



# Executive Summary

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October-December 2018

This document contains a summary of the relevant information and decisions of the Interbull Steering Committee (SC) meetings as well as of other meetings that were held during the period October-December 2018.

## **Governance**

### **EU Reference Centre**

On 1 November 2018, Interbull Centre took up its duties as the EU Reference Centre for the “*scientific and technical contribution to the harmonisation and improvement of the methods of performance testing and genetic evaluation of purebred breeding animals of the bovine species*” as previously published in the *Official Journal of the European Union* Issue L204/78, 5.8.2017.

### **NAAB 2018 distinguished service award**

Dr. Gordon Doak, Interbull Steering Committee member since 2017 received the NAAB Distinguished Service Award, recognizing his significant contribution to the furtherance of the artificial insemination industry.

## **Services**

### **Truncated MACE**

National genomic evaluations are increasingly dependent on Interbull MACE results due to the inclusion of foreign genotypes without national phenotypic information in the reference population. The only source of phenotypic information available for such animals are de-regressed MACE EBVs on the scale of interest. The latest MACE EBVs are used for regular estimation of SNP effects, but obtaining appropriate MACE de-regressed values for validation purposes is not a straightforward task. In order to assist countries with improving the national genomic prediction and validation, Interbull will offer Truncated MACE as an additional service. If sufficient organisations show an interest, Truncated MACE will be run annually in September, starting in 2019. This is expected to provide appropriate validation inputs for countries using foreign bulls in their reference population potentially providing MACE results for foreign bulls with no daughters in the participating country.

Participation to Truncated MACE will be made on a voluntary base. While Truncated MACE is open to all breeds and countries, it is expected that Truncated MACE will be of particular interest to breeds and countries having also a national genomic evaluation.

The cost of Truncated MACE will have to be covered by the participants in Truncated MACE. The fee will be €500 for organisations submitting data for a single breed, and €1000 for organisations submitting data for 2 or more breeds. Technical details on Truncated MACE will be available on the Interbull website in 2019.

### **Mendelian Sampling Validation Test**

Following the Technical Workshop in Dubrovnik, the Mendelian Sampling Validation Test has been introduced as a mandatory test as of January 2019. A guideline for helping countries interpreting the

Mendelian Sampling Validation Test results has been prepared, and is together with other MS Test documentation available on our website. <http://www.interbull.org/ib/servicedocumentation>

### **GEBV test**

Following a recommendation by the ITC, the GEBV test software will be changed to set an upper limit for  $b1(\text{slope})$  to 1.2 when applying the criterion  $b1 \geq E(b1)$ . The new version of the GEBV test will be provided to the countries in January 2019, together with detailed information.

### **InterGenomics-Holstein**

The latest InterGenomics-Holstein run concentrated on increasing the InterGenomics-Holstein Reference Population. This was achieved through the data supplied by two additional countries, Israel and South Korea, as well as additional data from the original countries (Ireland, Slovenia, Uruguay, Portugal, Croatia and South Africa). During the 2018 Interbull Technical Workshop, the countries involved in InterGenomics-Holstein shared their enthusiasm on the results of this run and progress since the first run in 2017. A number of technical issues (such as validation and reliabilities) have since been discussed by the Interbull Technical Committee and Steering Committee in November and December 2018. New validation studies are now underway at the Interbull Centre. Additionally, the potential benefits of sharing genotypes from exporting countries that would be willing to contribute genotypes of influential sires in the importing countries are being investigated. These are all steps towards a new routine service for Holstein, following the concept of research runs, pilot runs and a successful test run.

### **Accreditation for DNA Data Interpretation Centres**

Following a successful introduction in 2018, we have now 15 organizations with ICAR accreditation as a DNA Data Interpretation Centre for Parentage Verification. The list of organizations that have already been granted this accreditation for SNP-Based Parentage Verification is available [here](#).

Some benefits of being an ICAR Accredited DNA Data Interpretation Centre are:

1. Independent International validation of your SNP Parentage verification processes.
2. You meet one of the prerequisites for joining the GenoEx-PSE service.

We now are reaching out and encouraging other ICAR Member Organisations, or the affiliated organization(s) nationally responsible for parentage analysis, to now engage so they will be able to make use of these benefits. The process steps for applying and being granted ICAR accreditation as a DNA Data Interpretation Centre are as follows:

1. ICAR receives application form from applicant ([Application form for ICAR Accreditation of DNA Centres](#))
2. ICAR receives payment from applicant (Fee €300, Non ICAR Members Fee €500)
3. Interbull Centre sends the 'Test files' to the Applicant.
4. The Applicant returns results to Interbull Centre
5. Interbull Centre informs ICAR of data file testing outcome (pass/fail).
6. ICAR copies the Interbull Centre (at [GenoEx@slu.se](mailto:GenoEx@slu.se)) when it informs the applicant of the result and, if successful, the applicant's name is added to the list of accredited organisations, and therewith becomes eligible to apply as a GenoEx-PSE Service User.
7. In the case of rejection, the Applicant is entitled to submit again along with payment of the associated fee.

For further technical guidelines/information on accreditation for DNA Data Interpretation Centres see the ICAR web page <https://www.icar.org/index.php/certifications/certification-and-accreditation-of-dna-genetic-laboratories/two-new-dna-based-services/dna-data-interpretation-centres/>

### **GenoEx-PSE**

GenoEx-PSE was the first service to be launched on the Interbull Centre's International Genotype Exchange Platform. The main purpose of GenoEx-PSE is to **facilitate parentage analysis activities** by providing an international genotype exchange platform for exchanging standardized sets of SNP for genotyped animals. This service is currently available for any cattle breed; both beef and dairy. One of the key benefits of joining GenoEx-PSE is that AI bull owners will have more accurate identity of daughters in countries importing semen. GenoEx-PSE is also expected to assist with the transition from the use of microsatellites to the use of SNP for parentage verification.

The first of the ICAR Accredited DNA Data Interpretation Centres have now signed up to GenoEx-PSE. In order to join these organizations, please be aware of the following Annual service fees:

- No service fee due during 2018 and 2019 for eligible organizations signing up to GenoEx-PSE before the end of 2018.
- A reduced fee of €400 for 2019 for eligible organizations signing up to GenoEx-PSE between 1 January and 31 March 2019.
- From 1 April 2019 eligible organizations signing up will pay a pro-rata annual fee of €1000 for 2019. (The 2019 fee will be set at max €600).

From 2020, the annual fee has been established at €1000. All GenoEx-PSE Service Users are expected to upload data within 90 days of signing up to the service.

Further details, including User Manual, Code of Practice and Service User Agreement are available on the GenoEx Website <https://GenoEx.org>.

Further information can be requested from ICAR ([DNA@icar.org](mailto:DNA@icar.org)) or the Interbull Centre ([GenoEx@slu.se](mailto:GenoEx@slu.se)).

### **2019 Interbull Annual Meeting.**

The 2019 Interbull Meeting will be held in Cincinnati, Ohio, USA from 22-24 June 2019. This will be organised in conjunction with the 2019 ADSA meeting (held from 23-26 June 2019). There will be two joint Interbull-ADSA Symposia: "Joint ADSA/INTERBULL Session: Breeding and genetics: Ten years of genomic selection" and "Joint ADSA/INTERBULL Session: Breeding and genetics: Genetics data pipelines for implementation of genomic evaluation of novel traits". The Symposia programmes are now available: <https://www.adsa.org/Meetings/2019-Annual-Meeting>.

