

UNLOCKING TERRITORIAL IDENTITY

A multidisciplinary geochemical-isotopic and chlorophyll fluorimetric approach to enhance the typicity and resilience of coastal sandy soil crops

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**Dipartimento
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e della Prevenzione**



**Food and Agriculture
Organization of the
United Nations**

**MINISTERO DELL'AGRICOLTURA
DELLA SOVRANITÀ ALIMENTARE
E DELLE FORESTE**

WORLDWIDE PERSPECTIVES ON GEOGRAPHICAL INDICATIONS

SECOND INTERNATIONAL CONFERENCE FOR RESEARCHERS, POLICY MAKERS AND PRACTITIONERS
INNOVATIONS AND TRADITIONS FOR SUSTAINABILITY

ROME, 18 – 21 FEBRUARY 2025

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SANDY COAST

- marginal land
- salinization
- drought

SPECIALIZED AGRICULTURE

- Asparago verde di Altedo PGI
- *Viti delle sabbie* (Fortana Bosco Eliceo DOC)
- Other not-yet labelled specialized crops (red chicory)

Fondo Sociale Europeo Plus - FSE+ 2021-2027



BORSE DI RICERCA EUROPASS



Food Fraud

Problem in Food Industry
Quality and Safety

Traceability of
agri-food products

Geographical origin and environmental condition
Terroir definition

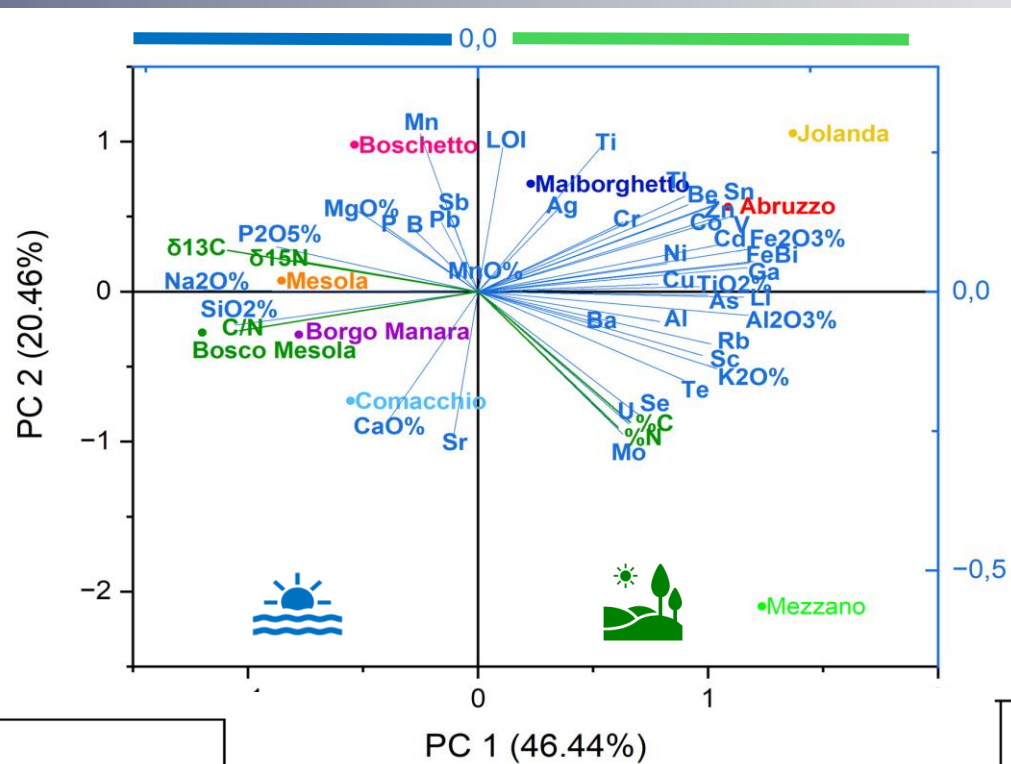
- General environmental context
- Soil geochemistry
- Plant adaptation to environment



Elemental-isotopic
fingerprinting of crops
**An advanced tool for
food traceability**



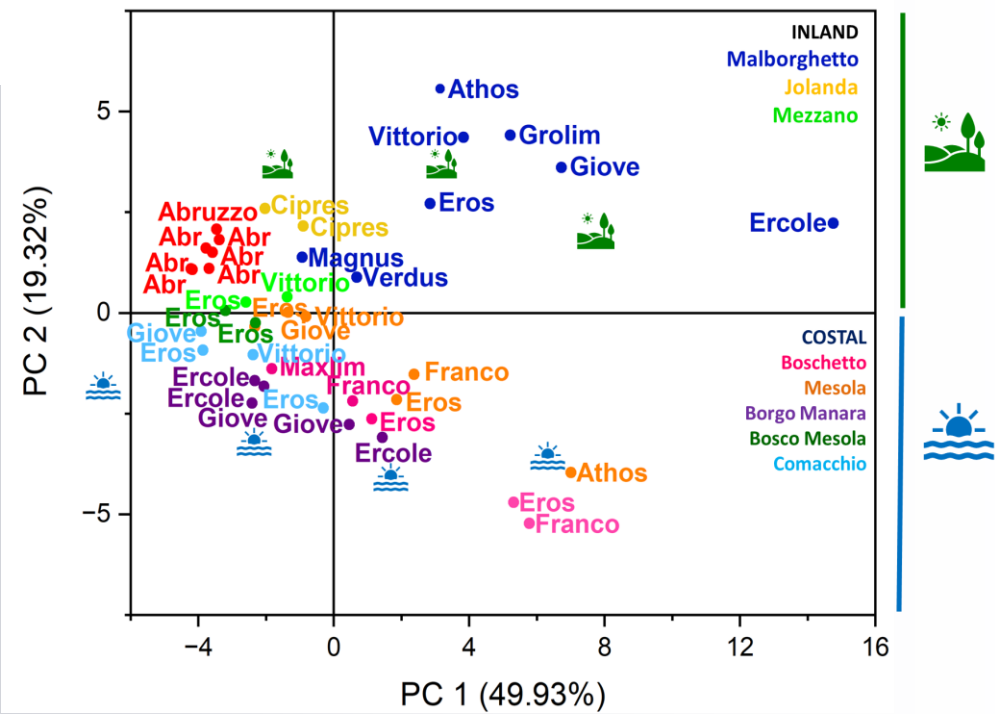
Elementomic fingerprinting of Altedo Asparagus



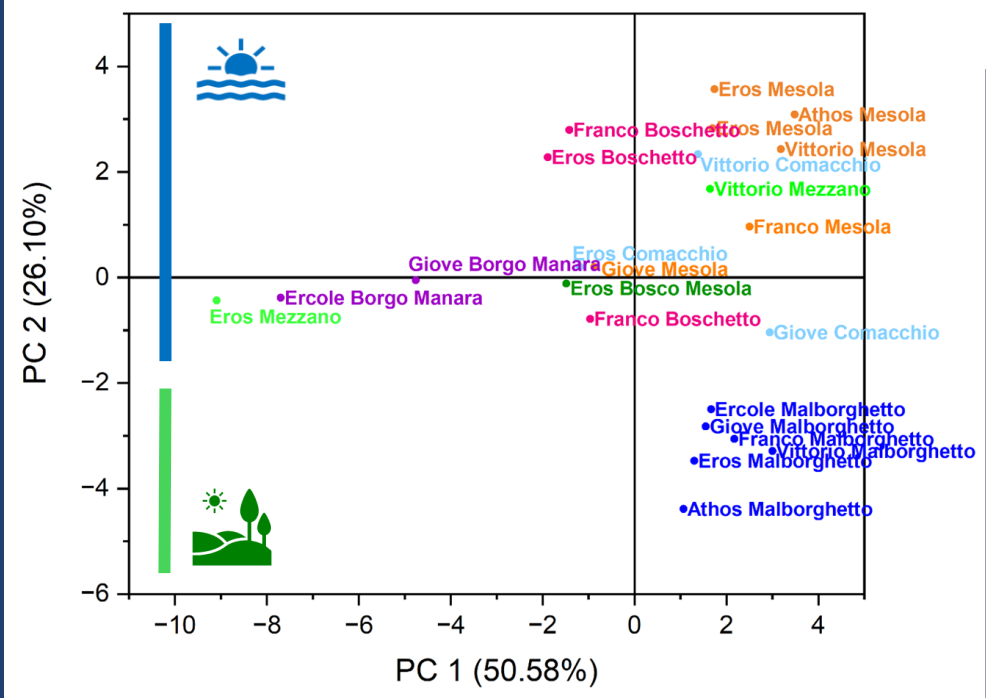
Soil Geochemistry



Plant Elementome

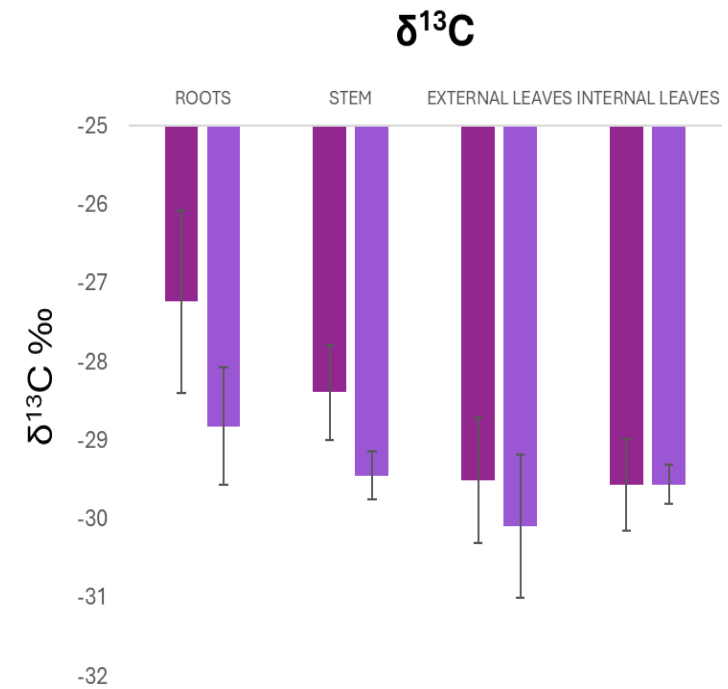
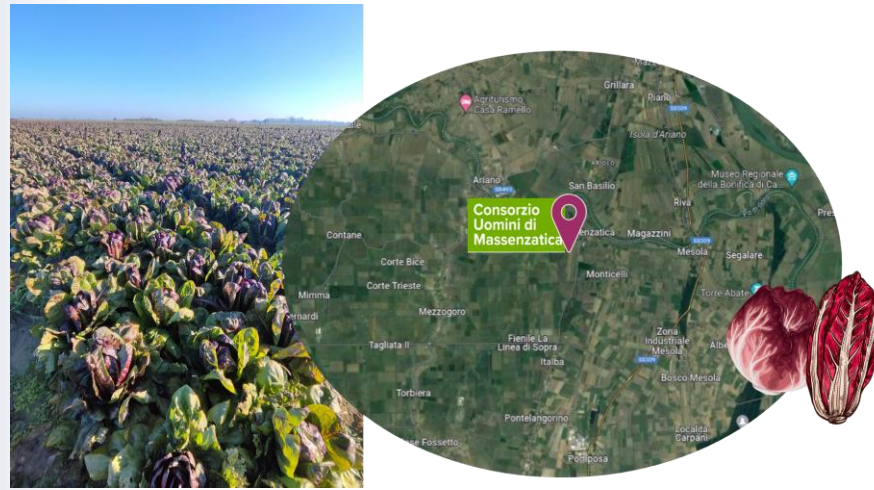


Chlorophyll Fluorescence

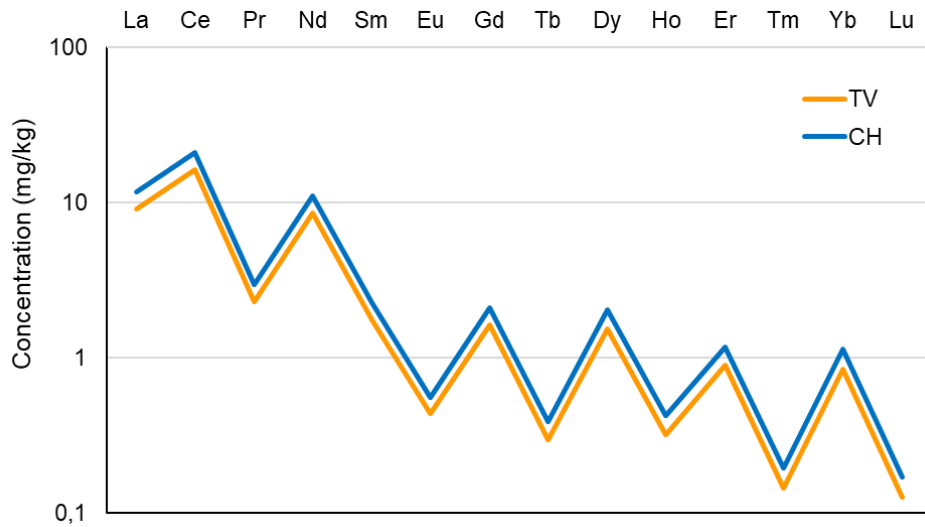


Towards analysis of cultivar specificity

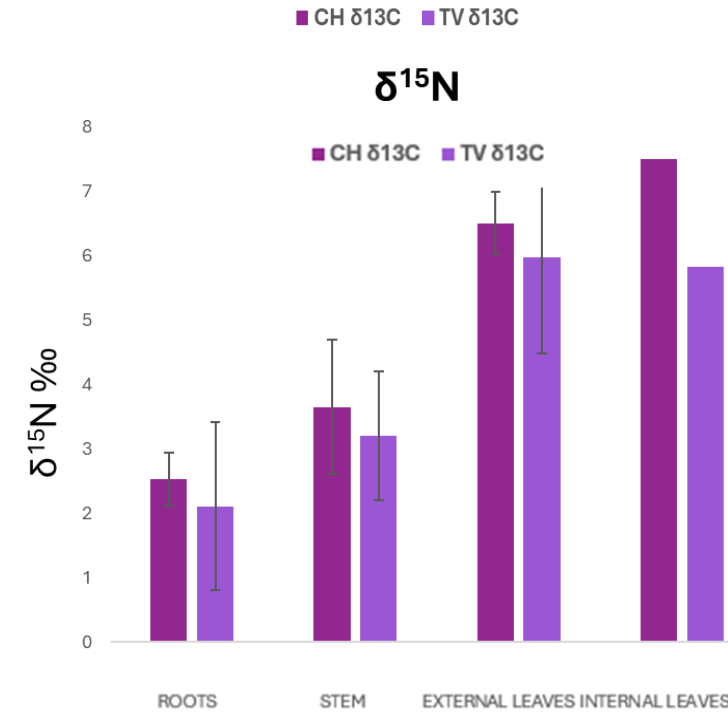
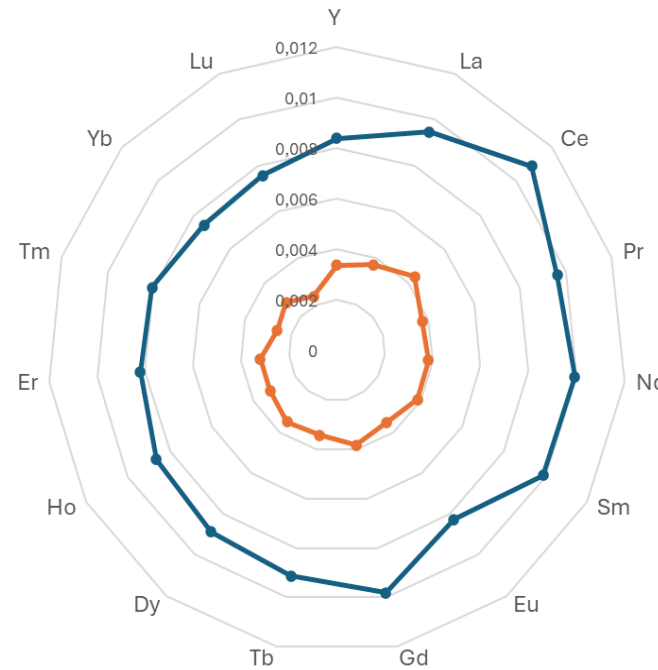
Elementomic fingerprinting of Red Chicory on sandy coastal soils



Rare Earth Elements in soils



ABSORPTION FACTOR
ROOTS/SOIL



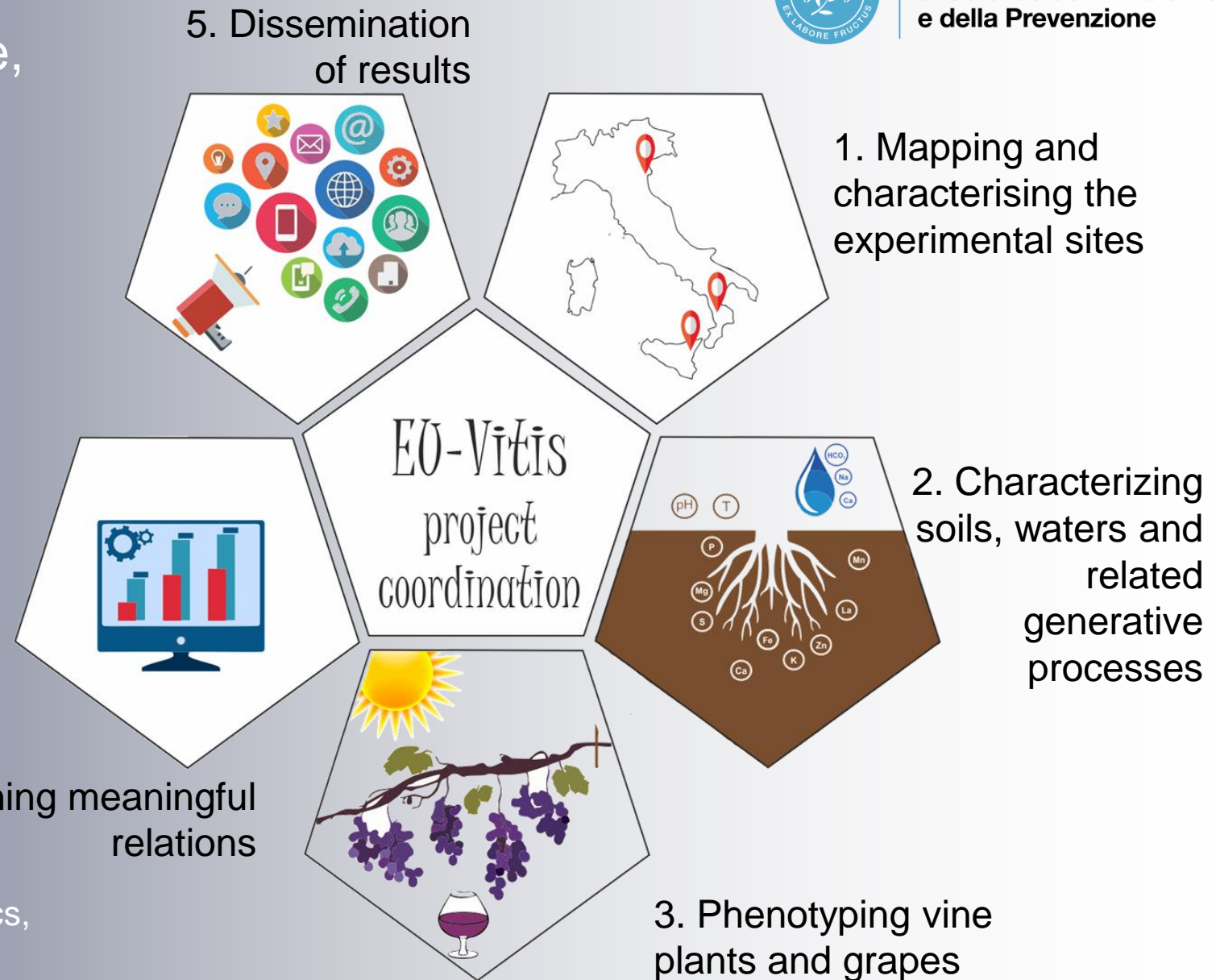
Promotion of viticulture in Italian marginal areas exploiting trackable, resilient grapevines

MUR project PRIN2022: Soil, water, sun: Exploring Ungrafted indigenous Italian *Vitis vinifera* L. varieties as a resilient resource against the effects of global climate change (*EU-Vitis*)

- University of Ferrara
- University of Calabria
- Council for Research in Agriculture and Economics, Research Center for Viticulture and Enology



Dipartimento di Scienze dell'Ambiente e della Prevenzione



Thank you for your attention

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