



# CORE organic Cofund



## Power to strengthen welfare and resilience in organic pig production

POWER



### Aim of the project:

Through a combined improvement of housing and management of pigs, animal welfare and health will be supported, while increasing the ecologic and economic competitiveness of organic pig production in Europe.

## Main activities:

- ▶ Investigate the effects of farrowing pen design, sow genetics and management strategies on newborn piglet mortality and piglet health before and after weaning
- ▶ Investigate the effect of different designs of outdoor runs on growing-finishing pig behaviour, health as well as pen hygiene and ammonia emission
- ▶ Identify and field-test best practice examples of combined housing and pasture systems considering productivity, feed efficiency, animal health, and nutrient management
- ▶ Develop a framework for assessing system resilience in organic pig production
- ▶ Evaluate the overall effect of the identified innovative housing designs and management strategies on cost effectiveness, system resilience and ecological footprints
- ▶ Provide guidelines for organic pig producers across Europe.

## Background

The organic regulations promote livestock welfare. However, the organic pig production is facing challenges with regard to piglet mortality and health disorders after weaning. Housing systems with outdoor runs for growing pigs can be associated with poor hygiene, less possibilities to live out natural behaviour and risks of ammonia emissions. Free-range systems support the organic principles of natural living but are at risk for nutrient leaching.

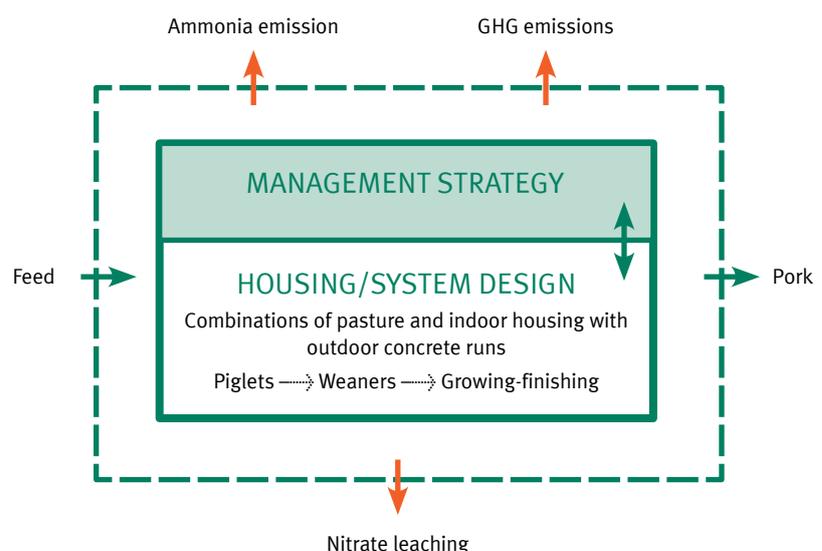
## Introduction

Animal welfare and health issues in the early pig's life and nutrient emissions from outdoor areas are major challenges for a further development of a trustworthy and cost-efficient organic pig production.

Through a combined improvement of housing and management of pigs, the project will support animal welfare and health while increasing the ecologic and economic competitiveness of organic pig production.

With increased knowledge, the project will produce practical guidelines to improve the animal welfare and health while reducing nutrient losses from outdoor areas.

The project includes experimental activities and best practice identification in Austria, Denmark, France, Germany, Italy, the Netherlands, Sweden, and Switzerland.



Along the focus on improving the welfare and health of piglets, weaners and growing-finishing pigs, the effects of various management strategies and housing systems designs on environmental impacts will be investigated.

## Expected results

- ▶ New knowledge on genetic and environmental strategies to reduce mortality in newborn piglets
- ▶ New knowledge in management strategies to improve piglet health and growth before and after weaning
- ▶ New knowledge in design and management of housing systems to offer growing pigs a 'natural living' whilst reducing the risk of emissions from outdoor areas
- ▶ Best practice examples in various combinations of housing and pasture systems related to animal welfare, feed efficiency, and nutrient management
- ▶ An assessment framework for system resilience in organic pig production concerning management and housing
- ▶ Practical guidelines to reduce piglet mortality and improve their ability to cope with stressful conditions before and after weaning
- ▶ Practical guidelines to reduce the environmental footprint of organic pig farms while improving the farm ability to respond to fluctuating economic and regulatory circumstances



## Societal and long term benefits

POWER supports development of the organic sector across Europe by improving the trustworthiness and economic competitiveness of organic pig production. This will contribute to a significant value increment in the European pig sector.

The project addresses four main areas of societal concern: The welfare of farm animals, use of antibiotics, cost effectiveness, and environmental footprints.

## How to reach target groups

The project reaches organic pig producers and their advisors through stakeholder workshops in the beginning and at the end of the project and through various medial channels. Practical guidelines will be offered in a number of languages.





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## Partners

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## Photo legend

1. Piglets outside their pen in winter. Photo: Marianne F. Hestbjerg
2. POWER creates a handbook for organic pig farmers focussing on efficient production and reduced ecological footprint as a follow up of the previous CORE Organic project ProPIG health and management handbook. Photo: Barbara Früh
3. POWER investigate animal welfare and environmental impact in housing systems with concrete outdoor runs e.g. by implementing zones for rooting, cooling, resting and excretory behaviour as well as combinations of pasture and housing systems. Photo: Heidi M-L Andersen
4. POWER addresses the start of the production cycle: The young organically reared piglet and growing-finishing pig. Photo: Anne Grete Kongsted
5. POWER has a strong stakeholder involvement. Stakeholders from each partner country are involved in the identification and testing of best practice and in development of workable recommendations. Photo: Kristine R. Hansen
6. Photo: Jesper Overgård Lehmann

## Further information

This transnational project is funded via the ERA-net CORE Organic Cofund based on funds from participating countries and funding from the European Union.

CORE Organic Cofund is a collaboration between 26 partners in 19 countries on initiating transnational research projects in the area of organic food and farming. CORE Organic Cofund has initiated 12 research projects. Read more at the CORE Organic Cofund website: <http://projects.au.dk/coreorganiccofund/>