Programme name in PNCDI III:	**Programme 1 - Development of the national R&D system**
Subprogramme name:	**Subprogramme 1.1 - Human Resources**
Project title:	**Evaluating stress and welfare in cattle and water-buffalo: mapping physiological, behavioural and vocal indicators**
Total contract value:	**449.704,00 lei**
Contract duration:	**24 months (15.05.2022-14.05.2024)**
Contracting authority:	**Executive Unit for the Financing of Higher Education, Research, Development and Innovation (UEFISCDI)**
Contractor:	**Institute of Research and Development for Bovine (ICDCB)**
Acronym:	**BovineTalk**
Project code:	**PN-III-P1-1.1-TE-2021-0027**
Contract number:	**TE 14 / 2022**

SUMMARY: Behaviour and stress play a major role in modern definitions of farmed animal welfare. In commercial farming, cattle and water-buffalo are exposed to numerous painful and/or stressful procedures, in which they emit vocalisations, however, knowledge of their information content is limited. This project aims to investigate whether vocal parameters in cattle and water-buffalo, linked with other physiological and behavioural responses, can be indicative of well-being and stress, and whenever these indicators could ultimately be used as tools for assessing objectively animal welfare. To the best of our knowledge, this is the first project to investigate cattle and water-buffalo vocal parameters in order to develop science-based non-invasive welfare indicators. Our hypothesis is that, individual distinctiveness and emotional state of the animals are encoded in their vocalizations, and that bioacoustics profiles of large domestic ruminants can be used as reliable indicators for behaviour, welfare and stress, in various farming contexts.

OBJECTIVES of the BovineTalk PROJECT are:

i) use of vocal and infrared-thermography (IRT) parameters in evaluating stress and welfare of cattle;

ii) use of stress biomarkers and accelerometry data in monitoring the health status of cattle;

iii) use of vocal and IRT parameters to assess stress and welfare in water buffalo;

iv) use of stress biomarkers and their correlation with vocal and IRT parameters in water-buffaloes.

Project team:

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