

# Baltic Deal

**PUTTING BEST PRACTISES IN AGRICULTURE INTO WORK** 

FLAGSHIP PROJECT IN THE EU STRATEGY FOR THE BALTIC SEA REGION CO-FINANCED BY THE BALTIC SEA REGIONAL PROGRAMME 2007-2013 CO-FINANCED BY THE NEFCO/NIB BALTIC SEA ACTION PLAN TRUST FUND











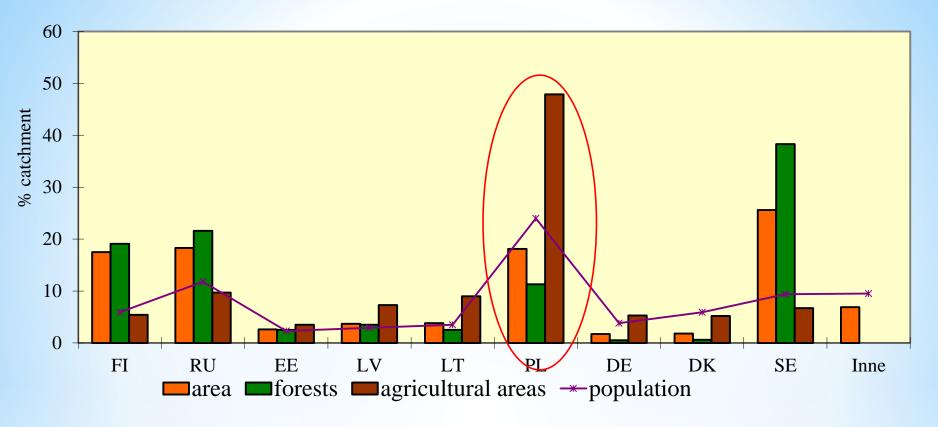


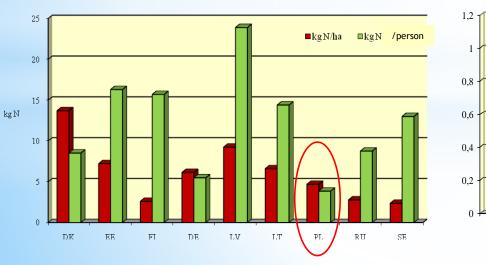


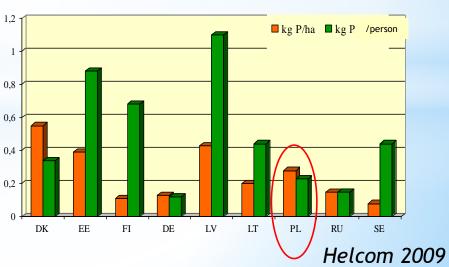
### WHAT'S THE DEAL?

- ☐ Eutrophication indicates a disruption of the ecosystem caused by high loads of nutrients. It is evident as. E.g. excessive algal blooms and dead areas of sea bottom.
- □ The loads of nutrients may be natural background losses from the soil or the result of human activities and losses from agriculture, wastewater, industry and forestry.
- 85 million people live in the area around the Baltic Sea. They all affect the water eco-system by living, eating, working and travelling.
- ☐ It will take a long time to restore the Baltic Sea to its natural state.
- ☐ Achievements today will be measurable in 30-50 years, i.e. around 2050.
- ☐ Further improvements in agricultural practices can reduce nutrient losses significantly.









### SOURCES OF FUNDING AND SCHEDULE

### Finance sources:

 Baltic Sea Region Programme 2007 - 2013



 NEFCO/NIB Baltic Sea Action Program Trust Fund





The project duration:

START: october2010 End: september 2013



# Main project partners

**START:** october2010



The Federation of Swedish Farmers (LRF),
Sweden



Central Union of Agricultural Producers and Forest Owners (MTK), Finland



Lithuanian Agricultural Advisory Service (LAAS), Lithuania



Agricultural Advisory Centre

in Brwinow Branch Office in

Radom (CDR), Poland



Rural Development Foundation (MES), Estonia



End: september 2013

The Knowledge Centre for Agriculture (VFL),

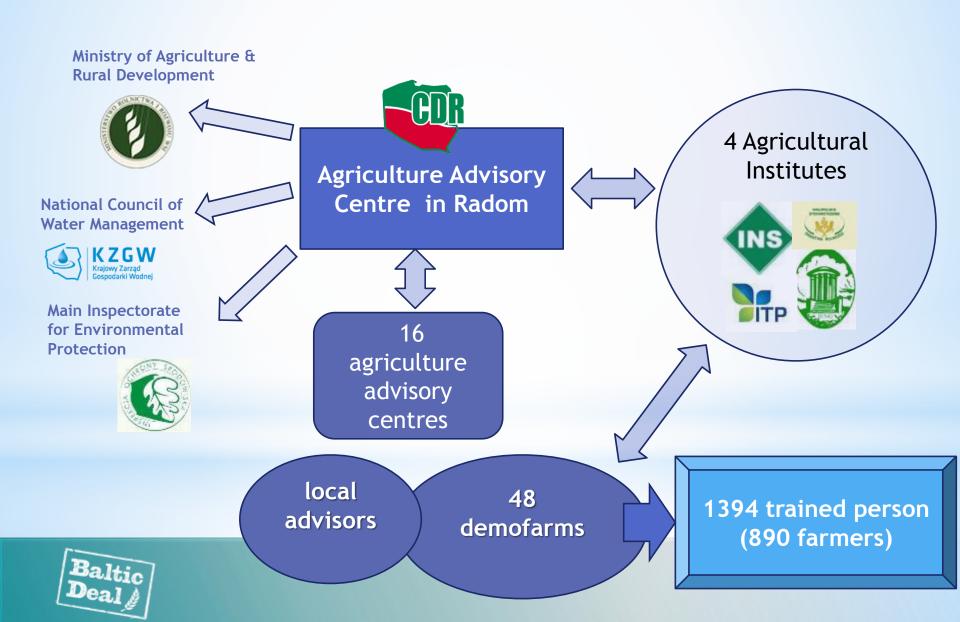
Denmark



Latvian Rural Advisory and Training Centre (LRATC), Latvia -



# Actors involved in the BD project in Poland: Agric. Institutes, advisors, farmers



# **Cooperation results**

WHAT HAVE RECEIVED...

Researcher

- Good contact with farmers
- Crop rotation data
- Crop yield
- Animal production
- Total output
- Total input
- Technology data
- Soil content
- Water pollution
- Manure handling
- Feedback

Advisor

- Production data
- Advisory tools
- Agri-environmental measures
- Total output
- Place for workshops
- Guides
- Manuals
- Web page
- Information and news from abroad

Farmer

- Free of charge soil analyze
- Fertilization recomendation
- Agri-environmental measures advisory
- Nutrient balances
- On-farm water contamination info
- Free of charge advice
- Manuals
- Contacts and news from other farmers and abroad

## **Innovation Platform?**



# **AIM OF THE PROJECT**

 Supporting farmers to reduce nutrient losses from their farms, while maintaining high production and competitiveness.







Print page

#### Putting best agricultural practices into work



♠ Home

Measures

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Show measures by:

Fertilisation

Manute management

Soil structure and tillage

Plant cover and butter zones

Nature areas and

grasslands.

Wetlends, drainage and

imigation

Precision farming New measures:

Selection of measures

#### Buffer zones

Category: Plant cover and buffer zones

Tags: erosion | leaching | leakage | Nitrogen | Phosphorus

#### Primary purpose



The buffer zone runs like a green thread through the landscape. The main purpose of the buffer zones is to function as a filter for soil particles and phosphorus leakage.

Buffer zones decrease mainly the losses of particulate phosphorus from arable land. The zones also contribute to reducing the leakage of other nutrients and presence of pesticides in rivers, takes and sees.

Other positive effects increased biodiversity and enriched landscape. Buffer zones can also be used for recreation.

#### Description

The risk of surface runoff is biggest on hilly fields and in times of heavy rains. The risk is higher also when the crop is fairly undeveloped so that the soil is poorly covered by the crop, the roots do not bind the soil and the crop has a small water consumption.

Buffer zones are generally 6-20 meters wide, located on farmland and next to watercourse (creek, river or lake).

The buffer zones should not be fertilized and they need to be managed by mowing or grazing. If they are managed by mowing it would be good to take away the mowed plant. meterial. This prevents the nutrients that have been taken up by the plants to be released

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+ View all contacts

- Skyddszoner-Swedish (724
- Environmental-measures-in-Denmark in English9 (1 MU)
- Bufferzones-in-Denmark (2)
- Bufferzone farm economy. Finland (244 kU)
- Buffer-zone-farm-economy-Letvia (56 kB)
- Buffer zone farm economy Denmark (538 kB)

In Danish: Vandieb, beammer og randzoner, Landbrugsinfo

In Swedish: Praktisk handbok för skyddszonsanläggare, Jordoruksverket et al.

# **End-user material** on website

AIM

**DESCRIPTION** 

PROVEN EFECT

THE ECONOMIC **IMPORTANCE** 





Selection of measures



Fertilisation



Manure management



Soil structure and tillage



Plant cover and buffer zones



Nature areas and grasslands



Wetlands, drainage and irrigation



Precision farming

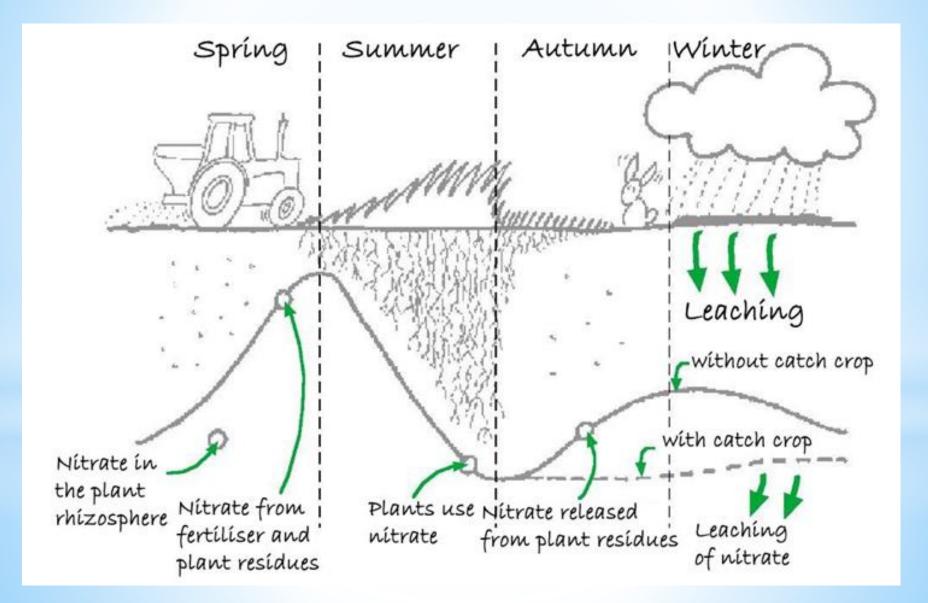


New measures

# Storage and use of slurry



# Catch crops







Farms

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Show measures by:

#### MEASURE

Selection of measures

Fertilisation

Manure management

Soil structure and tillage

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Wetlands, drainage and irrigation

Precision farming

New measures

#### Maintaining good soil structure

Category: Soil structure and tillage

Tags: leaching | Soil erosion | Soil quality | Soil structure



Soil sample. It's also good to know what it looks below the surface. Photo: Airi Kulmala,

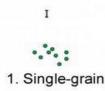
#### Primary purpose

Soil structure strongly affects crop growth, but also the risk of nutrient leaching and erosion. If the structure is poor plants do not grow well, which decreases nutrient uptake. Moreover, poor soil structure increases the risk of surface run-off and erosion. Besides the environmental risks, poor soil structure also affects farm finances, e.g. in the form of yield losses.

### Description

#### Forming of soil structure

Individual soil particles, the way they are assembled as aggregates and soil pores between them define the soil structure. Clay particles and some humus substances play an important role in the formation of granular structure and electric charges also play a role. Single-grain structure, where the individual soil particles do not bind together, is typical for coarse soils, e.g. sandy soils. The structure of fine soils can be massive, i.e. single particles form a cohesive mass.









Soil fertility



Soil compaction

#### LINKS

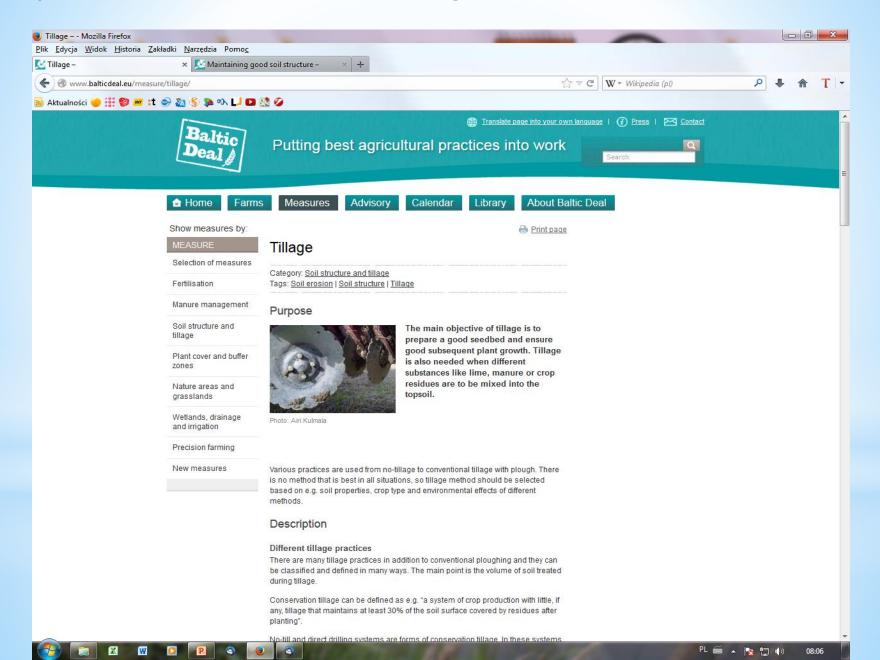
In Swedish: Markpackning, Greppa näringen

In Danish: Metoder til visuel vurdering af jordstruktur, LandbrugsInfo

In Finnish: Peltomaan laatutesti, Agropolis Oy

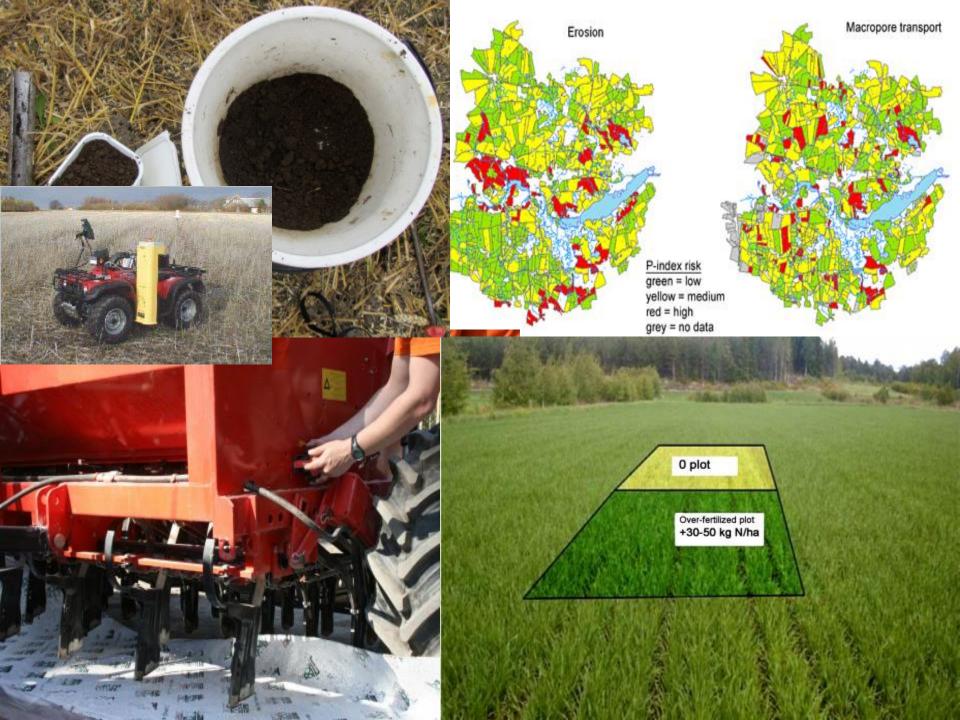
In Swedish: Markstrukturindex, SLU

### http://www.balticdeal.eu/measure/tillage/









# Reports and analysis

 Guidelines for agri-environmental practices for farmers and advisors

http://www.balticdeal.eu/measures/selection\_measures/

Recommendations for the introduction of new agrienvironmental practices

http://www.balticdeal.eu/news/recommendations-of-new-agri-environmental-measures/

Guidelines for the farming on the catchment area

http://www.balticdeal.eu/documents/guideline-a-checklist-for-farmers-with-collective-activities-in-catchments/



### WHAT HAS BEEN ACHIEVED?

**Creation** of a strong co-operative platform between researchers, farmers' organizations and advisory organizations around the Baltic Sea.

**Development** of a common strategy for the Baltic Sea region to strengthen the agricultural advisory services.

**Establishment** of a demonstration farm network of more than 100 farms surrounding the Baltic Sea.

**Demonstration** of cost-effective and sustainable measures for farmers.

A significant increase in the speed of innovation and technology diffusion across national boundaries.



# **HOW MUCH – HOW MANY**

2500	FARMERS REACHED
1800	MEASURES AND INVESTMENTS MADE OR PLANNED
300	EVENTS
300	ADVISORS
117	DEMONSTRATION FARMS
50	AGRI-ENVIRONMENTAL MEASURES IN A TOOLBOX
7	COUNTRIES: DENMARK, ESTONIA, FINLAND, LATVIA, LITHUANIA, POLAND, SWEDEN
5	ADVISORY ORGANIZATIONS
4	MILLION EUROS
3	YEARS: 2010–2013
2	FARMERS' ORGANIZATIONS

1 MISSION: LESS NUTRIENTS FROM FARMS INTO THE BALTIC SEA



# Website

For example
 <a href="http://www.balticdeal.eu/measure/maint-aining-good-soil-structure/">http://www.balticdeal.eu/measure/maint-aining-good-soil-structure/</a>

