

A Horizon 2020 project for the development of tools for data-driven control and prioritisation of non-EU-regulated contagious animal diseases.

More information www.decideproject.eu

Background.

Farmers, veterinarians and other animal health managers in the livestock and aquaculture sectors are currently missing information on the prevalence and burden of **contagious animal diseases** that are not regulated by the European Union.

The diseases, such as porcine reproductive and respiratory syndrome virus, avian infectious bronchitis, cardiomyopathy syndrome in salmonids or bovine corona virus infection — are estimated to cause 10-15% reduction in performance efficiency of livestock farming, resulting in large financial losses and lower sustainability as well as affect animal welfare. Professionals in the livestock and aquaculture sectors are therefore in considerable need of adequate tools to assess the risks for contagion and associated losses, and to help prioritise the appropriate control measures for these diseases.

Objectives.

The DECIDE project will develop data-driven decision support tools that offer:

- Robust and early signals of disease emergence and options for diagnostic confirmation.
- Options for controlling the disease along with their implications in terms of disease spread, economic burden and animal welfare.

Together, all of this will form the decision support tools to be **integrated in existing farm management systems** wherever possible and to be evaluated in several pilot implementations in pig, poultry, cattle and salmon farms across Europe.

Funding programme

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101000494.



Duration: 1 July 2021 - 30 June 2026

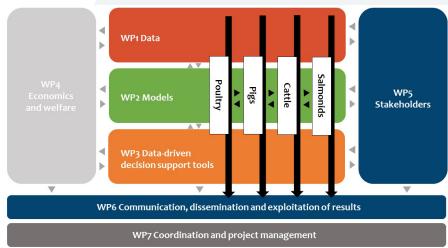
Budget: € 10 million

Activities.

DECIDE will focus on respiratory and gastro-intestinal syndromes in the three most important terrestrial livestock species (pigs, poultry, cattle) and on growth reduction and mortality in salmonids, the most important aquaculture species.

For each of these, DECIDE will:

- Identify the stakeholder needs;
- Determine the burden of disease and costs of control measures;
- Develop data-sharing frameworks based on federated data access and federated learning;
- Build multivariate and multilevel models for creating an early warning system.



DECIDE Work Packages and Workplan

Impact.

The results of DECIDE will lead to improved decisions on disease control to increase animal health and welfare and protect human health and the food chain in Europe and beyond.

Consortium.

To achieve these ambitious goals, DECIDE has assembled a unique multidisciplinary consortium of experts in veterinary epidemiology and diagnostics, data science, mechanistic and predictive modelling, economics, animal welfare and social sciences. The consortium can also count on ample access to data from national animal health agencies, providers of veterinary services or farm equipment suppliers.

Project Coordinator

Prof. Dr. Gerdien van Schaik, Utrecht University







































Project Partners

- Universiteit Utrecht, NL
- Københavns Universitet, DK
- Universiteit Gent, BE
- The University of Liverpool, UK
- ETH Zürich, CH
- The University of Nottingham, UK
- Statens Veterinärmedicinska Anstalt, SE
- Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement, FR
- Veterinærinstituttet –Norwegian Veterinary Institute, NO
- Institut de Recerca i Tecnologia Agroalimentàries, ES
- SRUC, UK
- Animal Health Ireland Initiative, IE
- Institut de l'Elevage, FR
- Innovation for Agriculture, UK
- Gezondheidsdienst voor Dieren B.V., NL
- Ausvet Europe, FR
- SLW Biolab s.c., PL
- Lely Industries N.V., NL
- accelopment Schweiz AG, CH