Summary of D4.2 – Report on Best Practice for Vocational Education & Training (VET)

Deliverable D4.2 – This report aims at the presentation of good practices developed and implemented in VET provision in the field of energy efficiency and transition. It sets the basis on what can be recognized as a good practice and under which conditions, it offers a detailed analysis of the selected best practices, while it can also serve as a guidelines document on the preconditions to be taken into consideration for the development of results and become a benchmark for the implementation of similar projects.

The deliverable has been coordinated by partner NOVEL Group Sarl.

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The purpose of the **EDDIE** project is the foundation and establishment of a **Sector Skills Alliance** to develop an industry-driven Blueprint Strategy for the education and training in the energy sector which is continuously affected by digitalisation. To meet major technological, economic and social challenges and changes, it is vital to anticipate the skills demands for the sustainable growth and digitalisation of the European Energy sector, and to provide adequate training fostering cooperation among all stakeholders harmonised throughout Europe.

The **EDDIE** project proposes an innovative strategic approach for education in the European energy sector as an industry-driven movement. Skills will emerge as a need of practical application instead of the classic approach, from fundamentals to application. This will be materialised in the educational **Blueprint Strategy for the Digitalisation of the Energy value chain (BSDE)** and will be demonstrated and validated in a pilot environment.

In this framework, the identification of **good practices in the field of VET** is important in order to understand the work that has already been carried out and can be considered as a good practice, to measure the extent to which these practices could be transferred in other countries and learn from these, to make the EDDIE results even more effective to reach the overarching objective of the project.
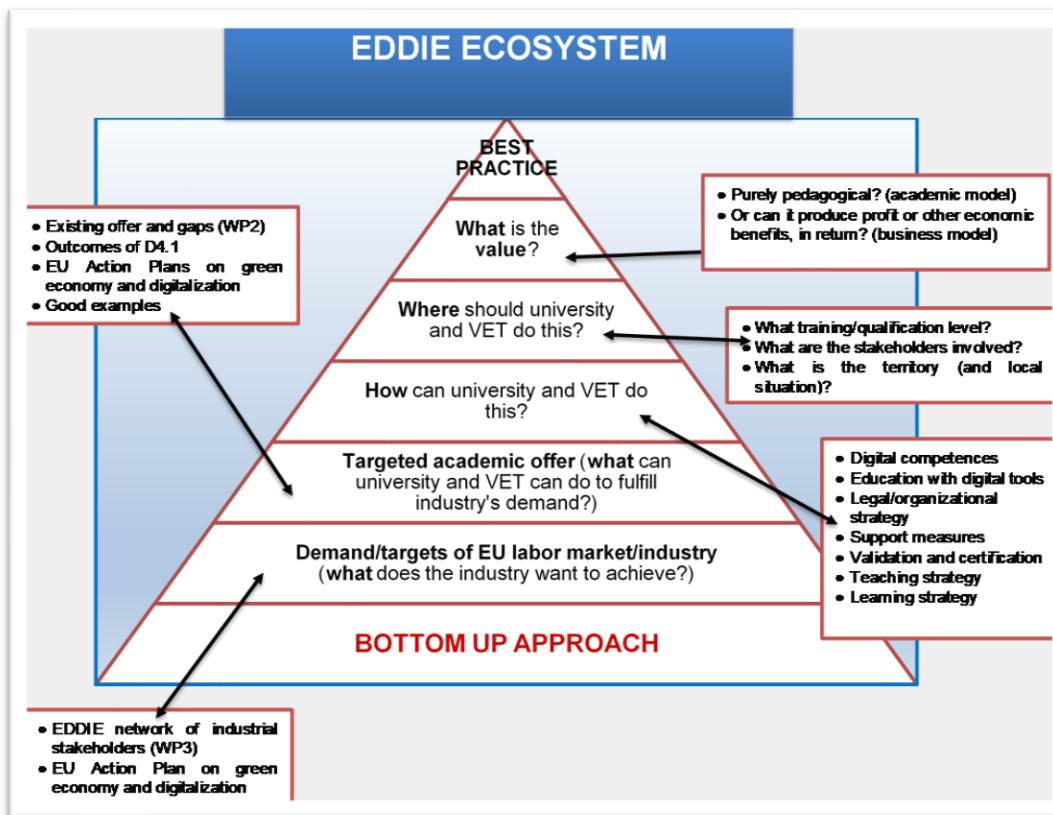
The **Work Package 4 (WP4)** includes the Implementation tasks for the evaluation of best practice at regional and national policies and initiatives for VET but also academic level. This WP, led by RWTH, aims to define how educational systems and policies at regional, national and EU level currently deliver skills to the Energy sector. A key task is to establish (education and training) reference points (based on occupations) within existing skills delivery (formal and informal) systems. As a result, a detailed description of best practices and analysis to escalate in other European regions will be provided. Hence, the framework (integrated with the WP3 map) will become the basis for the identification and cataloguing of (existing and future) Energy sector skills and qualifications and their integration into VET systems and beyond. The goals of **Work Package 4 (WP4)** are:

- Task 4.1: Identification and assessment of skill delivery and professional knowledge to address digitalization

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- Task 4.2: Processing of best practices for VET education
- Task 4.3: Preparation of best practices for university education
- Task 4.4: Preparation of best practice for continuous educational programs for energy transition and industry involvement
- Task 4.5: Synergy with European education frameworks

EDDIE will produce relevant documents and recommendations, but the main expected result is the BSDE (Blueprint Strategy for Digitalisation of Energy). As for this report, it is related to Task 4.2 and presents the practices for VET education, that were identified as successful following desk research carried out by the research team of the project. The desk research focused on recent projects and takes into consideration the latest EU directives across the EU, as well as the skills need, as identified in D.2.2, and a bottom-up approach, developed for the purposes of the EDDIE project (see below). Overall, the objective was to map and select the most successful VET training programmes, which were created and delivered as a result of a need identified on behalf of the industry.

The report on **Best Practices for VET Education (Task 4.2)** includes:

- an analytical presentation of all EU strategies, action plans and roadmaps that are related to VET Policy, elements of digital transformation and the incorporation of digital tools in VET provision and, finally, the regulatory framework on energy efficiency, as defined for EU Members States;
- the logic and methodology behind the criteria set for the identification of the best practices presented;
- the best practices identified in the field of VET provision for energy transition or efficiency, as well as the digitalisation of VET provision for improved outcomes for energy efficiency.

As for the identification of the best practices, the consortium based the criteria on the following principles:

- VET programmes that were effectively combined with work-based learning
- VET programmes which were ICT facilitated and in the context of digital transformation challenge
- VET programmes that effectively addressed skills mismatches and led to certification schemes and/ or concrete occupational profiles
- VET programmes, which successfully engaged the local stakeholders in order to provide a holistic training approach for the beneficiaries.

In total, there are 8 best practices and 3 success stories throughout Europe presented in the report, which are analysed based on their aims and objectives, structure and organization, impact and evaluation, critical success factors, and transferability. The practices selected in this report demonstrate a good indication on the work carried out, mainly from the private sector towards environmental sustainability. Most of the practices presented, take well into consideration the context of digital transformation, even before it became a necessity following the pandemic outbreak. After reviewing the collected best practices, the following can be concluded:

- It is imperative to take all the necessary steps to redesign VET training programmes in order to be aligned with the new EC Directives published;
- VET provision only focuses on the needs of the learners, based on somewhat outdated curricula, which do not cater for the incorporation of work-based learning and/ or the actual needs of the sectors addressed;
- In this context, reskilling professionals of the sector is of equal importance to ensure that there are no knowledge gaps and all professionals possess the necessary knowledge and skills to work together in the achievement of a greater objective;
- The digitalisation of VET provision is an aspect that has been somewhat neglected, but needs to be revisited, better planned and be conceived outside of the strict context of online or blended teaching approaches;
- The effective and consistent collaboration of all stakeholders in the energy efficiency sector is imperative, not just for the enhancement of work-based learning (which prepares market-ready workforce), but most importantly because the work that needs to be undertaken towards energy sustainability should be undertaken by all stakeholders involved.

All in all, the solutions presented are very well designed and implemented as efforts to address the skills mismatches in the energy sector. What can be safely argued is that VET providers (i) should play an active role in the preparation of the workforce to achieve the principles set, instead of following developments, (ii) should contribute to and implement mechanisms to respond to the fast-paced changes, (iii) need to develop flexibility and responsiveness to the changing circumstances, (iv) need to monitor the changes and the way they occur through the creation of better linkages with the market, and (v) should design targeted and relevant programmes that do not follow development, but lead them. Finally, another important factor that should be highlighted is that the effective collaboration between the industry, the public sector and the VET providers always leads to stellar results with a high sustainability and transferability potential.