

# SUSTAINABLE AGRICULTURE

Det Økologiske Akademi, Niveau 2



Se 'European Agricultural Fund for Rural Development' (EAFRD)

# SUSTAINABLE AGRICULTURE

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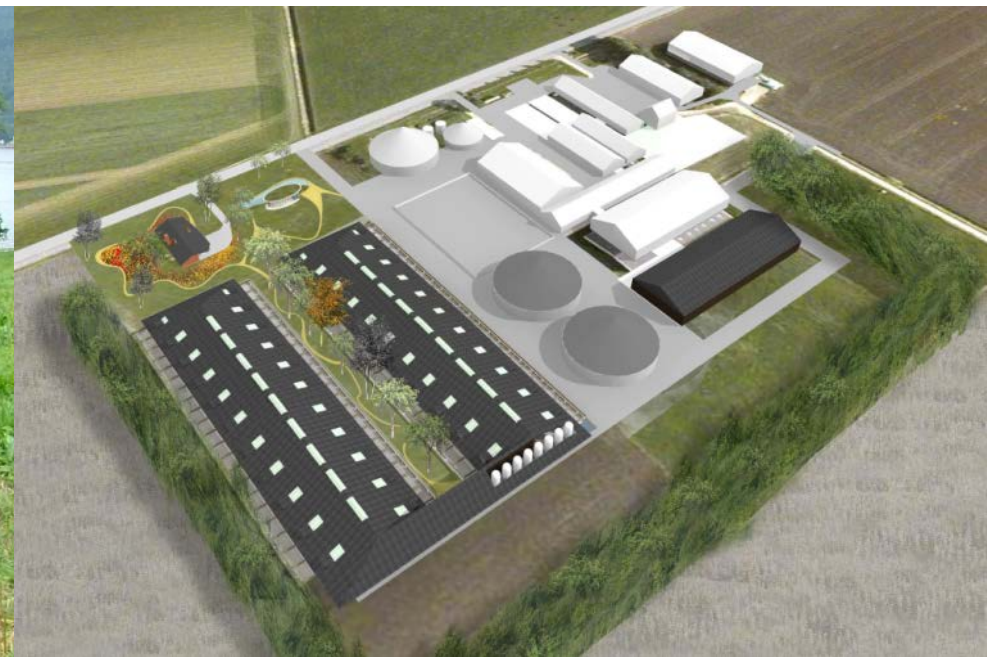
Evelien de Olde - Department of Engineering, Aarhus University



# Introduction

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- Animal Science & Spatial Planning
  - Wageningen University, the Netherlands







Future of farming?



What is sustainable?



Fremtidens landbrugsbyggeri (2006)

# PhD research

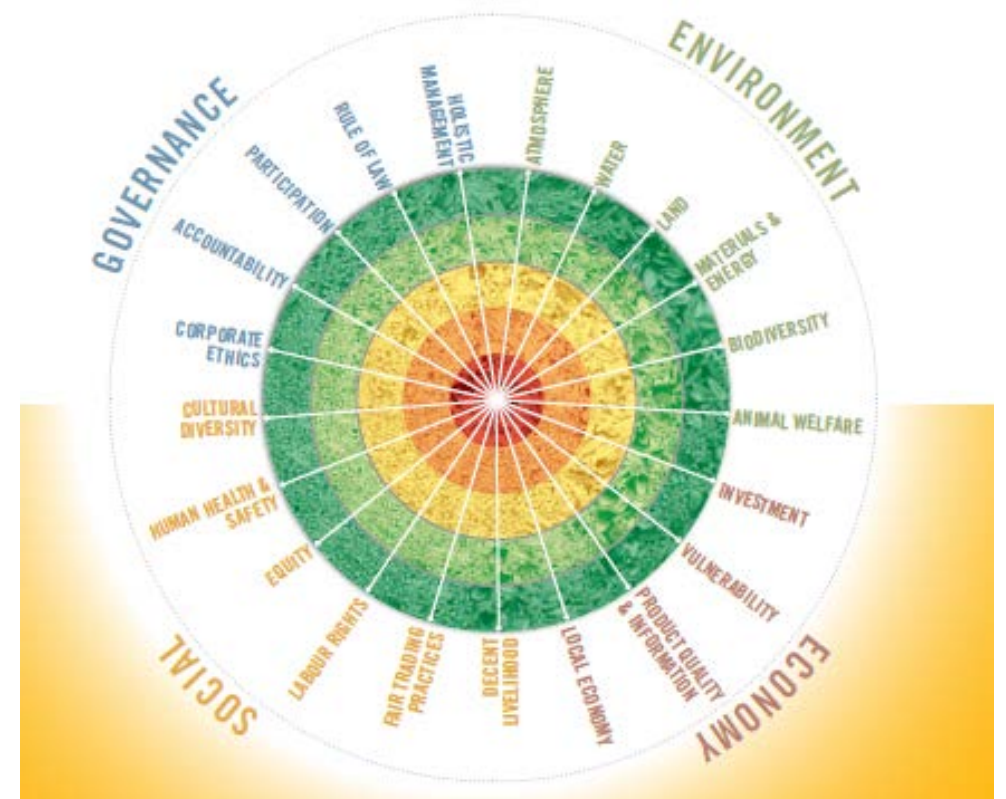
- What is the role of **sustainability assessment tools**
- in **farm management**
- and **regional governance**
- to navigate towards more sustainable food production?

- Department of Engineering – Operations Management

- Partners



EU project Autograssmilk





# Sustainability

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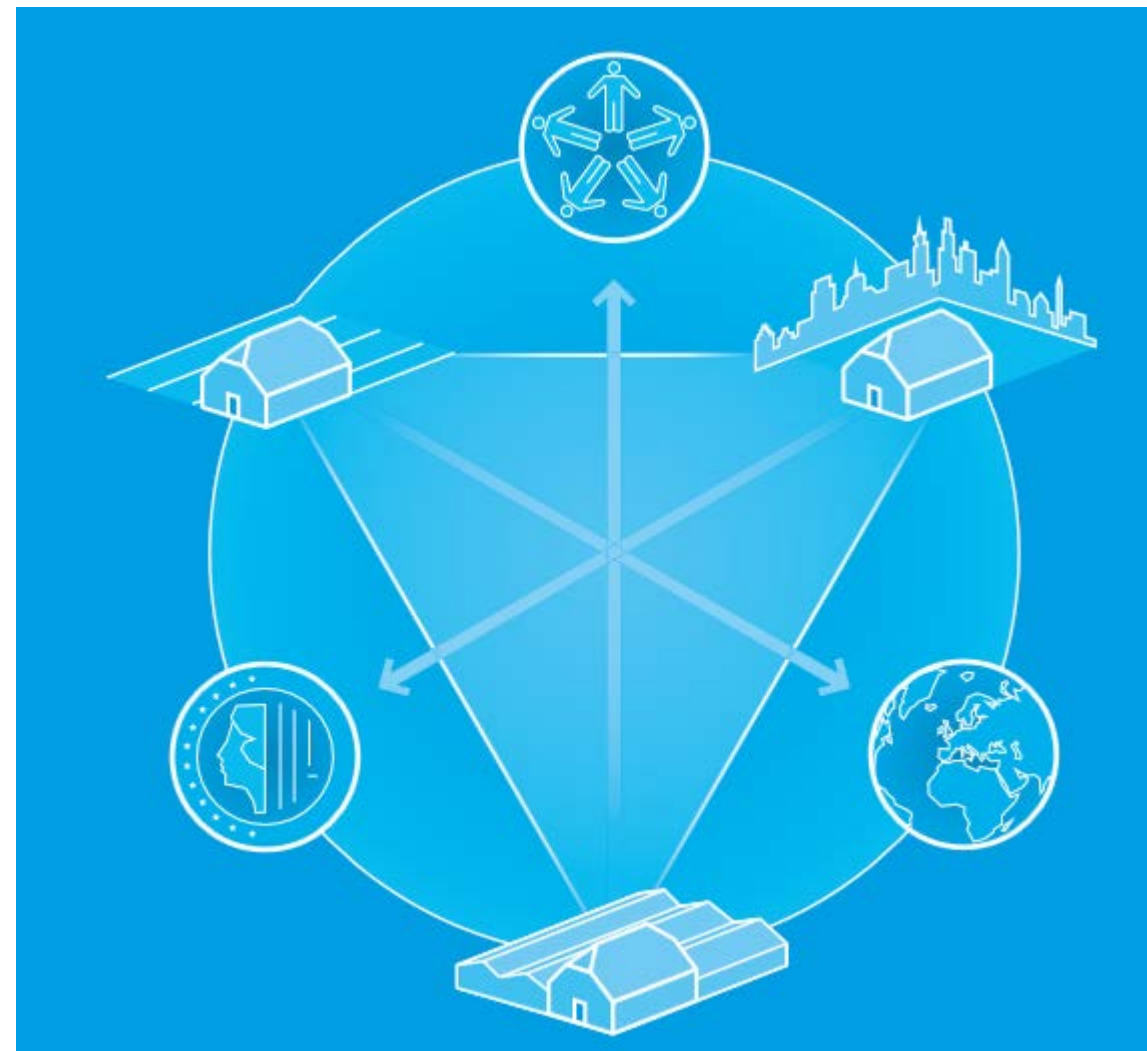
- *Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*
- Brundtland Report



# Sustainable agriculture

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- Report
- <https://www.youtube.com/watch?v=mKYk65Inrt0>



# Challenges in food and agriculture

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- Climate change
  - Resource dependency
  - Growing world population
  - Urbanization
  - Public health
  - Biodiversity & landscape
  - Economic viability of farming
- 
- **Agriculture at a crossroads - IAASTD**





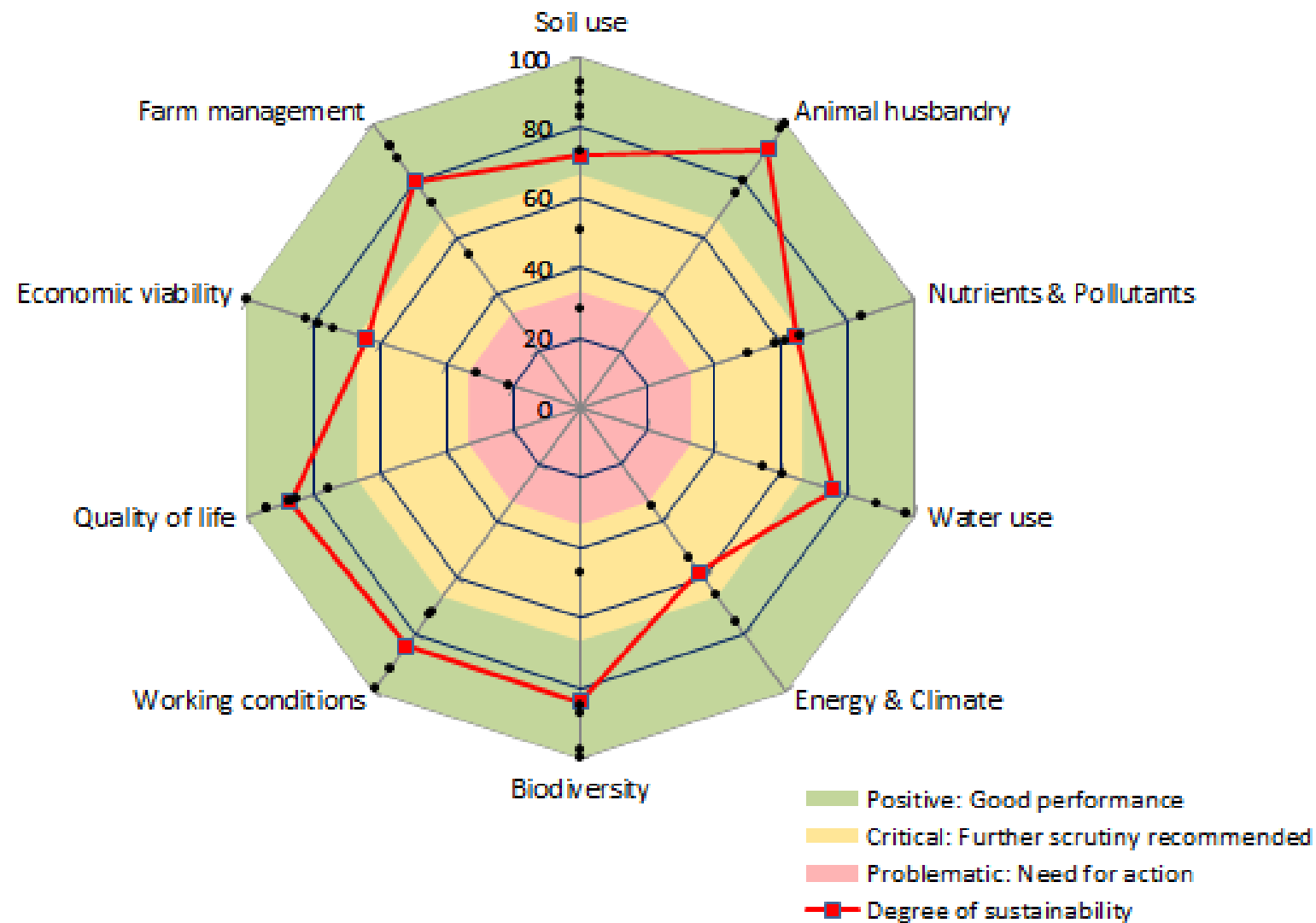
# Steps towards sustainable agriculture

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- Understanding the current level of production
  - [Sustainability assessment tools](#)
- Developing innovations to improve the sustainability
  - [Innovations in farming systems, markets and policy](#)
- Collaboration between stakeholders
  - [Researchers, advisors, teachers, farmers, consumers, citizens, policy makers, politicians...](#)
  - [Awareness of the local context](#)

# Sustainability assessment tools

- Diversity of assessment tools
  - Indicators
  - Methods
- In-depth vs time
- Specific vs general
  
- Useful for
  - Farmers?
  - Policy makers?
  - Industry?
  - Consumers?



# Innovations for sustainable production

- Farming systems

- Wide span tractors
- Biodiesel
- [Pre-cooling of milk](#)
- Family pen system – pigs





# Innovations for sustainable production

- Market

- Beter Leven keurmerk
- Organic farming
- Fairtrade
- Local produce



# Innovations for sustainable production

- Governance
  - Citizen participation

**SUPPORTING BETTER DAIRY**

[www.happycows.eu](http://www.happycows.eu)

**Photos & videos**

We ♥ OUR COWS!

**The sad truth**

We're calling for new rules!

**WHO'S IN?**

**Our Supporters**

♥ 293511 ♥  
SIGNATURES

## We're calling for new rules!

Most of the EU's 27 Member States don't have specific rules for the welfare of dairy cows, as they do for pigs and hens. We want to make sure all of Europe's cows are happy by introducing rules for the following areas:

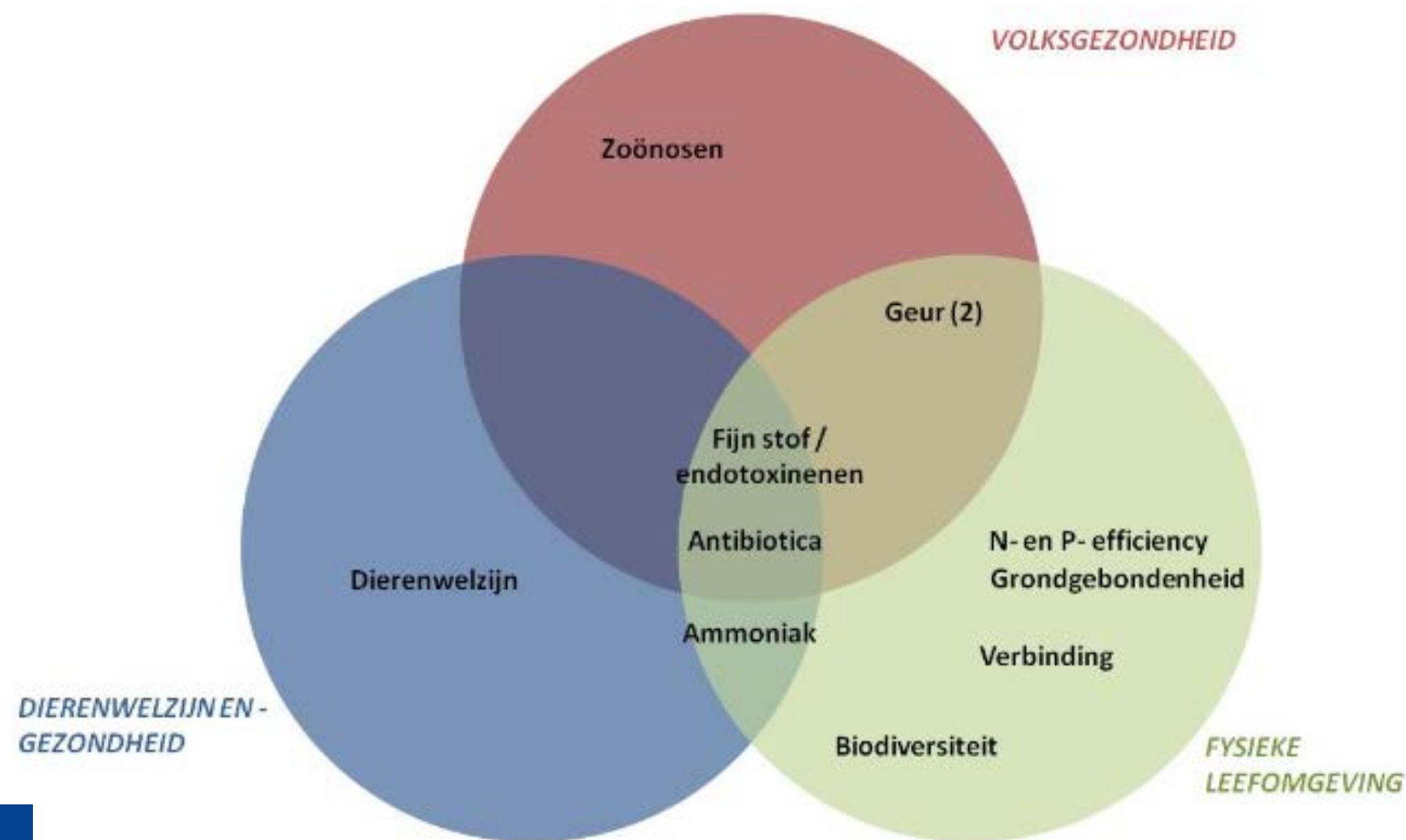
- Good Housing
- Good Feeding
- Good Health
- Appropriate Behaviour

click here to read



# Innovations for sustainable production

- Governance
  - Province of Noord-Brabant, the Netherlands
  - Regional specific development





# Collaboration between stakeholders

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# Sustainable agriculture – post-it!

1. What do you consider as the challenges for sustainable agriculture in Denmark?
2. What would be solutions?
3. What would you like to know, learn, or have researched with regard to sustainable agriculture?





# The future of agriculture

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- High tech



- Low tech





# Future agriculture

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- Organic



- Conventional



# Future agriculture

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- Large scale



- Small scale





# Future agriculture

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- Urban



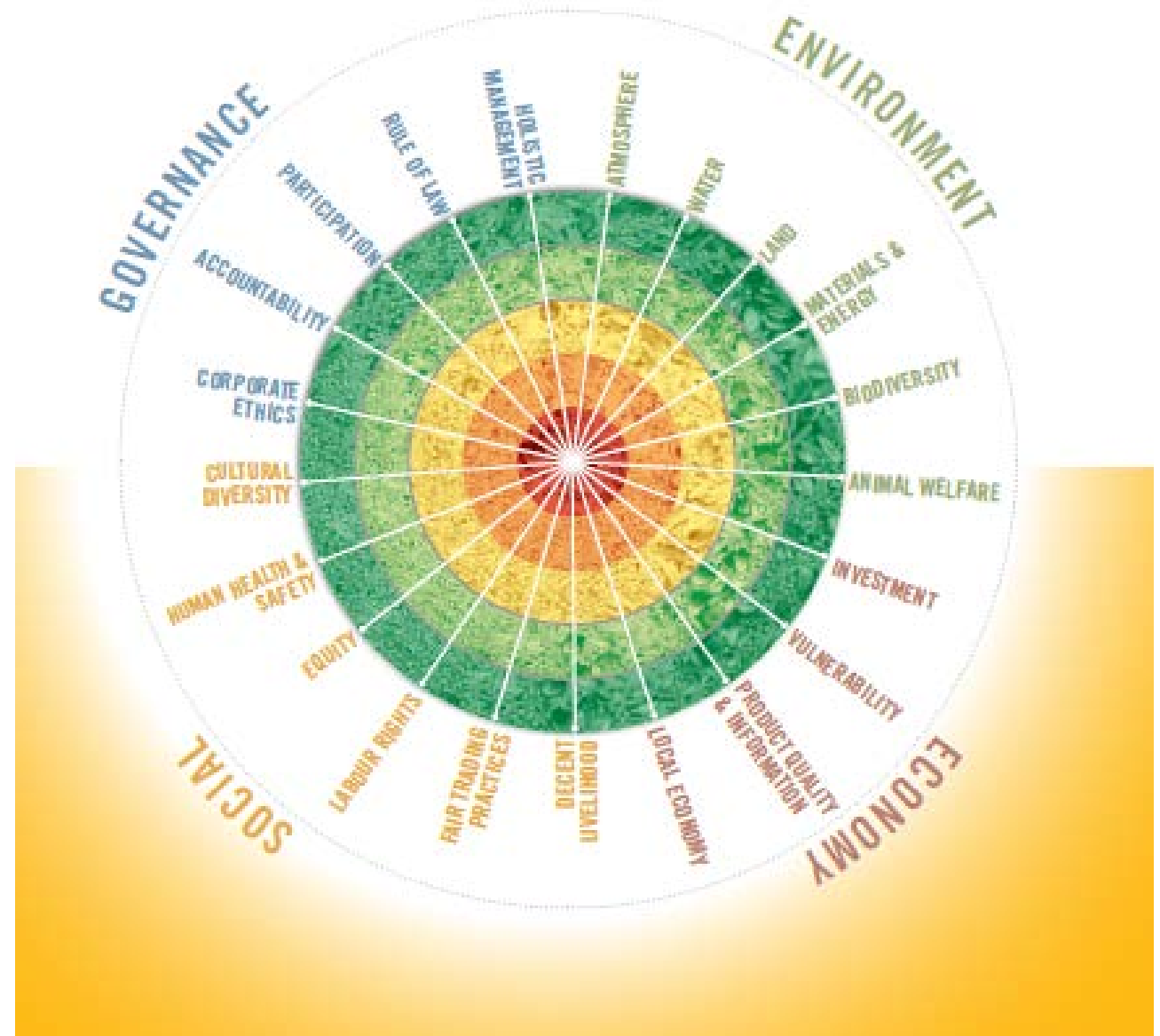
- Rural





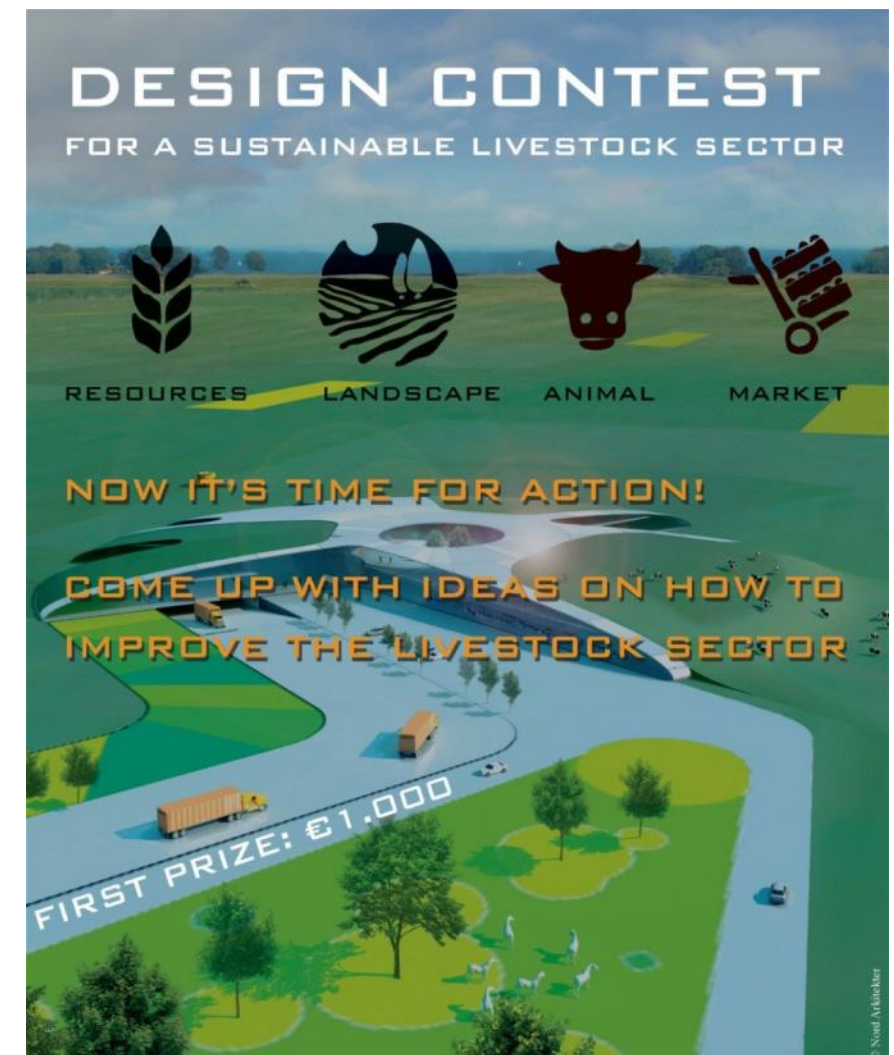
# Sustainable agriculture

- Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*



# Sustainable agriculture in the future

- Understanding the current level of production
  - Assessing the level of sustainability
- Developing innovations to improve the sustainability
  - Gather innovative ideas
- Collaboration between stakeholders
  - Shared responsibility and action
- You!



# Discussion

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