

TUCN - Rehabilitation of a Network of Water Wells for Capturing Raw Water - Automation System for Monitoring and Command

This best practice describes a successful implementation of a project resulting from the collaboration between local authorities and governmental authorities in Romania. The funding of the project was supported by EU grants and co-financed by the local authorities from Satu Mare. The R&D team was a consortium of 3 partners (SME) from Romania and Hungary.

The objective of the project was to extend the infrastructure regarding the drinking water, due to the population growth that was not anticipated when the existing infrastructure was first developed. The approach was to rehabilitate the water wells network for water collecting and to create a system for the monitoring and control of the whole process, with the purpose of increasing the capacity of delivering the raw water to the Station for the Treatment of Drinking Water, which delivers drinking water to the city and to the surrounding smaller towns.

As a result of the successful implementation of the project were ensured a minimum flow of 1200 m³/h and a substantial improvement of water quality delivered to the Treatment Station, by reducing the suspensions in the water.

The project was initiated due to the necessity of developing the infrastructure regarding the drinking water and the used water of the Satu Mare city and its neighborhood. This, in turn, was needed because of the population growth, and also because of the economical development of the region. The local authorities have observed that the existing infrastructure was no longer able to sustain the number of private and public consumers, and they have decided to initiate a program for developing this infrastructure.

The R&D team was a consortium of 3 partners (SME) from Romania and Hungary.

www.technosam.ro

SWOT ANALYSIS

Strengths:

- Solution of actual problem with social influence - The project is a successful example of how to enhance social infrastructures (i.e., water provision) based on consortiums, which include both private and public sector (local and government authorities) and RDI;
- The project responds, in terms of the synthesis of the consortium, to a priority, which has been denoted in the national research plan of the particular country;
- The project engages partners from neighbor countries (Romania, Hungary) in order to design and solve a shared problem;
- Environmentally- friendly idea and project implementation, which incorporates automation system;

- Well-defined financial mechanism - The project was funded by the European Union (89%) through the ISPA financing program, and by the Local Council and the County Council of Satu Mare (11%).
- Project implementation creates market niches for value added activities;
- The project involves a promising field to invest, in accordance with European and international tendency and national necessities;
- There are current Project results - the assurance of a minimum flow of 1200 m³/h and a substantial improvement of water quality delivered to the Treatment Station, by reducing the suspensions in the water.

Weakness:

- The solution can be transposed to other cities if they do not have yet a proper system for water capturing or have wells;
- Project maintenance depends on the collection the water delivery taxes collected from the population and from the economical agents;
- The good practice can not be easily directly transferred to other areas, except for several partial solutions.

Opportunities:

- Flexible technological approach, given possibility to be adapted to different cities - SCADA system for remote monitoring and control is a component of the project that can be easily adapted to other projects for efficient water capturing; it can be applied in any other town or city in the country;
- The impact of this project will be an increasing the number of workplaces in the area and, consequently, raising the life level of the population, which made this solution attractive for other cities;
- Good sustainability - After ending the funding of the project, the costs for functioning and maintenance of the waterfront collecting will be supported from the water delivery taxes;
- The company developing the project is actively seeking for similar projects, considering Romania's policy regarding the infrastructure for drinking water and wastewater.

Threats:

- Project idea involves significant resources, market failure is possible;
- The co-financing is small and the project ideas and solutions depend directly on European funding to be initiated;
- The project failure would have severe consequences on the population and economy of the region because it is of essential importance for the people in the area.