



Organisation: Comissão Vitivinícola da Bairrada

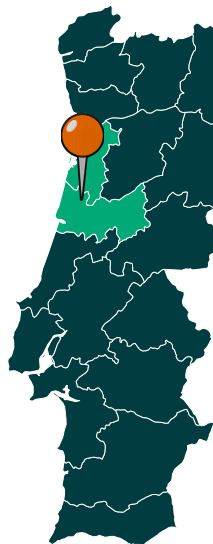
Sector: Agriculture

Location: Bairrada / Beira Atlântico Region, Portugal



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The FARCLIMATE Living Lab in Atlantic Viticulture addresses the growing climate-related challenges affecting wine production in the Bairrada region of Portugal, an Atlantic viticulture area characterised by high humidity, rainfall variability, small family-owned vineyards, and strong cultural ties to winemaking. The region faces increasing pressure from changing thermal cycles, fungal diseases linked to humidity, emerging heatwaves during the ripening phase, and the need to preserve the identity and quality of local wines while maintaining the economic viability of producers.

The Living Lab aims to transform Bairrada into a European reference for climate-adaptive viticulture by combining traditional sustainable practices with digital monitoring and regenerative approaches. Its work focuses on helping vineyards adapt to climate variability through improved soil management, water retention, canopy adaptation, biodiversity enhancement, disease prevention, and the testing of grape varieties and clones. At the same time, the initiative explores precision viticulture tools such as sensors, drone-based NDVI mapping, climate forecasting, and data sharing across producers.

Operating as a collaborative ecosystem, the Living Lab brings together the Regional Viticulture Commission, wine producers, municipalities, research institutions, technical schools, environmental organisations, tourism actors, and local communities. Through segmented working groups, producer engagement, peer-to-peer learning, field testing, and audiovisual communication of best practices, the initiative seeks to support the ecological transition of small and medium-sized vineyards in the Atlantic corridor. By connecting climate-risk mapping, regenerative viticulture, digital innovation, and regional cooperation, the Living Lab contributes to strengthening the resilience, competitiveness, and long-term sustainability of Atlantic wine landscapes in Portugal.