



# WEAM4i

Water & Energy Advanced  
Management For Irrigation

## WEAM4i Project summary

**WATER INNOVATION IN ACTION**  
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## EU context and project objective

- Agriculture sector is accountable for 30% of the total water consumption in Europe, but reaches up to 70% of total water consumption in several European southern countries. In recent years, most of the efforts have been focused on water efficiency, without taking care of energy aspects, resulting in some cases on a significant increase in energy consumption.
- The main **objective is to develop tools for the water demand-side management according to available energy offer**. Thus, it will be required:
  - A water demand forecast, and consequently, an associated energy demand forecast
  - Instruments for aggregating the energy demand and trading with it in the energy market



# WEAM4i Consortium

Consortium composition ( 9/17 SMEs):

- 4 users organisations
- 1 scientific advisor
- 1 irrigation advisor
- 3 ICT solutions providers
- 2 data providers
- 2 energy market advisors
- 3 irrigation technology providers
- 1 dissemination partner



Project coordinator:

Armando J. Palomar (Meteosim)



## Project main innovation aspects

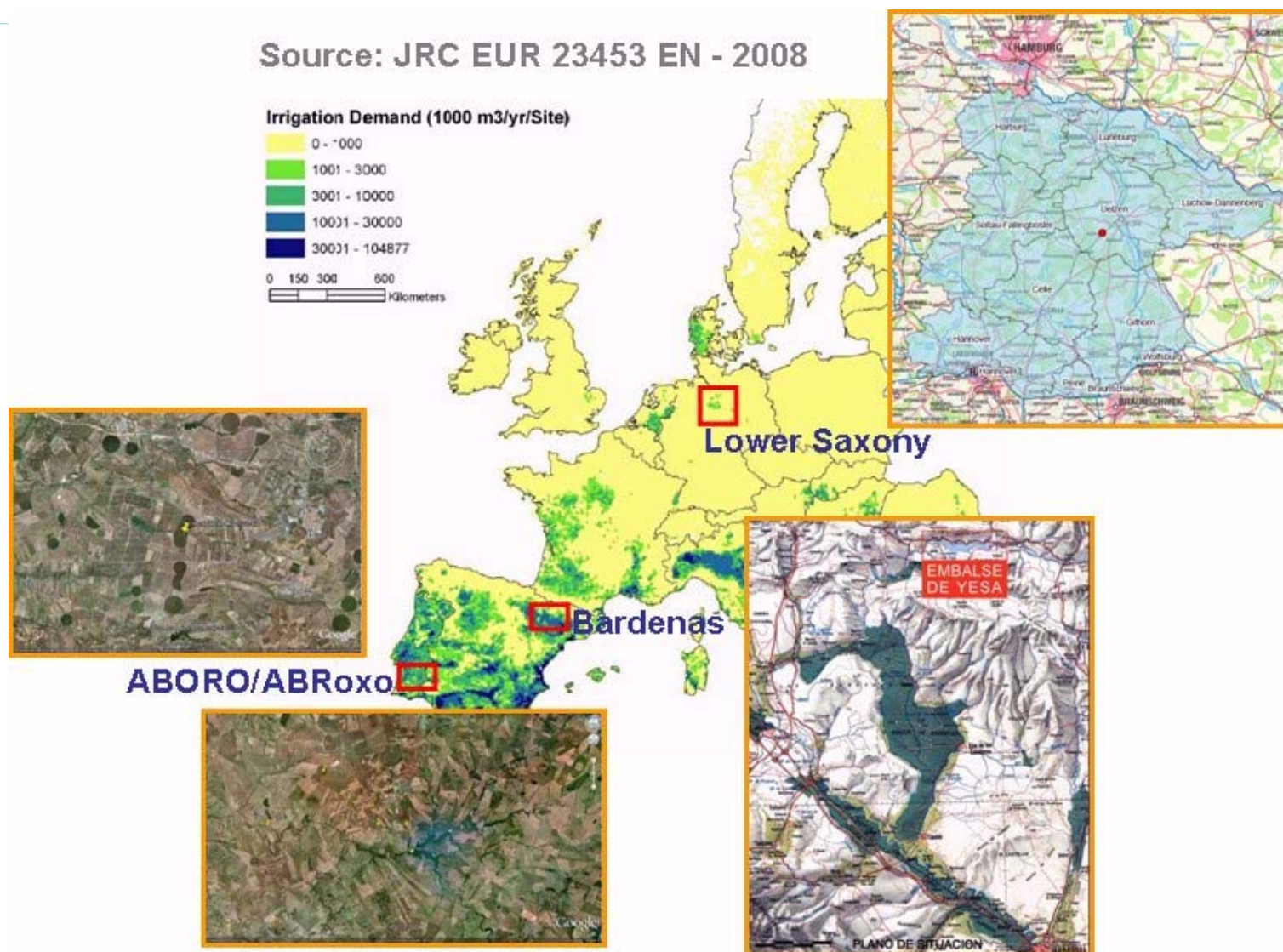
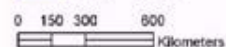
- Develop an innovative **water & energy smart grid for irrigation**: energy consumption tactical (day) decisions, introducing demand-side management and matching with available energy offer (often renewable), thanks to the water storage capability (both in reservoirs or in the ground) and the ‘near-almost elastic’ demand from users
- Develop an innovative integration approach: **an ICT/Cloud platform** based on a Service Oriented Architecture (SOA), for hosting weather and remote sensing data services and the DSS applications, while, at field level, the existing local irrigation systems will remain.



# 3 Demonstration sites, during 2 growing seasons

Source: JRC EUR 23453 EN - 2008

Irrigation Demand (1000 m<sup>3</sup>/yr/Site)





## Potential synergies

- Link with EIP Action Group **WIRE: Water & Irrigated agriculture Resilient Europe:**
  - Coordinated by COPA-COGECA (European Farmers and European Agri-Cooperatives organisation)
  - WIRE will also act as link with the **EIP on Agricultural Productivity and Sustainability**
  - To be submitted on the 2nd call (31st January 2014)
- Specific activity under Wp8 for Resource mobilisation strategy, according to EC mandate to WEAM4i project: Explore synergies with major national/regional water projects and with EU Structural Funds