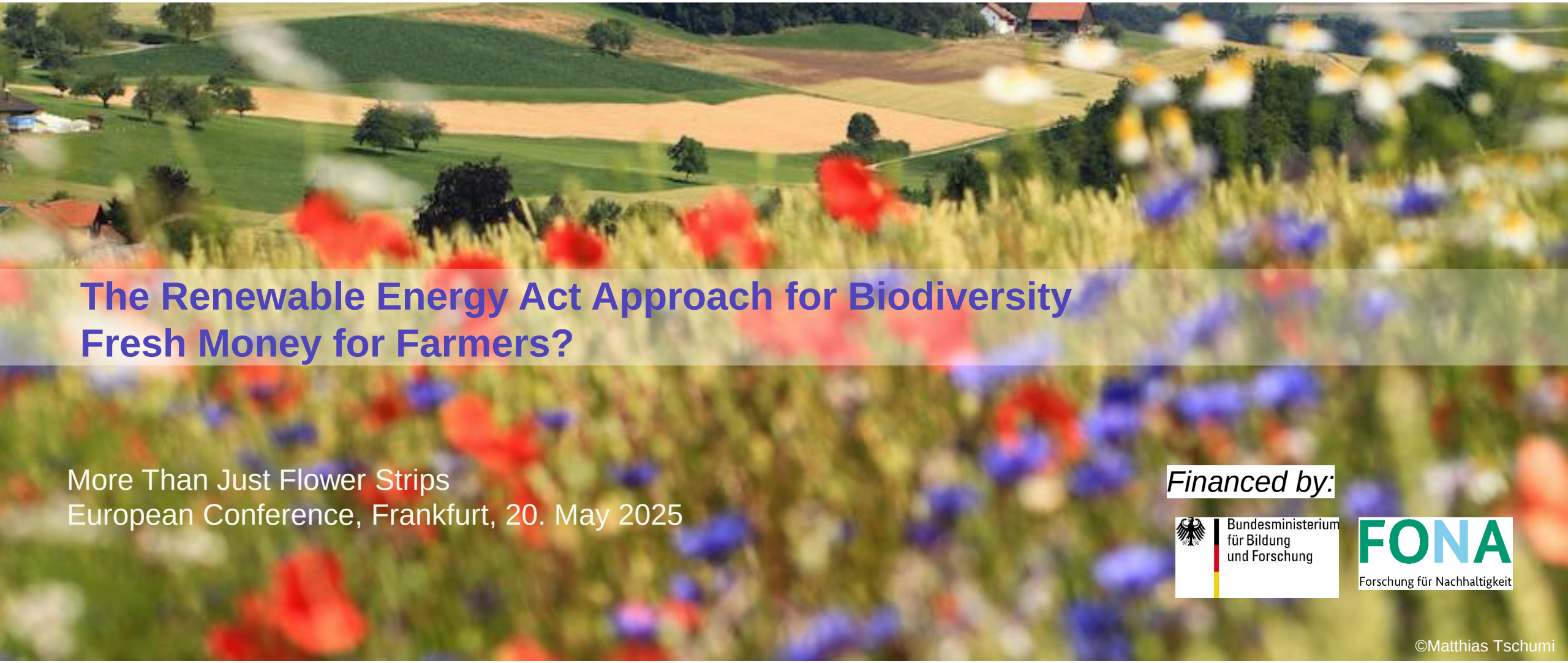


The Renewable Energy Act Approach for Biodiversity
Fresh Money for Farmers?

More Than Just Flower Strips
European Conference, Frankfurt, 20. May 2025

Financed by:

Bundesministerium für Bildung und Forschung

FONA
Forschung für Nachhaltigkeit

Partners & Project Team

Duration: September 2021 – January 2025

Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology


Kirsten Wiegmann
k.wiegmann@oeko.de


Margarethe Scheffler
m.scheffler@oeko.de


Verena Graichen
v.graichen@oeko.de


Andreas Hermann
a.hermann@oeko.de

FiBL


Axel Wirz
axel.wirz@fibl.org


Jan Albus
jan.albus@fibl.org

Bioland

Sigrid Griese
(formerly Bioland)

ifab


Dr. Rainer Oppermann
oppermann@ifab-mannheim.de


Dr. Sonja Pfister
pfister@ifab-mannheim.de

1 of 17 BiodiWert – projects fundet by

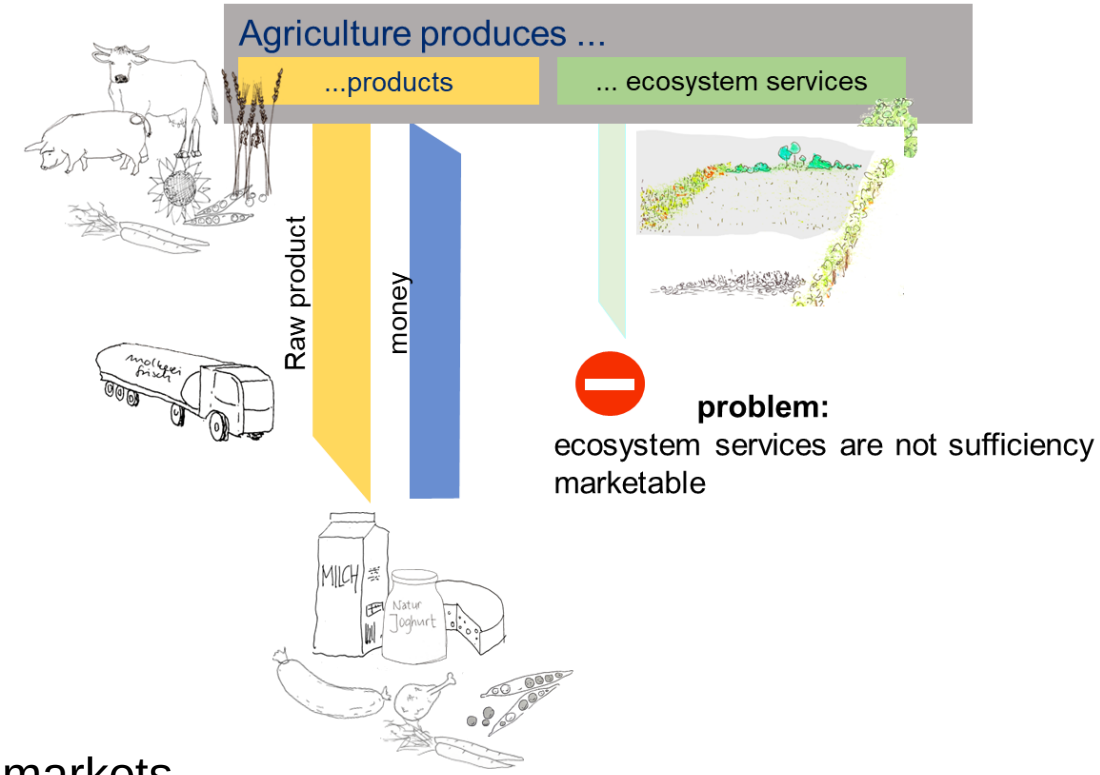
Bundesministerium für Bildung und Forschung

FONA
Sozial-ökologische Forschung

FEdA
BMBF-Forschungsinitiative zum Erhalt der Artenvielfalt

Starting Point

- Fresh money for sustainable transition: Promotion of biodiversity (among others)
- But very limited market for environmental services
- Instrument on national level ?

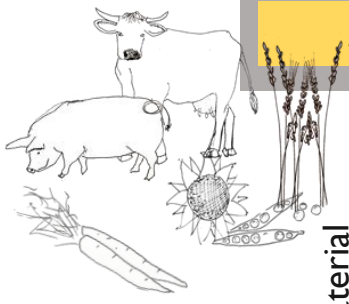


Renewable Energy Act as a blueprint for agriculture?

Basic idea: paying a fixed ‘feed-in-tariff’ financed by a charge across all customers (“pay-as-you-go financing“)

- Generation is independent of demand in premium markets
- No declaration of green energy
- Operators of grids manage the equalisation of the costs

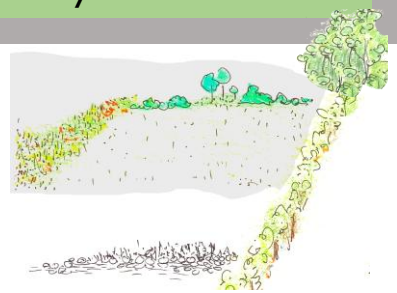
Ecosystem Service Law - ESL



Agricultural Farms produce...

... commodities

...ecosystem services

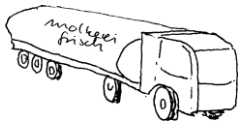


raw material

price information

money flow

ESL
demands a surcharge in the value chain to finance biodiversity measures



rising diversity of products due to processing

Bottle neck: market entry of commodities

products

dark green = mark up
cash flow to fund the surcharge

Further trade and processing steps

light green = price component for reimbursement of surcharge

customer (private, enterprises)

>250.000 farms

<1000 recipients*
cereal mills 185
oilmills 46
slaughterers 317
dairy 215
sugar factories 18
…

→ Existing statistical reporting obligations

„Gesetzes über Meldungen über Marktordnungswaren und der Verordnung über Meldepflichten über Marktordnungswaren“

>37.000 selling points

40 Mio. households
>150.000 caterer

*sources: BLE, statista, association information

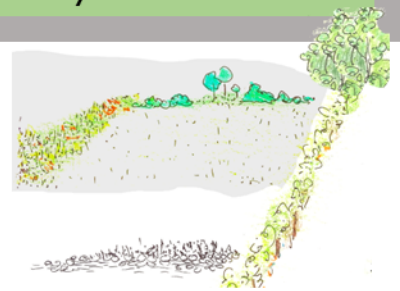
expenditure side

income side

Agricultural Farms produce...

... commodities

...ecosystem services



raw material

price information

money flow

rising diversity of products due to processing

Bottle neck: market entry of commodities

products

Further trade and processing steps

customer (private, enterprises)

Bill for biodiversity measures

remuneration

Regional agency -1 coordination of measures

claim of surcharge

surcharge

Administrative office collection & distribution of the money

Tasks:

1. Planning and
2. Monitoring of measures
3. Contracts with farmers

Tasks:

1. Determination of surcharge
2. Definition of measures and their region-specific rates
3. Approval of regional plans of measures

expenditure side

income side

What Is the Burden on Consumers?

€ 3.7 billion € p.a. total costs in case of large-scale implementation of biodiversity measures

Next step: allocate the costs to the different products.

Wanted: physical aggregation of plant, animal and energy products which is as this is one of the main drivers for biodiversity burden → Cereal unit (CU) = appropriate metric in German agricultural statistics

- Amount of the surcharge:
  0,04 €/kg CU (= total costs / total production of 92 billion kg CU)
- Surcharge per sales unit
  - 1 litre of milk: 0,03 €
  - 250 g hard cheese: 0,06 €
  - 250 g butter: 0,17 €
  - 1 kg flour: 0,04 €
  - 1 kg pork: 0,20 €
  - 1 kg beef: 0,56

Financial burden:
45 € per person and year (2020)
+25% inflation: 56 € per person and year

Only main products with surcharge: meat, dairy, cereal, sugar(beets) and oil fruit

How Is the Money Distributed to Farmers?

Original Idea:

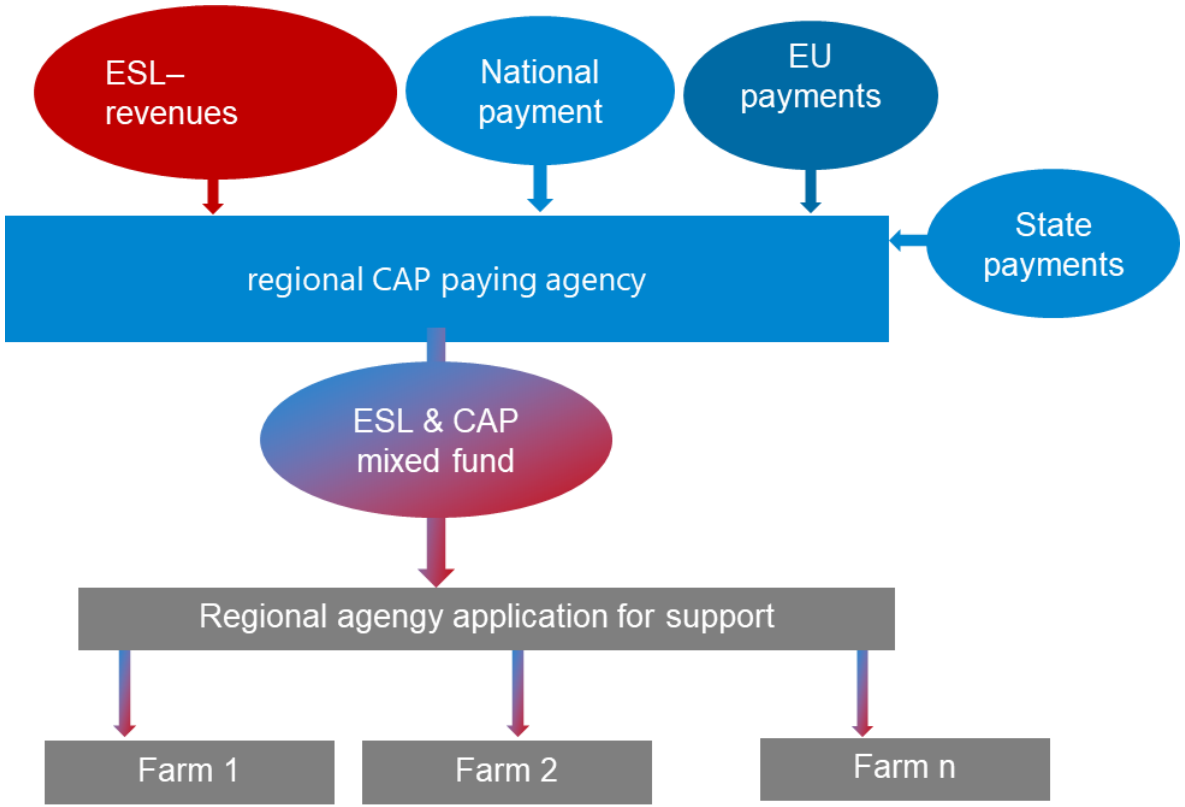
- Use of revenues to co-finance national CAP payments.
- Joint management of funds
- payment through a single application.

Problem:

The ESL is constructed as a price regulation under private law to prevent an EU state-aid decision. As a prerequisite:

- State may not dispose of the money
- Payment flows for ESL-surcharge and state subsidies must be separated down to the individual farm

Money flows of ESL and CAP

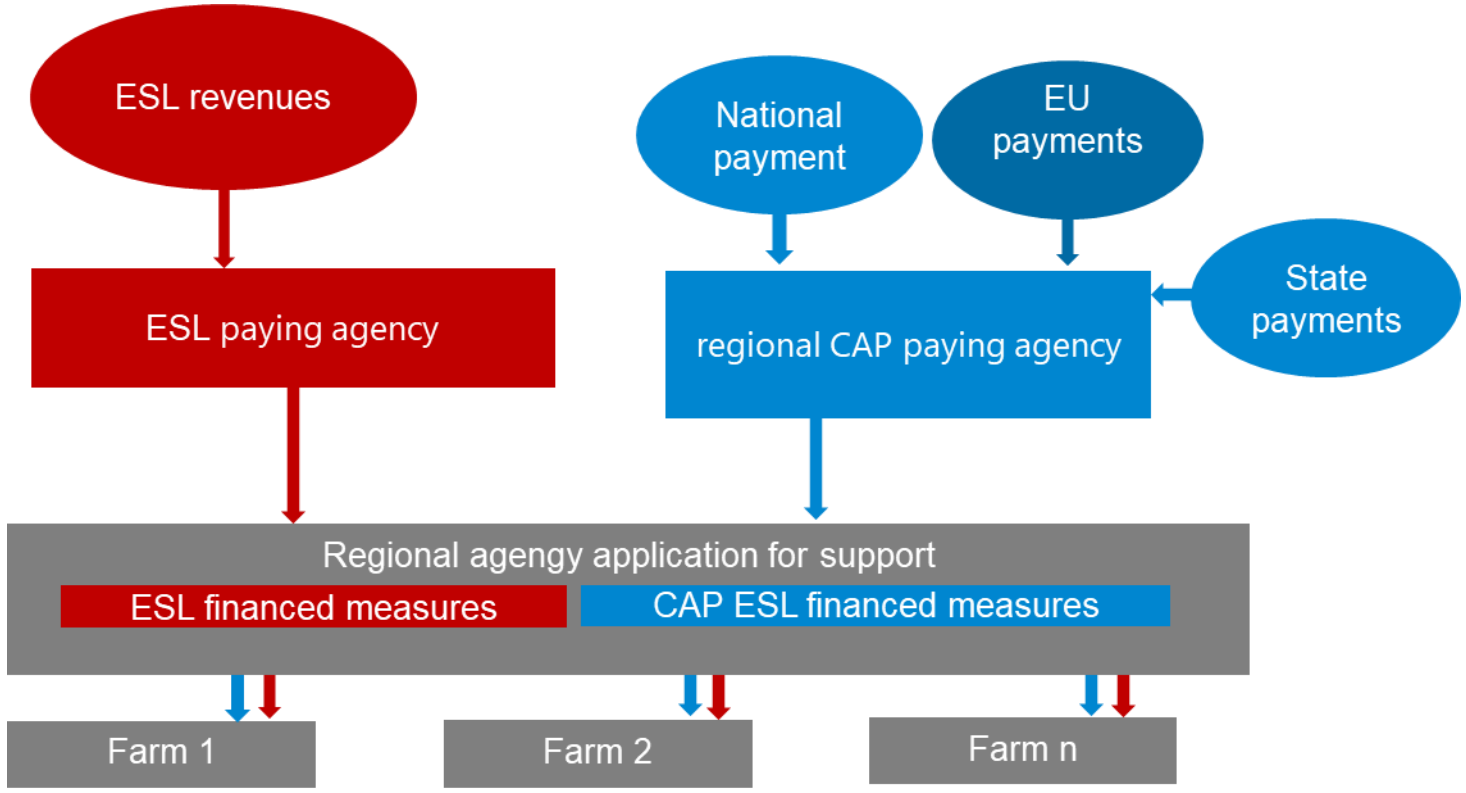


Legal Requirements of the ESL Surcharge

→ extra efford /burden:

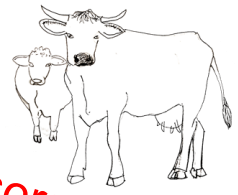
- separate application processes (for cooperatives, not farmers)
- dual administrative structures

ESL & CAP money keeps separate down to farm level



Free Movement of Goods within the EU?

Example of Dairy: Surcharges Levied on Imports and Exports

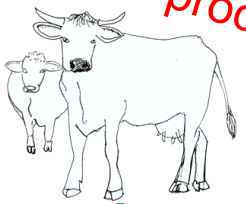


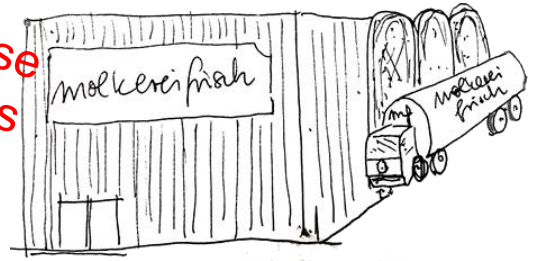
imports: YES

No surcharge after
market entry of commodity

imports: NO

Processors may increase price pressure on farmers or processing abroad





Farm

Dairy (processors = obliged party)

Retail

Consumer

cost optimisation lead to leakage risk

exports: NO

no surcharge as milk is not sold to a German dairy

exports: YES

Receiving party also pays surcharge on quantities that are later exported. But there is no regulation how to refinance the expenditure

Conclusion & Challanges / Hurdles

A financing mechanism inspired by the EEG appears feasible for the agricultural sector in technical manner. But there are a number of practical hurdles to overcome.

Weaknesses of the model

- Dual administrative structures due to separate private and public money
- Burden on low-income households due to rising food prices

Reactions of the value chain – distort of the market?

- Risk of rising imports by retailers (price sensitivity)?
- Risk of increasing price pressure on farmers?
- Risk of migration of dairy and slaughtering companies?
- Will the surcharge be passed on 1:1 or will retailers take the opportunity to add a margin?

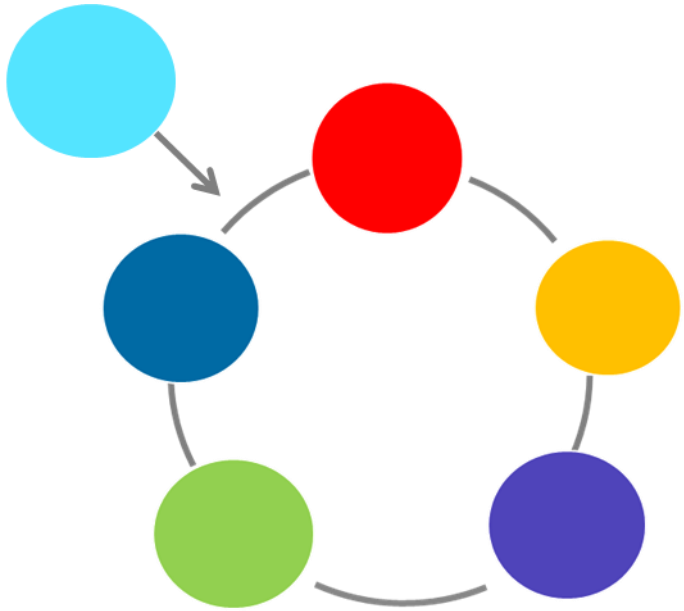
Legal uncertainty

- Risk of interference with the free movement of goods
- Legal action for unequal treatment if not all products are charged? (Minor limit ‘2% of GE production’)

Looking Ahead

There is no all-in-one solution,

as agricultural markets are very diverse, not net-bound and global



What would be alternatives...

…that would have the political support to be introduced

AND? …that farmers would accept
AND? … that would attract sufficient funding
AND? ...generate earmarked funds?

Taxes (e.g. VAT), charges (ETS, GHG-price),

voluntary markets (nature credits, premium markets),
price regulation under private law

Thank you for your attention

Questions, suggestions, networking

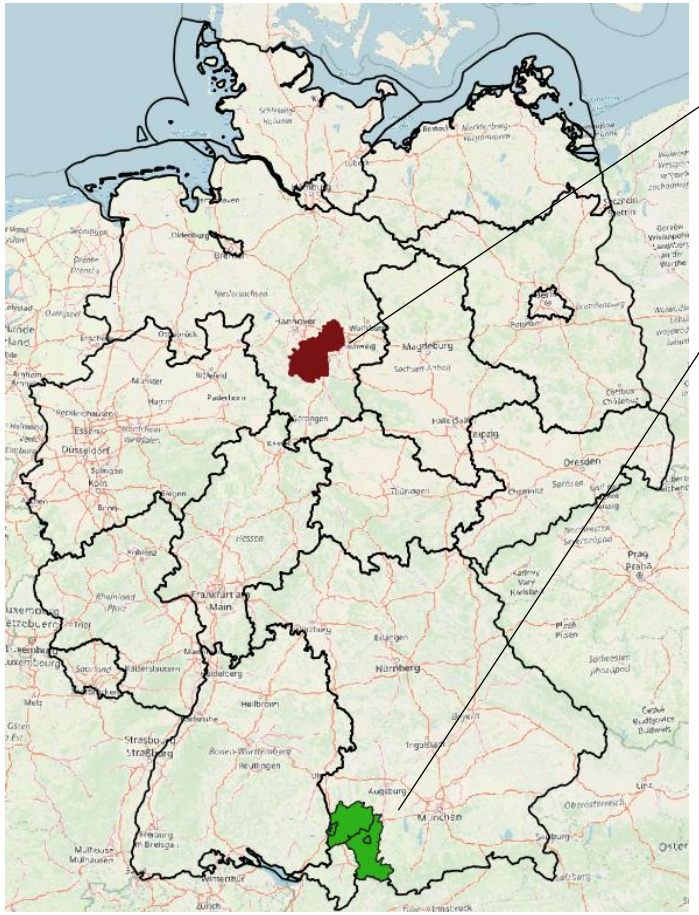
contact
k.wiegmann@oeko.de
m.scheffler@oeko.de

Website
https://shorturl.at/3kmKl

gefördert durch: FONA Forschung für Nachhaltigkeit | Bundesministerium für Bildung und Forschung

Methodological approach: Area required and total costs extrapolated

Extrapolation on base of selected regions



arable farming region in Lower Saxony and

grassland region in Bavaria

Selection criteria:

1. HNV value clearly too low
2. intensive utilisation,
3. high proportion of agricultural land

1. Analysis of the required scope of measures for key species uses landscape approach; detailed method see IFAB study 2020 or report WP-2 (2025)
2. Analysis of the required finance for funding biodiversity measures see report WP-3 (2025)
3. Scaled up for Germany by the area proportion of arable and grass land
4. +15% administration costs

Sum of € 3,7 billion p.a. (based on 2020 prices) → € 4,6 billion p.a. (2025)
3,8 Mio. ha (in-crop and off-crop)

What is the reallocation charge levied on ?

Produkt	Getreideeinheit
1 dt barley	1
1 dt wheat	1,04
1 dt potatoes	0,22
1 dt sugar beets	0,23
1 dt whole milk	0,8
1 dt eggs	2,28
1 dt pig*	3,06
1 dt cattle* > 2 Jahre	5,10
1 dt poultry*	2,55

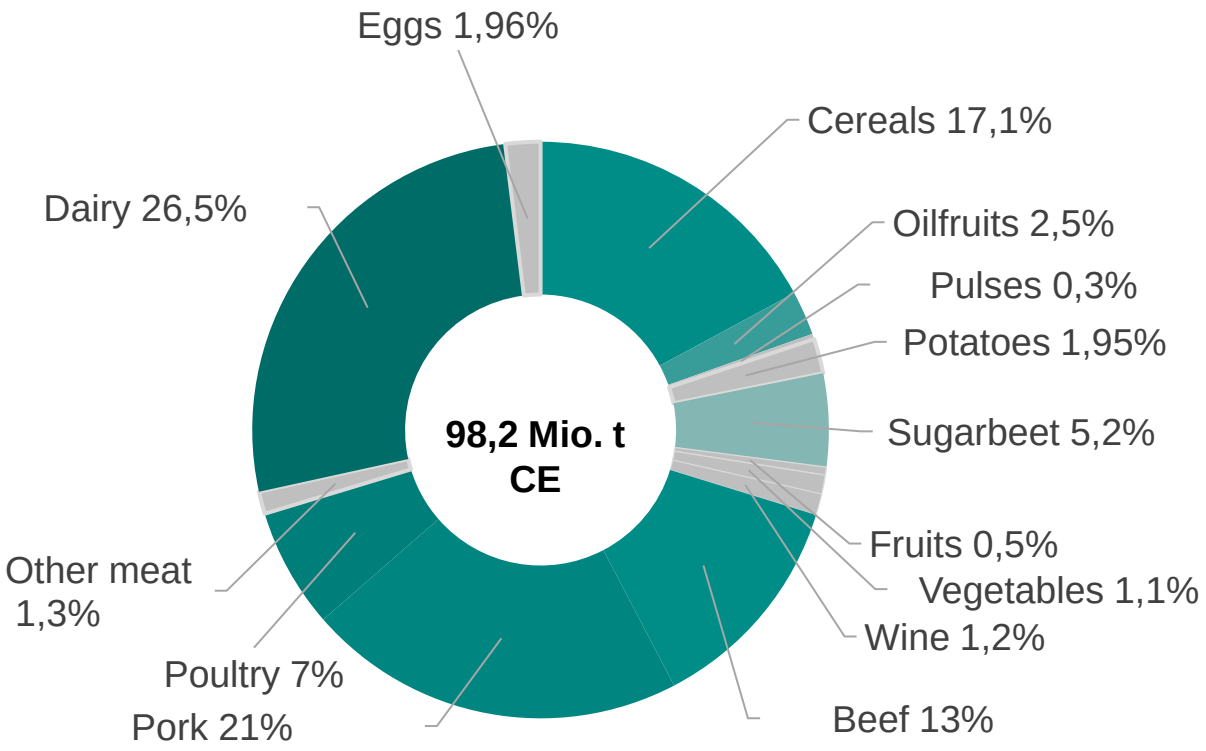
Reference – cereal unit

- Cereal unit (CU) in German agricultural statistics = appropriate
- The raw material is assessed on the basis of its energy content
- 1 cereal unit = feed value of barley
  - Animal products are valued according to the energy content of the feed
    - This reflects the land foot print of animal products

* referred to life weight
Quelle: BMEL 2024, Getreideeinheitenschlüssel, Tabellennummer: 3120100,

Which commodities should be levied?

Food production in Cereal Units (CU)
(average 2015:2021)



Criteria to levy products with the ELS-charge

- Relevant part of total production of CU (e.g. > 2%)
- Relevant production area (durch GE automatisch...lassen?)
- Small number of players at market entry

meat, dairy, cereals, sugar beets, oil fruits

→ 92% of produktion

→ Ca. 90% of arable land and most of grassland (in use)

→ mills, dairy, sugar factories = small number of players = „bottle neck“ in the food chain

→ meat, dairy, cereal, sugar(beets) and oil fruit with surcharge

Quelle Graphik: Nahrungsmittelproduktion in Getreideeinheiten, SJ 2022 Kapitel C, XII
Quelle Akteure, BLE; Statistia, BMEL