Interbull: constructing international commensurability for dairy cattle selection

Lidia Chavinskaia (LISIS)
Pierre-Benoît Joly (LISIS)
Vincent Ducrocq (GABI)
Project

(part of GENOSOUTH coordinated by V. Ducrocq)

• Context of *genomic « revolution »* in dairy cattle breeding and its internationalization

→ How does this technology of cattle breeding circulate across countries?

• Comparability of genetic values

→ **Commensurability** – *making things comparable through a common metric* (Espeland & Stevens 1998, Dérosières 2014)
  o Social and technical process
  o Crucial point for the market of genetics

• **Interbull** as a space of commensuration with 40-year history
Interbull story in 3 stages:

1975 – 1993: **Construction of the commensurability**
- Commercial issue – constructing product quality
- From researchers working in groups to an institutionalized community with
  a politically-recognized issue: the comparability of genetic indices
- Conversions - “translation” of genetic indices

1993 – 2009: **Stabilization of commensurability.**
- MACE (multi-trait across country evaluation)
- Calculation center in Uppsala
- From research to service
- Space of commensuration = trade space

2009 – now: **Destabilized commensurability**
- Genomic selection
- New genotype data issue
- Demultiplication of players and diversification of services

Interbull Meeting Tallinn August 2017
Constructing Commensurability

**Biological issue** – genotype by environment interaction

**Social context** – multistandards and commercial « coopetition »

**Technical solution** – mathematical model estimating correlations and adapting rankings
Space of Commensurability

Technical space = political (trade) space

Steps for an organization willing to join the Interbull services.
Source: Intebull Code of Practice
Crisis of commensurability

Source: P. Sullivan Presentation Workshop Ljubljana 2017
New commensurability for new context?
Thank you for your attention and for all your contributions to this study.

Contact: lidia.chavinskaia@inra.fr