SBSTA 44 Agenda Item 5 Workshop on the identification of sustainable practices to enhance productivity, food security and resilience

Herwig Ranner
European Union

2016

Question 2: How do various processes under the convention facilitate the identification and assessment of agricultural practices and technologies to enhance productivity in a sustainable manner, food security and resilience observed in your country.

EU activities (domestic and international) on mitigation:

EU Common Agriculture Policy:

- Reduction of 24% of agriculture emissions since 1990
- Greening measures
- Crosscutting measures to reduce emissions
- Voluntary schemes to incentivize famers to carry out sustainable practices
- Nationally implemented action
- Co-benefits of mitigation measures (water quality, increasing biodiversity, resilience, food security…)

National Examples:

Beef Data & Genomics Programme in Irelands RDP 2014-2020

Origin Green - Ireland

Climate Programme for Finnish Agriculture

Sown Biodiverse Pastures in Portugal

Focus on nutrients - Sweden

The agro-ecological project in France, a policy framework for sustainable climate action

Fertilization planning under integrated pest management and precision agriculture - Latvia

Agricultural Technology - UK

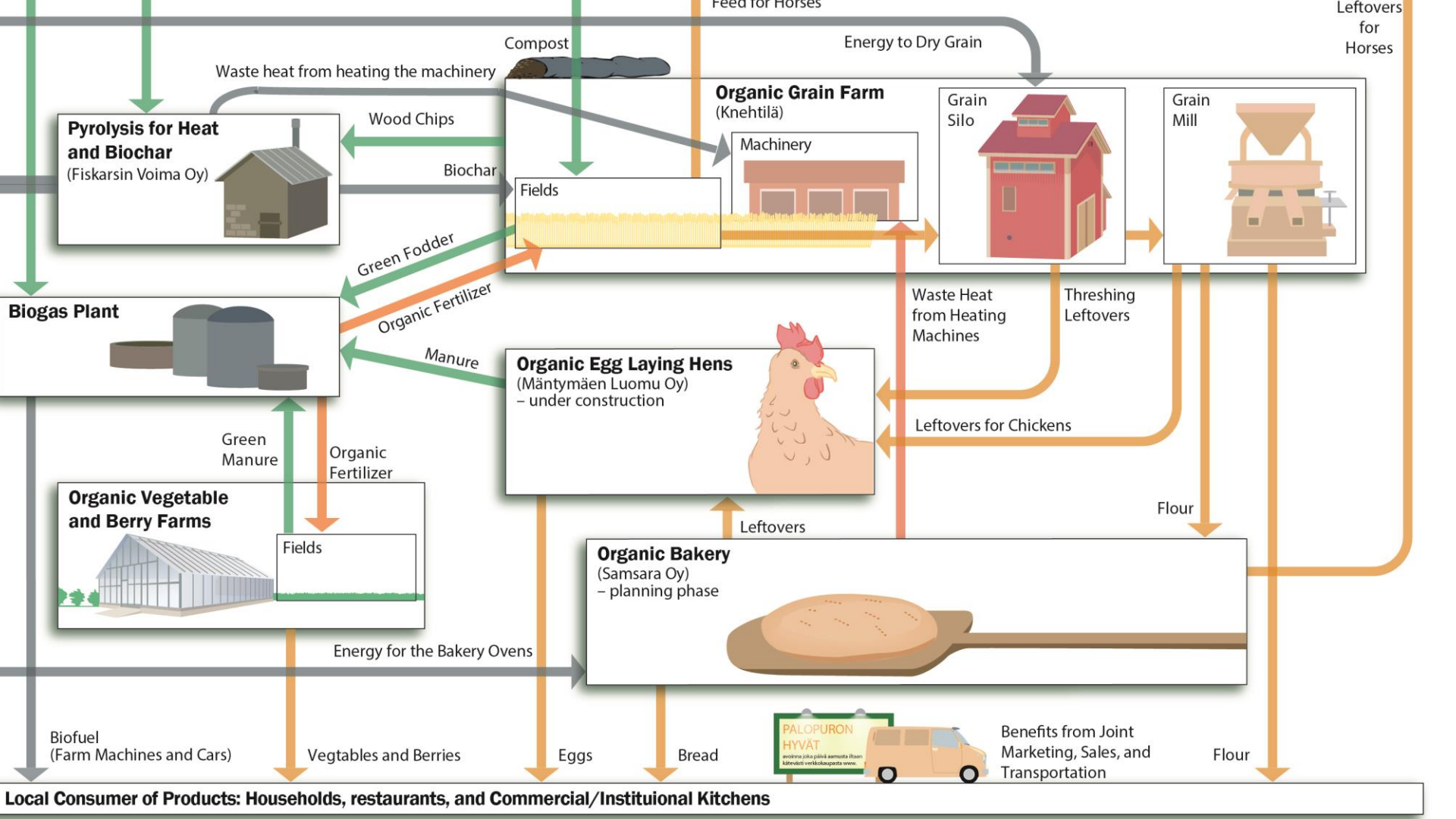
Knehtilä Farm – Finland

Low Emission Dairy products – The Netherlands

Maintaining and increasing soil organic carbon –Germany

Enhancement of nitrogen use efficiency – Germany

Wetland restoration and flood management - Germany


Feed for Horses
Leftovers for Horses
Compost
Energy to Dry Grain
Waste heat from heating the machinery
Organic Grain Farm
(Knehtilä)
Grain Silo
Grain Mill
Pyrolysis for Heat and Biochar
(Fiskarsin Voima Oy)
Wood Chips
Biochar
Machinery
Fields
Green Fodder
Organic Fertilizer
Biogas Plant
Manure
Waste Heat from Heating Machines
Threshing Leftovers
Organic Egg Laying Hens
(Mäntymäen Luomu Oy)
– under construction
Leftovers for Chickens
Green Manure
Organic Fertilizer
Organic Vegetable and Berry Farms
Fields
Flour
Leftovers
Organic Bakery
(Samsara Oy)
– planning phase
Energy for the Bakery Ovens
PALOPURON HYVÄT
Biofuel (Farm Machines and Cars)
Vegtables and Berries
Eggs
Bread
Benefits from Joint Marketing, Sales, and Transportation
Flour
Local Consumer of Products: Households, restaurants, and Commercial/Instituional Kitchens

National Examples:

- Palopuro Agroecological Symbiosis creates an energy and nutrient self-sufficient food production system that is both locally based and transparent to the community and the consumers of the products.
- French national agro-ecological project : towards a sustainable agriculture to face climate change ;

French national project for agro-ecology : towards a sustainable agriculture to face climate change

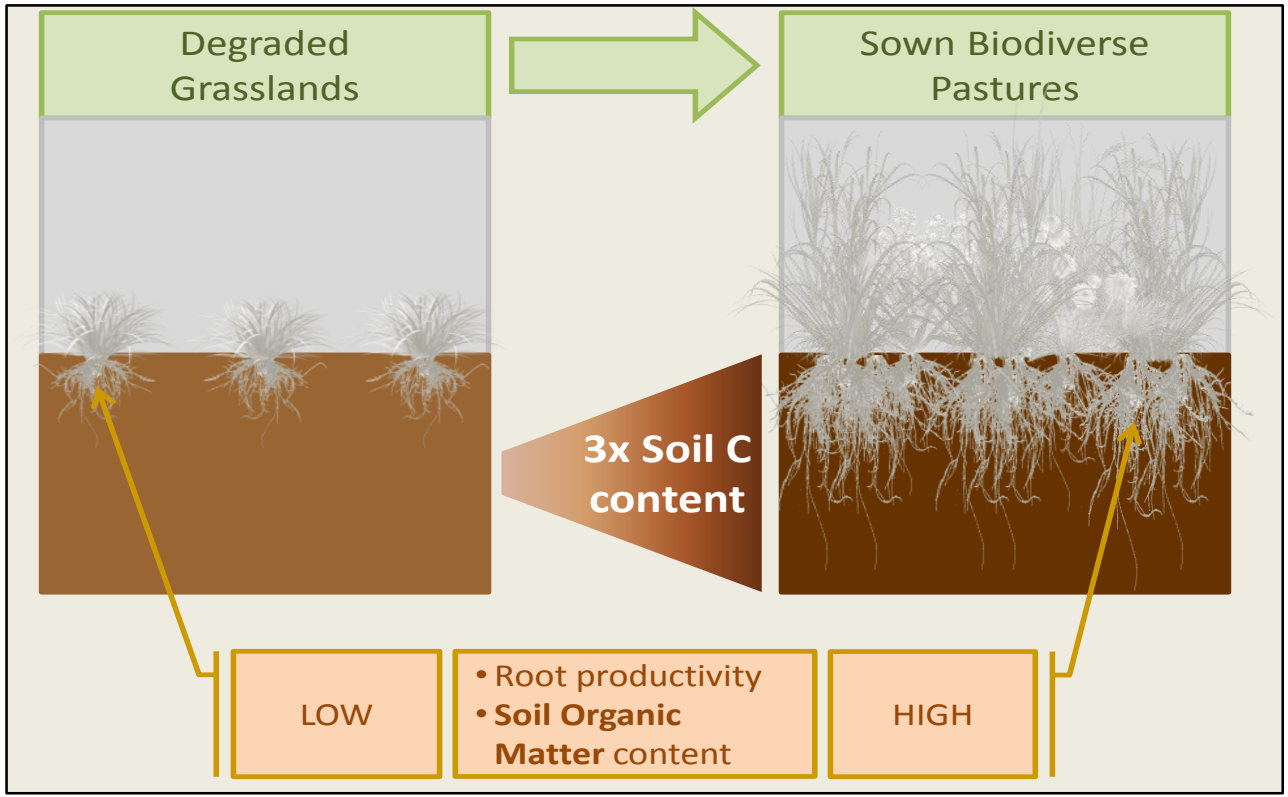
- Launched in dec. 2012 → "Loi d'avenir" in Oct. 2013
- Environmental and climatic performance as a comparative advantage. Also addresses public concerns.
- Practices and systems that use functionalities of natural cycles and regulations to inputs, costs and impacts and resilience
- Main target : convert half of farmers in 2025
- Bottom-up initiative (pioneers, farmers groups, applied research)
- Mainstreaming in agricultural policies, finance an institutions
- Multi-stakeholder committee, roadmap and indicators
- Some lessons : not one size fits all, farm-based innovation, flexible policy framework, political will and dialogue, incentives

Strong changes in every technical intervention

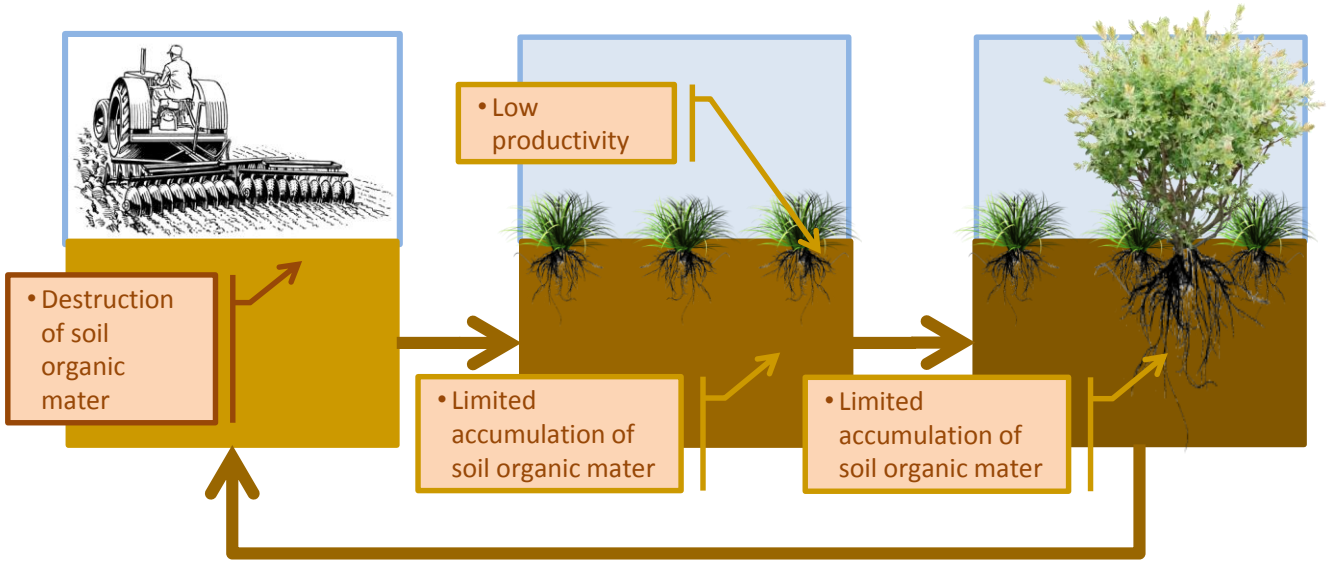
Conventional intensification	Agro-ecology
Segregation between agriculture and animal productions	Association / Integration of animal and crop productions
Fertility brought by fertilizers	Diverse sources of fertility: biomass, manure, compost, legumes crops, etc.
Simplification of cultural successions	Diversification of cultural successions
Tendency to monoculture with elite monogenotype	Diversification / complexification of crops: multicropping, varietal mix,...
Pest and disease control by pesticides	building up diverse trophic networks
Animal health managed by curative means (antibiotics)	Ecopathology and etiopathology strategy for animal health
etc.	etc.
Simplification – uniformisation **Degradation of the agrosystem**	**Complexification - diversification** **'aggradation' of the agrosystem**

adapted from M. Griffon 2013

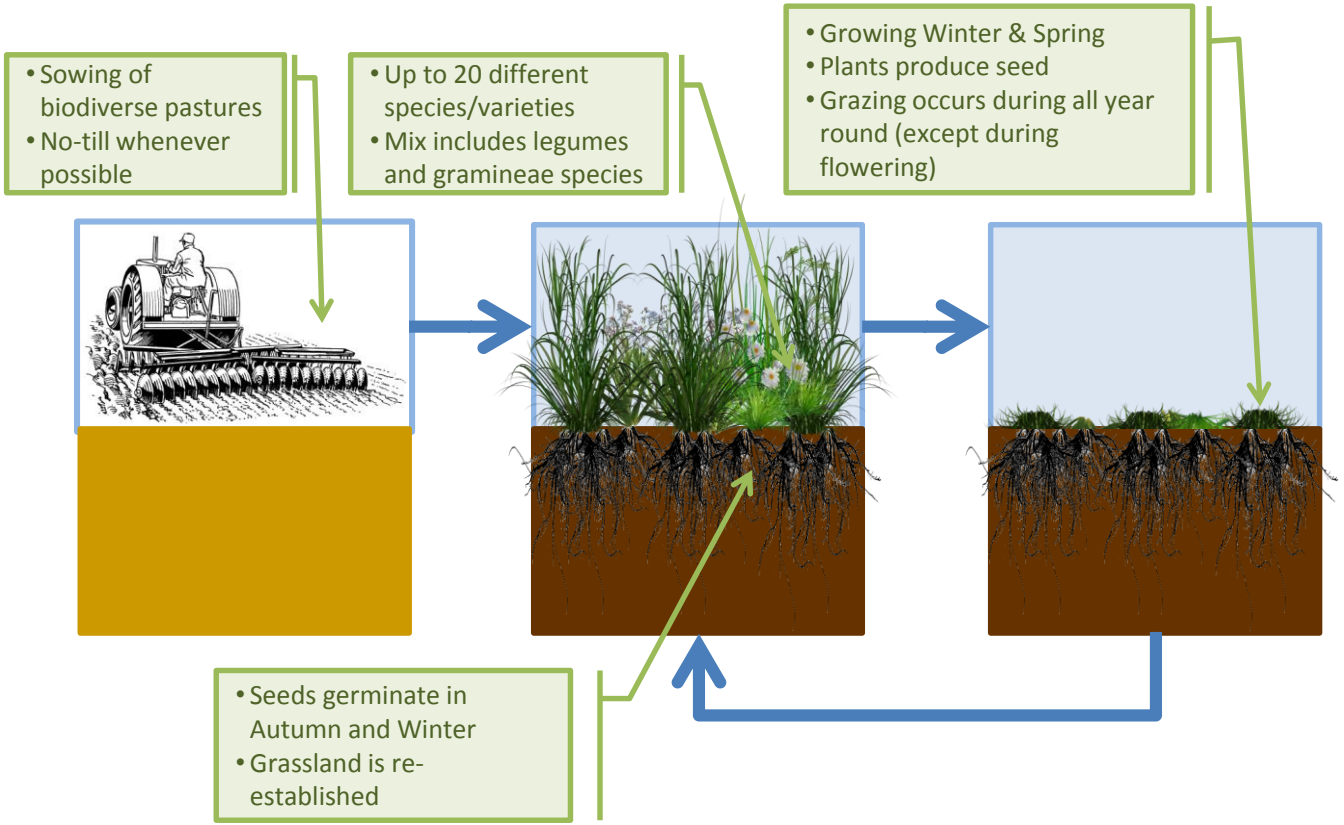
Promoting Soil Carbon Sequestration AND Adaptation in Portugal



Baseline Scenario: Degraded Grassland



Alternative Scenario: Sown Biodiverse Pastures



Sown Biodiverse Pastures

Grassland under Cork-Oak Forest; 1st year

International Cooperation

FoodAfrica (Improving Food Security in West and East Africa through Capacity Building in Research and Information Dissemination) - Finland

Climate Change Adaptation, disasters prevention and Agricultural Development for Food Security - ANADIA Niger - Italy

Geodata for Agriculture and Water – The Netherlands

International Climate Smart Agriculture Initiatives - the Netherlands

EU submission

http://www4.unfccc.int/submissions/Lists/OSPSubmissionUpload/39_84_131008812614561491-NL-02-24-EU%202016%20AFOLU%20AGRI%20new.pdf

Please take a read and please contact us for more information!