Good Practice Msis Zenica

GOOD PRACTICE – JU Mixed Secondary Industrial School Zenica

Title: Training Program in Renewable Energy and Modernized Vocational Programs

VET Provider: JU Mixed Secondary Industrial School Zenica

Thematic domain:

- Innovation
- Green (renewable energy sources)
- Technical
- Inclusion
- Lifelong learning
- Creating partnerships / skills ecosystems

Introduction: This good practice is based on the continuous modernization and development of vocational education programs to align with labor market needs and contemporary technological processes. It encompasses both formal training for students and non-formal training for adult learners.

The approach integrates practical, hands-on learning, ensuring participants acquire relevant skills and competencies that enhance employability and meet industry requirements. While the practice initially focused on the Photovoltaic System Installer program, it also includes other technical and industrial professions, demonstrating the school's ongoing commitment to innovation, green skills, and high-quality vocational education.

Stakeholders and Partners:

Beneficiaries / Target group:

- Adult learners undergoing retraining or upskilling
- Unemployed and employed individuals interested in renewable energy
- Students of vocational and technical professions
- Local industry in Zenica-Doboj Canton (ZDK) and Central Bosnia Canton (SBK)

Users of the good practice:

- Trainees
- Companies in the renewable energy and industrial sectors
- Local community

Partners / Institutions involved:

- Over 54 local businesses providing practical training
- Companies in solar energy and electrical installations
- Industry representatives from mechanical, chemical, mining, and geological sectors
- Domestic educational institutions and universities
- International project partners
- Ministry of Education, Science, Culture, and Sports of ZDK

Nature of involvement:

- Mentorship and supervision during practical training
- Provision of equipment and technical support
- Joint development and implementation of projects in green skills

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Impact:

On adult learners:

- Acquisition of practical and certified competencies in photovoltaic installation and other technical skills
- Improved employability in energy and industrial sectors
- Development of key green competencies aligned with European standards

On students:

- Practical training at partner companies
- Enhanced readiness for the labor market
- Development of technical, digital, and green skills

On the school:

- Strengthened institutional capacity through partnerships and projects
- Integration of green learning outcomes into curricula
- Establishment as a regional center for industrial and green professions

On the community and local economy:

- Development of a qualified workforce for key industrial and energy sectors
- Contribution to the green transition and adoption of renewable energy
- Enhanced competitiveness of local businesses

Evidence:

- Feedback from adult learners and students
- Certificates of competence achieved by participants
- Partner company evaluations
- Project documentation and training outcomes

Innovation and Success Factors:

Innovative elements:

- Continuous monitoring of labor market needs
- Curriculum innovation across multiple technical and industrial programs
- Development and implementation of green learning outcomes
- Combination of formal and non-formal education
- Extensive network of domestic and international partners
- Practical training in real work environments

Critical success factors:

- Technically competent staff
- Well-equipped workshops and laboratories
- Close collaboration with industry partners
- Support from international project partners
- Growing demand for green competencies

Constraints:

- High costs of equipment and maintenance of practical workshops
- Continuous need for teacher professional development
- Logistical challenges coordinating practical training with multiple partners
- Limited capacity for advanced specialized training

Lessons Learned:

- Industry partnerships are essential for high-quality vocational education and training (VET)
- Integration of green competencies increases program relevance
- Non-formal education responds quickly to market needs
- Practical learning ensures strong outcomes for both students and adult learners

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Replicability and/or Up-scaling:

- The model can be replicated in other schools by developing modern workshops, implementing green learning outcomes, and fostering partnerships with local and international networks.
- Potential expansion areas: advanced solar systems, energy efficiency, battery and hybrid systems, electric mobility programs.

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Related resources developed:

- Training manuals for photovoltaic system installation and other technical programs
- Guidelines for practical workshops
- Technical fact sheets, posters, and visual aids
- Educational videos on installation, maintenance, and modern technical processes
- Online resources via the school's website