



# WEAM4i

Water & Energy Advanced  
Management For Irrigation

## WEAM4i Project presentation

**WEAM4i Final Conference**  
**April 6<sup>th</sup> 2017, Barcelona**

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# Brief Overview

## **WEAM4i: Water and Energy Advanced Management for Irrigation**

Total Budget: 7,6M€ / Awarded Grant: 5,2 M€

Duration: 42 months (01/11/2013 – 30/04/2017)

Consortium composition: 17 partners, 9 of which are SMEs

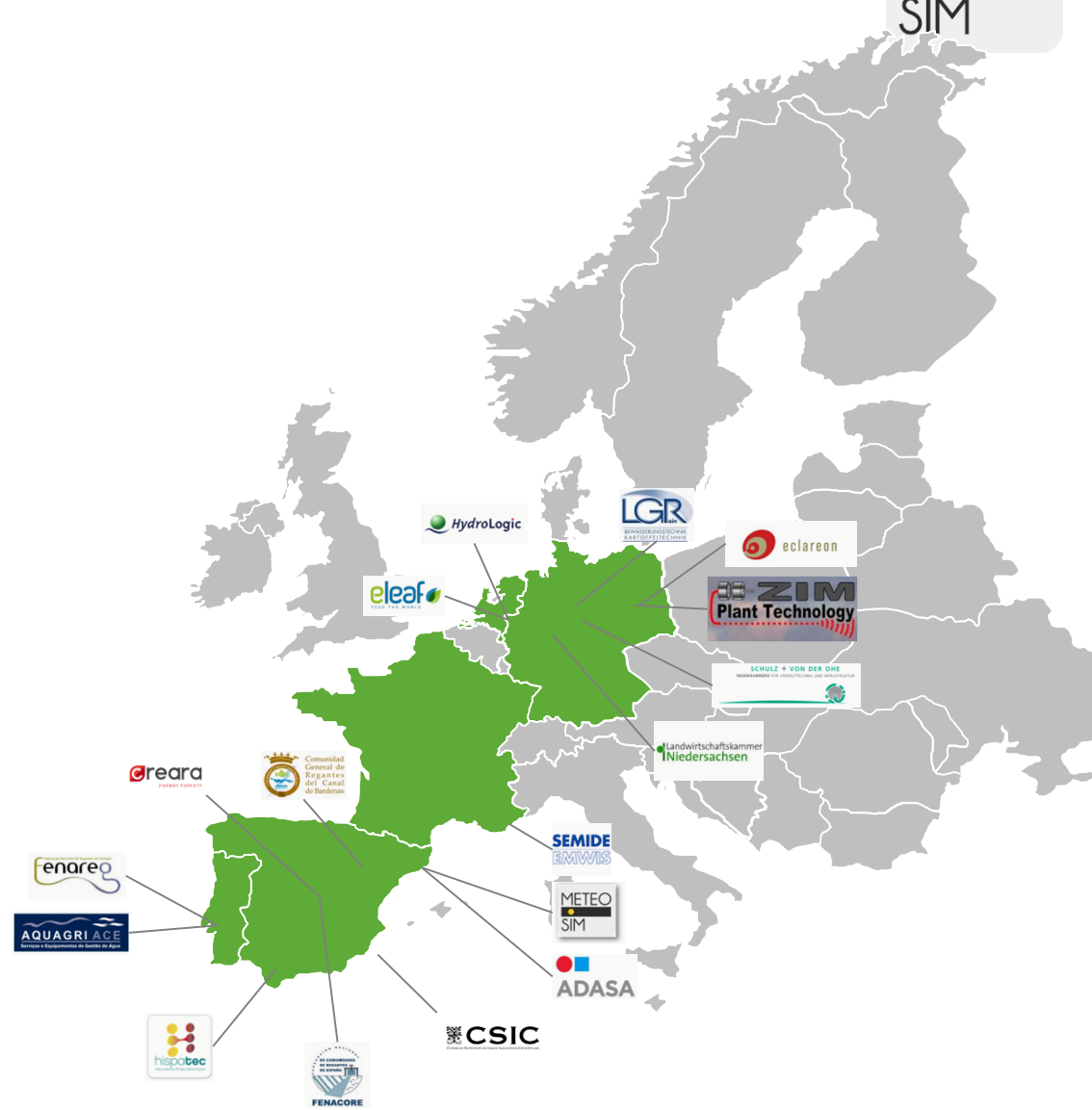
5 countries: Portugal, Spain, France, Netherlands and Germany





# WEAM4i Consortium

- 4 users organizations:  
FENACORE, FENAREG, BARDENAS, LWK
- 1 scientific advisor: CSIC
- 1 irrigation advisor: AQUAGRI
- 3 ICT solutions providers:  
HISPATEC, ADASA, HYDROLOGIC
- 2 data providers: METEOSIM, ELEAF
- 2 energy market advisors:  
CREARA, ECLAREON
- 3 irrigation technology providers:  
YARA ZIM, LGRAIN, VON DER OHE
- 1 dissemination partner: SEMIDE





# Project Objectives

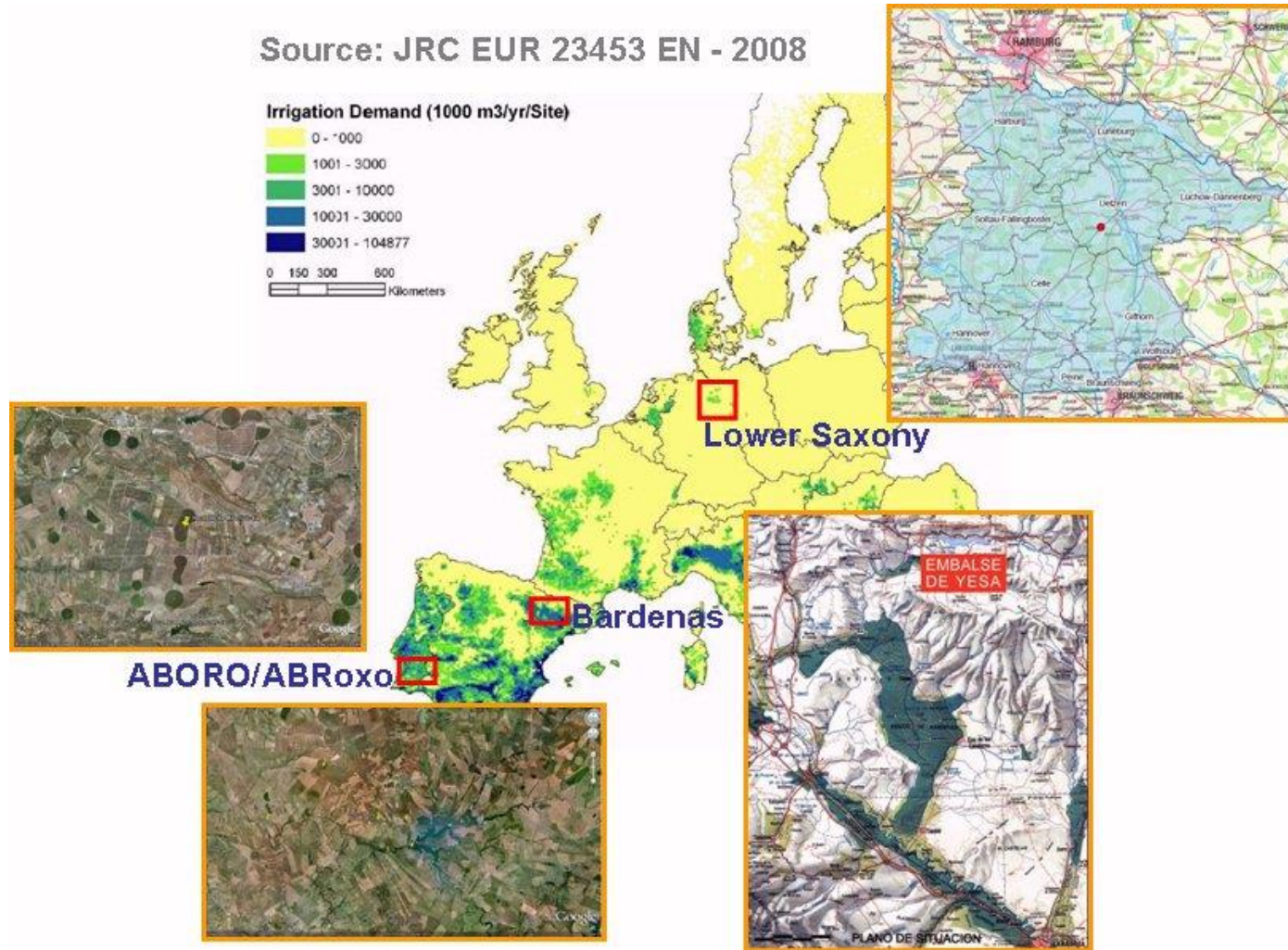
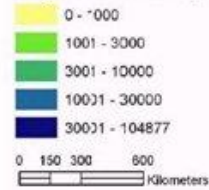
- The main objective is to develop tools for the water demand-side management according to available energy offer. It will be required:
  - A water demand forecast, and consequently, an associated energy demand forecast
  - Instruments for aggregating Energy demand and trading with it in the energy market
  - DSS tools for managing water demand
  - Innovative techniques for resource efficiency at local irrigation systems
  - An ICT platform to support the information and the underlying applications



# 3 Demonstration sites, during 2 growing seasons

Source: JRC EUR 23453 EN - 2008

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





# Agenda for today

Hours	Program
9:20 am - 9:45 am	<p><b>Reducing Energy Use and Costs in Irrigation Systems</b> - Jose Maria Tarjuelo, CREA (Centro Regional de Estudios del Agua).</p> <p><b>WEAM4i solutions (I)</b>- Sergio de Campos, Technical Coordinator.</p>
9:45 am - 11:00 am	<ul style="list-style-type: none"> <li>• Energy price forecasting tool (CREARA)</li> <li>• Short-term weather forecasting for Agricultural Sector (METEOSIM)</li> <li>• Crop water demand forecast (WATERWATCH)</li> <li>• Irrigation WEB Portal (ADASA, METEOSIM SL, HISPATEC, WATERWATCH, HR, CREARA)</li> </ul>
11:00 am - 11:30 am	<b>Coffee Break</b>
11:30 am - 12:40 pm	<p><b>WEAM4i solutions (II)</b>- Diego Intrigliolo, Scientific Coordinator</p> <ul style="list-style-type: none"> <li>• Hydroptim (ADASA)</li> <li>• Solar and hydraulic pivots (LGRain GmbH)</li> <li>• Leaf probe (ZIM)</li> <li>• High pressure system optimization: GPS approach (Ingenieurbüro Schulz)</li> </ul>
12:40 pm - 1:00 pm	<p><b>Water governance: Reflections on Australian experiences and why we all need to play our part</b>- Jeff Camkin, University of Western Australia.</p>
1:00 pm - 3:00 pm	<b>Lunch</b>





# Agenda for today

1:00 pm - 3:00 pm	<b>Lunch</b>	
	<b><u>Parallel sessions</u></b>	
3:00 pm -5:00 pm	<p><b>‘Water-Energy-Food Nexus Policy’ Session: WEF nexus in the Irrigation</b></p> <p>Moderators:</p> <ul style="list-style-type: none"> <li>- Giovanni Bidoglio, EC Joint Research Centre (ISPRA)</li> <li>- Diego Intrigliolo, CEBAS-CSIC</li> </ul>	<p><b>‘Innovation: B2B roundtables’ Session</b></p> <p>Meetings of end-users with the producers of WEAM4i smart irrigation tool.</p>
5:00 pm -5:30 pm	<b>Wrapping-up &amp; Conclusions</b>	





# Agenda for today

Hours	Program
3:00 pm -4:00 pm	<b>'Water-Energy-Food Nexus Policy' Session:</b> Moderator: Giovanni Bidoglio, EC Joint Research Centre (ISPRA)
3:00 pm -3:30 pm	<b>Science-policy perspectives of the WEF Nexus-</b> Giovanni Bidoglio (JRC)
3:30 pm -4:00 pm	<b>COPA-COGECA:</b> Valentin Opfermann <b>WIRE Action Group:</b> Adriano Battilani ( Consorzio Bonifica CER)
3:30 pm -4:00 pm	<b>Open discussion</b>
4:00 pm -5:00 pm	<b>Ongoing projects and opportunities in the WEF context</b> Moderator: Diego Intrigliolo, CEBAS-CSIC
4:00 pm -4:30 pm	<b>SIM4NEXUS project/ICT4water cluster-</b> Xavier Domingo (Eurecat)
4:00 pm -4:30 pm	<b>MAGIC NEXUS project-</b> Violeta Cabello (UAB)
4:00 pm -4:30 pm	<b>PRIMA and 4PRIMA-</b> Diego Intrigliolo (CEBAS-CSIC)
4:30 pm -5:00 pm	<b>Open discussion</b>





# Agenda for today

**BOOK A GAP AND GET TO KNOW OUR SOLUTIONS!!**

Hours	Program		
3:00 pm -5:00 pm	<b>'Innovation: B2B roundtables' Session:</b>		
	<b>Product/solution</b>	<b>Benefits/Impact</b>	<b>Contact</b>
	<b>Resource efficiency at local level</b>		
	High pressure system optimization (GPS approach)	Energy efficiency	DEROHE
	Alternative power systems for low pressure irrigation systems	Cost efficiency	LGRAIN
	Leaf sensors	Crop per drop	ZIM-YARA
	<b>Decision Support Tools</b>		
	HYDROPTIM	Cost efficiency, multi-objective scenarios simulation, season planning	ADASA
	Genetic algorithm	Energy efficiency	CSIC
	<b>Information services and ICT Platform</b>		
	Weather forecast	Information service	METEOSIM
	Crop water demand forecast	Information service: Crop per drop	ELEAF
	Energy price forecast	Information service: Cost efficiency	CREARA, ECLAREON
	WEAM4i ICT platform	Integrated information services and applications	HISPATEC, HYDROLOGIC, ADASA



I HOPE IT WILL BE A FRUITFUL WORKSHOP

....AND HAVE FUN!!





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[www.WEAM4i.eu](http://www.WEAM4i.eu)

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