

# From Pig Data to Big Data

Point of Production: Sow farm to finishing

Country of Origin: Denmark



'Without data, you are just another person with an opinion'  
- W. Edwards Deming.

Modern pig production produces large volumes of data  
which require effective analysis and visualisation.

Increasingly, this should be performed by the software  
housing the data rather than independently by the farmer.

## The Solution - Best Practice

Jesper Hansen has a desire to visualise real time productivity using biological parameters. Complete monitoring of feed intake, water intake, performed procedures and traditional farm recordings are presented in real time using the Agrovision Dashboard system. Routine weighing of pigs in a few pens provides the data source for monitoring daily weight gain for the pigs. Graphs showing trends serve as alarm system (early warning) decision support tool for all sites. When employees start the day, they check the system for alarms and check the curves for obvious issues not detected by the alarm. Employees find the system motivating as production can be followed when the pigs are alive. When detecting errors they can often still handle the problem and improve/correct the issues at hand.

## Additional Information

Wherever possible data collection should be automated, making use of camera systems, in-pen weigh systems, automated feed systems, RFID, and based on individual pig data. The visualisations should clearly show the outliers of production not just average figures to allow effective action to be taken by the farm manager.

Capital costs for this type of innovation appear high but they deliver marginal gains across production which add up to large savings. A single day saved from the days to finish time, is approximately €0.90 per finished pig.

## Cost/Benefit Analysis

### Benefits:

- ✓ Increased Feed Conversion Ratio (FCR), 100g per day.
- ✓ 5-10% reduction in veterinary costs.
- ✓ 5-10% reduction in piglet mortality.
- ✓ Variable cost production 5.8% per kg of meat.
- ✓ Decreased fixed cost of 3.4%.
- ✓ Total reduction of costs of 5.2%.

### Costs:

- Initial investment of €15,000 (€2.5 per pig place) for the monitoring system.
- €2,000 per year for maintenance of sensors (€0.33 per pig place).
- €564 per year for software maintenance (€0.094 per pig place).
- The total cost is €2.924 per pig place.

Theme: Precision



*In-pen sensors (weight)*



*Checking the systems for alarms*

## Further Research & Project Links

<https://eupig.eu/>

Link to technical report

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