Improving pig system performance through a whole system approach (PigSys)

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Problem(s) addressed in the project
Animal welfare and performance; Data handling and fusion (big data management); Resource and energy demands in pig production; Production management and climate control on pig farms; Life Cycle Impact Assessment; Emission, waste and carbon footprint

Objectives
• Development of a centralised decision support system (DSS);
• Development of an integrative system model
• Development of animal-based environmental control system
• LCA and LCCA
• Stakeholder engagement

Interim research findings
Core architecture of the data warehouse is functional
Appropriate models was developed to link animal and building performance based on data from the involved partners’;
Machine vision monitoring is functional; Technical solutions for cooling of pigs was tested; LCA frameworks with the ability to evaluate pig production systems are functional;
Stakeholders have been informed and involved in the project

Future research and activities
• Integrating farm data recording systems to the warehouse system
• Development of sensors fusion and integration of animal welfare into the climate control system
• Economic analysis of existing frameworks
• Development and circulation of training materials for the involved farmers and technology providers

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