

Objectives

ENORASIS will actually target to optimize the use of irrigation water by:

- Developing an intelligent Decision Support System of irrigation management based upon advanced, state-of-the-art technologies and methodologies from various scientific fields.
- Developing a set of novel business and operational models for potential implementation and uptake of projects results.
- Providing water authorities and farmers with an intelligent, flexible, affordable and easy-to-use irrigation water pricing-billing system.

Benefits

The main stakeholders of the ENORASIS solution are farmers and water management companies.

For farmers, the basic ENORASIS value added services and benefits expected are:

- Short – and long-term irrigation planning
- Personalized advisory on irrigation optimization
- Real-time and high spatial accuracy weather prediction
- Interactive consultation on sustainable agriculture practices
- Reduction of operating expenses for irrigation management
- Sustainment / Improvement of property value
- Elimination of water runoff pollution

Similarly for water management companies:

- Charging-billing process automation
- Reliable and near real-time water demand / pressures monitoring
- Multi-channel communication services
- Increase of operational planning capacity
- Application of smart water pricing models
- Support of long term decisions in investment planning

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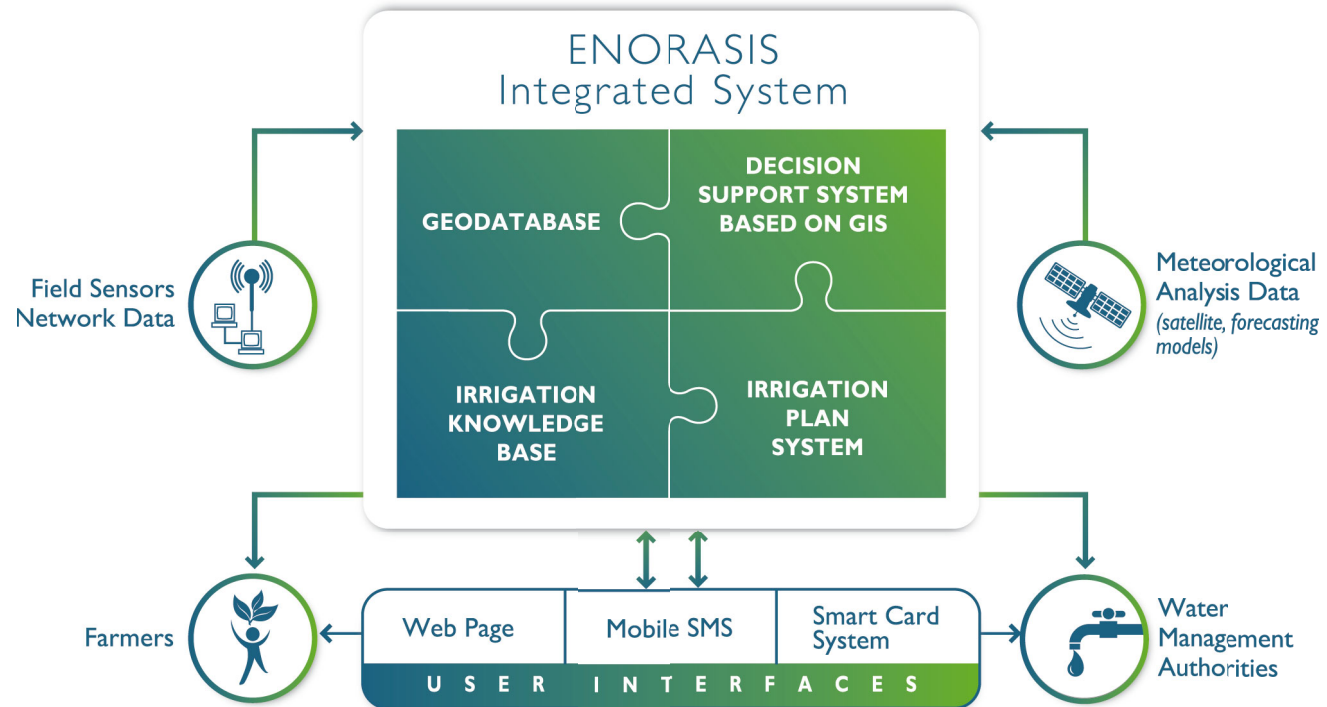


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www.enorasis.eu



Environmental optimization of irrigation management with the combined use and integration of high precision satellite data, advanced modeling, process control and business innovation



Background

As agriculture consumes the largest amount of water globally, irrigation management constitutes a significant environmental challenge. EU Common Agricultural Policy along with the Water Framework Directive address environmental priorities that bring dramatic changes to irrigation practices, aiming at the rationalization of water consumption by using the price of water as an instrument for reducing its consumption.

In this light, FP7-ENV project ENORASIS (GA No 282949) will develop an irrigation management Decision Support System to optimize the demand and use of irrigation water for farmers and water management organizations, based on advanced technologies and models. The duration of the project is three years (January 2012- December 2014).

Results

The basic parameters of ENORASIS Service Platform and Components are:

- Decision Support System based on GIS technologies, acting as the main information backbone of the platform
- Irrigation Management System, performing the assessment of irrigation water needs and controlling irrigation management rules
- Meteorological Analysis Tools, assimilating advanced weather forecast models
- Field hardware (smart card readers, sensors etc.) to be deployed in farmers fields for measurements and reporting purposes
- The Smart Card Irrigation System, to be used by farmers/water management companies and ENORASIS Service Platform for exchange of information.

The ENORASIS key enabling technologies include:

- ▶ Meteorological Forecasting Models
- ▶ Meteorological Analysis Tools
- ▶ Satellite data
- ▶ Remote Sensing tools
- ▶ Smart water sensors
- ▶ GIS technologies

After the development of the ENORASIS platform, three pilot implementations are foreseen, with adequate dispersion as regards to geographical/ climate criteria, operational approaches and crops differentiation.

In addition, a set of novel business and operational models for the implementation of the ENORASIS solution will be developed in order to promote projects' results wide adoption.