

Alternatives to Veterinary Antimicrobials (AVANT): A new EU project focussed on diarrhoea in Pigs

Poul Baekbo

DVM, PhD, Dipl. ECPHM

SEGES Danish Pig Research Centre

WHO IS *POUL BAEKBO*?

Veterinarian in 1982 (DVM)

- PhD 1989
- Dipl. ECPHM 2009

2 years in general practice at the countryside

6 years at the Veterinary University in Copenhagen

- Research in diseases of pigs (PhD) and horses

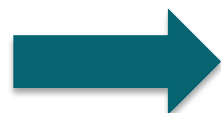
29 years in pig disease R&D for *the pig industry*

THE OVERALL CHALLENGE

To ensure a **cost-efficient** pig production
with a **minimal use of antibiotic** to reduce the risk of antimicrobial resistance
(AMR)

The EU Commission:

Medical Zinc Oxide (2,500-3,000 ppm)
must be banned in 5 years or less (Latest by 2022)



BIG challenge for weaning of healthy pigs!

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Colistin to be phased out!

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BIG challenge for weaning of healthy pigs!



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

CVMP Reflection paper on promoting the **authorisation of alternatives** to antimicrobials in the EU

CVMP: Committee for Medicinal Products for Veterinary Use

ANTIMICROBIAL CONSUMPTION (MG/PCU) IN LIVESTOCK (EUROPE)

Figure 4. Sales of antimicrobial agents by antimicrobial class as percentage of the total sales for food-producing species, in mg/PCU, aggregated by 31 European countries, for 2017

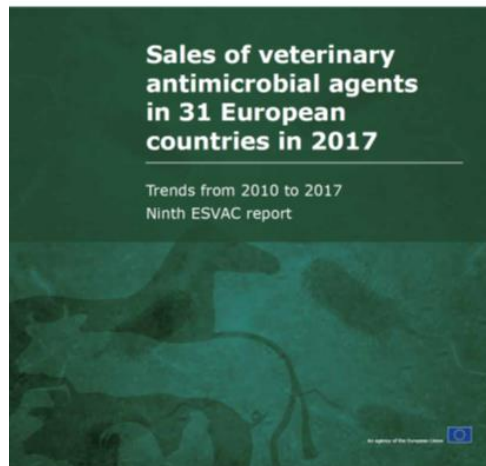
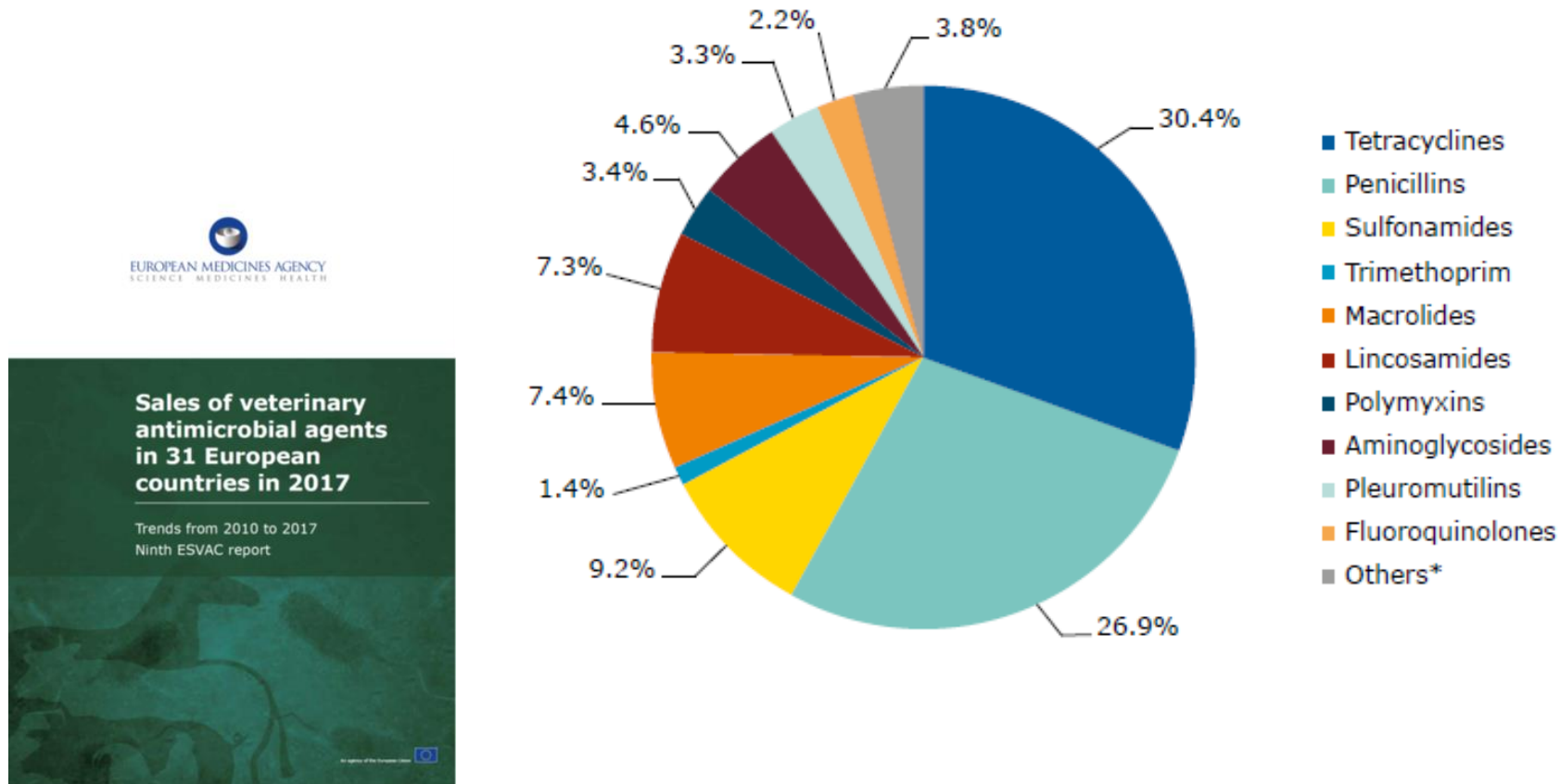
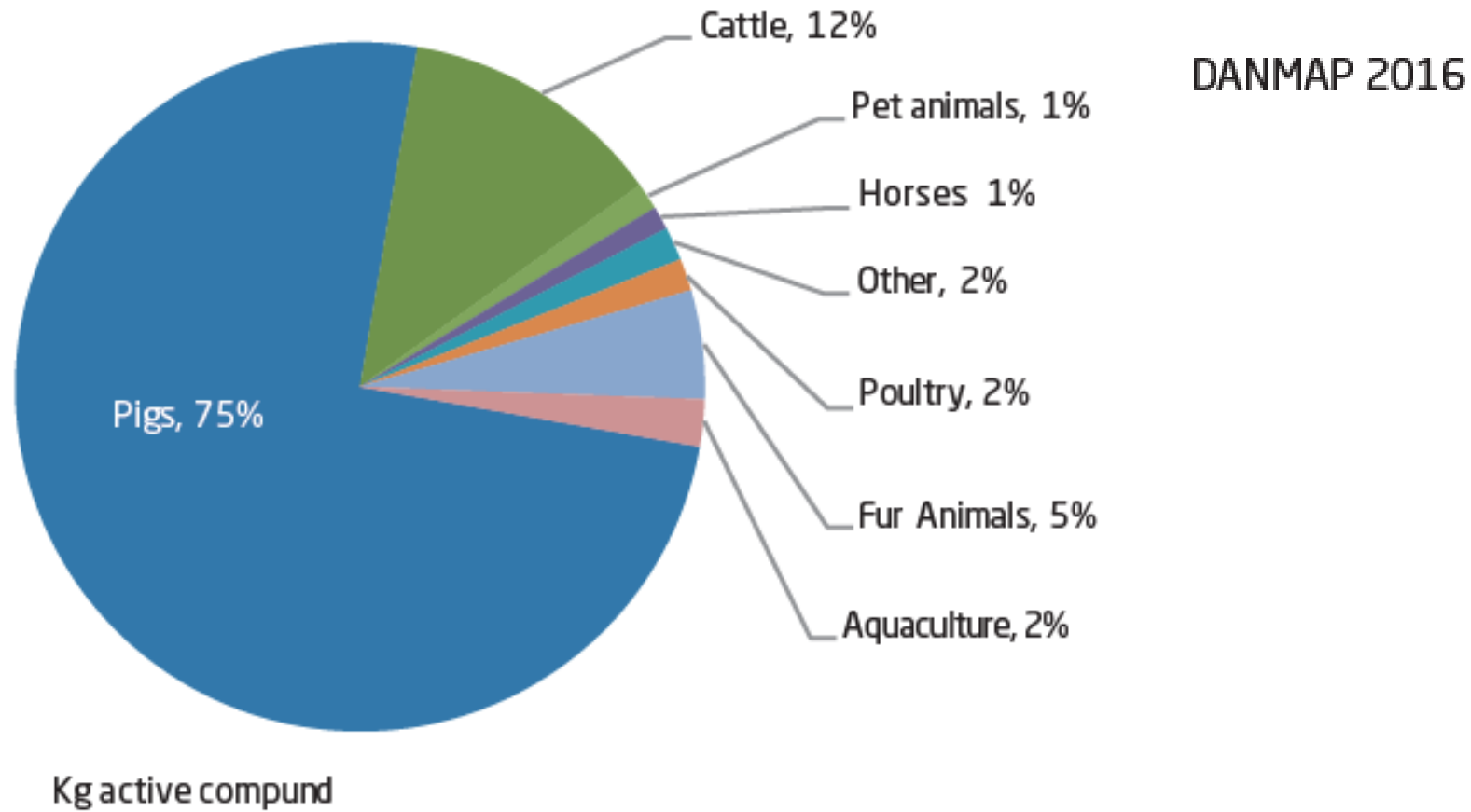


Figure 10. Spatial distribution of overall sales of all antimicrobials for food-producing animals, in mg/PCU, for 31 countries, for 2017

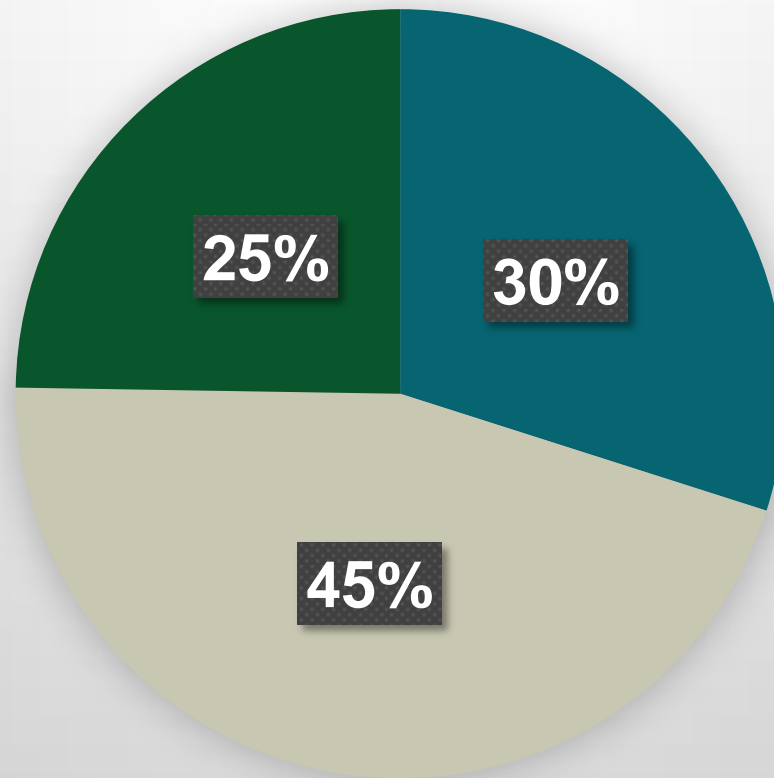


ANTIMICROBIAL CONSUMPTION (KG) IN MAIN ANIMAL SPECIES (DENMARK)



Antimicrobial consumption in Danish Pig Production

Distribution of antimicrobial consumption by age group,
2018



■ Sows&piglets ■ Weaners ■ Finishers

AVANT – a EU funded R&D project (Horizon 2020)

The strategic objective of AVANT is to significantly reduce antimicrobial consumption by demonstrating 3 field interventions that target the animal species and disease condition accounting for the majority of antimicrobials used in livestock

AVANT: a 5-year & 6 million euro EU-project
(Start in January 2020)

AIM:

To develop and test innovative **alternatives to antimicrobials for management of post-weaning diarrhoea in pigs** (ETEC)

No Vaccines

AVANT: a Multi-actor approach

AVANT

Consortium structure & Multi-Actor approach

Academia
 University of Copenhagen, Denmark
 Royal Veterinary College, United Kingdom
 Wageningen University, Netherland
 Universidad Complutense, Spain
 Swiss Federal Institute of Technology Zürich

Industrial partners
 Biomin , Cooperl, Overjero
 Laboratories, SEGES

JPIAMR affiliations
 veRI BEAM, GAP-ONE,
 REDUCEAMU



SMEs
 RTDS, Easy-Agricare,
 Klifovet AG
 Schothorst Feed Research















Veterinary association
 FVE

External collaborators
 HealthyLivestock, Feed-a-
 Gene, One health EJP

14 participants from 9 European Countries

ALTERNATIVES TO VETERINARY ANTIMICROBIALS (AVANT)

List of participants

Participant No. *	Participant organisation name		Country	Type
1 (Coordinator)	University of Copenhagen (UCPH)		Denmark	University
2	Biomim (BIOMIN)		Austria	Industry
3	Cooperl (COOP)		France	Industry
4	Easy-Agricare (EA)		Denmark	SME
5	Federation of Veterinarians of Europe (FVE)		Belgium	Association
6	Klifovet (KFV)		Germany	SME
7	Ovejero Laboratories (OL)		Spain	Industry
8	Royal Veterinary College (RVC)		UK	University
9	RTDS (RTDS)		Austria	SME
10	Schothorst Feed Research (SFR)		Netherlands	SME
11	SEGES (SEGES)		Denmark	Industry
12	Swiss Federal Institute of Technology Zürich (ETH)		Switzerland	University
13	Universidad Complutense (UCM)		Spain	University
14	Wageningen Research (WR)		Netherlands	University



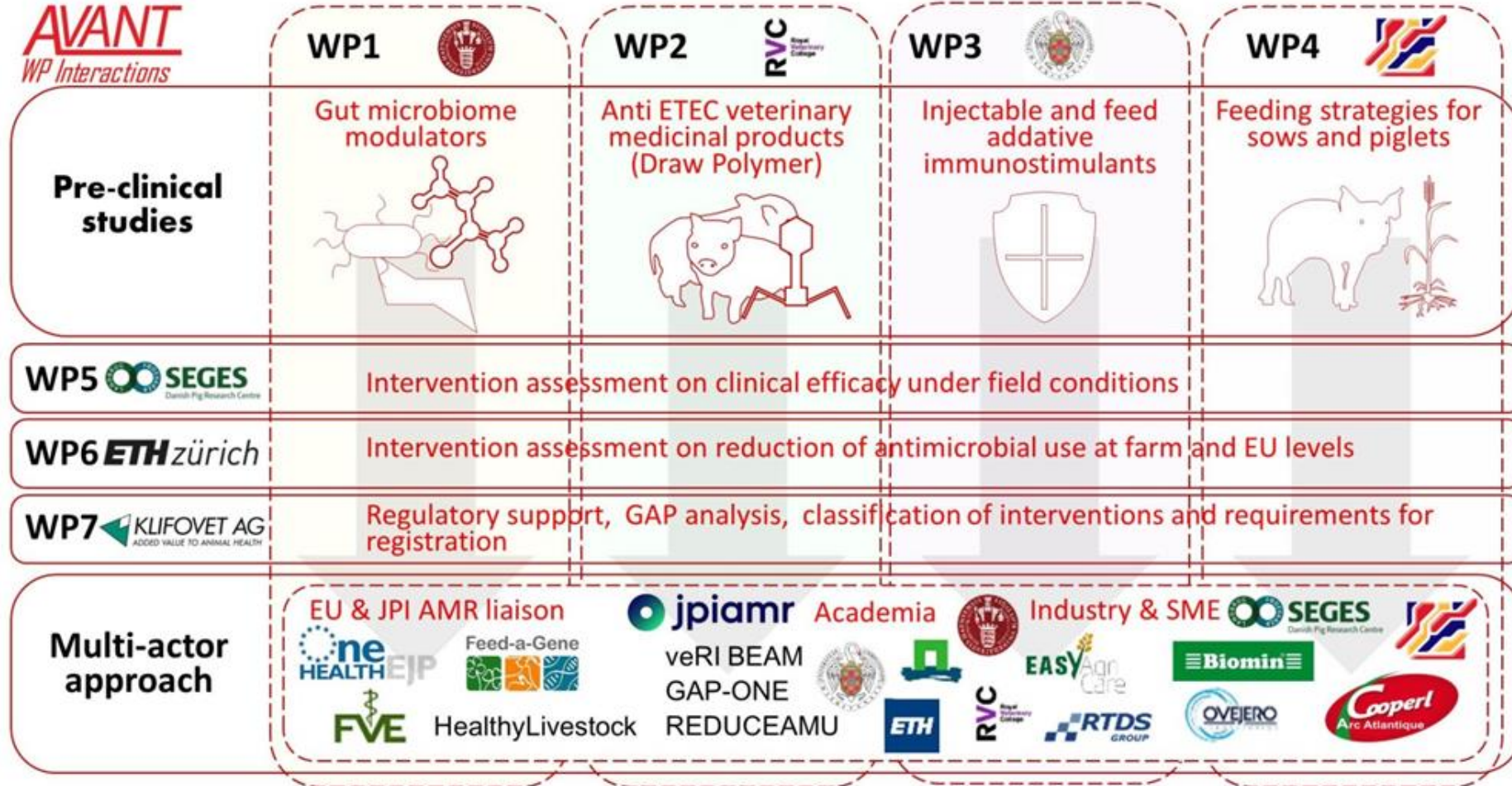
Prof. Luca Guardabassi
(coordinator)

AVANT portfolio

1. ProPig (pre- & probiotics)
2. Faecal transplantation
3. Phages
4. Polymers
5. Oral immuno-stimulants
6. Injectable immuno-stimulants
7. Feeding strategies

The most promising ATA will be tested by farm trials

AVANT project structure



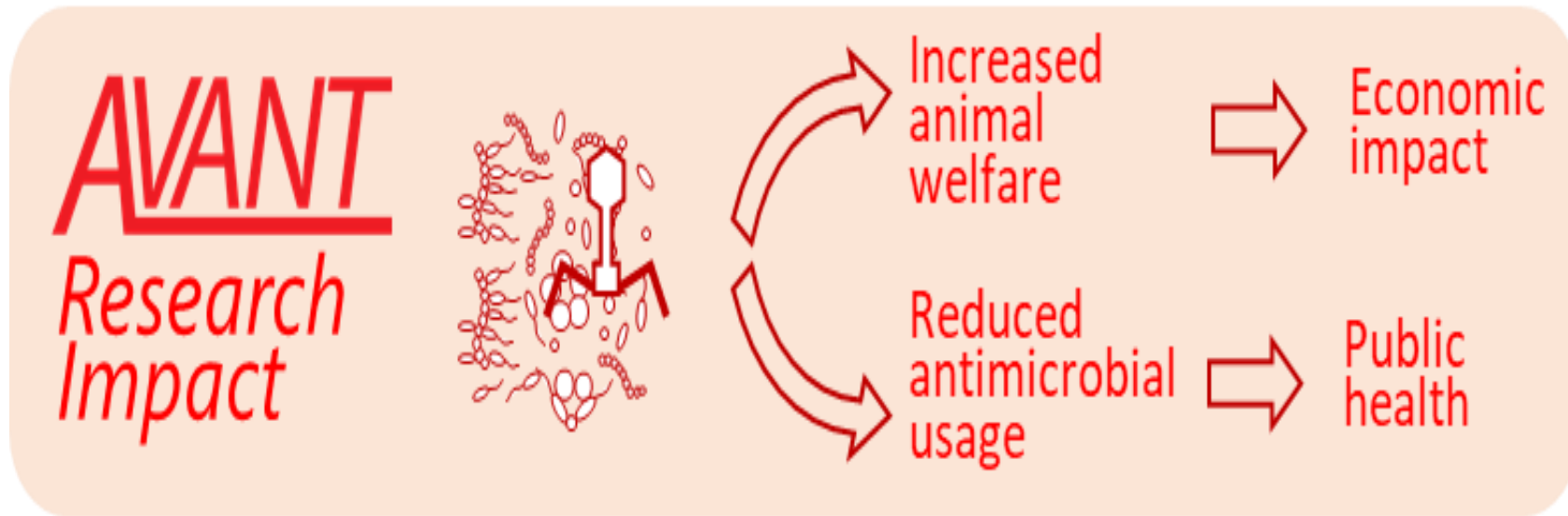
External Advisory Board (EAB)

A body of experts with advisory role
committing to monitor and advise the
Consortium on scientific progress,
dissemination of the project's results

Organizations represented in the EAB:

- Relevant EU projects (e.g. HealthyLivestock and OneHealth EJP)
- JPIAMR networks (e.g. AMR-Net and VeRI BEAM)
- Stakeholder organizations (e.g. EMA, EFSA, European Centre for Animals, COPA-COGECA, FEFAC, etc).

Interested EXPERTS to be included



Results from AVANT: 4th ATA Conference 😊

See CORDIS for further information:
<https://cordis.europa.eu/project/rcn/225153/factsheet/en>



This project has received **funding from the European Union's Horizon 2020 research and innovation program** under the grant agreement No. 862829. Call: H2020-EU.3.2.1.1. - Increasing production efficiency and coping with climate change, while ensuring sustainability and resilience.

Questions?

