

A visualization platform for TreeTalkers data: supporting sustainable vineyard practices

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The Project

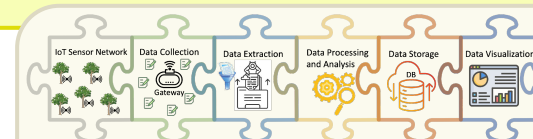
The Agritech project promotes technologies for the sustainable development of agri-food production, aiming to foster adaptation to climate change, reduce the environmental impact in agri-food systems, and enhance safety and traceability of supply chains in line with the objectives of the European Green Deal.



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The Monitoring System

The monitoring system allows benefiting from high frequency meteorological and eco-physiological data to constantly follow the physiological evolution of the monitored plants in the short and long term.



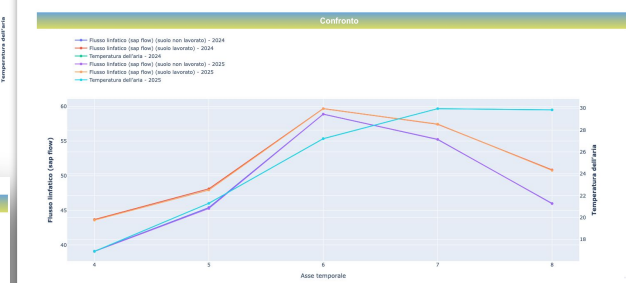
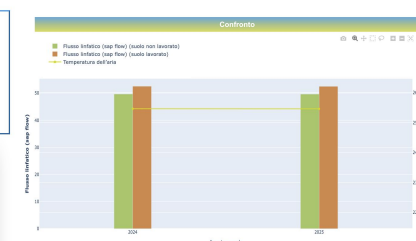
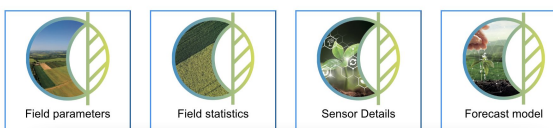
The methodological and technological framework, from monitoring to data processing, analysis and visualization, facilitates access to rapid information, reducing time and costs usually associated with field observations.

The Visualization

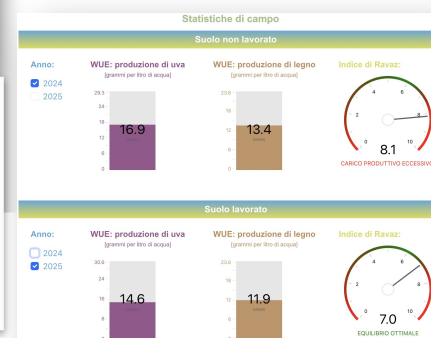
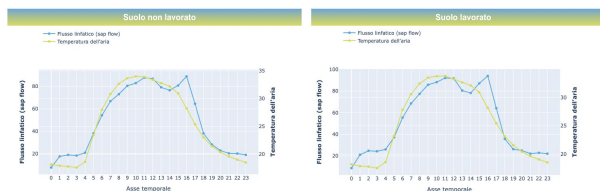
The platform processes raw sensor data into interactive dashboards, enabling users to explore the impact of different soil management practices - such as conventional tillage versus no-tillage with mulching - on grapevine resilience under heat stress.



Key functionalities include dynamic environmental filtering, comparative plot analyses, and the ability to assess branch-specific physiological responses. Additionally, the system supports temporal tracking of sap flow variations across the growing season.



Monitoring was carried out with TreeTalker devices, i.e., advanced sensors capable of collecting data on plant physiology and environmental conditions in real time.



The tool demonstrates the potential of low-cost, scalable technologies and advanced visualization techniques to promote sustainable practices in agriculture.

