

***Large Scale Irrigation Management Tools for Sustainable Water Management in Rural Areas and
Protection of Receiving Aquatic Ecosystems***



3rd Management Meeting
Wednesday, July 17th, 2019
www.bonificacapitanata.it

Project's achievements so far

- ✓ The activities carried on so far by Consortium as one of IR2MA partner have allowed to study deep the knowledge of important data on the functioning of its irrigation networks and on the use of water by its end users (farmers).
- ✓ In last period the information collected in this way were shared with the other project partners too and allowed a fruitful collaboration with them, especially with IAMB for the analysis of the irrigation network data.
- ✓ All data collected were digitizing and geo-referencing with open source GIS software, as well as integrated with the data collected by the meteorological stations managed by the Consortium in an another biennium.

Project's achievements during this reporting period

The project's achievements during this reporting period performed by Consortium are the following:

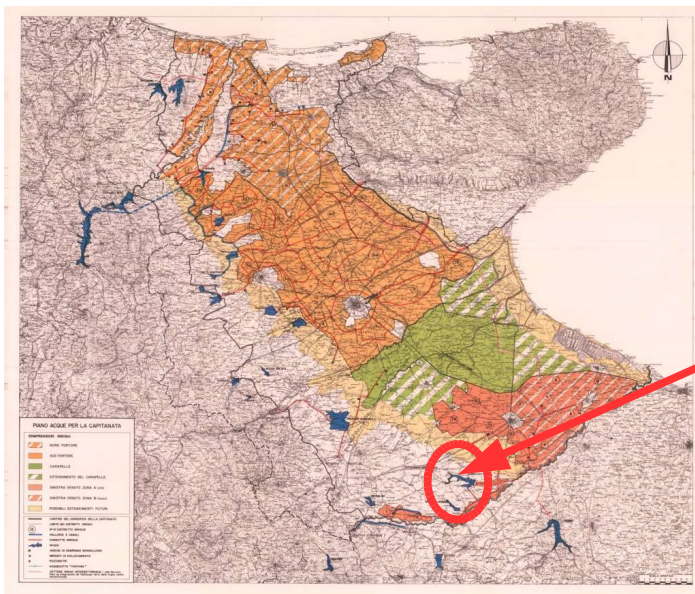
- ✓ Organization of technical visit to its irrigation systems during the second management meeting with the other IR2MA partners;
- ✓ Preparation of the climate database of reference and collection of other data related to the size, type and geographical position of the irrigation networks managed by the Consortium in three of its irrigated districts;
- ✓ Reception of IAMB officials interested in the evaluation of network efficiency and collaboration with them.
- ✓ Participation in the preparation of the experimental tests that will be held between the end of summer and the next autumn at a farm appropriately identified in the Consortium's irrigation area in collaboration with CNR.

Project's achievements during this reporting period

WP1: In order to promote the efficient use of water resources in irrigation and cultivation practice, Bonifica Capitanata Consortium has contributed to the organization of a technical day within the 2nd project management meeting. Strengthened by thirty years of experience in irrigation management, together with a deep knowledge of the territory, on 15 March Consortium officials showed and described to visiting colleagues the scheme of operation of the plants involved in feeding the main irrigated districts of Sinistra Ofanto.

WP1 - Technical visit of 15th March 2019

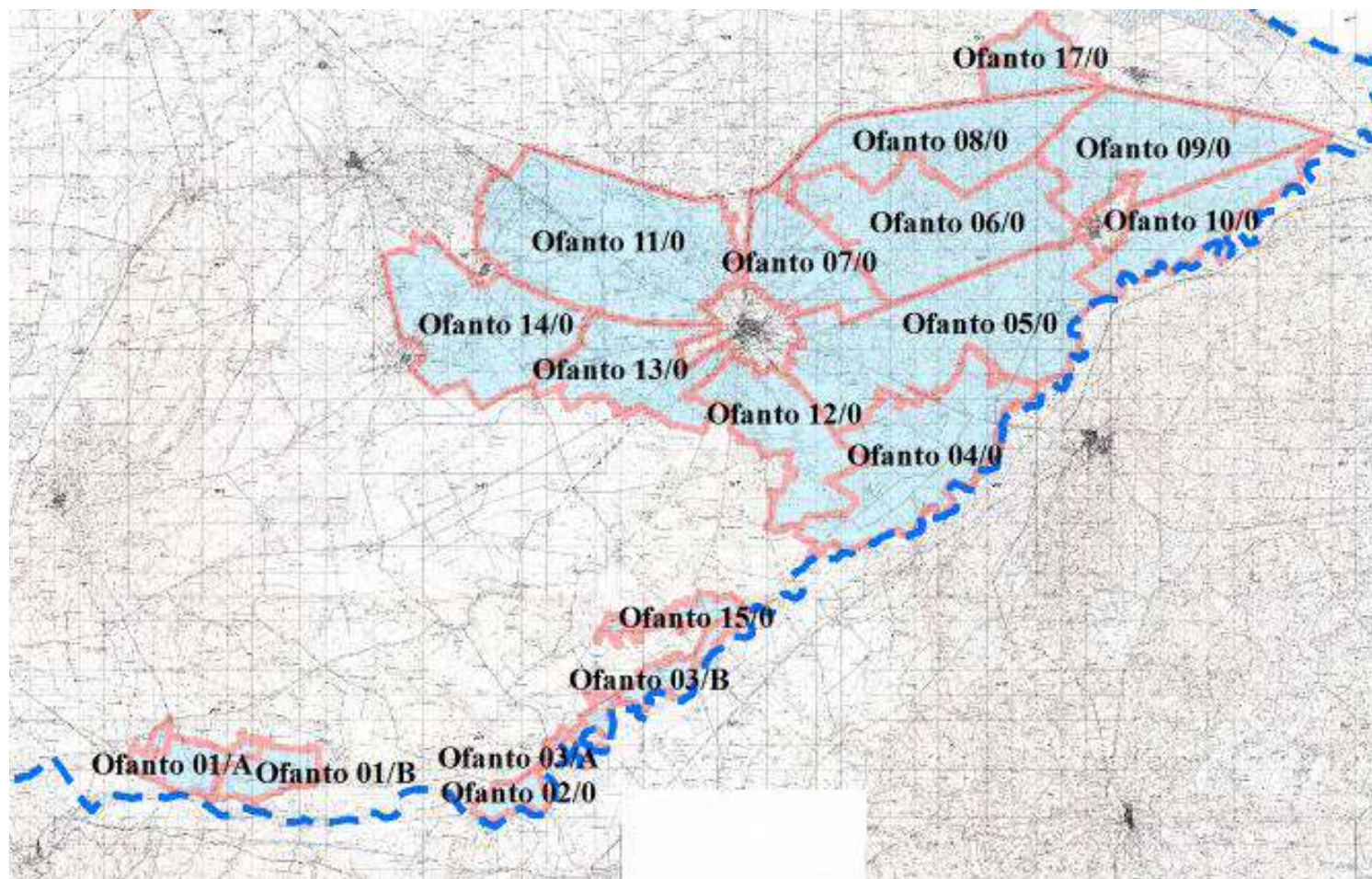
The technical visit began from the Capacciotti dam, in the countryside of Cerignola, which represents the source of water supply for the whole system as a site for accumulating and storing the water of the Ofanto river, then continuing into the irrigation center of San Samuele, where it was possible to view one of the compensation tanks upstream of the distribution network serving the irrigation districts, as well as illustrate the functioning of the automated delivery groups, with an electronic withdrawal card, currently used in most of the consortium district for the supply of the water to farmers.



*Capacciotti Dam
Overall capacity 49 millions of
cubic meters*



Sinistra Ofanto irrigated districts



EQUIPPED SURFACE:	Ha 39.814
USERS:	n. 27.251



**AUTOMATIC WATER
DELIVERY GROUP**

**FARMER ELECTRONIC CARD
FOR WATER WITHDRAWAL**



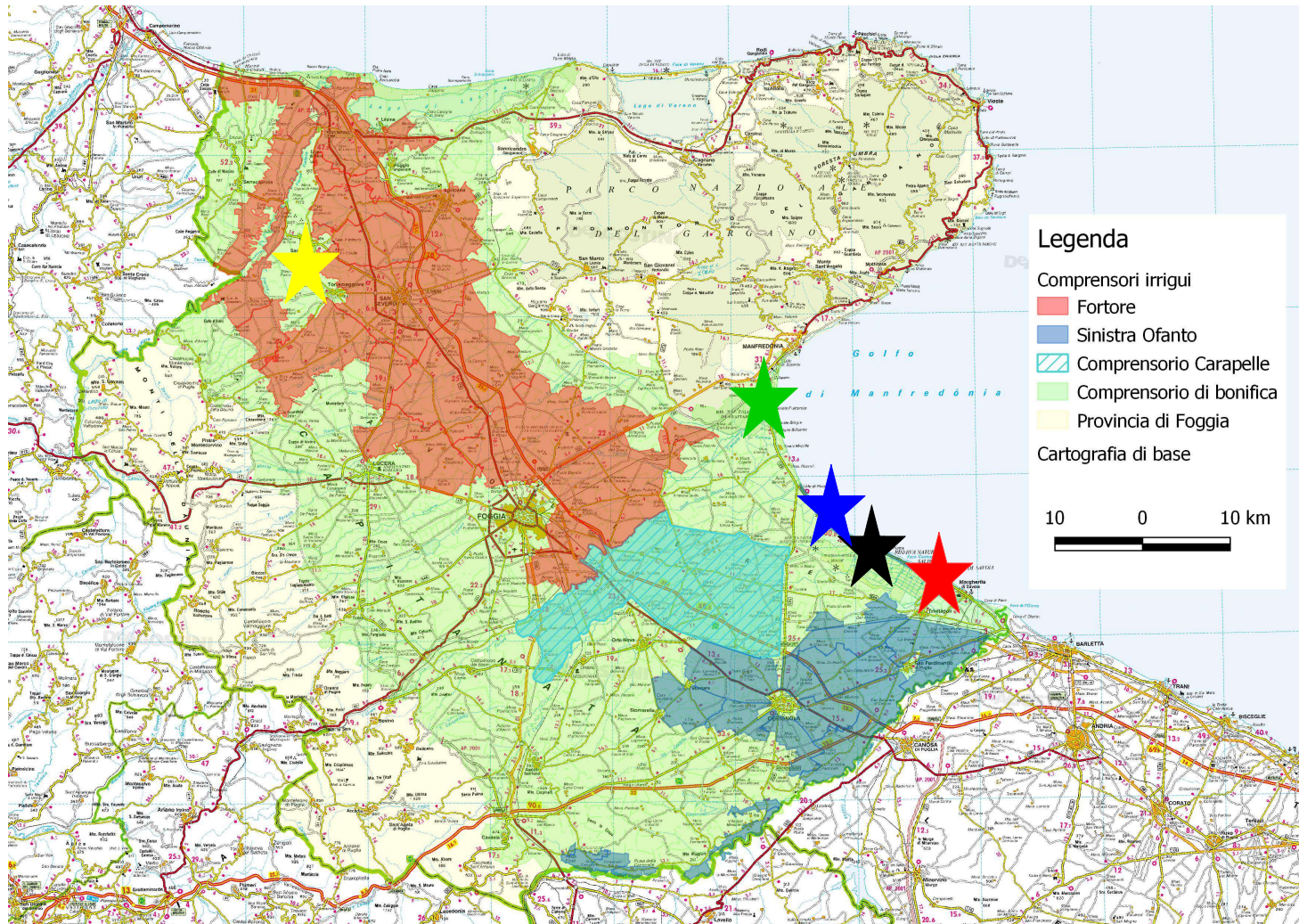
WP1 - Technical visit of 15th March 2019

The itinerary ended with a visit to the accumulation and storage basin of the waste water of Trinitapoli town. This basin, with a capacity of around 950,000 cubic meters, was built in 2004 and since then is managed by Bonifica Capitanata Consortium to allow the recovery of urban wastewater for irrigation purposes.



Importance of waste water for irrigation

Localization of irrigated district that can be served by waste water in Capitanata area



The storage tank of Trinitapoli waste water

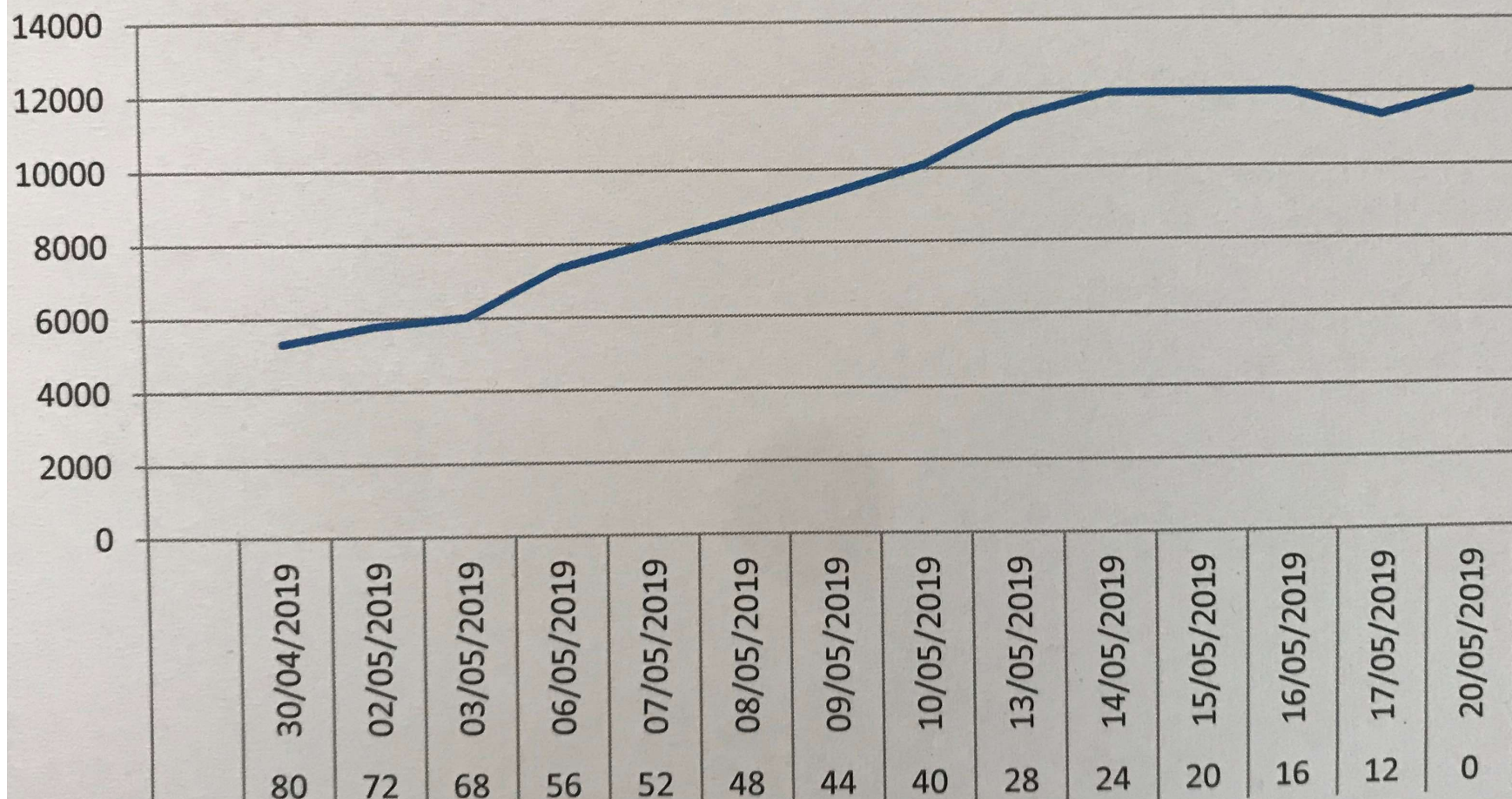


Utilization of storage tank:
irrigation of sub-district
17 of Sinistra Ofanto
(500 ha)

Overall capacity: 950.000 cubic meter

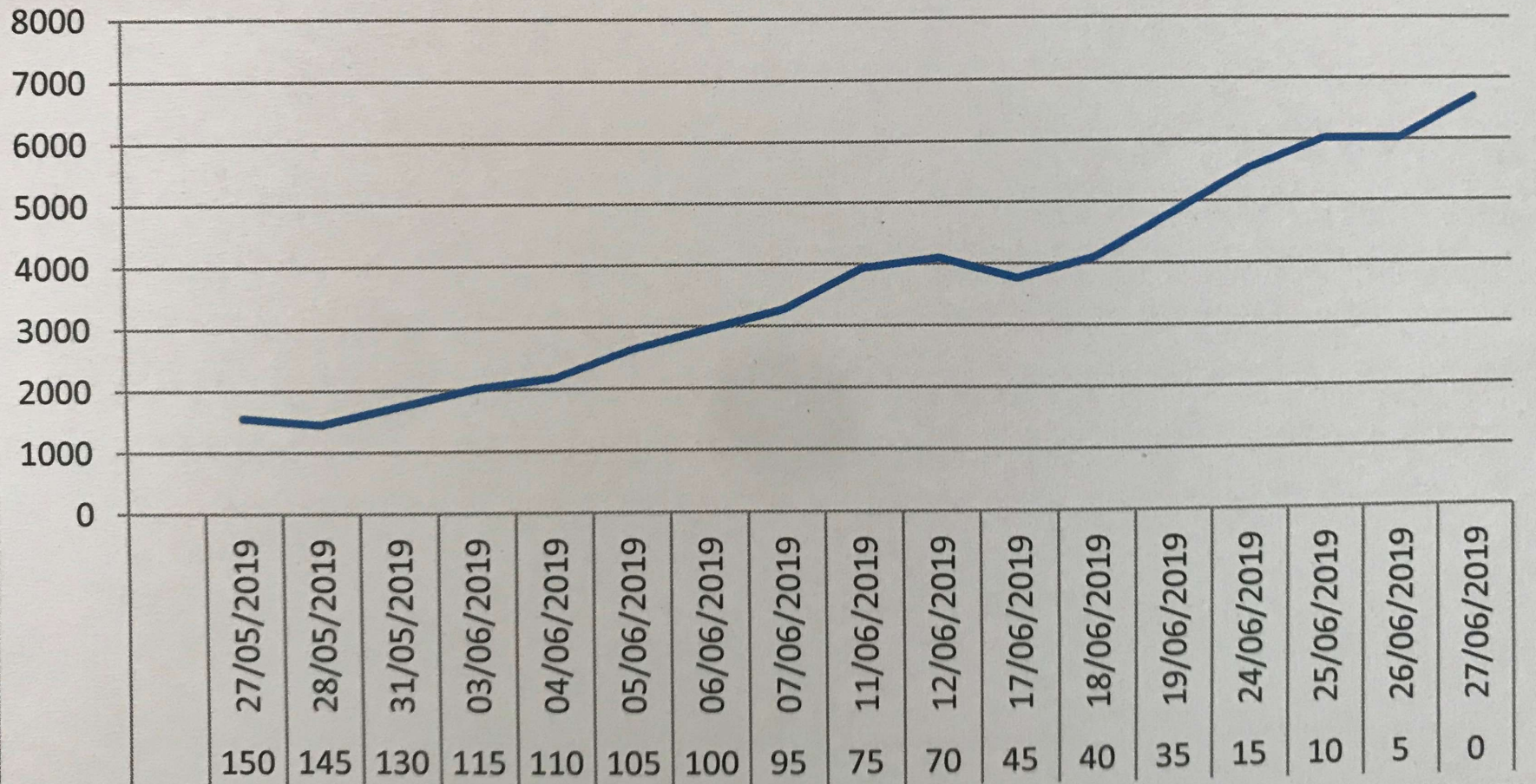
1° scarico dal 30/04/2019 al 20/05/2019

Conducibilità elettrica ($\mu\text{S}/\text{cm}$) a 20°C



2° scarico dal 27/05/2019 al ??/06/2019

Conducibilità elettrica ($\mu\text{S}/\text{cm}$) a 20°C

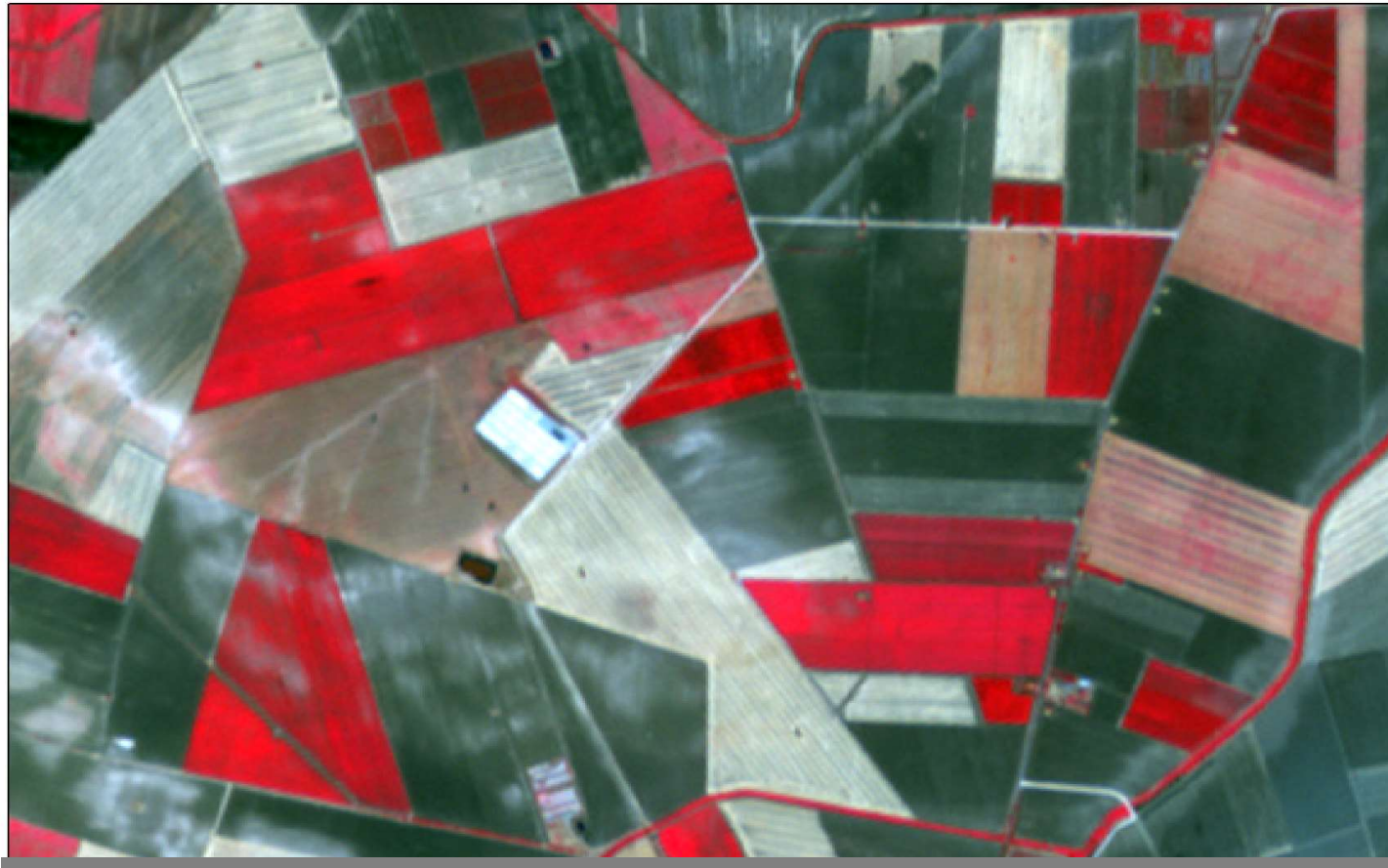


WP1 - Technical visit of 15th March 2019

The meeting represented an important opportunity to exchange information between the project partners, useful for a redefinition of the objectives pursued with respect to the needs of the end users of the water resource, as well as the context to deepen the knowledge of irrigation management and solutions aimed at water saving already applied by the Consortium in Capitanata.

Project's achievements during this reporting period

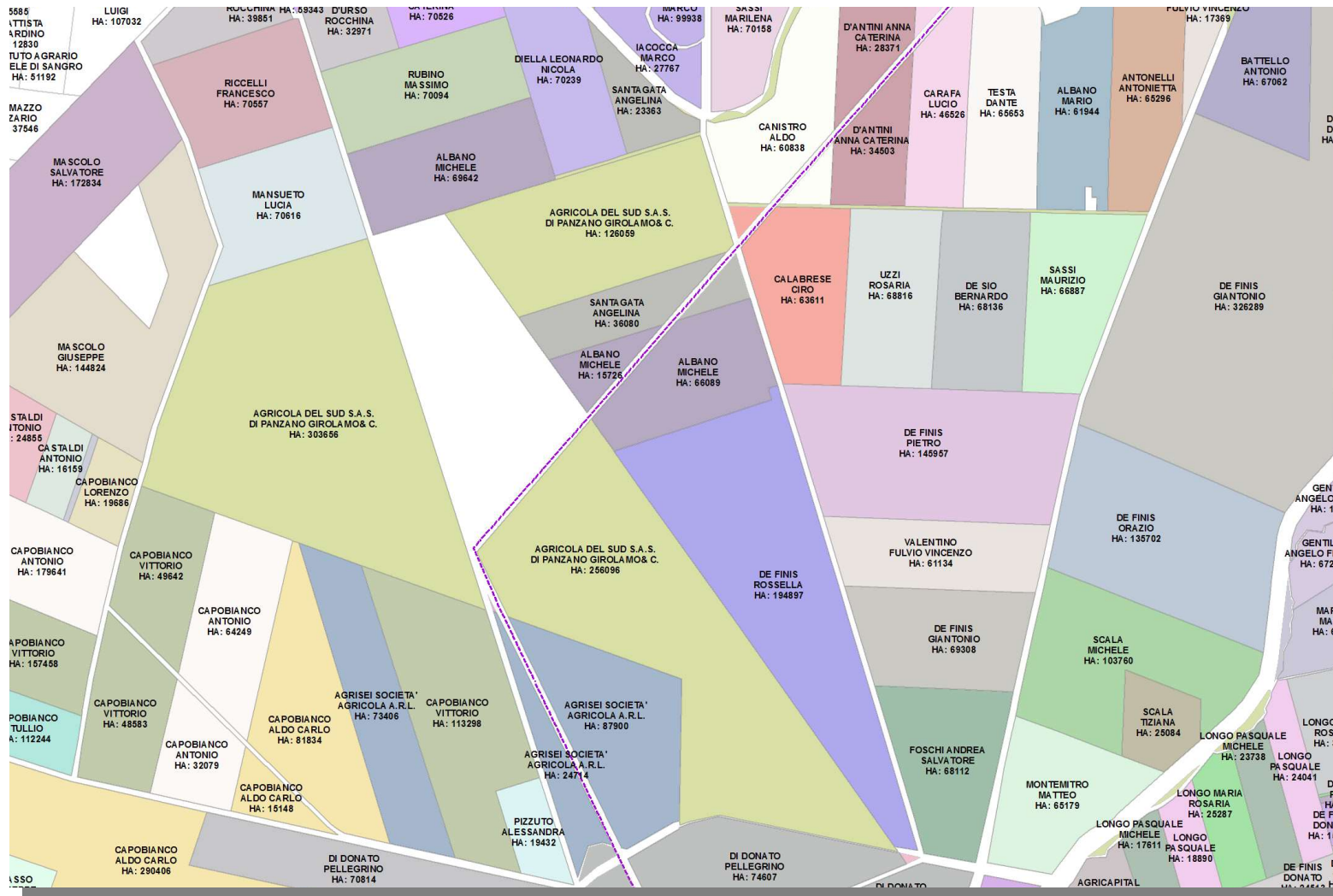
WP3: Consortium staff carried out the processing of free satellite images for mapping landcover of irrigated districts.



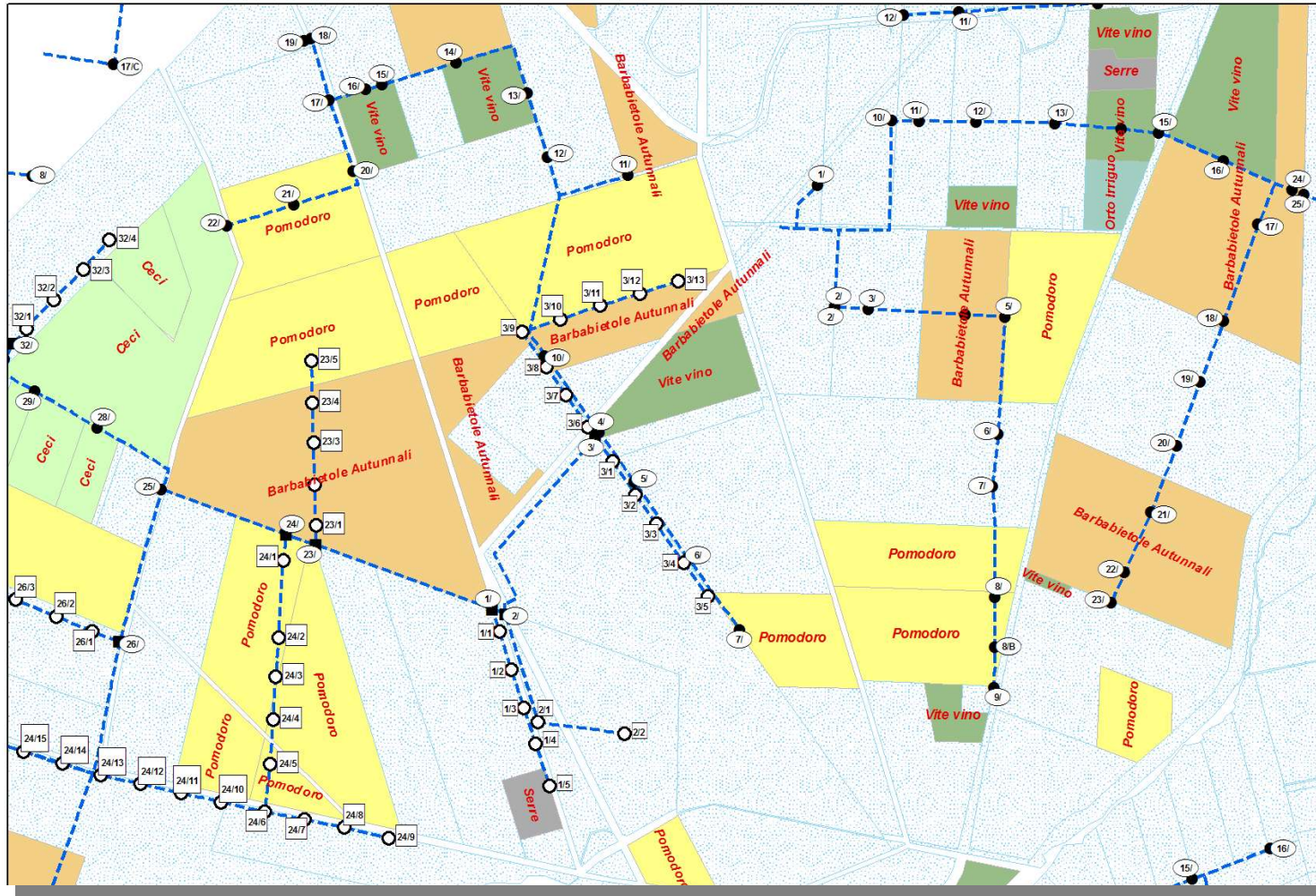
WP3: image processing in false color and crop surveys



Bounding property and cover crops

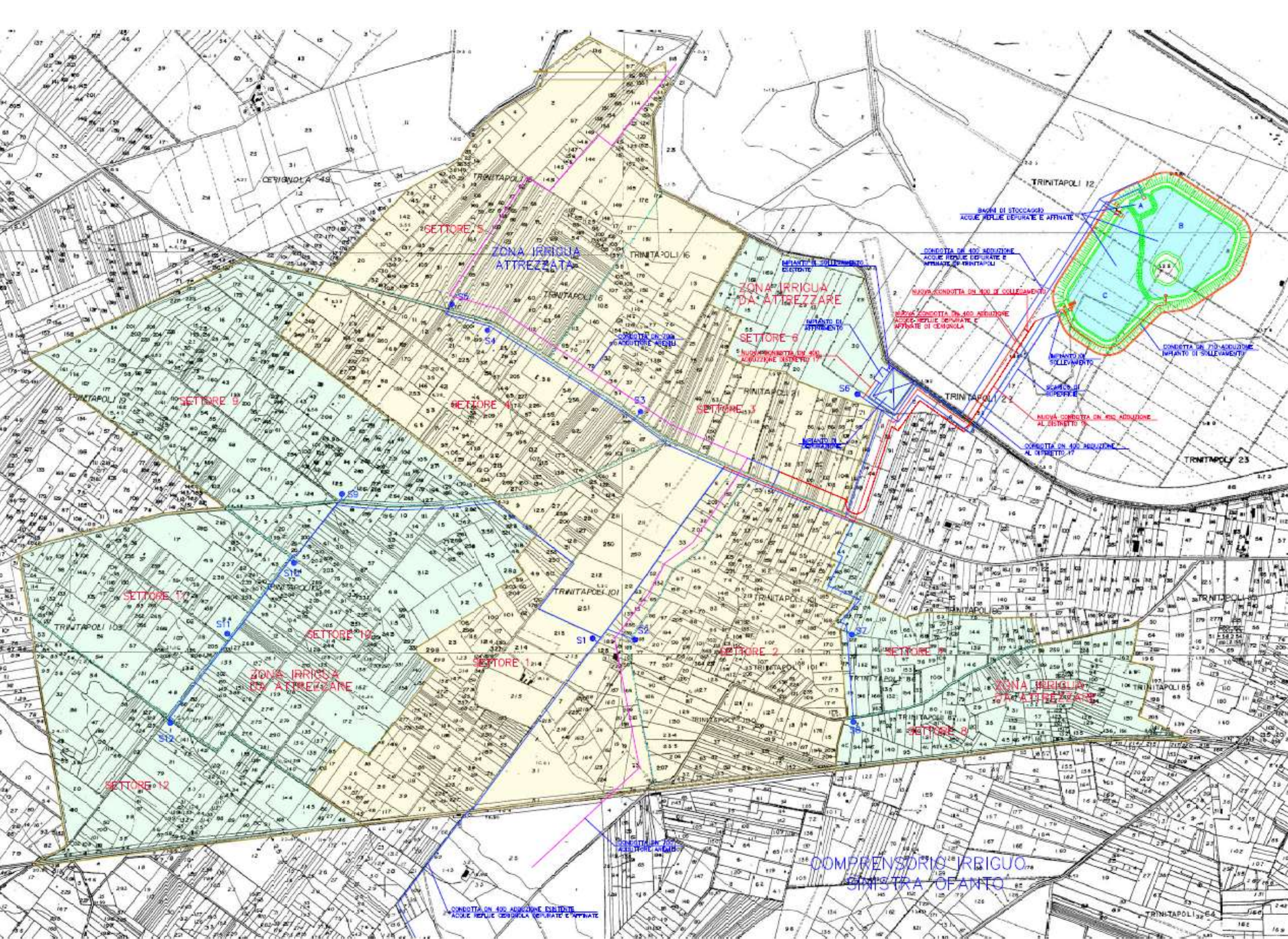


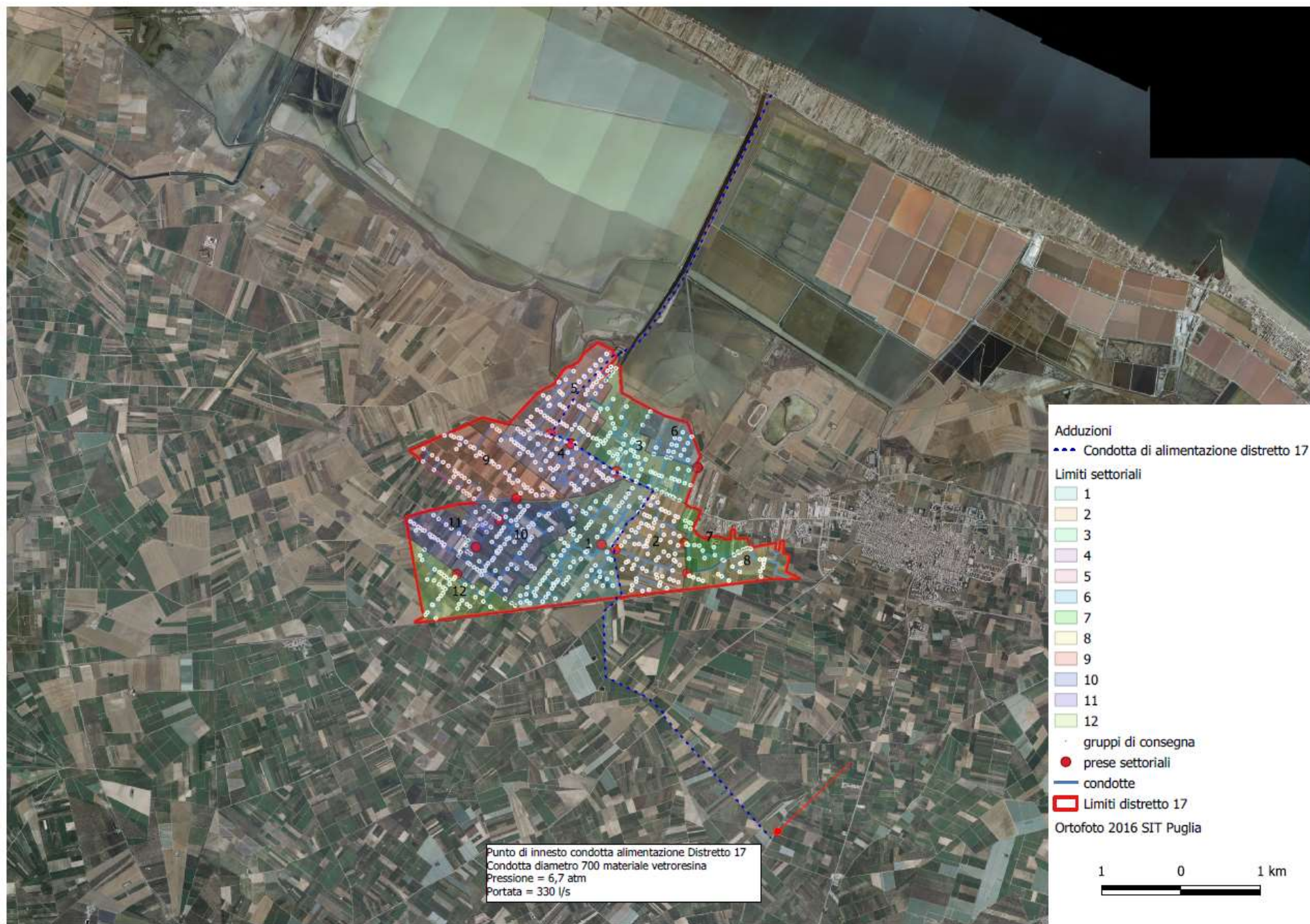
Map of irrigated crops and consortium irrigation network



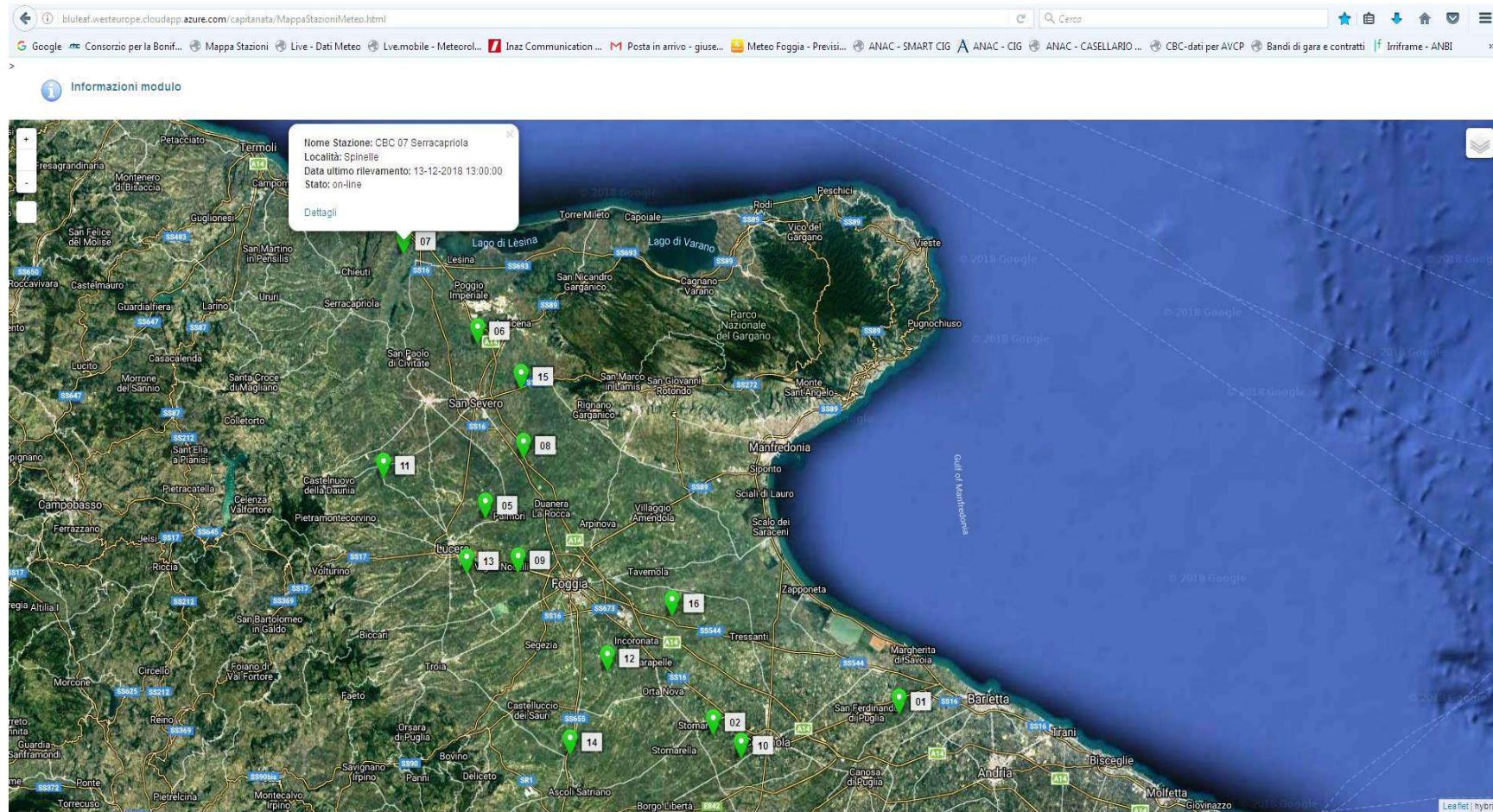
Project's achievements during this reporting period

WP4: Consortium officials carried out collection of the irrigation network data of others irrigated districts, digitized and geo-referenced those data with open source GIS software, integrating them with the climate database and finally they have carried out efficiency analysis of irrigation network with IAMB support.

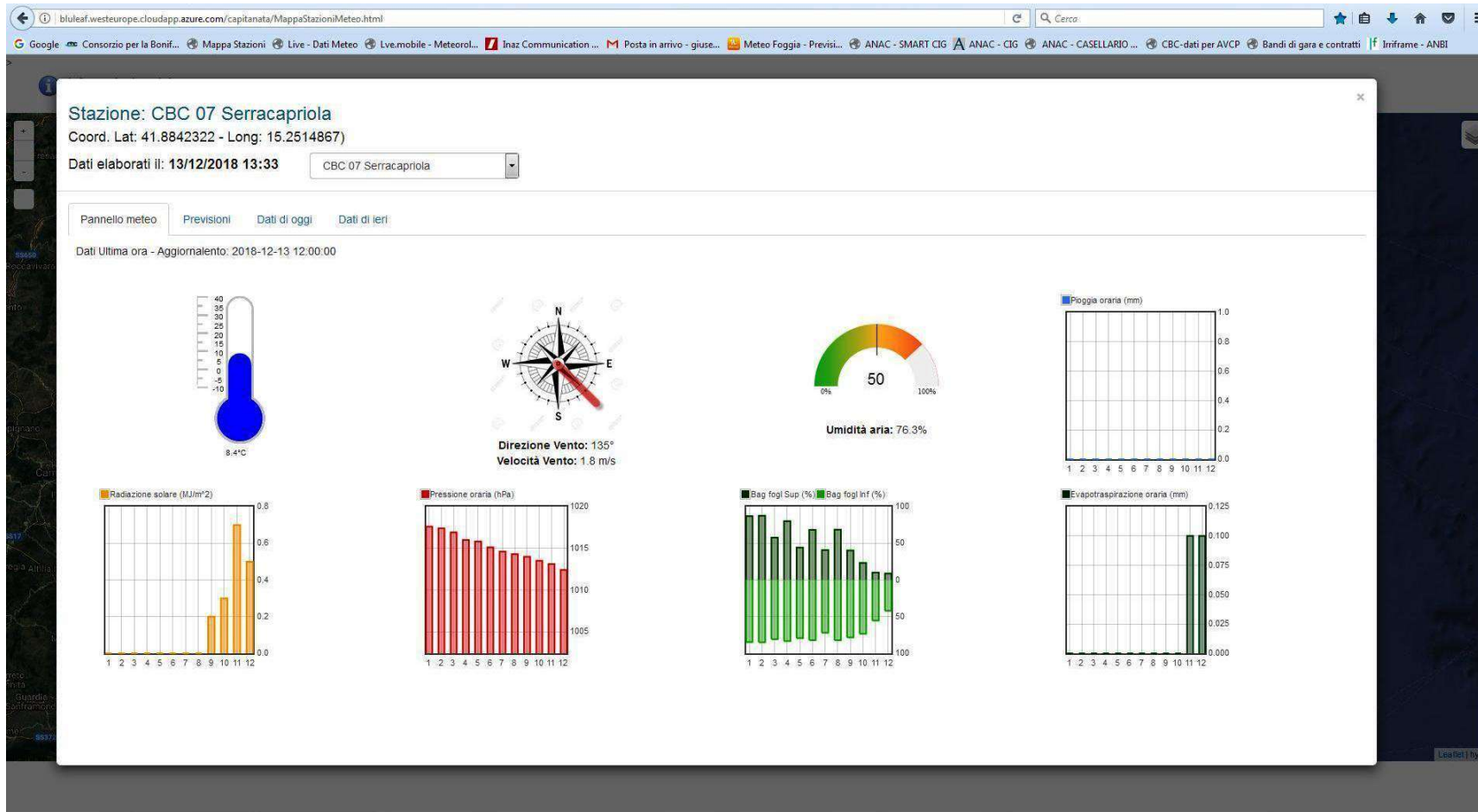




Integration with meteorological data 2012/2017



Graphical representation of meteorological data



Daily weather data

bluleaf.westeurope.cloudapp.azure.com/capitanata/MappaStazioniMeteo.html

Google Consorzio per la Bonif... Mappa Stazioni Live - Dati Meteo Lve.mobile - Meteorol... Inaz Communication ... Posta in arrivo - giuse... Meteo Foggia - Previsi... ANAC - SMART CIG ANAC - CIG ANAC - CASELLARIO ... CBC-dati per AVCP Bandi di gara e contratti Irrifame - ANBI

Stazione: CBC 07 Serracapriola
Coord. Lat: 41.8842322 - Long: 15.2514867
Dati elaborati il: 13/12/2018 13:33 CBC 07 Serracapriola

Pannello meteo Previsioni Dati di oggi Dati di ieri

Ultimi dati di oggi in ordine anti cronologico

Data/ora	Pioggia (mm)	Temp (°C)	Umid rel (%)	Rad sol (MJ/m²)	BagFog inf (%)	BagFog sup (%)	Pto rugiada (°C)	Pressione (hPa)	Vel vento (m/s)	Dir vento	Et0 (mm)
13-12-2018 00:00	0	3.9	88.1	0	82.7	72.4	2.1	1018	1.5	S	0
13-12-2018 01:00	0	3.6	88.2	0	84.7	87	1.9	1017.6	1.3	SE	0
13-12-2018 02:00	0	3.5	89.5	0	84.8	87.6	2	1017.4	1.4	SE	0
13-12-2018 03:00	0	4.1	88.1	0	80.8	57.6	2.3	1016.9	1.6	S	0
13-12-2018 04:00	0	4	88.1	0	83.2	80.2	2.2	1016	1.2	SE	0
13-12-2018 05:00	0	4.2	87.8	0	79.4	44.3	2.3	1015.8	1.6	S	0
13-12-2018 06:00	0	4.1	88.5	0	82.1	68.3	2.3	1015.1	1.5	SE	0
13-12-2018 07:00	0	4.2	88.2	0	72	40.8	2.6	1014.6	1.6	S	0
13-12-2018 08:00	0	4.5	87.9	0	81.9	68.6	2.7	1014.3	1.4	S	0
13-12-2018 09:00	0	4.8	87.7	0.2	78.2	40.3	2.9	1014	1.8	S	0
13-12-2018 10:00	0	5.5	86.9	0.3	73.4	23.3	3.5	1013.5	0.9	SE	0
13-12-2018 11:00	0	7.4	83.4	0.7	55.2	10.1	4.7	1013.1	1	SE	0.1
13-12-2018 12:00	0	8.4	76.3	0.5	42	8.7	4.5	1012.4	1.8	SE	0.1

Leaflet | hy8

Next steps to be taken for project's implementation



With ISPA-CNR support, Consortium officials will organize crop trials in a representative area of Consortium irrigated districts and they will carry out planning and supervise in situ sampling and measurements of quality of irrigated water.



Thank you!!