



# PROHEALTH

## Sustainable pig and poultry production: an integrated and multi-factorial approach

### Background

Rising demand for animal products, an increasing global population as well as global competition have increased level and intensification of animal production. This trend comes at a price: production diseases compromise health and welfare, generating inefficiencies which negatively impact on profitability, environmental footprint, and product quality. They may also increase the need to treat the affected animals with antibiotics.

Production diseases can be defined as 'Diseases which tend to persist in animal production systems and, typically, become more prevalent or severe, in proportion to the potential productivity of the system'. These disease conditions have a great impact both in the EU and worldwide: compromised health and welfare for the animals themselves, and consequently tremendous financial losses.

The PROHEALTH project aims to develop an understanding of the multi-factorial dimension of animal pathologies linked to the intensification of production and to use this new knowledge to develop, evaluate and disseminate effective management and control strategies.

### Objectives

The PROHEALTH project will address each of the elements in the network of production disease causation. In particular, the specific objectives of the project are to:

- identify the risk factors for production diseases and establish associations between diseases;
- explore the role of genetic and environmental factors on neonatal survival and in exerting longer-term developmental influences on health;
- evaluate the effects of genetic selection for productive traits on susceptibility and identify strategies to mitigate these;
- determine the role of variation in farm environment on the temporal expression of production diseases;
- characterize the microbio-immunological changes and identify pathological changes at the molecular level which take place during production diseases in order to develop diagnostic tools;
- synthesize strategies to reduce the impact of production diseases on a farm and assess the efficacy of improvement strategies in reducing disease prevalence or severity; and
- identify economically viable and socially acceptable ways to control pathologies, with emphasis on animal welfare implications.

#### Funding Programme:

This project has received funding from the European Union's Seventh Framework Programme under grant agreement no. 613574.



#### Project Duration:

01/12/2013 – 30/11/2018

#### Project Budget:

11.9 million euro

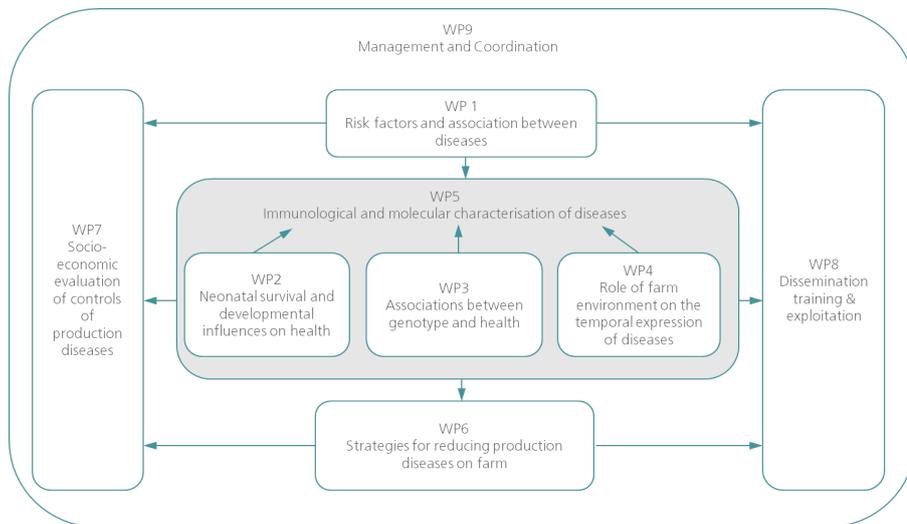
#### Project Website:

[www.fp7-prohealth.eu](http://www.fp7-prohealth.eu)



## Activities

The workplan designed to achieve the objectives of the project has been subdivided into 9 work packages (WP):



WPs 1-7 will address the specific objectives in pigs, meat-producing and egg laying chickens, and turkeys. Their overarching objective is to improve:

- animal health and welfare;
- product quality in pig and poultry systems;
- whilst ensuring the economic and environmental sustainability.

In addition, WP8 will focus on the development of essential dissemination tools for the animal-related industries, wider public and consumers, and establish new e-learning tools for various stakeholders. WP9 comprises project management and coordination activities.

## Impact

The PROHEALTH project will contribute to the understanding of the multifactorial dimension of animal pathologies linked to the intensification of production. It will help to provide effective control strategies to reduce the negative impact on animal health and welfare.

Dissemination activities will encompass all stakeholders in the food chain. PROHEALTH will deliver novel diagnostics for the propensity to develop production diseases and their occurrence, and multifactorial improvement strategies. Ultimately, the results of PROHEALTH will allow the production of better quality products in a welfare friendly manner and improve competitiveness and sustainability of EU pig and poultry systems.

### Project Coordinator:

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### Project Partners:

- acceloment AG, CH
- Aviagen, UK
- Conseils et Competences en Productions Animales (CCPA Group), FR
- Coren S.C.G., ES
- European Forum of Farm Animal Breeders, NL
- Ghent University, BE
- Institut National de la Recherche Agronomique (INRA), FR
- JSR Genetics Ltd, UK
- Natural Resources Institute Finland (Luke), FI
- Poultry Health Services Ltd, UK
- PigCHAMP Pro Europa SL, ES
- The Danish Agriculture & Food Council, SEGES, DK
- The University of Nottingham, UK
- Tivix Europe Sp Zoo, PL
- University of Copenhagen, DK
- University of Reading, UK
- Vedanko Bvba, BE
- Veterinary Research Institute, CZ
- Vitatrace Nutrition Ltd, CY
- Warsaw University of Life Sciences (WULS-SGGW), PL