



## HERD HEALTH MANAGEMENT & ECONOMY

HHM-041

### **PIG DATA: HEALTH ANALYTICS FOR SWISS PIG FARMING**

C. Nathues<sup>1</sup>, R. Grütter<sup>2</sup>, A. Bernstein<sup>3</sup>, H. Nathues<sup>4</sup>, J. Berezowski<sup>5</sup>.

<sup>1</sup> Federal Food Safety and Veterinary Office, Bern, Switzerland; <sup>2</sup> Swiss Federal Research Institute WSL, Birmensdorf, Switzerland; <sup>3</sup> Department for Informatics / University of Zurich, Zürich, Switzerland; <sup>4</sup> Clinic for Swine / University of Bern, Bern, Switzerland; <sup>5</sup> Veterinary Public Health Institute / University of Bern, Bern, Switzerland.

Large data volumes can no longer be analyzed using conventional methods; they have to be made usable by applying new methods. So far, such methods have not had much impact on animal husbandry. Swiss pig production differs from the intensive production systems in other European countries because of its complex, small-scale structure. Although all stages of production generate animal health data, it is not being used in a way that brings together all the various stages of production. If this information is suitably prepared and analyzed, it will be possible to identify new links, causes and risk factors in relation to diseases and/or a drop in performance – and to identify the best strategies for combating them.

The project will develop new methods aimed at gaining a better understanding of, and optimizing, the structure and complexity of the pig farming and production network in Switzerland. Various production data will be integrated in a large data base (called the Pig Data Space).

This project will not only utilize existing data but also tap into potential sources of new data in order to improve animal health, boost animal welfare and make pig production more sustainable. The results of this project will enable livestock owners and veterinarians to take steps to improve animal health and prevent disease.

Optimized production processes will lead to greater efficiency, sustainability and value creation. Ultimately, end users such as consumers will benefit from improvements in animal health, reduced antibiotic use and the resulting foodstuffs.