



Presentation of the PPILOW project

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Why is it important to consider welfare in low-input outdoor and organic farming systems?

- High quality of the rearing practices and of the products
- Diversity of practices throughout Europe
- Still a need to improve animal welfare and limit mortality, in relation to the outdoor access challenging the animals, ethical issues, the wish of practitioners and societal expectations

Objective of PPILOW: Identify, test and evaluate animal welfare-improving practices by taking into account environmental, economic and social impacts including human well-being
One Welfare concept (Garcia Pinillos et al., 2016)

H2020 PPILOW partners and collaborators



PPILOW

Poultry and Pig Low-input and Organic production systems' Welfare

2019-2024



Coordination: **INRAE**

22 PPILOW Partners in 9 countries

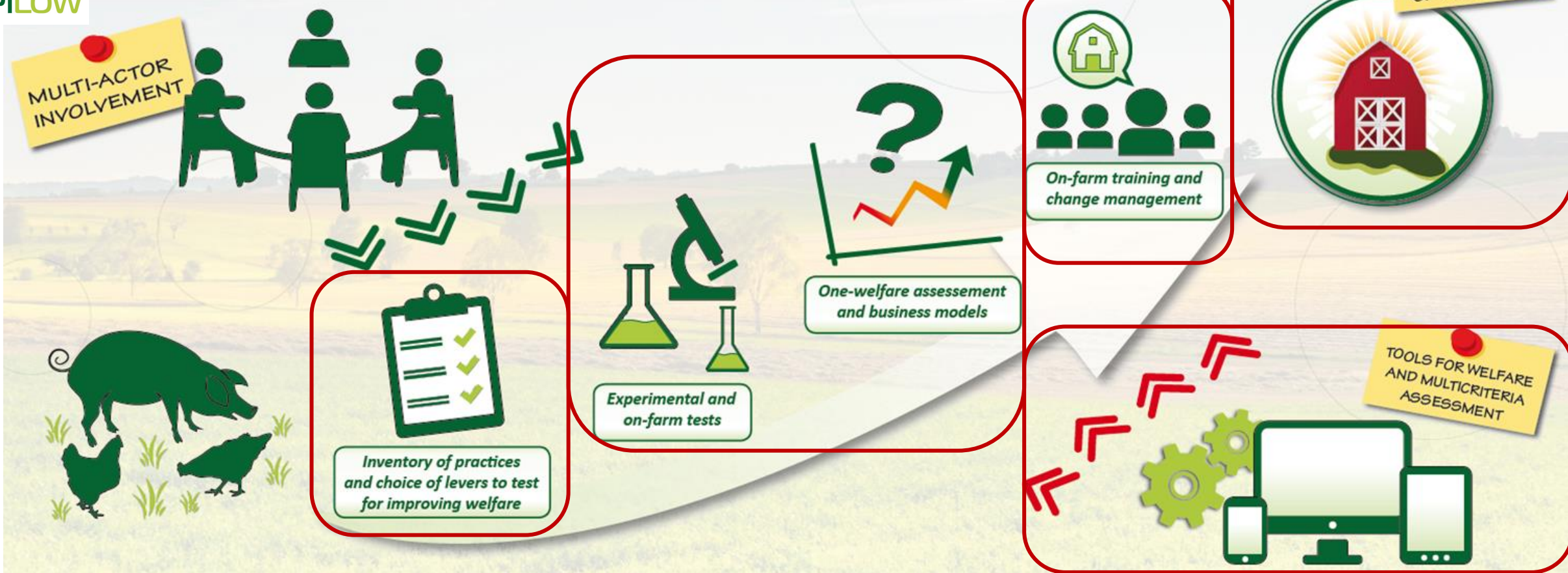
9 National Practitioner Groups (NPG): 4 dedicated to pigs and 5 to poultry

www.ppilow.eu

- Research institute
- Technical Institute
- Citizen/Practitioner Association
- SME
- University/Higher education



Innovative breeding and rearing strategies



Favouring positive behaviours, improving health and robustness

Avoiding piglet castration, beak trimming of laying hens, the elimination of layer male chicks



PPILOW What are the issues in poultry production ?



Data from publications and research projects

Health	Animal behaviour	Management practices
Parasitism		Risk of predation
Digestive diseases	Feather pecking	Weather risks
Arthrosis, Pododermatitis		Human welfare/well-being
Fractures, Osteoporosis	Fearfulness	Culling of layer male chicks
Mortality		Depopulation & loading procedure
Lack of alternatives to antibiotics	Low use of the outdoor space	Range management
Poor water quality		
Lack of robustness	Lack of expression of natural behaviour	
Unsuitability of biosecurity rules		

Bonnefous et al. 2022, Frontiers Vet. Sci.

PPILOW What are the issues in pig production ?

Data from publications and research projects

General remark: **huge heterogeneity among countries, systems and among farms**

⇒ huge diversity of problems, that are highly **farm-dependent**

⇒ **solutions often already exist**

Sows

Endo and ecto-parasitism

Reproduction: issues related to estrus, poor conception rate and abortion

Piglets

Neonatal mortality (crushing, chilling)

Hunger, anemia, nutritional deficiency

Diarrhoea

Endoparasitism

Grower pigs

Diarrhoea, respiratory problems: less significant outdoor than indoor

Endoparasitism

Piglet castration / management of non-castrated male pigs



PPILOW On-farm implementation

Country	NPG	Overview of the on-farm implemented innovation
NL		Working on dual purpose genotypes with a group of farmers and a coop with a focus on layers
DE		Broilers from dual purpose genotype (December 2021 to March 2022)
FR		Broilers from dual purpose genotype were reared in France (December 2021 – March 2022). Laying hens of one PPILOW dual-purpose genotype have been reared on the same farm since April 2022
DK	Poultry	Pullets from two dual purpose genotypes reared in France were then tested on-farm in Denmark. One farmer expressed interest in the dual-purpose genotypes during NPG-meetings and received young hens from two genotypes for the trial.
IT		Use of enrichments with dual purpose genotypes
FR		On-farm hatching of slow growing chicks tested
DE		On-farm hatching: comparison of hatchers a) Farmers own hatchholders ; b) one2born hatchholder
FR		PIGLOW app training and test in pig farms with IFIP
RO	Pigs	Implementing the experiment on medicinal plants for improving the immune system, limiting parasitism and pathogenic bacteria on-farm
FR		Sow huts designed by Vanggaard and AU and tested in DK were installed in 2 farms
BE		Sow huts designed by Vanggaard and AU and tested in DK were installed in 1 farm
IT		Sow huts designed by Vanggaard and AU and tested in DK were installed in 2 farms



Use of the PIGLOW and EBENE welfare self-assessment applications



Fig. 1 and 2 – Farrowing huts from the Danish PPILOW partner firm Vanggård Staldmontage (© Vanggård)



PPILOW perspectives

- Already effective or promising innovations for improving pig and poultry welfare in low- input outdoor and organic farms
- On-farm implementations and dissemination to practitioners, large public and policy makers
- Perspectives : many challenges:
 - EU labelling, organic and welfare regulations
 - Organic broiler breeders and chicks
 - On-farm hatching and rearing of non-castrated males already disseminating in conventional farms : to be considered in organic and low-input ones?
 - New generation of in-ovo sexing tools
 - Contributions to other EU projects or partnerships...

PPILOW PARTNERS



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Thank you for your attention

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