EDucation for DIgitalisation of Energy

Newsletter no.5 – January, February, March 2021

Description and Benefits

EDDIE is a four-year (starting January 2020) Erasmus+ European Union funded collaborative project creating a Sector Skill Alliance (SSA) to develop a long-driven Blueprint for the digitalization the European Energy sector. The Consortia is coordinated by COMILLAS and brings together 16 partners from 10 EU Countries.

The challenge of the project is to develop a long-driven Blueprint for the digitalization of the European Energy sector to enable the matching between the current and future demand of skills necessary for the digitalization of the Energy sector and the supply of improved Vocational Education and Training (VET) systems and beyond.

Digital Energy Education

Briefly

Title: Education for Digitalisation of Energy
Type of action: Sector Skill Alliance
Topic: EPP-1-2019-ES-EPPKA2-SSA-B
Grant Number: 612398
Total Cost: € 3,995,690.00
EC Contribution: € 3,995,690.00
Start Date: 01/01/2020
End date: 31/12/2023
Duration: 48 months
Project Web Site: *www.eddie-erasmus.eu*
Key Words: Digitalization, Energy, Education, SSA, VET
Project Coordinator: COMILLAS

With the support of the Erasmus+ Programme of the European Union

Project Objectives

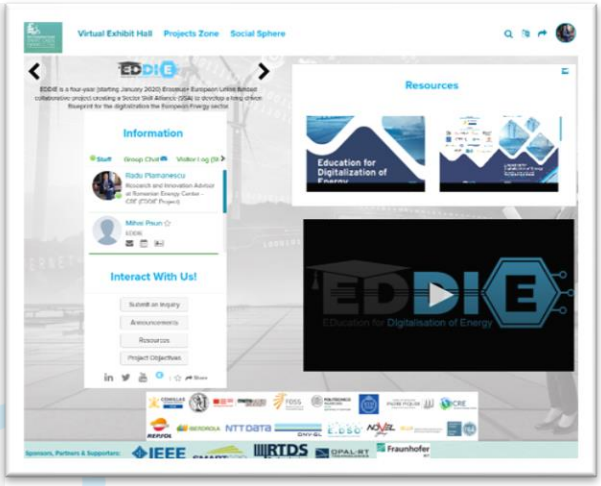
1. **Develop** a European Sectoral Skills Alliance
2. **Implement** improved/new qualifications in national VET and beyond systems.
3. **Fostering** the collaboration and mobility among European training centres, universities, and industries.
4. **Provide** a sustainable framework that allows education providers to define and update educational programs responding to industry changes.
5. **Improve** the attractiveness of the Energy sector as a career choice

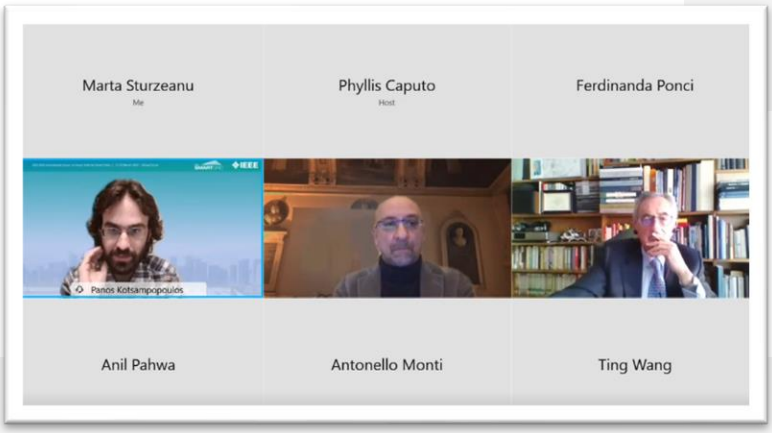
Concept and approach

The objective of the project to develop a Blueprint Strategy for the Digitalisation of the Energy value chain (BSDE), will be based on the sustainable cooperation between key industry stakeholders, education and training providers, social partners and public authorities. The BSDE is an industry-driven strategy that will meet and anticipate the skills' demands for the sustainable growth and digitalisation for the European Energy sector. This new strategic approach will reinforce the competitiveness of the European Energy Sector in an efficient and innovative way by creating a highly skilled workforce.

EDDIE at the "2021 IEEE INTERNATIONAL FORUM ON SMART GRID FOR SMART CITIES"

EDDIE project participated and was part of the Project Zone in the Online Video-Conference organized by IEEE Smart Grid in collaboration with RWTH Aachen University. During the Conference, EDDIE Project – „EDucation for Digitalization of Energy", created the context for the interventions in Tech Session 8 „Education in the Digital Era for Digitalization" on Tuesday, 23rd of March 2021, from 17:00 – 18:30 CET, within a lineup secured by distinguished professors and researchers from high ranked universities. The role of Education in the Digital Era for Digitalization and the Development of synergies with other innovation projects funded by the European Commission (EC) through the ERASMUS+ and H2020 program will create the framework for EDDIE Project to actively contribute to decisions in the process of Digitalization of the European Energy Sector (DEES).





In the session „Education in the Digital Era for Digitalization" organized by the IEEE PES Task Force on "Innovative teaching methods for modern power and energy systems" different angles of the topic were addressed like New Trends in Education and Training in Engineering, Educational Services in Energy Transition and Education at the Nexus of Smart Grids and Smart Cities. EDDIE representatives, Miguel SANCHEZ-FORNIE and Panos KOTSAMPOPOULOS, covered the general context for the important role of Education for Digitalization within the Energy Sector presenting core insights about the project development supported by data results regarding Emerging Skill Needs of the Industry and Skill Offer of Education Providers.

More details

EDDIE Interviews Serie: online video conversation with guests from POLIMI-METID, FOSS and KTH partners.

The interview series of EDDIE project continued in 2021 with guests from POLIMI-METID, FOSS and KTH partners.

The interview series of EDDIE project continued in 2021 with guests from POLIMI-METID, FOSS and KTH partners. The representatives of the Teaching and Learning Unit of Politecnico di Milano shared from their substantial expertise in design, implementation, and development of innovative teaching strategies. More technical aspects of the digitalization of the energy sector were covered by guests from FOSS Research Centre for Sustainable Energy, who spoke about transformations in the transmission systems and their new personnel skills, but also about sustainable energy planning and green skills in the energy sector. The online teaching subject, its benefits and drawbacks, priorities in the technical education system of professionals and the Blueprint of EDDIE project has been addressed during the last conversation with Royal Institute of Technology.

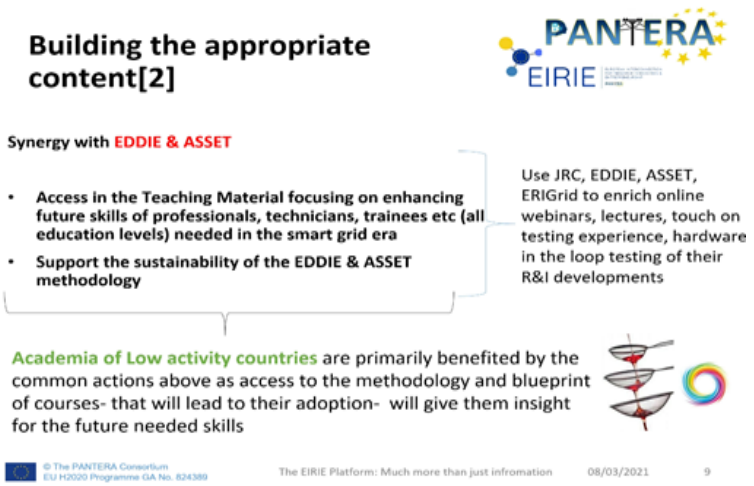
More details

EDDIE Project at the "Remote Testing & EIRIE Platform" Webinar

EDDIE Project participated at a joint Webinar entitled "Remote Testing & EIRIE Platform", organized by European Distributed Energy Resources Laboratories (DERLAB) in collaboration with the Horizon 2020 Projects, ERIGRID 2.0 and PANTERA, on Tuesday, 8th of March 2021.

PANTERA Project has been working on developing an interactive multi-functional platform called EIRIE Platform that will build trustful cooperation with stakeholders, acting as the meeting point of all actors active in the field of energy Research & Innovation from all Europe.

Sinergy with EDDIE Project are encouraged by the EIRIE Platform with the objective to enhancing future skills of professionals, technicians, trainees (all education levels) needed in the Smart Grid area. Moreover, the EIRIE Platform supports the sustainability of the EDDIE methodology.



More details

EDDIE Consortium publishes monthly blogs addressing emerging technologies, for the digitalization of the energy sector.

Every month of the project, 4 blogs will describe the latest technologies in energy sector also related to digitalization of the energy sector. For a successful yet practical way of interacting with the stakeholders and public, all blogs will be posted on EDDIE website under a dedicated page with references to LinkedIn and Twitter.

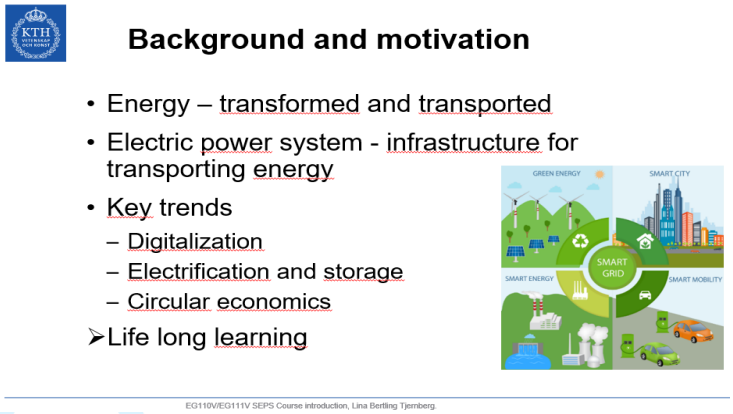
Latest topics include *"Optimal operation of multi-carrier local energy communities by implementing the energy hub concept", "A New Wave of Automation"; "Smart Energy - Mastering the Energy Landscape of the Future"; "Applied Data Analysis for Driving Patterns - Anxiety about Electric Mobility Range Often Unsubstantiated"; "OneNet and WiseGrid Projects"; "Digitalization of Renewable Generation".*

More details

KTH University launches a course package on Sustainable Electric Power Systems addressing Life-Long Learning.

Royal Institute of Technology created a new course package on Sustainable Electric Power Systems with the aim of providing a conceptual understanding of the fundamentals of the electric power system as a component of a sustainable energy system. Considering the key trends in energy sector like Digitalization, Electrification and Storage, as well as Circular Economics, the academia staff manged to integrate lectures, tutorials with exercises, laboratory work with project reports, technical study visit (if applicable) and final written examination.

Through the main objectives can be found the following: conceptual description of the technical fundamental characteristics and performance of the electric power system with main function to deliver electricity between generation, consumption, and storage; modelling and analysing of basic electric circuit; understanding of the basics of synchronous generators and of the three phase transmission system; performing per-unit calculations; understanding basic impact of different loads on the electric power system; formulating and solving a power flow analysis problem; understanding of the fundamental behaviour of the electric power system based on simulation tools, the main function of the power system market and the safety instructions in the electric power engineering lab in the course.



Overall course:
Module 1
Introduction to SEPS
Module 2
Experimental and computer labs

More details

Eddie participated at the “Skill Building for the Energy Transition” organized by International Renewable Energy Agency

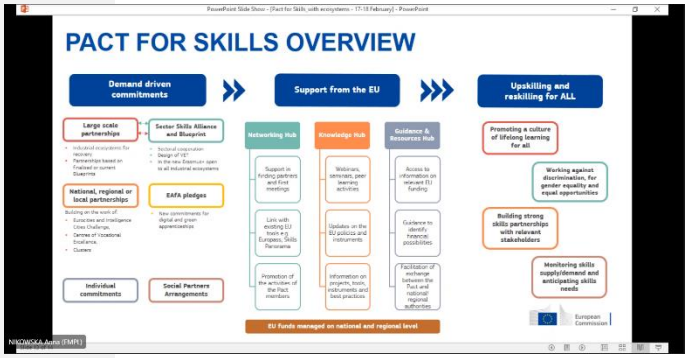
On the 23rd of February, IRENA organized the webinar “Skill Building for the Energy Transition”, addressing ones of the key questions of the transition process through education and training: “Why is skilling needed?”, “What is being taught?”, “How is this being delivered?” and “What is the role of industry?”.

The solution proposed by the reports presented, focus on preparing students to work in many occupational areas, beside redesigning the curriculum by targeting schools, higher education, vocational training, professional or supplementary education and training. As participant, EDDIE could not agree more with the conclusion that building the skill base necessary for achieving the energy transition requires the implementation of education and training policies and programs that address the need to reskill and upskill the existing energy workforce as well as educate a new generation of energy professionals.”

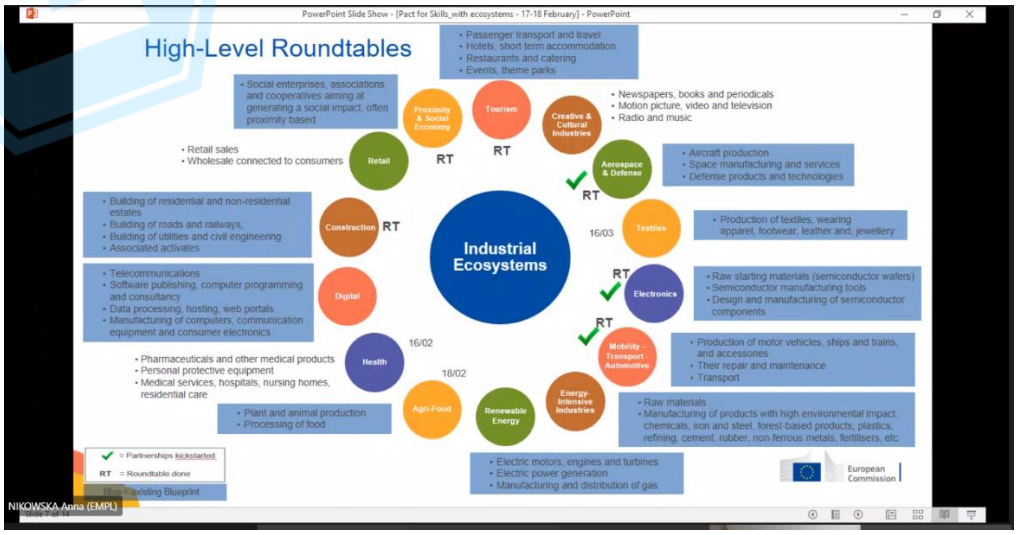
More details

European Commission's Pact for Skills in the Context of EDDIE Project. Participation on the Associated Webinar.

The European Commission launched the Pact for Skills, as a leading action for the European Skills Agenda, where national, regional, and local authorities, social partners, cross-industry and sectoral organizations, education and training providers and employment services have a key role to play. The aim and objectives of The Pact are for concrete actions and join forces to upskill and reskill people in Europe in the context of supporting the goals of the Green Deal and Digital Transitions of the EU Industrial and SMEs strategies.



The Pact was created based on other EU initiatives for cooperation including the reinforced European Alliance for Apprenticeships but also on the Blueprint for Sectoral Cooperation of Skills. The Blueprint for Sectoral Cooperation of Skills is also the initiative that guides EDDIE project, with the objectives of creating a Sector Skills Alliance by bringing together all the relevant stakeholders in the Energy value chain to address skills gaps. The EDDIE project envisages an exhaustive analysis of the educational context that addresses the field of energy, for substantiating the necessary structural changes and the plan for their effective implementation, to respond efficiently, with concrete measures, to this demanding context of digitalization of the energy sector.



In the Pact for Skills context, EDDIE project participated on 17-18 February at Pact for Skills Webinar, discussing about the corellation between industrial ecosystems like Digital, Mobility, Transport and Automotive; Energy Intensive-Industries; Renewable Energy and the skills needs at each level. Furthermore, the main describing steps of the Pact were adressed. Demand driven commmitments; Support from the EU and upskilling and reskilling for ALL are mandatory stages in the Pact for Skills landscape. EDDIE Project join the Pact with the aim of promoting concrete actions and contribute through the project results.

More details

EDDIE Project develops a Stakeholder Database.

Work Package 3 (WP3) team has been working hard to develop a dynamized and elegant Stakeholder Database which includes all the relevant stakeholders for the EDDIE project.
The database aims to create synergies and provide relevant information for people interested in the energy sector, both for professional and educational matters.
Potential EDDIE members will be able to apply by filling in an application with the relevant information needed from them. Once the application is filled in, it will then have to be approved by the consortium members. This approval of the applications will ensure the quality and relevance of the members of the platform.

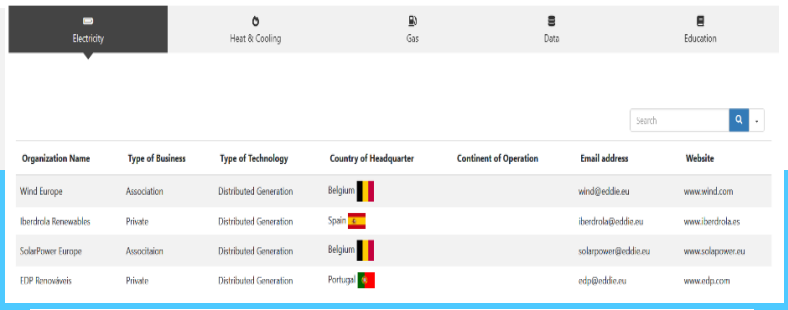


Figure 1: Initial Stakeholder Database Prototype

Deliverable D3.1 - "Identification of Stakeholders in each area", who will address the Database Development, is due in on the 31st of May. Improvements are continuously being made to ensure that the final prototype provides value for the final blueprint which will be developed.

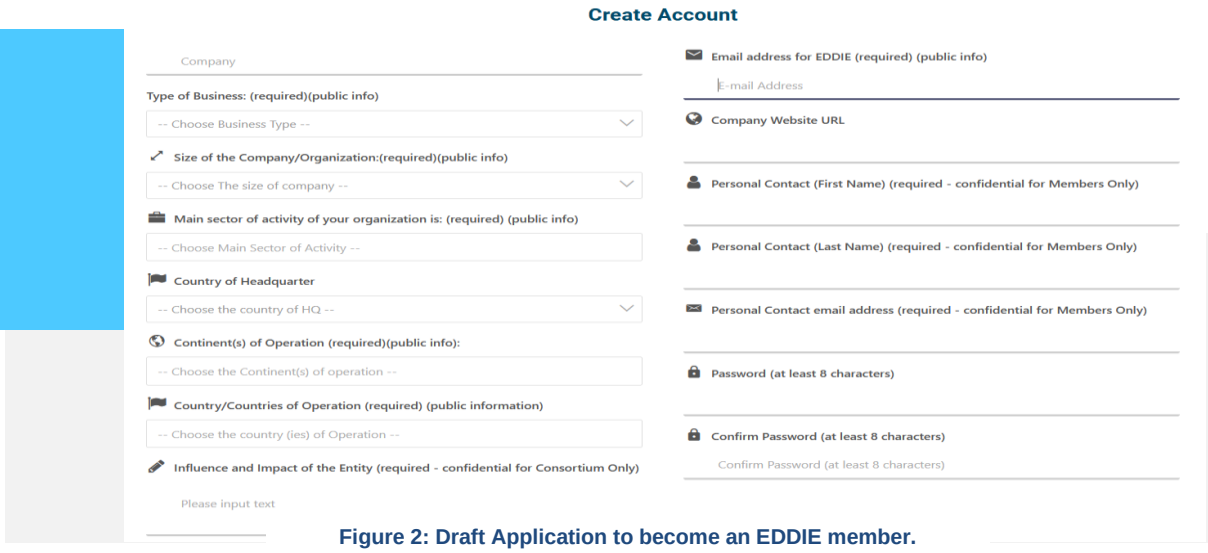


Figure 2: Draft Application to become an EDDIE member.

Work in progress

EDDIE project consortium

We are happy that **NTT DATA officially joined the efforts of the EDDIE project** at the beginning of April. The company uses information technology to create new paradigms and values, which help contribute to a more affluent and harmonious society. The EDDIE team is looking forward to having a close and fruitful collaboration.

The project consortium is led by **Universidad Pontificia COMILLAS Spain**, **EDDIE** consortium brings together **16 partners from 10** EU member states and associated countries. Representatives of nine European energy utilities, end-user organisations, industry, SMEs, research and academia from Spain, Greece, Cyprus, Germany, Italy, Sweden, Romania, France, Belgium, Luxemburg, comprise the project consortium.