

# **Louis Bolk Institute in Driebergen, The Netherlands since 1976**

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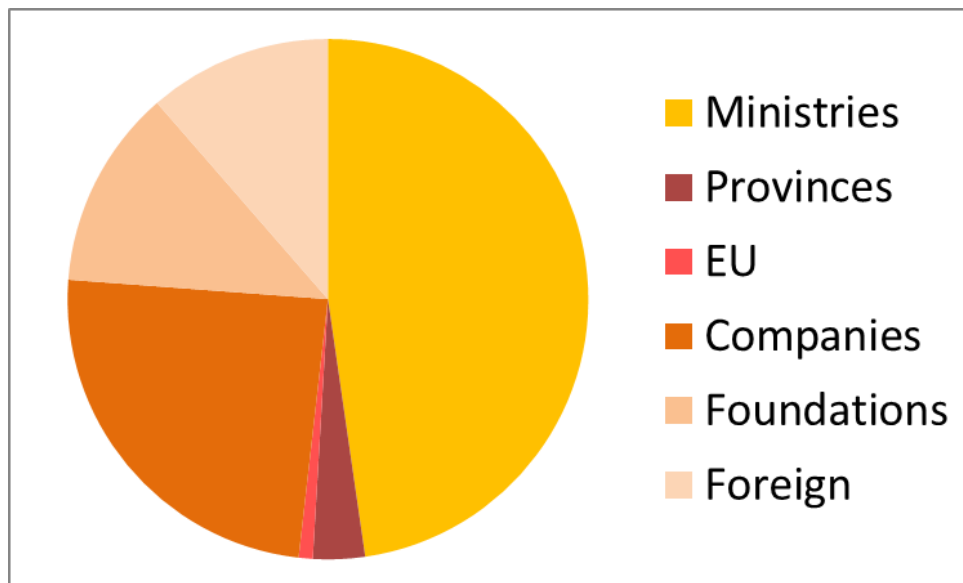
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**Brussels, 22 October 2015**

# The Louis Bolk Institute (1)

- Around 40-50 staff on agriculture, nutrition, health
- Turnover € 4 million (2014)
- More than 130 agriculture and more than 30 health & nutrition projects
- 60% projects are with conventional farmers eager to learn from elements of organic farming



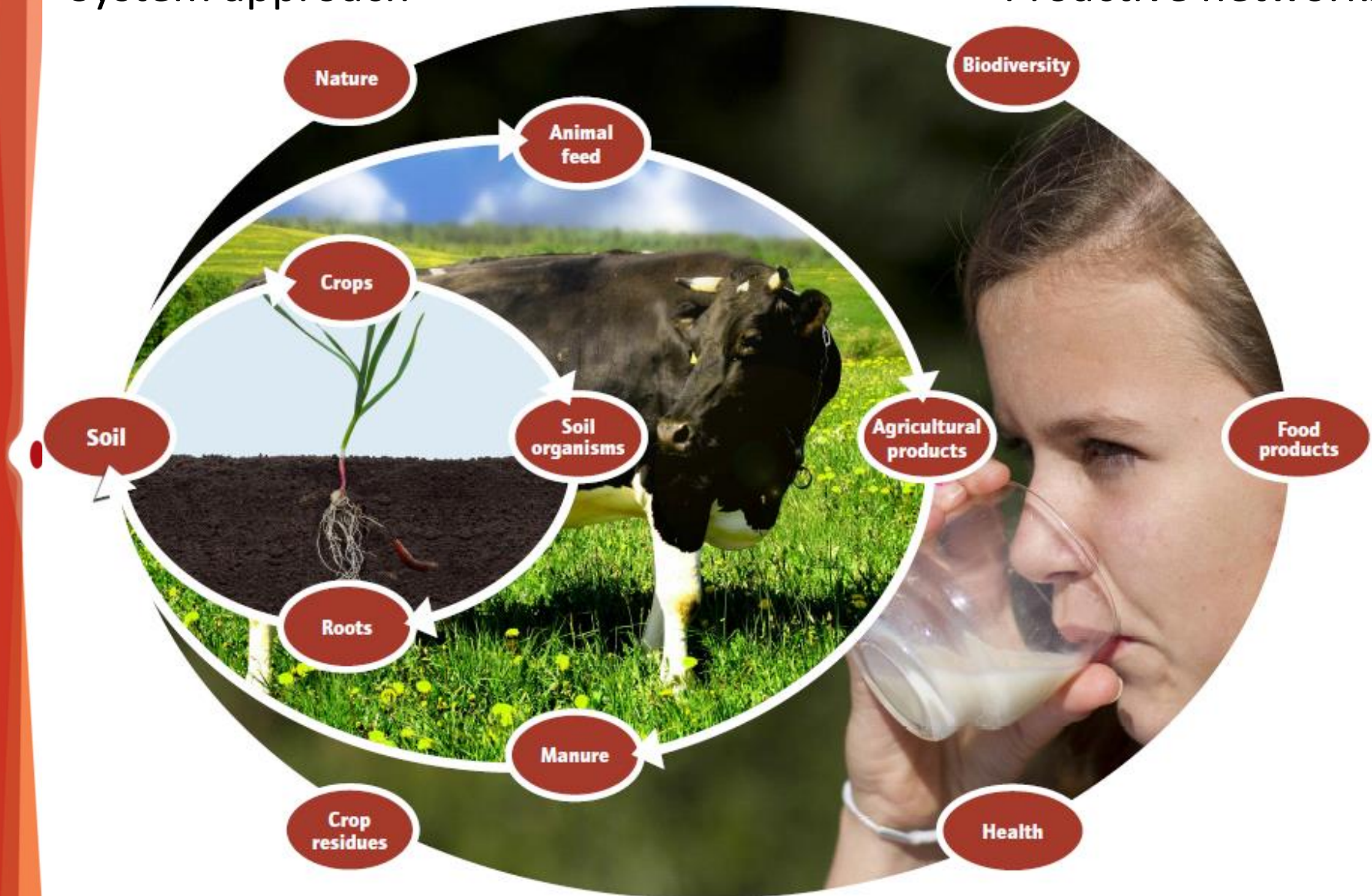
# The Louis Bolk Institute (2)

*soilsplantsanimalsenvironmentnutritionhealth*

- Independent research and advice
- Participatory research and systems approach ('making systems work', 'bottom-up')
- Acknowledged for its implementation skills and practical solutions ('action research approach')
- Mission and Ambition: Results lead to *truly* sustainable agriculture, nutrition and health.

System approach

Proactive networks



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Concept development

Participatory research



## Sustainable soil management

**Aim:** to develop sustainable soil management in organic and conventional farming.

**Approach:** participatory program with strong involvement of growers in a combination of visual soil assessments and on-farm research.

**Result:**

- Broader rotations and closing nutrient cycles (NDICEA)
- Quality and decision support of inputs and use of compost/waste materials
- Measures on dry/very wet/salty soils



## Skylark (Veldleeuwerik 2003-2015)

**Aim:** Concept and implementation to develop more sustainable raw materials and businesses

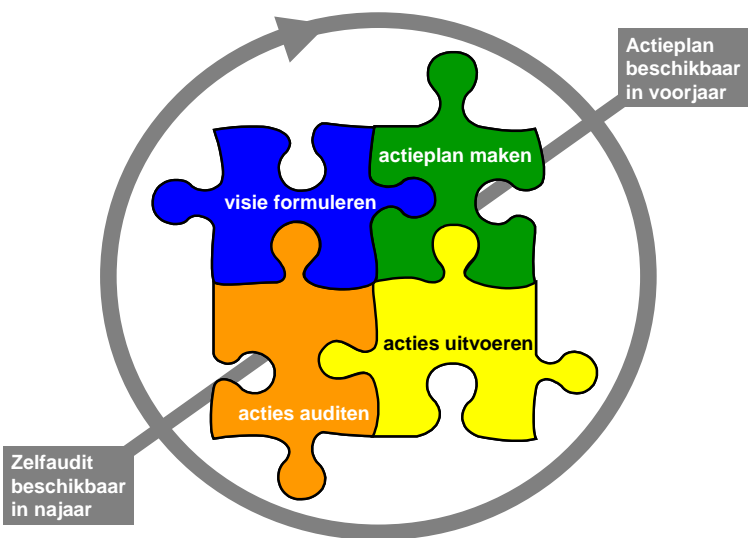
**Approach:** innovative sustainable development scheme, demand-driven and implemented

**Result:**

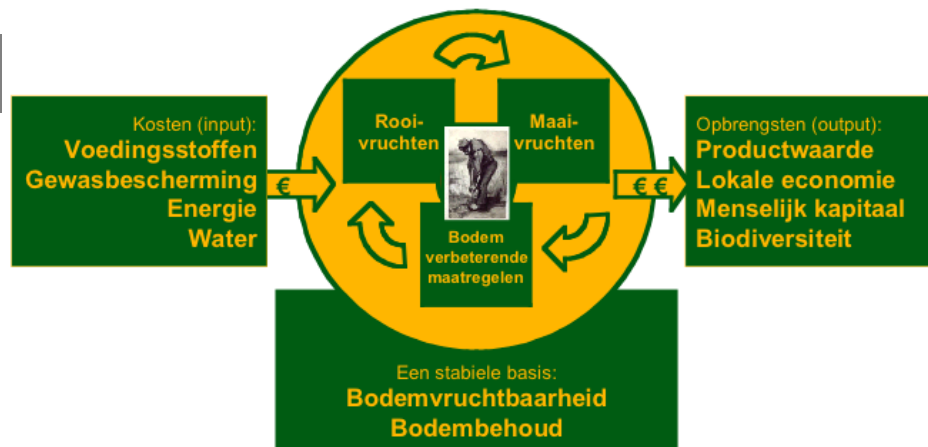
- Foundation with 400 active growers
- Sustainability process really active
- Set of indicators and tools



## Process



## Indicators



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## Grain legumes

**Aim:** alternative proteins for farmer and consumer, short regional supply chains

**Approach:** multi-actor approach, feasibility studies and fundamental research on cultivation techniques, breeding, feed technology, product quality, legal requirements, human and animal

**Result:** Development of lupin varieties and meat substitutes using lupins.





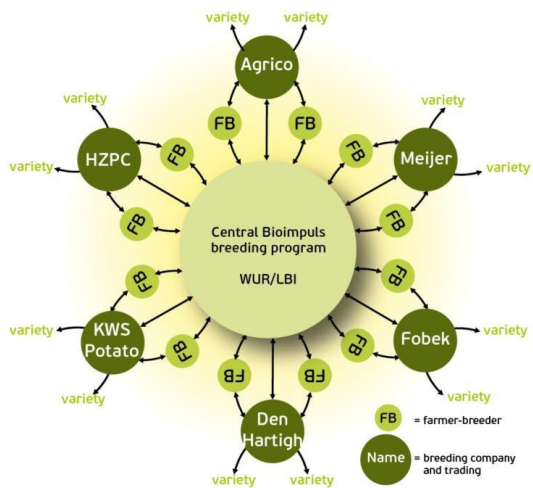


# Green Breeding Program: Bioimpuls (2009-2019)

**Aim:** Development of organic breeding program for organic potatoes, GMO-free and Late Blight resistant

**Approach:** participatory program with strong involvement of growers and breeding companies combined with a (fundamental) pre-breeding program.

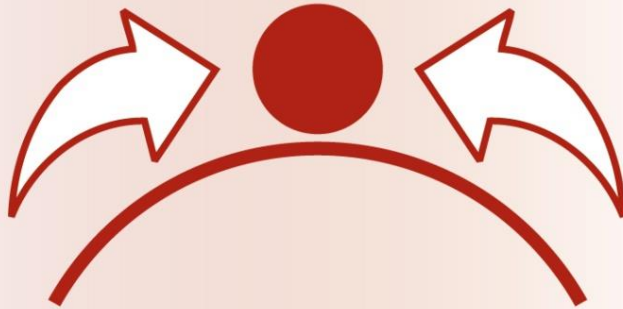
**Result:** annually seedlings and clones for selection and in 2015 already 6 new late blight-resistant varieties presented to the market.



# Biodiversity Framework (1)

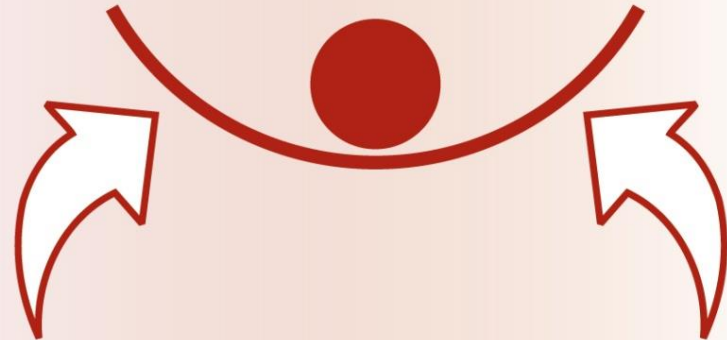
## Enhancing resilience

### Risk management model



- Risk oriented
- Eliminate variability
- Continuous monitoring and direct intervention
- High long-term risk
- Static equilibrium

### Resilience model



- System oriented
- Make use of variability
- Enhance self-regulating capacity and indirect management
- Low long-term risk
- Dynamic equilibrium

(After Ten Napel et al. 2006)

## Biodiversity Framework (2)

Objective: to promote biodiversity and reduce risks to dairy farming and arable

Partners:  WWF  Rabobank  FrieslandCampina  STICHTING VELDLEEUWERIK

**Result:** biodiversity framework according to

- Functional agrobiodiversity
- Landscape diversity
- Specific species
- Source areas and connection zones



# Thanks!

More information?

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