12 scientific publications established in the Application Form.

In the next section, a summary of each of these publications is shown.

2.4.1 "D^2EPC: Next Generation Digital and Dynamic Energy Performance Certificates" 8

'D^2EPC: Next Generation Digital and Dynamic Energy Performance Certificates' paper has been accepted for presentation at "SpliTech2021, technical paper: Energy track" and for publication in the conference proceedings. The manuscript introduces a high-level representation of the D^2EPC architecture, elaborating on individual components and their interaction, towards delivering the envisioned final enriched web platform that will enable dynamic Energy Performance Certificates based on (near)real-time field data.

D²EPC: Next Generation Digital and Dynamic Energy Performance Certificates

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Figure 1- Accepted paper at SpliTech 2021

⁸ <u>'D^2EPC: Next Generation Digital and Dynamic Energy Performance Certificates'</u>



2.4.2 "D^2EPC Requirements' Survey-Current status findings, limitations, and information on the gaps in the existing EPC schemes, calculation procedure, and standard"⁹

As a result of WP1, D^2EPC prepared a white paper, explaining current status findings, limitations, and information on the gaps in the existing EPC schemes, calculation procedure, and standards. Based on those findings, D^2EPC aims to set the grounds for the next generation of dynamic EPCs and lead the transition to a systemic instrument that recognizes the whole life cycle of a building as a structure and encourages best practices in the field of energy efficiency.



Figure 2- D^2EPC Requirements' Survey

2.4.3 "Next-Generation Energy Performance Certificates. What novel implementation do we need" 10

Presented at CLIMA 2022.

Energy performance certificates are being utilized through the European Union Member States to document and assess the energy performance of the building stock, while they are used as measures to investigate and adopt policies that would lower the final energy consumption and environmental footprint. After several years of implementation, the current EPC schemes have enlighten the domain energy efficiency in the building sector, but at the same time they have been identified with several challenges and deficiencies that deteriorate the quality of the results. This study performed under the H2020 project "Next-generation Dynamic Digital EPCs for Enhanced Quality and User Awareness (D^2EPC)", aims to analyse the quality and weaknesses of the current EPC schemes and aspires to identify the technical challenges that currently exist, setting the grounds for the next generation dynamic EPCs.

The present work reveals that current EPCs schemes are based on a cradle-to-gate rationale, completing their mission after the certificate to the building user, overlooking the users' behaviour

⁹ D^2EPC Requirements' Survey-Current status findings, limitations, and information on the gaps in the existing EPC schemes, calculation procedure, and standard

¹⁰ Next-Generation Energy Performance Certificates. What novel implementation do we need



and the actual energy performance of the building that might change dynamically over time. In this study, the idea of the dynamic EPCs is introduced, a certificate that will allow the monitoring of the actual performance of buildings and the users' behaviour profiles on a regular basis. The introduction of novel indicators and the integration of BIM and GIS are also discussed.





2.4.4 "Next-generation energy performance certificates. Users and stakeholders requirements and market's needs" ¹¹

Poster acceptance at the 3rd International Conference on Energy Research & Social Science Conference.

This study performed under the H2020 project "Next-generation Dynamic Digital EPCs for Enhanced Quality and User Awareness (D^2EPC)", aims to identify the needs and requirements of the major stakeholders and the market, concerning the emerging next-generation EPCs. The results of this study will help to understand the potential reach and impact of the next generation EPCs, as well as to adopt EPCs rationale into the current practices of the industry. The methodology suggested by the Project Management Institute (PMI) for identifying EPC stakeholders was employed. A questionnaire concerning the needs and gaps of next generation EPCs was addressed to the identified stakeholders, and the findings were analysed, towards delivering the major trends and challenges of the buildings energy certification field. In terms of this study, desk research involving the assessment of 52 reports was also conducted, to identify the challenges, needs, and opportunities in current EPC schemes. The findings of the study are anticipated to support the efforts and initiatives conducted on a European level, for the upgrade and improvement of the buildings' energy certification.

¹¹ <u>Next-generation energy performance certificates. Users and stakeholders requirements and market's needs</u>





NEXT-GENERATION ENERGY PERFORMANCE CERTIFICATES. USERS AND STAKEHOLDERS REQUIREMENTS AND MARKET'S NEEDS

Abstract

Energy Performance Certificates (EPCs) are a mandatory requirement for the EU Member States (MS) when constructing, selling, or renting a building, acting as a transparent information instrument, for all the involved stakeholders, regarding the energy performance of a building asset. Existing procedures and tools used in assessing buildings' energy performance across Europe, present several drawbacks and discrepancies that delay the energy transition of the European building stock to a greener and sustainable model. In order to have a holistic approach on the drawbacks and requirements of the current EPCs, it is important to capture the stakeholder requirements and feedback, depending on their role on the EPC life cycle.

Figure 4- Next-generation energy performance certificates. Users and stakeholders requirements and market's needs

2.4.5 "An enhanced framework for next-generation operational buildings energy performance certificates" ¹²

Published in the International Journal of Energy Research.

The improvement of the energy performance of buildings is identified as one of the core challenges toward achieving a carbon-neutral built environment. In the 2018 recast of the Energy Performance of Buildings Directive, the European Commission emphasized the need for improved schemes, to ensure the best possible evaluation of the actual energy performance of buildings, taking into consideration all the parameters related both to their construction and operation. Significant research efforts have been designated in this area, to identifying the additional information required to not only improve the energy performance certification process but also to provide more thorough reports to end-users.

To increase comprehension, awareness, and thus genuine involvement, cutting-edge digital technologies are expected to be used. The research project entitled "Next-generation Dynamic Digital EPCs for Enhanced Quality and User Awareness" introduces a comprehensive approach to next-generation Energy Performance Certificates that addresses the main challenges and gaps in buildings' energy assessment process, by introducing additional layers of information for the assessor and the user. A non-exhaustive list of the novel set of Energy Performance Certificates indicators, proposed in D^2EPC includes energy, smart readiness, wellbeing, comfort, financial, and sustainability related indicators.

In this study, aspects of employing advanced digital solutions, like Building Information Modelling and Geographical Information Systems for the certification process are also demonstrated, through a wellstructured, high-level, detailed representation of the next-generation Energy Performance Certificates system architecture. This framework elaborates on individual components and their interaction, toward delivering the envisioned final enriched cloud-based platform, that will enable dynamic Energy Performance Certificates based on (near) real-time field data. This study aspires to initiate the discussion within the scientific community of buildings' energy assessment on the required practices for digitizing and enriching the certification process of buildings, in compliance with Industry 4.0 practices.

¹² <u>An enhanced framework for next-generation operational buildings energy performance certificates</u>





SPECIAL ISSUE RESEARCH ARTICLE

An enhanced framework for next-generation operational buildings energy performance certificates

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Figure 5- An enhanced framework for next-generation operational buildings energy performance certificates

2.4.6 "First evidences of energy performance certificate operational rating: The case of Cyprus"

This publication will be presented in the SBE23-Thessaloniki Conference: "Sustainable built environments: Paving the way for achieving the targets of 2030 and beyond" next 22-24 March 2023 in Greece. This document will have an DOI when the minutes of the conference will be published.

This study aims to introduce the first pieces of evidence of an operational rating scheme for energy performance certificates for the case of Cyprus, an EU member state which conducts buildings classification with asset rating. For the purpose of this study, a case building was monitored for over 12 months in Cyprus, recording over 60 sensors within the building related to heating, cooling, lighting, and appliances. A set of operational indicators were extracted and demonstrated to establish a dataset of operational measurements for buildings in Cyprus. Normalization practices related to occupancy and weather correction factors are also discussed.

Following the guidelines of ISO 52003 on the operational rating of buildings, the study concludes with the definition of representative values for the actual energy performance of buildings in Cyprus, delivering typical operational rates for the Cypriot building stock.

The case study building is also examined, with regard to its operational rating, based on the average value of the Cypriot building stock. This study aspires to set the grounds for the development of an operational rating scheme for the island state of Cyprus based on best practices and the normative framework for energy-efficient buildings.

First evidences of energy performance certificate operational rating: The case of Cyprus

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Figure 6- First evidences of energy performance certificate operational rating: The case of Cyprus



2.4.7 "Digital Twin application on next-generation Building Energy Performance Certification scheme" ¹³

Published in 2022 IEEE International Smart Cities Conference (ISC2).

Digitalization has played a major role in the building sector in the last few decades. Starting from the early-design stage up to the building's operation and maintenance, digital tools provide all the relevant building stakeholders with the opportunity to reduce the execution time of their processes, increase their productivity, and offer higher-quality services to end-users. Despite the technology breakthroughs over the last few decades, the building sector lacks a holistic technology approach that will be applicable to all the stages of the building's lifecycle. The introduction of the well-established concept of digital twins into the building industry could manage to incorporate the various technology solutions into one platform, to fill the aforementioned technology gap. The present work introduces a framework for utilising cutting-edge digital technologies for evaluating the building's performance in accordance with a holistic Energy Performance Certification (EPC) scheme developed within the H2020 D^2EPC project. The first section introduces a stepwise approach to develop the Building Digital Twin (BDT) platform. The presentation of the incorporated technologies in the proper order, along with a description of the development philosophy provides the reader with a comprehensive DBT development roadmap. The second part includes a high-level presentation of the D^2EPC BDT scheme, elaborating on the component characteristics and their co-operation, towards delivering a novel EPC solution. The proposed digital twin architecture can also be used as the basis for future advancements in building documentation solutions (e.g. digital building logbooks) and facilitate the broader domain of energy efficiency in buildings.



Figure 7- Digital Twin application on next-generation Building Energy Performance Certification scheme

¹³ Digital Twin application on next-generation Building Energy Performance Certification scheme



3 D^2EPC Communication

3.1 D^2EPC Communication strategy

There have been no notable changes with regard to the communication strategy, which has been focused on informing and demonstrating the societal and economic benefits generated by the project to a wide range of audiences outside the core project target groups. This is being achieved by communicating tangible results and success stories coming from the project validation activities and stimulating positive emotions through the demonstration of social welfare enhancement and social added value generated.

Through the exploitation of mainstream communication channels and the attraction of additional stakeholders groups in the User Group, the consortium has been and continues to be increasing awareness and enhancing societal perception on how Innovation can tackle emerging challenges and positively impact society, while increasing visibility and information flow on the vital role of H2020 and EU funded research in realizing and achieving ambitious EU-side societal, economic and sustainable growth goals.

3.2 Internal Communication tools

Concerning the internal communication tools, neither have there been any notable changes in this last period. As reported in the previous deliverables, a collaborative space was created for the whole consortium, which was accepted by all partners as the main common working tool where they publish their work in progress, advancements, etc.

In addition, at the beginning of the project, email lists were created for each WP that included those partners actively participating in each of these packages. These lists are still in use to ensure efficient and smooth communication between the partners.

3.3 External Communication tolos

As explained in the Deliverable D7.6, DMO is in charge of the production of a diverse set of dissemination tools, both online and offline, that are the main instruments for D^2EPC partners for a correct performance of communication actions. These tools were set out in the Deliverable D7.2 Established internal and external communication channels and materials v1 (and updated in D7.8), and a detailed analysis of what has been accomplished in this regard was provided in D7.3 Report on Dissemination Activities v1, D7.6 Dissemination and Communication Plan v2, and D7.10 Report on Dissemination Activities v2.

A final analysis of all these tools will be detailed in deliverables D7.9 and D7.11. Nevertheless, a brief update will be given on the main achievements so far.

3.3.1 Communication channels

D^2EPC Public website

The D^2EPC website, which can be publicly accessed at <u>https://www.d2epc.eu</u>, contains information on the project and its objectives, the consortium partners, related activities and results, as well as



information on news and upcoming events. It is the communication and dissemination channel for the project results and aims to involve and expand the stakeholder community. D^2EPC website has been developed and is maintained by DMO partner which is the leader of T7.2 - Communication and Dissemination Activities and Materials.

The website was launched in October 2020 and since then, it has constantly been updated with news, submitted deliverables, dissemination material and publications. Some changes were also done to the website itself, to better serve its purpose. Some of the changes were already reported in D7.3 Report on dissemination Activities v1 and D7.8 Established internal and external communication channels and materials v2. News and updates are reported on the website.



Figure 8- News & Events section on the website

D^2EPC Social Media

D^2EPC aims to have a strong social media presence. To ensure maximum usability and to take full advantage of the networks already developed by D^2EPC's social media partners, attention has been given to the social media that D^2EPC's partners have been regularly and successfully using to communicate and interact with their customers and other stakeholders.

LinkedIn, Twitter, and YouTube channels were created to reach targeted audiences defined within D^2EPC. In the following subchapters, the progress on followers and posts is presented.

A more detailed analysis of each of the channels created can be found in D7.8 and 7.10, and in the final versions of them, the D7.9 and D7.11.

Below a summary of the followers obtained so far in each channel is presented:



Table 2- D^2EPC Social Media Channels





E-Newsletter

There are regular D^2EPC newsletters to aid communication and outreach with stakeholders and the D^2EPC community. The newsletters have been and will continue to be published every 6 months. The newsletters are published in English and are sent to identified experts and interested individuals. Five newsletters have been published so far (M6, M12, M18, M24, M30) and are available on the project's website.

Further information regarding the Newsletters can be found in the previous Deliverables of WP7.

They can also be downloaded through the following links:

- <u>1st Newsletter- March 2021</u>
- <u>2nd Newsletter- August 2021</u>
- <u>3rd Newsletter- February 2022</u>
- <u>4th Newsletter- August 2022</u>
- <u>5th Newsletter- February 2023</u>

Special edition newsletters

In addition to the half-year editions of the newsletter, different materials have been published. More detailed information can be found in D7.8. The materials are as follows:

- Special edition brochure
- Workshop invitation June 2022
- Questionnaire
- Workshop invitation July 2022

Poster and Flyer

A poster (A3 format) and flyer (A4 format) were developed, and there are no changes or new information about it. Both documents can be downloaded from the following links, which were already established in D7.6:

- Flyer
- Poster

Please note that this poster and flyer are intended to be used at the different events and/or meetings where the project is represented.

Press releases

Press releases about the D^2EPC project activities and developments have been and will be produced and distributed for publication among national/regional/EU press to further promote the project focusing on both broad audiences and more specific stakeholders. Apart from specific project activities, the topics covered may include opinions/interviews of experts within and outside of the partner organizations, attracting media attention to relevant topics. A continuous cooperation with the press and media is promoted by all D^2EPC partners. All press releases are also available on the D^2EPC project website as well as social media channels.

Since D7.6, where the 1st and 2nd press releases were published, only the 3rd press release has been published, which can be found at the following link:

<u>3rd Press release: November 2022</u>





3 rd PRESS RELEASE

D^2EPC project in its final year

The D⁴2EPC project is currently in its 26th month out of 36, meaning that many tasks are slowly getting to an end, and we will soon be able to show you our final results. Our goal is to introduce the next-generation BIM-based dynamic and digital Energy Performance Certificates (EPCs) for buildings, which will with its additional indicators increase user awareness.

The progress of the project was recently discussed at the 5th Plenary meeting, which took place in Nicosia, Cyprus in September. All expected deliverables were submitted on time and milestones were achieved. Considering there are 10 months left until the end of the project, many technical WPs are currently working at full speed to present the outcomes in the following months. The project coordinator **Diros loannids** from Centre for Research and Technology Hellas, Information Technologies Institute (CERTH) pointed out that "digital twins will play an important role in the project from now on, in parallel with the progress in the demonstration cases."



Alter Aragon Besabe from The Spanish Association for Standardization (UNE) is leading the initiative of forming a CEN working group which will address the gap in the standardisation regarding the operational rating. Here is how he explained the work that has been achieved so far within the project: 'Within the D'2EPC project, a methodology for delivering operational rating of



One additional press release is also planned for month 36, at the end of the project.

Videos and multimedia

There are currently 10 videos uploaded to the project's YouTube channel. Besides the video on the "D^2EPC project" which was presented in the D7.3 Report on dissemination Activities v1, the uploaded videos are presented in the D7.8.

All the videos can be found at the following link:

https://www.youtube.com/channel/UCCmI-GOfxCkMI6nx4X5baVQ

At least one more video will be made towards the end of the project, summarising all the results obtained in the project. It was foreseen in the previous deliverables to be done at M25, but it was decided that it would be better to do it at the end of the project in order to be able to show more extensively the results obtained. This modification can be found in the Timeline of activities in section 4 of this Deliverable. It will be included in the final deliverables of WP7.



Policy briefs

The first draft of the policy brief was prepared within the D^2EPC project at the end of the second year, focused on the identified challenges of the existing Energy Performance Certificates, as the current scheme needs holistic strengthening and improved quality. The proposed solutions, presented as Policy recommendations are the outcomes of the project's research and progress, aiming at addressing the mentioned challenges. The advancements of the EPC-related policies and standards along with guidance for their implementation could pave the way toward the Next Generation of Energy Performance Certificates, which will increase user awareness and engagement on buildings' energy efficiency, facilitated planning and decision-making on a local and regional policy level.

The presented policy brief pointed out the nine challenges that were identified within the D^2EPC project and the related policies that currently apply. Based on that, the policy recommendations were formed on how to overcome the challenges or further improve the solutions that are in place. That report reflects the work and outcomes of the project after two years and will be further updated towards the end of the project.

It can be found and is downloadable in the D^2EPC webpage, in the following link:

https://www.d2epc.eu/en/Project%20Results%20%20Documents/D%5E2EPC_Policy%20brief_v1.pdf

It should again be noted that the creation of common policy recommendations supporting the EPBD, together with the NextGenEPCs cluster, is currently under development.

3.4 Evaluation and Monitoring Communication activities

As has been indicated throughout the previous deliverables mentioned above, the purpose of the evaluation is to determine whether the communication activities meet the objectives.

All communication activities are subject to a regular follow-up, so that the results can be evaluated and integrated within the communication strategy, so that adjustments can be made if necessary. During the development of the process, it was observed that some of the first KPIs established were difficult to achieve, and therefore, after a few months of project development, ambitious and achievable KPIs were established again.

To ensure a high-quality communication strategy execution, the project has an overall evaluation strategy to ensure the above-mentioned quality, however a separate monitoring focused on communication activities is vital as the impact of those activities contributes to the successful Impact.

Impact will ensure that the project objectives are being accomplished through a selection of tailored activities. Impact regarding communication activities can help the consortium to understand the reach and sustainability of the project's results. Furthermore, the impact can also be used to measure and assess the promotion activities in terms of their relevance, quality, and promotion channel.

Impact is often measured through indicators. Again, the same table already attached in D7.6 is included in order to make a comparison with the established objectives and with what has been obtained so far, where the updated indicators for the entire duration of the project and the source and methodology used to measure them are shown.



Indicator	1st Year	2nd Year	3rd Year	Source &
	(M1-M12)	(M1-M24)	(M1-M36)	methodology
Number of visits to D^2EPC website	1000	2500	3500	Analytics Website
Accumulated number of articles published on D^2EPC Website	6	20	40	Analytics Website
Accumulated number of followers on LinkedIn	120	200	300	LinkedIn registry
Accumulated number of followers on Twitter	75	150	200	Twitter registry
Accumulated number of views of video #1	50	100	150	YouTube registry
Accumulated number of brochures distributed	200	400	600	Registry of dissemination activities
Accumulated number of newsletters forwarded	2	4	6	Registry of dissemination activities
Accumulated number of press releases realised	1	2	4	Registry of dissemination activities
Accumulated number of subscribers to the project mailing list	80	150	230	Internal subscriber registry
Accumulated number of Scientific papers realised	1	2	4	Registry of dissemination activities
Organisation of internal workshops	5	10	15	Registry of dissemination activities
Accumulated number of participants in internal workshops	50	150	250	Registry of dissemination activities
Participation in a conference	3	3	5	Registry of dissemination activities
Participation in the external workshop	3	6	9	Registry of dissemination activities
Participation to an event other than a conference or a workshop	2	3	5	Registry of dissemination activities

To ensure the achievement of the planned KPIs, a periodic control of each of the elements analysed in the table have been carried out. The Consortium meetings have been the moments when these KPIs have been reviewed and their compliance has been monitored.

The latest comprehensive analysis of these KPIs can be found in D7.10, and a final update will be included in D7.11 Report on Dissemination Activities v3.



Below, we have updated this analysis by adding a column of what was achieved in M30. In this way, we can see the weak points and the KPIs that are at risk of not being met, so that we can put the necessary corrective measures in place to meet the objectives for the last six months of the project.

Indicator	Expected for 2nd year (M1 – M24)	Achieved in M24	Expected for 3 rd Year (M1-M36)	Achieved in M30
Number of visits to D^2EPC website	2500	4437	3500	5038
Accumulated number of articles published on D^2EPC Website	20	30	40	40
Accumulated number of followers on LinkedIn	200	284	300	333
Accumulated number of followers on Twitter	150	259	200	301
Accumulated number of views of videos	100	120	150	572*
Accumulated number of brochures distributed	400	Online + 295 physically	600	Online + 295 physically
Accumulated number of newsletters forwarded	4	3 (Next in M24)	6	5 (Next in M36)
Accumulated number of press releases realised	2	2	4	3 (Next in M36)
Accumulated number of subscribers to the project mailing list	150	159	230	165
Accumulated number of Scientific papers realised	4	5	12	7
Organisation of internal workshops	10	10	15	12
Accumulated number of participants in internal workshops	150	170	250	250
Participation in a conference	3	4	5	7
Participation in the external workshop	6	12	9	14
Participation to an event other than a conference or a workshop	3	5	5	11

*The Total number of views of all videos uploaded to the Youtube Channel. Data updated on 7th February 2023.



3.5 Linking D^2EPC with other ongoing projects

One of the priorities of D ^2EPC is networking activities with other H2020 and Horizon Europe projects with common and relevant objectives.

At the start of the D ^2EPC project an official request for collaboration was made to the lead partners of the relevant projects and the responding organizations had access to the networking services of the project. Work experience and knowledge gained in similar projects is always a valuable tool to guide project actions and will enhance the expertise of the project team.

The network created with the sister Projects can be found in our project website, and this is analysed in depth in the previous deliverables.

A change in this section has been generated in the last months, which was already reported in D7.8, and it was the creation of the "Related Projects" section, in which we currently find 2 projects: Precept and MiniStor.



Figure 10- Related projects section

Thanks to this link with other sister projects, D^2EPC consortium has the possibility to celebrate the final conference together with other two projects of the NextGenEPCs cluster: E-DYCE and ePANACEA, which is currently under preparation. More details will be found in the Final version of D7.11.



4 Timeline of activities

The table belows shows a summary of the previous communication channels (in the months of the project), indicating the month in which we are at the time of presenting this deliverable:

D^2EPC	М1	M2	M3	M4	М5	M6	M7	M8	М9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36
Website																																				
Newsletter																																				
Press releases																																				
Social media																																				
Poster templates																																				
Project brochures																																				
Flyers																																				
Scientific publications																																				
Non-academic publications																																				
Presentations at academic Conferences																																				
Project workshops																																				
Policy briefs																																				
Videos																																				

5 Conclusions

The Dissemination and Communication plan provides the D^2EPC project with a solid framework, roadmap and practical toolkit that will help to disseminate project results and activities. The D^2EPC partners can use this document as a strategy.

This document is a living document, which has been updated within the project's lifetime. This D7.7 Dissemination and Communication Plan v3 is an updated version of D7.1. Dissemination and Communication material v.1 and D7.6. Dissemination and Communication material v.2, showing the evolution and the course of the project reflected in real time.

Dissemination materials and strategies are created for their specific objectives. Effectiveness of the Deliverable in targeting specific stakeholders and alignment with the project objectives and stakeholder interests are the objectives sought.

Finally, it should be noted that this deliverable is the latest version of the Dissemination and Communication Plans, establishing in the current document the steps to be followed in the last months of the project. The document can be used by all partners as a reference manual for the defined project management practices.



6 References

- [1]. D^2EPC Deliverable D7.1 Dissemination and Communication Plan v1
- [2]. D^2EPC Deliverable D7.2 Established internal and external communication channels and materials v1
- [3]. <u>D^2EPC Deliverable D7.3 Report on Dissemination Activities v1</u>
- [4]. D^2EPC Deliverable 7.6 Dissemination and Communication Plan v2
- [5]. <u>D^2EPC Deliverable D7.8 Established internal and external communication channels and materials v2</u>
- [6]. D^2EPC Deliverable D7.10 Report on Dissemination Activities v2