

# Proposals for improvements of IDEA to facilitate international data exchange

Interbull business meeting, Chile

The genetic evaluation centres of Nordic countries, France,  
Germany, the Netherlands, Spain

# Motivation

- Proper/unique identification of animals across countries is an ongoing challenge
    - ➔ all A.I. bulls and their parents should be identified properly/uniquely in IDEA
  - But reality is (somewhat) different, e.g.:
    - August 2016 MACE/GMACE: min. 65 bulls double in official HOL result files
      - Mainly HOL ⇔ RED
    - Seems situation is getting worse as bulls at young age are exchanged internationally
    - ...
- ➔ **Improvement needed**

# Issues with IB-ID-19 (I.)

- Some countries use two identifications for one animal in international exchange of data
  - better to have just one number
  - in 'old' testing system enough time to link id's
  - in genomic era no time -> one lifetime ID more important
- **Proposal:**
  - IB should strive for IB-ID's based on the animal ID given at birth
    - Countries and series of ID's within country can be identified

# Issues with IB-ID-19 (II.)

- Includes information NOT part of official (unique, national) animal ID's
  - Breed
  - Sex
  - Especially for 'breed', e.g.
    - HOLCOUM000123456789 ⇔ REDCOUM000123456789  
RED = red Holstein
  - HOL evaluation: HOLGBRM000000541484 ⇔ BFRGBRM000000541484  
HOLBELM066404715088 ⇔ BWRBELM066404715088
  - SIM evaluation: SIMAUTM000166754811 ⇔ REDAUTM000166754811  
SIMCANM000000311568 ⇔ HOLCANM000000311568  
SIMCZEF000000715361 ⇔ MONCZEF000000715361
  - JER evaluation JERNZLM000000512017 ⇔ HOLNZLM000000512017

-> breed has rather free interpretation of breed

# Issues with IB-ID-19 (II. cont.)

-> breed has rather free interpretation of breed

But: in some countries ID is not unique across breeds

- mainly on id of 'very' old animals

-> breed code is needed for unique id

- **Proposal:**

Remove 'breed/colour' from IB-ID for the younger generation

Provide this information separately

To improve situation for current animals/generation

# Issues with IB-ID-19 (III.)

- USA uses different country codes in IB-ID (USA ⇔ 840)
  - This while the numeric series within 'USA' and '840' are not overlapping  
→ creates miss-identification and need of cross-references
- **Proposal:**  
IB no longer accepts '840' as country code and in general use of more than one country code for a given country

## Alternative:

- Follow official ICAR recommendation 'name of the country ... Three digit numeric ISO codes **must** be used for data transfer and storage
- i.e. set all country codes to numeric

# Potential duplicates

- Several countries not uniquely register animals with IB-ID-19
  - complete and up-to-date cross-references are very important
- But countries being not country of birth can only 'propose' duplicates that only become effective if the country of birth verifies them
- Not all countries work frequently pedigree matters in Interbull database
- **Proposal:**  
IB establishes a system not just monitoring the situation but actively 'reminds' countries that didn't work within a certain time on pedigree matters
  - and (after some time) serious consequences should be established

# Further improvement proposals

- Interbull should extend IDEA for following information:
  - National herdbook-ID (under control of BCC)
  - Short name of bull (under control of BCC)
  - Genetic recessives of bull
- Other countries than owner should be allowed to fill up missing pedigree information



# Summary

- **Recommended improvements**
  - IB-ID exclusively based on lifetime ID
  - Unique country code in IB-ID
  - Monitoring of work on potential duplicates (pedigree matters)
  - Extension of pedigree information for
    - bull short name (in BCC)
    - bull herdbook number (in BCC)
    - bull genetic recessives
  - No more breed/colour in IB-ID
    - At least for younger generations