



# RES4LIVE

ENERGY SMART LIVESTOCK FARMING  
TOWARDS ZERO FOSSIL FUEL CONSUMPTION

## Final conference RES4LIVE: renewable energy and sensors for thermal comfort of livestock

Session 70 within the 75th EAAP Annual Meeting

Florence 3<sup>rd</sup> September 2024 - 14:30 - 18:30

Chairs: Jarissa Maselyne (ILVO) and Michael Odintsov Vaintrub (UNITE)

**14:30 - 14:45**

B. Paris (CERTH) - Energy Use in the EU Livestock Sector: A Review Recommending Energy Efficiency Measures and Renewable Energy Sources Adoption

**14:45 - 15:00**

Michail Moraitis (CERTH) - Utilizing energy auditing in intensive livestock farming facilities

**15:00 - 15:15**

Manon Everaert (ILVO) - Simulation model for renewable energy systems in livestock barns: three case studies

**15:15 - 15:30**

Michail Moraitis (CERTH) - The AgEnergy platform – a tool to search and assess fossil-energy-free technologies and strategies

**15:30 - 15:45**

Anatoli Rontogianni (CERTH) - Sustainable livestock sector under climate transition

**15:45 - 16:00**

Stefano Benni (UNIBO) - An integrated renewable energy system for the de-fossilization of a commercial swine nursery barn

**16:00 - 16:30 - Coffee break**

**16:30 - 16:45**

Dimitrios Tyrus (AUA) - Heat Pump HVAC System as Part of an Integrated RES System for the Indoor Climate Control of a Laying Hen House

**16:45- 17:00**

Hans Hoes (TerraEnergy) Geothermal energy concepts for livestock applications, analysis of energy savings, life cycle cost and animal welfare

**17:00 - 17:15**

Dimitrios Tyrus (AUA) - Life Cycle Impact Assessment of an Integrated PVT-BTES-Heat Pump System for a Commercial Swine Farm in Italy

**17:15- 17:30**

Li Rong (AU) - Modeling of thermal status at animal level – Swine and Cattle: A Review

**17:30 - 17:45**

Petros Tegenaw (ILVO) - The effect of renewable energy transition on the thermal comfort in a pig farm – animal compartment level experimental investigation

**17:45 - 18:00**

Lukas Wannasek (ATB) Compact Bio-CNG farm filling fuel production from anaerobic digestion: Hollow fiber permeation and Hybrid compression for technically and economically feasible small-scale biofuel production

**18:00 - 18:30**

Questions & Answers session