Chapter 13
Qualification Design and Sanitation for Pure Drinkable Water:
A Project Study

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ABSTRACT

Drinking water quality management has been a key element of primary prevention and control of waterborne diseases for a long time. This chapter is based on the EU Project "Implementation of ECVET for Qualification Design in Drinking Water Treatment Plants and Sanitation for Pure Drinkable Water-PUREH2O" that contributes to the recognition and transparency of qualifications at the EU level and provides an innovative model for competencies for the potable water sector. The main dilemma that PURE-H2O intends to tackle is the lack of mutual recognition of qualification that is often impaired by national restrictions by applying EUROPASS, European/National Qualification Framework (EQF/.

NQF), and the European Credit System for Vocational Education and Training (ECVET) instruments. The aim of the project is to enhance the quality and performance of VET system improving education in drinking water supply and development. This project could also be achieved through promoting creativity, innovation, and transfer of EQF/NQF principles in education of the main target group in the sector

INTRODUCTION

Today, lifelong learning is perceived as a lifestyle, a profession based training which is one of the cores of lifelong learning perception is accepted as being important by workers, employees and companies. Profession's training and education contains all the activities in order that one person gets the necessary skills, knowledge, competences and information for a job or job group. Individual profession's training enables an individual get ready for work-life, increase his/her eligibility for companies by bridging theoretical education and the occupational area. Beyond working life, it supports development of the individuals in other areas of life and supports their active skills in life. In terms of society, profession's training gives strength to economic development, decreases poverty and increase social inclusion and integration for individuals to move freely to get a job or have more training to become the main target. For this reason, in order to develop partnerships for Professional training in Europe, some instruments have been developed. Europass (Europass, 2017), Youthpass, European Qualification Framework (EQF), Educational Credit Transfer in Vocational Education Training, (ECVET), Educational Quality Assurance in Vocational Educational Training (EQAVET) (EQAVET, 2017), and networks through EU in order to support these materials can be counted, between these instruments. The basic idea behind these transparent instruments is to develop policies in order to increase the number of these for a lifelong education and training, to apply them, assess them; to continue to give extensive education and training and distant training services.

In the direction of these fact, the project titled as "Implementation of ECVET for Qualification Design in Drinking Water Treatment Plants and Sanitation for Pure Drinkable Water-PUREH2O" was developed to provide a tool that promotes transparent environmental planning and education in the development of sustainable and sound practices in the area of potable water and related treatment plants. The PURE-H2O project came about with the understanding that advanced water technology provides for a rise of green jobs and a desire improvement of the sector's training capacity and employability. An investigation into the potable water supply sector showed that in Turkey and in the majority of EU countries, including PURE-H2O partners, the national curricula for vocational education needs training resources in order to provide target groups with the necessary green competencies (PUREH20, 2017).

Drinking water treatment plants are used to remove particles and organisms that lead to diseases and protect the public's welfare and supply pure drinkable water to the environment, people and living organisms. In addition, they also provide drinking water that is pleasant to the senses: taste, sight and smell and provide safe, reliable drinking water to the communities they serve (Droste, 1997).

To provide drinking water to the public is one of the most important tasks of communities and the design of water supply systems has to follow the rules of engineering sciences and needs technical knowledge and practical experience. Water is treated differently in different communities depending on the quality of the water which enters the plant. For example; groundwater requires less treatment than water from lakes, rivers and streams (Gray, 2008).

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