



**ENVision**

Enhance, Nurture and Vitalize



The ENVision project has received funding from the LIFE Programme of the European Union

# LIFE ENVision Project for sustainable agriculture

**Layman Report 2023**



**FertiGlobal®**

Agriculture is extremely vulnerable to climate change since higher temperature reduce crops yields while encouraging weed and pest proliferation threatening the global food security, thus pushing farmers to make extensive use of natural resources (e.g. water) and pesticides.





The annual report about pesticides sales, realized by the European Environmental Agency, estimates that in Europe averagely **400,000 tons** of pesticide are sold each year and “Fungicides” represent the most marketed subcategory of pesticides in Europe.

The extensive use of fungicides is unsustainable because of devastating effects on environment and human health. Indeed, fungicides can be persistent, mobile and toxic in soil, water and air, and they can affect humans and wildlife either directly when applied or indirectly through the food chain. Some fungicides can accumulate in the soil and in biota by reducing soil fertility and crop yields, and their residues may reach surface water and groundwater through leaching (around **7%** of European groundwater show excessive levels for one or more categories of pesticides). Consumers are exposed to fungicides residues in water and in food, especially fruits and vegetables.

Regarding the water use, in Europe the **44%** of total fresh water is used for agriculture. Due to population growth expected to increase to over **10 billion by 2050**, it is estimated that agricultural production will need to expand **70%** by 2050.

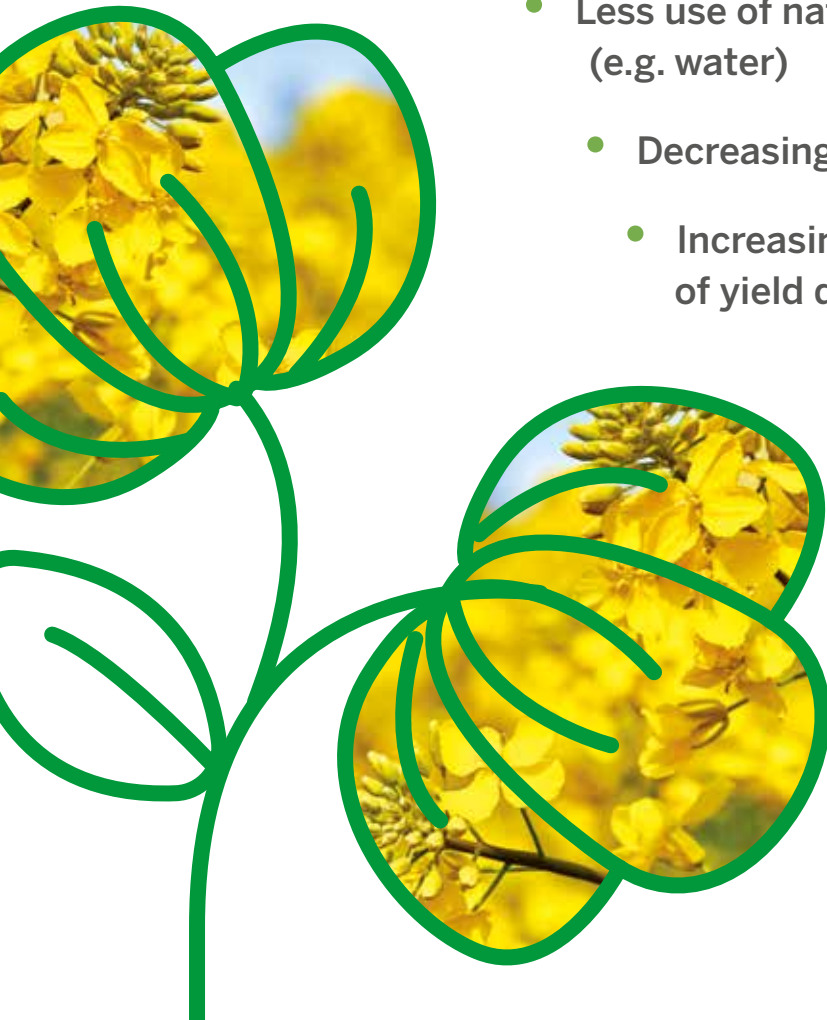
# Context and challenges in Agriculture

## CONTEXT

- **Climate change with increasing temperature**
  - Reduction of crop yields
  - More pathogens and pest proliferation
- **Worldwide growing population**

## CHALLENGES

- **Less use of natural resources (e.g. water)**
- **Decreasing application of pesticides**
- **Increasing level of production in terms of yield quantity and quality**



## Objectives

LIFE ENVision brings in the market an innovative biostimulant based on FertiGlobal's breakthrough **EnNuVi technology** that can radically change the impact of agriculture on environment, while supporting the higher demand for food and higher field productivity.

The LIFE ENVision project addresses one thematic priority for Environment and Health and the main objective is to obtain on large scale the reduction of fungicides quantities without compromising the plants resistance to diseases and infestations, and verifying the increased soil fertility and the decreased water consumption as indirect environmental benefit.



Through **LIFE ENVision** we are able to deliver to the market and farmers a technological solution with a dual function:

- 1)** to improve plant health and agricultural yield by making crops more resilient to climate change and more resistant to the abiotic (drought) stresses
- 2)** to reduce the agricultural environmental impacts by limiting the use of fungicides, the main marketed pesticide subcategory, and decreasing water consumption.

**LIFE ENVision improves the environmental quality through an advanced formulation of biostimulant with direct positive impacts on the environment by minimizing the exposure to toxic chemicals and indirect effects on the health of European citizens by avoiding toxic substances accumulate along the entire food chain.**

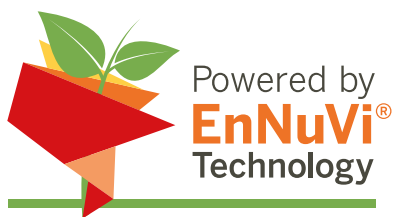


# **LIFE ENVision aims**

**Change the impact of  
agriculture on environment**

**Support the increasing  
demand in food**

**Higher field productivity**



Use of **EnNuVi technology** as combination of polyphenols and micronutrients patented internationally. In short:

## Nurture

the plants with essential nutrients, required for their development and to maximize yield potential

## Enhance

performance of trace and secondary elements



## Vitalize

the plants for stronger, healthier growth and development





## Expected results are becoming reality!



Bring in the **EU market** an innovative biostimulant based on the **EnNuVi Technology** to enhance crop resistance to abiotic stresses



Long term sustainability of **EU Agricultural** sector by increasing crop quality and productivity



Reduction of fungicides (**-65%**) and water usage (**-9%**), increasing crop quality, productivity



## Key Actions

Finalization of the **EnNuVi** formulation and validation of the mode of action against abiotic stresses

Assessment of **EnNuVi** efficacy for its benefits through large-scale field demonstration trials (2,000 ha) in 6 EU countries and different climatic conditions

Scale up of **EnNuVi** industrial productive process

**EnNuVi** Business Development: to assure the availability to the European farmers by establishing the distribution network



# Achievements

10 formulations

36 field trials across,  
4 different European agro-climatic regions  
(Continental, Atlantic, Mediterranean  
north and Mediterranean south),

6 EU countries on 13 different crops

32 demo trials in 6 EU countries

on 20 crops

Reduction of fungicides up to 65%

Reduction of water up to 50%





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