



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. **101007702**

SustAInable

FROM CROPS TO TABLE

23° of May 2025

PALERMO, ITALY

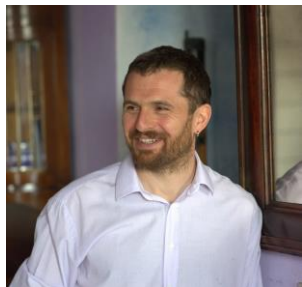


DNAPhone S.r.l. is an innovative SME that was born as a spin off the Engineering Department of the University of Parma, from the synergy between researchers, professors and private industrial investors.

DNAPhone developed and patented the fully portable and connected technology for Food Quality Control, which allows to monitor the entire production process, from raw material to finished product, turning into DIGITAL and allows TRACKING the entire (chemical) quality control.



People involved



Ing. Alessandro Candiani, PhD



Dr. Alessandro Tonelli, PhD

Main activities

Beer and wine from
crops to table

Moringa and olive oil
from crops to table

Android sw APP



- SELF EXPLAINING SOFTWARE
- TOTAL TRACEABILITY OF ANALYSIS
- DIGITIZATION OF THE PROCESS

Cloud Services



- SMART DATA MANAGENET
- DIAGNOSTIC REMOTE CONTROL
- USER / USAGE PROFILING

Optical Device



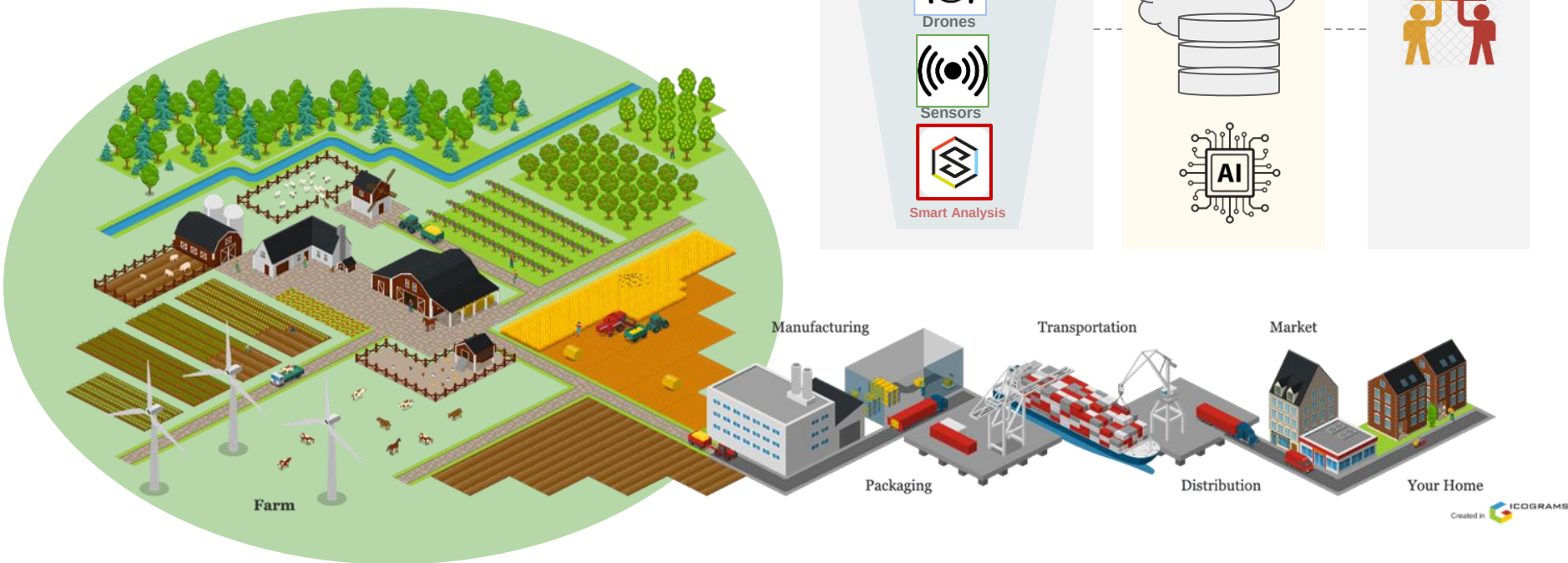
Reagents kit



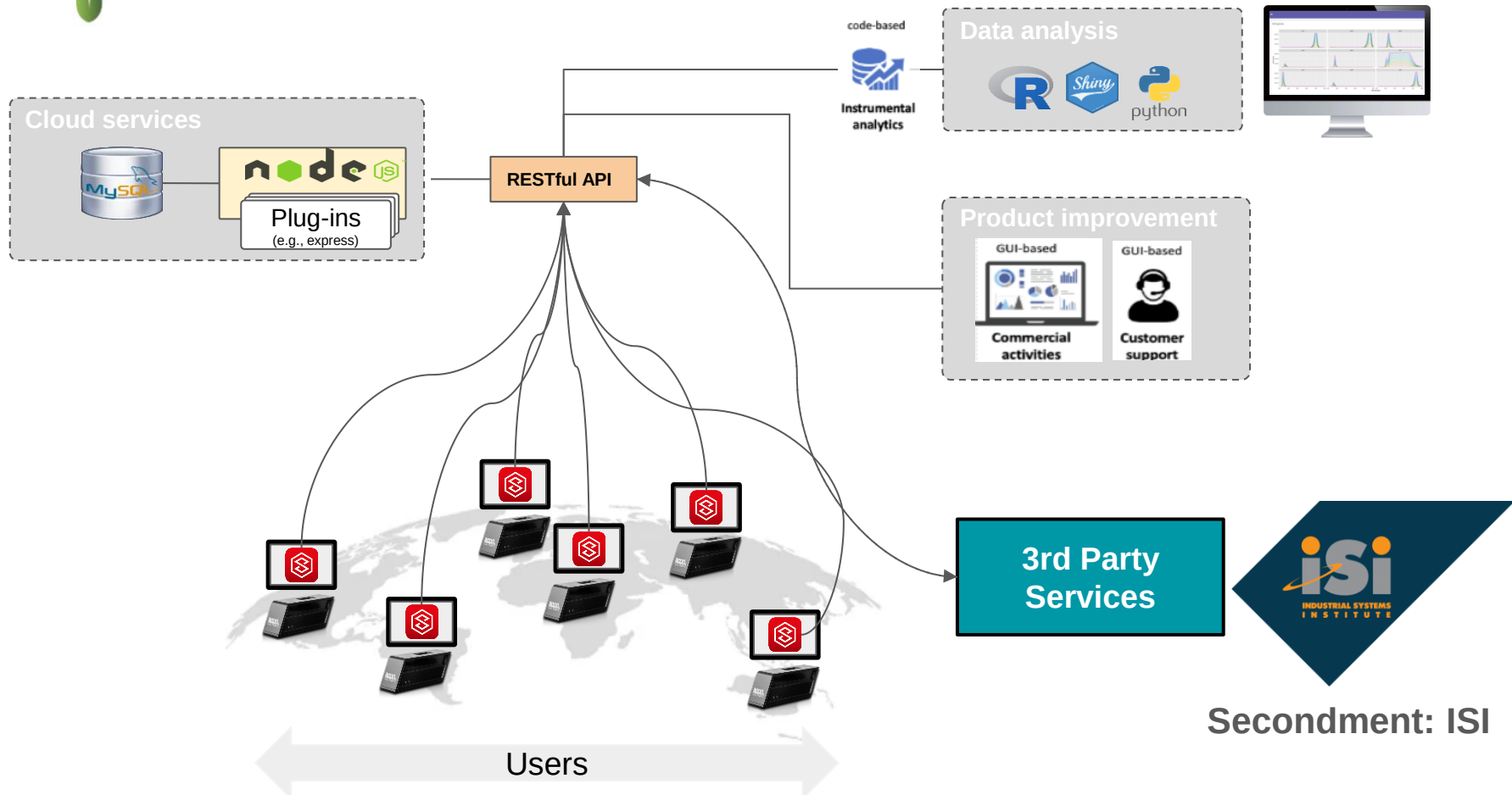
- PORTABLE SPECTROPHOTOMETER
- NO MAINTENANCE OR CALIBRATION
- PATENTED TECHNOLOGY
- PRECALIBRATED SYSTEM
- SIMPLIFIED METHODS
- FULL TRACEABILITY

DNAPhone role in Sustainable Project

Be part of a **distributed sensor system** capable of addressing the challenges of modern agriculture with a holistic approach. Our platform allows the integration of **specific chemical data** with the highest degree of detail, **down to single plant or product**

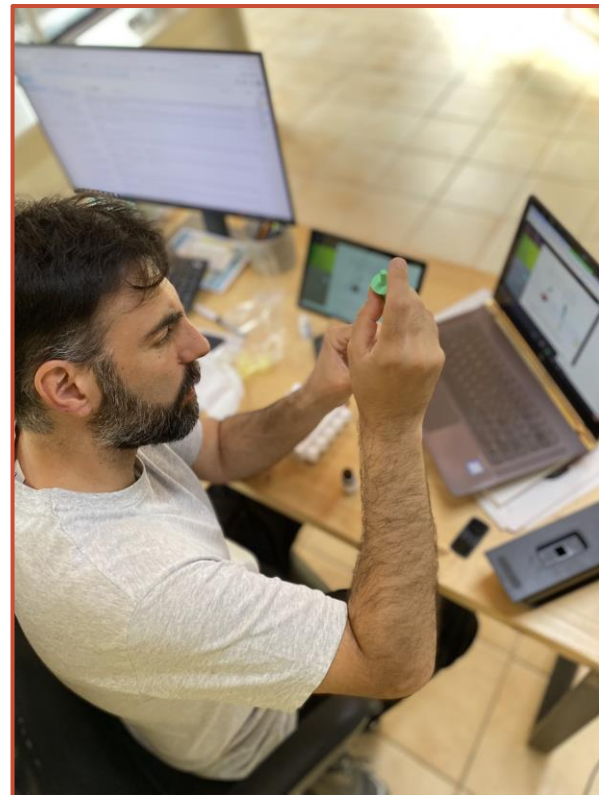
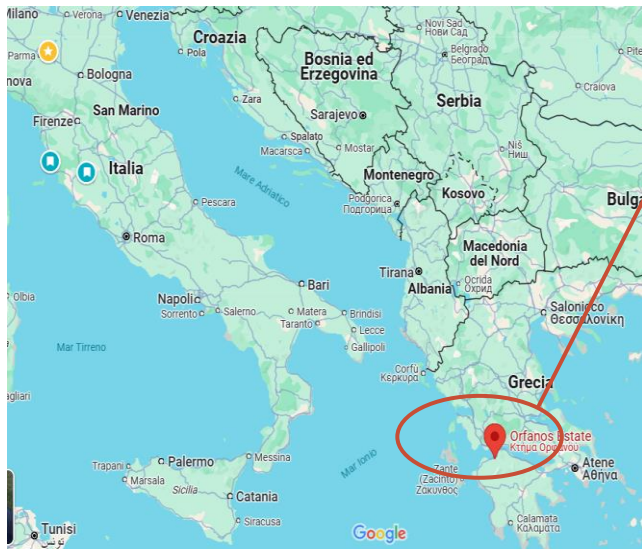


The first IoT-like portable spectrophotometer



Activity 1: Case study - Orfanos Estate

Aim: using our analytical platform Smart Analysis during harvest and share chemicals data with the ISI platform for advanced data analysis



Activity 2: analytical kit development



Acetaldehyde

WAT (Wine Antioxidant Test)

D-Gluconic Acid



CIELab for Beer

BAT (Beer Antioxidant Test)



Peroxide

Acidity

K270

Biophenols



Chlorine

COD

Nitrate

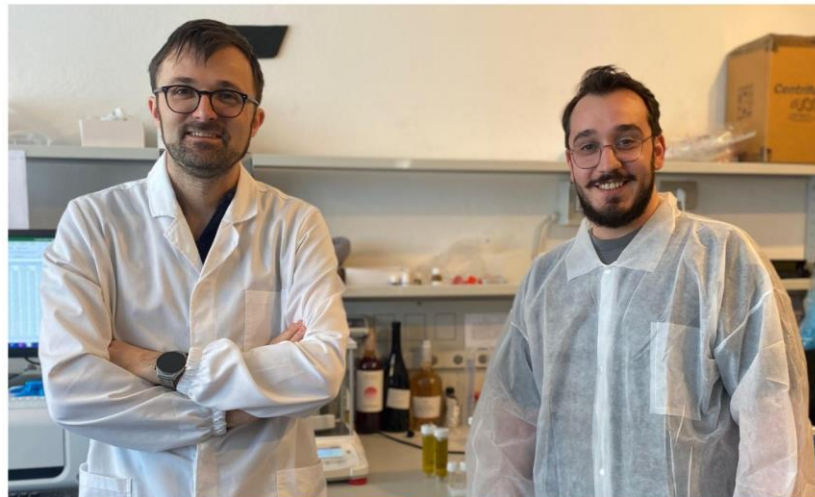
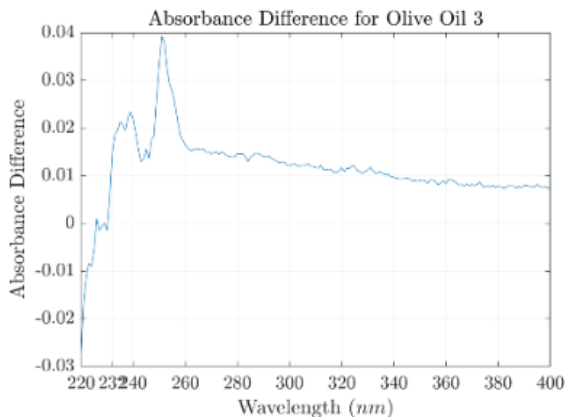
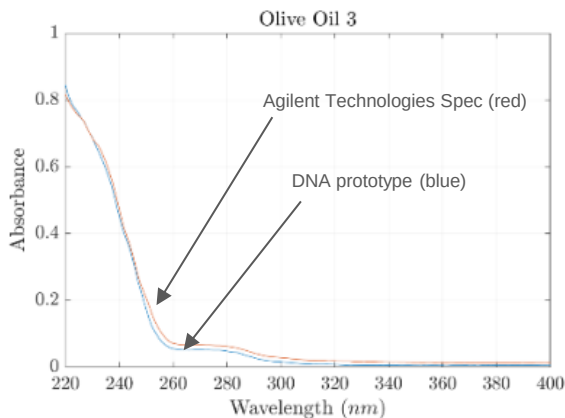
secondment: UGR



UNIVERSIDAD
DE GRANADA

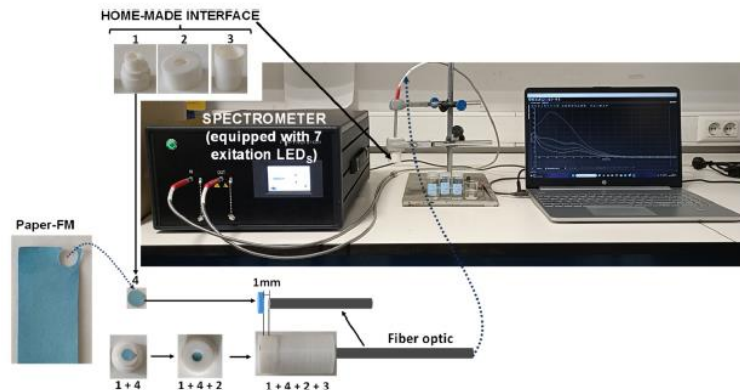
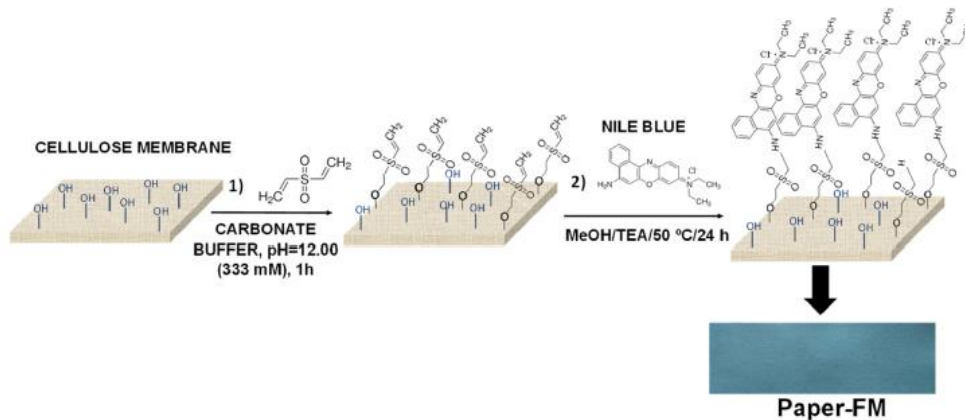
Activity 3: UV portable instrument

Feasibility evaluation for a portable UV spectrophotometer for specific applications (e.g. k232 in olive oil) and in line analysis



Activity 4: portable reader for a new method

Development of a portable prototype for the quantitative determination of acidity on various matrices through a derivatized paper membrane.



During secondments and through interactions with researchers we had the opportunity to:

- *Implement new products and features through an effective user-based design*
- *Explore new approaches for data integration and API optimization*
- *Create innovative chemistry approaches for new food field*
- *Investigate new technologies for innovative diagnostic approaches*
- *Build and foster networking, creating solid partnerships*



ORFANOS ESTATE



UNIVERSIDAD
DE GRANADA