SuSi
Sustainability in Pig Production with Immunocastration
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Problems Addressed and Aim of SuSI

Background
• Most male piglets are surgically castrated, which is a welfare problem
• Raising entire males is not the single realistic alternative
• Use of anesthesia also has (welfare) problems and is not a solution

Objective of SuSI
• Optimising pork production with immunocastration as an environmental, economic and socially sustainable alternative

8 Partners
• UHOH, DE
• ILVO, BE
• INRA, FR
• KIS, SI
• UL-VF, SL
• SEGES, DK
• WULS, PL
• WU, NL
Immunocastration

- ...works reliably under different housing conditions (UHOH, ILVO)
- ...reduces animal welfare problems (UHOH, ILVO, SEGES)
- ...reliably prevents boar taint (KIS, SEGES, ILVO)
- ... produces meat of high quality, comparable to surgical castrates – also alternative for high-quality traditional products and outdoor systems (ILVO, KIS, UL-VF, WULS)
- ...is ecologically very efficient. Precision feeding improves this further. (INRA, ILVO)
Findings  Acceptance, Economy, Stakeholders

**Immunocastration**
- ... has a high level of **consumer acceptance** of both the concept as the sensorial aspects of the meat (ILVO, WU, WULS, UHOH, KIS)
- ... has **productivity and economic benefits** - if it gains market acceptance (UHOH, SEGES)

**EU pork industry**
- ...faces challenges to justify their legitimacy position. Germany has an influential role in this market (WU)

**Stakeholders at EU level**
- ... are generally **ready to abandon the practice of castration** without anesthesia / analgesia, while the preference for alternatives depends on external factors, e.g. structure of the production system (WU, KIS, ILVO)
Conclusions of SuSI

- **Immunocastration is a sustainable alternative** to pork production with surgical castrates and boars

- **SuSI offers optimized knowledge** of immunocastration to support the pork industry, farmers and government authorities in their decision-making processes for consumer-acceptable pork production across the EU

- Given the different pork production systems in Europe, it is **unlikely that a single solution for castration and markets will be adopted**

- **Immunocastration** can make the EU pig industry more competitive, the challenge is its acceptance by the meat industry
Publication & Dissemination

- Six publications in **peer-reviewed journals** so far
- Many articles in **agricultural trade magazines** & online publications
- Organized **round-table** discussions
- Talks at **scientific meetings** (including EAAP 2018 & 2019; MEATCON 2019; Journees de la Recherche Porcine, 2020; COST meetings, 2018 & 2019; …..)
- Talks with **stakeholder involvement** (examples: Piglet Castration and Animal Welfare - Solutions for Rhineland-Palatinate, Germany, 2019; Information Meeting of the Federal Farmers Association (Landesbauernverband) Baden-Württemberg e.V., Germany, 2020)
- **Training school** (Harmonization of methods in entire male and immunocastrate research, 2017)
- **Video:** “SuSi – results and recommendations” (addressing farmers, policy makers, general public)
Future directions

“Which future research needs do you see at the end of your project that would significantly contribute to more sustainable animal production systems?”

Fine-tuning of vaccination protocol to balance and optimize welfare, environmental and economical aspects of immunocastration
→ providing customized management options (tool box) for pork production considering regional and national needs, e.g. “optimized animal welfare”, “prolonged fattening”, “outdoor systems”

Stronger consideration of individual variability to reduce the number of pigs that require “treatment” (e.g. second immunization)

More knowledge about the reasons for the "non-responding“ phenomenon

True reasons why the sector is reluctant to accept immunocastration and how to "educate" or "inform" the consumers about this alternative

Study the optimal solutions for the different trading systems within the EU (either country-based or as cross-country comparisons).
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