

EDDIE PROJECT PARTICIPATED AT THE EUROPEAN SUSTAINABLE ENERGY WEEK 2022

29th of September 2022, EDDIE Consortium

EDDIE Project participated to a policy session within European Sustainable Energy Week – EUSEW 2022, on 22nd of September 2022, 13:30 – 15:00 CET, hosted Online. The session *“Skills for the twin green and digital transition”* was part of the European Sustainable Energy Week 2022 Extended Programme, jointly organized by the EDDIE Project – Education for Digitalisation of Energy, EdgeFLEX Project – Providing flexibility to the grid by enabling VPPs to offer fast dynamics control services, IEEE PES Task Force on Innovative Teaching Methods for Modern Power and Energy Systems, DG EMPL.B2, and DG ENER.

The objective of the session was to identify and assess skills gaps, needs, high-impact policies and regulations in the Energy Sector, for energy transition through digitalization. The focus of the *“Skills for the twin green and digital transition”* highlighted some of the most significant skills gap, the necessary curricula changes, and the most appropriate regulatory and policy measures required for the adaptation of technologies in the emerging digital era of the energy sector. Furthermore, another objective of the session was to pave the way towards building a large-scale partnership under the Pact for Skills taking benefit from the Sectorial Skills Strategy that will be developed by EDDIE project.

Addressing skills gaps and need for the energy transition through digitalization and investigating the possibility of creation of a large-scale partnership for digitalization of the energy sector, the session was attended by more than 60 specialists from various organizations representing the education system, industry-energy companies, stakeholders from the administration domain, industry-ICT technologies and industry-engineering and services.

The proposed interactive session was moderated by Cristiana Marchitelli, on behalf of DG ENER that created the context of skills and required actions also from the point of view of the soon to be published Digitalization of the Energy Action Plan. The session combined the efforts of two project consortia, one [EdgeFLEX](#) promoting smart energy and cybersecurity solutions, which triggered discussions on emerging technologies and associated skills needs and occupations. [EDDIE](#) underlined the perspective on education and the design of an industry-driven sector skills strategy on how to address the skills gaps and needs. Moreover, the discussion were complemented by the participation of the [IEEE PES Task Force](#) on Innovative Teaching Methods for Modern Power and Energy Systems, which investigates, creates, and promotes the use of innovative teaching methods and material in modern power and energy systems.

During the discussions, Miguel Ángel Sánchez FORNIÉ – EDDIE Project Coordinator, COMILLAS highlighted interesting aspects: *“Energy transition is a must and digitalization accelerates it. The result is a deep transformation of the energy sector. In terms of the Digital Education Action Plan there are two strategic priorities: fostering the development of a high-performing digital ecosystem and enhancing digital skills and competences for the digital transformation. With regards to the EDDIE project let me underline the importance of using European system for classification of jobs and skills such as CEDEFOP and the needed link with other European projects in the area of energy where education is a matter of interest”*.

“The energy transition has two main triggers related to High Renewable Penetration and Distributed generation, and the second one is about digitalization of energy. EDDIE Project put us in position to assess how the learning and education should be properly adapted to the new technologies and the new realities coming from the digitalization of the energy sector. Within the EDGEFLEX project, we have a cloud-based ICT solution containing a set of grid services referring to voltage control, inertia estimation, frequency control and VPP optimization and we are counting on several technology enablers such as policy-based grid control, edgePMU, edgeFLEX architecture and 5G communication”, pointed out Mihai MLADIN – Romanian Energy Center (CRE).

Panos KOTSAMPOPOULOS - IEEE PES Task Force on Innovative Teaching Methods for Modern Power and Energy Systems mentioned that *“This Task Force is responding to the emerging industrial needs in a complex multi-domain environment such as decentralization of energy production, multi-energy systems, new market models and digitalization. There is clearly a need for new skills and expertise in the power and energy sector and we have identified the needs of data analytics and machine learning training and tools for cyber-physical*

power systems, the needs for interdisciplinary approach for power systems cybersecurity and social, leadership and communication skills”.

The new era of the energy system requires re-skilling and up-skilling across all levels to develop clean energy technologies and solutions. In the context of the Pact for Skills launched in 2020, Felix ROHN – DG EMPL pointed out key aspects: *“The Pact for Skills aims to mobilise private and public stakeholders to take concrete actions. Skills partnerships allow to pool expertise and resources and make concerted efforts for up-skilling and re-skilling actions. There is a strong need to increase and maximise the impact of public and private skills investments. Investments in skills needs a joint effort”.*

During the panel discussions, Bianca DE VIVO – DG GROW underlined interesting aspects regarding the New Pact for Skills partnership to boost digital skills: *“The digital ecosystem is very important and produce the need to bring new digital skills that needs to be implemented also in the ecosystem. It is an interesting ecosystem with a lot of challenges that have an impact in all the other ecosystems”.*

“The digital ecosystem does have the responsibility to re-skill and up-skill the people that work in the ecosystem itself but also to reach out the certain ecosystems”, pointed out Joachim SCHWERIN – DG GROW.

In terms of cybersecurity solutions, Tero VARTIAINEN – CC-RSG, University of Vaasa mentioned that *“The main idea of our project is to develop education and training in smart grid area from the point of view of cybersecurity. The technical and social aspects should interact. The other point of view in our project is real time simulation, how to model parts of smart grids to stand for inevitable attacks that occur in real time and how to learn from those attacks”.*

Regarding the regulatory framework, Charles ESSER – CEER pointed out that: *“Indeed cybersecurity is very important. The network code should give a change to clean energy packages directives to be implemented in large scale areas. We need to stimulate demand side flexibility across Europe. From the regulators point of view there is a need to connect to society and our strategy is to empower consumers for the energy transition”.*

“ETIP SNET is the place where we can anchor also the skills dimension. We have a specific group looking at the digital technologies, digitalization and customers. The energy sector also faces a lot of issues regarding cyber security because we have these devices which are full of sensors, so we have many gateways, and we need to pay attention. I will mention the dimension of skills in the architecture, the need to have these types of skills that are looking at architecture of the different sectors which are able to create these interfaces and to integrate at the end. Real time is very important, as Tero said, because this requires acting immediately”, pointed out Norela CONSTANTINESCU – ENTSO -E.

EDDIE Project is funded by the EC under the ERASMUS+ Program and aims at creating a Sector Skills Alliance (SSA) by bringing together all the relevant stakeholders in the Energy value chain such as industry, education and training providers, European organizations, recruiters, social partners, and public authorities. The main objective of this SSA is to develop a long-driven strategy to enable the matching between the current and future demand of skills necessary and the supply of improved Vocational Education and Training systems and beyond.

