



Providing Support to GMG Initiative

Background

The Global Methane Genetics (GMG) Initiative is an international research program led by Wageningen University & Research (WUR) that aims to reduce methane emissions from livestock through genetic selection and breeding strategies. The initiative brings together researchers and industry partners worldwide to develop sustainable solutions for lowering the environmental impact of ruminant production.

Interbull Centre collaborates with the GMG Initiative by (1) supporting the development of an international database for methane records across different ruminant species and (2) contributing to the creation of guidelines for the validation of methane evaluations.

Work performed and achievements

Methane database

As part of the GMG Initiative, an international database combining pedigree, genomic, methane emission, and microbiota records from several ruminant species is under development. The database is being developed by DataGene, with support from the Interbull Centre as a consulting partner. Interbull Centre contributed its experience in managing genomic and performance databases used for genetic evaluations, working closely with teams from WUR and DataGene through regular meetings. The collaboration helped identify potential problems and support the development of solutions during implementation. The database is currently in the user-testing phase, and its official launch is planned for the second part of 2026.

Guidelines for validation of methane evaluations

As part of the activities of the GMG Initiative, guidelines for validating methane evaluations are being developed. Since methane evaluations are still relatively recent compared with traditional dairy and beef cattle evaluations, directly applying existing validation methodologies may not be the most suitable approach. Interbull Centre collaborated with WUR in reviewing current and emerging validation methods used in international evaluations, identifying potential limitations for methane-related traits, and discussing possible alternative approaches. This work will contribute to a paper and presentation planned for the International Committee for Animal Recording and Interbull Meeting 2026.

