



# CropLife Europe Annual Conference

## Farming for the future

Cultivating solutions to balance people, planet and profit.

Presented by

**Dr Audrey-Flore Ngomsik, CEO and co-founder of Trianon Scientific Communication**



# Introduction



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**What common characteristics do those sectors which are most exposed to climate damage and net-zero transition share, making them vulnerable?**

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<https://ahaslides.com/JRKDP>

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## What sectors are the main contributors of climate change?

Match the following options with their corresponding amount of annual CO<sub>2</sub> emissions in Europe!

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<https://ahaslides.com/JRKDP>

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**Rank these sectors from most to least vulnerable  
to climate change!**

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<https://ahaslides.com/JRKDP>



## AGRICULTURE

is the first contributor of climate change

## AGRICULTURE

is the first victim of climate change



# Who am I?

# Trianon Scientific Communication

## MANAGEMENT CONSULTING

Experts in corporate  
sustainability strategies.

SUSTAINABILITY  
AUDITS & REPORTING

## OUR MISSION

Make sustainability profitable  
and profitability sustainable!

## 2 CO-FOUNDERS

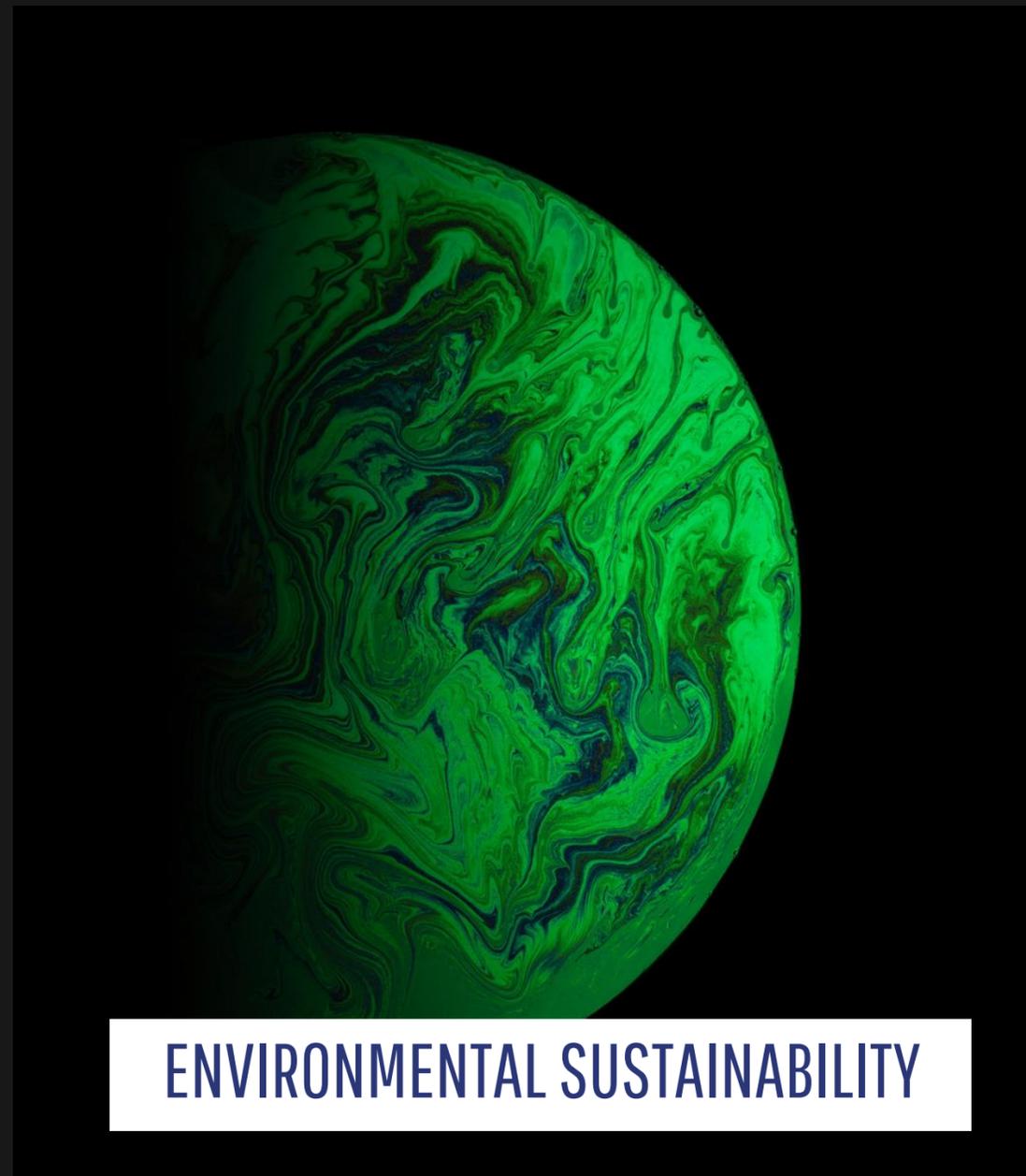
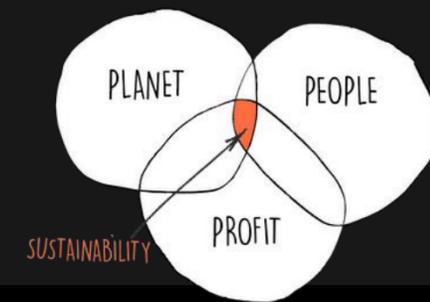


Both PhDs in chemistry  
Combined 30 years of  
experience in sustainability



PhD in analytical &  
physical chemistry

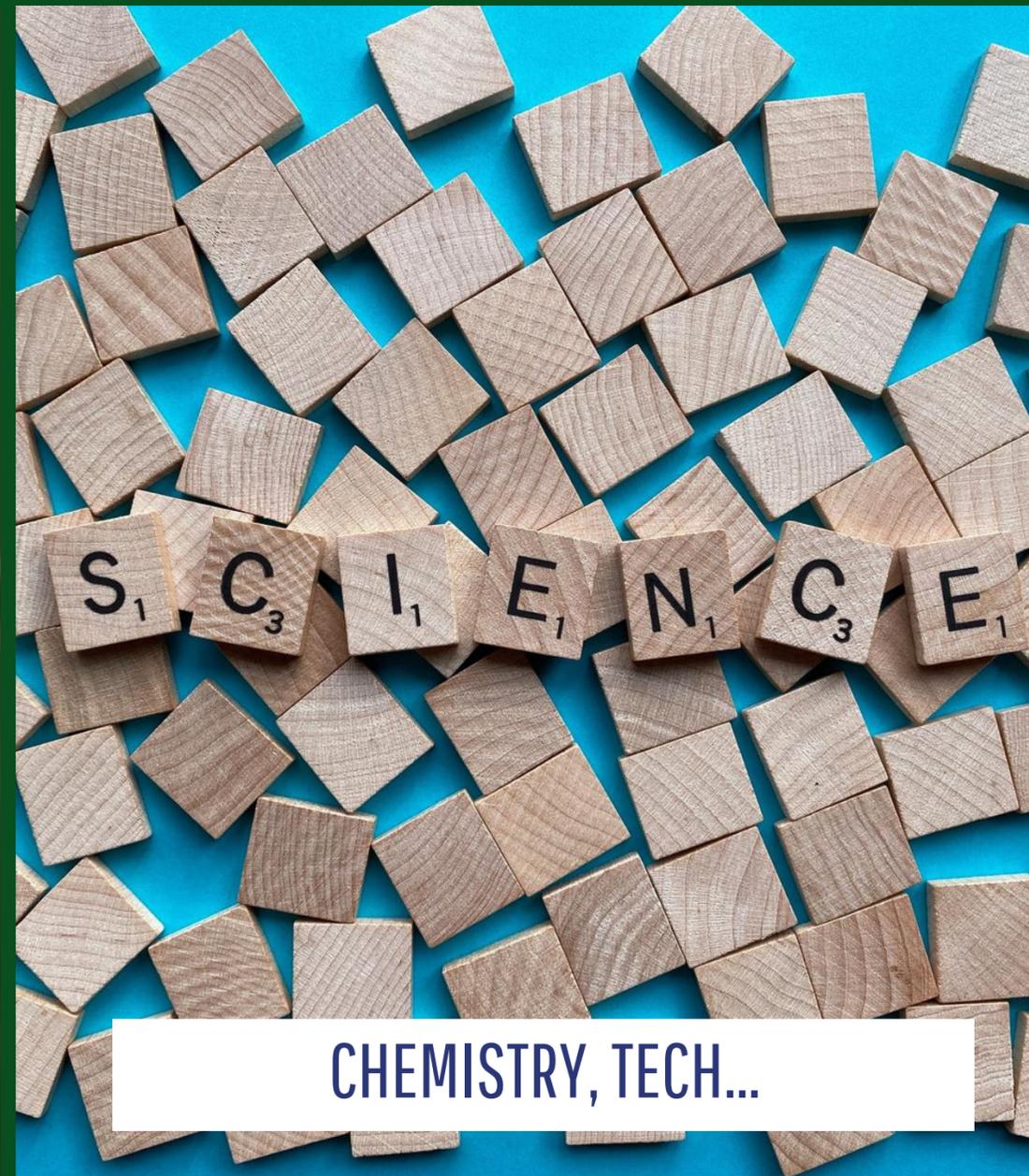
# SUSTAINABILITY



# AGRICULTURE



**BIOLOGY**



**CHEMISTRY, TECH...**



**SOCIETY**





# Planet

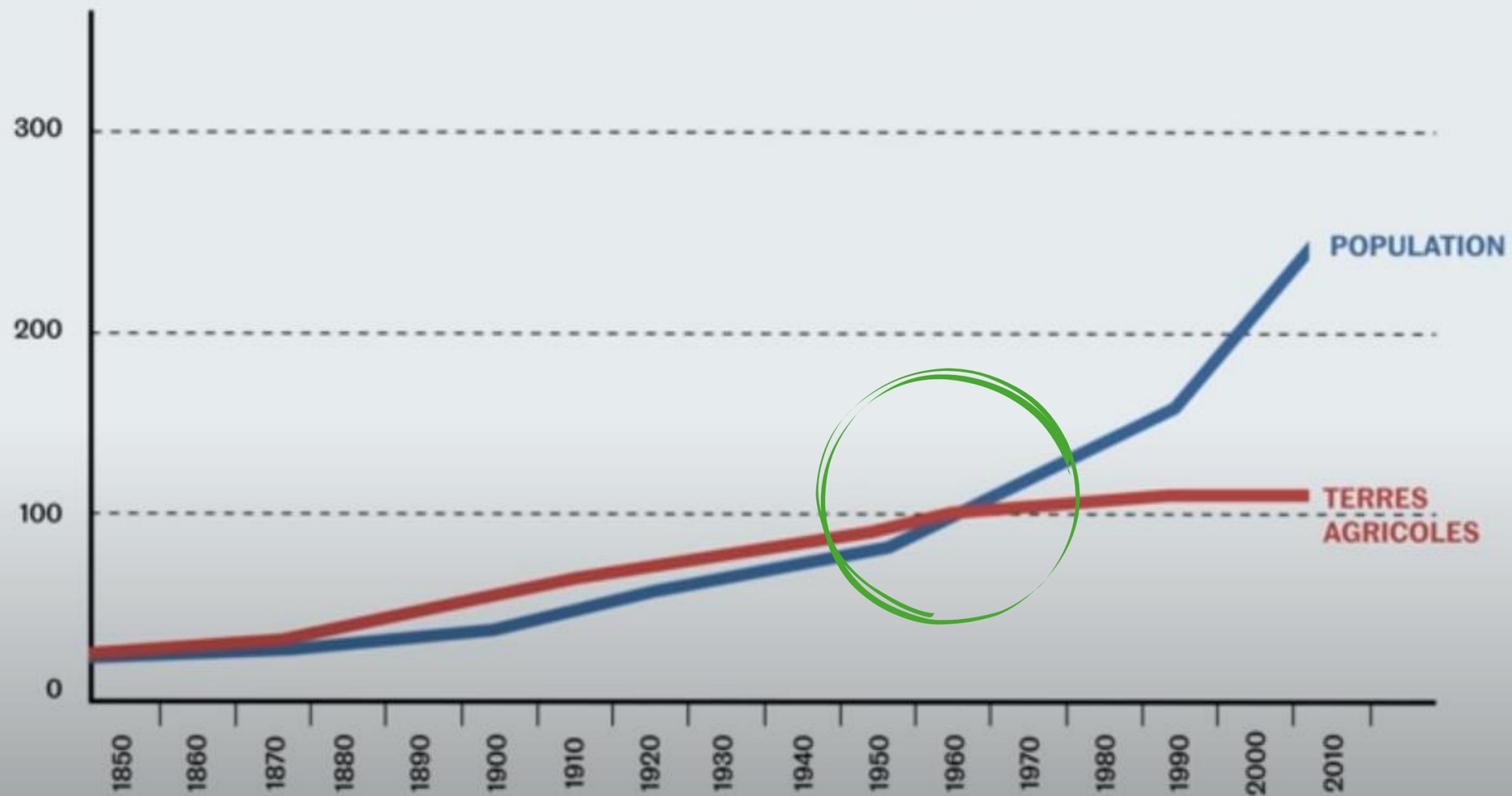


71% of all land is habitable

out of which **40%**

is farmed land

Source : OCDE

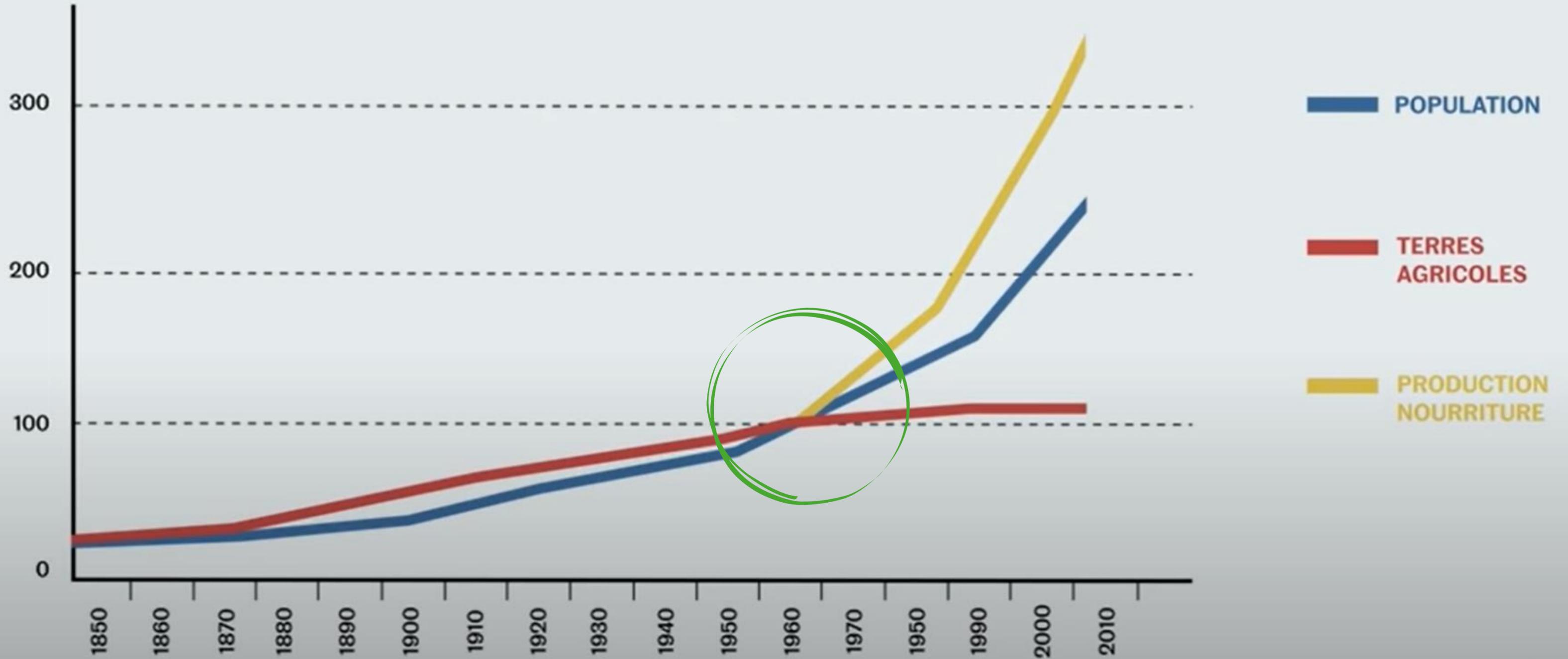


# First revolution



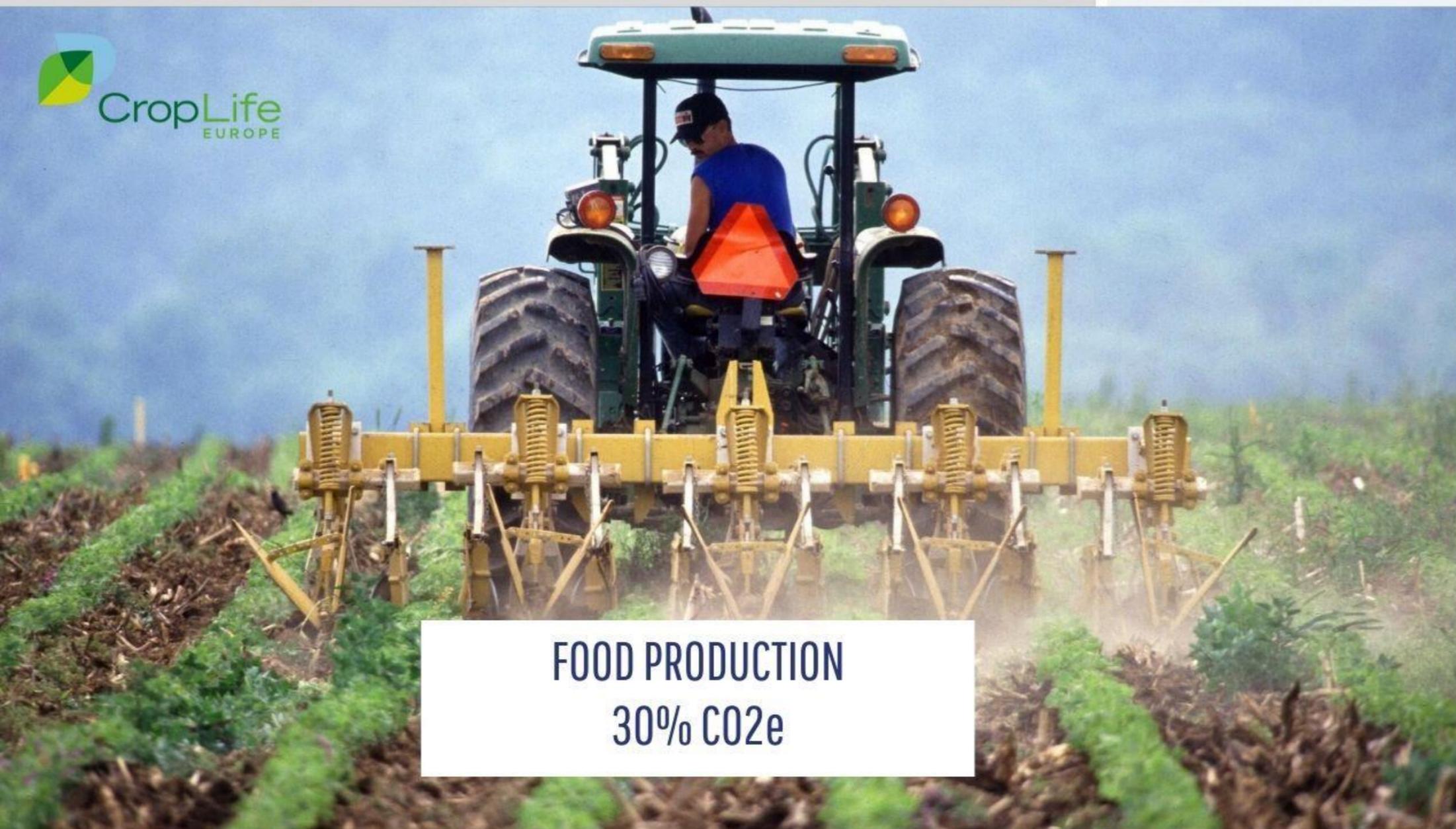


Source : OCDE





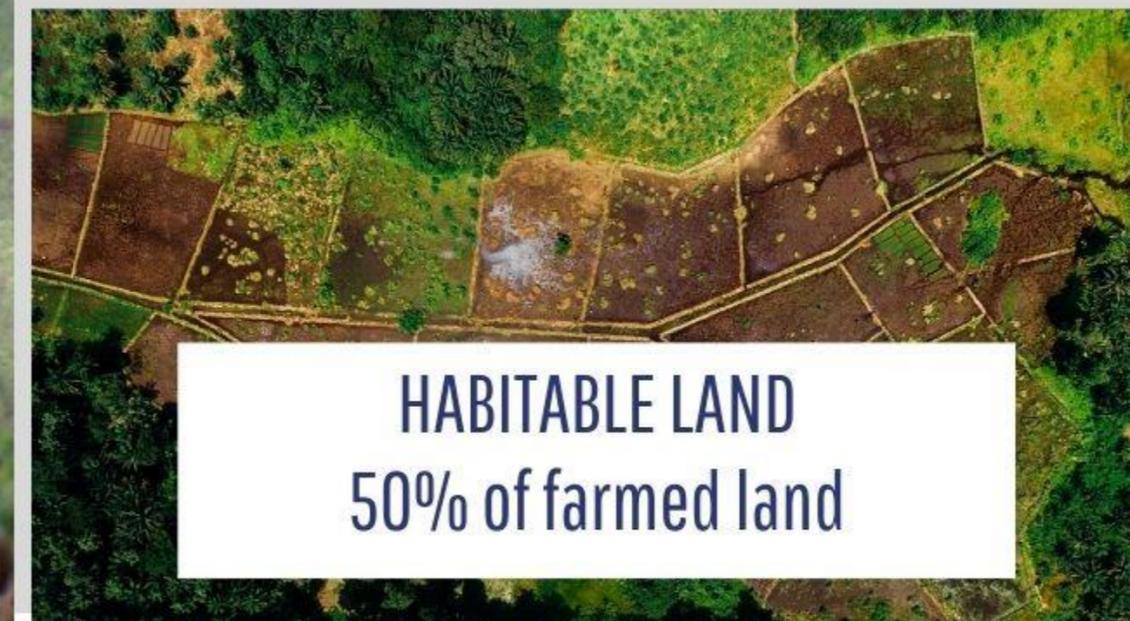
# Ecological footprint



**FOOD PRODUCTION**  
30% CO<sub>2</sub>e

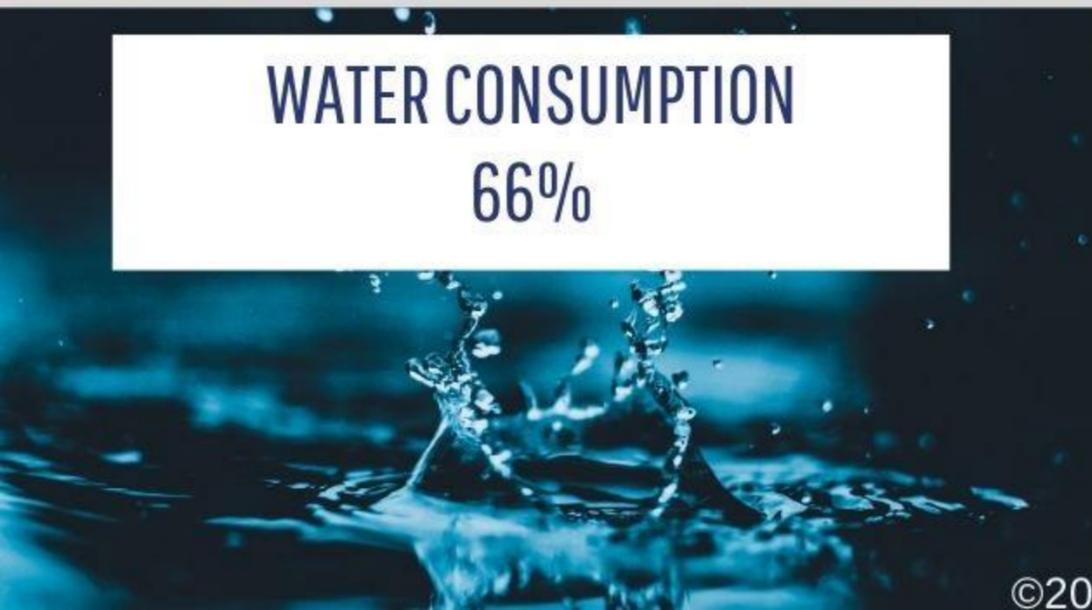


**FOOD MILE**  
19% CO<sub>2</sub>e



**HABITABLE LAND**  
50% of farmed land

**WATER CONSUMPTION**  
66%



**ENERGY**  
30% CO<sub>2</sub>e



**FOOD WASTE (on the farm)**  
16% of CO<sub>2</sub>e



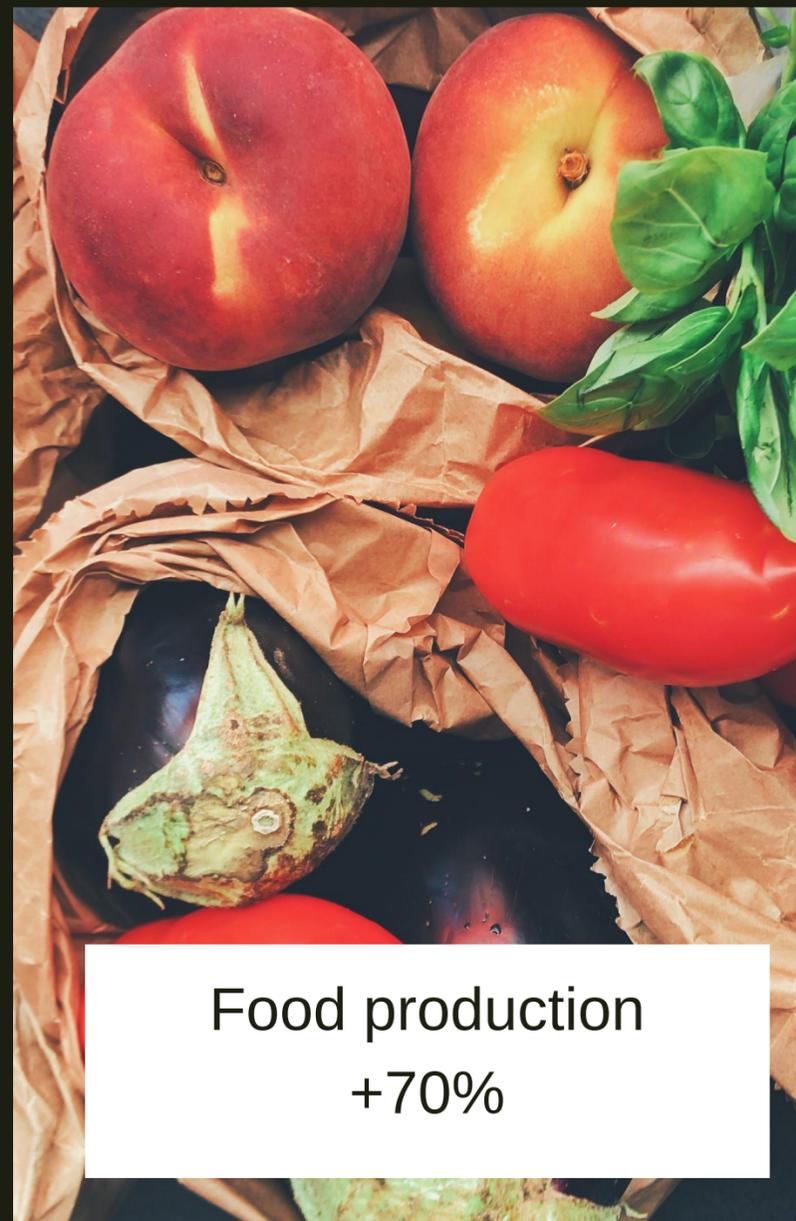
<1.5 °C by 2030

-50% CO2 by 2030

NET ZERO by 2050

In 2050

**10 BILLION PEOPLE**



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**Despite having 14,000 edible and nutritious plant species to choose from, \_\_\_\_\_% of the food we eat comes from just 12 plants and 5 animal species**

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<https://ahaslides.com/JRKDP>

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**\_\_\_\_\_ % of the calories we eat come  
from just 3 crops: rice, wheat, and  
corn.**

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<https://ahaslides.com/JRKDP>

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**Similarities in the types of foods  
consumed across countries rose by  
\_\_\_\_\_ % from 1961 to 2009.**

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<https://ahaslides.com/JRKDP>

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**In the last hundred years, \_\_\_\_\_% of  
crop varieties of farming have  
disappeared.**

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<https://ahaslides.com/JRKDP>

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**In average, how many people could  
feed a farmer in 1980 and today?**

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<https://ahaslides.com/JRKDP>

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**When won't we be able to feed the planet anymore?**

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<https://ahaslides.com/JRKDP>



CropLife  
SUSTAINABLE

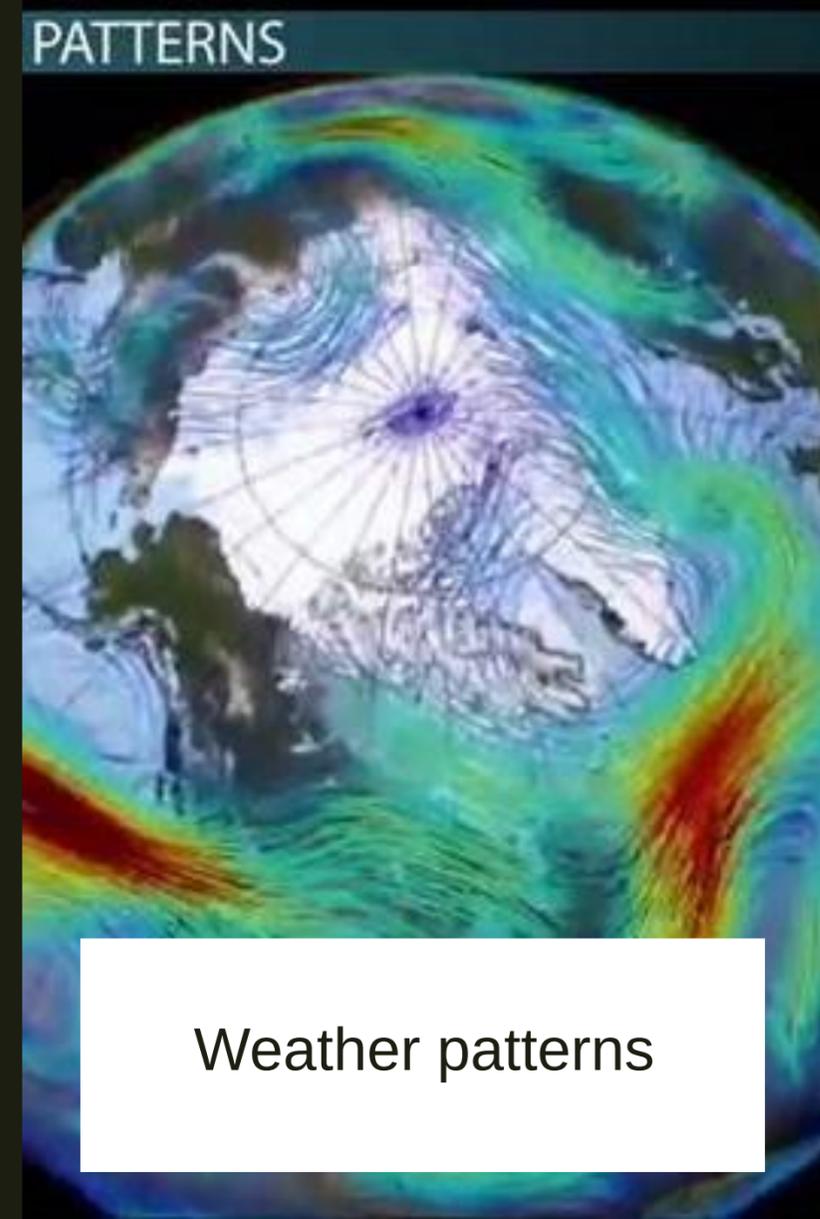
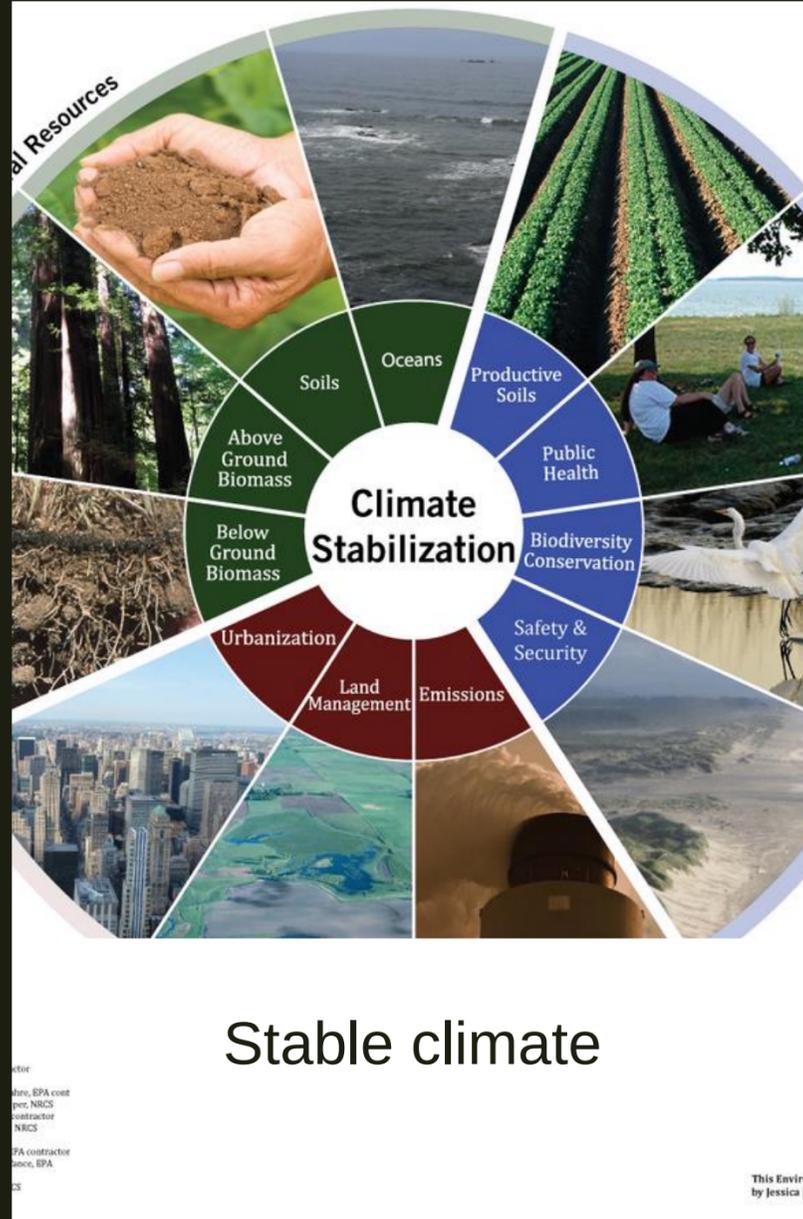
**2050**  
Quantity

**2030**  
Quality



# Second revolution





HAVE  
A POSITIVE  
IMPACT

DO  
YOUR FAIR  
SHARE

HAVE  
ZERO  
IMPACT

DO  
WHAT PAYS  
NOW

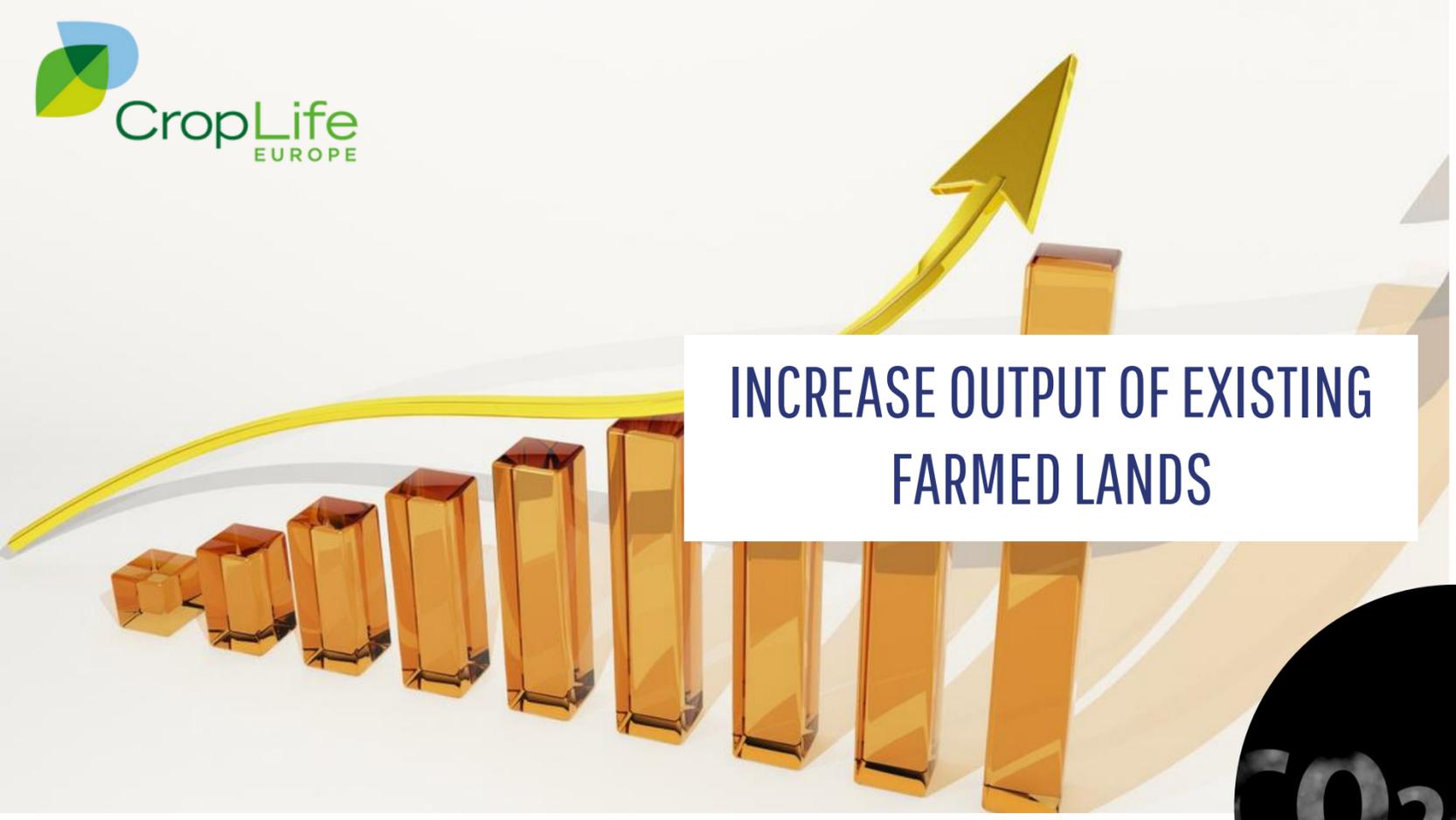
DO  
NOTHING



# The challenges



40%  
Farmed land



INCREASE OUTPUT OF EXISTING  
FARMED LANDS



PROTECT BIODIVERSITY



CONSERVING WATER



REDUCING POLLUTION





Agriculture cannot stand still...



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**Order the different steps, a company  
needs to go through, to reach net-  
zero!**

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<https://ahaslides.com/JRKDP>

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**Pair each step with its definition!**

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<https://ahaslides.com/JRKDP>

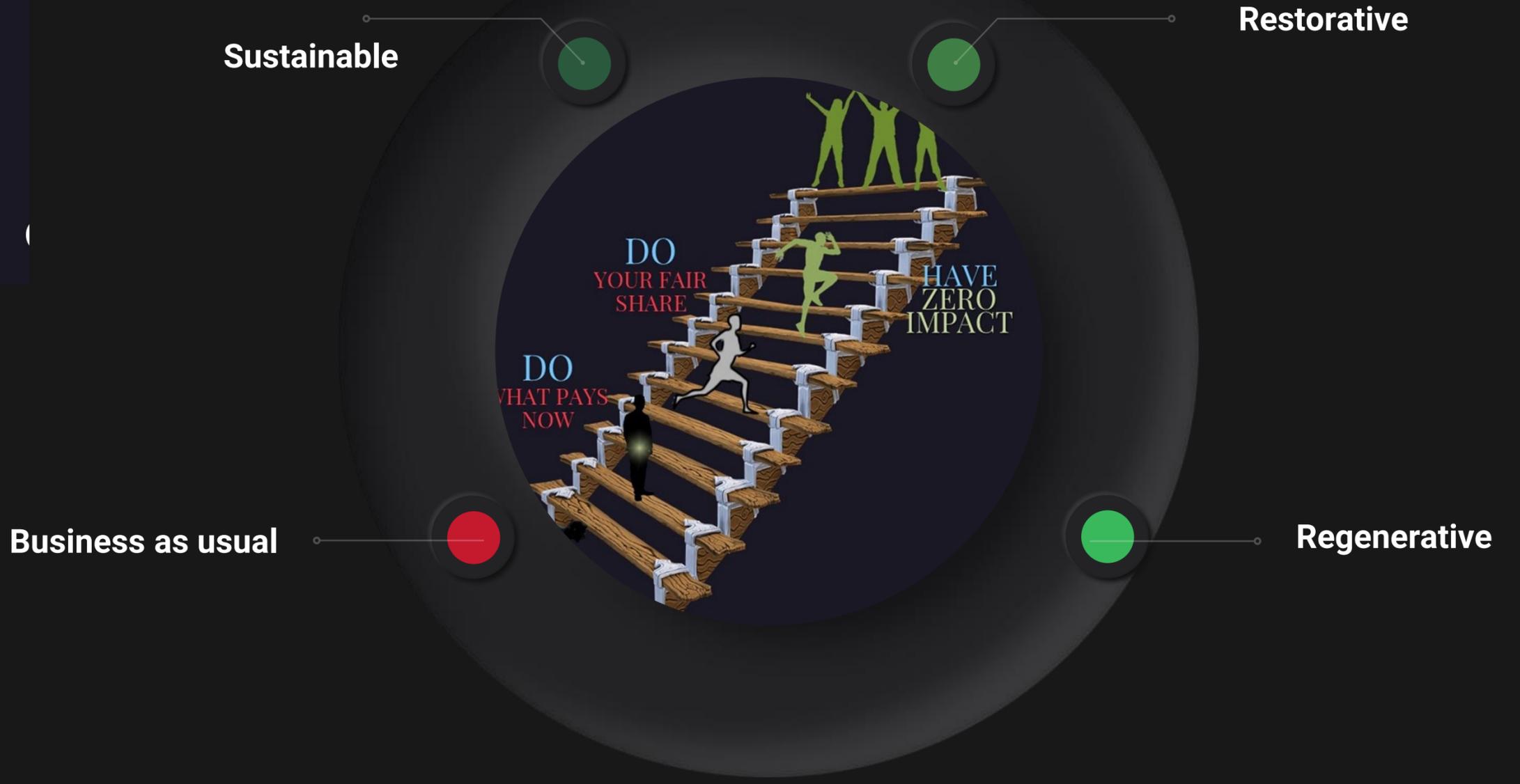
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**Pair each step with farming practices!**

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<https://ahaslides.com/JRKDP>



**QUALITY**

**PESTS & DISEASES**

**CROP MIGRATION**



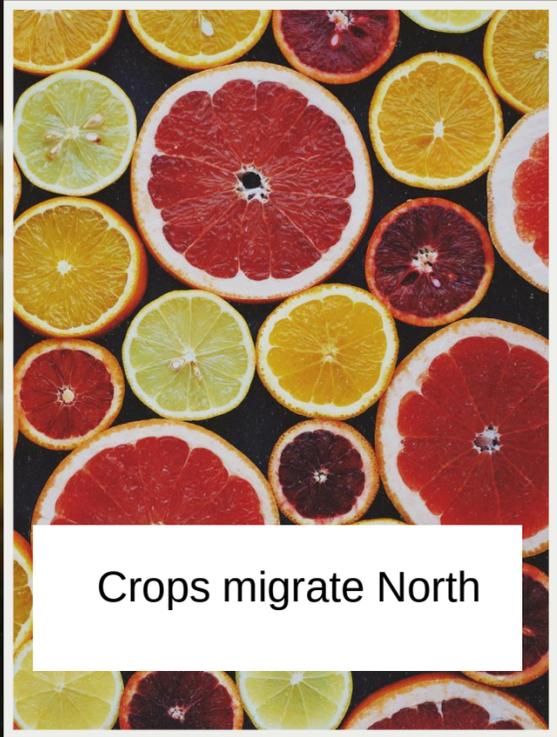
**-24% Crop yield**  
(maize & corn)  
by 2100



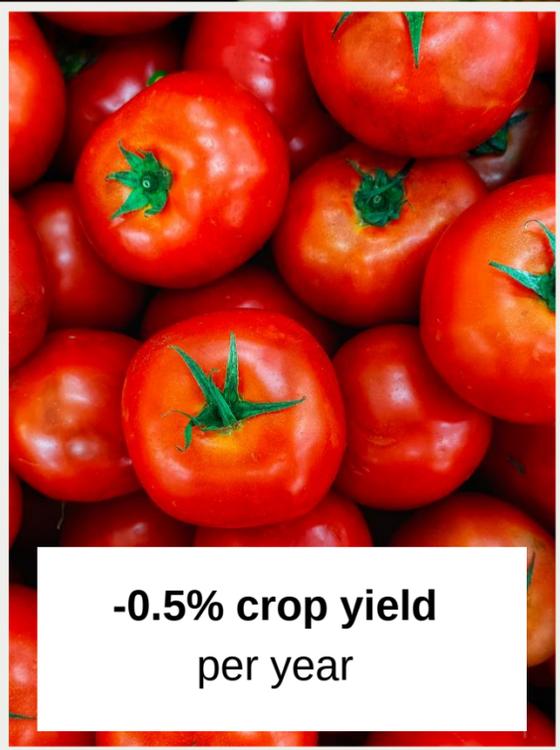
**38% fewer nutrients**  
than in 1950



More frequent,  
more widely spread



Crops migrate North



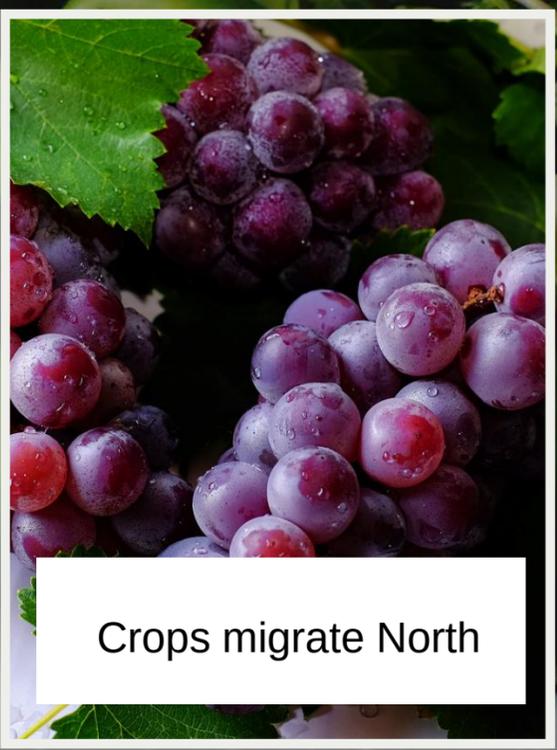
**-0.5% crop yield**  
per year



Increase of F&V  
**"too ugly to sell"**



Up to -50%  
loss of biodiversity



Crops migrate North

**-16%**

What will be the decrease of value of european agriculture by 2030.

The Pharma Innovation Journal 2021;10(3):564-571  
Current World Environment Vol. 17, No. (2) 2022, 319-330

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**On average, how many people could  
one farmer feed in 1980 and today?**

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<https://ahaslides.com/JRKDP>



**1980**

15 persons

**TODAY**

60 persons



# Profit



Profits

Revenues

Costs



# The true cost Accounting



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**Worldwide, what is the difference  
between the price we pay for food  
and the price of what we consume?**

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<https://ahaslides.com/JRKDP>

# True cost of food

## Environmental costs

Deforestation, CO<sub>2</sub> emissions, water cleaning  
*etc.*

## Health costs

Farmers, consumers

## Social cost

Underpaid farmers, child labour





- UNDERPAID FARMERS
- UNSUSTAINABLE WATER USE
- AIR POLLUTION
- SWTCH TO RENEWABLE ENERGY
- LAND DEGRADATION



**MARKET PRICE**

**TRUE COST**



**ENVIRONMENTAL COSTS**

+6%



**HEALTH COSTS**

+30%



**SOCIAL COSTS**

+43%



TRUE COST

TRUE COST



CONVENTIONAL FARMING  
PRODUCTS



ORGANIC FARMING  
PRODUCTS

**TRUE COST**

**CONVENTIONAL FARMING PRODUCTS**



**ENVIRONMENTAL COSTS**

**HEALTH COSTS**

**SOCIAL COSTS**

**TRUE COST**

**ORGANIC FARMING PRODUCTS**



**ENVIRONMENTAL COSTS**

**HEALTH COSTS**

**SOCIAL COSTS**



TRUE COST



CONVENTIONAL FARMING PRODUCTS

Cost for Transport

Cost for storage

Soil erosion

Decrease of productivity



TRUE COST



ORGANIC FARMING PRODUCTS

Local distribution

No storage

More fertile soils

Increase of productivity



How do we get closer to a  
system that values the true  
cost of food?



TALK TO THE CONSUMERS

WORK WITH FINANCIAL INSTITUTIONS



WORK WITH GOVERNMENTS



**17** PARTNERSHIPS  
FOR THE GOALS



# The importance of stakeholders' engagement

You cannot do CSR or sustainable development alone,  
you need to engage your business' ecosystem.



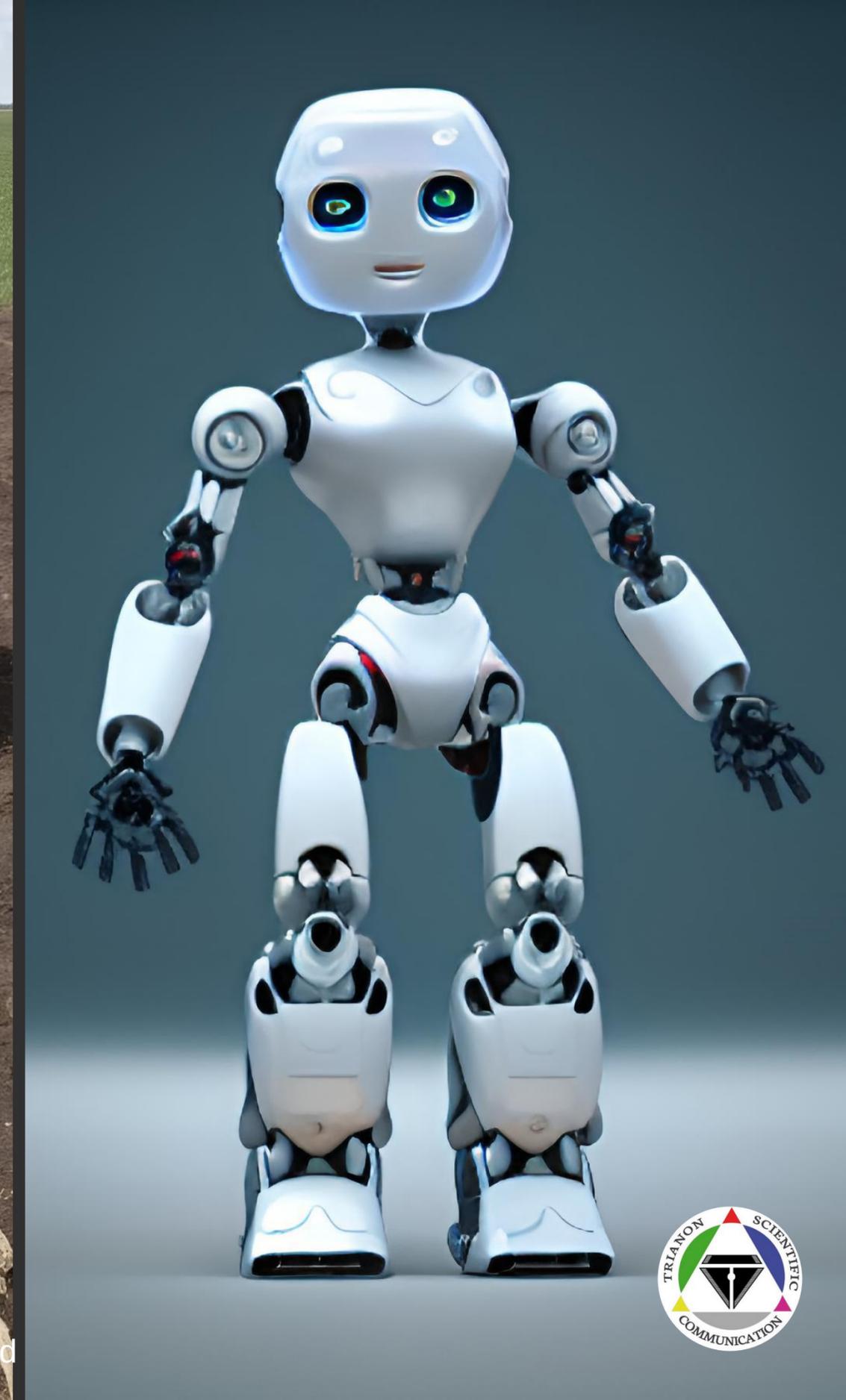
# People

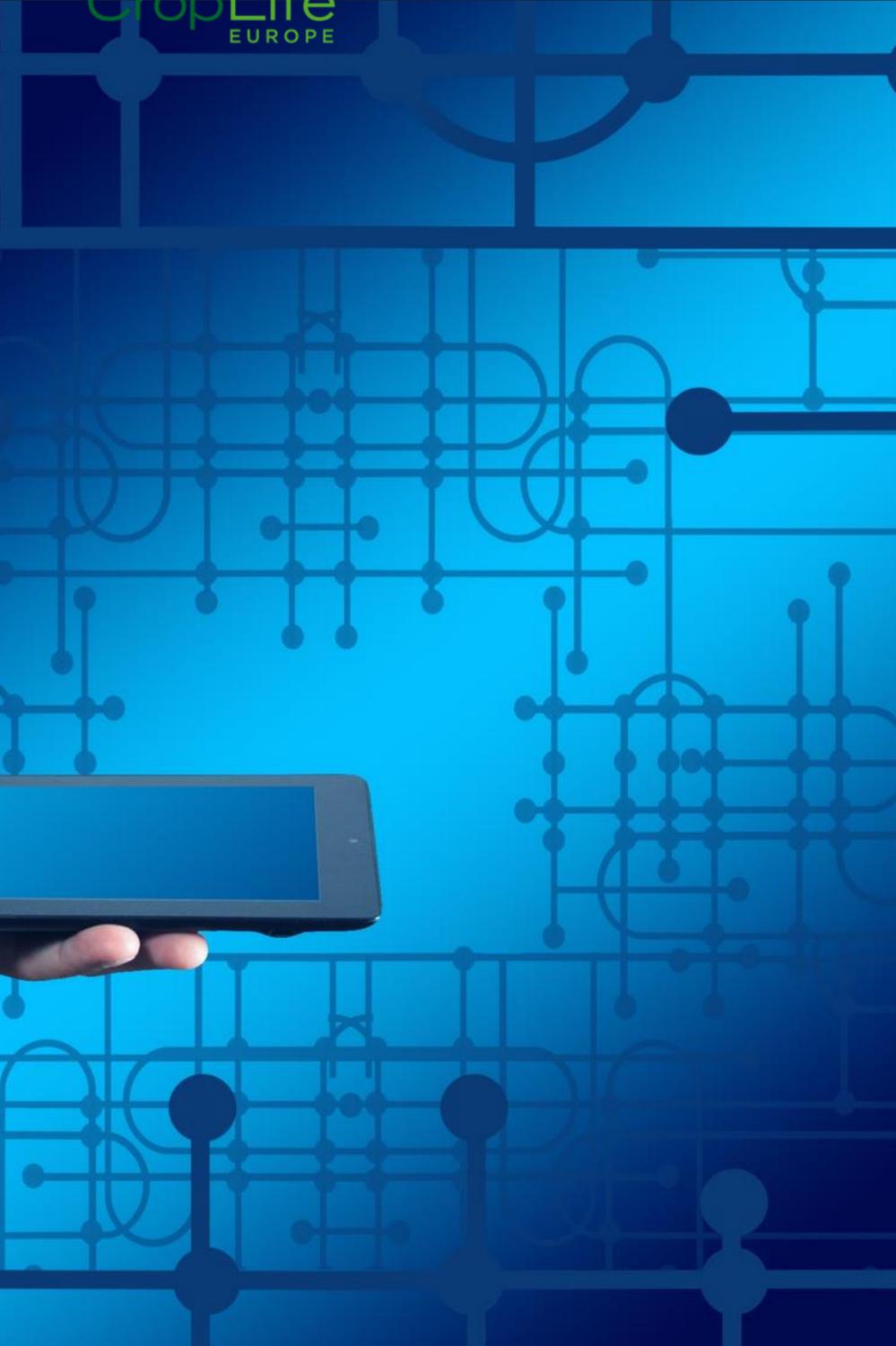


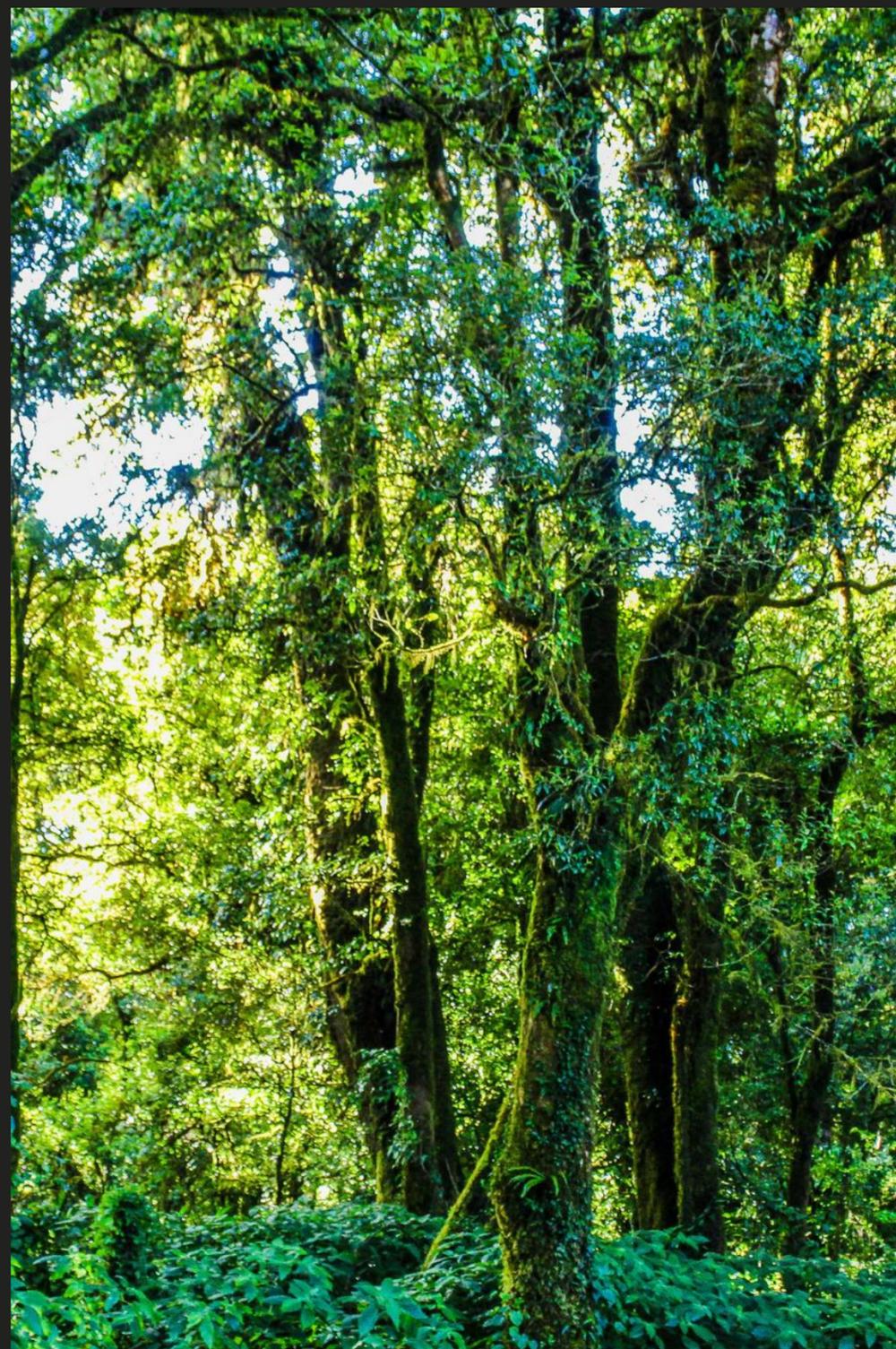
# Can we create the perfect farm?













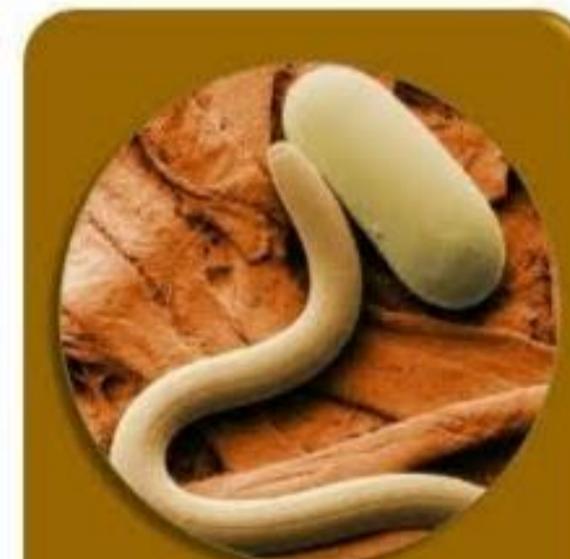
# BIOPESTICIDES



ofungicides



Bioinsecticides



Bionematicides



Bioherbicides











European Commission

# From Farm to Fork:

Our food, our health, our planet, our future

The European Green Deal

May 2020  
#EUGreenDeal

**Moving towards a more healthy and sustainable EU food system, a corner stone of the European Green Deal**

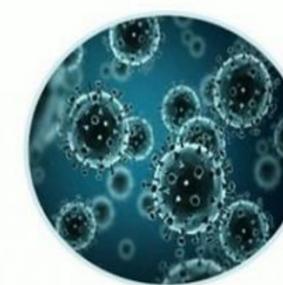
## 2030 Targets for sustainable food production



Reduce by 50% the overall use and risk of **chemical pesticides** and reduce use by 50% of more hazardous **pesticides**



Reduce **nutrient losses** by at least 50% while ensuring no deterioration in soil fertility; this will reduce use of **fertilisers** by at least 20 %



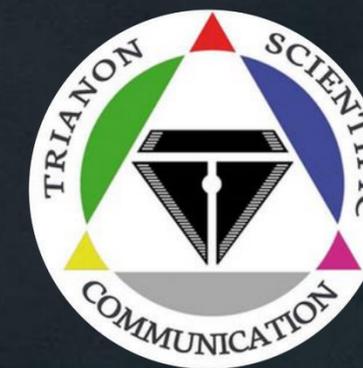
Reduce sales of **antimicrobials** for farmed animals by 50%



Achieve at least 25% of the EU's agricultural land under **organic farming** and a significant increase in **organic aquaculture**



# Thank you for your attention!



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