



September 16, 2013

## **Executive Summary from the Interbull Steering Committee**

The 2013 Interbull meeting took place from August 23 to 25, 2013, at the La Cité Nantes Events Center, in Nantes, France. A total of 250 participants from 41 countries set the historical record for Interbull meetings. The open meeting comprised 44 technical reports distributed in six sessions: “Advances in genomic selection”, “National and international genetic evaluations” (2), “Breeding strategies and new traits”, “Functional traits” and “Maternal traits & genetic variability”. As a pioneer initiative in Interbull Meetings, a technical tour to the Evolution heifer’s station in Suce sur Erdre was offered to the participants on August 25. Following the Interbull activities, once again Interbull was invited by the EAAP to jointly organize two scientific sessions on August 26, in which 20 invited speakers and spontaneous contributions provided their views on “Genomic selection: impact on the organization of the breeding sector” and “How can farmers benefit from genomic information”. The joint sessions were highly appreciated by over 400 attendants.

The 2013 Interbull meeting was particularly special because of Interbull’s 30<sup>th</sup> anniversary celebration, which was masterfully prepared by the French organizing committee. Our sincere gratitude to France Génétique Elevage and the Institut de l’Elevage for the impeccable organization, as well as to our sponsors, France AgriMer, EuroGenomics, Evolution, Brune génétique Services, Midatest, Umotest, Illumina and Prim’Holstein.

The summary of the relevant information and Steering Committee decisions from the meeting in Nantes is presented below.

### **Administrative Issues**

#### **Changes in the Steering Committee Composition**

- Brian Van Doormaal (CAN) and Marjorie Faust (USA) have been re-indicated for new terms by the respective national organizations.
- Bevin Harris (NZL) is leaving the SC and Daniel Abernethy (AUS) was indicated to represent the Oceania.
- Juraj Candrak (SVK) is also leaving the SC and Marija Klopčič (SVN) has been indicated to represent Eastern European countries.

The Interbull community thanks Bevin and Juraj for their contribution over the years and wish the newcomers Marija and Daniel a successful participation in the Steering Committee.

## Change in the Scientific Advisory Committee (SAC)

- Georgios Banos decided to leave the SAC after 10 years as the convener of the group. Besides his leadership in the SAC, Georgios was the first Interbull Centre director and has been one of the most influential figures in Interbull history. His scientific excellence in breeding and genetics associated with his training in business administration were put to work on behalf of Interbull over the past 20 years. Georgios acted as the convener of the Genomics Task Force, which in 2008-2009 introduced the debate and proposed a workplan on genomics that has guided Interbull actions ever since. To Georgios, our gratitude and wishes of personal and professional realization in the challenges ahead.
- Georgios Banos presented his last SAC report in the 2<sup>nd</sup> business meeting and the written report is available at <https://wiki.interbull.org/public/SACreport2013?action=print>.
- Vincent Ducrocq was chosen by the Steering Committee to be the new SAC convener and a new scientist will be invited to integrate the committee in the vacancy left by Georgios.

## Interbull Centre Annual Report 2012/2013

The SC postponed the approval of the finances and budgets presented by the Interbull Centre in order to allow that the inputs from the business meetings regarding the funding model for GMACE are included in the projections and subsequently appreciated by the SC during a conference call.

### Service Calendar

After the discussions in Nantes, the service calendar has been updated and it is available at [https://wiki.interbull.org/public/Mace\\_InterGen\\_calendar?action=print](https://wiki.interbull.org/public/Mace_InterGen_calendar?action=print).

**IMPORTANT CORRECTION:** During the Nantes meeting and in the Interbull Centre annual report distributed beforehand, the official release date for the April 2014 routine run was wrongly advertised as April 8, when in fact the correct official release will be April 1, 2014.

# Technical Issues

## GMACE

GMACE occupied a central place in the discussions during the business meetings in Nantes. In order to understand how Interbull customers see the GMACE developments, the SC conducted a quick poll among the delegates present to the meeting. The summary of the answers is given in Table 1. Results indicated to the SC that the proposed publication policy needs to be more flexible and better understood by the users, that financing GMACE should include both countries with and without national genomic evaluation systems and that most importing countries are interested in receiving GMACE results in their own scale.

**Table 1.** Summary of the answers to the poll conducted among the delegates regarding GMACE business rules. Results expressed as number of respondents (% of respondents).

	Question 1	Question 2	Question 3
	According to the proposed publication rules, all populations participating in MACE evaluations will receive results from GMACE evaluations, regardless of having contributed national GEBVs, and are supposed to make these results publicly available in their own scale. Regarding this business rule you:	According to the proposed financial model, only organizations submitting data (national GEBVs) to the GMACE evaluations will be required to pay the associated fees. Regarding this business rule you:	If your organization is not yet offering genomic evaluations:
Fully agree with the proposal	10 (37%)	9 (33%)	
Could accept the proposal	10 (37%)	9 (33%)	
Disagree with the proposal	7 (26%)	9 (33%)	
	The breeders in your country want to rank foreign young bulls on your own scale.		8 (73%)
	The breeders in your country prefer to use genomic evaluations		2 (27%)

in foreign scales.	3 (2/70)
<b>Not applicable</b>	15

### GMACE: Next Steps

- The December 2013 evaluation will be considered as a second implementation run for GMACE in order to allow more time for both national and international technical improvements and political developments (accommodation of GMACE into national business models).
- A GMACE pilot run will be carried out after the September 2013 GMACE test run adopting a GREL prediction model[1] to all traits and results should be distributed to all countries.
  - The level of national genomic reliabilities will be predicted and used in the GMACE pilot.
  - The idea of conducting such pilot was a follow up of the research study on the impact of change in levels of national genomic reliabilities on GMACE that was presented by Peter Sullivan during the business meeting in Nantes.
- In order to allow service users to analyze both results from the GMACE test run and the GMACE pilot run, the implementation of a truncated MACE evaluation scheduled for January 2014 will be postponed.
- These decisions directly impact the service calendar as it was proposed during the business meeting in Nantes. In order to better accommodate these changes, the adoption of sequential runs (MACE-GMACE) will be postponed to January 2014, allowing a more flexible calendar in Sep/Oct 2013. An illustration of the key dates and actions on new service calendar for 2013 can be downloaded at ([@Sep\\_Dcc2013 run policy\\_v2.pdf](#)).

### GMACE funding model

- Considering the responses to the questionnaire distributed to delegates between the first and second business meeting, the SC understood that a better policy for funding GMACE would include both countries supplying national GEBVs and countries not sending data for GMACE.
- A different approach for integrating GMACE into services arose during the business meeting and found support among SC members: instead of considering MACE and GMACE as separate services with separate work plans and budgets, GMACE should be seen as an extension of the current services to include young bulls without progeny into the Interbull international evaluations. This is actually a conceptual change in the way GMACE is understood and integrates the new operations into the well-established service network that has been built around MACE. This view reinforces the idea of including all service users in the apportionment of the budget for GMACE.
- No service fees will be charged for the December implementation run as it was already the case in August 2013.

## Publication policy

The Guidelines for minimum requirements for advertising genetic merit of dairy animals (Interbull Code of Practice – Appendix V) approved by the SC in April 2013 will be reviewed to improve clarity and to avoid conflicts with national publication policies.

## Post processing of correlations

- Current practice: all trait groups except conformation are post-processed using Holstein correlations as priors for non-Holstein breeds.
- Recommendations from the ITC:
  - All traits should be post-processed.
  - Non-Holstein breeds should use Holstein correlations as priors for all traits.
  - Adopt 0.3 as a lower limit for conformation traits.
  - ITBC should inform countries when estimated correlations fall below the lower limit.
  - New populations should be grouped in post-processing windows for production and udder health of “grazing”/“no-grazing” after considering the estimated correlations.
  - Implementation of post-processing of correlations for conformation traits is scheduled to be carried out in the January 2014 test run.
  - Overview and general discussion across traits about post-processing windows should take place at the Berlin ITC meeting (2014).

## MS trend validation (project MTT-Interbull-NAV)

**Pilot run** – the software and the instructions should be distributed to all service users and results from selected traits (3-5) should be reported to the ITBC before the 2014 Interbull meeting, in Berlin. Results will determine if the ITC recommends the adoption of IB4 as part of the Interbull validation procedures. The ITBC will communicate the time schedule in due time.


## WG for standardization of genomic reliability computations

*(Bevin Harris (chair), Mario Calus, Martin Lidauer, Vincent Ducrocq, Zengting Liu and Paul VanRaden)*

### Work plan:

- Create simulated data set (Sep – Oct 2013)
- Benchmark limited current methods (Nov – Dec 2013)
- Research extensions to information source and bivariate approaches to develop “computationally simple” method applicable to a number of genomic models (Sep 2013 - ...)

- Test method(s) on simulated and real data (Jan - Mar 2014)
- Recommended method(s) reported in Berlin (May 2014)

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