Saara Kankaanrinta

Chair of the Board,

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Owner, Qvidja Estate

Co-Founder, Soilfood Ltd & Q Power Ltd

CARBON ACTION .FI

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Baltic Sea Action Group

CAP Strategic Plans – priority considerations

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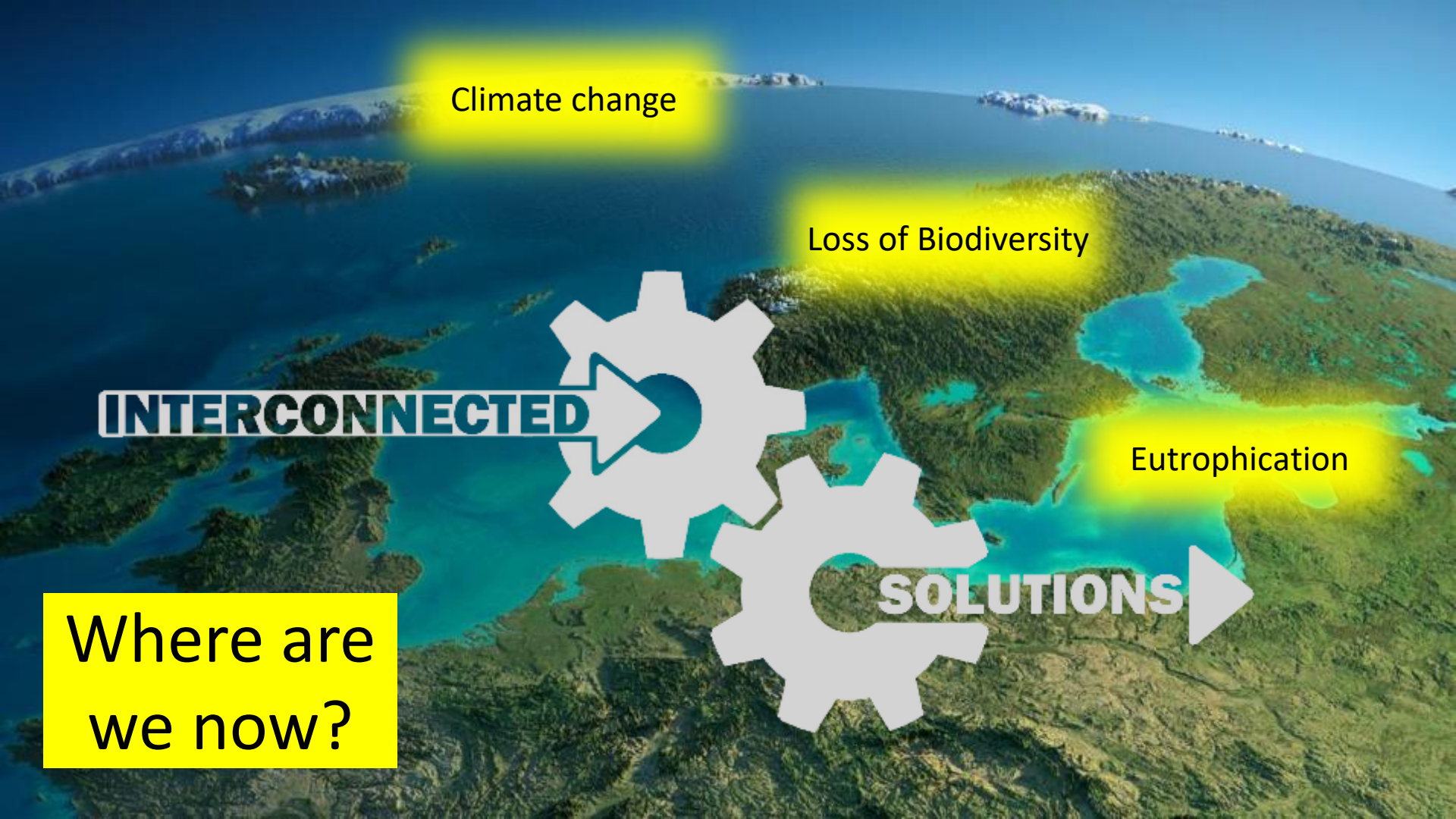

Climate change
Loss of Biodiversity
INTERCONNECTED
Eutrophication
SOLUTIONS
Where are we now?

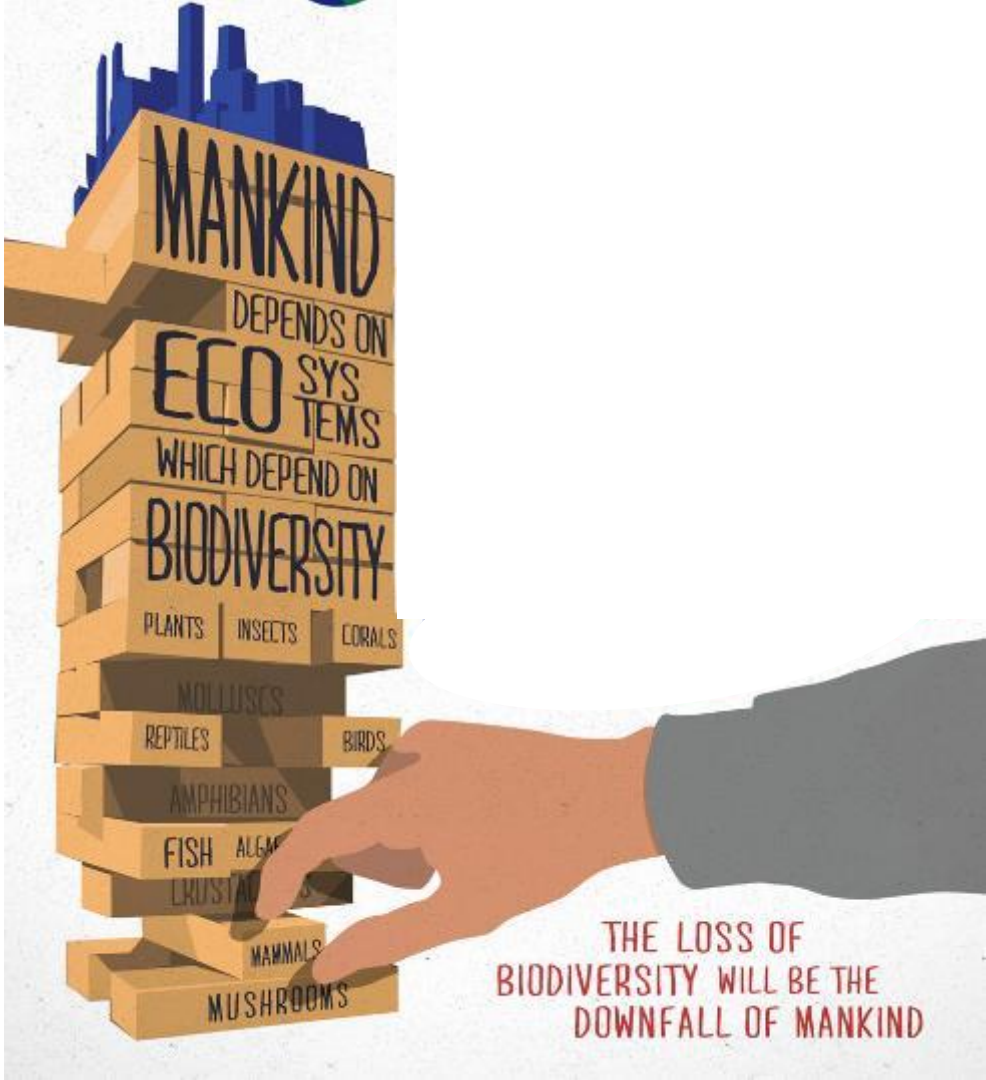
Eutrophication

> 50% of surface waters not in good status (EU WFD)


Fertile soil depleted in 60 years (FAO)
Erosion

Loss of biodiversity

Diversity is the corner stone of all life



Loss of biodiversity

Environment

‘Shocking’ decline in birds across Europe due to pesticide use, say scientists

New figures reveal decline in farmland birds at a 'level approaching an ecological catastrophe'

Josh Gabbatiss Science Correspondent | @josh_gabbatiss | Wednesday 21 March 2018 18:57 | 35 comments

More than 75 percent decline over 27 years in total flying insect biomass in protected areas

Caspar A. Hallmann, Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hofland, Heinz Schwan, Werner Stenmans, Andreas Müller, Hubert Sumser, Thomas Hörren, Dave Goulson, Hans de Kroon

Published: October 18, 2017 • https://doi.org/10.1371/journal.pone.0185809

”in 30 years amount of insects has declined

80%

Monoculture = feed

Piece of rain forest converts into meat

It’s not the cow, it’s how!

The Climate crisis

"In our view, the evidence from tipping points alone suggests that we are in a state of planetary emergency: both the risk and urgency of the situation are acute"

Nature | Vol 575 | 28 November 2019

Main climate change impact on the agriculture in Europe

Mediterranean region

Large increase in heat extremes

Decrease in precipitation

Increasing risk of droughts

Increasing risk of biodiversity loss

Increasing water demand for agriculture

Decrease in crop yields

Increasing risks for livestock production

Agriculture negatively affected by spillover effects of climate change from outside Europe

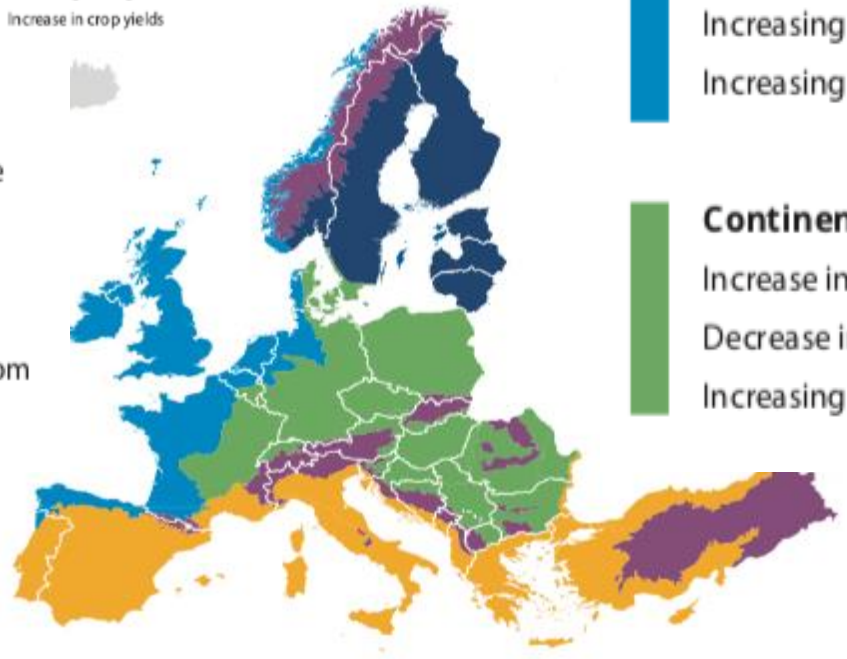
Boreal region

Increase in heavy precipitation events

Increase in precipitation

Increasing damage risk from winter storms

Increase in crop yields



Atlantic region

Increase in heavy precipitation events

Increasing risk of river and coastal flooding

Increasing damage risk from winter storms

Continental region

Increase in heat extremes

Decrease in summer precipitation

Increasing risk of river floods

Mountain regions

Temperature rise larger than European average

Upward shift of plant and animal species

Risk of hail

Risk of frost

Increasing risk from rock falls and landslides

Source: Adapted from EEA (2017b).


Re-routing...
AGRICULTURE

Monocultures
Cash crop fed livestock
Driven by external inputs (mineral fertilizers, herbicides, pesticides, insecticides, fossil fuel)
Segregated production systems

PARADIGM SHIFT

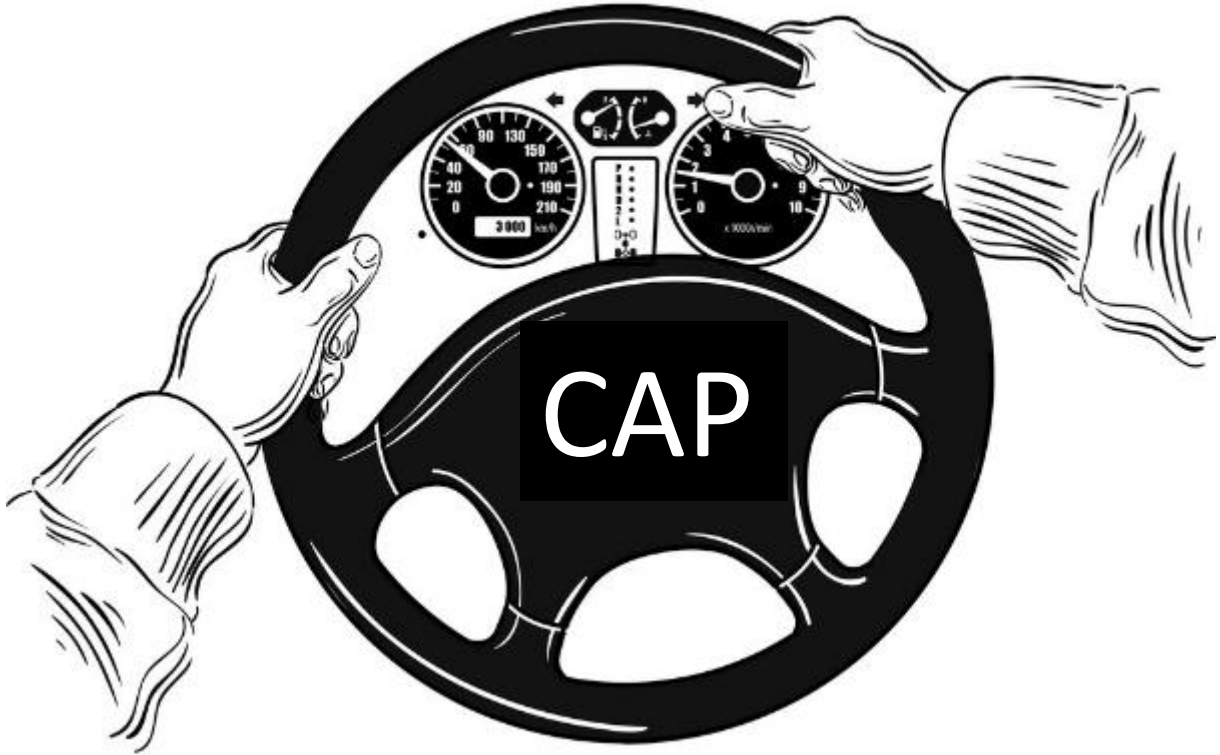
Crop rotation & diversity
Grazing livestock
Soil fertility & green cover
Nature-based processes and measures
Interconnected production systems

DEGENERATIVE

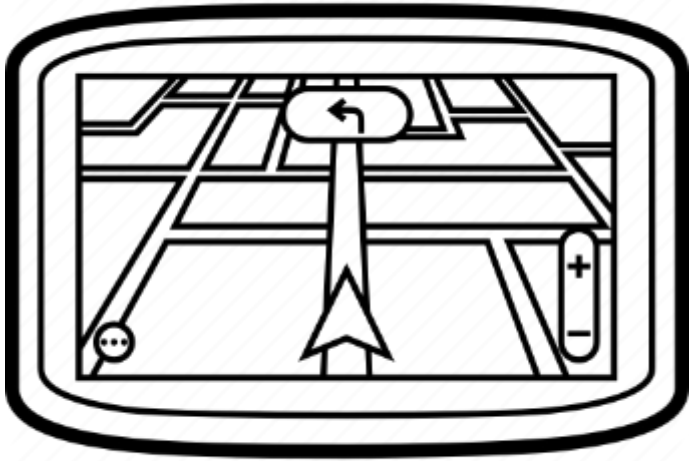
SUSTAINABLE

REGENERATIVE

Steering instrument



How to reach the goals?



EDUCATION AND AGRICULTURAL EXTENSION

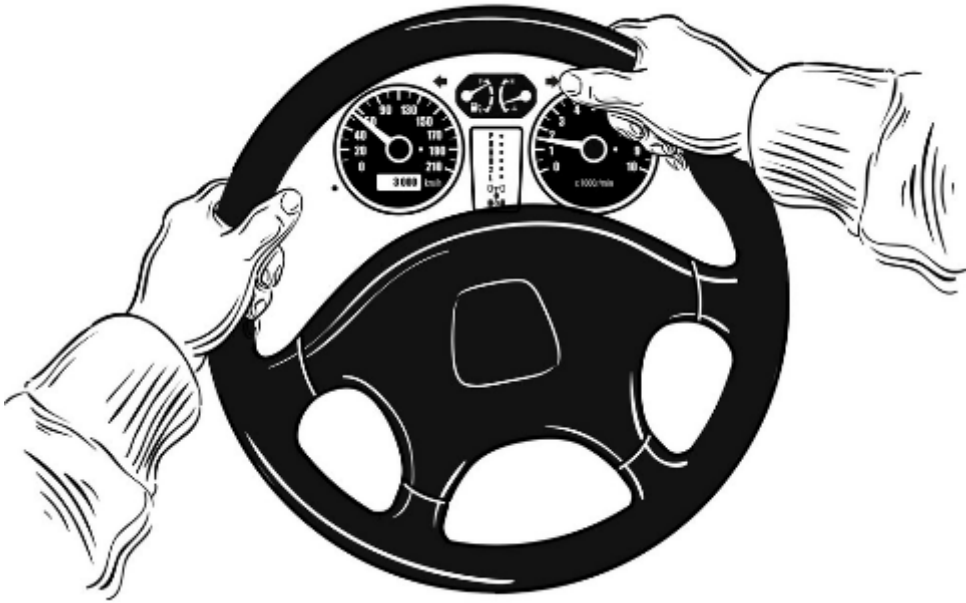
5 Core Principles of REGENERATIVE AGRICULTURE

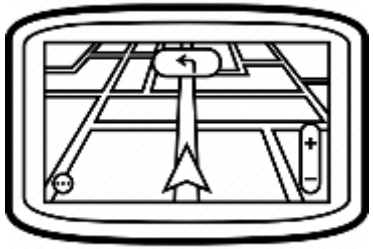
THESE ALL WOULD FIT TO THE ECOSCHEMES


INCREASE
COMPETITIVENESS
REBALANCE
POWER IN FOOD CHAIN
ENSURE
FAIR INCOME
CLIMATE CHANGE
ACTION
THE 9
CAP
OBJECTIVES
ENVIRONMENTAL
CARE
PROTECT
FOOD & HEALTH
QUALITY
PRESERVE
LANDSCAPES
& BIODIVERSITY
VIBRANT
RURAL AREAS
SUPPORT
GENERATIONAL
RENEWAL

CAP Strategic Plans

- Commission proposal sets right direction
- Connected to and delivering for national environment and climate objectives policies





- Include the education and agricultural extension
- Higher ambition and more precision in conditionality (re i.a. crop rotation, biodiversity, peatland)
- Recognition of perennial grasses, agroforestry in definitions and indicators

- Mandatory (for MS) ecoschemes with funding from Pillar I, and including
  - Incentive/reward payments for climate action

- EAFRD Compensation schemes to focus on multi-benefit, holistic and cooperative measures, land management, bridging transition to organic production and more resilient, less input-dependant agriculture

Subsidies must incentivize adopting regenerative practices.

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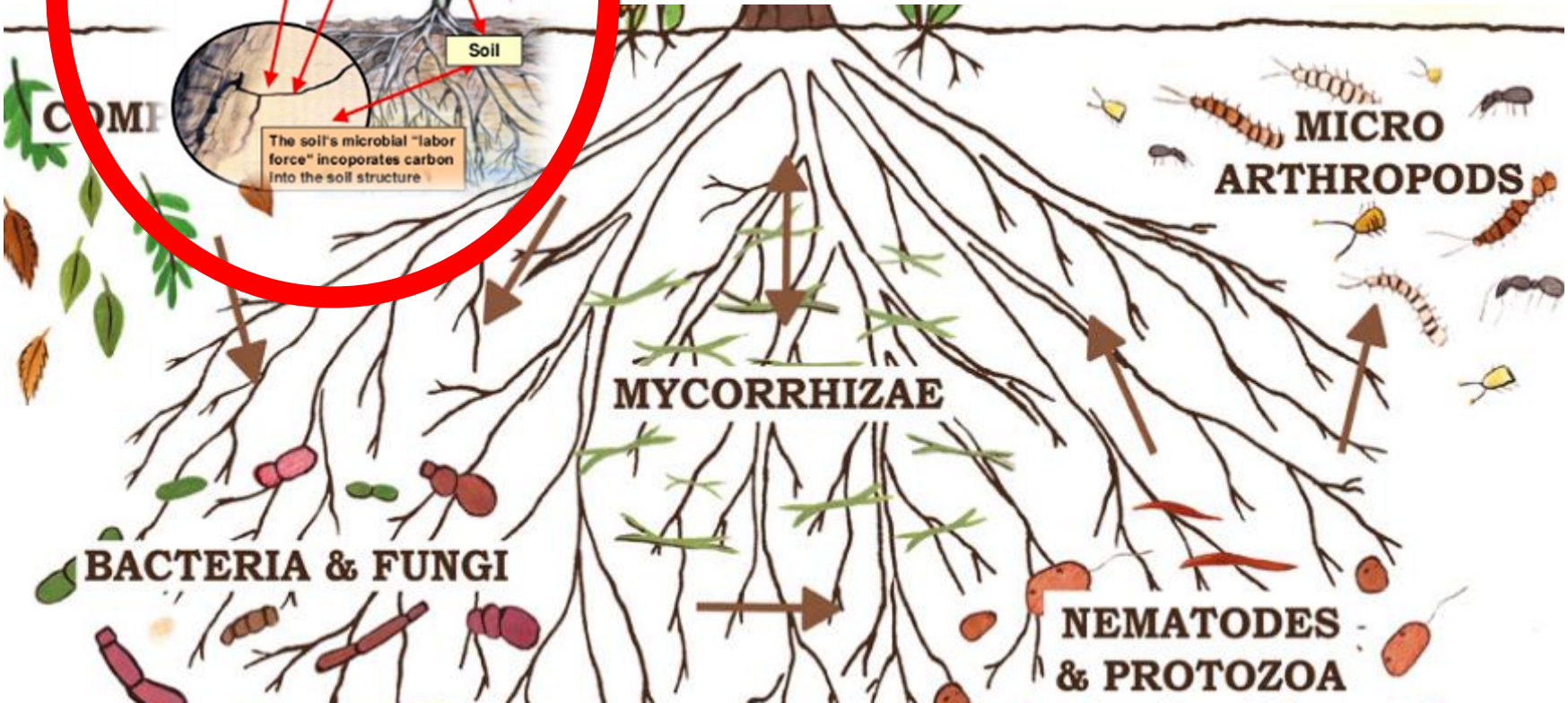
4/1000

Most valuable workers

Active carbon flux via photosynthesis



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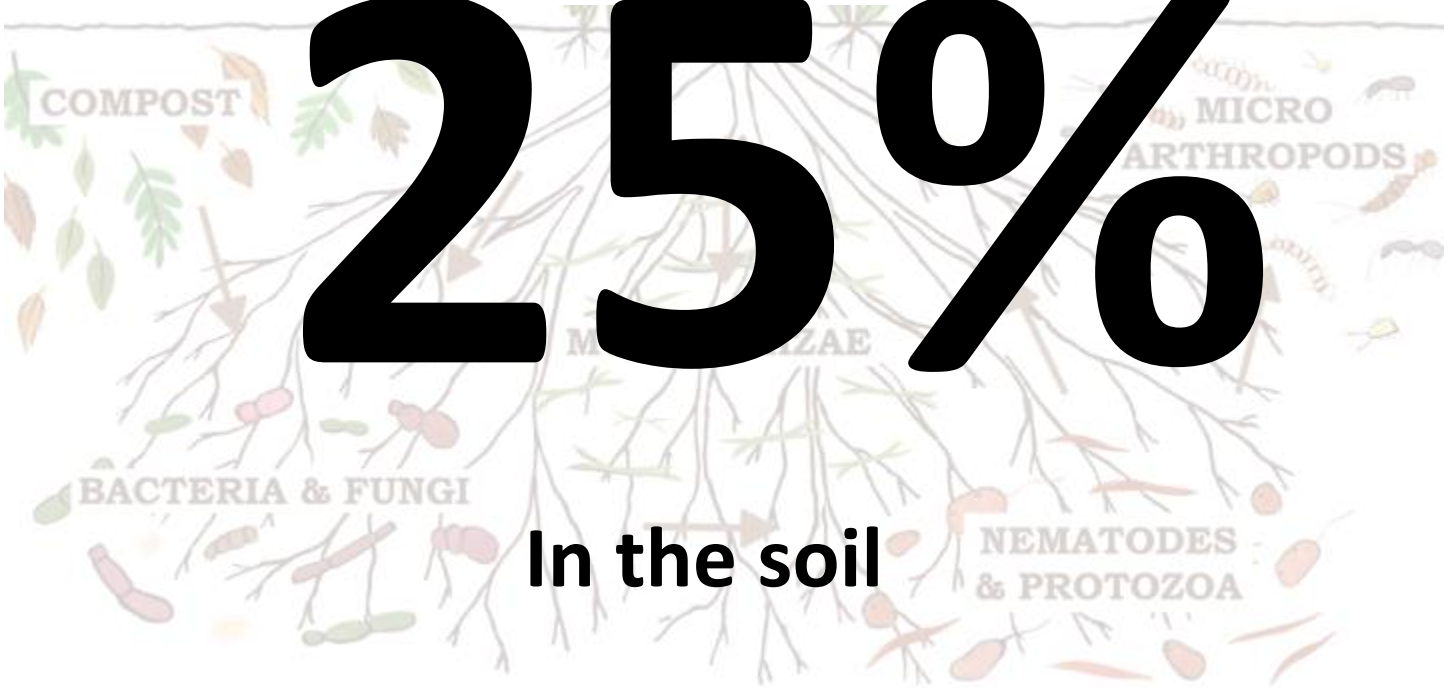
Of all the world's biodiversity

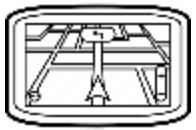


25%

In the soil

SYSTEM CHANGE ON-GOING IN FINLAND: Carbon Action Platform

Soil Carbon Sequestration, biodiversity, Baltic Sea

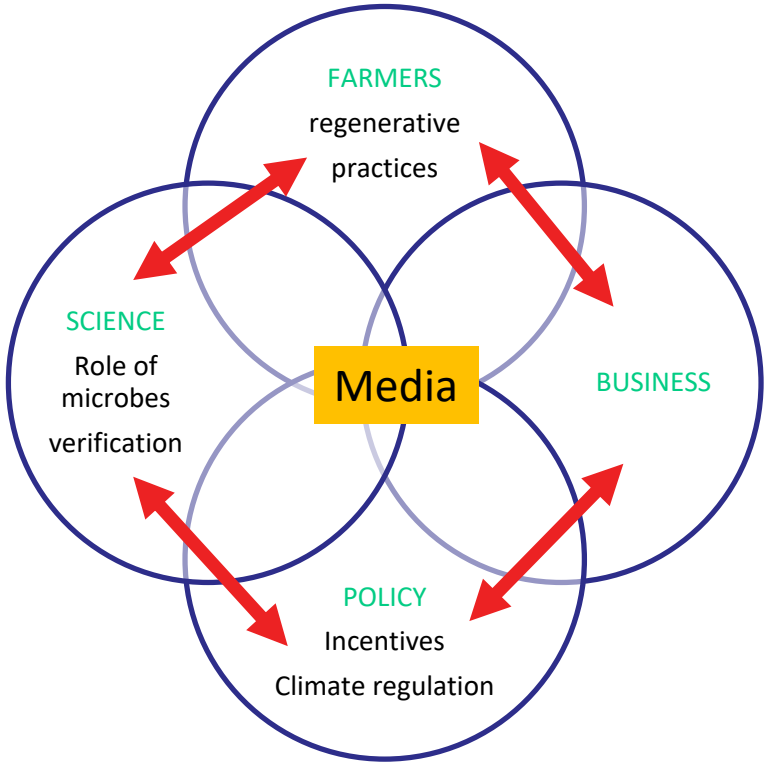


115

committed farmers (FIN)
(intensive education for regerative methods)
+Advisors, Farmers unions

ALL

Main research institutes of Finland and main universities
Large global network

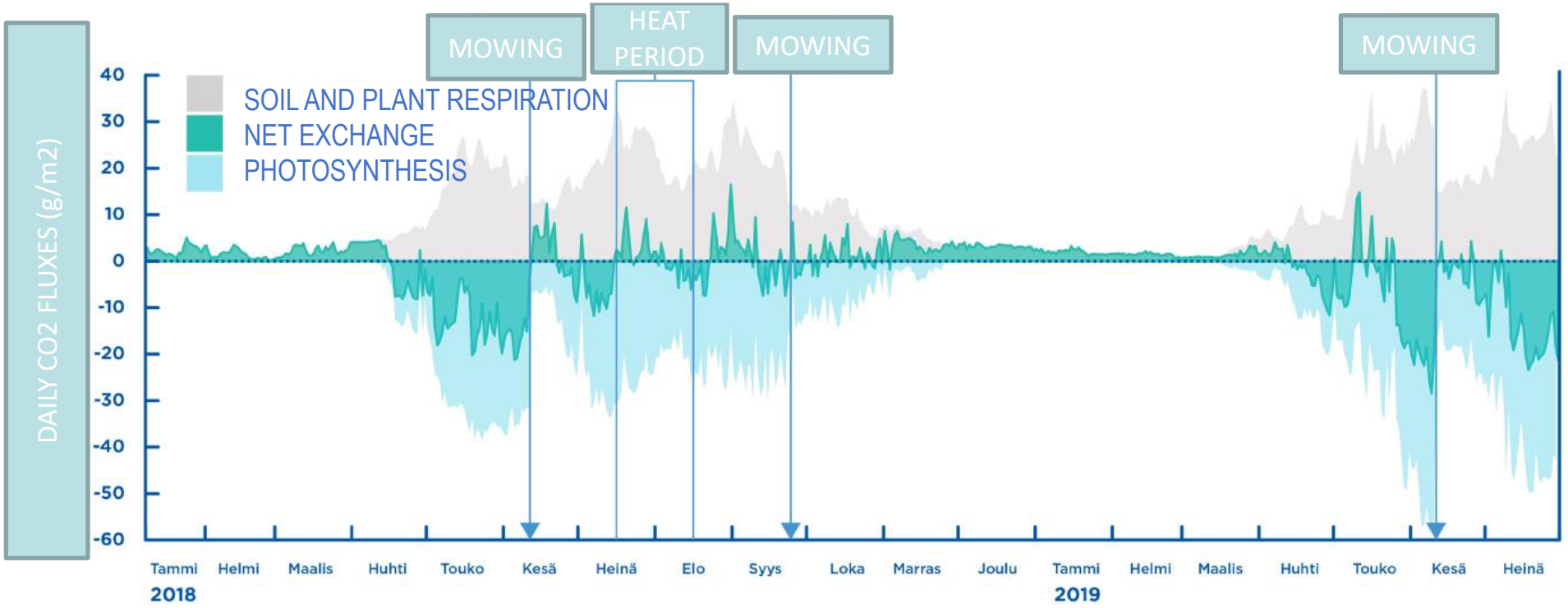


CAP

Carbon credits

Result-based subsidies would fit!

Development of verification of soil carbon storage

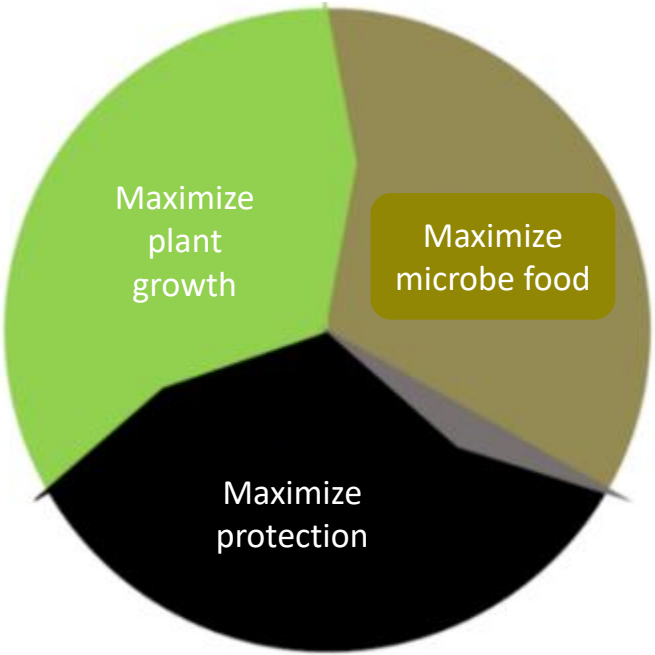


Implementation on farms: farmer-led science and action

- Over 100 different Carbon Farms around Finland
- Training, peer-to-peer learning, testing and piloting in co-operation with researchers
- 3 hectare test area where each carbon farmer tests different measures of C sequestration. Soil samples now and after 5 years
- Testing different measures in practice, give feedback and development tips to researchers

Checklist to increase soil organic carbon

- Continuous plant cover
- Balanced plant nutrition
- Reduce inorganic inputs to activate microbes
- High leaf area



- Make sure soils smell good
- Develope large root systems
- Give wrecked soils a kickstart (organic soil amendmends)

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- Minimal tillage and disturbance
- Minimal pesticide use
- Stable aggregates and good structure

Pilot farmers: future seems bright!

(summer 2019):

”At the start, it all seemed really different and new compared to the practises I had learned and waw accustomed to. Being involved in the education has raised fresh thoughts and changed my whole mindset.”

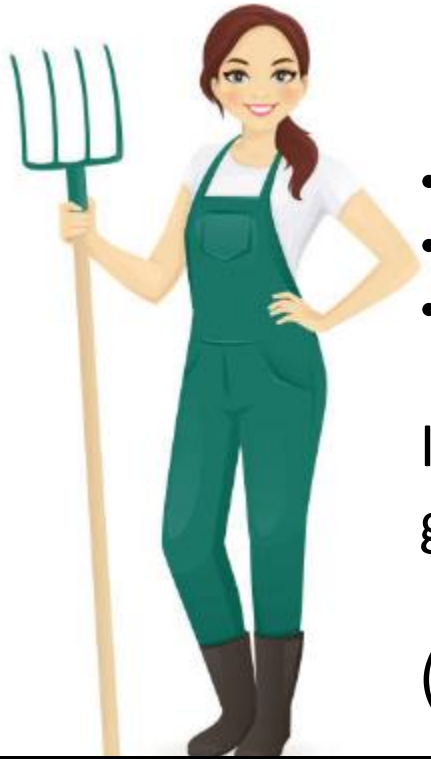
”My goal is to have the soil in really good condition and practise farming which maintains and improves soil fertility. This brings positive economy also. Also small farms can manage well if they do it right. Best professional education of my life. ”

” **I am particularly interested in how carbon farming practises can improve grass yields and quality and secure good yield in variable circumstances**.”

Nutrient retention

Soil carbon sequestration

Biodiversity



More carbon in the soil =

better profitability by

- less expensive external inputs
- better crops
- longer grazing season etc

In the future CAP also: public goods, result-based subsidies?

(Market value is additional)

Focus on multi-benefit, holistic aims – win win win

“The one who grasps principles
can successfully select his
own methods.
The one who tries methods,
ignoring principles,
is sure to have trouble.”

Ralph Waldo Emerson