ClearFarm

Co-designed Welfare Monitoring Platform for Pig and Dairy Cattle

9th Meeting of the EU Platform on Animal Welfare

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General objective

To **co-design**, develop and validate a **software platform** powered by an algorithm **integrating PLF data** to provide **animal welfare information** throughout the **entire production process**, as well as other **sustainability** information that will assist (i) **producers** and (ii) **consumers** on decision making within the **pig and dairy** cattle value chains.
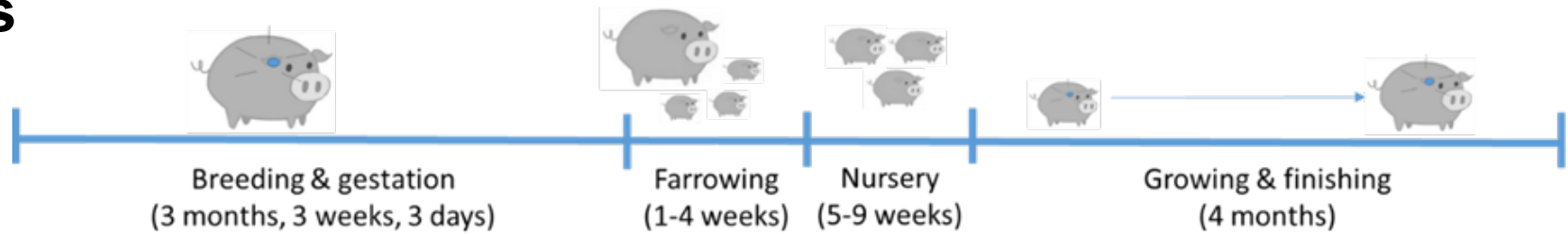
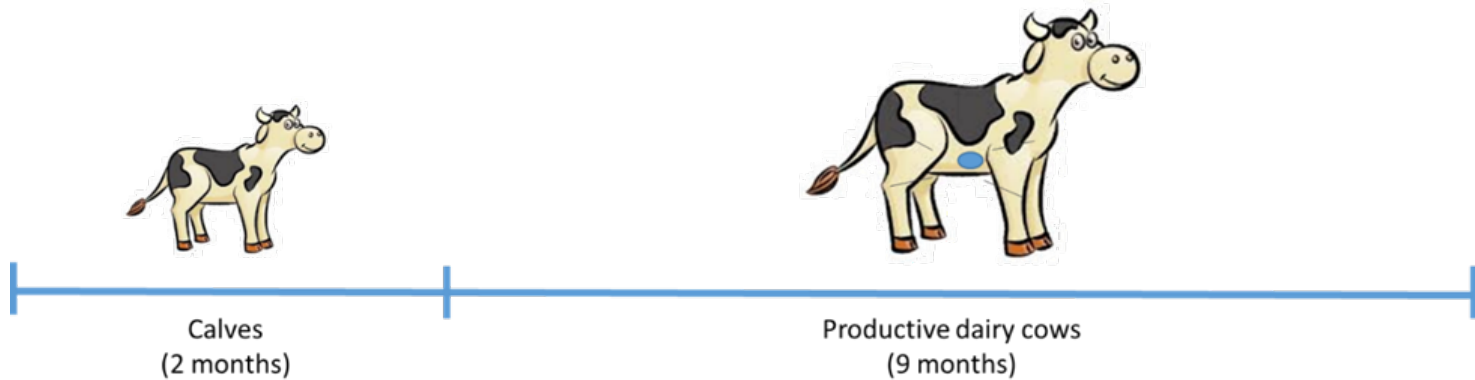*1st October 2019 – 30th September 2023*
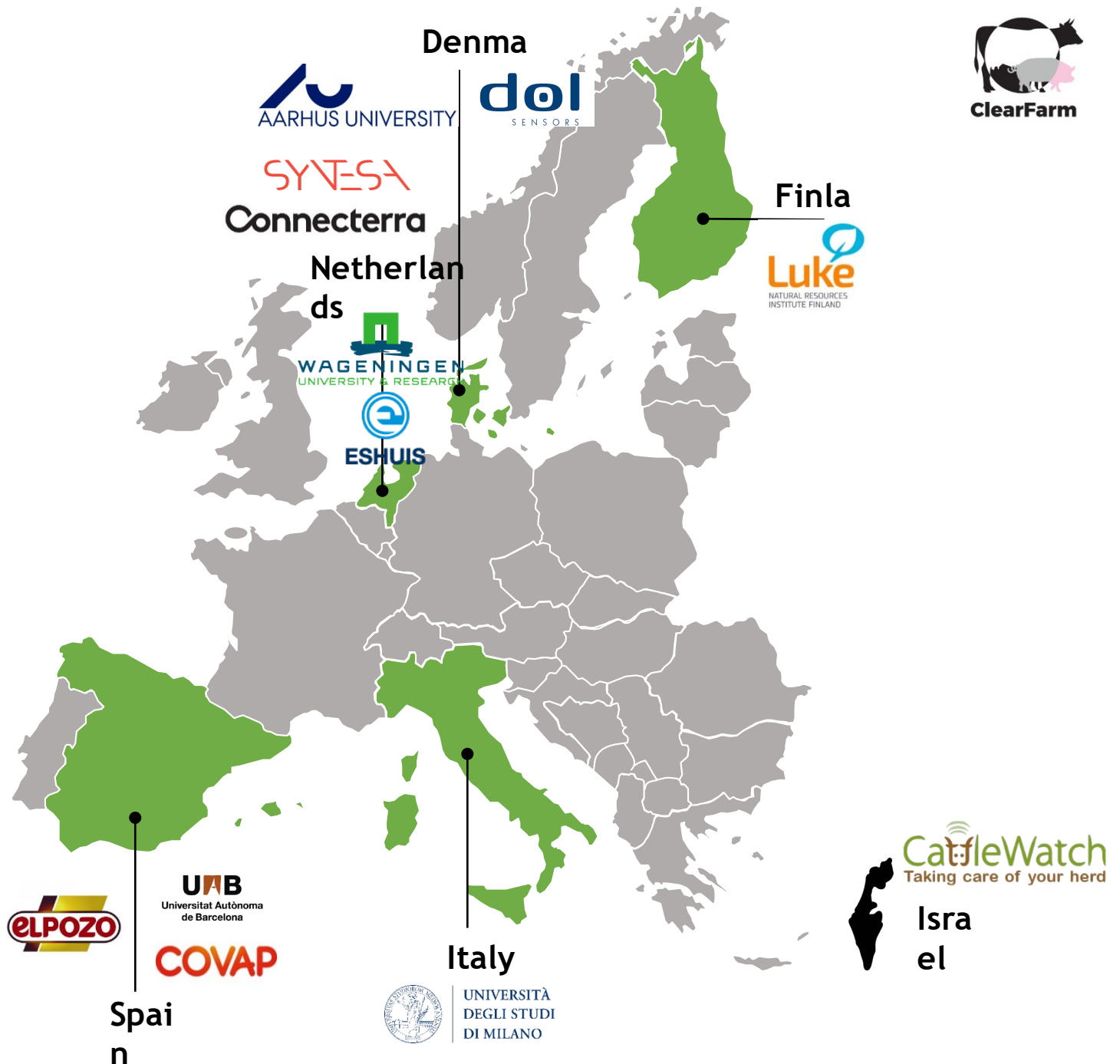
General objective

Pigs

Breeding & gestation
(3 months, 3 weeks, 3 days)

Farrowing
(1-4 weeks)

Nursery
(5-9 weeks)

Growing & finishing
(4 months)

Dairy cattle

Calves
(2 months)

Productive dairy cows
(9 months)

Partners

Denma

Finla

Netherlands

Spain

Italy

Israel

Background

❑ Previous EU funded projects on farm animal welfare assessment (Welfare Quality & AWIN).

❑ Need to incorporate PLF data.

❑ Need to incorporate information on environmental sustainability.

Specific objectives

Objective 1
Identify the needs and requirements of consumers and producers about welfare awareness and future management approaches

Expected results
A list of key welfare indicators of pig and dairy production that are listed as relevant for stakeholders (including producers, consumers and also policy makers) in different European countries and regions.

Associated work packages
WP1

Specific objectives

Objectives 2 & 3
Develop new approaches based on innovative technologies to assess animal welfare and environmental impact.

Expected results
A new approach based on innovative PLF technologies that can assess and improve pig and dairy cattle welfare and environmental sustainability throughout the entire production chain.

Associated work packages
WP2, 3 & 4

Specific objectives

Objective 4
Design new business models for consumers to identify and choose welfare-friendly products

Expected results
Innovative business model based on providing clear, transparent and updated information about animal welfare to pork and milk consumers. The new approach will not only help the consumer in their choices, but also inform other actors of the value chain, such as producers and intermediaries, to move forward to new processes and models that benefit animal welfare.

Associated work packages
WP5

Specific objectives

Objective 5
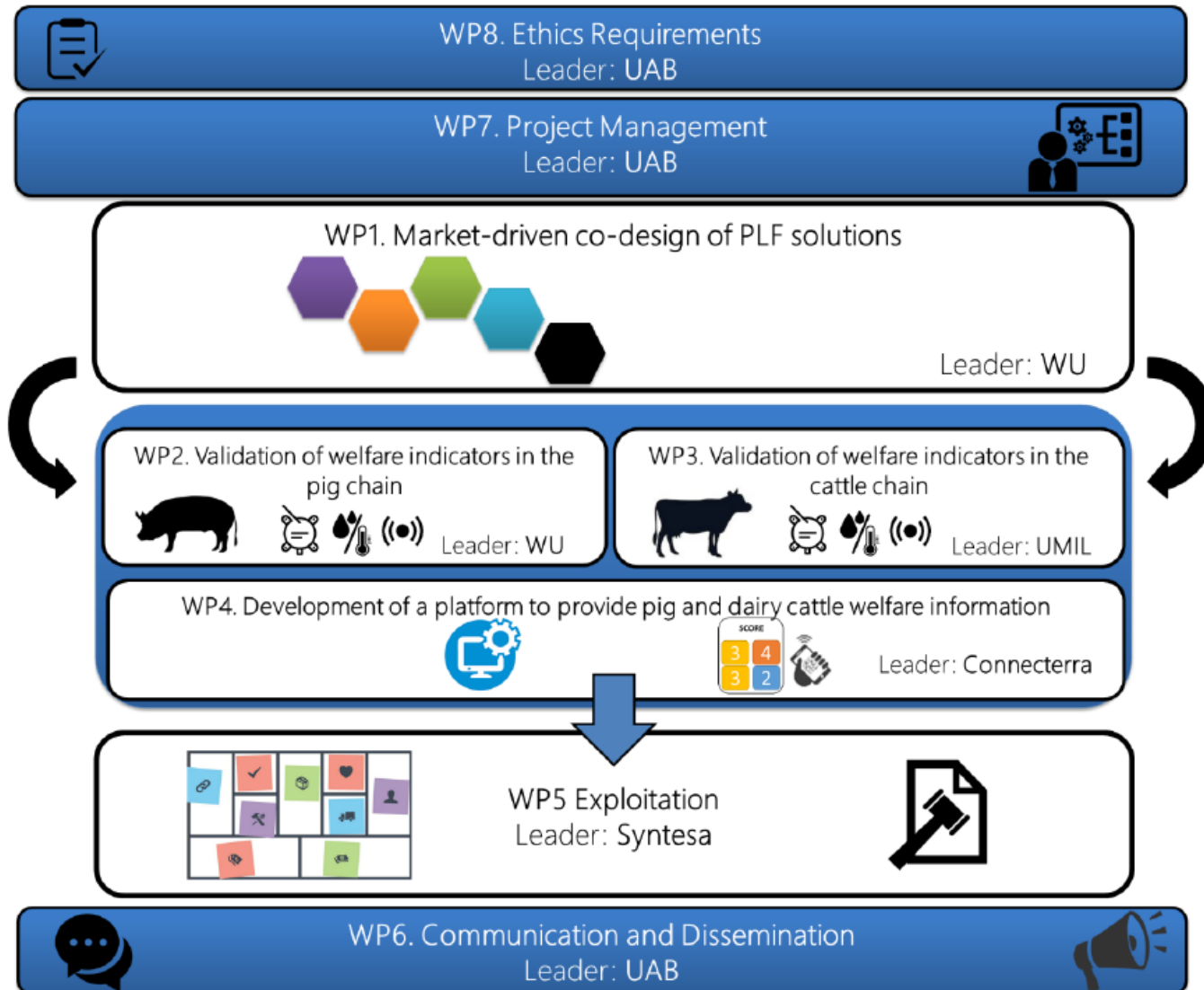Contribution of all stakeholders to the building of a new animal welfare approach

Expected results
Co-designed product by the participation of the whole value chain by design thinking. Dissemination of ClearFarm results, for example through EIP-Agri's common format to Operational Groups (OGs).

Associated work packages
WP 5 & 6

Work plan

Work so far

❑ WP1:

    ❑ Consumers expect that PLF technologies will improve farm animal welfare.

    ❑ However, they have some concerns about the perceived risks of such technologies

❑ Work in progress in the other WPs, including farm trials and business model development.

Publications

Stygar A.H., Gómez Y., Berteselli G.V., Dalla Costa E., Canali E., Niemi J.K., Llonch P, and Pastell M. A Systematic Review on Commercially Available and Validated Sensor Technologies for Welfare Assessment of Dairy Cattle. *Front. Vet. Sci.*, 29 March 2021 https://doi.org/10.3389/fvets.2021.634338

Krampe C., Serratosa J., Niemi J.K. and Ingenbleek P. Consumer Perceptions of Precision Livestock Farming—A Qualitative Study in Three European Countries. *Animals* 2021, 11(5), 1221, 23 April 2021 https://doi.org/10.3390/ani11051221

Gómez Y., Stygar A.H., Boumans I.J. M. M., Bokkers E.A.M., Pedersen L.J, Niemi J.K., Llonch P, Pastell M., Manteca X. and Llonch P. A Systematic Review on Validated Precision Livestock Farming Technologies for Pig Production and Its Potential to Assess Animal Welfare. *Front. Vet. Sci.*, 14 May 2021 https://doi.org/10.3389/fvets.2021.660565

Expected impact
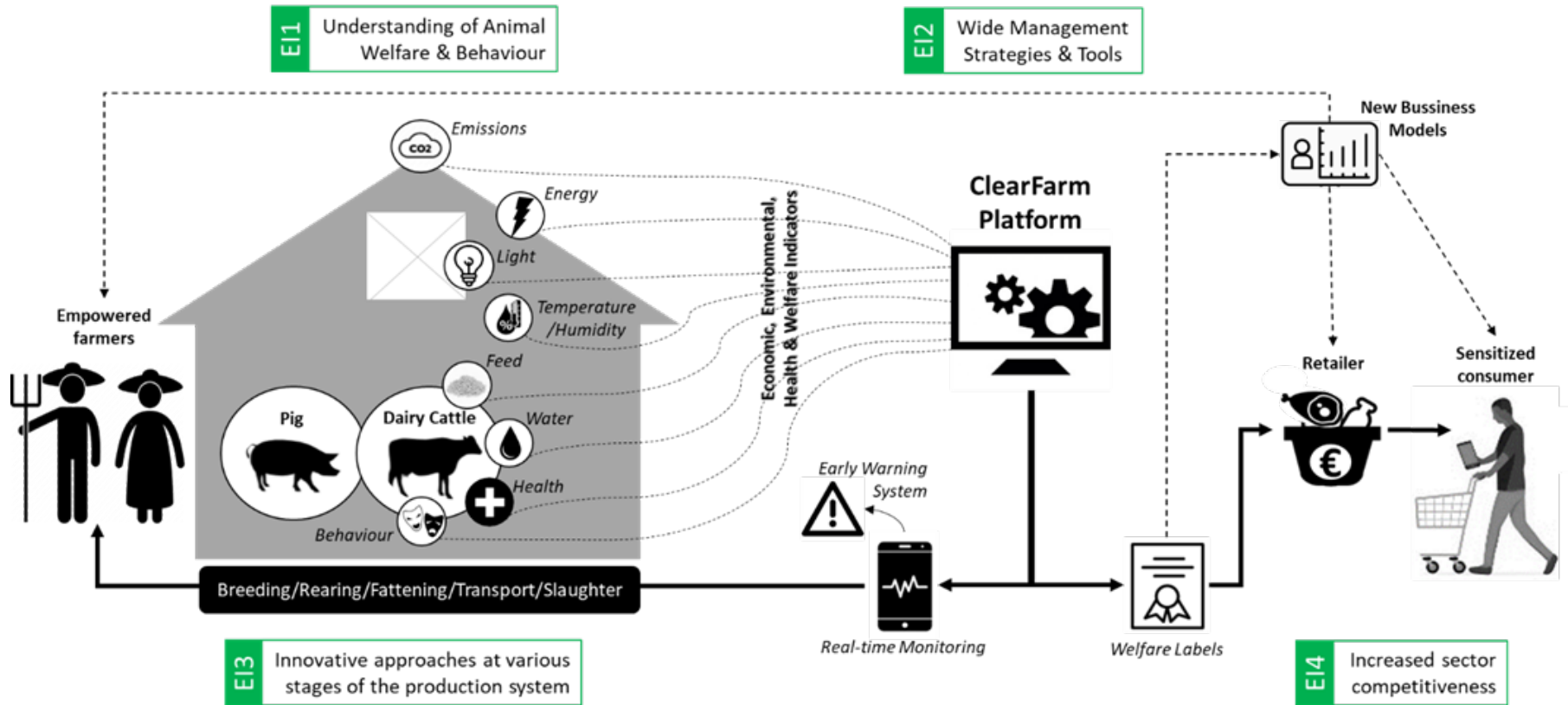
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