



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

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



<https://ahaslides.com/JRKDP>

What sectors are the main contributors of climate change?

Match the following options with their corresponding amount of annual CO₂ emissions in Europe!



<https://ahaslides.com/JRKDP>

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



<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

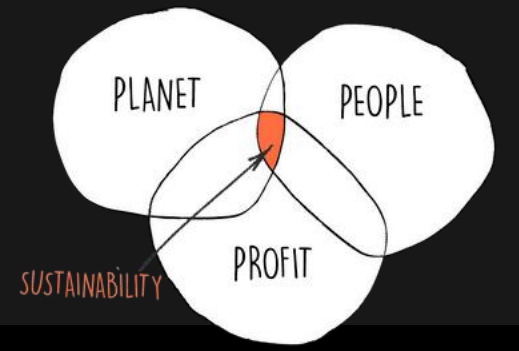


Both PhDs in chemistry
Combined 30 years of
experience in sustainability

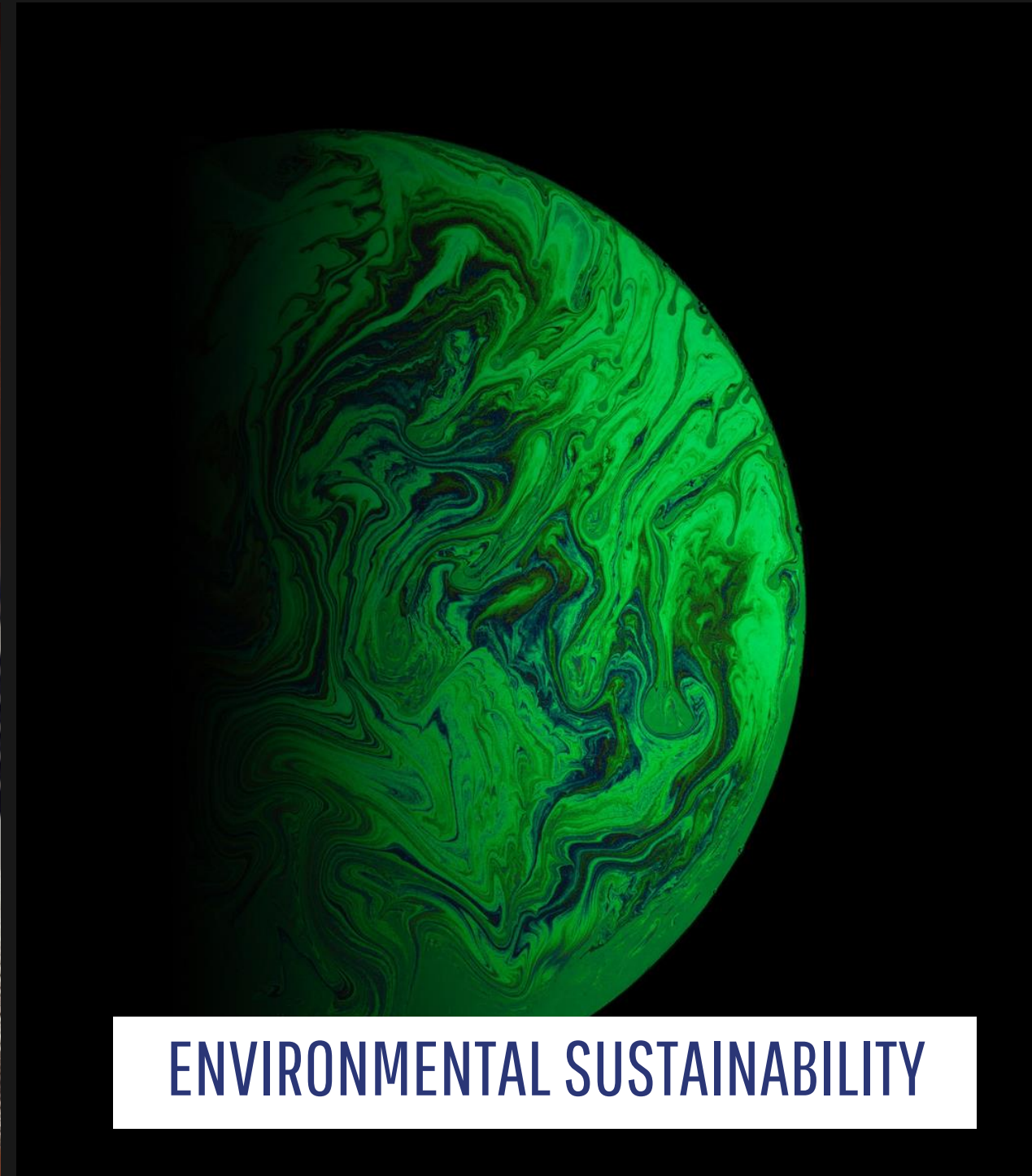


PhD in analytical &
physical chemistry

SUSTAINABILITY



SOCIAL SUSTAINABILITY



ENVIRONMENTAL SUSTAINABILITY



ECONOMIC SUSTAINABILITY

AGRICULTURE



BIOLOGY



CHEMISTRY, TECH...



SOCIETY



Planet

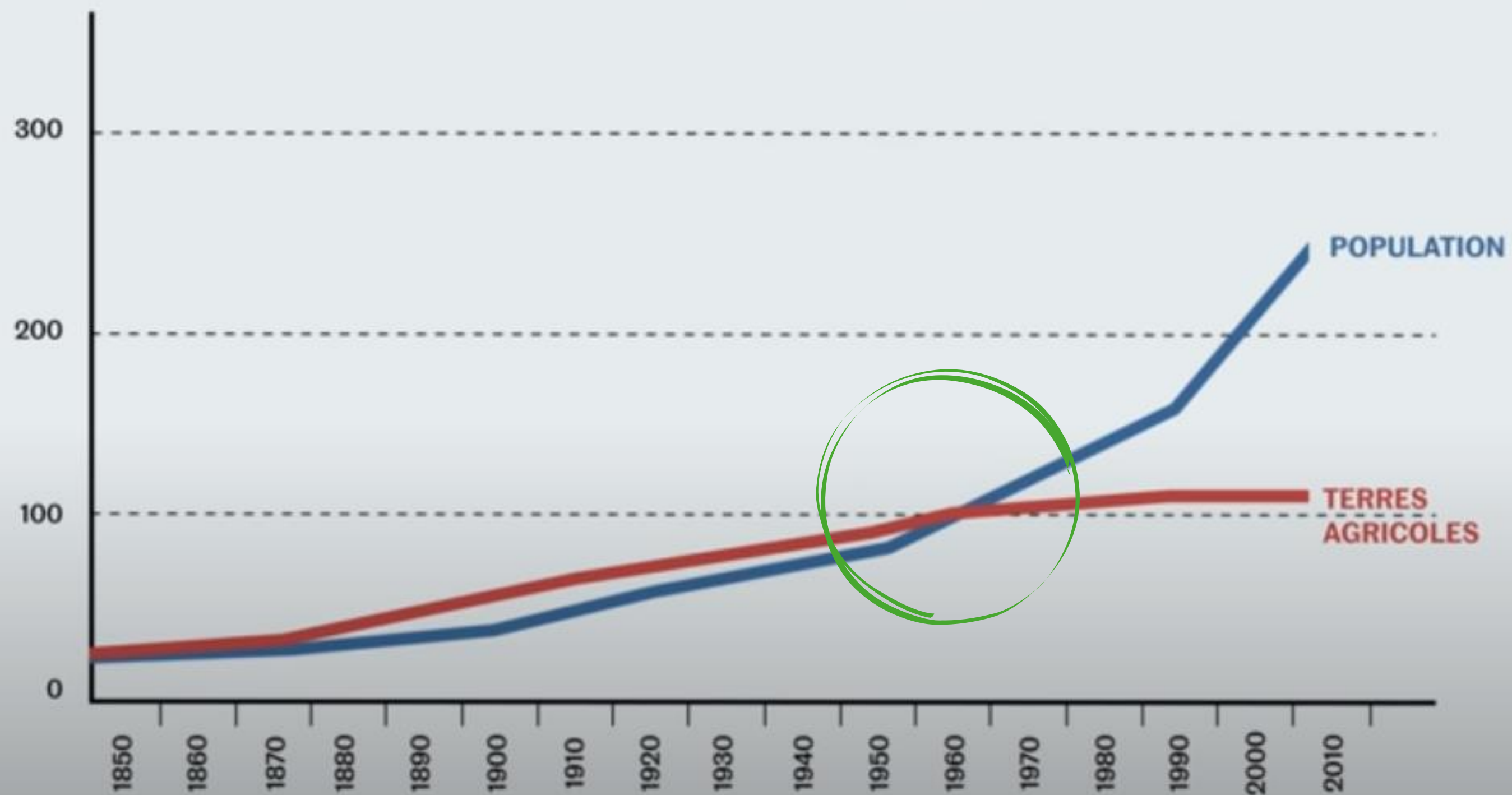


71% of all land is habitable

out of which **40%**

is farmed land

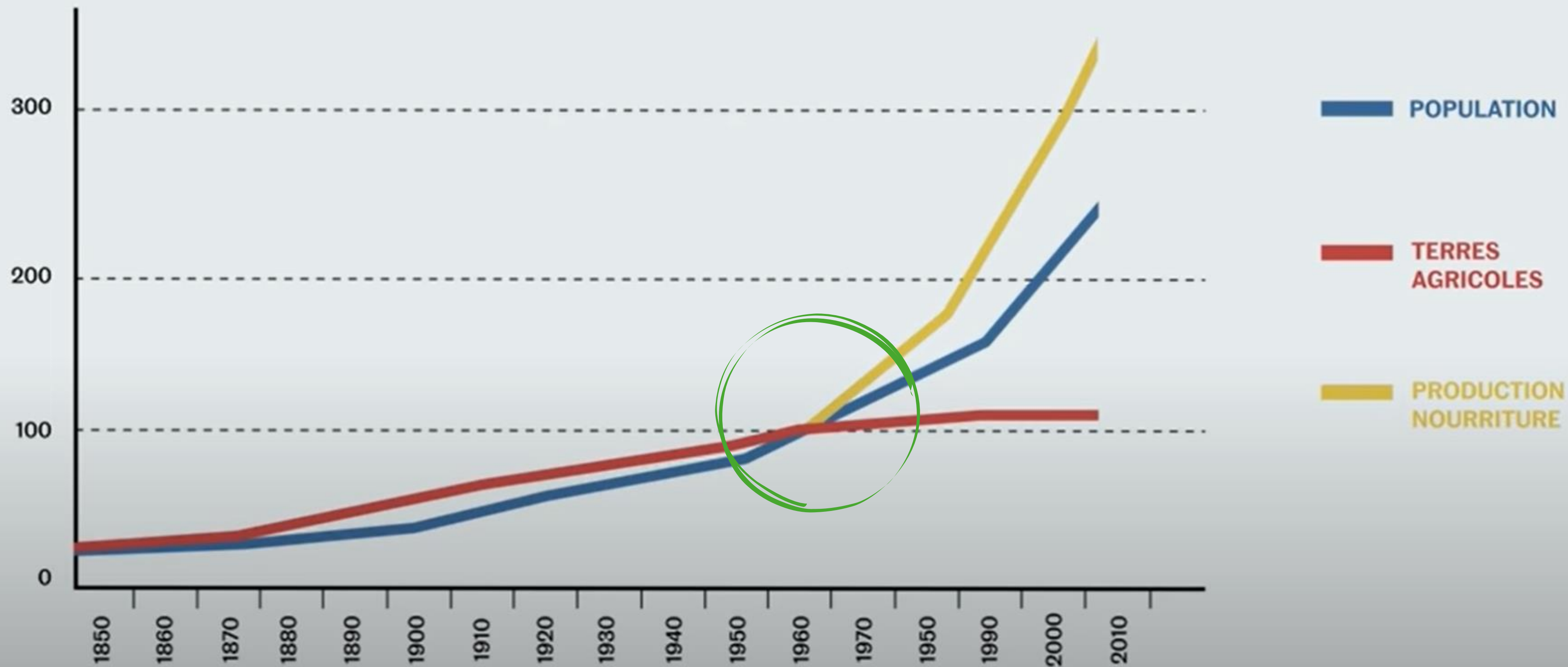
Source : OCDE



First revolution

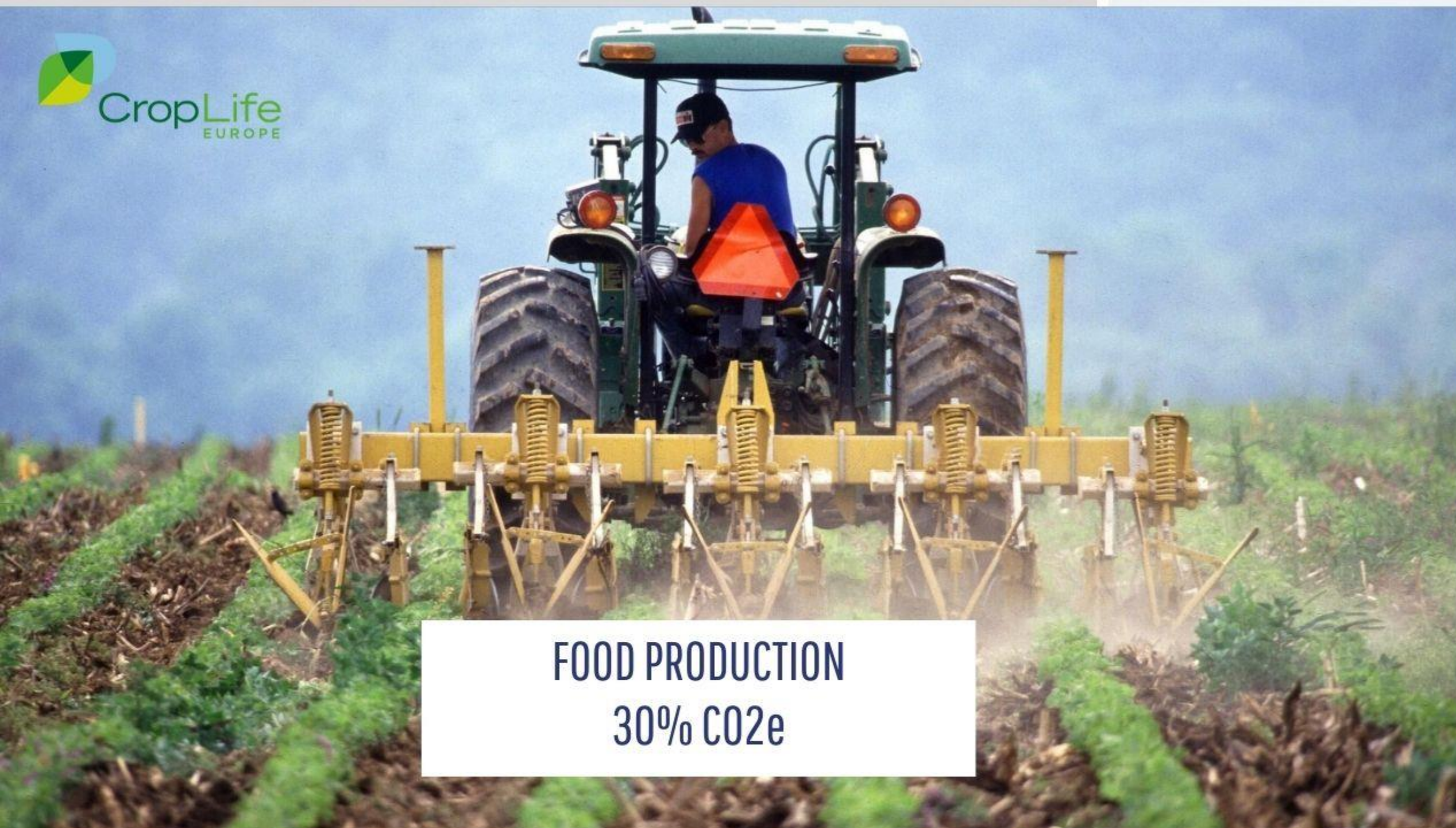


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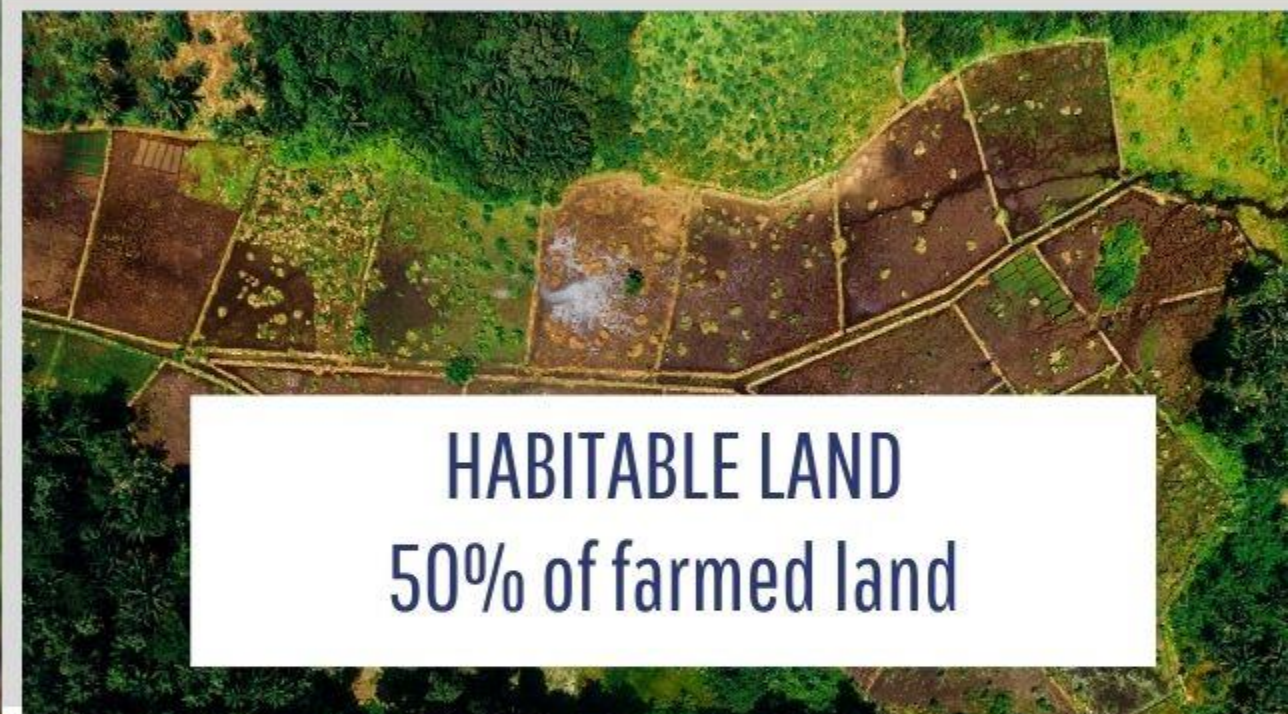
Ecological footprint



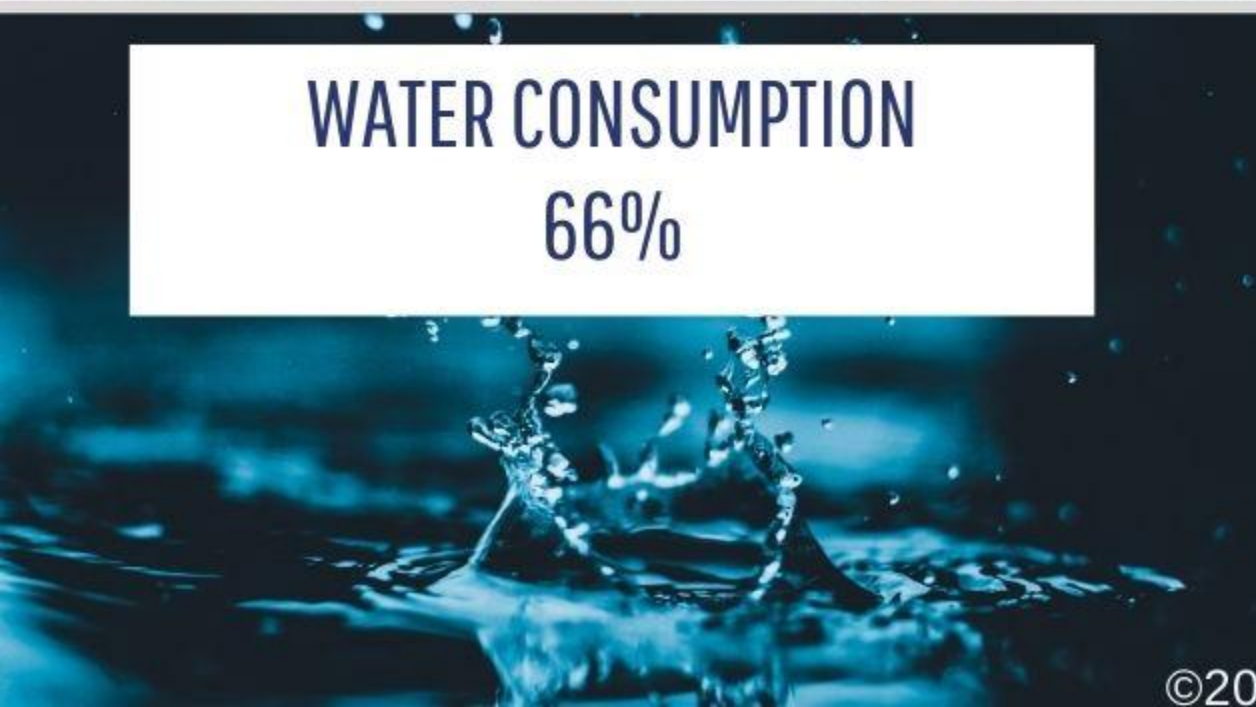
FOOD PRODUCTION
30% CO₂e



FOOD MILE
19% CO₂e



HABITABLE LAND
50% of farmed land



WATER CONSUMPTION
66%



ENERGY
30% CO₂e



FOOD WASTE (on the farm)
16% of CO₂e

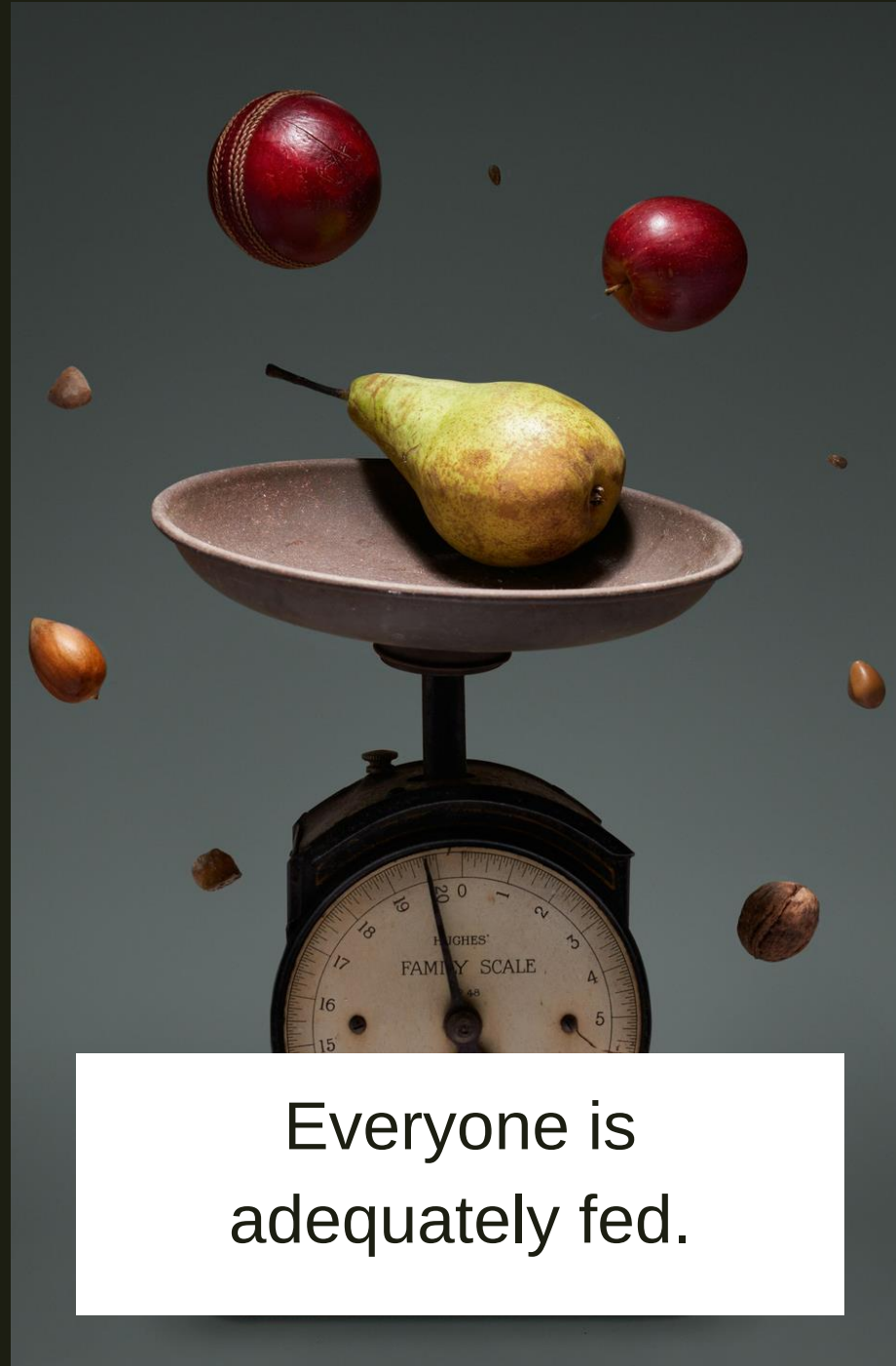
<1.5 °C by 2030

-50% CO₂ by 2030

NET ZERO by 2050

In 2050

10 BILLION PEOPLE



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



<https://ahaslides.com/JRKDP>

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



<https://ahaslides.com/JRKDP>

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



<https://ahaslides.com/JRKDP>

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



<https://ahaslides.com/JRKDP>

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



<https://ahaslides.com/JRKDP>

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



<https://ahaslides.com/JRKDP>



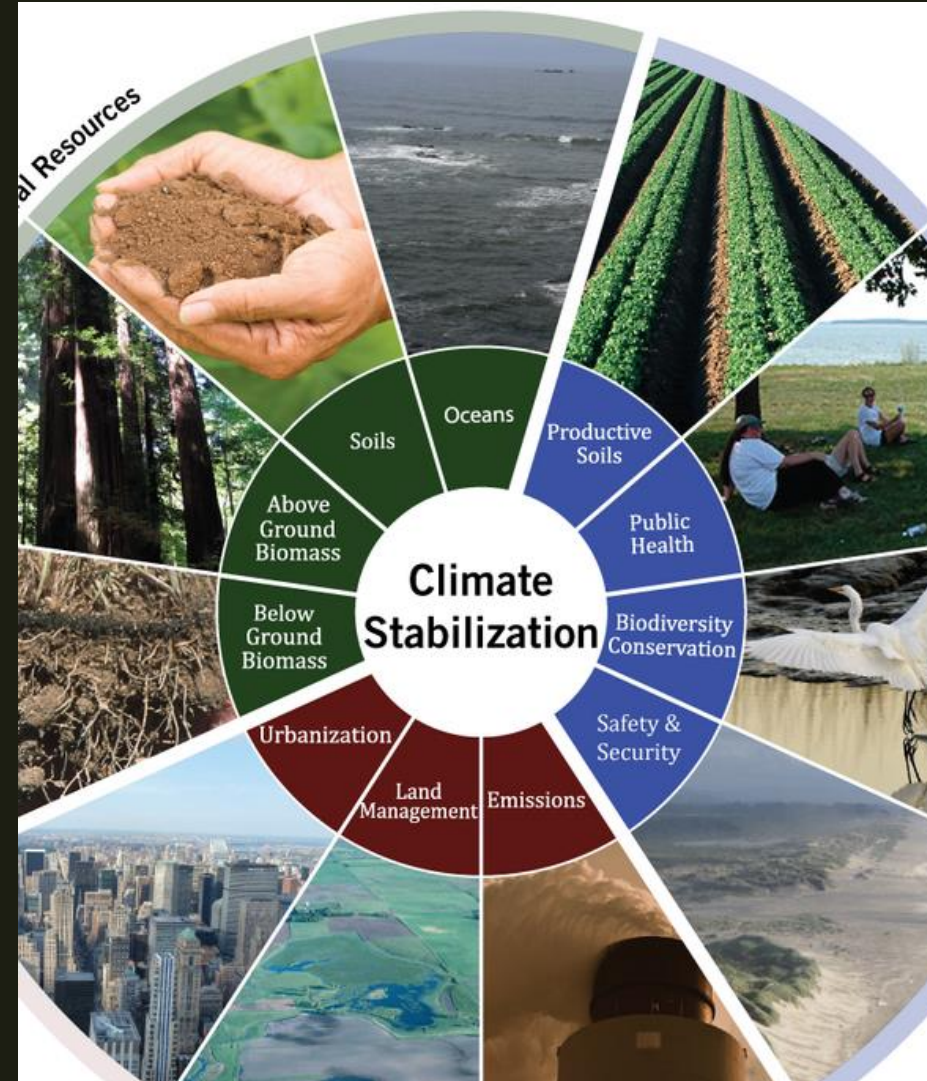
2050
Quantity

2030
Quality



Second revolution

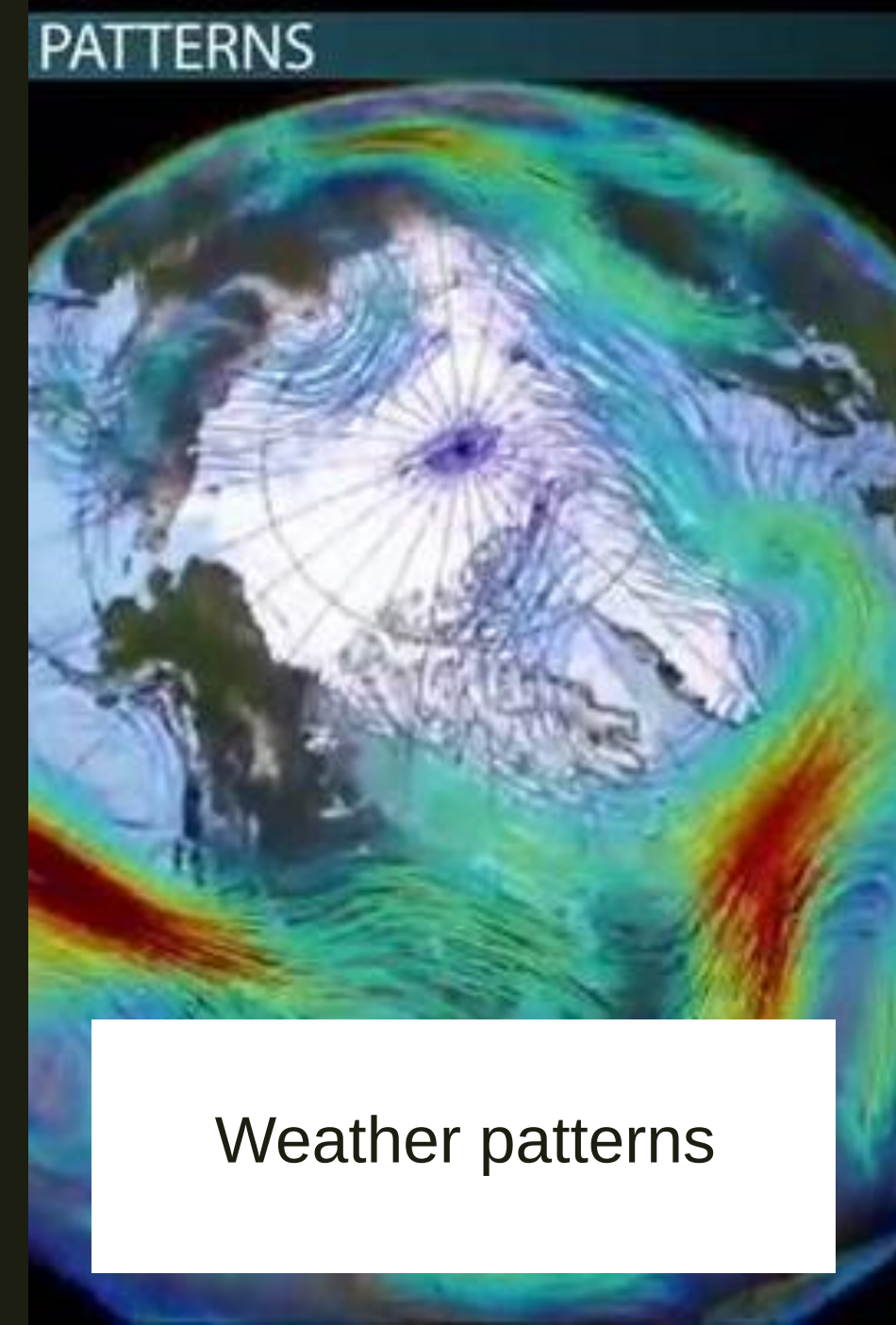




Stable climate



Predictable seasons



Weather patterns



DO
YOUR FAIR
SHARE

DO
WHAT PAYS
NOW

DO
NOTHING

HAVE
ZERO
IMPACT

HAVE
A POSITIVE
IMPACT

The challenges



40%

Farmed land



INCREASE OUTPUT OF EXISTING
FARMED LANDS



PROTECT BIODIVERSITY



CONSERVING WATER



REDUCING POLLUTION



Agriculture cannot stand still...

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



<https://ahaslides.com/JRKDP>

Pair each step with its definition!

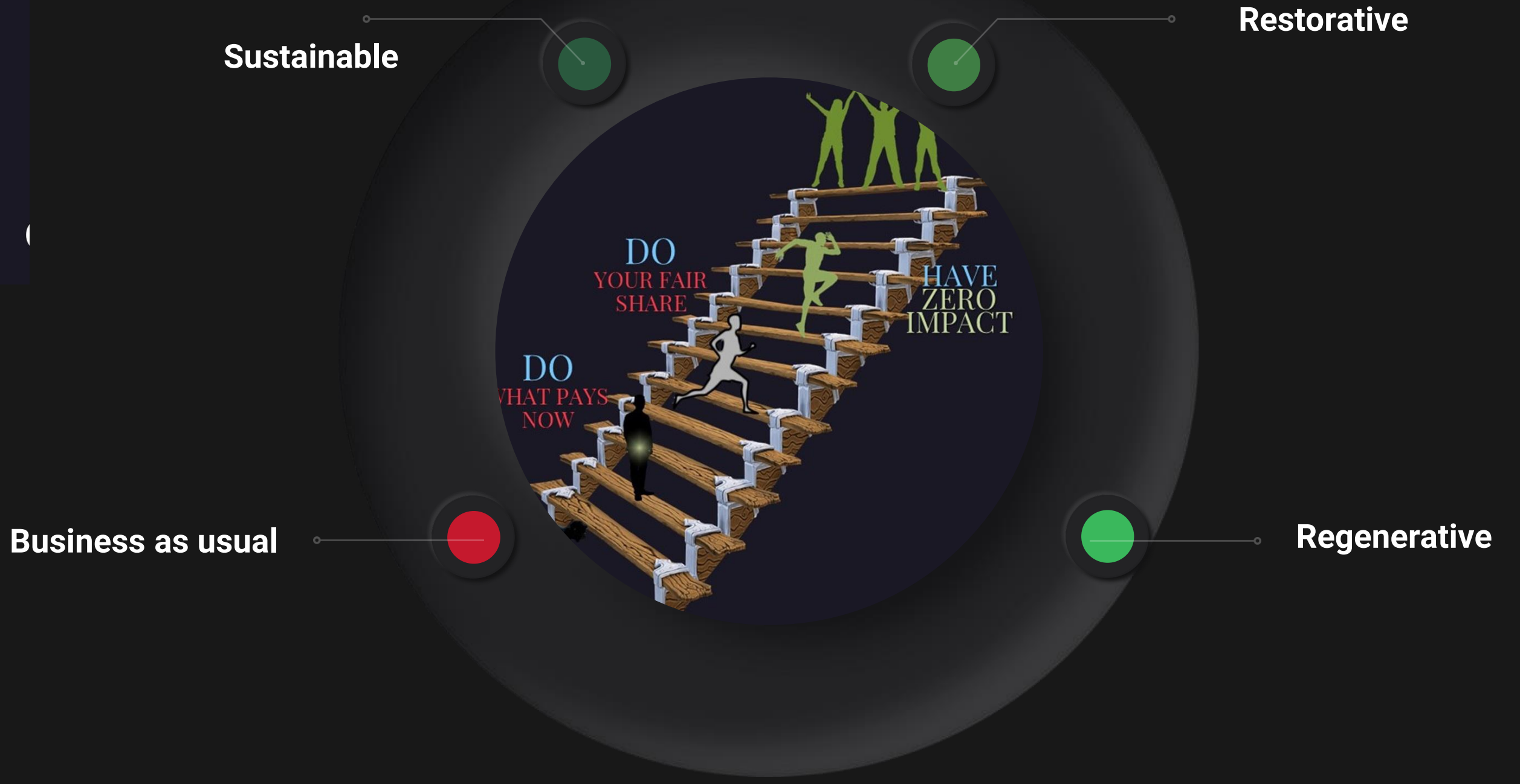


<https://ahaslides.com/JRKDP>

**Pair each step with farming
practices!**



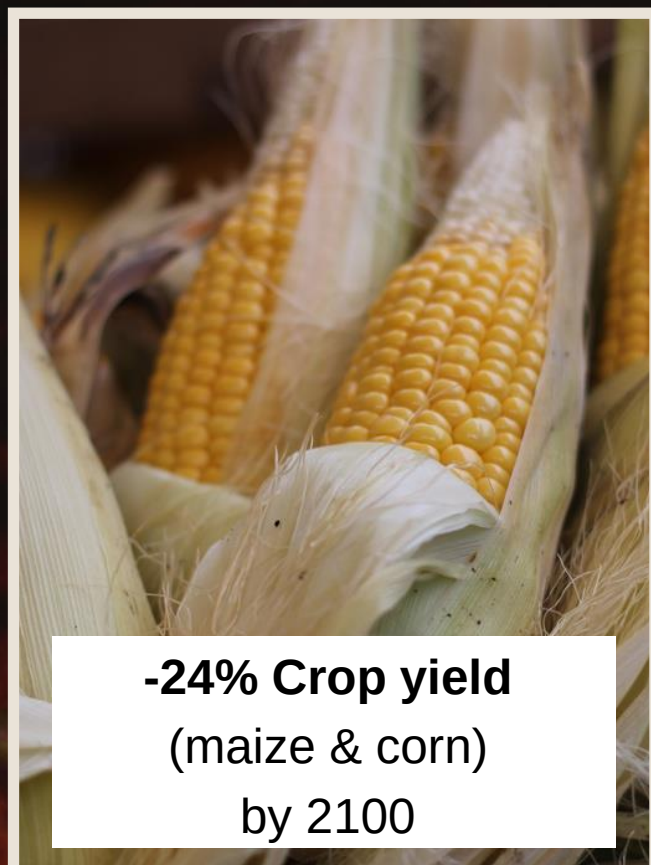
<https://ahaslides.com/JRKDP>



QUALITY

PESTS & DISEASES

CROP MIGRATION



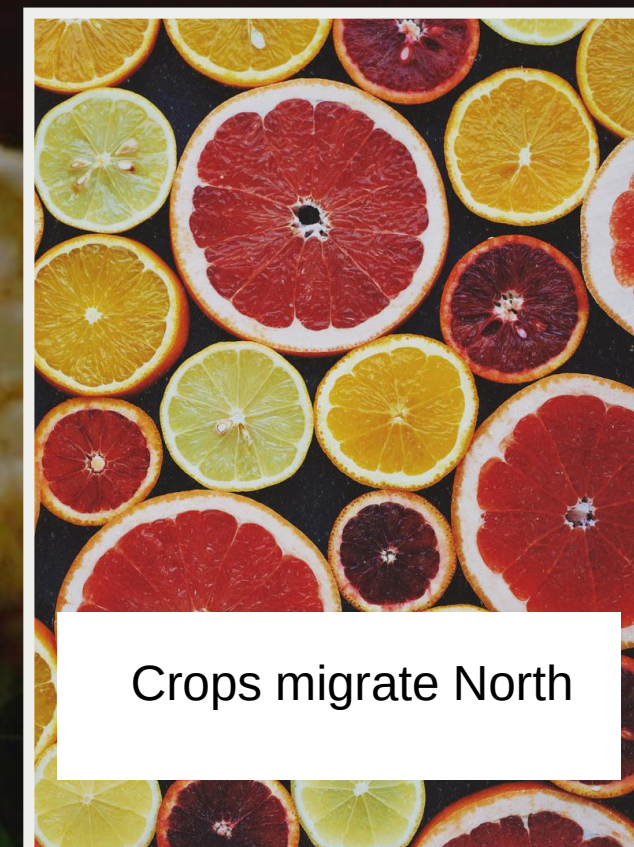
-24% Crop yield
(maize & corn)
by 2100



38% fewer nutrients
than in 1950



More frequent,
more widely spread



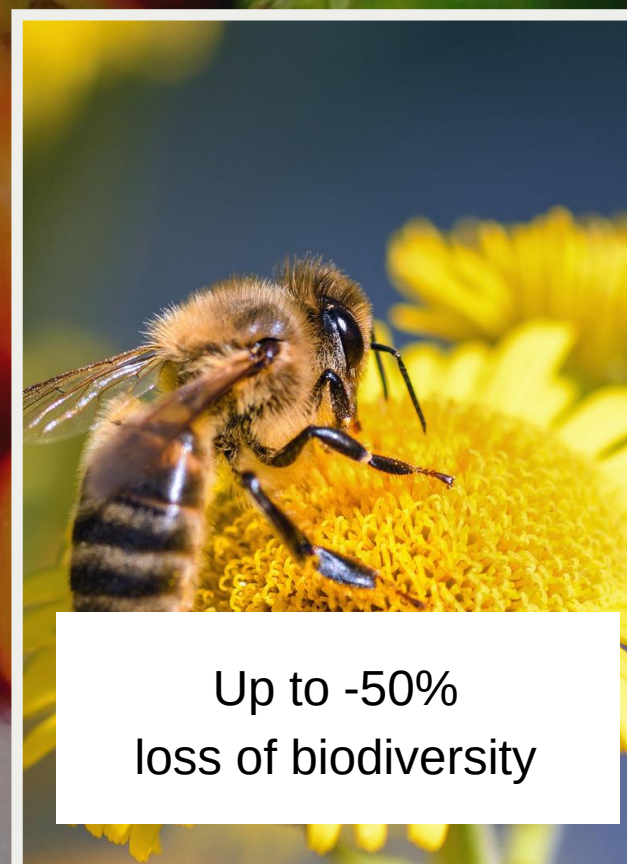
Crops migrate North



-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

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



<https://ahaslides.com/JRKDP>



1980

15 persons

TODAY

60 persons



Profit



Profits

Revenues

Costs

=

-



The true cost Accounting



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



<https://ahaslides.com/JRKDP>

True cost of food

Environmental costs

Deforestation, CO₂
emissions, water cleaning
etc.

Health costs

Farmers, consumers

Social cost

Underpaid farmers, child
labour



UNDERPAID FARMERS

UNSUSTAINABLE WATER USE

AIR POLLUTION

SWITCH 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

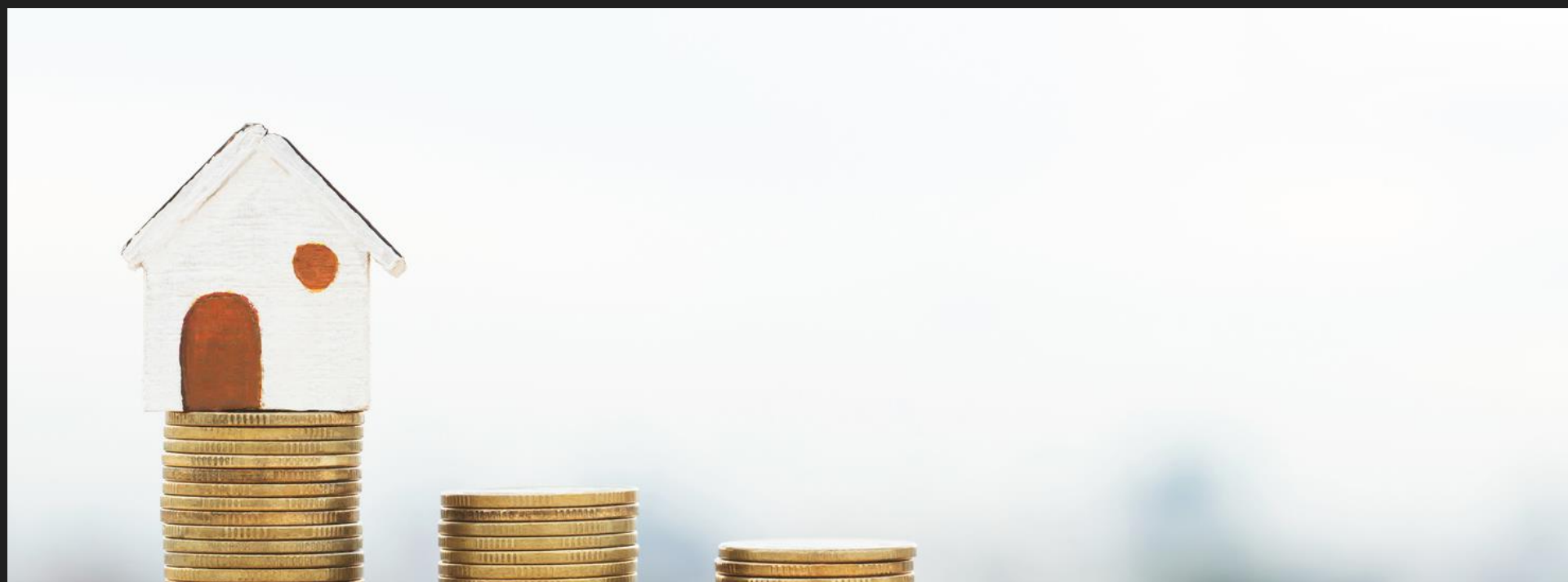
Increase of productivity

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.

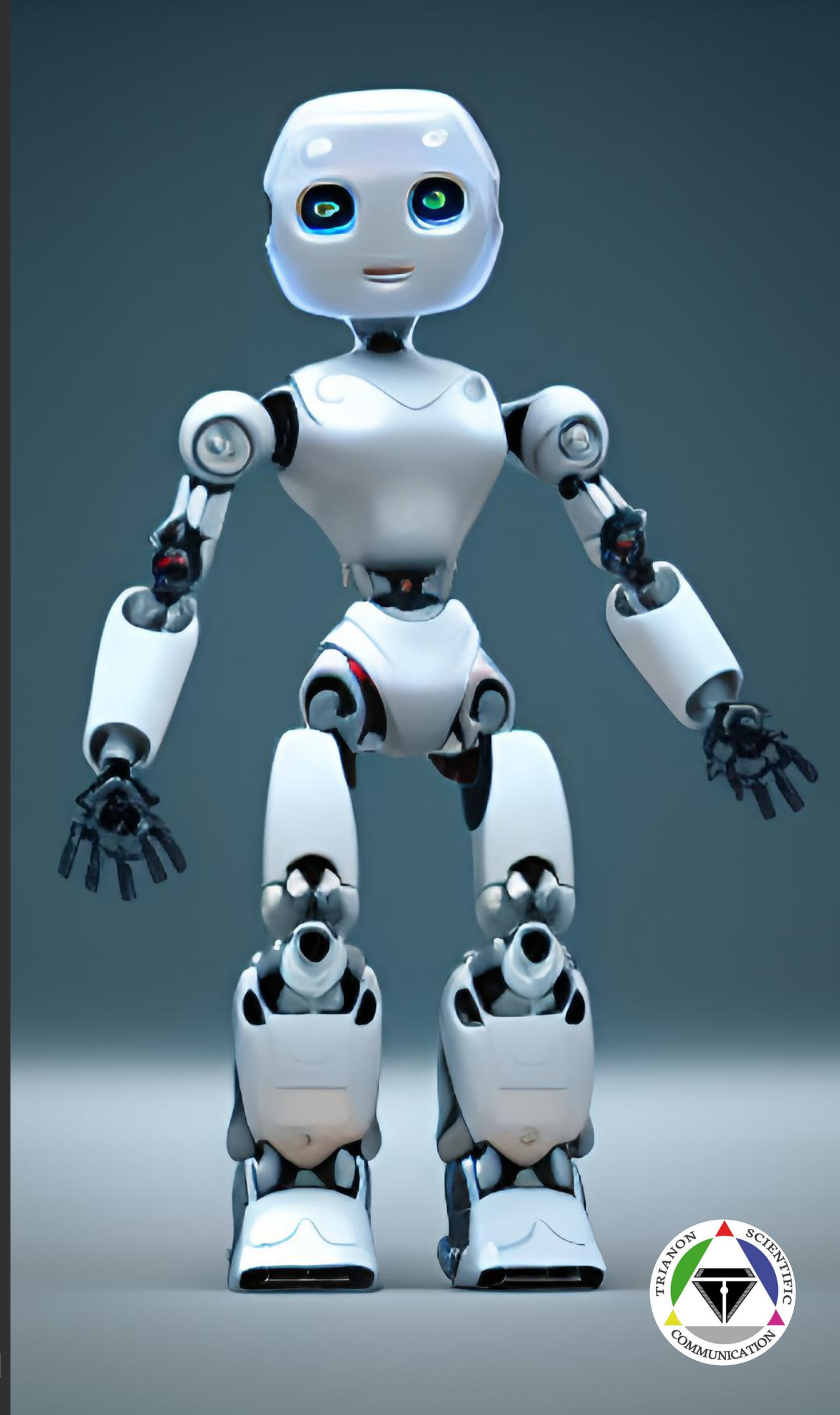


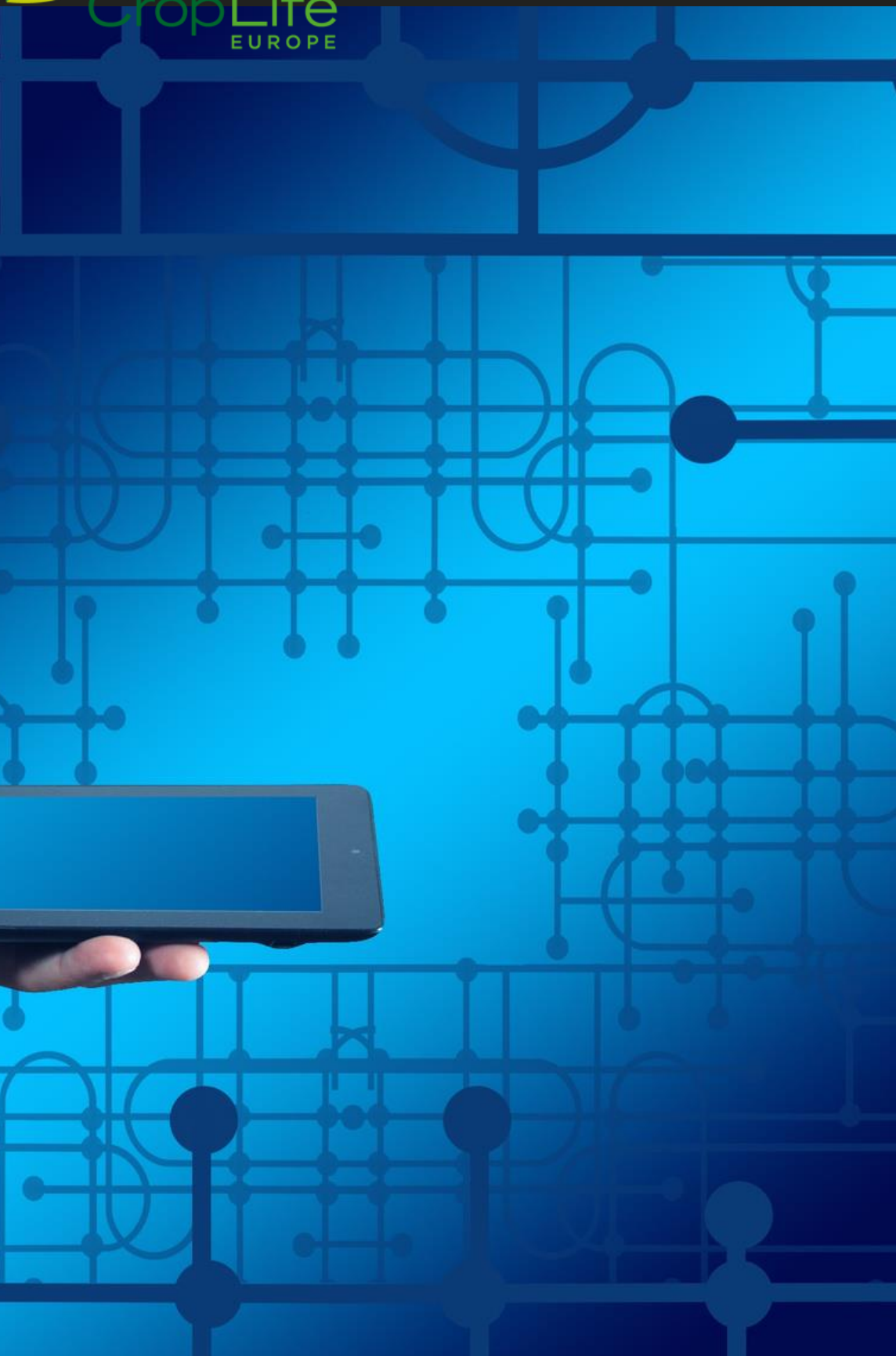
People

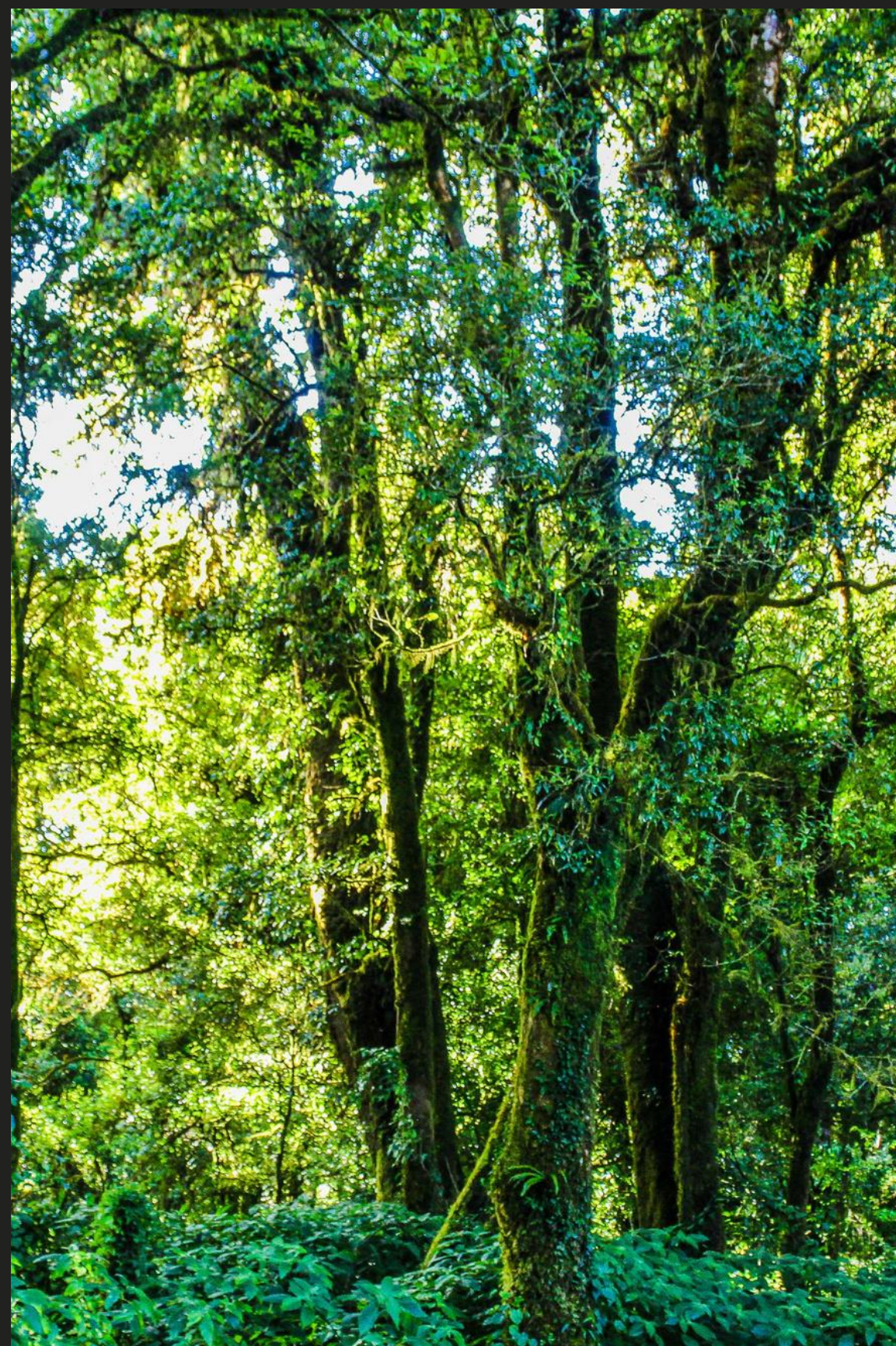
Can we create the perfect farm?













BIOPESTICIDES



biofungicides



Bioinsecticides



Bionematicides



Bioherbicides











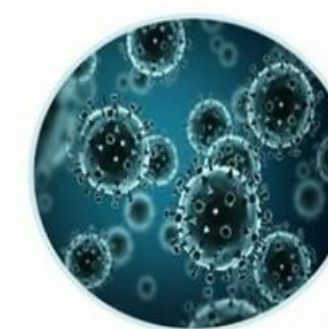
2030 Targets for sustainable food production



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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