



## *INTERBULL BUSINESS FUNDING MODELS TASK FORCE*

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The Interbull Business Funding Models Task Force (BFMTF) members are:

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### **Assessment of Fees for Interbull Services Other than MACE**

In addition to the assessment of the Interbull MACE service fee structure, the BFMTF also conducted a review of non-MACE services provided by the Interbull Centre and the associated fees applied. Each of the evaluated services are briefly described below along with the current fee structure and any proposed changes recommended by the BFMTF.

#### **1. GMACE**

GMACE is the service of providing international genomic evaluations for young, unproven bulls that have a national genomic evaluation in at least one participating country. This service has to date only been provided for the Holstein breed. A total of 13 countries/populations submit national GEBVs including BEL, CAN, DEU, ESP, FRA, AUS, DFS, GBR, ITA, NLD, POL, HUN, CZE. For bulls that are authorized to be included in the outgoing GMACE files, their genomic evaluations are shared with 29 countries/populations that participate in MACE for Holsteins. Since the official introduction of GMACE services in August 2014, no fee has been collected specifically for this service. Since MACE evaluations are a key input to GMACE, these two services are interconnected.

When reviewing the current GMACE service without any specific fee being charged, the BFMTF gave considerable time identifying the benefits and costs. For the 13 participating countries, they receive back from the GMACE service an international genomic evaluation for young bulls from other countries, expressed on their national scale. In fact, all 29 countries that participate in MACE for Holsteins receive the official GMACE results, even if those countries do not yet have their own national genomic evaluation system. This “benefit to all” reality complicates the development of an equitable fee structure if separate fees were charged.

**Recommendation:** The BFMTF has not reached any recommendations related to this service and encourages further dialogue on the value of introducing a fee structure for GMACE services that is separate from the fee structure applied for MACE. An opportunity for initial discussion among countries participating in MACE and GMACE services is the Interbull Business Meetings scheduled on August 26 and 27, 2023 in Lyon, France.

## 2. Genetic Traits Exchange

In recent years, the Interbull Centre developed the capacity for interested groups to exchange gene test results for various monogenetic characteristics. These mainly include undesirable genetic recessive traits but may also include other favourable characteristics such as polled, beta casein, kappa casein, etc. In general, an accepted external international organization, usually a breed federation, is considered the responsible party for identifying those genetic traits included in the international exchange services provided by the Interbull Centre.

The introduction of the Genetic Traits Exchange services commenced with the Holstein breed and three countries have been participating, namely DEU, GBR and NLD. Interest for a parallel service has been expressed by the Brown Swiss InterGenomics participants as a means for sharing genetic traits results in addition to the current sharing of male genotypes and international genomic evaluations. The Interbeef community has also expressed potential interest in this service in the future.

To prepare for the expected growth of this service, including increased participation for the Holstein exchange of genetic traits, the BFMTF worked with the Interbull Centre Director and staff to assess the time required to provide the service and evaluate the associated costs.

**Recommendation:** Based on the estimated daily billing rate to cover Interbull Centre costs and the expected time required to deliver the Genetic Traits services to the Holstein and Brown Swiss breeds, the BFMTF recommends a fee of 1000 Euro for participation for one breed and 500 Euro for each subsequent breed. The expanded service to include the Brown Swiss breed should be targeted for fall 2023. The proposed fee structure, however, would be applied starting 2024.

## 3. Truncated MACE (TMACE)

Truncated MACE involves the submission by participating countries of national EBVs generated using current evaluation methods and models but after excluding/truncating the four most recent years of available data. Participating countries may opt to be included in TMACE for one or more breeds as well as for selected or all trait groups. The main benefit of TMACE participation is the gained accuracy in the resulting 4-year-old MACE evaluations for conducting genomic validation tests at the national level.

The current fee structure for TMACE services is 500 Euro for participation in one breed and a total fee of 1000 Euro for participating in two or more breeds. Participation has been sparse and variable from year to year. During its assessment, the BFMTF determined that the total fee income for this service must increase in order to cover the Interbull Centre costs for providing TMACE services.

**Recommendation:** One option for the Interbull Centre to cover costs associated with delivering TMACE services is to increase the fees to 1500 Euro for participation in one breed and a total fee of 2500 Euro for participating in two or more breeds. In order for Interbull to offer lower fee rates, a second option would be to establish a minimum level of participation (i.e.: combination of countries and breed groups) that must be confirmed by June 30 of each year and if such minimums are not met, then no TMACE service will be provided for that year. Given that the TMACE run for 2023 has already been communicated and planned by some countries, any changes to the fees should be implemented in 2024.

#### **4. Genotype Data Exchange (GenoEx-GDE)**

In preparation for the expected growing need for international exchange of genotypes, the Interbull Centre invested in and developed its GenoEx platform and underlying database. The initial use of this platform was to allow for the exchange of 200- and/or 554-SNP genotypes for parentage analysis (i.e.: GenoEx-PSE). In recent years, the submission of genotypes required for the Brown Swiss InterGenomics service was migrated to the GenoEx platform and served as the pilot for developing the Genotype Data Exchange services (GenoEx-GDE). This migration could allow for the Brown Swiss community to focus on an international exchange of genotypes for males and targeted females as an independent service from the calculation of the international genomic evaluations per se. Looking forward, it is likely that the Interbeef community will be looking to use the GenoEx-GDE platform for its international exchange of genotypes and that other groups may also be interested at some stage in the future.

The BFMTF discussed the service model for GenoEx-GDE and Interbull Centre staff have initiated an assessment of costs to deliver such services. The expected service model includes offering GenoEx-GDE services to groups of organizations that have agreed to participate in an exchange of genotypes, usually for the purpose of genomic evaluations. Such groups may be organized by breed based on an international exchange agreement, including Interbeef for multiple breeds, or involve a specific group of countries that agree to share genotypes among themselves.

**Recommendation:** The BFMTF recommends that the Interbull Centre finalize the GenoEx-GDE service offering including a formal agreement to be signed by each organization involved in a group service. Service fees shall be established as a fixed level for each group, which indirectly promotes larger groups to reduce the cost for each participating organization.

#### **Approval and Implementation Plan**

The Interbull Steering Committee has reviewed the above recommendations developed by the BFMTF. Prior to any possible approval and implementation, these recommendations will be presented and discussed at the Interbull Business Meetings scheduled for August 26-27, 2023 in Lyon, France.