Digital Energy Efficiency Designers (Good DEEDs)

Good DEEDs addressed critical contemporary challenges and offered tangible action to foster a

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sustainable, competitive, and environmentally responsible future. By integrating ICT, digital competences, and environmental responsibility the project not only aligned with the European Green Deal but also responded to the pressing need for sustainable growth strategies. The results of the Good DEEDs project promote vocational education and training (VET) teachers LATVIA, ITALY, GREECE, and students' sectoral competences and enhance understanding of digital energy efficiency. ROMANIA, TÜRKIYE, Outcomes from this project could serve as a blueprint for others seeking to integrate digital **PORTUGAL** technologies with environmental responsibility within educational settings. Geographical area Latvia, Italy, Greece, Romania, Türkiye, Portugal Period of implementation June 30, 2021 November 30, 2023 Scope of the practice The primary scope was Initial Vocational Education and Training (VET). However, the developed resources hold applicability and relevance across various stages of VET and can be suitable to other education contexts. **Educational level** Latvijas kvalifikāciju ietvarstruktūra (LKI) Level 4

Introduction and context

European Qualifications Framework(EQF) Level 4

The Good DEEDS project was inspired by the European Green Deal, and addresses the pressing issue of

digital technology's environmental impact.

The project was implemented by 6 partners representing VET schools, national agency, NGOs, university, company.

Partners:

EGInA Srl – European Grants International Academy (Italy);

Valsts izglītības satura centrs (National Centre for Education) (Latvia);

Computer Technology Institute and Press "CTI Diophantus" (Greece);

APEMETA - Portuguese Association of Environmental Technology Companies (Portugal);

Kadir Has University (Türkiye);

County School Inspectorate of Iaşi (Romania).

The Good DEEDs project was driven by various pressing factors:

Environmental Focus: It targeted energy waste from uninformed digital tech use and aimed to promote responsible practices.

European Green Deal Alignment: It aimed to equip professionals with skills to address rising energy consumption caused by digital technologies.

Future Skills Development: Anticipating 2050's skill needs, the project aimed to create the Digital Energy Efficiency Designer role and develop a learning platform for VET teachers/students, fostering sustainable sectoral growth.

Circular Approach: It envisioned local ecosystems supporting ethical VET activities, utilising a circular model where the Knowledge Management System formed the basis for collaborative training involving teachers, students, and local entities in advancing digital energy efficiency.

The target audience of the project: VET teachers and VET students.

In Latvia 4 VET schools were involved in piloting: Ogre Technical School, Riga Style and Fashion Technical School, Liepaja State Technical School, Latvia Culture College

The objectives of the practice were:

Raising Awareness: To bring attention of VET teachers and future professionals to energy waste linked to uninformed use of digital technologies and promote informed, virtuous behaviour to reduce the environmental footprint.

Skills Development: Encouraging the adoption across VET systems of training activities aligned with emerging market needs as outlined in the European Green Deal, focusing on energy efficiency and remote assistance.

Ecosystem Establishment: Facilitating the creation of socially responsible local ecosystems supporting VET educational activities with ethical value.

Risks foreseen:

Low Interest in Innovative Topics: There was a risk that the subject of digital energy efficiency might not have widespread interest initially due to its novelty or lack of knowledge among educators, students, stakeholders.

Resistance to Methodology Adoption: The methodology proposed for integrating digital energy efficiency into VET school curricula might have faced resistance or hesitancy in adoption due to several factors (time, workload, etc)

Competency Gaps in Technology Use: There might have been a competency gap among teachers or students in effectively utilising digital training systems and tools.

The project received EU funding under the Erasmus+ programme.

Total budget of the project: 299 890 EUR

Key activities and outcomes

Key activities implemented:

1. Elaborated methodology for sectoral skills development on digital energy efficiency and a training course for VET teachers and students.

https://gooddeeds-learn.eu/blended-course

- 2. A web-based Knowledge Management system was created. https://gooddeeds-learn.eu/oer-directory
- 3. A blended training for VET teachers was delivered in partner countries.

In Latvia 9 VET teachers were trained. 125 students were trained and involved in piloting in 4 Latvian VET schools.

The benefits: The Good DEEDs project introduced innovative training addressing critical knowledge gaps in circular economy and digital energy conservation within VET school curricula.

The successful piloting experience of the Good DEEDs methodology in Latvia led to its integration into the curricula of 2 piloting vocational education institutions.

In coming years, the developed training course will be delivered to all VET school teachers using the state budget for teacher professional development.

For teachers:

Skills Enhancement: Opportunity to acquire new skills, enhancing personal and professional growth.

Access to Knowledge: Access to current information on digital energy efficiency, enriching teaching methodologies and subject content.

For students:

Informed Advocacy: Equipping students to advocate for sustainable energy policies and practices.

Practical and Soft Skills: Development of critical thinking and problem-solving skills, enhanced digital skills and digital energy consumption measuring skills that are applicable to daily life and future career paths.

Student team winning the Good DEEDs project contest was awarded with participation in an international hackathon in Italy. This experience not only enriched their cultural exposure but also provided hands-on hackathon participation in an international environment.

Obstacles encountered:

Low Engagement of VET Teachers: Overcoming low response and engagement from VET teachers was challenging due to their workload. To motivate participation, additional support was provided by project coordinators, including mentorship and incentives such as motivational prizes from local energy companies. This helped attract the most motivated teachers to finalise the piloting process.

Methodology Development Challenges: The development process was lengthy as the challenge was to reach common grounds for module content development. The project lead played a central role in ensuring coherence and provided continuous support to all partners, maintaining control and guidance throughout the process.

Shortage of Support Materials: The novelty of the digital energy efficiency topic made it difficult to find adequate support materials or research. To mitigate this, external experts were engaged. In Latvia's case, a university expert was involved to consult and assist in developing practical tools. Additionally, a sustainability expert at the EU level provided guidance, enriching the course content.

Factors contributing to the project's success included:

Dedicated Support for Teachers: The project coordinators provided ongoing support, mentoring, and incentives to motivate and retain teacher involvement despite their workload challenges.

Strong Project Leadership: The lead partner's profound expertise and consistent guidance ensured alignment among partner countries and maintained the project's direction throughout the whole implementation phase.

External Expertise Engagement: Involving external experts, such as university and sustainability experts, added crucial support in developing practical tools and enriching the course content, compensating for the scarcity of existing materials.

