



*BIOdiversity of soils and FArming Innovations for improved  
Resilience in European wheat agrosystems*

*BIOFAIR*

*Coordinated by*

*Liège University and Université Libre de Bruxelles, BELGIUM*

*FiBL Switzerland – Frick – SWITZERLAND*

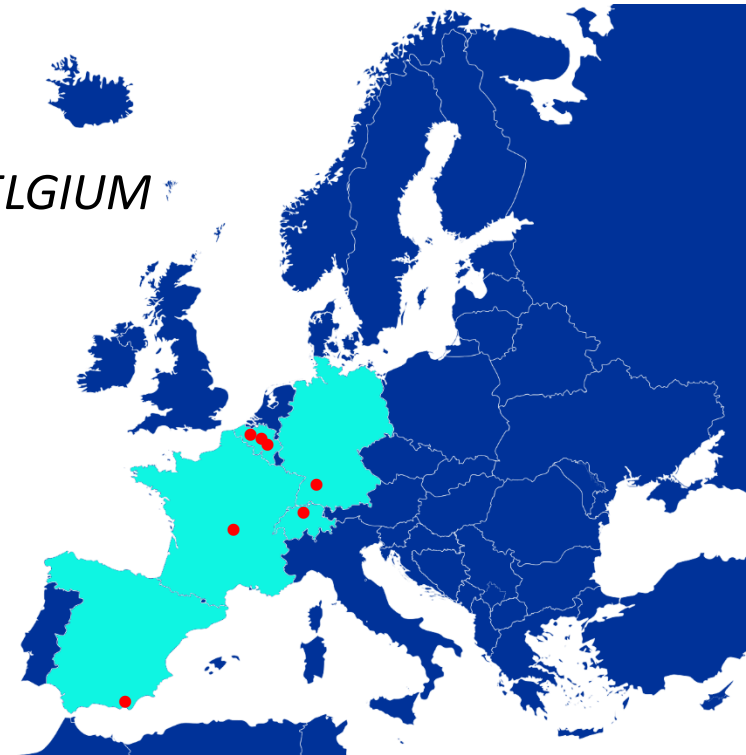
*FiBL Europe – Brussels – BELGIUM*

*Hohenheim University - Stuttgart – GERMANY*

*Ghent University – Ghent – BELGIUM*

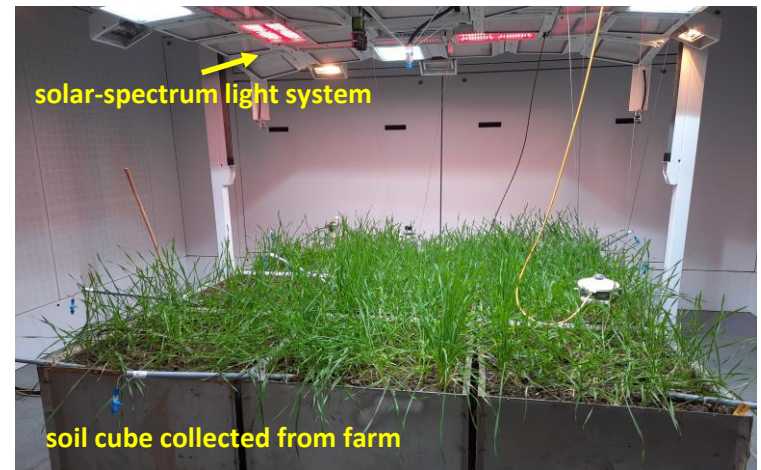
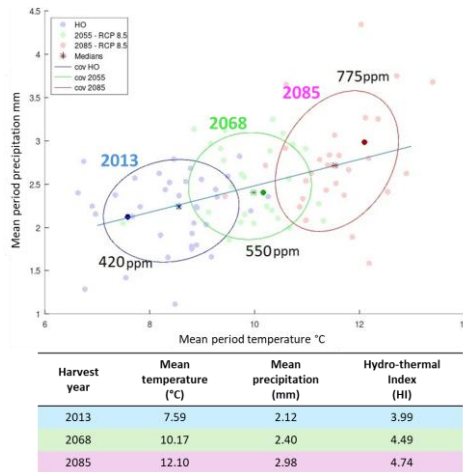
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# Goals & Methodology

- Assessing the impacts of **climate change** and **innovative farming practices** on plant productivity, nutritional quality and fitness.
- Studying the **soil functioning** and the related soil microbiome as well as micro- and meso-fauna **biodiversity**.
- Understanding the reported changes in **productivity, quality** value of the cereal grains and the **suppressiveness capacity** of such soils against **(a)biotic stresses**.





# Key Findings of the BIOFAIR Project

## Key Scientific Findings

Reduced wheat yields under drought; minor gains from elevated CO<sub>2</sub>  
Grain micronutrient & B-vitamin content decreased under climate change  
Higher root disease risk in future climates (e.g. take-all fungus)  
Soil biodiversity shifts with climate; more activity ≠ more productivity

## Farming Practices & Soil Health

Reduced tillage improves biodiversity but may reduce yield  
SOC-enhancing practices increase microbial activity but risk CO<sub>2</sub> emissions  
Organic systems show better drought resilience in some contexts

## Stakeholder Impact

3 co-creation workshops shaped experimental design  
Baking tests confirmed lab results with industry stakeholders

## Policy & Practical Relevance

Informs EU policies on soil health, food security, and climate adaptation