

Improving Pig System performance through application of a whole system approach

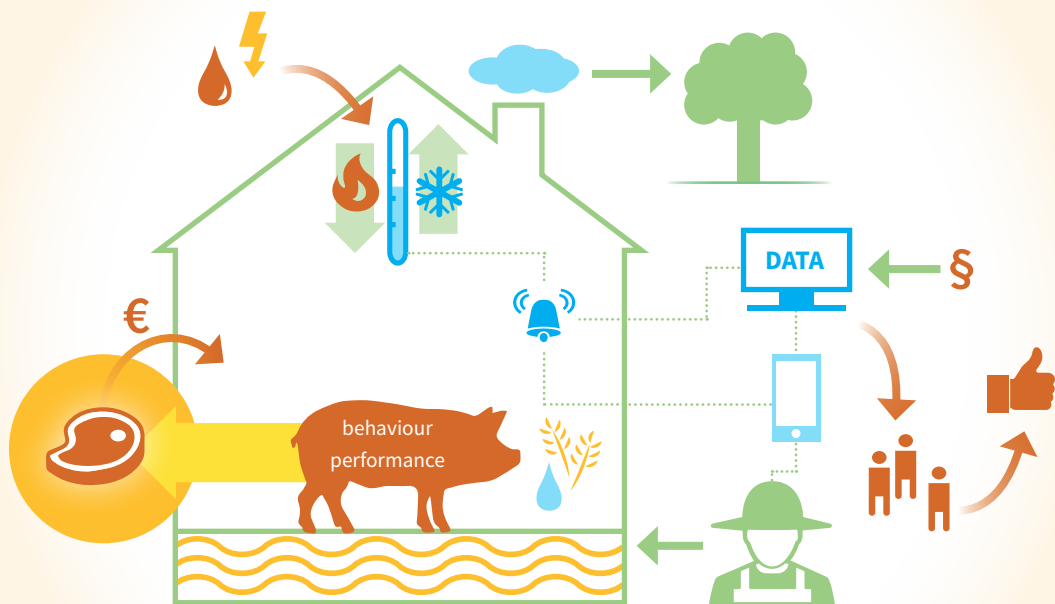


CHALLENGE

- Current **use of resources** in European pig farming is inefficient and results in high emissions and losses
- Main causes: outdated building standards, control systems and barn management approaches
- High priority of **animal welfare, competitiveness** and **public image of farmers** must be maintained
- Many approaches improve individual aspects of the systems, but so far there are no solutions that consider the whole system

SOLUTION APPROACH

- Implementation of a multi-disciplinary approach at system level
- Development of a system model as a decision support tool (software), based on mass and energy balances
→ **sustainable increase in system efficiency**
- Development of a new building control system
- **Evolution of sustainable, socially acceptable and economically rewarding pig husbandry systems**
- Geographic and climatic balance in the consortium, with partners from different European regions
- **Ensuring the relevance of the project in the EU and beyond**



EXPECTED RESULTS

- Overall system model consisting of energy and mass flows as well as a decision support tool
- Measurement and control technology for monitoring and **improving barn climate control and animal welfare**
- Data storage to support pen and control system development
- Comprehensive lifecycle and life cycle cost analysis
- Increased **animal welfare and increased animal performance**
- Increased **resource utilisation efficiency**
- Reduction of emissions, losses and the carbon footprint
- Improved public perception of the sector and **reduced production costs**
- Increased **competitiveness of the sector**