



# Interbull Business Meeting

Interbull Centre Management Update

Toine Roozen

Interbull Centre Director



THE GLOBAL STANDARD  
FOR LIVESTOCK DATA

# Interbull Centre



# Interbull Centre



Swedish University of  
Agricultural Sciences



Section of the Department of Animal Breeding and Genetics ("HGEN") of the Swedish University of Agricultural Sciences ("SLU")

Operational unit of the ICAR's Interbull SC and Interbeef WG



European Union Reference Centre (EURC) for Zootechnics (Bovine Breeding)



ISO 9001 certified.



# Interbull Centre

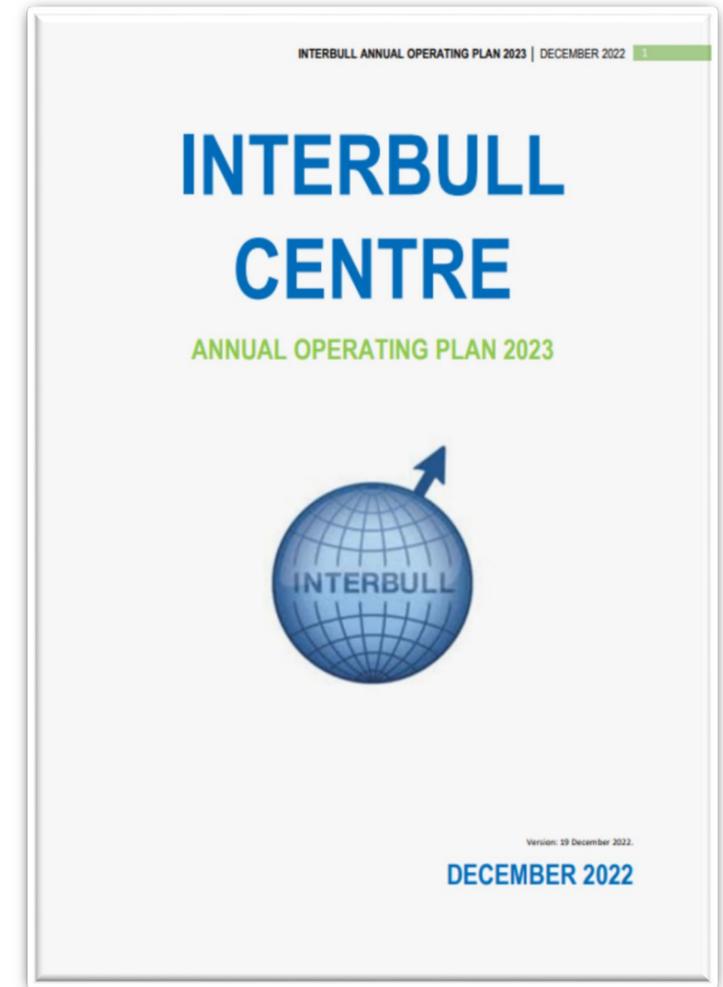


## ***Objective:***

- *accurate genetic information*
- *for use by importers and exporters*
- *facilitating selection of the best genetics*
- *different countries, environments or breeding goals.*



# Reports and Plans



**Annual Reports:**

[www.interbull.org/ib/itbcreports](http://www.interbull.org/ib/itbcreports)



# Interbull Centre Staff – April 2023



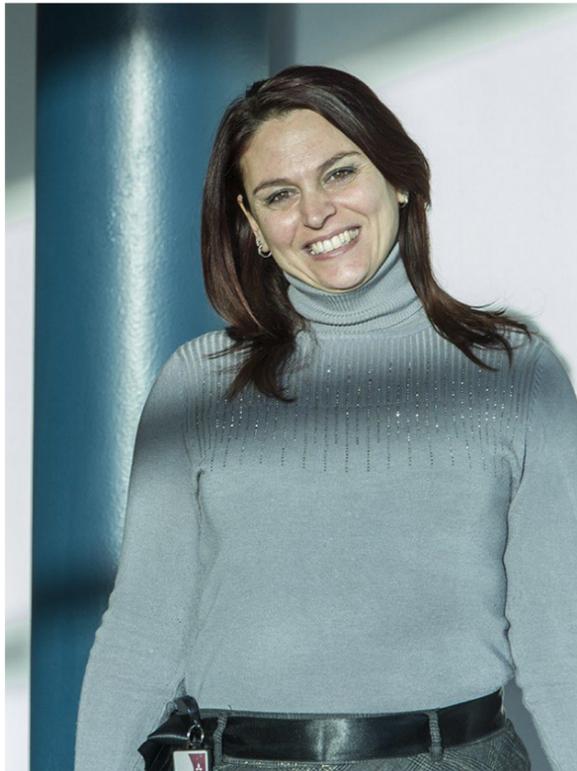
**Anahit Nazari**  
Genetic Data Analyst



**Simone Hazas**  
Administrator  
Interbull Bulletin



# Interbull Centre Staff in Lyon



**Valentina  
Palucci**



**Katrine  
Haugaard**



**Fernando  
Macedo**



**Anahit  
Nazari**



**Simone  
Hazas**



# Finance Update

## Final accounts 2022:

- Audit:  SLU

## Budget 2023:

- €1.3M
- Approved Dec 2022 



**Published: March 2023**





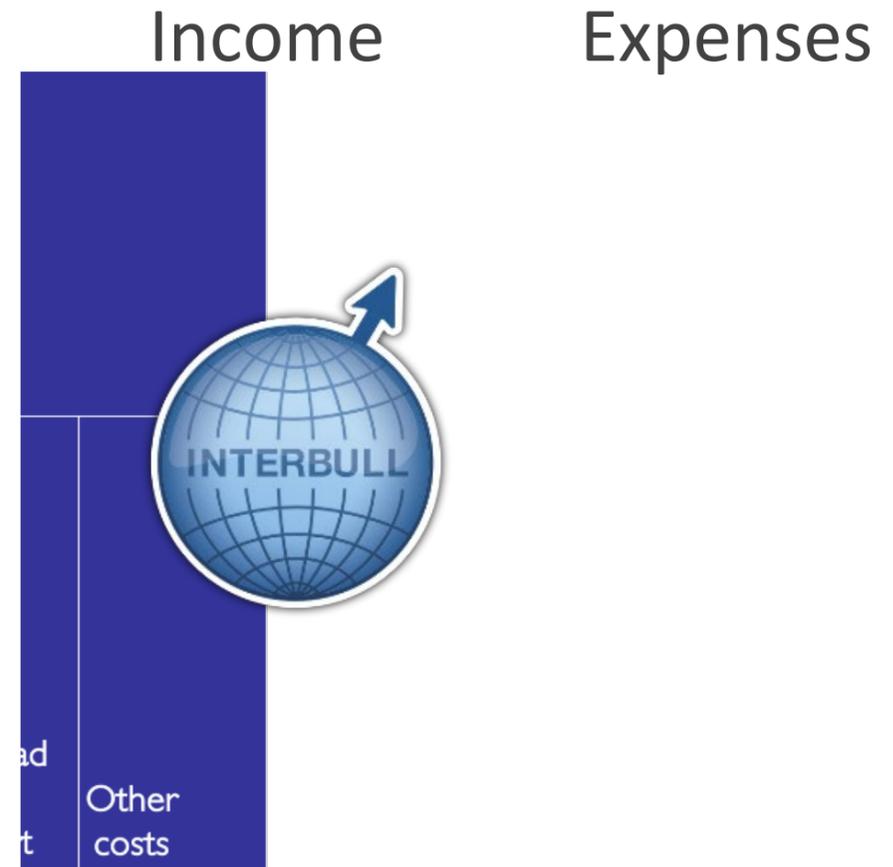
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- Audit: 

## Budget 2023:

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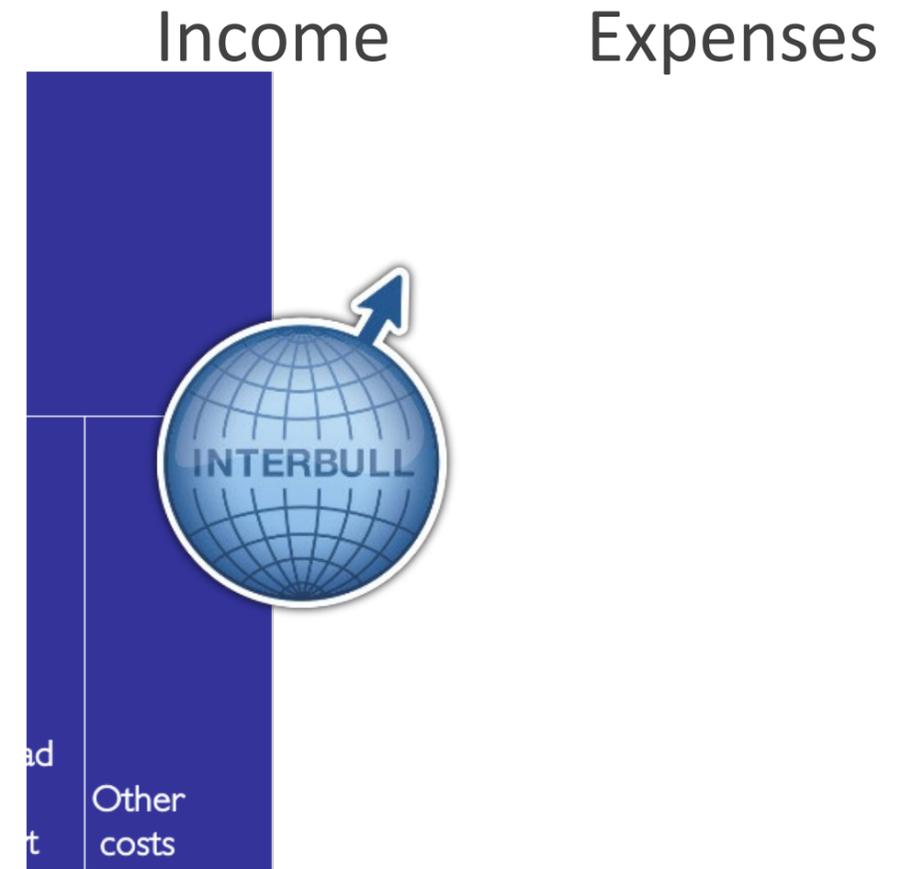
**Published: March 2023**



# Interbull Centre Half-Year Update

€	2022 Actual	2023 Budget	2023 Forecast
Income	1 303 456	1 308 949	1 276 935
Expense	1 168 745	1 316 520	1 213 729
<b>Result</b>	<b>134 711</b>	<b>- 7 571</b>	<b>63 206</b>

Balance	end 2022
Interbull	537 880
Interbeef	- 60 224
<b>Total</b>	<b>477 657</b>





# Interbull Centre Services

## EVALUATIONS

MACE

GMACE

InterGenomics

Interbeef

## VALIDATION

Conventional  
breeding  
values

GEBV-test

TMACE

EURC  
validation

## EXCHANGE

GenoEx-PSE

GenoEx-GDE

Genetic traits

## COLLABORATION

PREPdb

Interbull  
Bulletin

Meetings,  
Workshops  
and Webinars

International  
Guidelines



# Interbull Evaluations

## EVALUATIONS

MACE

GMACE

InterGenomics

**Annually:**  
**3 Official evaluations**  
**2 Test evaluations**

Trait group	Traits
Production <i>1995</i>	Yield: Milk, protein, fat
Conformation <i>1999</i>	Body condition (19) Locomotion (6) Udder (9)
Udder health <i>2001</i>	Somatic cell score, Mastitis
Longevity <i>2004</i>	Direct longevity
Calving <i>2005</i>	Direct and maternal calving ease (2) Direct and maternal stillbirth (2)
Fertility <i>2007</i>	Heifer conception, interval, Cow recycling, lactating cow ability to conceive
Workability <i>2008</i>	Milking speed, temperament

## Breeds:

- Holstein
- Jersey
- Guernsey
- Red Dairy Cattle
- Brown Swiss
- Simmental

## Countries:

- 34

## Country-breed-trait combinations:

- 1985



# Interbeef Evaluations



## EVALUATIONS

- Based on phenotypes, not EBV's.
- Different models for each country

## Interbeef

- Annually:**  
**2 Official evaluations**  
 1 Test evaluation

## Key challenges:

- International genomic evaluations
- Integration of International evaluations into National evaluations.

Trait group	Traits
Adjusted Weaning Weight <i>2015</i>	Animal Weaning Weight
Calving Traits <i>2019</i>	Birth Weight Calving Ease - direct and maternal effects
Carcass traits <b>2023</b>	Carcass conformation Carcass fat Carcass weight

## Breeds:

- Aberdeen Angus
- Limousin
- Charolais
- Hereford
- Simmental

## Countries:

- 12

## Country-breed-trait combinations:

- 112



# Service Update August 2023

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GENEX  
Parentage SNP Exchange

EXCHANGE

GenoEx-PSE

## SERVICE

- Parentage SNP Exchange (PSE) - a SNP exchange only for parentage analysis
- Facilitates and streamlines parentage analysis activities carried out by authorised users of the service
- A defined set of SNPs can be exchanged:
  - Parentage Verification (“PV”) – 200 SNPs (recommended by ISAG, launched 2018)
  - Parentage Discovery (“PD”) – 354 SNPs
    - **ICAR PD accreditation expected 2023**

## BENEFITS

- Access to parentage analysis genotypes for essentially all dams and AI sires and potentially missing genotypes for some sires
- Bull owners have more accurate identity of progeny in countries importing semen
- Eliminate costs of genotyping duplication
- Assists with transition from microsatellites to the use of SNPs for parentage verification



**GENEX**  
Genomic Data Exchange

**EXCHANGE**

**GenoEx-GDE**

## **SERVICE**

- Enables full genotype exchanges (whole SNP arrays) covering a variety of available genotyping chips
- Users have full access to their own genotypes plus genotypes obtained by exchange in the system
- Each user of the service has full control over which of their own genotypes it shares with other service users, and which of those service users
- **In use for InterGenomics – Brown Swiss and Holstein**

## **BENEFITS**

- An easy and safe exchange of genotype data (performing quality and pedigree availability checks)
- Easy and standard for exchanging large genotype datasets
- Facilitates building reference populations
- Decreases costs by avoiding re-genotyping the same individuals
- Encourages development of genomic evaluations



# Genetic Traits Data Exchange

## SERVICE

- **Collection, exchange and conflict resolution of information on genetic traits**
- Sharing of updated information regarding genetic traits
- Automated data exchange via AnimInfo module within the Interbull Data Exchange Area (“IDEA”)
- Distributed 3 times per year with official evaluations
- **Holstein: 12 traits (since 2019)**
- **Brown Swiss: 8 traits (launch 2023)**

## BENEFITS

- Identify animals which are carriers of important genetic traits
- Allows an easier, safer and more efficient exchange of information on genetic traits
- Consistency of unique international animal ID is maintained across countries
- Reduction in conflicting information
- Responsive to new genetic traits



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# Collaboration and Guidelines

- Infrastructure development – incl IDEA and PREPdb
- Collection of Information on New Traits
- Technical Workshop; February 2023 (Rome, Italy)
- Central to providing transparency and sharing knowledge:
  - Tomorrow's Business Meeting
  - New Traits
  - Sustainability
  - Collaboration with other ICAR WG

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# Collaboration and Guidelines

- Update of ICAR Guidelines Section 9, (Guidelines for Dairy Cattle Genetic Evaluation; “Interbull Guidelines”)
  - January 2023
    - 1) genomic evaluations
    - 2) Recommendation for Harmonisation of Calving Traits
- Going Forward:
  - Harmonisation of Fertility Traits (and additional traits)
  - Use of PREPdb

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# Knowledge sharing and Networking

- Technical Workshop; February 2023, Rome, Italy
  - Interbull Bulletin Issue no. 58: published
- Interbull Open Meeting; August 2023, Lyon, France
  - Interbull Bulletin Issue no. 59:
  - Papers to be submitted by 29 September
- IDEA Webinars
  - 2 organised (April, July)
  - 2 scheduled (27 September, 26 October)
- ICAR Meeting in Toledo
  - Interbeef, EURC and Interbull Centre Services

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[Journal.Interbull.org](https://www.journal.interbull.org)