



**HAL**  
open science

## **TechCare: exploring the use of precision livestock farming for small ruminant welfare management**

Claire Morgan Davies, Germain Tesnière, Cathy Dwyer, Grete Jørgensen,  
Eliel González García, Jean-Marc Gautier

### ► To cite this version:

Claire Morgan Davies, Germain Tesnière, Cathy Dwyer, Grete Jørgensen, Eliel González García, et al.. TechCare: exploring the use of precision livestock farming for small ruminant welfare management. 74th Annual Meeting of the European Federation of Animal Science, EAAP/WAAP, Aug 2023, Lyon, France. pp.498, 10.3920/978-90-8686-936-7. hal-04195828

**HAL Id: hal-04195828**

**<https://hal.inrae.fr/hal-04195828>**

Submitted on 4 Sep 2023

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

# **Book of Abstracts of the 74<sup>th</sup> Annual Meeting of the European Federation of Animal Science**



**Book of abstracts No. 29 (2023)**  
**Lyon, France**  
**26 August – 1 September, 2023**

# Book of Abstracts of the 74<sup>th</sup> Annual Meeting of the European Federation of Animal Science

Lyon, France, 26 August – 1 September, 2023



## EAAP Scientific Committee:

F. Miglior  
L. Pinotti  
L. Boyle  
D. Kenny  
M. Lee  
M. De Marchi  
V.A.P. Cadavez  
S. Millet  
R. Evans  
L. Gasco  
M. Pastell  
G. Pollott (secretary)  
H. Spoolder (chair)



## Session 39

### **TechCare: exploring the use of precision livestock farming for small ruminant welfare management**

*C. Morgan-Davies<sup>1</sup>, G. Tesniere<sup>2</sup>, C. Dwyer<sup>1</sup>, G. Jorgensen<sup>3</sup>, E. González-García<sup>4</sup> and J.M. Gautier<sup>2</sup>*

<sup>1</sup>SRUC, West Mains Road, EH9 3JG, United Kingdom, <sup>2</sup>IDELE, Campus INRAe, 31321 Castanet Tolosan, France, <sup>3</sup>NIBIO, Grassland and livestock Division of Food and society, P.O. Box 115, 1431 Ås, Norway, <sup>4</sup>INRAe, SELMET, Montpellier, France;

[claire.morgan-davies@sruc.ac.uk](mailto:claire.morgan-davies@sruc.ac.uk)

Small ruminant production systems are found in diverse contexts where conditions can be harsh and day to day supervision of animals challenging. Implementing Precision Livestock Farming (PLF) and other new or innovative technologies could help to manage or monitor animal welfare (AWE). The H2020 TechCare project explores such opportunities. Following a series of prioritisation of AWE issues in the 9 partners' countries (France, UK, Ireland, Norway, Israel, Greece, Romania, Italy and Spain), potential PLF and innovative technologies have been identified as promising to help manage, monitor and/or improve AWE. To explore those potentials, a series of pilot studies have been set up in 5 partner countries (France, UK, Norway, Italy and Israel), where the application of near-market technologies is being assessed in different conditions and environments, varying from northern grasslands (UK and Norway) to Mediterranean climates (France, Italy and Israel). Different production purposes are also involved, from dairy sheep to dairy goats and meat sheep, both indoors and outdoors. Alongside those pilots, prototyping and adapting PLF and innovative tools is also performed, where trials under more controlled conditions are being carried out, in order to evaluate the potential of specific tools while adopting adequate approaches for monitoring and/or improving different small ruminant AWE. Those trials are being held in France, UK, Norway, Spain and Italy. Both approaches will inform on the best innovative and PLF technologies, and the most adapted ways to use them, that can most answer AWE priorities in a diversity of small ruminant farming systems. Some of the tools (e.g. Ultra High Frequency tags, proximity loggers) studied are being presented later in this session.