INTRODUCTION

The latest genomic test international evaluation for workability traits took place as scheduled at the Interbull Centre. Data from 15 countries were included in this evaluation.

International genetic evaluations for workability traits of bulls were computed from:
AUS CAN CHE DEU DFS FRA GBR NLD SVN NZL ITA JPN ESP CZE POL
Holstein data were included in this evaluation.

CAN, DEU, FRA, DFS, GBR, NLD, ITA, ESP, POL submitted GEBVs.

msp: CAN, DEU, FRA, DFS, GBR, NLD, ITA, ESP, POL
tem: , DEU, , DFS, GBR, NLD, , , POL

CHANGES IN NATIONAL PROCEDURES

Changes in the national genetic evaluation of workability traits are as follows:

FRA (HOL) Bulls with unexpected type of proof linked to heifer fertility traits
Some bulls with missing pedigree due to pedigree update
Some bulls changed from official to unofficial because they have been blocked from publication by Holstein breed society
ITA (HOL) Some bulls missing pedigree due to the authority issue
NLD (HOL) Some bulls with type of proof 13, with unexpected type of proof, because of not being eligible for daughter testing breeding values.
Decrease in reliability for msp due to the update in the software
ESP (HOL) Base change
GBR (HOL) Some bulls with missing pedigree because they either younger than 10 months or they don’t have sireID or they have international IDs
Change in status of some bulls, due to the decrease in number of daughters
Some bulls with large standard proof change due to obtaining more daughters and change in reliability, change in foriegn proof or updated genotypes
DEU (HOL) Introduction of single step evaluation
POL (HOL) Change in status of some bulls due to the increase in number of daughters

INTERBULL CHANGES COMPARED TO THE DECEMBER ROUTINE RUN

No changes in Interbull procedures

DATA AND METHOD OF ANALYSIS

Thirteen Holstein populations sent GEBV data for up to 38 traits, while classical EBVs for the same traits were used in the analyses. Young bull GEBVs from the GEBV providers have been converted to the scales of all countries participating in classical MACE. A bull will get a MACE EBV or a GMACE EBV but not both.
From those thirteen countries, National GEBVs of bulls less than seven years of age and with no classical MACE proofs were included for the breeding value prediction with a further requirement of either a MACE-PA or a GMACE-PA (for young genomic bulls with young genomic sires) being available.

The parameter-space approach is used for the GMACE genetic evaluations (Sullivan, 2016)

SCIENTIFIC LITERATURE

The international genetic evaluation procedure is based on international work described in the following scientific publications:

Sullivan, P.G. 2016. Defining a Parameter Space for GMACE. Interbull Bulletin 50, p 85-93.

VanRaden, P.M. and Sullivan, P.G. 2010. International genomic evaluation methods for dairy cattle. Gen. Sel. Evol. 42:7

Sullivan, P.G. and Jakobsen, J.H. 2012. Robust GMACE for young bulls methodology. Interbull Bulletin 45, Article 1.

Sullivan, P.G. 2012a. GMACE reliability approximation. Report to the GMACE working group of Interbull. GMACE_rels 2013

Sullivan, P.G. 2012b. GMACE variance estimation. Report to the GMACE working group of Interbull. GMACE_vce 2013

Sullivan, P.G. 2012c. GMACE Weighting Factors. Report to the GMACE working group of Interbull. GMACE_gedcs 2013

Jakobsen, J.H. and Sullivan, P.G. 2013. Trait specific computation of shared reference population. Reference sharing Nov 2013

NEXT ROUTINE INTERNATIONAL EVALUATION

Dates for next routine run can be found on http://www.interbull.org/ib/servicecalendar

NEXT TEST INTERNATIONAL EVALUATION

Dates for next test run can be found on http://www.interbull.org/ib/servicecalendar

PUBLICATION OF INTERBULL ROUTINE RUN

Results were distributed by the Interbull Centre to designated representatives in each country. The international evaluation file comprised international proofs expressed on the base and unit of each country included in the analysis. Such records readily provide more information on bull performance in various countries, thereby minimising the need to resort to conversions.

At the same time, all recipients of Interbull results are expected to honour the agreed code of practice, decided by the Interbull Steering Committee, and only publish international evaluations on their own country scale. Evaluations expressed on another country scale are confidential and may only be used internally for research and review purposes.

Table 1. National evaluation dates in GMACE run August 2025

Country	Date
CAN	20250801
DEU	20250812
DFS	20250812
FRA	20250813
NLD	20250813
GBR	20250714
ITA	20250707
ESP	20250710
POL	20250617

Table 2.

Number of bulls in reference population for	msp							
CAN	25723.0							
DEU	8892.0	40532.0						
DFS	5818.0	35900.0	36633.0					
FRA	5006.0	33206.0	32750.0	34782.0				
NLD	3605.0	32001.0	31652.0	30478.0	33208.0			
GBR	21909.0	9902.0	6796.0	5532.0	3970.0	24382.0		
ITA	22997.0	8910.0	5787.0	4632.0	3057.0	22323.0	24325.0	
ESP	25609.0	40489.0	36628.0	34779.0	33205.0	24310.0	24249.0	95321.0
POL	4351.0	29411.0	29326.0	28111.0	27309.0	4898.0	3970.0	30572.0	30580.0

Number of bulls in reference population for	tem
DEU	37570.0

DFS	33138.0	33750.0		
NLD	29723.0	29347.0	30811.0	
GBR	9102.0	6114.0	3611.0	23264.0
POL	26818.0	26709.0	24950.0	4365.0	27546.0