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Overview of the PPILOW Project and its multiactor approach

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PPILOW Final Conference

PPILOW Final conference – Africa Museum, Tervuren (Brussels)

11th-12th June 2024

**Agenda of the
PPILOW
Final conference**

Day 1

| Day 1 - 11 June 2024 | | |
|-----------------------------|--|---|
| Time | Sessions | Chairman/Speaker(s) |
| 13:45 - 14:00 | Registration | |
| 14:00 - 14:30 | Overview of the PPILOW Project and its multiactor approach | R. Carelli, EAAP A. Collin, INRAE M. Coletta, AIAB |
| 14:30 - 15:30 | PPILOW applications for pig and poultry welfare self-assessment <ul style="list-style-type: none"> • PIGLOW application • EBENE application • Feedback from farmers | F. Tuytens, ILVO E. Graat, ILVO |
| 15:30 - 16:00 | Coffee break | |
| 16:00 - 17:00 | How to avoid feather pecking in non-beak-trimmed hens and piglet castration? <ul style="list-style-type: none"> • Early management and enrichment to limit feather pecking in laying hens • Management and genetics of non-castrated male pigs in low-input outdoor and organic systems | T.B. Rodenburg, UU S. Kliphuis, UU B. Lebret, INRAE |
| 17:00 - 18:00 | Alternatives to the elimination of layer male chicks <ul style="list-style-type: none"> • In ovo sexing tools • Dual-purpose breeds including multicriteria assessment, economic and business models | S. Lombard, ACTA/ITAB S. Rehault-Godbert, INRAE M. Reverchon, SYSAAF H. Pluschke, TI S. Steinfeldt, AU P. Thobe, TI |
| 18:00 | End of Day 1 | |

**Agenda of the
PPILOW
Final conference**

Day 2

| Day 2 - 12 June 2024 | | |
|----------------------|---|---------------------------------------|
| Time | Sessions | Chairman/Speaker(s) |
| 09:00 - 9:30 | Registration | Welcome day 2 - A. Collin, INRAE |
| 09:30 - 10:00 | Genetics and range use by organic broilers <ul style="list-style-type: none"> Adaptability of broiler strains to the free range and agroforestry Individual variability of range use and genetic strategies | S. Steinfeldt, AU |
| | | C. Castellini and E. Angelucci, UNIPG |
| 10:00 - 10:30 | Early management of broilers for welfare improvement <ul style="list-style-type: none"> Incubation temperatures for improving the resilience of slow-growing broilers On-farm hatching in organic and low input outdoor farms | S. Steinfeldt, AU |
| | | R. Molenaar, WU |
| 10:30 - 11:00 | Coffee break | A. Collin, INRAE |
| 11:00 - 11:40 | Plants for better health of pigs and laying hens <ul style="list-style-type: none"> Improving the gastro-intestinal health and welfare of laying hens by the use of dietary plant additives Improving the welfare and health of pigs from low-input systems by controlling the parasitic fauna and the digestive microbiome, using aromatic and medicinal plants | S. Steinfeldt, AU |
| | | R. Engberg, AU |
| 11:40 - 12:10 | Sow and piglet welfare in low-input outdoor and organic farms <ul style="list-style-type: none"> Breeding strategies for piglet survival Design of innovative farrowing huts with PPILOW farmers and involved partners | M. Spinu and V. Cozma, USAMV |
| | | S. Steinfeldt, AU |
| 12:10 - 13:30 | Lunch break | E. Merlot, INRAE |
| | | P. Vanggaard, Vanggaard Staldmontage |

**Agenda of the
PPILOW
Final conference**

Day 2

| | | |
|---------------|---|---|
| 13:30-13:40 | Biosecurity and Welfare in low-input outdoor and organic pig and poultry farm | M. Coletta, AIAB A. Zuliani, VSF-Italia |
| 13:40 - 14:20 | How does PPILOW connect with the other European initiatives on Animal Health and Welfare? <ul style="list-style-type: none"> • aWISH • BIOSECURE • Partnership on Animal Health and Welfare • Synergies of PPILOW with other European projects | M. Coletta, AIAB F. Tuytens, ILVO E. Biebaut, UGent A. Boissy, INRAE L. Tourneur, ACTA |
| 14:20 - 15:00 | Consumer and practitioner views and lessons from the workshop on PPILOW business models | A. Collin, INRAE J. Niemi, LUKE P. Thobe, TI |
| 15:00 - 15:50 | Round table with stakeholders on PPILOW impacts in the context of European legislation on Animal Welfare, organic farming and labelling initiatives Céline Ledoux, DG SANTE Laurence Bonafos, DG AGRI Alain Boissy, INRAE Silvia Schmidt, IFOAM, Ines Grenho Ajuda, Eurogroup for Animals Anne Collin, INRAE | T. B. Rodenburg, UU |
| 15:50 - 16:00 | Acknowledgements End of the conference | A. Collin, INRAE |
| 16:00 | Farewell coffee | |



Overview of the PPILOW Project and its multiactor approach

Chair: Riccardo Carelli



Anne Collin and Monica Coletta



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What is Animal Welfare?

“The welfare of an animal is its positive mental and physical state as related to the fulfilment of its physiological and behavioural needs in addition to its expectations. This state can vary depending on the animal's perception of a given situation.”

ANSES, 2018



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

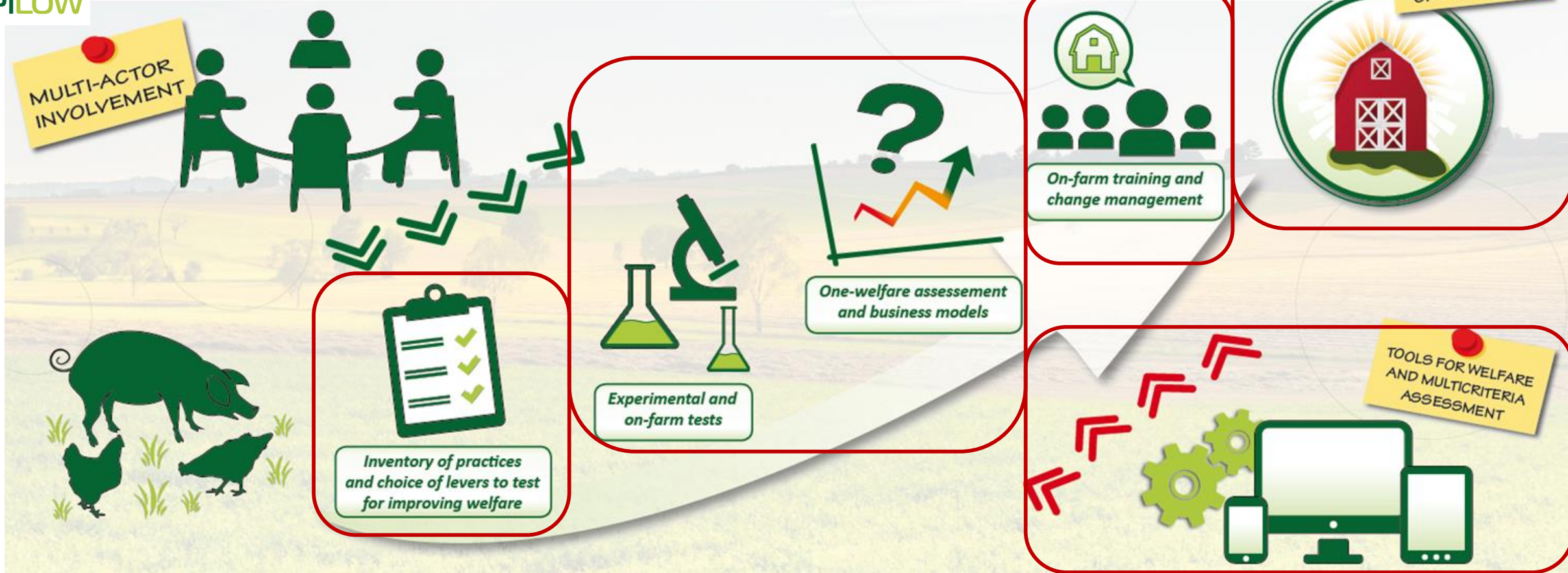
9 National Practitioner Groups (NPG): 4 dedicated to pigs and 5 to poultry

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 | |
| Mortality | | |
| Lack of alternatives to antibiotics | Low use of the outdoor space | Culling of layer male chicks |
| Poor water quality | | Depopulation & loading procedure |
| Lack of robustness | Lack of expression of natural behaviour | |
| Unsuitability of biosecurity rules | | Range management |

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

Growing pigs

Diarrhoea, respiratory problems: less significant outdoor than indoor

Endoparasitism

Piglet castration / management of non-castrated male pigs



NATIONAL PRACTITIONERS GROUPS

Multi-actor groups in partner countries



5 NPGs poultry

- Denmark (l)
- France (l & b)
- Germany (l & b)
- Italy (b)
- Netherlands & Belgium (l)

l = layers b = broilers

4 NPGs pigs

- Belgium
- France
- Italy
- Romania

Enhance Animal welfare through co-creation with National Practitioners Groups

- **Co-creation:** the process of designing in productive cooperation with the end-users and other relevant partners
- **Co-creators:** practitioners involved into research activity and interested to introduce changes in management and practices

Adopting a scientific approach



©INRAE



©USAMV Cluj



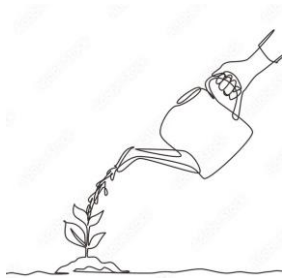
©Thuenen



©AIAB



The One Welfare approach applied to the sustainability pillars and the test of Self-assessment tools supported discussion since the early stages of the project



| SUSTAINABILITY PILLAR | ONE WELFARE DIMENSIONS |
|---------------------------|-------------------------------------|
| Animal Welfare (4) | Good Feeding |
| | Good Environment (Housing) |
| | Good Health |
| | Appropriate Behaviour |
| Environment (3) | Enhance biodiversity |
| | Reduce pollution (soil, air, water) |
| | Minimize external resources used |
| Economy (4) | Performance - quantity |
| | Performance - quality |
| | Returns |
| | Costs |
| Society (4) | Working conditions |
| | Job perception and motivation |
| | Connection with local community |
| | Social Acceptability |

Use of the PIGLOW and EBENE welfare self-assessment applications



PPILOW On-farm implementation

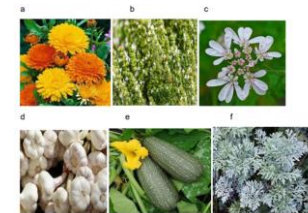
| Country | NPG | Overview of the on-farm implemented innovation |
|---------|---------|---|
| NL | | Working on dual purpose genotypes with a group of farmers and a coop with a focus on layers |
| DE | | Broilers from dual purpose genotype (December 2021 to March 2022) |
| FR | | Broilers from dual 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 PARTNERS



Thank you for your attention

www.ppilow.eu

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