

Summary of 6.4

First presentation of E-Learning Platforms and pilot activities

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EDDIE Consortium

Deliverable D6.4 - This report aims to provide a first presentation of established E-learning Platforms with relevant courses in digital energy topics and the E-learning platforms deployed in the piloting activities. Moreover, the content of each piloting activity with supporting material is presented to be published on the EDDIE website.

Online learning and E-learning Platforms have been evolving with the progression of information and communication technologies. They offer a new learning experience and enable new education formats. There are different types of courses and E-learning Platforms, depending on the topic, the learner's objectives and the instructor's application of E-learning.

Deliverable D6.4 describes the various E-learning platforms. First, the E-learning Platforms employed in seven pilot activities are presented, including RWTH Moodle and NTUA Helios, which are used in combination with in-person teaching activities, and then, ERIGrid Moodle and POK, which are designed for online learning. Second, an overview of the E-Learning Platforms available only for online learning and based on educational content on digital energy-related subjects is provided. Ten E-learning Platforms were identified and analyzed. Additionally, two exemplary relevant courses on these platforms were presented. An overview of relevant E-Learning Platforms for EDDIE is given in the table below.

Table 1-1: Relevant E-learning Platforms for EDDIE

E-Learning Platform	Relevant Courses
Coursera	Real-Time Embedded Systems; Big Data Modeling and Management Systems
EdX	Enabling Technologies for Data Science and Analytics: The Internet of Things; Introduction to Blockchain
Udemy	Power Electronics: Control and Simulation of PWM Inverters; Digital Transformation 2022 -Masterclass
LinkedIn Learning	Advance Your Skills in Predictive Analytics; Become a PLC Developer
IEEE Academy	Distribution Automation; Internet of Things
TU Delft Online Learning	Intelligent and Integrated Energy Systems; PV Modeling, Simulation and Analysis
DNV Online Learning	CIM training course; DLMS/COSEM training course
Stanford Online	Transforming the Grid: AI, Renewables, Storage, EVs, and Prosumers; Energy Innovation and Emerging Technologies Program
Future Learn	Battery Storage: Understanding the Battery Revolution; Energy Systems Integration: An Introduction
IIEC Online Certification Courses	Digital Transformation in Energy and Utilities Certification Course; Online MBA in Digital Energy and Utilities

The roll-out of the Blueprint Strategy for the Digitalization of Energy (BSDE) in EDDIE will take place in a central pilot site in Germany (Aachen) and in four smaller-scale pilot sites in Germany (Cologne), Greece (Athens), Italy (Milano), and Spain (Madrid). The deployment will include overall, 17 individual piloting activities, targeting different EQF levels and designed as different educational programs. Detailed information on the content, timeframe and assessment of these activities is described in the deliverables D6.1 and D6.2.

(In coordination with the Aachen pilot site and in the context of the BSDE directions, four other pilot sites will be developed in Cologne, Athens, Milan and Madrid. The Cologne pilot site will be mainly industry driven, aiming to reduce skills gaps in the energy sector. This includes a program to train employees on new trends in the energy sector, a certificate program for mastering the energy landscape of the future, and a course connecting companies as teaching entities with students. The Greek pilot site focuses on lectures and courses to university students in the field of new tools and mechanisms that will play a crucial role in the digitalization of the energy system. To raise synergies, NTUA also plans to participate in a summer school and a MOOC, organized by the H2020 project ERIGrid 2.0, aiming to stress the necessity of the update of education programs, in the context of the transformation of the energy sector. In Italy, Politecnico di Milano will develop a MOOC targeted to digital energy management for real estates, aiming to match green skills with the real estate sector. Finally, Piquer is setting up a complementary training module on automation technology to improve the energy efficiency and control the energy consumption in private households as an educational offer in vocational training (VET) in Spain.)

Seven pilot activities will use an E-learning Platform for the deployment and support of the activity. In table below, there is an overview of pilot activities with a corresponding E-Learning Platform.

Table 1-2: Overview of pilot activities with an E-learning Platform

Site	Partner	Activity	EQF Level	E-Learning Platform
Aachen, Germany	RWTH	Summer School on smart electrical power systems	6	RWTH Moodle
Aachen, Germany	RWTH	Leonardo lecture on energy transition	6/7	RWTH Moodle
Cologne, Germany	EWI	Certificate in Future Energy Business	6	t.b.d
Athens, Greece	NTUA	Lectures on Local energy markets, energy communities and Blockchain applications	7	NTUA Helios
Athens, Greece	NTUA	Lectures on Artificial Intelligence applications on energy systems: Dynamic security and forecasting	7	NTUA Helios
Athens, Greece	NTUA	Introductory lecture into MOOC on advanced validation methods for smart grids	6, 7	ERIGrid Moodle
Milan, Italy	POLIMI	MOOC "Energy management for real estates"	5	POK

