	Project title		SCADA-GIS Water Utility Systems: Argos Prefecture, Greece					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by candidate (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of partner(s) [if any]
EPSILON	Greece	900.000	100	15	Argos Waterworks Authority	Ministry Interior GR Structural Funds EC	2004-2007	-

Detailed description of project





The Argos Waterworks Authority System, pumps nearly more than hundred million cubic meters of tap water each year through 5,000 km of pipes, and the Authority is in process of introducing a fully automated management system based on SCADA and GIS-WEB technologies; via EPSILON the project contractor. The first phase of the system is operational and is aimed at detecting leakage that exceeds the 15% of the total water deliver. The subsequent phases of System Management follow. EPSILON has accomplished the design and engineering of all master control stations and of the 10 remote stations of the network, via SCADA-based s/w for control of instruments, electrical equipment, and mechanical facilities. The SCADA system is interfaced to the ESRI ArcGIS- System for web-based services and System monitoring.

In reference to the first phase of leakage and pressure management, the Authority is able to trace problems, provide assistance to repairs and coordinate field work of workers for system repairs. This phase also provides a network overview, a real-time network pressure and flow data management, a control of pumping stations efficiency, an optimization of the network water pressures, real-time water leakage control, and alerts as on the decrease of production and distribution costs. Water pressure and water flow data are measured and connected to controllers, and real-time data are transmitted from each remote site to the master station controlled by the SCADA which manages the network data coming-in and control-by all remote stations.

The project creates a fully integrated water system which ties together all parts of the network, including the geographic information system (GIS), water leakage management system, pumping station control systems and the SCADA systems at each service branch. EPSILON is supplying a 5-years training and a 3-year preventative maintenance. This service includes the full design of a supervisory control and data acquisition (SCADA) system for the entire Authority interested in the distribution control, monitoring, and radio telemetry linking the remote gates and pump sites to the central control office.

- Integrated approach offering a virtual geospatial environment to assisting Water Utilities and Authorities to formulating, evaluating and prioritizing facility management and infrastructure securityemergency strategies.
- SCADA & GIS Information System, modelling application, development technology to sustaining assets management for water utilities
- GIS-based (Arc/WEB + Modeller) decision support system, supporting the use of effective planning and management of water distribution systems, and other type of Utilities.
- Hydraulic & networks simulator with geospatial technology & optimization theories and technologies.
- Field sampling design, pumps scheduling, and network design and rehabilitation problems in an optimal fashion.
- Training & technology transfer.