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**Ovinalp**



# Potentials of composting. Tools and facts for using agroindustrial by-products

**Summer Camp | July 7 – 11, 2025 | Marseille, France**



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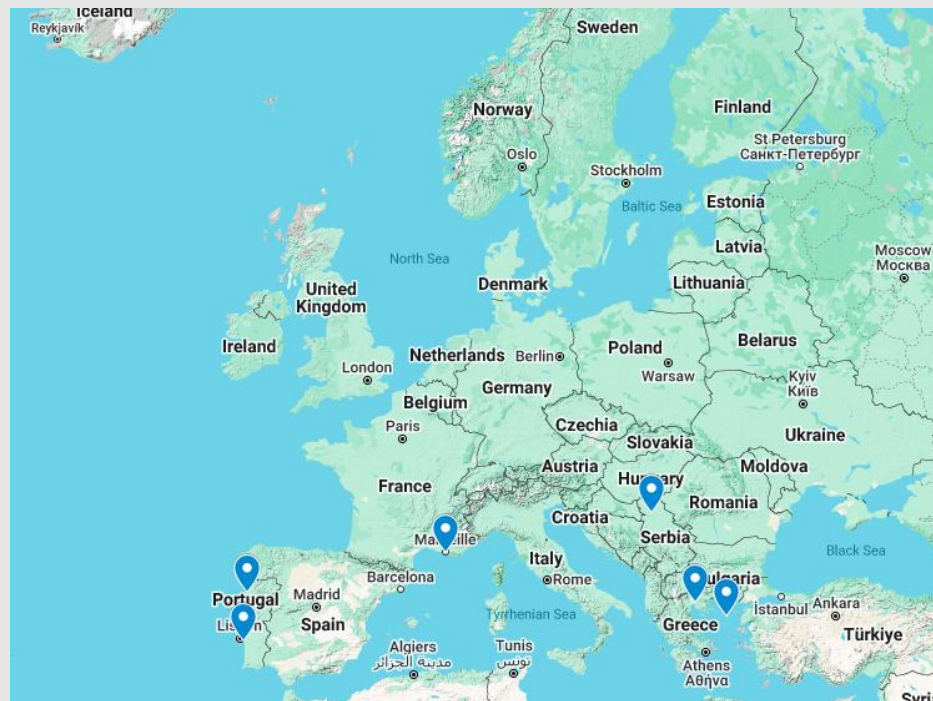
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# Partners



# A group:

## OvinAlp Groupe



**OvinAlp**  
Haute fertilisation

France

Export



OvItaliA



**NaturAlp**  
Energie Verte

Research centre

**MAGMA**  
Innovier pour une Agriculture Durable



**M&Cie**  
Location



# Getting to know us...

## Our skills

- Soil fertility
- Plants nutrition
- Innovation

## Our key figures

- 80 Employees
- €30M Turnover
- 55 000 Tons of solid products
- 300 000 Liters of natural solutions

## Commercial targets



- Viticulture



- Market gardening



- Arboriculture



- Green Space



- Cereal-growing

# Main activity: Circular economy

1 Give a second life to resources

Manure  
and by-products



2 Optimize the production



Fertilizer industry

3 Innovate to avoid waste  
and improve products

4 Deliverer a high quality  
and handy-to-use product

Agriculture /  
Livestock



4 Limit the environmental impact



Transport

Respect the Sustainable  
Development concept

# By-product valorization



Sheep manure



Poultry by-products



Livestock by-products



Grape by-products



Olive by-products

Organic products used for their agronomic properties



Minerals

Minerals to foster agronomic properties of the fertilizer.

**We produce Organic fertilizer and Organo-mineral fertilizer under liquid or solid form, based to materials related to composting.**



We recycling agriculture by-products

# A specific area of harvest

Protected Geographical Indication of **Agneau de Sisteron**

In order to **reduce the environmental impact** of our activity, we harvest only within a **80 km radius** from the factory.

Manure harvested thanks to biodiesel dump trucks



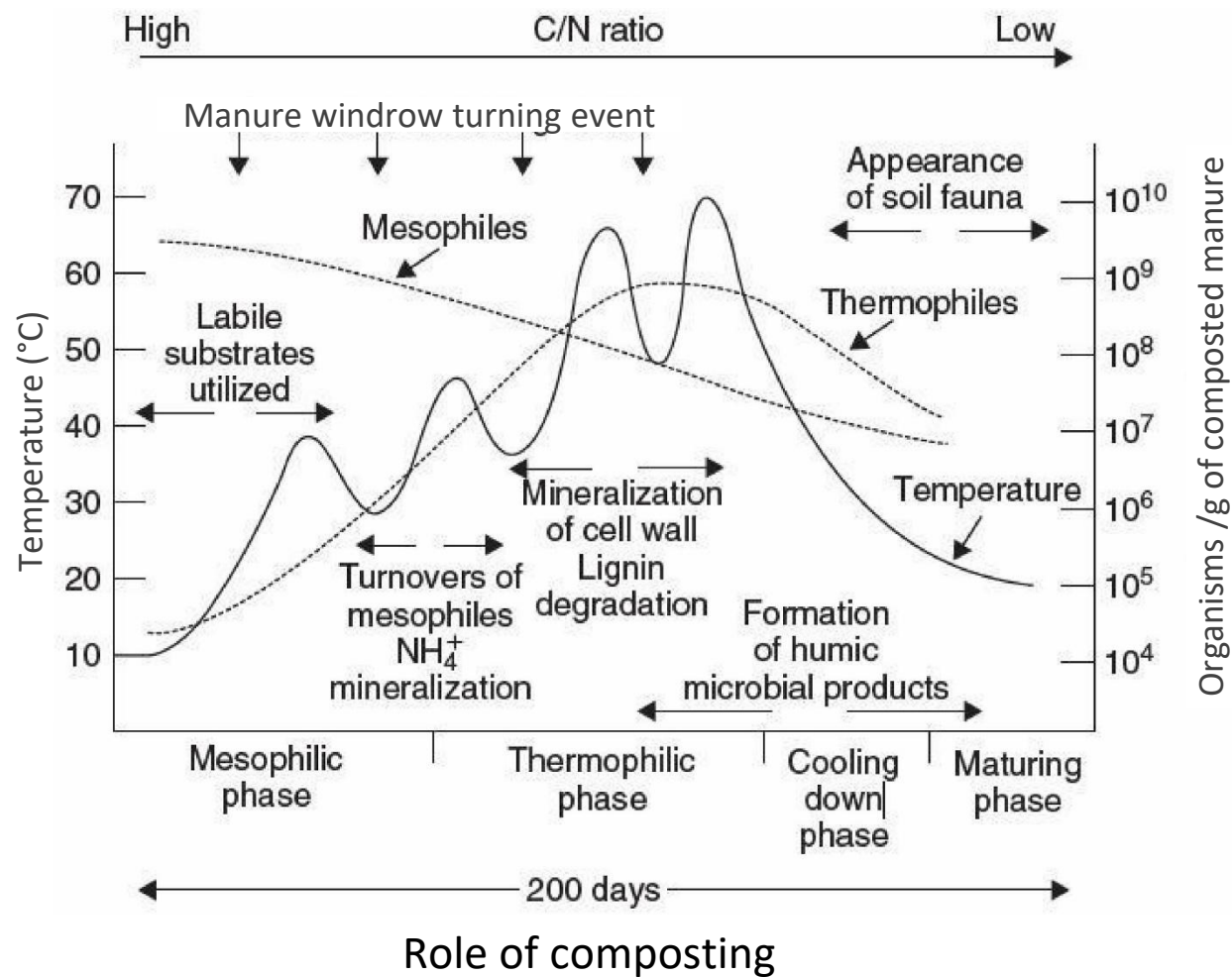
# Basis of the Ov Active Ingredient

- First step: manure harvest



# Basis of the Ov Active Ingredient

## Second step : Specific composting process



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# Basis of the Ov Active Ingredient

## Second step : Specific composting process

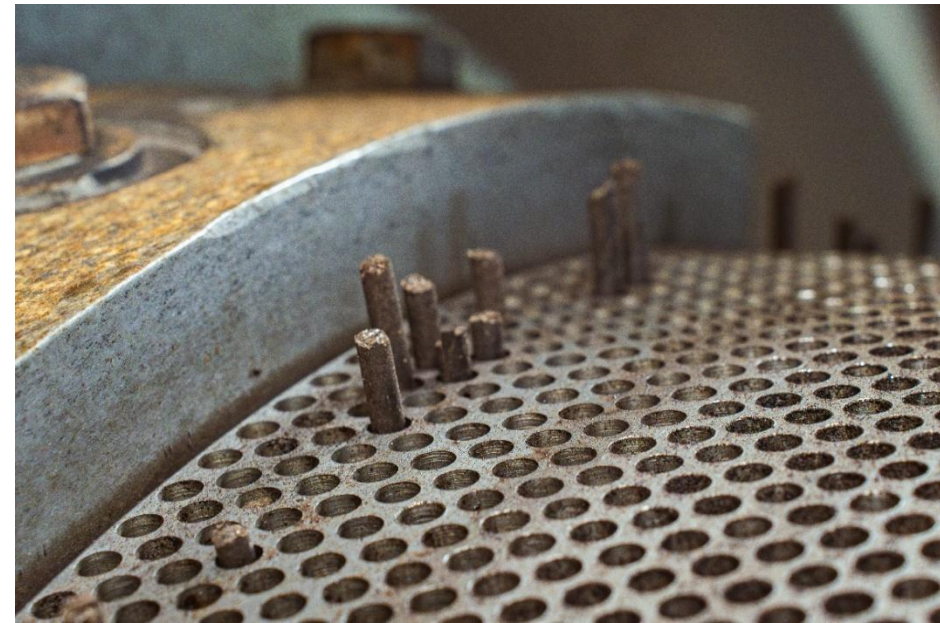
- Manure composted on a ISO 14 001 certified platform
- Long term composting process (10 month)
- Sanitarization of the manure thanks to an increase of temperature at 65°C during 3 consecutive days
- Control of the humidity of the compost to avoid anaerobic fermentation



- An unique raw material (IGP Sisteron Sheep manure)
- An unique Ovinalp composting process
- An unique pelletization process



# Processed fertilizers



# A large fertilizer range

A full fertiliser range built around 4 pillars



Organic matter



Foliar biostimulant



Root biostimulant



Bioprotection

# A large fertilizer range



## Organo-mineral fertilizer



Fertilizer with an organic base improve with some minerals macroelement in order to have a rapid effect

## Organic fertilizer



Organic fertilizer contained low macro elements liberation

## Soil improvers



rich in organic matter in order to restore soil fertility

# A large fertilizer range



## Soil activator

- Fertilizer design in order to improve soil activity and biology, increase soil metabolism

Based on OV extract



## Soil fertilizer

- Fertilizer solution design to improve roots growth

**A6MIL**  
aide la plante à mieux assimiler  
le phosphore et l'eau

**K4LIBRE**  
aide la plante à assimiler la potasse  
dans des sols bloqués

**D3STRESS**  
permet à la plante d'être  
environnementalement adaptée

## Bacteria solution based on :

- Nitrogen Fixation
- Phosphorous assimilation
- Potassium solubilisation
- Abiotic stress alleviation

# A large fertilizer range



Foliar biostimulant based on aminoacids.  
They can be adjusted with some microelements  
such as iron, boron, zinc



Foliar and soil biostimulant based on a large range of aminoacids  
They are in powder form in order to reduce packaging and water use

# A large fertilizer range



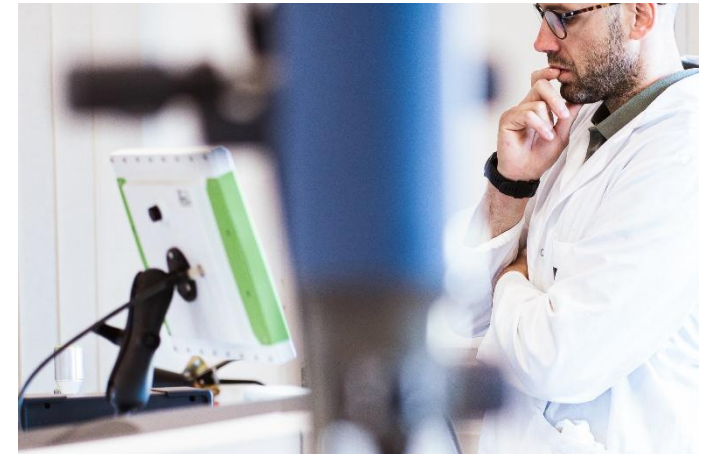
Natural substances with a biostimulant use.  
Contain some selected plant extracts which have some biocontrol effects due to their content in salicylic acid or silicium



Natural Preparations of Little Concern used as a control of plant pests such as aphids, fungus ...  
Some of them have an important content in silica with improve the cell wall for exemple.

# Quality control

- Check if the final product is in agreement with the French or European regulation
- Analysis of the agronomic parameters :
  - Raw material (from animal or vegetal origin)
  - Final product to be in agreement with the label
- + some external analysis with certified analysis laboratories



# Our development



# Why Active Ingredient is so efficient?

- Active Ingredient Ov is a complex and unique material from composted sheep manure.

Its efficiency comes from:

- An unique by-product (IGP Sisteron sheep manure)
- An important level of stable organic matter
- An unique microbial biodiversity
- An unique amount of humic substances



# It contain fertilising elements



2 % of nitrogen to activate photosynthesis and maintain metabolic plant activity



1 % of phosphorous useful for root growth and involved in energy storage



2% of potassium involved in osmotic regulation by transpiration regulation



60% of organic matter which provide shelter and food for soil microorganisms and plants

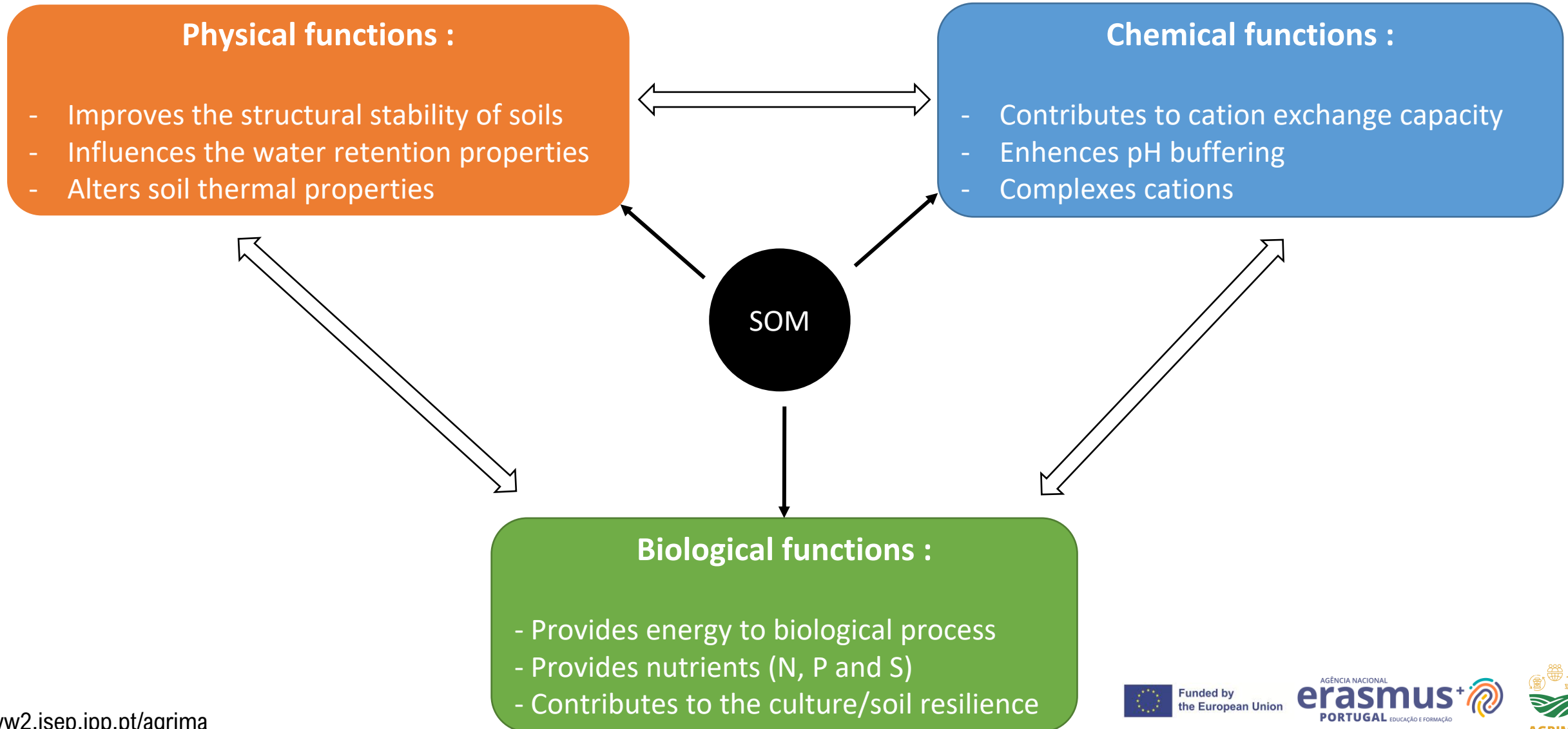
+

High

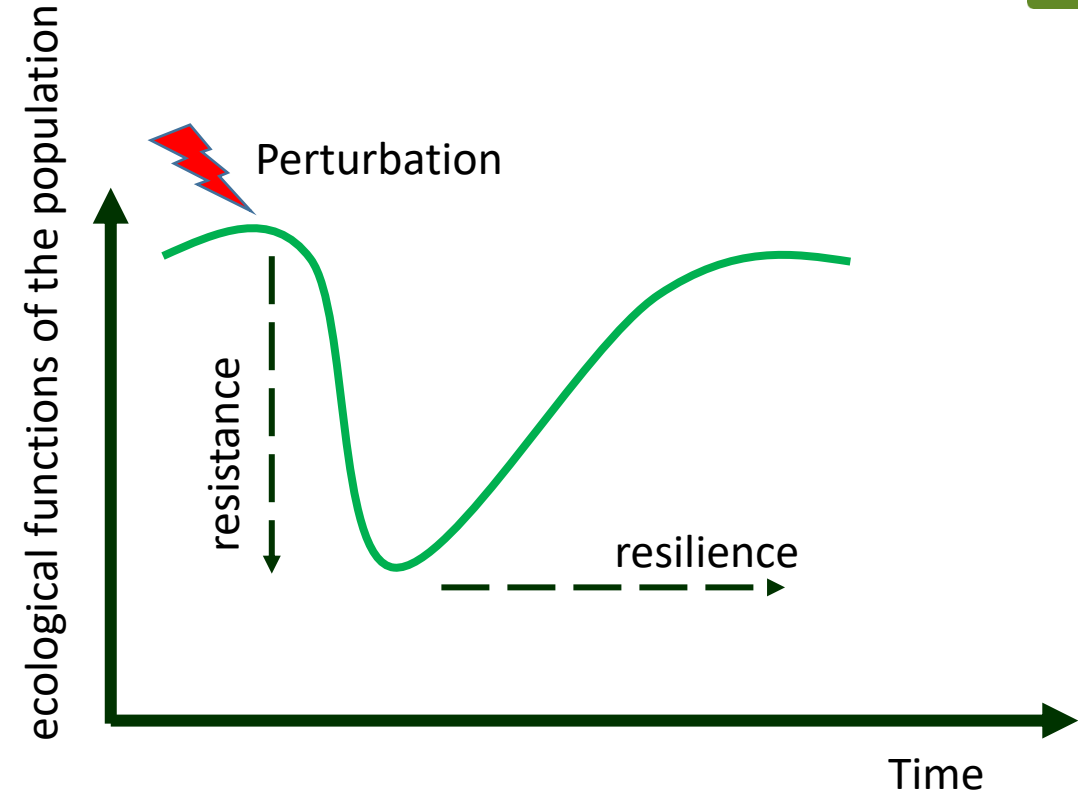
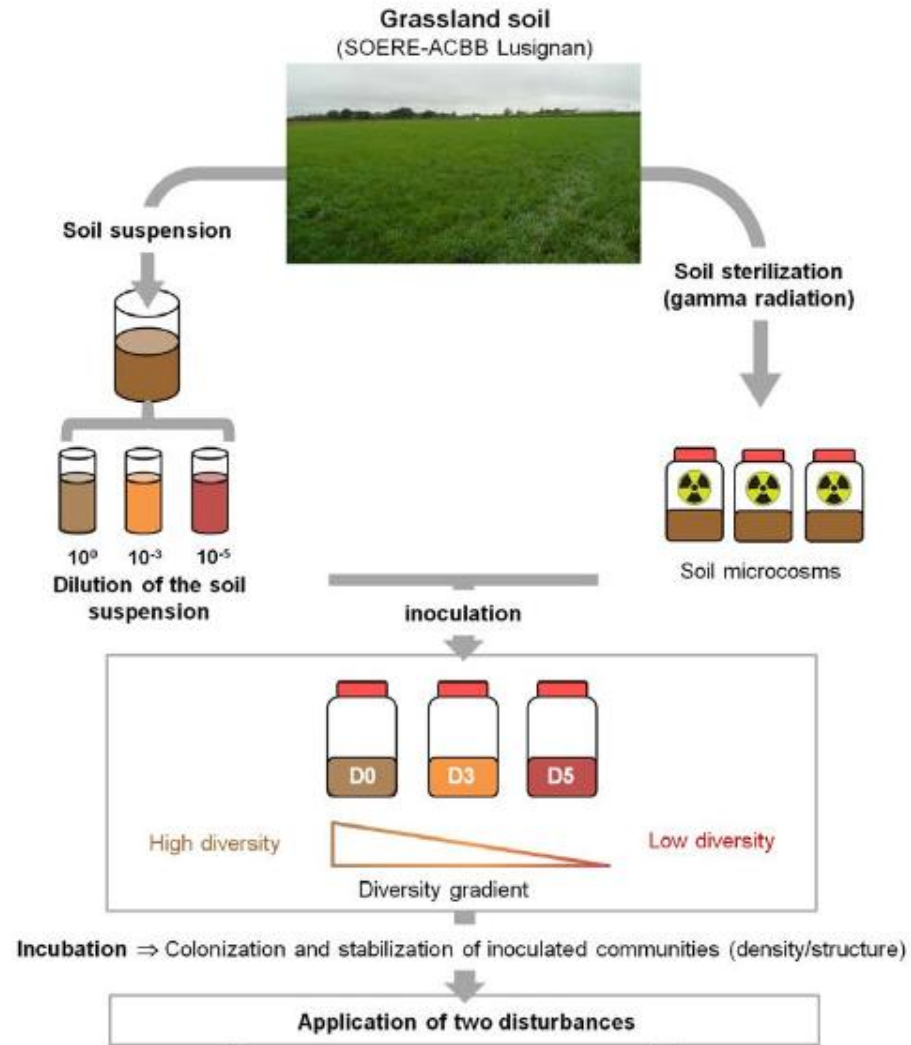
Microbial

Diversity

# 1-Role of organic mater in soil

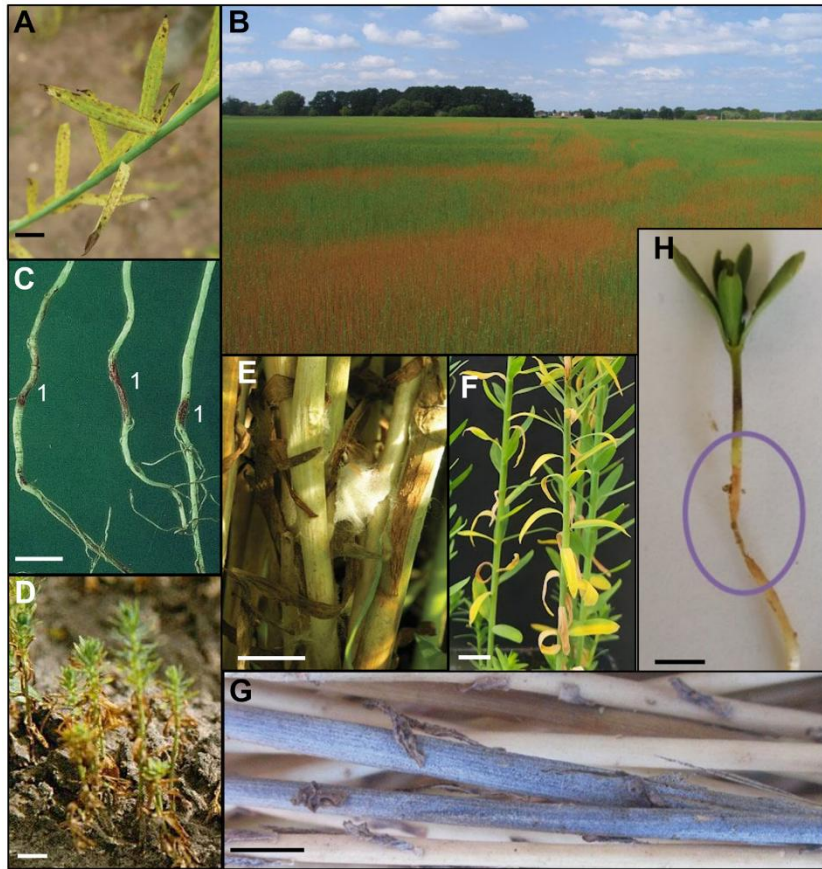


# 2-Role of biodiversity in soils

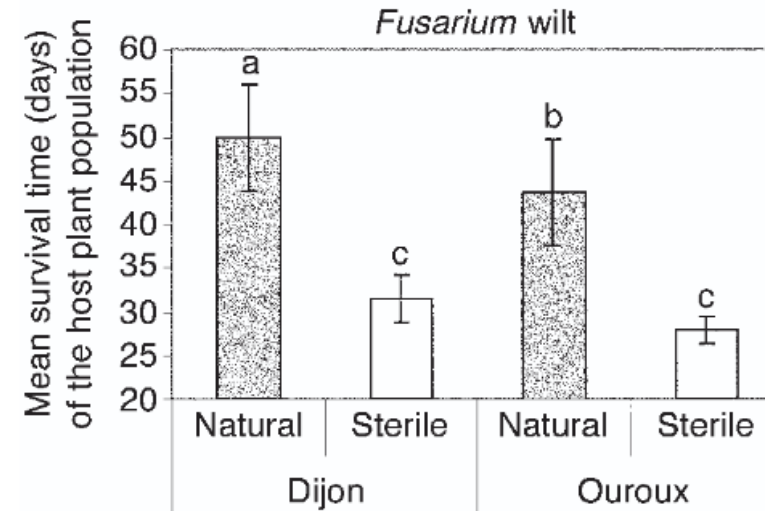


An important species diversity insure a better functional community stability

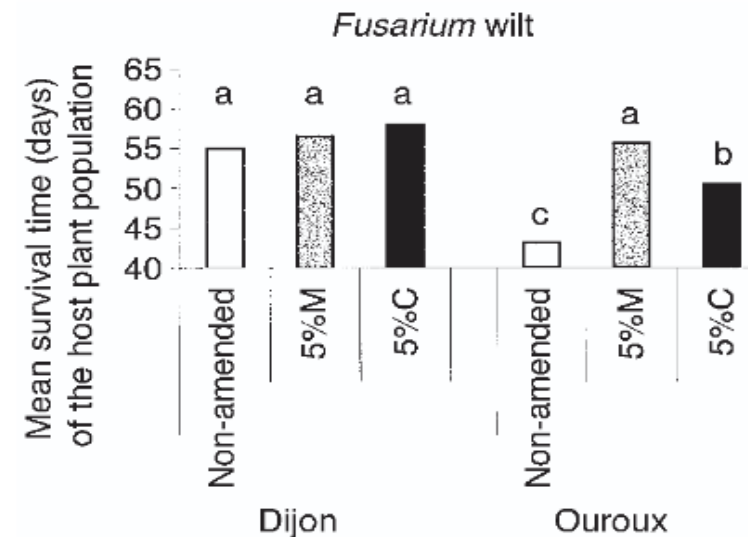
# Link between microbial diversity and soil health



Field flax leaves with yellowing and brown spots resulting from the vascular infection by *Fusarium oxysporum*

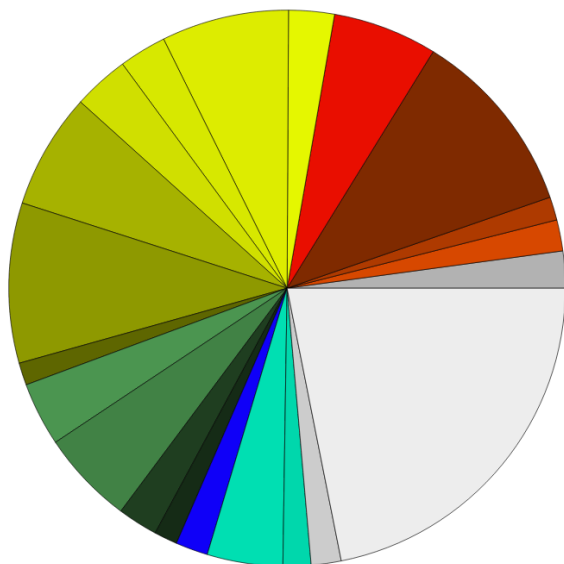


Sterile soil experiment



Organic amendment experiment

# Active Ingredient Ov : an important biodiversity



No blast hit;Other;Other;Other;Other  
 k\_Fungi;p\_Ascmycota;c\_Eurotiomycetes;o\_Eurotiales;f\_Trichocomaceae;g\_AspERGillius  
 k\_Fungi;p\_Ascmycota;c\_Eurotiomycetes;o\_Eurotiales;f\_Trichocomaceae;g\_Xerohrysiun  
 k\_Fungi;p\_Ascmycota;c\_Eurotiomycetes;o\_unidentified;f\_unidentified;g\_unidentified  
 k\_Fungi;p\_Ascmycota;c\_Pezizomycetes;o\_Pezizales;f\_Pezizaceae;g\_unidentified  
 k\_Fungi;p\_Ascmycota;c\_Saccharomycetes;o\_Saccharomycetales;f\_Debaryomycetaceae;g\_Millerozyma  
 k\_Fungi;p\_Ascmycota;c\_Saccharomycetes;o\_Saccharomycetales;f\_Incertae sedis;g\_Candida  
 k\_Fungi;p\_Ascmycota;c\_Saccharomycetes;o\_Saccharomycetales;f\_Incertae sedis;g\_Cyberlindnera  
 k\_Fungi;p\_Ascmycota;c\_Saccharomycetes;o\_Saccharomycetales;f\_Incertae sedis;g\_Debaryomyces  
 k\_Fungi;p\_Ascmycota;c\_Saccharomycetes;o\_Saccharomycetales;f\_Pichiaceae;g\_Hyphopichia  
 k\_Fungi;p\_Ascmycota;c\_Saccharomycetes;o\_Saccharomycetales;f\_Saccharomycetaceae;g\_Saccharomyces  
 k\_Fungi;p\_Ascmycota;c\_Saccharomycetes;o\_Saccharomycetales;f\_unidentified;g\_unidentified  
 k\_Fungi;p\_Ascmycota;c\_Sordariomycetes;o\_Microascales;f\_Microasaceae;g\_Microascus  
 k\_Fungi;p\_Ascmycota;c\_Sordariomycetes;o\_Microascales;f\_Microasaceae;g\_unidentified  
 k\_Fungi;p\_Ascmycota;c\_Sordariomycetes;o\_Sordariales;f\_Incertae sedis;g\_Madurella  
 k\_Fungi;p\_Ascmycota;c\_Sordariomycetes;o\_Sordariales;f\_Sordariaceae;g\_unidentified  
 k\_Fungi;p\_Basidiomycota;c\_Agaricomycetes;o\_Agaricales;f\_Agaricaceae;g\_Coprinus  
 k\_Fungi;p\_Basidiomycota;c\_Microbotryomycetes;o\_Sporidiobolales;f\_Incertae sedis;g\_Rhodotorula  
 k\_Fungi;p\_Basidiomycota;c\_Microbotryomycetes;o\_Sporidiobolales;f\_Incertae sedis;g\_Sporobolomyces  
 k\_Fungi;p\_unidentified;c\_unidentified;o\_unidentified;f\_unidentified;g\_unidentified  
 All Other Categories

370 species of fungies

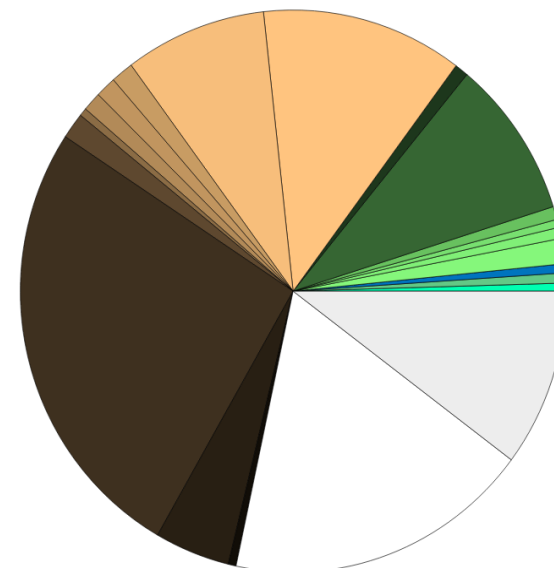
Saprophytic fungi's  
=  
Organic mater generators

Improve soil structure

230 species of bacteria

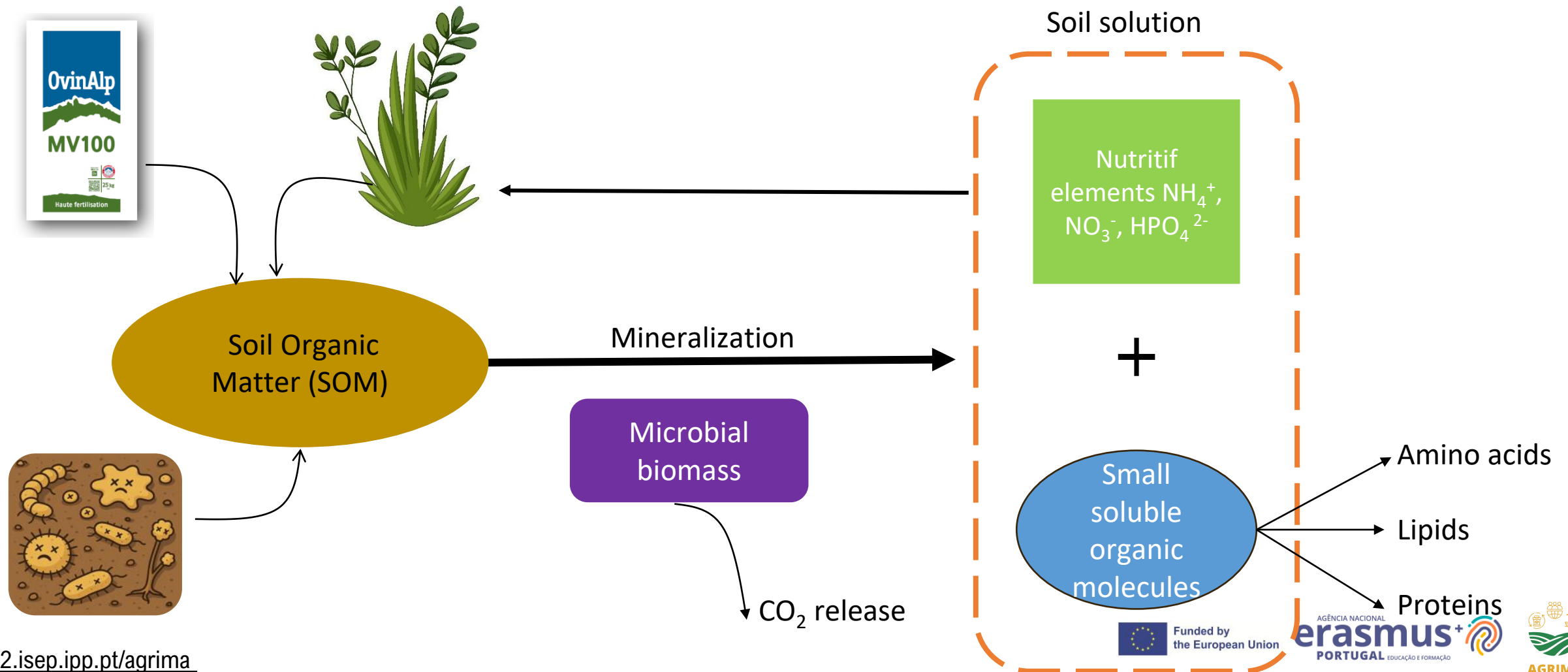
- Organic mater mineralisation
- Phosphore solubilization
- Iron chelators

Improve plant nutrition



D\_0\_Bacteria;D\_1\_Actinobacteria;D\_2\_Actinobacteria;D\_3\_Corynebacteriales;D\_4\_Corynebacteriaceae;D\_5\_Corynebacterium 1  
 D\_0\_Bacteria;D\_1\_Bacteroidetes;D\_2\_Bacteroidia;D\_3\_Bacteroidales;D\_4\_Porphyromonadaceae;D\_5\_Proteiniphilum  
 D\_0\_Bacteria;D\_1\_Bacteroidetes;D\_2\_Flavobacteriia;D\_3\_Flavobacteriales;D\_4\_Flavobacteriaceae;D\_5\_Galbibacter  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Bacilli;D\_3\_Bacillales;D\_4\_Bacillaceae;D\_5\_Bacillus  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Bacilli;D\_3\_Bacillales;D\_4\_Bacillaceae;D\_5\_Cerasibacillus  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Bacilli;D\_3\_Bacillales;D\_4\_Bacillaceae;D\_5\_Lentibacillus  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Bacilli;D\_3\_Bacillales;D\_4\_Bacillaceae;D\_5\_uncultured  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Bacilli;D\_3\_Lactobacillales;D\_4\_Carnobacteriaceae;D\_5\_Atopostipes  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Bacilli;D\_3\_Lactobacillales;D\_4\_Lactobacillaceae;D\_5\_Lactobacillus  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Clostridiales;D\_4\_Caldicoprobacteraceae;D\_5\_Caldicoprobacter  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Clostridiales;D\_4\_Christensenellaceae;D\_5\_Christensenellaceae R-7 group  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Clostridiales;D\_4\_Family XI;D\_5\_Anaerococcus  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Clostridiales;D\_4\_Family XI;D\_5\_Anaerosalibacter  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Clostridiales;D\_4\_Family XI;D\_5\_Tepidimicrobium  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Clostridiales;D\_4\_Heliobacteriaceae;D\_5\_Hydrogenispora  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Clostridiales;D\_4\_Ruminococcaceae;D\_5\_Fastidiosipila  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Halanaerobiales;D\_4\_Halanaerobiaceae;D\_5\_Halocella  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_MBA03;Ambiguous\_taxa;Ambiguous\_taxa  
 D\_0\_Bacteria;D\_1\_Firmicutes;D\_2\_Clostridia;D\_3\_Thermoanaerobacterales;D\_4\_Family III;D\_5\_Tepidanaerobacter  
 Unassigned;Other;Other;Other;Other;Other  
 All Other Categories

# Soil organic matter mineralization



# Geochemical cycles:

## Role of microbial diversity

### Carbone cycle

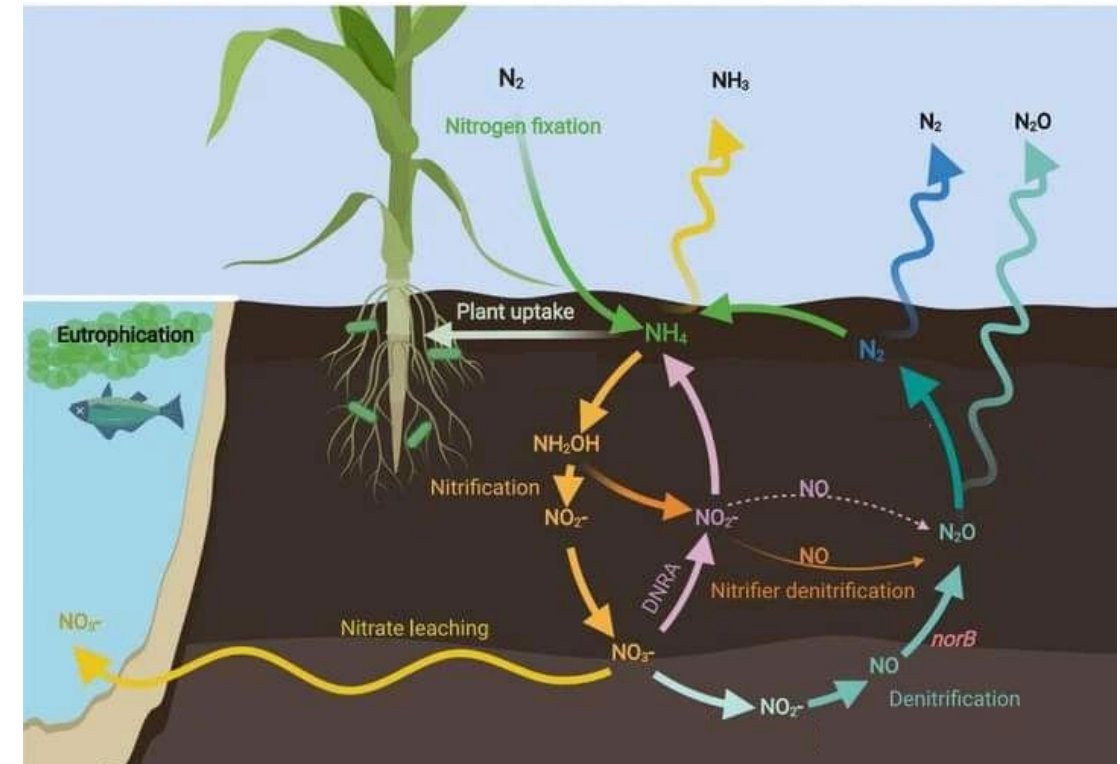
- Carbone fixation in organic matter
- Carbone dioxide release by respiration

### Nitrogen cycle

- Nitrate reduction in Organic nitrogen
- Organic nitrogen mineralization into ammonium
- Nitrate denitrification into  $N_2$
- ...

### Phosphorous cycle

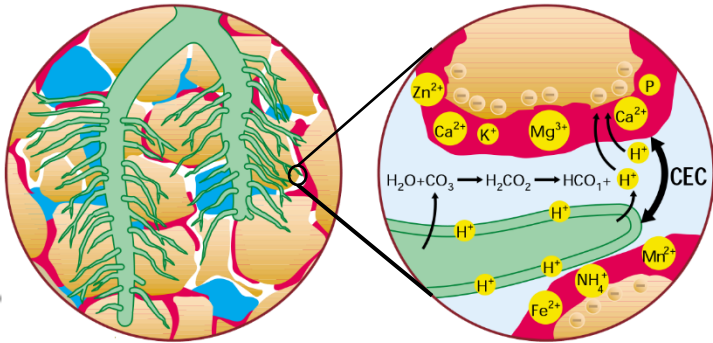
- Assimilation de la plante du phosphore en solution
- Solubilisation du phosphore inorganique
- Libération du Phosphore du CAH



# Active Ingredient Ov :

## high level of humic substances

### - Humic acids



■ Water
 ■ Humic acid
 ■ Soil air
 ■ Clay /sand particles

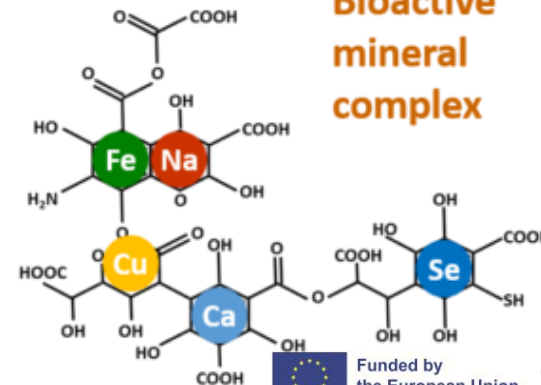
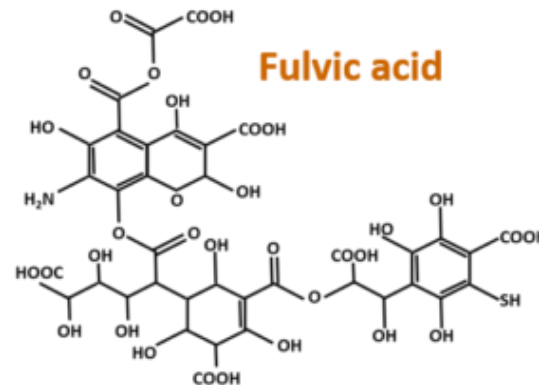
- Acidification of soils help to make free nutrient from clay / humic complex

- Improve soil structure

### - Fulvic acids



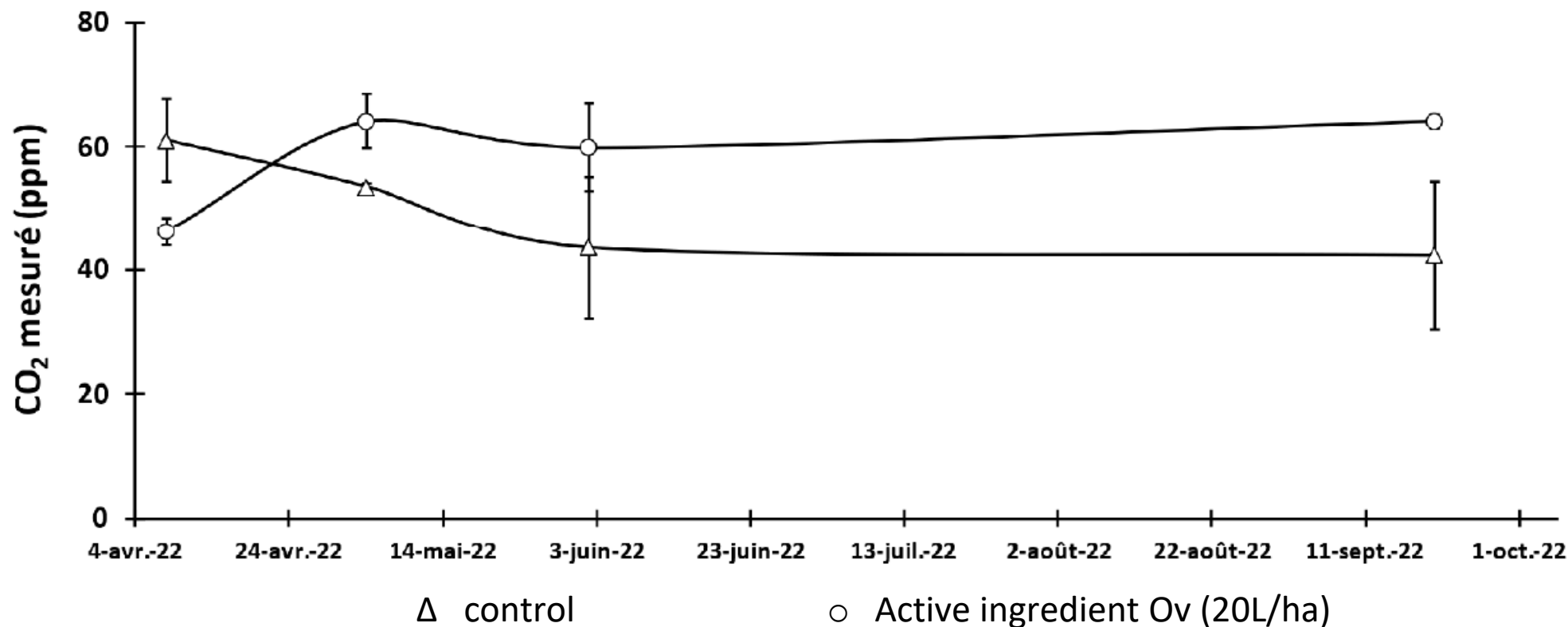
Minerals in soil



9% of humic acids

11 % of fulvic acids

# Soil activator



**Active ingredient improve the soil activity**

# What matters to us

## By-products valorization...

- *From Agriculture & food-processing*
- *Natural, local and traceable*



## Transformed in Bio-solutions...

## Protecting Humans & Environnement

# Academic partnerships

- Microbial diversity of active ingredient Ov
- Share laboratory on solid state fermentation
- Biostimulant bacteria characterisation and isolation
- Apple based fermented drink development
- Method development for organic molecule chelation
- Denitrification inhibitor development
- Biostimulant and fertilizer fields tests



# Institutional partnerships

## 'Firms acting for our future' prizes

- Sud Accelerator
- Sud Industrie 4.0
- Choiseul Institute



- INSTITUT-  
CHOISEUL



## Our involvement in Public Recovery Plans

- Work recovery plan
- Industry recovery plan



**bpifrance**  
SERVIR L'AVENIR

## Competitive cluster partnerships

- Innov'Alliance
- Novachim



## Professional union: UNIFA, COMIFER



## Business France – Brazil's French Embassy

## Vietnamese French Embassy

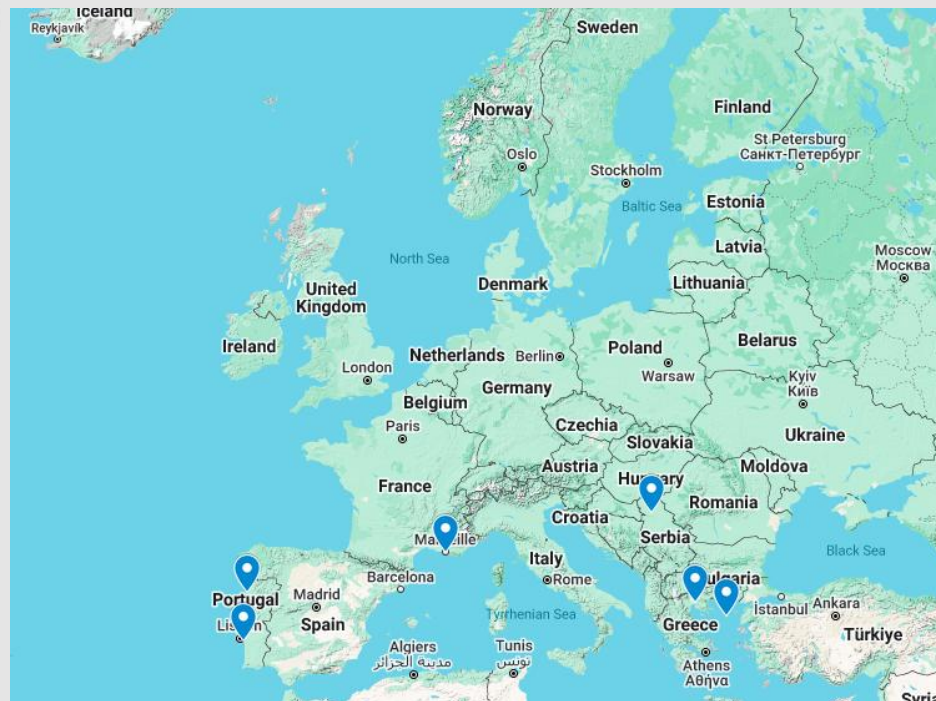
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# Partners

