



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



## Descriptive brochure of the TRACE project App:

Innovation and traceability in the production  
chain of medicinal and aromatic plants grown in  
the Emilia-Romagna region

### Project Partners

- Università di Bologna – Centro Interdipartimentale Alma Climate
- Agribioenergia Soc Coop. Agricola
- Società Agricola Brintazzoli S.S.
- Azienda Agricola Melina Renato
- Società agricola LAI Valter e Cristian S.S.
- Azienda Agricola Dall'Olio Enrico
- Società Agricola Sgarzi S.S.
- Azienda Agricola Dall'Olio Mattia
- Azienda Agricola Sgarzi Domenico
- Azienda Agricola Dall'Olio Matteo
- Azienda Agricola Cesari Nicola
- DINAMICA S. C. A R.L.

Project N. 5725596

### Objectives

The overall objectives of the TRACE Innovation Plan are to develop a new organizational model for supply chain management, ensuring full compliance with minimum product quality specifications (minimum active ingredient content in crops), the environmental sustainability of the production process, and the effective and safe transfer of necessary information to the end customer.

### App description

The TRACE app is a mobile application developed by the University of Bologna for precision agricultural monitoring based on IoT sensors installed in agricultural fields. The app allows real-time observation of key environmental and soil parameters, supporting farmers in making daily operational decisions directly in the field.

Specifically, it allows users to view historical and current data relating to temperature, air and soil humidity, atmospheric pressure, precipitation, and wind, through interactive tables and graphs.

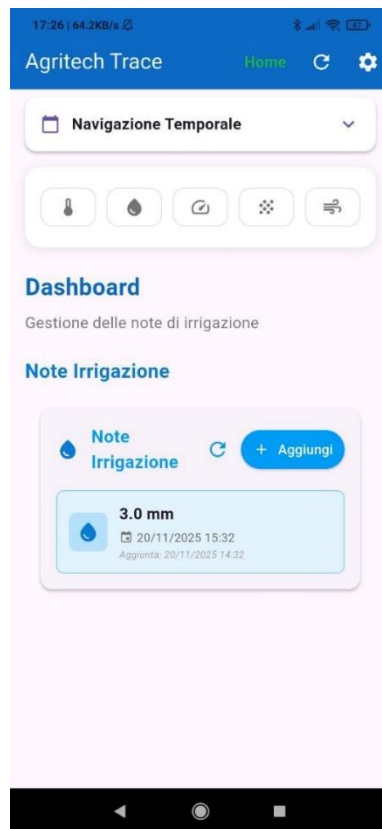
Users can customize the display by selecting the sensors of interest, comparing multiple weather stations or soil sensors, and choosing predefined or custom time intervals. The app also includes dedicated functions for recording irrigation notes, useful for tracking irrigation operations, and tools for optimizing display when data is extensive.



Initiative implemented by the University of Bologna – Alma Climate Interdepartmental Center as part of the Regional Rural Development Program 2023-2027 – CoPSR 2023-2027 Emilia-Romagna – Intervention SRG01 – OS2 – Application no. 5725596. Project: "Innovation and traceability in the production chain of medicinal and aromatic plants grown in the Emilia-Romagna region" – Acronym: TRACE.



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



## Managing custom thresholds

Another important feature is the management of custom thresholds: the user can define limits for specific parameters and receive push notifications when they exceed or fall below the set values.

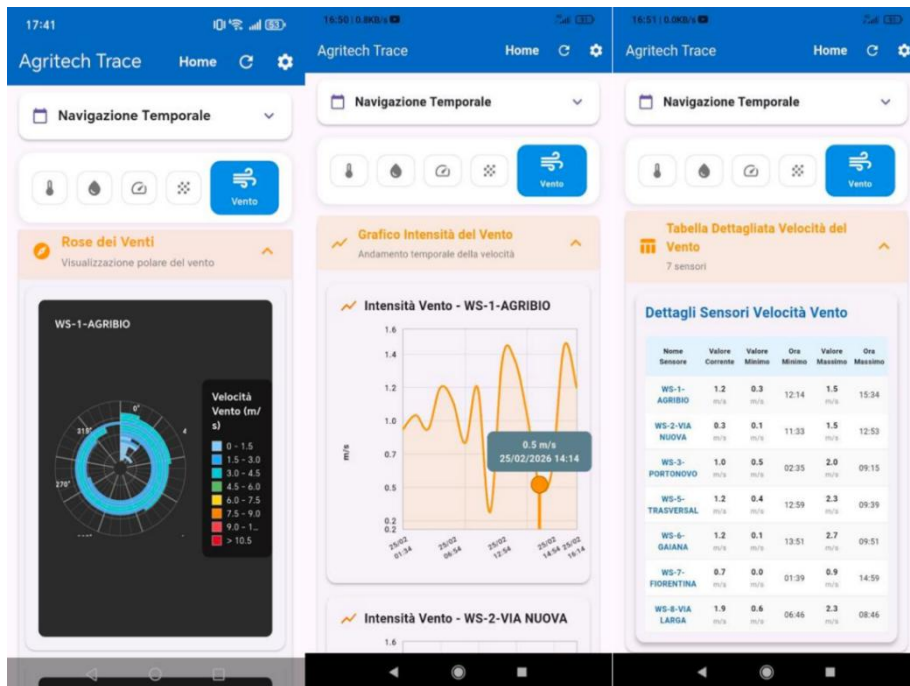
This way, the TRACE monitoring app goes beyond simple data consultation; it represents a true decision-making support tool for more efficient, timely, and informed agricultural management.





ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

## Screenshots for consulting personal data:



## Example of configuring and managing custom thresholds:

