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:

CAN (HOL) Base change
CAN (HOL) Some bulls changed from official to unofficial due to change in qualification for publication
FRA (HOL) Base change
FRA (HOL) Some bulls changed from official to unofficial due to change in publication rules from breed societies
POL (HOL) Base change
POL (HOL) New definition of UPG groups, pedigree pruning, applied new coding for status and type of proof according to new recommendation from the ITB. New data editing applied.
POL (HOL) tem: Decrease in reliability due to new data filtering criteria
DFS (HOL) Decrease in reliability due to fixing a bug
ITA (HOL) Base change
ESP (HOL) Base change
DEU (HOL) Base change
NLD (HOL) Base change
NLD (HOL) Drop in information due to introduction of DGV BLUP

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 April 2026

Country	Date
CAN	20260401
DEU	20260408
DFS	20260204
FRA	20260408
NLD	20260401
GBR	20260312
ITA	20260302
ESP	20260320
POL	20260310

Table 2.

Number of bulls in reference population for msp

CAN	25781.0							
DEU	9294.0	39960.0						
DFS	6098.0	35114.0	35873.0					
FRA	5024.0	32167.0	31631.0	33610.0				
NLD	3608.0	30975.0	30559.0	29458.0	32172.0			
GBR	21839.0	10325.0	7113.0	5556.0	3976.0	24373.0		
ITA	22976.0	9353.0	6117.0	4657.0	3063.0	22293.0	24359.0	
ESP	25336.0	39761.0	35681.0	33599.0	32169.0	24081.0	23996.0	93696.0
POL	4364.0	28346.0	28174.0	27033.0	26274.0	4917.0	3990.0	29472.0	29492.0

Number of bulls in reference population for tem

DEU	36640.0

DFS	32074.0	32659.0			
NLD	28608.0	28181.0	29685.0		
GBR	9471.0	6412.0	3620.0	23142.0	
POL	25513.0	25327.0	23826.0	4395.0	26188.0