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Liberté Égalité Fraternité

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Foresight: chemical pesticide-free Agriculture in 2050 Building scenario and transition pathway for the wine sector within the Bergerac Duras living lab

- Impacts of chemical pesticides on the environment and human health have become a major concern for civil society, consumers, and the sustainability of agricultural systems.
- In Nouvelle Aquitaine (France), local authorities initiated the VitiREV program¹ (innovate for environmentally friendly wine production areas), to support innovations on alternatives to pesticides use in wine production.
- Core to this program is a network of fourteen Territorial Innovation Laboratories (TIL), gathering stakeholders who share the same vision and operating in "Living Lab" mode². • The TIL "Fab'coop : coopérons pour les transitions", established in the Bergerac Duras area, is led by the Bergerac and Duras wines interbranch organisation, and coordinates several initiatives (such as experiment on biological control against grape berry moths) for the environmental transition of the wine sector³. • This work was done as part of the foresight "European chemical pesticide-free agriculture in 2050", led by INRAE DEPE, in the framework of the French national research programme "<u>Growing and Protecting crops Differently</u>".

Downscaling European scenarios of chemical pesticide-free agriculture in 2050

The European foresight study conducted by INRAE between 2020 and 2022 produced three scenarios of European Chemical Pesticide-Free Agriculture in 2050⁴.



As part of this foresight, the TIL mobilized local scientists and stakeholders to produce a transition pathway towards chemical pesticide-free wine production by 2050.

The methodology used the backcasting approach^{5,6}, combined with the exploratory scenarios developed by the European expert committee of the foresight, four-step in a described in the figure.

Multiple benefits of foresight conducted within living labs



actions, transition pathway

Four-step process mobilising the European scenarios for the participative foresight exercise in Bergerac Duras

In 2050, pesticide-free wine production in Bergerac Duras will be based on coordination of local actors, for the design of **complex** and diversified landscapes in a "one health" approach



dynamic exercise Created by abderraouf omara from Noun Project

The transition will require coordination of all actors, including research and citizens, payment for ecosystem services, and support

AEI : agro-ecological infrastructure ; BD : Bergerac Duras



living labs

COLLABORATION BET

Main milestones and actions of the transition pathway

How to leverage this work to support the living lab ambition?

Present the outcomes of the foresight exercise to local policy-makers

*Directorate for scientific collective assessment, foresight and advanced studies

**Research unit 'Environment, Territories in transition, Infrastructures, Societies'

 \checkmark Define with scientists and actors a research and innovation agenda based on the key milestones and actions identified

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