EDucation for DIgitalisation of Energy

Newsletter no.4 – October, November, December 2020

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

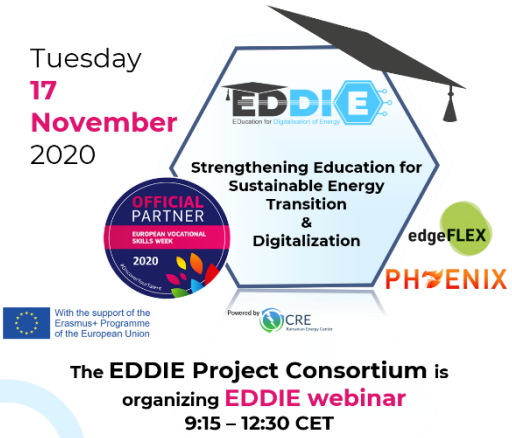
Concept and approach

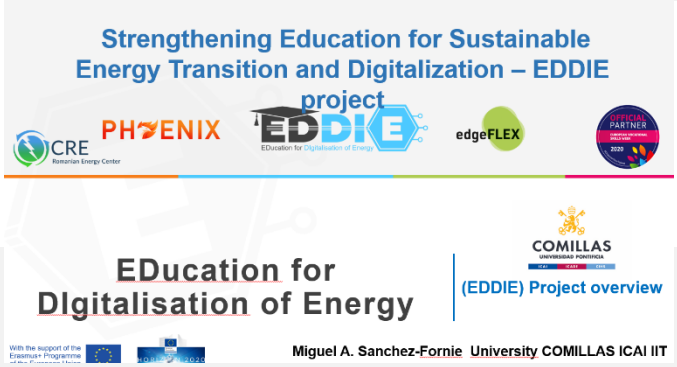
The objective of the project to develop a Blueprint Strategy for the Digitalisation of the Energy value chain (BSDE), will be based on the sustainable cooperation between key industry stakeholders, education and training providers, social partners and public authorities. The BSDE is an industry-driven 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 consortium organized the international online conference “Strengthening Education for Sustainable Energy Transition and Digitalization”

EDDIE Webinar wanted to respond to key questions raised by the 4th Revolution, addressing the main forces of change in ENERGY Transition: Low Carbon Objectives & Digitalization. Therefore, industry representatives, policy and decision makers, researchers, practitioners as well as key representatives from the education sector were invited to discuss challenges related to digitalization, education, and their role for the future of the Energy Sector.

Synergies with EdgeFLEX and PHOENIX H2020 innovation projects in the digitalization of energy allowed a better understanding of the landmarks for the mandatory transformation in education as a sustainable response to the new and future requirements.





During the webinar, Miguel Angel SANCHEZ FORNIE, the Consortium Coordinator, presented the EDDIE Project and Panos KOTSAMPOPOULOS, Senior Researcher at NTUA, spoke about the “Identification and industrial challenges and skill needs in the energy sector within EDDIE framework”.

For the main highlights of the conference and conclusions, please access the “More details” button below.

More details

First International Advisory Board (IAB) of EDDIE

The International Advisory Board (IAB) plays a key role as an independent external quality consultant in the project, and providing requirements and inputs on goals and issues, monitoring project milestones and providing final feedback on results and future expectations in other sectors and other blueprints.

EUROGAS

DERlab

City of Aachen

DAFNI

CESI (FISMIC)

City of ***Herne***

NTT ***Data***

ENTSO-E

T&D Europe

FSR- Florence School of *Regulation* (European Univ. Institute)

Italgas- GD4S member

The first meeting took place in November, where an EDDIE project executive summary was presented, together with main achievements and planned activities summary. During the meeting, several points were highlighted and discussed including the Pact for Skills launched by the EC, Open-Source Communities to be considered, cybersecurity, skill gaps assessment, VET and Academic Education, geographical dimension of the EDDIE actions, exploitation of the results and actions for social media.

Also, a quest back survey was launched to 12 participants on early December 2020 to get specific external evaluation from IAB members as an evaluation outcome.

More details

EDDIE at the Cybersecurity: Data Sharing Webinar - October 2020!

On **7 & 21 October 2020**, the fully remote E.DSO – ENCS – ENTSO-E Webinars "Cybersecurity: Data Sharing" hosted the 3rd edition of their Cybersecurity event. The webinar brought together experts in the field of cybersecurity and debated the need for harmonisation across scoping for Information Security Management Systems, security measures and knowledge sharing, to head off today's cyber threats.

EDDIE at the Virtual Workshop: Europe in Transition – October 2020!

On 22nd of October 2020, EDDIE took part in this online event organized by Renewables Grid Initiative. This event focused on initiatives to maximize RES penetration in the European energy system as we move towards decarbonization.

EDDIE at the ASSET Roadshow – October 2020!

On 28th of October 2020, the Roadshow took place online and was organised by EASE. Belgian and European policymakers and authorities met industries and representatives from sector-based European organisations to engage in dynamic discussions aimed at understanding how policy can pave the way for effective cooperation in educating for energy transition.

EDDIE at the #ErasmusDays – October 2020!

More details

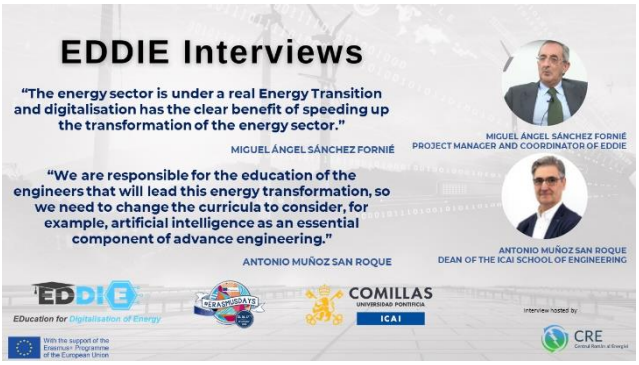
A new opportunity for EDDIE to increase its visibility among external stakeholders was the event online event ErasmusDays on 15, 16 and 17 October. It was a great moment to spread the word about our project, share our experience and showcase the impact of EDDIE work. For this year, all the activities were hosted online, and EDDIE took advantage of this opportunity to share all its dissemination activities under the hashtag #ErasmusDays.

EDDIE Interviews: online video conversation with guests from COMILAS and NTUA partners.

The first two EDDIE interviews of the series were recorded and our guests from COMILLAS and NTUA shared their thoughts about the digitalization of the energy sector, education activities and the project on-going and future work. Both the conversations can be accessed using EDDIE YouTube channel.

The next interview will be made with the project partner POLIMI-METID and published in February.

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.

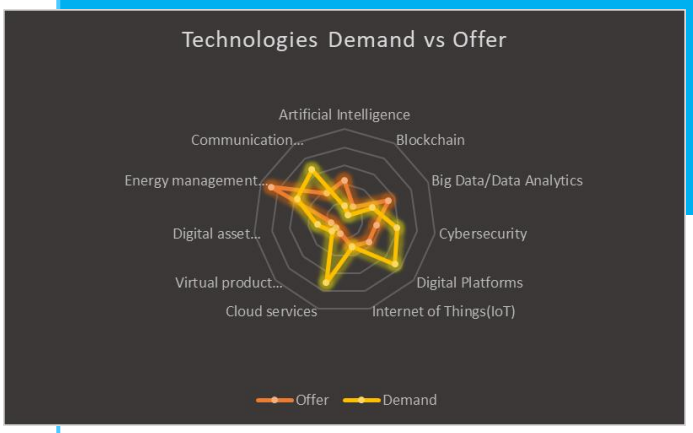
Latest topics include *"Digitalization of Electricity Distribution Systems", "Real-time simulation for realistic testing of smart grid solutions", "Distribution Energy Management System for the microgrid of FOSS/University of Cyprus", "Open-Source solutions for Grid Automation", "MOOCs and digitalisation of energy", "Promoting digital Spaces in VET education", "Resilient microgrid platform at KTH", "Phasor Measurement Unit for Monitoring Power Systems"*

EDDIE Consortium published the deliverable D2.2 – "Current and future skill needs in the Energy Sector".

The first operational objective of EDDIE is to define a methodology to identify skill gaps for the digitalisation of the Energy sector. By developing a common approach for assessing the current situation and anticipating needs, progress is being monitored as well as evolution of the demand and supply of skills.

To be able to identify skill gaps, the EDDIE project developed a methodology based on "Skills Intelligence" as it is defined by CEDEFOP. "Skills intelligence is the outcome of an expert driven process of identifying, analysing, synthesizing, and presenting quantitative and/or qualitative skills and labour market information. These may be drawn from multiple sources and adjusted to the needs of different users". The skill gaps will serve as foundations for the Blueprint that will attempt to mitigate the mismatch and propose a strategy for upskilling or reskilling future employees.

So far, several skill and knowledge mismatches have been identified through the work presented in the reports D2.1 "Current challenges in the energy sector and state of the art in education& training" and D2.2 "Current and future skill needs in the energy sector".



The data for the reports are drawn from reviews, dedicated surveys and interviews addressing both the industry and ET providers. Several prestigious companies and educational institutions (close to 100 combined industry and ET providers) provided their feedback, rendering the results reflective of the actual situation of the energy sector. As an example, the following figure presents the mismatches considering specific digital technologies. It can be observed that significant effort must be made to provide education and training in the fields of Cloud services, Digital platforms, Cybersecurity and Communication technologies that are not fully covered now.

Overall, the outcome of the skill gaps methodology indicates that there are significant mismatches between skill offer and skill demand, regarding digital technologies and tools. The key areas of focus are the data management and analysis, big data, cybersecurity, and ICT skills related to programming and development. Moreover, it was stressed by the industry the transversal skills such as the ability to adapt and learn in a fast-paced environment and actively communicate and collaborate are crucial for the workforce. Finally, to create a sustainable sector, green skills are necessary to be included while also green aspects should be added to existing skills.

Through the EDDIE project a strategy will be developed to mitigate those gaps. Nevertheless, it seems quite important for the energy sector to tackle challenges both short term and long term. The EDDIE results, particularly those focusing on addressing mismatches, can serve as insights for the industry and the education sector, to act immediately and try to adapt to the new environment.

If you want to learn more about our project's findings, go to our website and download the newest report D2.2 "Current and future skill needs in the energy sector".

More details

EDDIE Consortium published the deliverable D4.1 – "Identification and assessment of skill delivery and professional knowledge to address digitalisation".

D4.1 - Identification and assessment of VET systems for delivery of skills and professional knowledge to address digitalization addresses the legal framework and the structuring/organization behind which – at present - European providers of vocational education and training (VET) deliver skills and knowledge to learners and the professional world. The VET systems and programs are subject to territoriality, local regulations and local promotion more than university education.

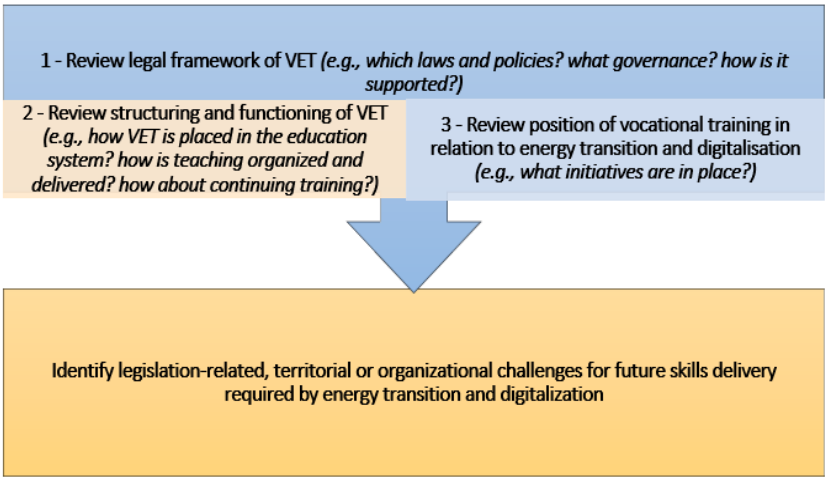


Figure 1. Figure 1 Methodology to assess legal framework and organization of vocational education and training.

Starting from an overview of the general scenario at European level, and taking five of the EDDIE focus countries (i.e., Spain, Germany, Romania, Greece, and Sweden) as illustrative samples of the entire European VET sector, the analysis presented in this deliverable develops into four stages (Figure 1):

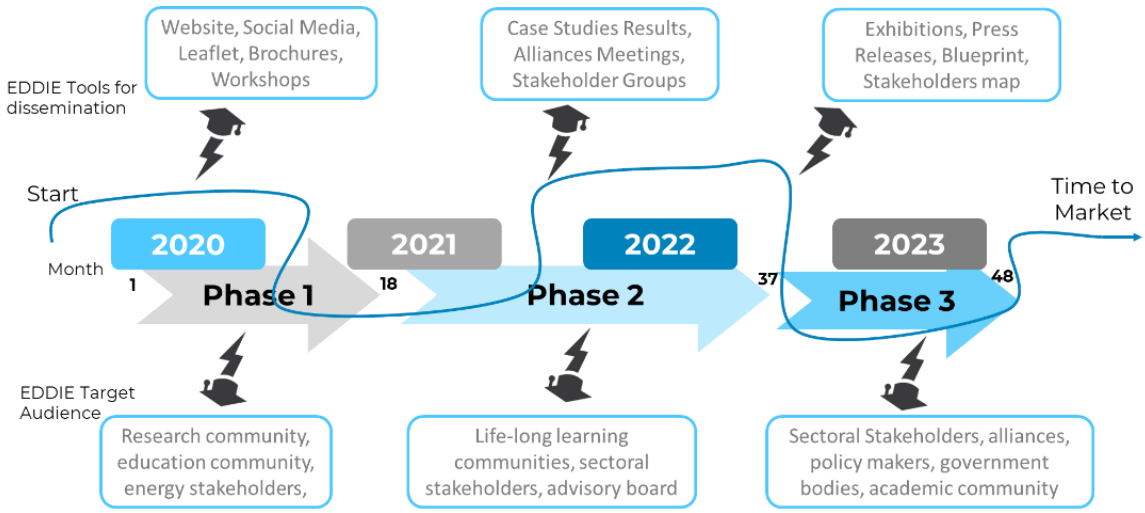
1. Review of the legal framework (competent institutions, standard legislation, policy, regulations, contracts, and incentive schemes) that currently characterises vocational education and training.
2. Review of the current structuring and organization of learning and teaching activities in vocational education and training.
3. Review of the status and advancements in the policy and strategic actions for vocational education and training, in the view of energy transition and digitalization.
4. Assessment of the main findings of the review, and derivation of key conclusions on any existing gaps and barriers - related to policy, organization or territory - that could hinder the effective operation of the VET sector at European level in response to Energy digitalization.

All this work is crucial to identify initial directions for improvements or changes that could be necessary in legal standards, (re)structuring and (re)organization of VET to match the requirements of the future Energy sector. The outcomes of this work, together with those of the activity of WP2, represent the basis which the Blueprint strategy of EDDIE will build upon.

More details

EDDIE Consortium published the deliverable D7.2 – "Dissemination and Exploitation Plan".

This report describes the activities that will be carried out during the project to promote EDDIE' strategy for the digitalization of the energy value chain to meet and anticipate the skills demand for the sustainable growth and digitalization for the EU Energy sector. This deliverable is a live document comprising of the different marketing and promotional tools created for the project with the purposes of disseminating the project objectives, activities, results, and news. The intensity of the communication and dissemination planning increases each year, and the activities are categorized based on the position of the target audience with respect to the time-to-market of the results.



This report is a comprehensive and living document which gives an introduction and outline of the achieved dissemination activities and the ones proposed throughout the duration of the project, the tools, actions, and channels to be used in the dissemination and outreach of the products results. Another purpose of this deliverable is to provide a comprehensive description of the communication strategy, the target segments groups of stakeholders, target groups, consultation, and debate activities within the EDDIE project framework. The report includes an indicative planning of the interactions with the categories from the identified target groups, following both the calendar of relevant events and the participation of EDDIE consortium representatives in these events, as well as the organization of dedicated debates bilateral meetings, promotional tools created for the project and exploitable opportunities.

More details

EDDIE project consortium

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.