

FInAL

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Facilitating insects in agricultural landscapes

A Landscape Lab approach

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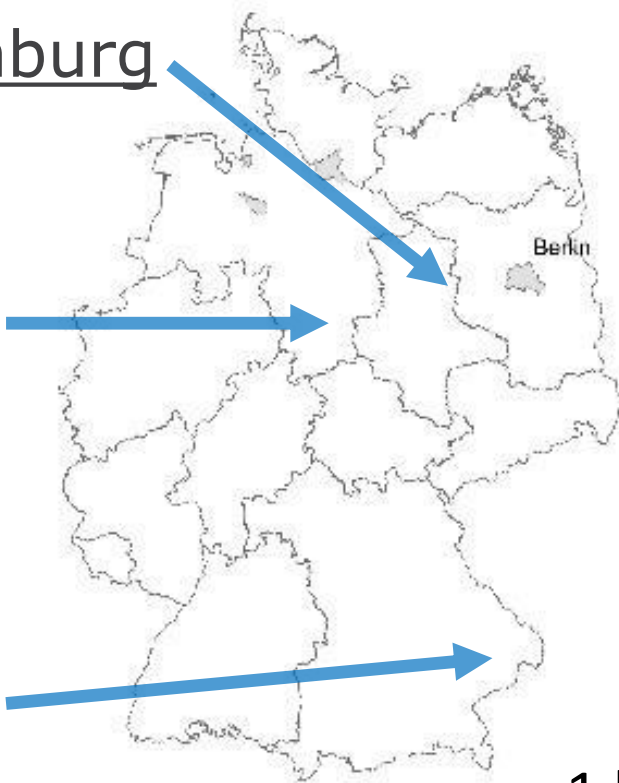
Burkhard Fromme, AEG Fromme/Altenbach in Scheppau, Germany

Territorial context of FInAL

Brandenburg

Lower
Saxony

Bavaria



3 study regions in Germany

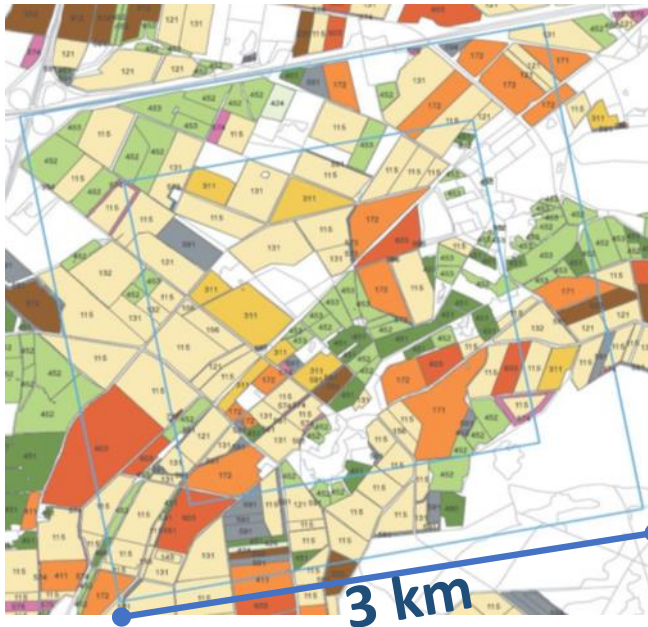
2 agricultural landscapes
(3 x 3 km) per region



1 landscape lab + 1 reference landscape

The farming systems

- Land use of average intensity
 - Short crop rotations
 - Bioenergy crops (OSR)
 - Intensive grassland
 - Pork production (maize, soy)
- Lower Saxony:
10 Farms
- Brandenburg:
4 Farms
- Bavaria:
30 Farms



„Elm“ Landscape Lab, Lower Saxony

Environmental and other challenges



- Biodiversity decline
- Soil degradation
- Groundwater pollution (nitrogen)
- Pesticide use
- Loss of species-rich grassland



What sparked FInAL



Finding solutions for
insect friendly
agriculture with farmers



Who is involved?

Research



- Ecology
- Economy
- Social sciences (co-design)
- Crop production
- Plant protection
- Biodiversity monitoring

Chamber of agriculture



Farmers

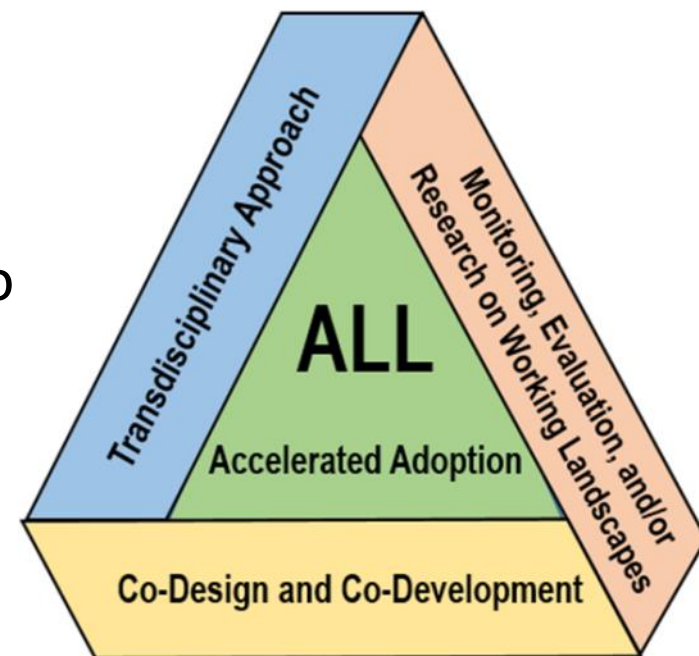
Municipalities

Other land users

ALL – Agroecosystem Living Lab

An approach to accelerate the development and adoption of beneficial management practices

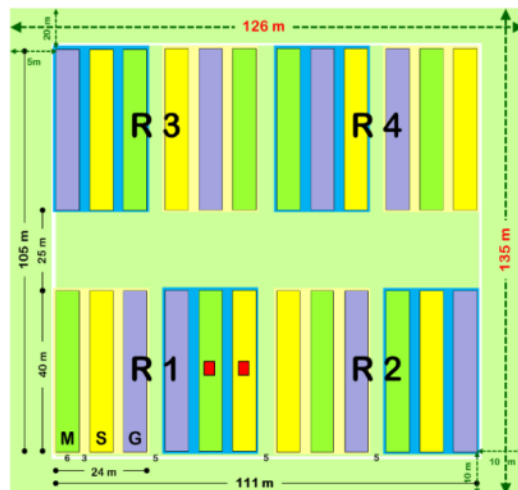
- Transdisciplinary Approach;
- Co-Design and Co-Development with Participants (where “participants” refer to all individuals and groups involved in an ALL, including producers, scientists, citizens and other interested partners);
- Monitoring, Evaluation, and/or Research on Working Landscapes.



www.macs-g20.org

Activities of FInAL

Innovative measures
(novel crops)
field experiments



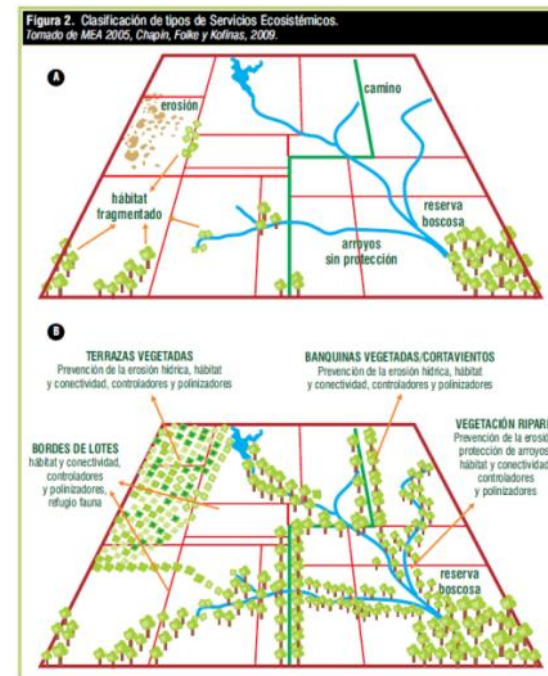
Field scale
processes

Existing demonstration
networks (outside
FInAL)



Implementation at the
farm scale

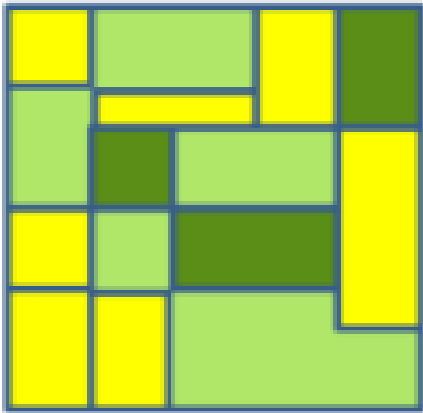
Landscape Labs



Functioning of production
systems (landscape scale)

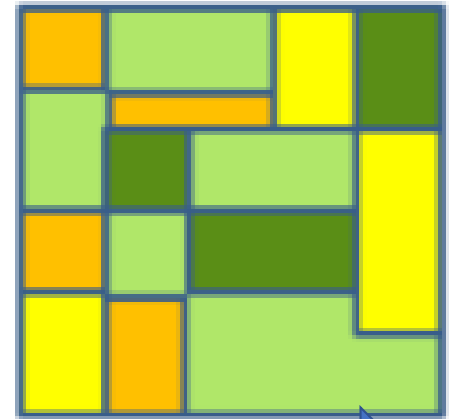
Continuation of FInAL

Business as usual



- Integrated pest management
- Integration of renewable resources
 - More flowering crops
 - More undisturbed soil
 - Crop diversification
- Green infrastructure

Insect friendly



Transition towards sustainable farming systems (12 years)

- Fair comparison of farming systems (economic, ecological, social)
- Finding indicators of sustainable farming
- Development of **Landscape Lab** as method for farming transitions

The impact so far

- Innovative farmers willing to co-design the transition of their farming systems were identified in three landscape labs.
- Co-design process has started
- State of Bavaria has great interest in the project and is supporting FInAL with additional staff
- Positive response from individual farmers not yet involved in the project
- High interest by farmers in establishing agroecosystem living labs

Costs and funding



Fachagentur Nachwachsende Rohstoffe e.V.

Gefördert durch:



Bundesministerium
für Ernährung
und Landwirtschaft

aufgrund eines Beschlusses
des Deutschen Bundestages

~3.5 Mio Euro for 3 years for all partners

Problems:

- funding of the farmers
- economic security of farmers undertaking transformation
- Funding of the „unknown“: output of co-design process and costs involved cannot be estimated in the proposal

Landscape Lab Elm



AEG Fromme/Altenbach in Scheppau

- Size of company: **380 ha**
 150 ha in the landscape laboratory
- **no plow tilage** since 30 years
- 20 % direct seeding since 10 years
- **Soil:** extremly changing conditions; partly sandy, very clayey areas,
partly waterlogged

Typical farming in the Elm Landscape Lab



Winter Wheat is the main cultivation

our current practice:

- no tillage
- Intercropping
- particular starting with permanent ground cover
- Low pesticides / rarely insecticides
- Soil conservation has priority!
- Our aim is to advance soil life

Internal benefit



- FInAL supports the company on the way to another agriculture
- Solutions are designed together (science, agricultural practice, politics work together)
- New techniques can be tried out without the economic risk (innovative crops, complex catch crop mixtures, cultivation methods)
- A business management view takes place supporting insects

Benefit for the region



Probably a break
into new markets

Thank you!



Förderung von Insekten
in Agrarlandschaften

www.final-projekt.de

Getragen durch:



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