

Dear reader,

You are reading the second newsletter of the D^2EPC project which is setting the grounds for the next generation of dynamic and digital Energy Performance Certificates (EPCs) for buildings. The project started in September 2020 which means we will soon reach the milestone of 1 year of the project which is one third of the whole project duration. In this newsletter we will present to you the work and development we have accomplished so far and the events we had the opportunity to attend.



year of the D^2EPC project

DELIVERABLES AND MILESTONES

D1.4 D^2EPC Framework Architecture and specifications v1

Lead beneficiary - Centre for Research and Technology Hellas

The scope of this deliverable was to provide a holistic view on the D^2EPC system architecture, its building blocks, components, interdependencies among components and related constraints such as development methodology. The user and market requirements extracted through previous WP1 activities are translated to business scenarios and technical use cases, along with functional and non-functional requirements. The architectural description includes aspects related to the identification of the major system components, how they should interact and how their external interfaces should be defined.



Key factors

- The D^2EPC Architecture is divided into 4 layers: Infrastructure or Physical Layer; Interoperability Layer; Service or Processing Layer; and Representation Layer.
- 4 different viewpoints of the system architecture are introduced: Functional View, Information View, Development View and Dynamic View.
- Three high-level business groups have been defined as the main set of scenarios that demonstrate the business value offered by D^2EPC, which are further analysed into 6 Business Scenarios. The operational flow of each Business Scenario is further described resulting into 19 Use Cases.
- The proposed D^2EPC platform consists of 10 main components and 24 Sub-Components.

D2.5 D^2EPC Information Model

Lead beneficiary - Kaunas Technical University

WP2 objectives are to analyse and define a set of indicators to be included in the next generation EPCs, including SRI, LCA and economic indicators and considering user wellbeing aspects (thermal/vision comfort, air quality). T2.5 task will extend current standards/protocols used for issuing certificates including also all new features proposed by the D^2EPC framework, focusing mainly on the additional indicators. To optimally support this information model, an API will be implemented for the information flow among the various components.



Key factors

• State-of-the-art analysis of existing data models and their relevance to the project.

Guidelines for extracting required data (concerning D^2EPC additional set of indicators) from IFC data model.

D3.1 IoT and BMS interfaces to extract energy related data

Lead beneficiary - Hypertech

The first version of "IoT platform & Interfaces" deliverable summarizes the activities conducted until the tenth month of the project towards delivering the complete D^2EPC IoT Framework. D3.1 presents the results of the audit process performed on the D^2EPC demonstration sights showcasing the building characteristics, the existing infrastructure and the available sensing/metering equipment. The deliverable further examines the challenges that arise from an IoT Framework implementation and provides a detailed overview of the software and hardware components that will constitute the D^2EPC IoT platform.



Key factors

- The D^2EPC performance indicators and the system operation will define the requirements in terms of sensing and metering equipment to be deployed in the demonstration cases
- The existing pilot infrastructure will shed light on the additional IoT equipment required to be deployed per case
- The IoT devices deployed in the pilot sights are expected to fulfil certain criteria concerning reliability, user-acceptance and techno-economic feasibility
- The final version of the deliverable will provide an indicative list of IoT equipment based on the findings of the lab and remote trials performed on a variety of off-the-shelf IoT devices.

D7.3 Report on Dissemination Activities v1

Lead beneficiary - DEMO Consultants

In this deliverable the dissemination activities within the period between M1 and M12 are thoroughly presented. Since the beginning of the project when social media and website were established, many activities were performed in order to maximize the visibility of the project and convey its findings and outputs to relevant stakeholders. Besides the overview of dissemination activities, the deliverable also includes the list of KPIs that are used to monitor the progress and assure that the project's objectives are being accomplished through a selection of tailored activities.



Key factors

- D^2EPC has 113 LinkedIn followers and 72 Twitter followers
- New dissemination material includes Poster, Flyer, Brochure and Video
- 2 publications related to D^2EPC were produced
- 2nd newsletter was sent out in August

Achieved milestones in the period between M6 and M12

- MS2 v1 of D^2EPC system architecture and requirements (M6)
- MS4 D^2EPC Information Model delivered (v1) (M12)

NEW PROMOTIONAL MATERIAL

Poster & Flyer





The poster and the flyer were developed for the promotional purposes of the project. They give brief explanation of the project, present the consortium and state its objectives and impacts. The poster was developed in A3 and the flyer in A5 format. Both were developed to be used in future conferences and other events where consortium partners will present the project.

Video



In the 2,5min video we present the main aspects of the project, starting with the main challenges of current EPC schemes. We continue with project's objectives and how to achieve user awareness of building energy efficiency. Project's impact is clearly presented and explained. Finally, the consortium and the demonstration cases are listed and shown on the map.

Representation Layer

Interoperability Layer

Service / Processing Layer

Infrastructure / Physical Layer



BROCHURE

The holistic view on the D^2EPC system architecture, its building blocks, components, interdependencies among components and related constraints such as development methodology were in detail provided in D1.4. In the project's brochure we tried to present the Framework Architecture of the D^2EPC in a simple and clear way. In the brochure you will find more information about:

- Three main viewpoints
- D^2EPC Layered Conceptual Architecture
- Core components





View brochure

NEWS & EVENTS

Enlit platform

D^2EPC has become part of the Enlit Europe platform. Enlit is the European roadmap for the energy transition and consists of several elements to boost and support the energy transition. It aims to showcase the research and projects' results carried out in Europe focused on improving Energy Efficiency.

Read more in News Archive



Plenary meeting

The consortium of D^2EPC had a two-day online 2nd Plenary meeting that took place on 21st and 22nd April 2021. Meeting was led by Project coordinator CERTH. The main purpose of the meeting was to update each other on the progress of our work, discuss issues and set goals for the future.

Read more in News Archive





Partners involved in WP2 have had two internal workshops. One took place on the 15th April and the other on 15th June. Workshops focused on WP2 "Operational Framework for dEPC Schemes" and containing tasks. KPIs, tasks progress, working plans and the interactions between the tasks were discussed.



We have just reached

100

followers on LinkedIn!

Thank you!

Read more

100 followers on LinkedIn

On 25th June we reached the milestone of having 100 followers on LinkedIn. The number is still increasing, and we are grateful for all the people that are with us, following our progress! Thank you!



NextGen EPC cluster

D^2EPC is participating in variety of events and webinars of the NextGen EPC cluster. The main idea of such cluster is to explore synergies and join forces between all sister projects for successfully implementing the individual projects and overall maximizing the impact at cluster level. So far, we have participated in:



- Building energy performance certificate for the people Read more in News Archive
- Next generation EPCerts H2020 cluster workshop <u>Read more in News Archive</u>
- Panel discussion Horizon 2020 Innovation Actions for the Next Generation EPCs <u>Read more</u>
- 2nd web workshop Building Energy Performance Certificates: convergent evolution? <u>Read more</u>

SpliTech 2021

'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!

Read more





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