

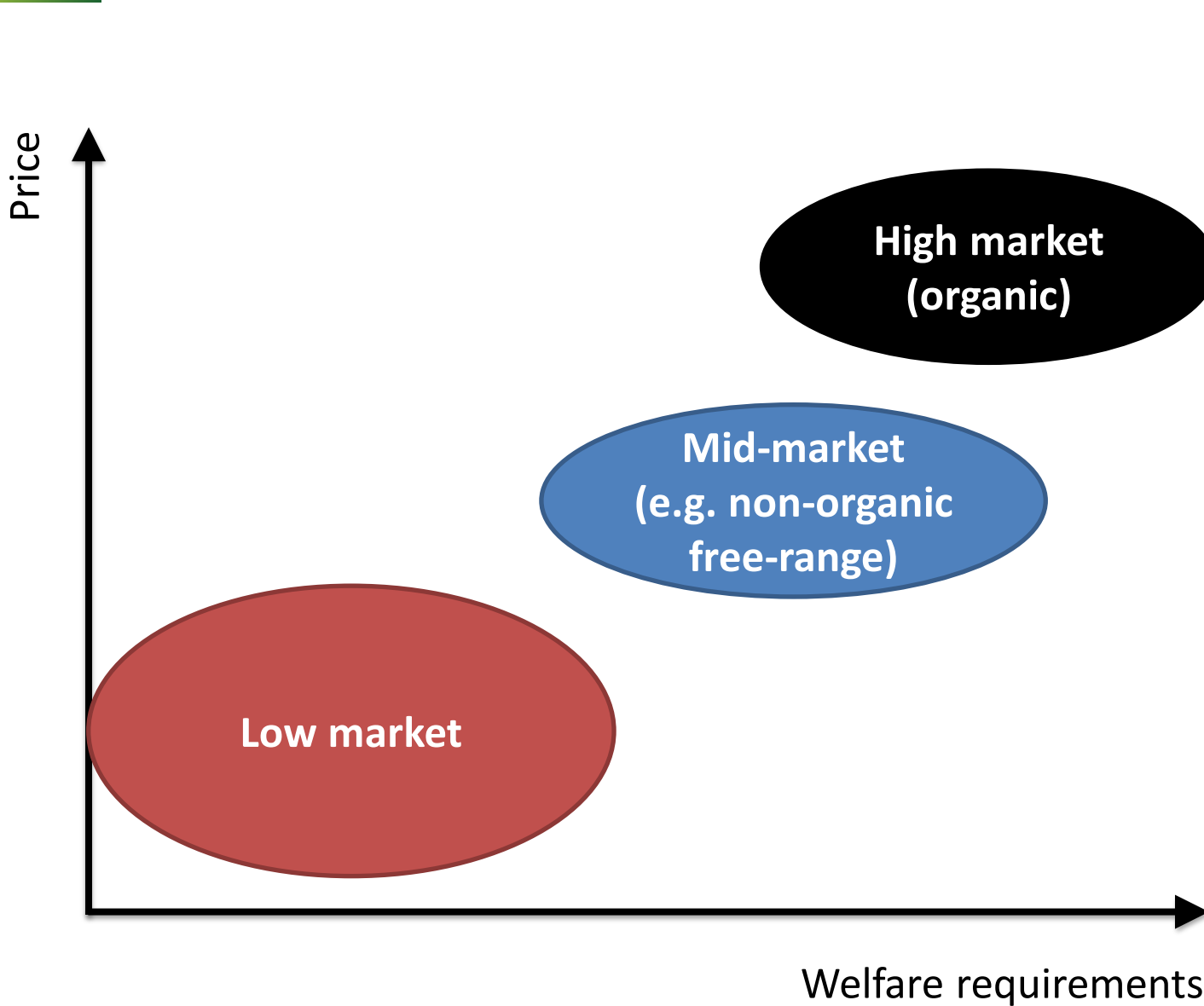


## Understanding technical, ethical & socio-economic barriers and levers for improving poultry and pig welfare in low-input and organic farming systems

Jarkko Niemi & PPILOW collaborators

IFF workshop, June 2022





The **PPILOW** project aims to co-construct solutions to improve the welfare of poultry and pigs reared in organic and low-input outdoor production systems.





# Main goals

- PPILOW will co-create with end-users animal welfare self-assessment tools, innovative breeding and rearing strategies and techniques for improving the welfare of animals by avoiding damage to physical integrity and the elimination of one day-old layer male chicks.
- PPILOW strategies will favour positive behaviours, and improve health and robustness in both poultry and pigs.
- PPILOW innovative techniques will be investigated experimentally and the most promising ones will be tested on-farm.
- Multi-criteria analyses of the most effective breeding and rearing strategies will evaluate their impacts by using the 'One Welfare' concept embracing sustainability goals, with specific emphasis on animal and human welfare.
- PPILOW will create economic and business models for the use of the high-quality products generated from the adoption of innovative strategies.
- PPILOW will develop dissemination activities and involve National Practitioner Groups throughout the EU for facilitating change.

# Expected outcomes

- Improvement of pig and poultry welfare in EU low-input outdoor and organic systems.
- Increased sustainability of these productions especially in terms of animal welfare and human well-being.
- Reduction in the use of veterinary drugs through the improvement of animal robustness and resilience.
- Identification and selection of valuable genotypes with relevant traits suitable for outdoor systems and with a higher survival rate.
- Innovations for limiting parasite infections through different feeding and management strategies.
- Identification of valuable genotypes and management techniques to limit the risk of boar taint in non-castrated male pigs.
- Promotion of new farming systems valorizing layer male chicks.
- Provision of welfare self-assessment tools.
- Optimization of an in ovo-sexing technique.

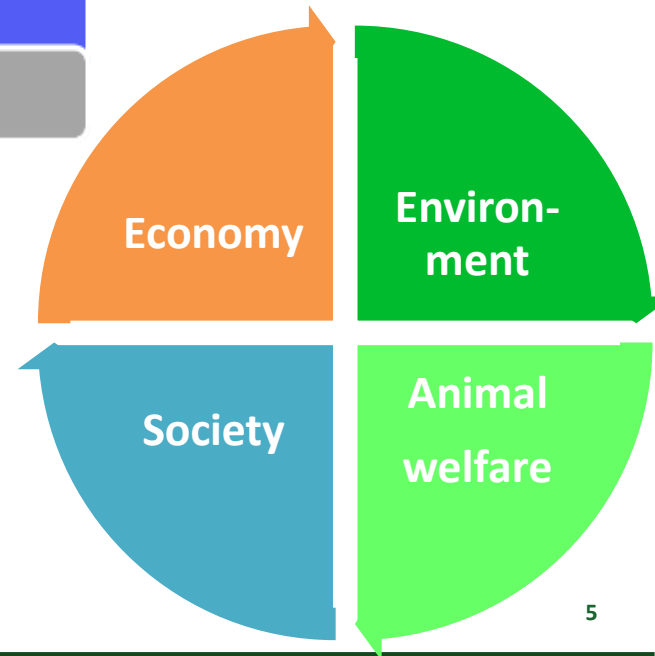


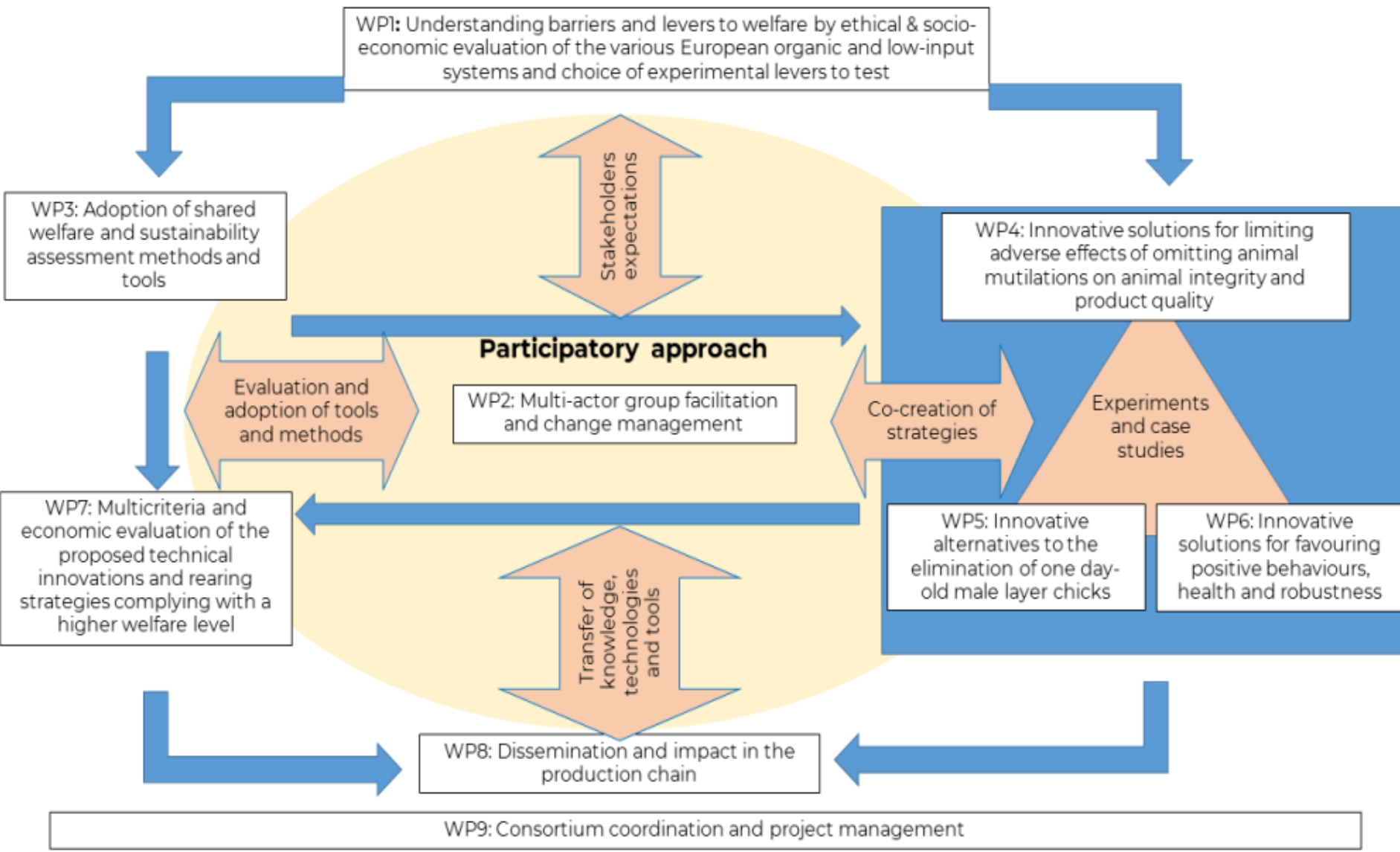
## The OneWelfare approach

The OneWelfare concept embraces the goals of sustainability with emphasizing impacts of rearing practices on animal welfare and human well being



**One Welfare perspective**





# Sustainability indicators and measurement

## 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)

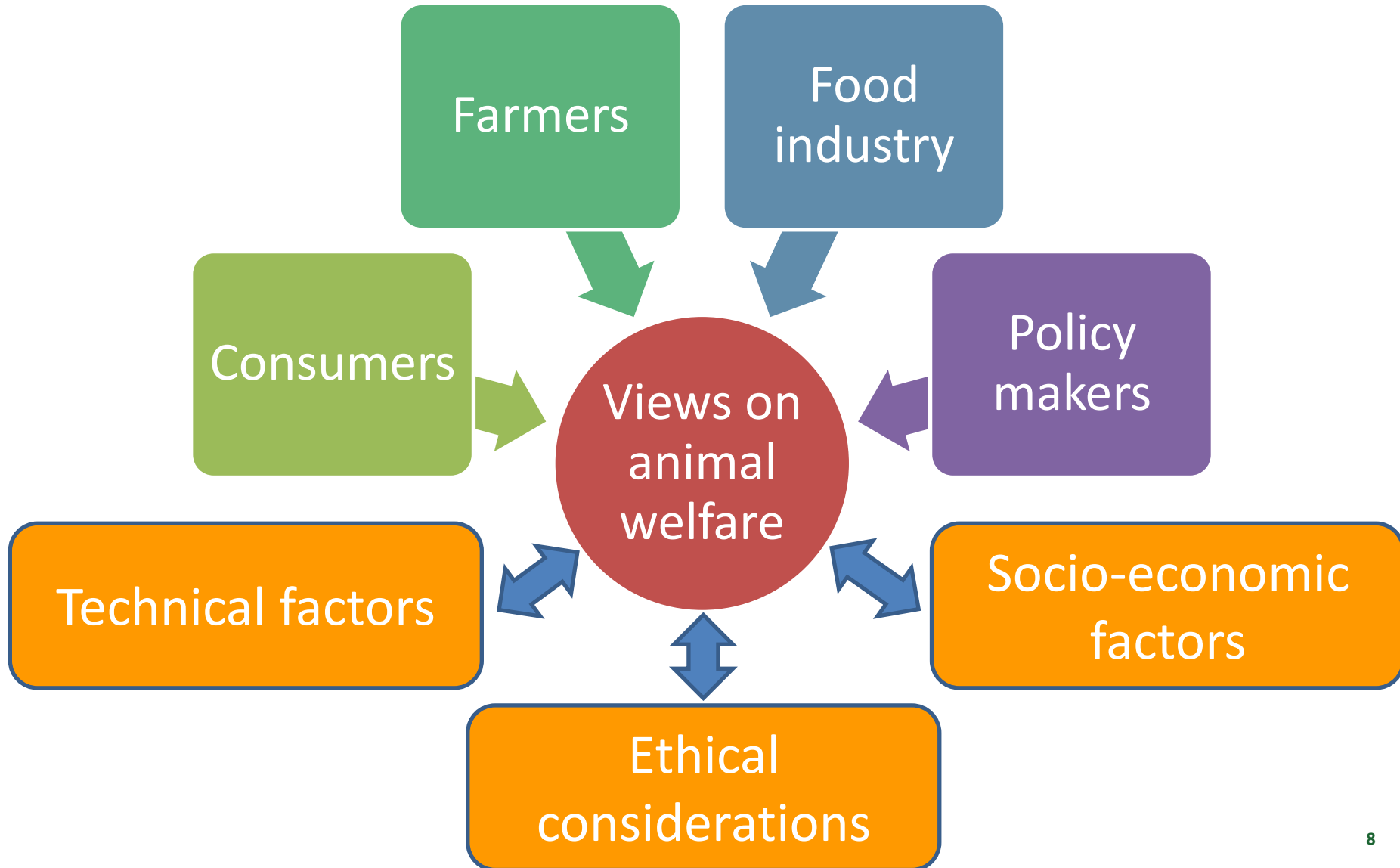
- Working conditions
- Job perception and motivation
- Connection with local community
- Social Acceptability

*Use of the  
PIGLOW and  
EBENE welfare  
self-assessment  
applications*





# PPILOW tries to understand socio-economic issues affecting animal welfare





## Eliciting the views of European experts & citizens: Input from focus groups

- Multiple stakeholders play a key role in ensuring animal welfare
  - Farmers, consumers and veterinarians
  - Organic production: farmer-centric and requires skills
- The concept of One Welfare is recognised, but needs clarification  
**“Happy animals = happy farmer = happy customer”**
- Organic regulations are considered strict
- Harmonisation of policies needed
- Biosecurity – parasites and disease risk
- Climatic challenges, especially on the range
- Range access and management, including enrichments, vegetation, predator control
- Feeding & amino acids – a major challenge!

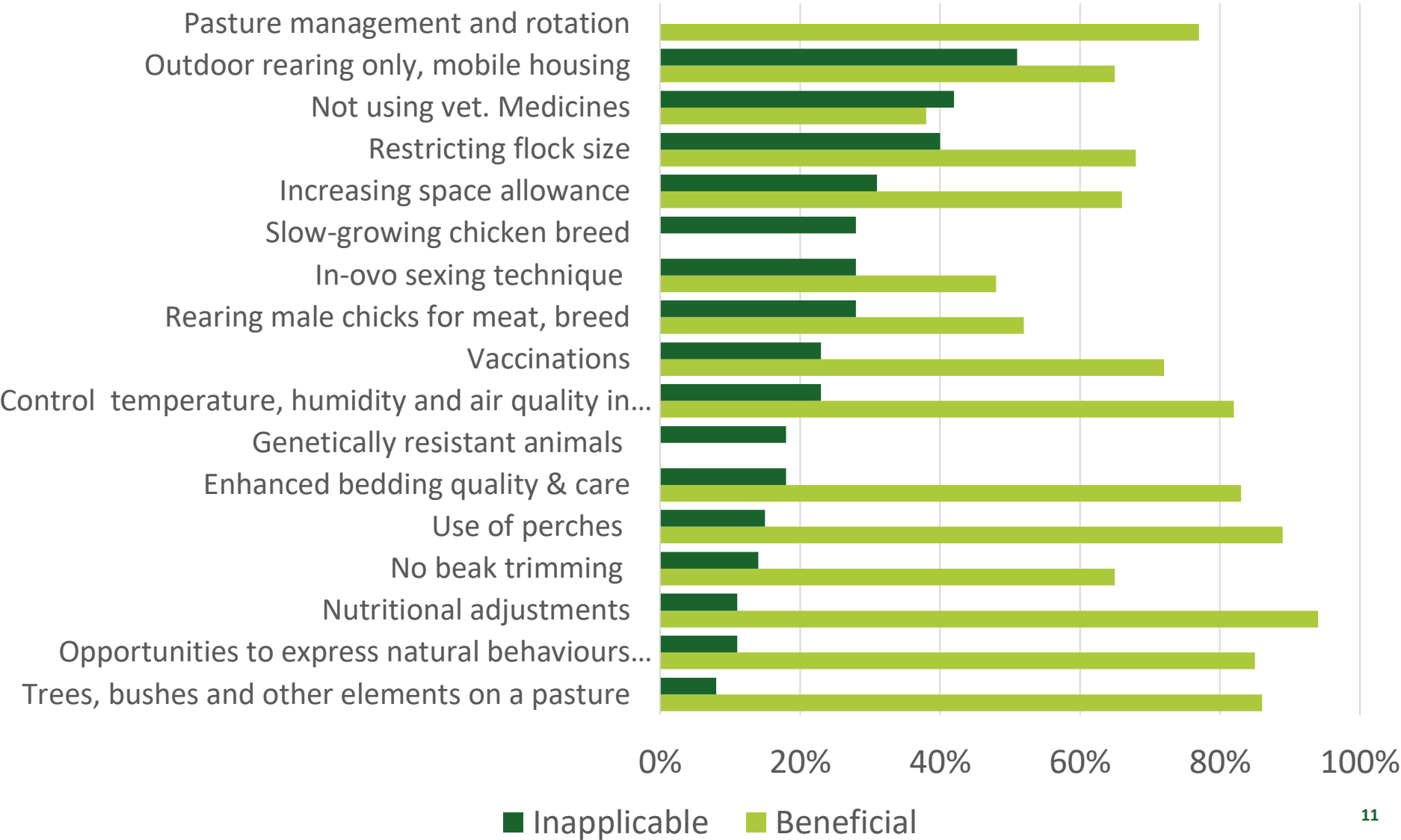


## Topics mentioned by chicken and egg producers and experts

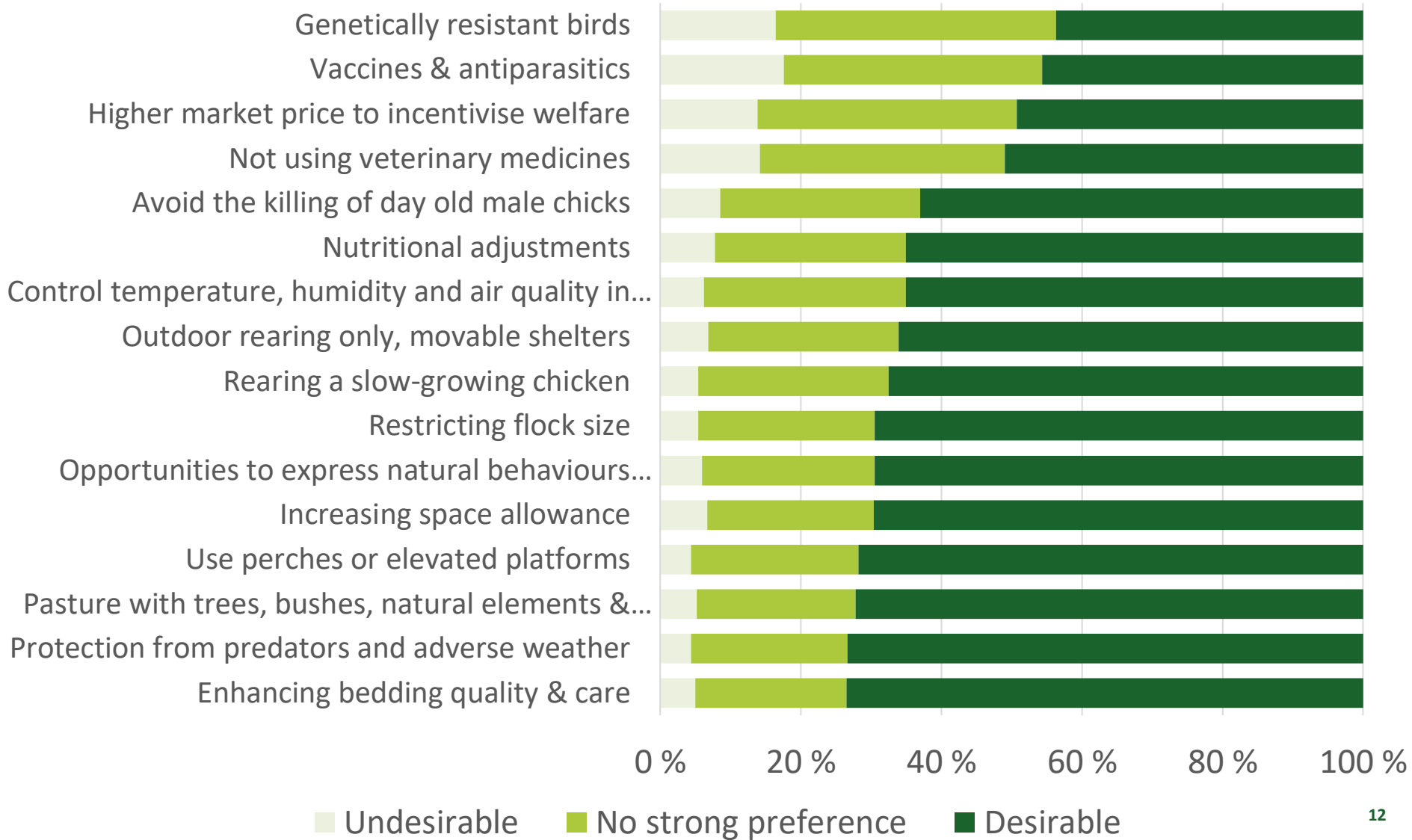
- Cost of production!
- Environmental parameters: Humidity, temperature, ventilation
- Control of feather pecking: diet, stocking density and environmental stress
- Beak trimming is not advocated
- Small organic sector is limiting support services
  
- Thermal comfort
- Cannibalism, feather pecking and bone fractures
- Killing one-day-old chicks is an *ethical* issue
- ➔ Dual-purpose breeds and in-ovo sexing?



# Practitioners' views on how applicable and beneficial *some* measures are in egg production (missing bar = information not available)



# Citizens' views on how desirable *some* measures are in egg production



This presentation is based on the work carried out by the PPILOW consortium, with inputs from Jarkko Niemi, Frank Tuytens, Lucia Rocchi, Minna Väre, Katja Lähtinen, Katriina Heinola, Jarmo Mikkola, Tricia Parrott, Laura Van Vooren, Saskia Kliphuis, Lisa Baldinger, Petra Thobe, Mohamad Almadani, Anna Zuliani, Monica Coletta, Raffaella Ponzio, Caterina Accotto, Laurent Alibert, Christine Roguet, Elsa Delanoue, Vasile Cozma, Marina Spinu, Laura Warin, Martina Re, Sophie Herremans, Ninfa Rangel Pedersen, Sanna Steinfeldt, Claire Bonnefous and Anne Collin



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