

Future agricultural challenges:



- Enough, healthy, affordable food
- Limitations of fossil resources
- Climate change
- No/low pollution
- Changing ethics and habits
- Economics and globalisation

Recently we use our world 1.5-times

Organic Farming research



- How is it done in Germany?
- Organic and non-organic research
- Organic Research in Africa
- ISO FAR and IFOAM

Organic Agriculture Research in Germany (estimations 2018)

- In Germany are 450 full time OA scientists (13 chairs) (globally: 1500 scientists)
- Annually 100 mio Euro research money for OA (80 mio public and 20 mio private companies; 1% of total funds for total agricultural research in Germany)
- 40% of global OA research funds are in Germany, 80% are in Europe, incl. EU
- Modern education, laboratories and other research facilities for OA are mainly found in developed (western) countries.
- OA research became accepted in this millenium. Organic Agriculture research has no bias anymore and high quality publishing is possible.
- 25% OA in Germany (and EU) till 2030 is target. This needs research to overcome the development and scaling-up barriers.

German Institute of Organic Farming

- Belongs to the German Ministry of Agriculture
- Goal: development of the „organic farming of the future“
- 100 employees
- Annual budget: 10 Mio. €
- Modern laboratories
- 600 ha organic research station



OA and non-OA reseach

- OA yields and qualities are lower than non-OA:
 - OA goals and standards have restrictions to ensure ecological sustainability.
 - Markets are not as much developed as non-OA: losses and costs
- OA does re-invent research methodologies and concepts:
 - System research versus isolated disciplinary approaches
 - Working with practice and find solutions together

Conventional can learn from Organic

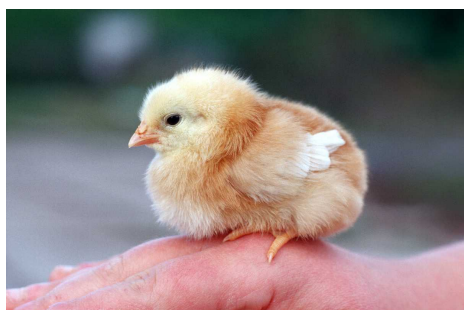
For example:



Nutrient cycles



Crop rotation & mix crops



Improve animal welfare



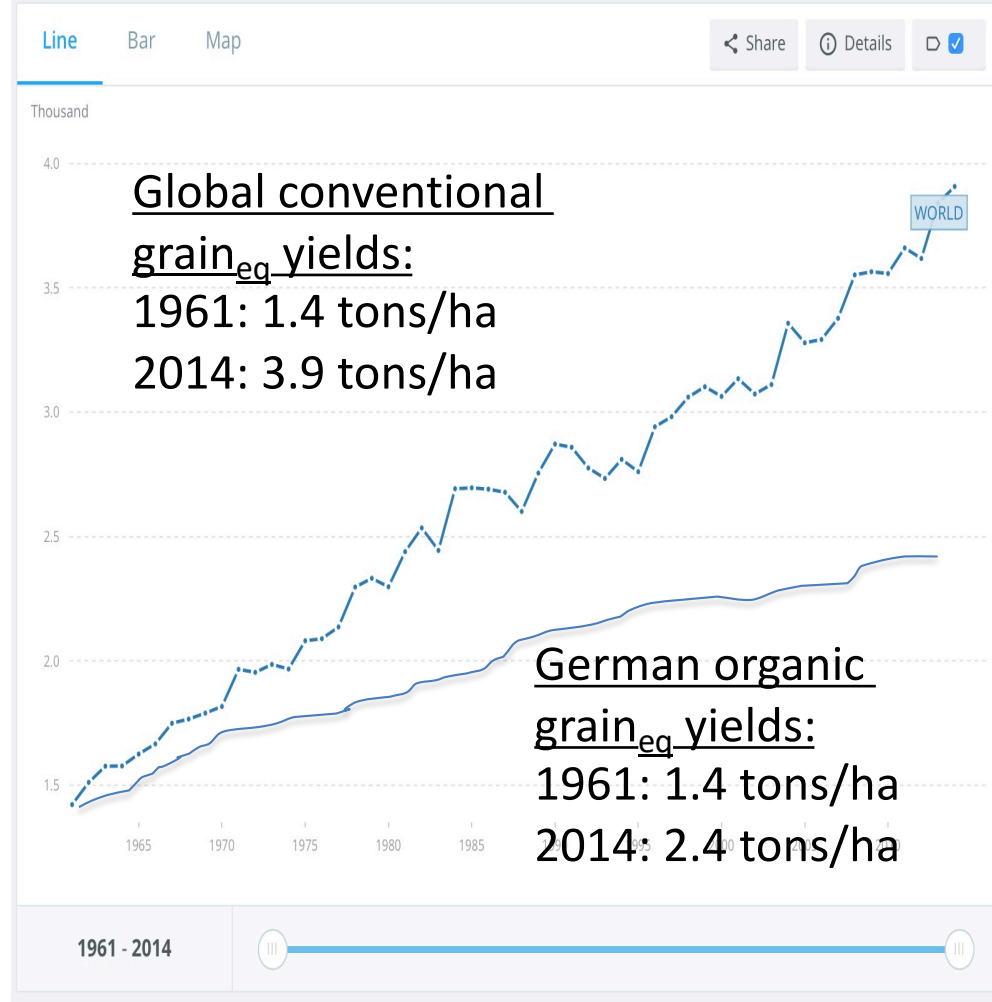
Avoiding pesticides with machines and knowledge

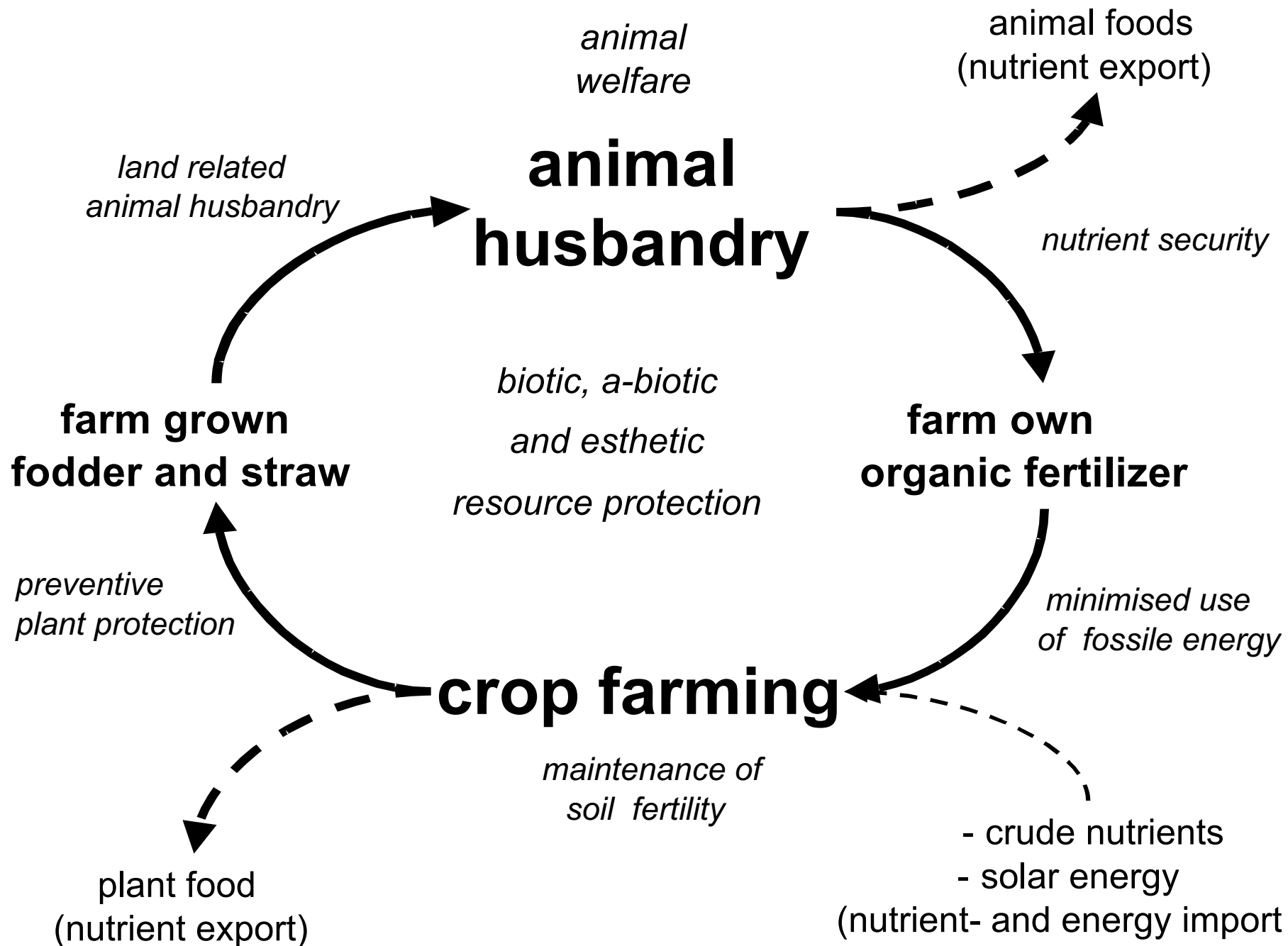
Organic can learn from Conventional

Cereal yield (kg per hectare)

Food and Agriculture Organization, electronic files and web site.

License: [Open](#)





Characteristics of an ideal organic farm

Successfully managing natural resources while achieving **social** goals

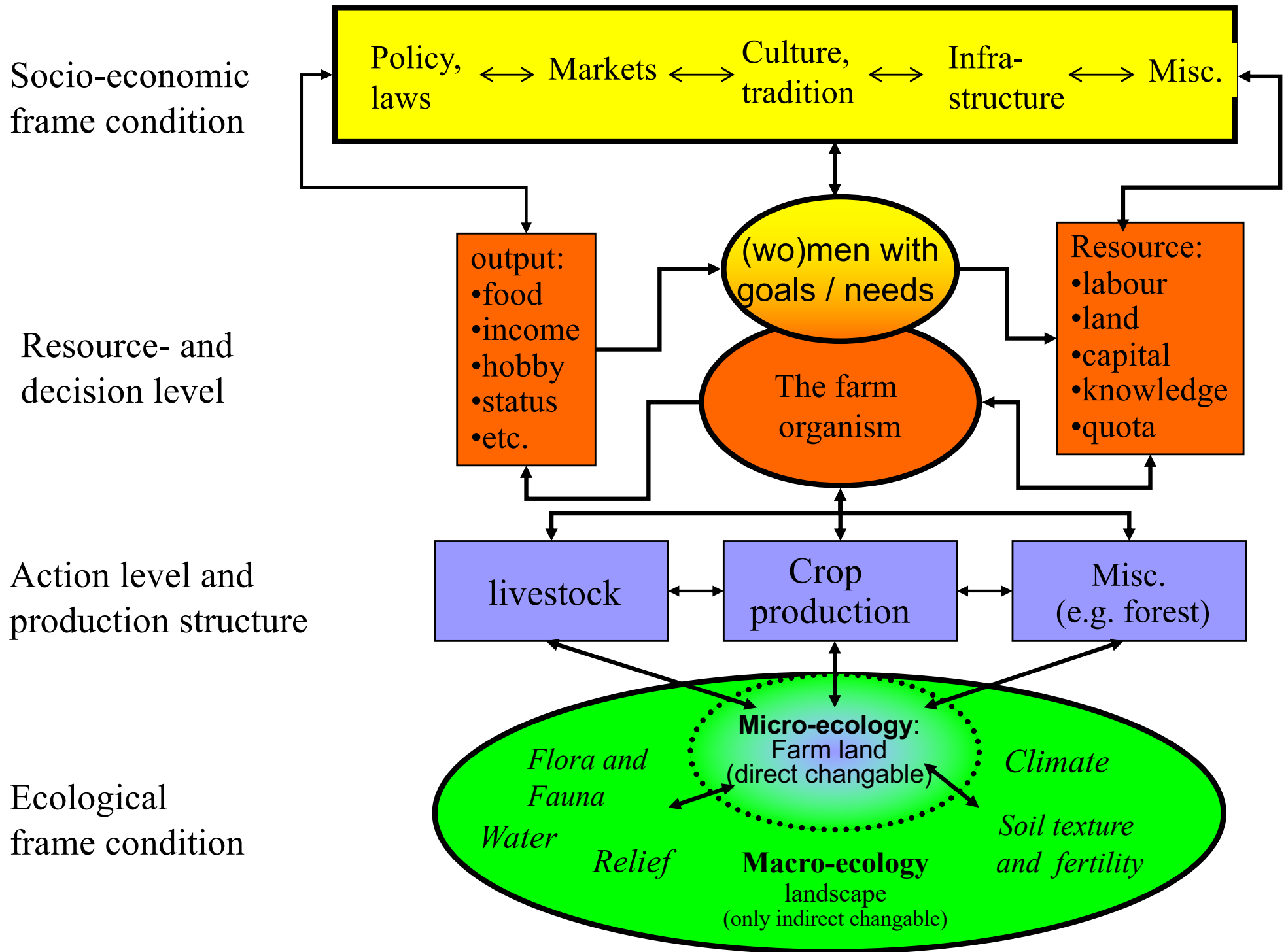
Ensuring sufficient production for subsistence and income

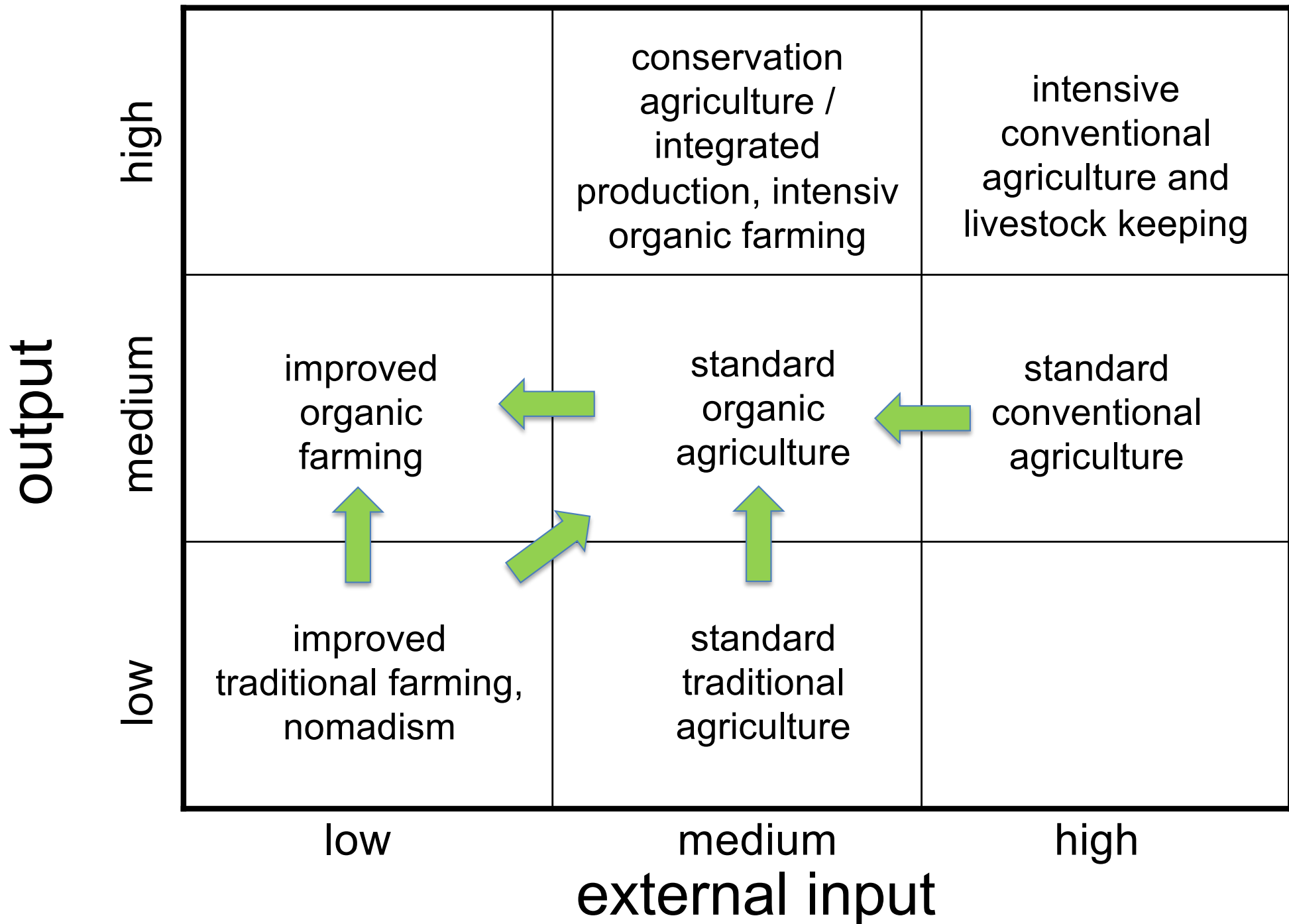
Ensuring safe nutrition for the family



Ensuring good and fair working conditions

Encouraging learning and application of local knowledge

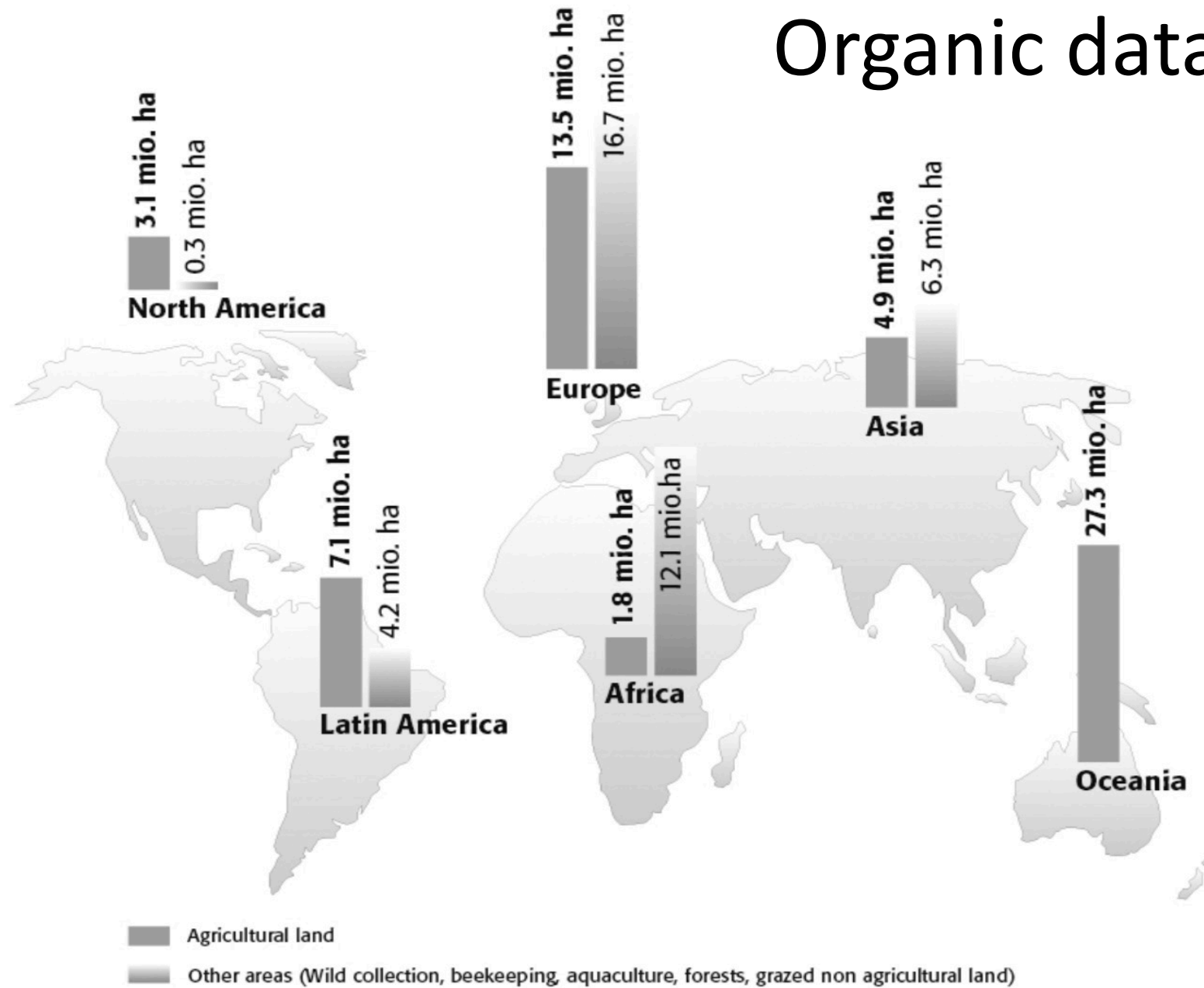




Research in cooperation of farmers and researchers

- On-station done by scientists (experiments)
- On-station done by farmers (staff) (observing)
- On-farm done by scientists (interventions)
- On-farm done by farmers (surveys)

Organic data 2018



IFOAM/FiBL 2020

Organic Agricultural research in Africa (my observations)

- Isolated in the academic world (networking !)
- Lack of knowledge of OA research needs (IFOAM, AfroNet ?)
- Little education and training of students and scientists in OA research methodologies and publication (ISO FAR, NOARA ?)
- Lack of experimental facilities (staff and money, advocacy !)

My recommendations

- Network throughout Africa to find cooperation, relevant topics for Africa, more resources and good friends.
- Study the OA markets in Europe or America, to gain knowledge and skills.
- Work with farmers in your areas.
- Gain experience OA methodologies and publication

Project: Knowledge Hubs for Organic Agriculture in Africa?



Project: Knowledge Hubs for Organic Agriculture in Africa?



AT A GLANCE

The implementing partners create technical and methodological **knowledge products** in English, French, Arabic and selected local languages in the countries involved in the project.



The project develops an online platform to disseminate **knowledge about organic farming** in Africa.

The implementing partners are selected **non-governmental organisations** in the five knowledge hubs.



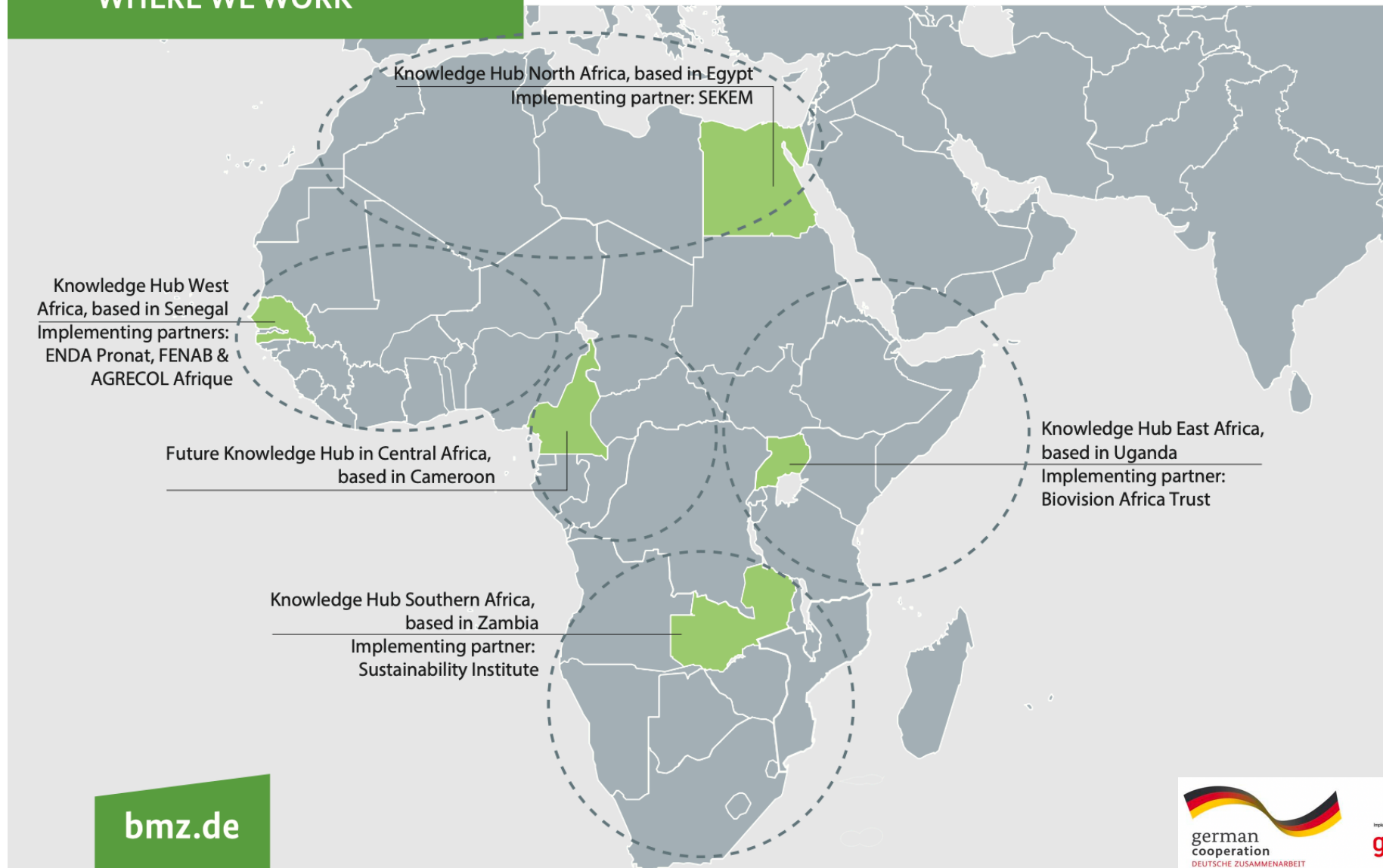
Duration: 2019 to **2024**

Budget: approx. **€23 million**



Project: Knowledge Hubs for Organic Agriculture in Africa?

WHERE WE WORK





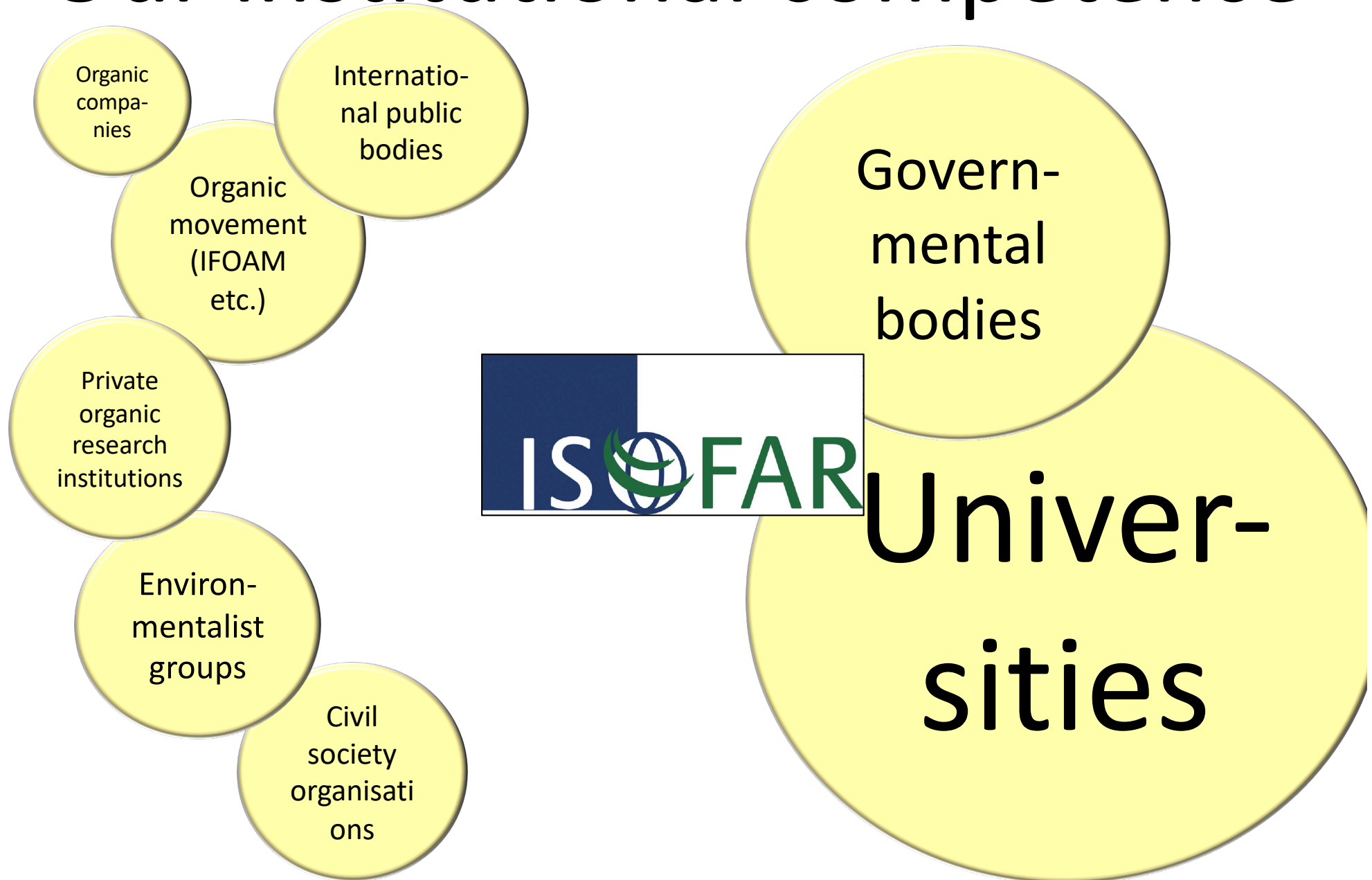
What is ISOFAR ?



- Networking the global organic scientists
- Making organic research results communicated
- Networking with the Organic movement
- Creating capacities for research activities

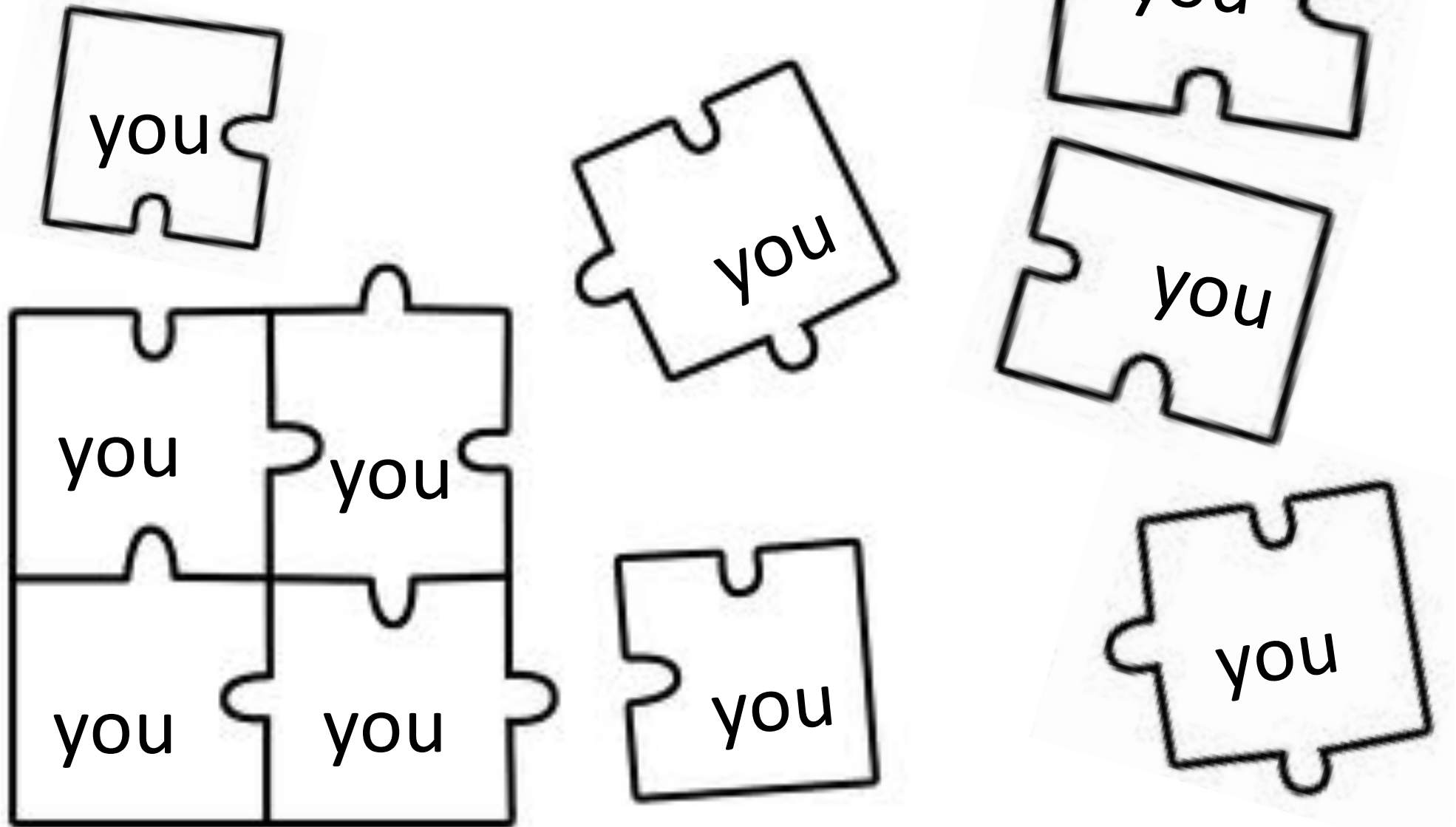
www.isofar.online

Our institutional competence



www.ISOFAR.org

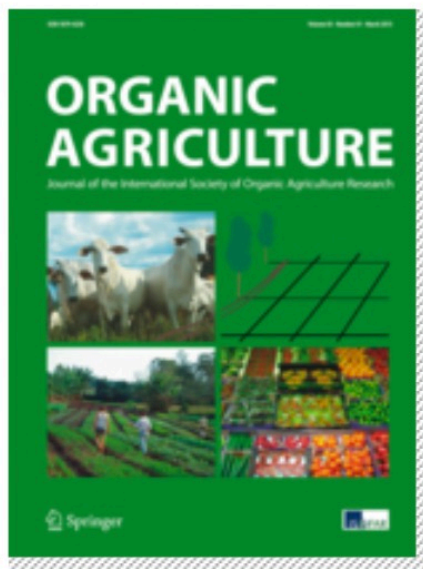
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