



Interbull Centre (SLU, Sweden):

H. Jorjani, Service Manager

T. Roozen, Director

◦ Interbull Chairman:

R. Reents, vit, Germany





International platform for genomic data exchange (Dürr & Philipsson, 2012)

- reducing costs and optimizing investments on genotyping
- improving reference populations
- screen large populations for recessive alleles detection
- worldwide parentage verification data base
- study diversity within the bovine populations



International Genotype Exchange Platform

- Infrastructure at Interbull Centre
- BC|SNPmax, by Biocomputing Platforms:
 1. Parentage SNP Exchange (PSE)
 2. Genomic Data Exchange (GDE)
 3. Customised Genomic Repository (CGR)





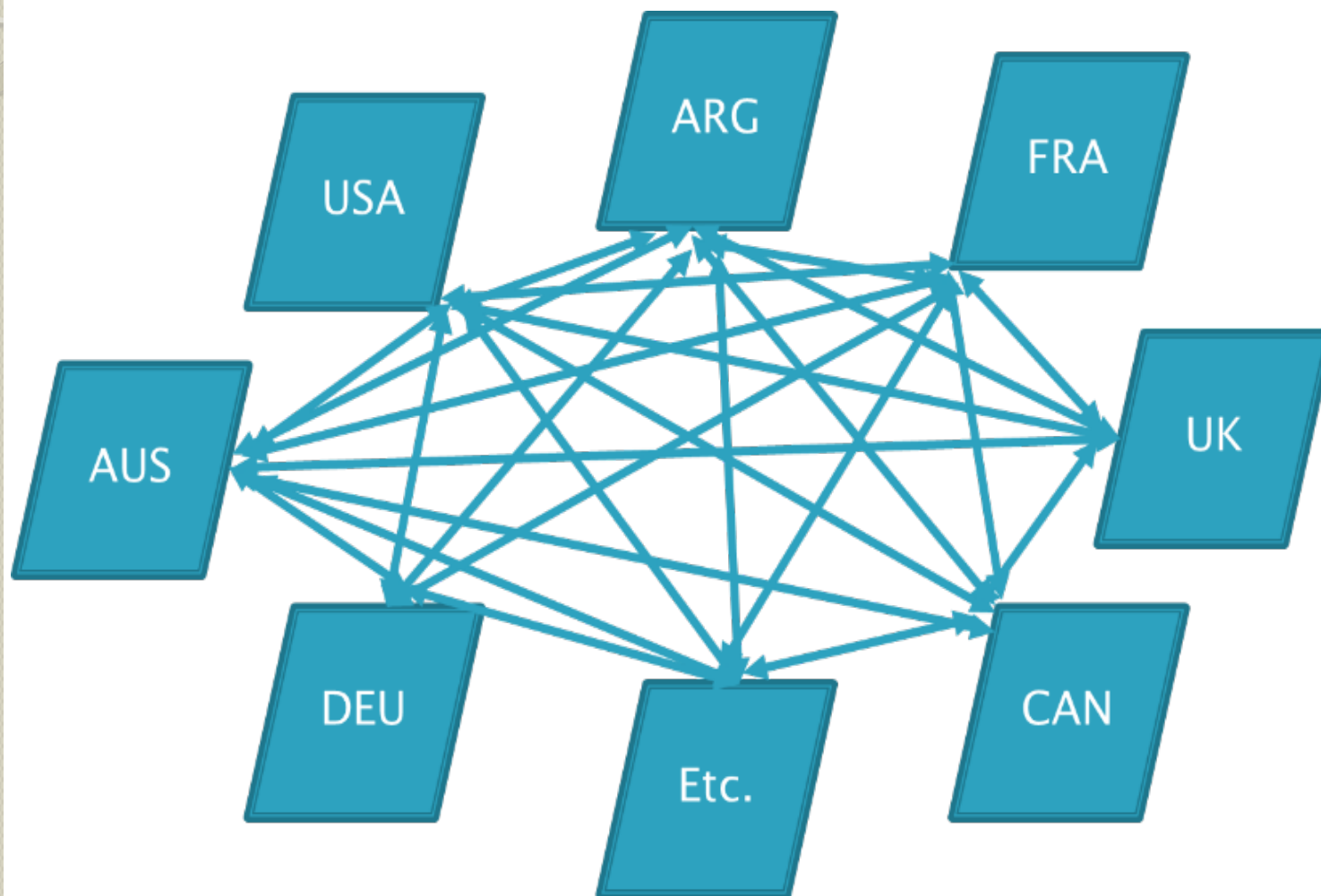
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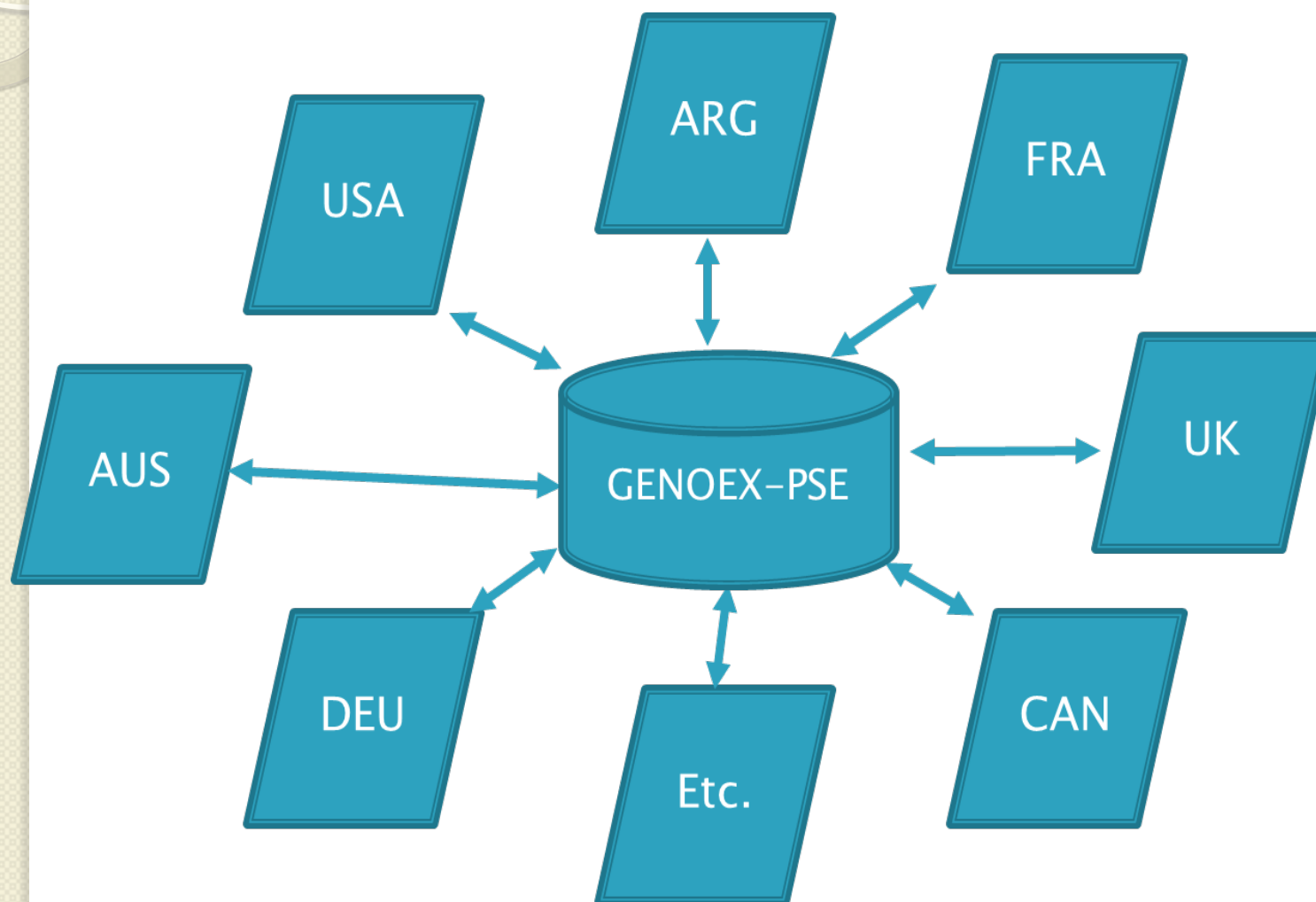


Before GenoEx – PSE



INTERBULL

After GenoEx – PSE





GenoEx-PSE

- I. Parentage SNP Exchange (PSE)
 - Initial investment by SLU and ICAR
 - Interbull Users, and other ICAR members
 - PSE service (annual) participation fee
 - irrespective of usage rate
 - Operating on not-for-profit basis
 - Launch October 2016





GENOEX-PSE Implementation Task Force

1. Sophie Mattalia, Interbull SC
2. Suzanne Harding, ICAR Parentage Recording WG
3. Wim van Haeringen, ICAR Genetic Analysis WG
4. Matthew Shaffer, ICAR Breed Associations WG
5. Andrew Cromie, ICAR Interbeef WG
6. Secretary: Brian Van Doormaal, Interbull SC
7. Convener: Toine Roozen, Interbull Centre Director



GenoEx-PSE ITF (Implementation Task Force)

- Teleconference meetings in Nov '15, Jan '16, Feb'16. **Next one: 17 March '16.**
- Focus areas include:
 - “Service User” agreement/contract with ICAR/ITB
 - Description of various scenarios at national level
 - Marketing and Communication
 - Clarification of “rules” for programming at ITBC
 - Technical specification (Expert Group)



GenoEx-PSE Expert Group

- **Brian Van Doormaal – Chair** Canadian Dairy Network (CDN), (Interbull SC)
- **Hossein Jorjani – Secretary** Interbull Centre
- **Matthew McClure** Irish Cattle Breeding Federation, (Parentage Recording WG)
- **George Wiggans** Animal Genomics and Improvement Laboratory, USA (Parentage Recording WG)
- **Louise Marguin** Institut de l'Élevage, France (nominated by Interbull SC)
- **Romy Morrin-O'Donnell** Weatherbys DNA Laboratory (Genetic Analysis WG)
- **Tom Lawlor** Holstein USA (Breed Association WG (Dairy))
- **Johnny Mackay** Aberdeen Angus Cattle Society, (Breed Association WG & Interbeef)



Expert Group – Main mandate

Focus on exchange component of SNP genotypes, by defining:

1. **lists of SNPs** specifically required for proposed service.
2. process that allows for the evolution of SNPs included in above lists.
3. **file content and format** for SNP exchange through GenoEX
4. **processes and associated rules** to be applied at the Interbull Centre **for control quality** of SNPs and genotypes submitted (eg. call rates, etc.).
5. rules for **handling genotype inconsistencies** at database and service levels.



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March 2016

THANK YOU!

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