



IRISH CATTLE BREEDING FEDERATION

Interbeef and Ireland's Infrastructure for Beef Cattle Breeding.

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Chief Executive

World Hereford Conference
Calgary, Canada.
July 13th 2012.



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- Feeding a growing world population
- Breeding cattle to meet the challenge
- Information infrastructure
 - National (Irish Model)
 - International (ICAR, Interbeef)
- Implications for the Hereford breed
- Conclusions



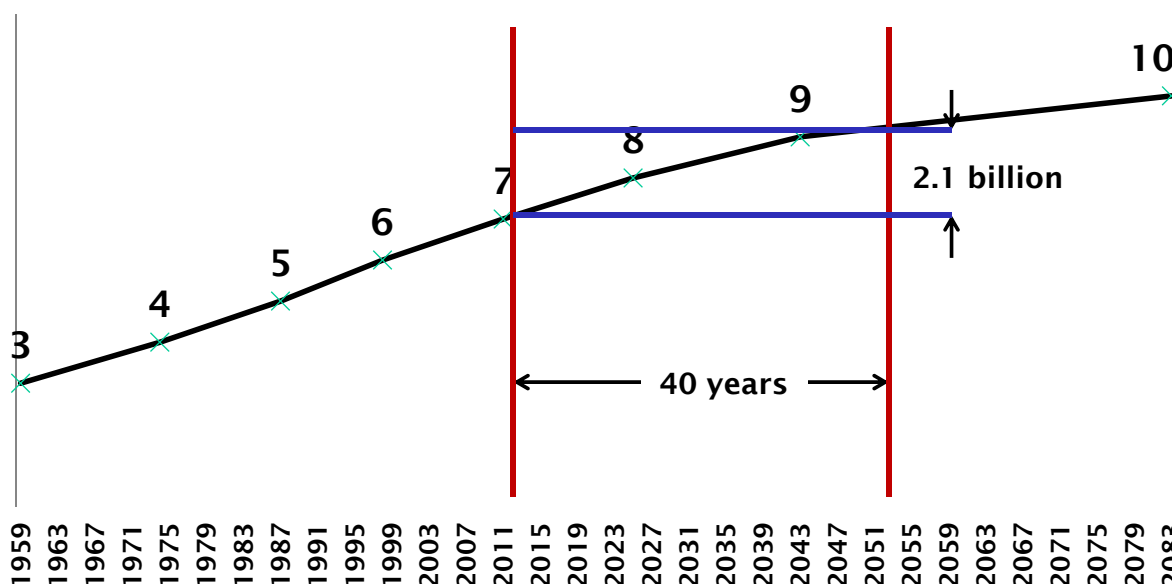
FEEDING A GROWING WORLD POPULATION

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UN World Population Projections* (billions)
Population growth of one million
per week for next 40 years.



* <http://esa.un.org/wpp/Other-Information/faq.htm#q1>

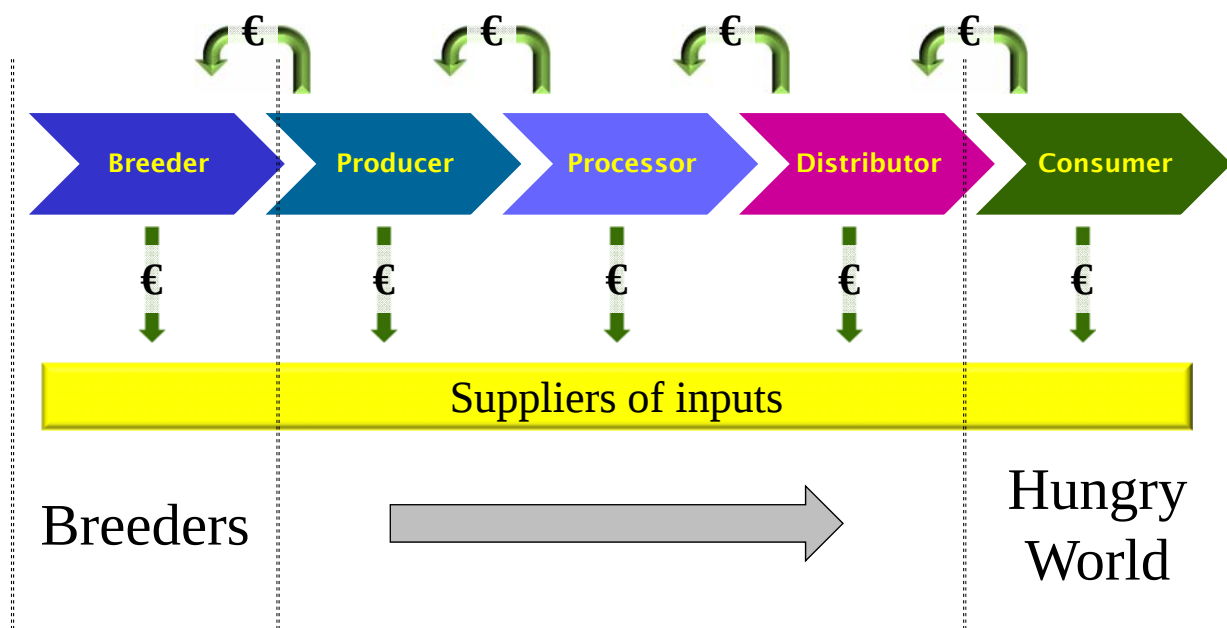
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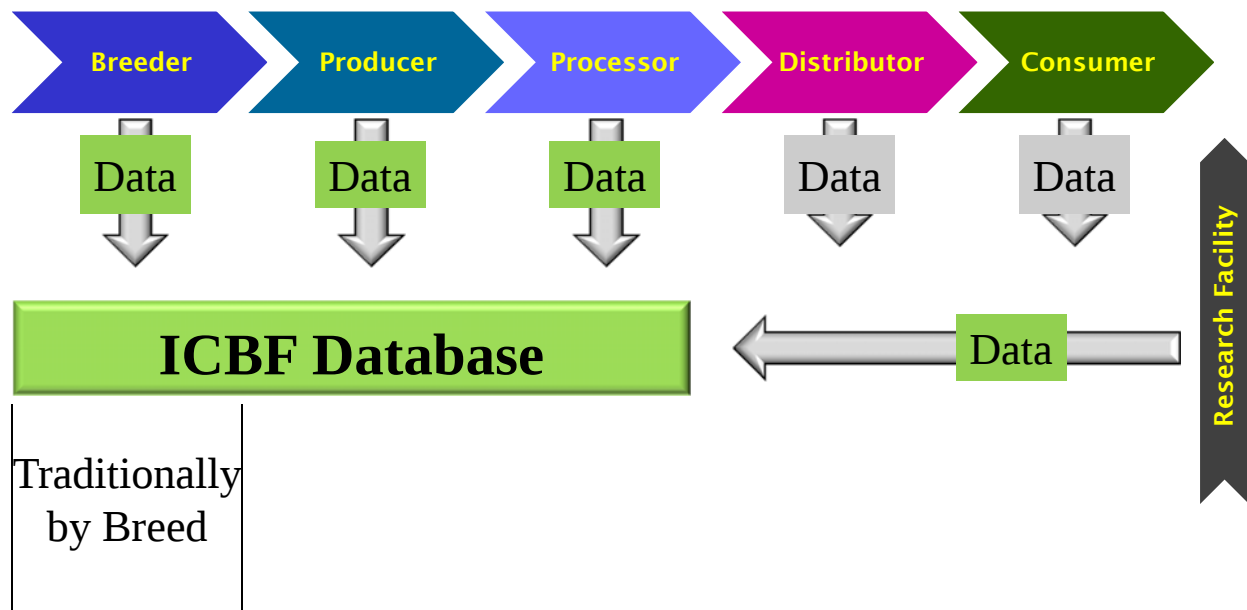


BREEDING TO MEET THE CHALLENGE

The beef supply chain



Data & Supply Chain



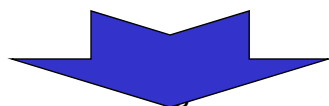
What do Irish farmers want?

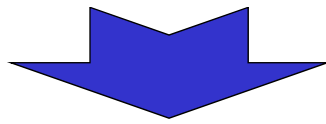
Dairy Breeding Objective

- **Income (€) +++++**
 - Milk (protein, fat, - lactose, - water)
 - **Meat**
 - **Surplus animals**
 - Breeding stock
- **Expense (€) -----**
 - Grass & purchased feed
 - Replacements
 - Health
 - Labour
- **Profit = Income - Expense**

Beef Breeding Objective

- **Income (€) +++++**
 - Meat
 - Weaners
 - Breeding stock
- **Expense (€) -----**
 - Grass & purchased feed
 - Replacements
 - Health
 - Labour
- **Profit = Income - Expense**





Dairy Selection Criteria

E_{conomic} **B**_{reeding} **I**_{ndex}) =
Milk_{sub index}
+ Fertility_{sub index}
+ Calving_{sub index}
+ **Beef**_{sub index}
+ Maintenance_{sub index}
+ Health_{sub index}

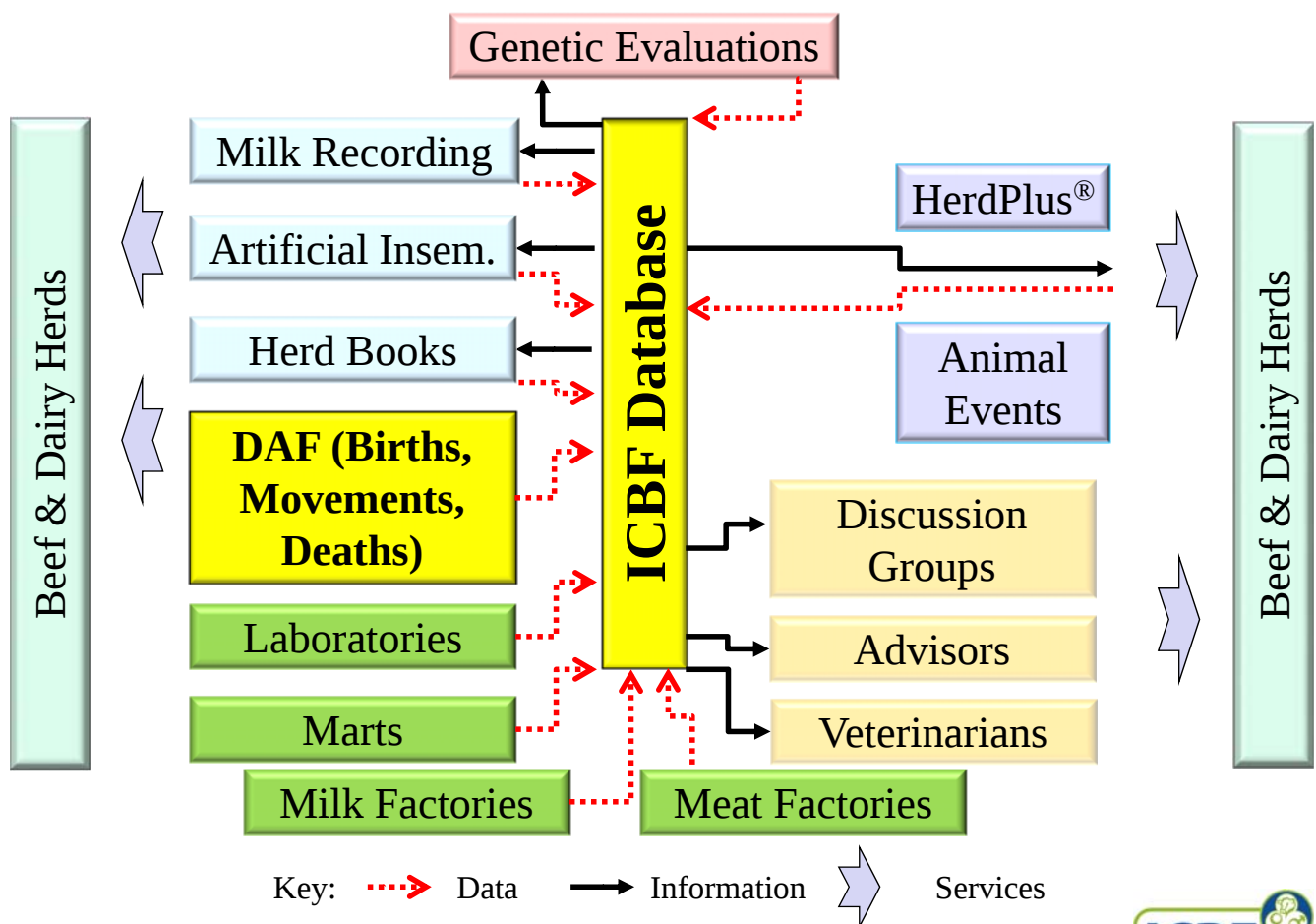
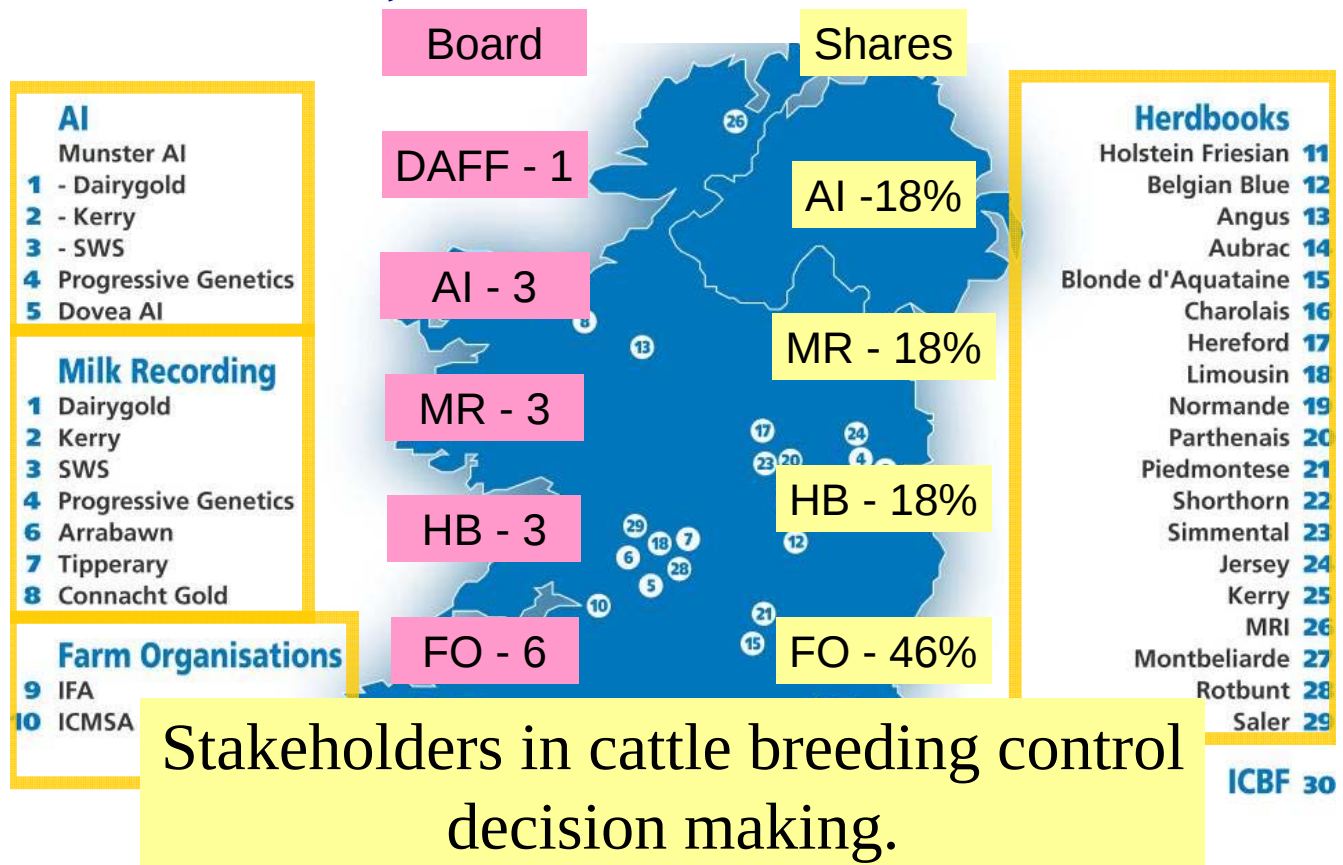
Beef Selection Criteria

S_{uckler} **B**_{eef} **V**_{alue} = wtd
+ Calving_{sub index}
+ Weanling export_{sub index}
+ Beef Carcass_{sub index}
+ Daughter Fertility_{sub index}
+ Daughter Milk_{sub index}
Expressed as Euro-Stars
1 * to 5 *****

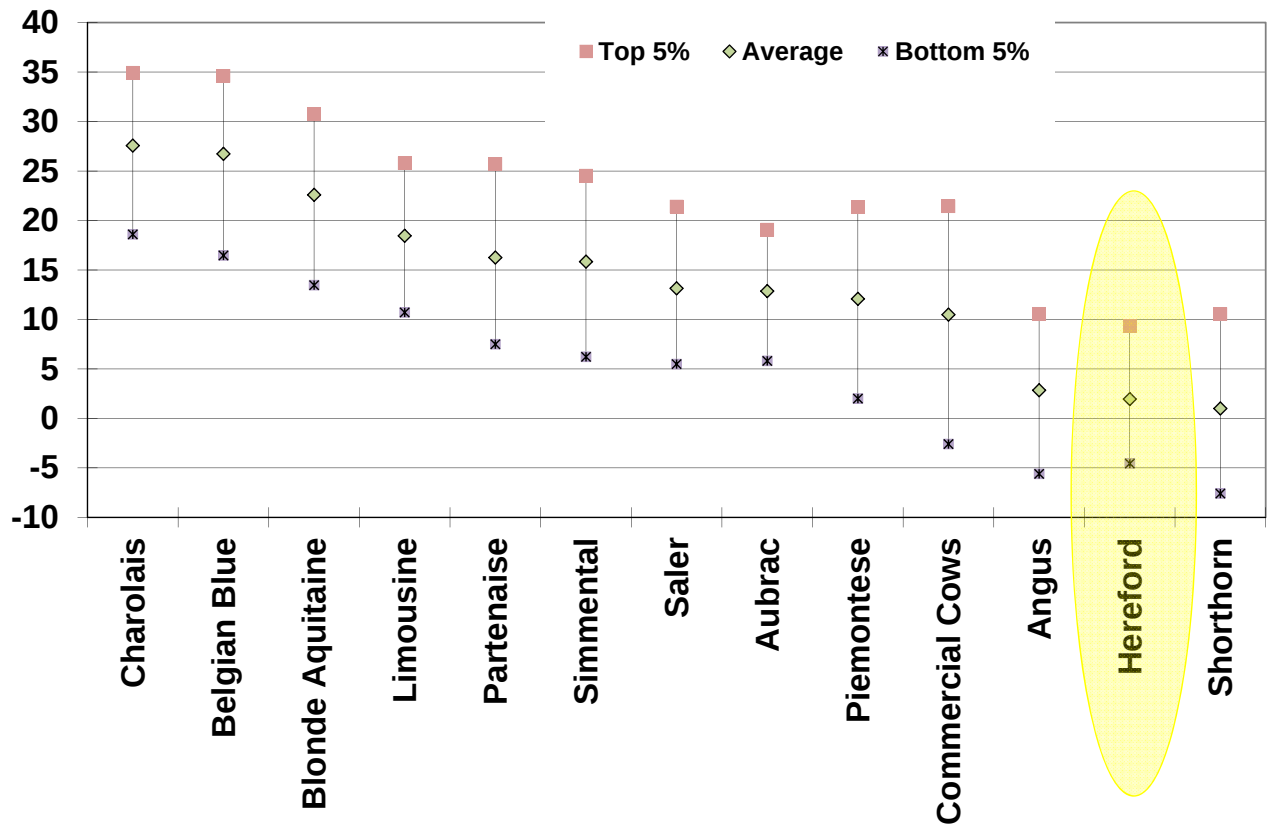
**Irish Farmers want to find the best
cattle in the world, according to
these criteria, to breed from.**

**INFORMATION
INFRASTRUCTURE – LOCAL**

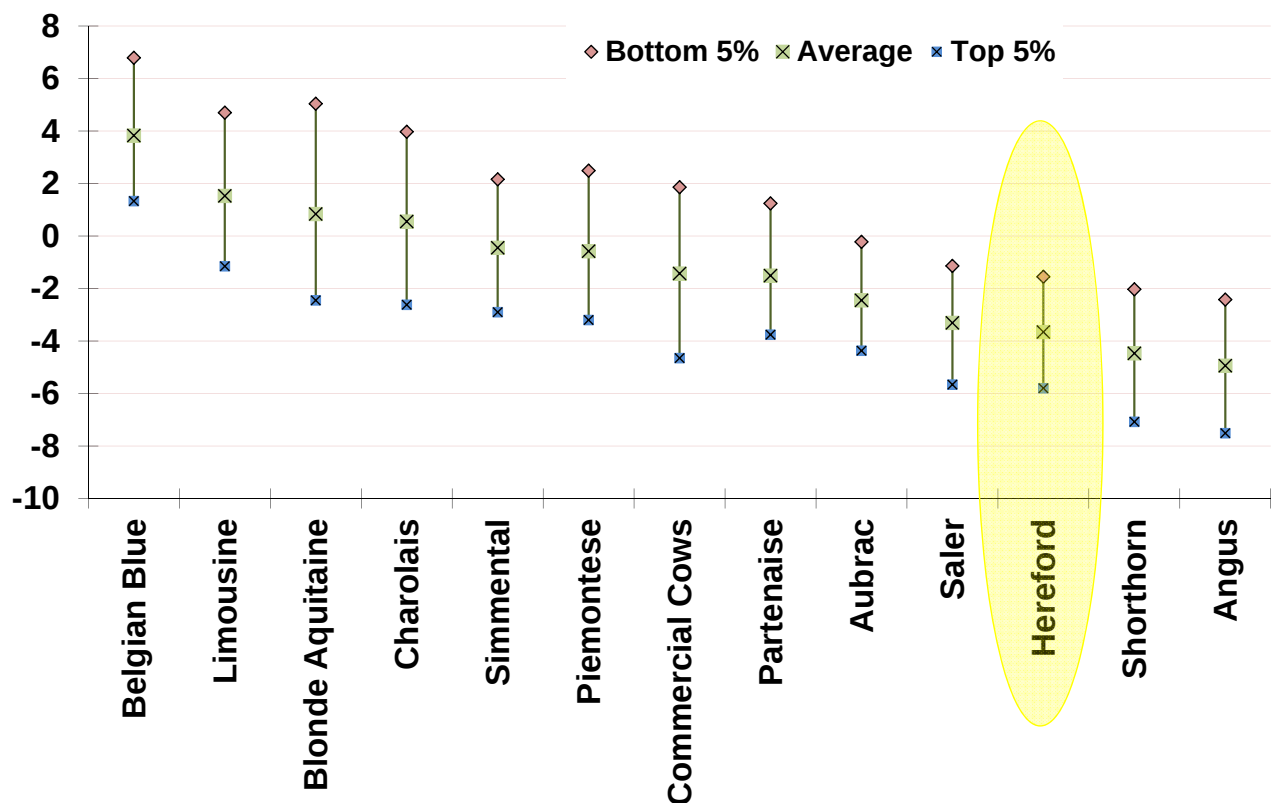
MEMBERS, BOARD & SHARES - ICBF



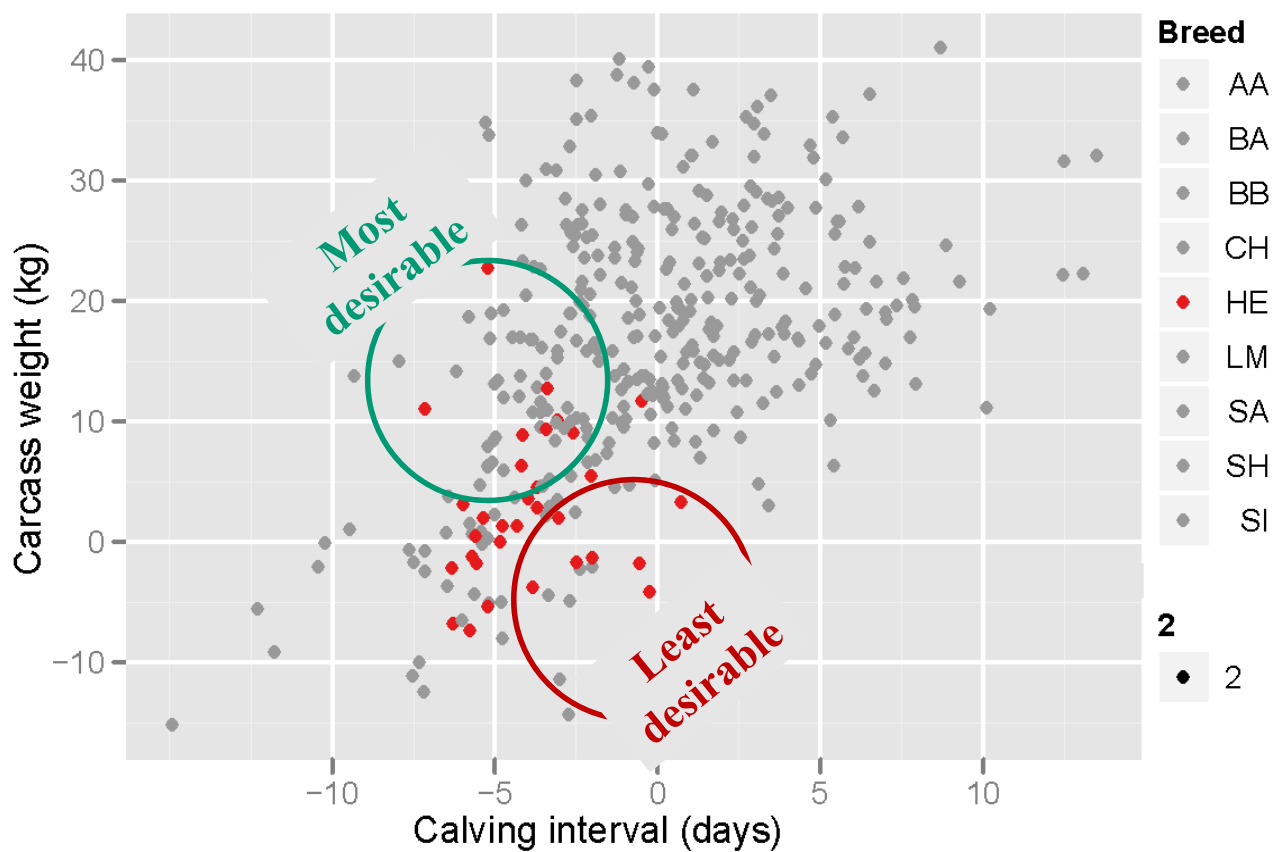
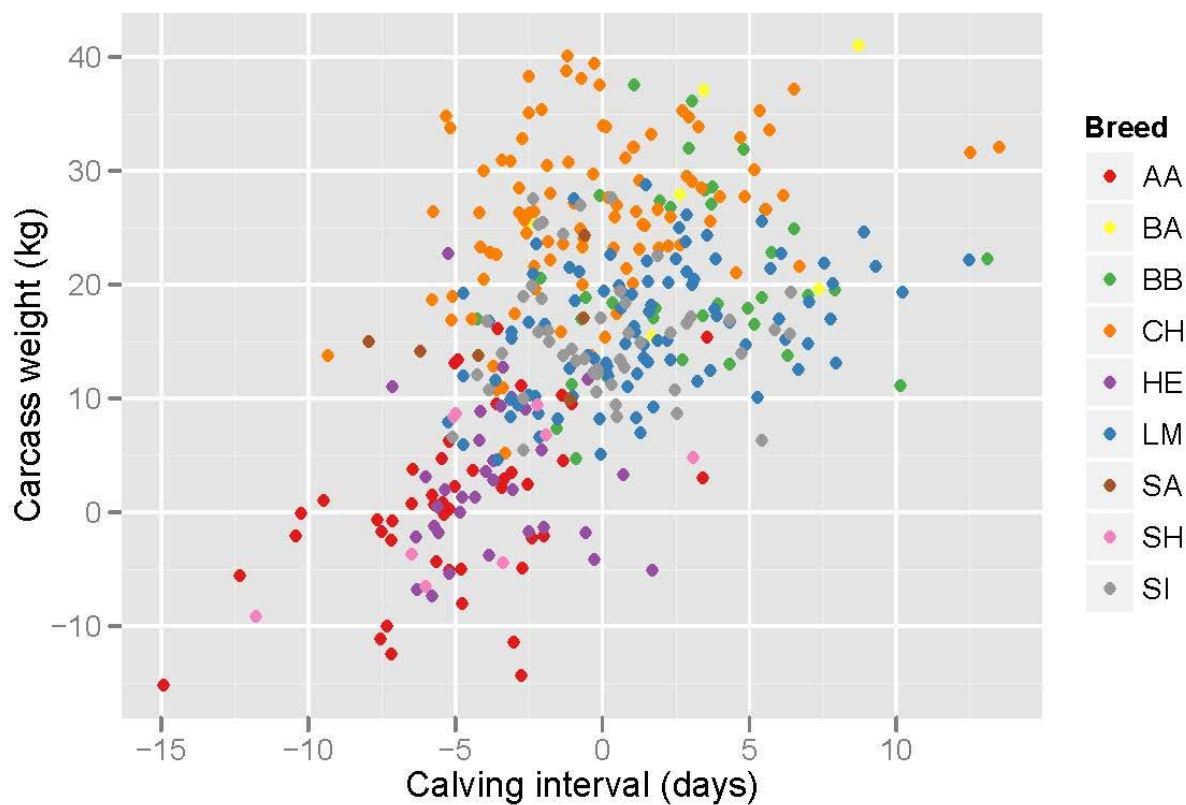
Genetic merit (PTA) for carcass weight (kg)

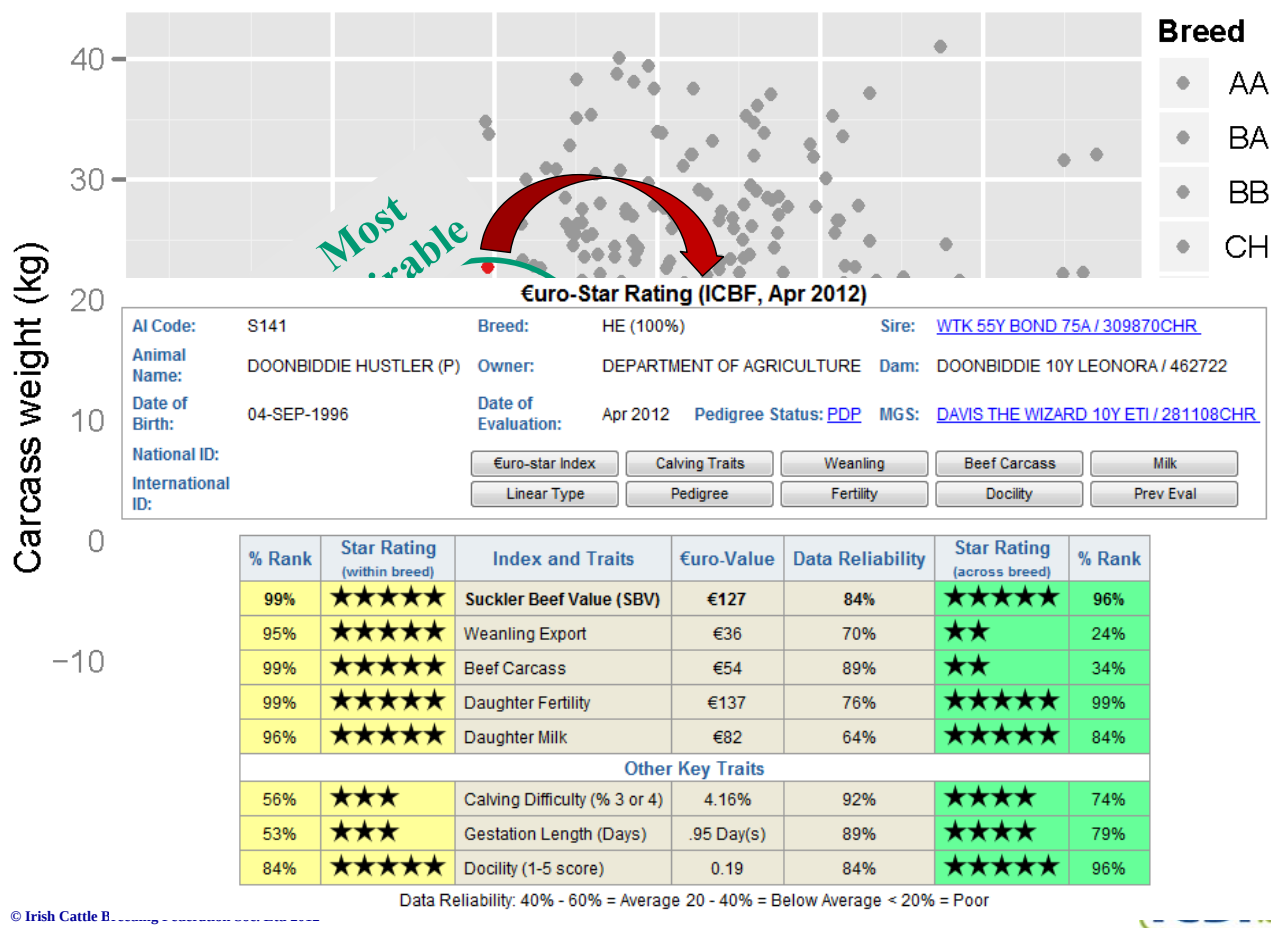


Genetic merit (PTA) for calving interval (days)



Across breed evaluations for beef bulls progeny tested in Ireland with reliability of greater than 80% for carcass weight (kg) and 70% for daughter calving interval (days).





Irish Farmers want to find the best cattle in the world, according to these criteria, to breed from.

INFORMATION INFRASTRUCTURE – INTERNATIONAL

Argentina
Australia
Austria
Belgium
Bulgaria
Canada
Chile
Croatia
Czech Republic
Denmark
Ecuador
Egypt
Estonia
Finland
France
Germany
Greece
Hungary
India
Iran
Ireland
Israel
Italy
Japan
Kazakhstan
Korea
Latvia

ICAR & Interbeef



Lithuania
Luxembourg
Mexico
Morocco
New Zealand
Norway
Peru
Poland
Portugal
Romania
Slovak Republic
Slovenia
South Africa
Spain
Sweden
Switzerland
Taiwan
The Netherlands
Tunisia
Turkey
UK
Ukraine
Uruguay
USA
Uzbekistan

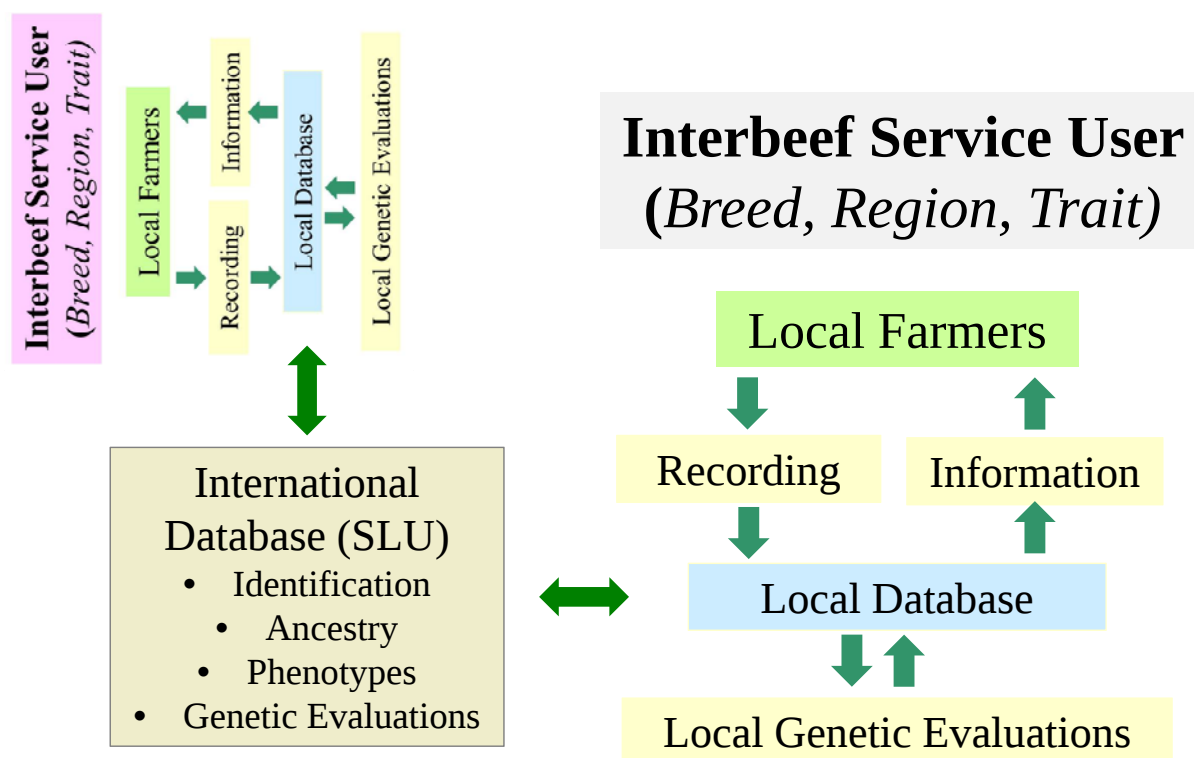
- ICAR (www.icar.org)
 - International organisation for animal recording (99 members from 52 countries)
 - Guidelines & standards for recording & genetic evaluations – Sub-Committees (4), Working Groups (12) one of which is the **Interbeef Working Group**

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Objectives of Interbeef

1. Forum for **sharing knowledge** on recording & genetic evaluations of beef breeds & traits.
2. Maintain **guidelines & standards** for recording & genetic evaluations
3. Conduct **international surveys**
4. Develop **international genetic evaluation services**
5. Facilitate use of **genomic selection**



Service User	Data Quality	Genetic Evaluations	Territory	Pure Breeds	Commercial	Traits
ARC			South Africa	Afrikaner, Angus, Beefmaster, Bonsmara, Braunvieh, Charolais , Drakensberger, Gelbvieh, Hereford, Nguni, Pinzgauer, Red Poll, Santa Gertrudis, South Devon, Sussex, Tuli.	All breeds & crosses.	Reproduction, Calving/Birth, Growth , Carcass, Maternal
CMBC	CBBA		Czech Republic	Angus, Belgian Blue, Blonde d'Aquitaine, Galloway, Gasconne, Hereford, Highland, Charolais , Limousin , Simmental, Piemontese, Salers.	All breeds & crosses.	Weaning weight , calving ease, other traits in future.
SAC EGENES			United Kingdom	Blonde d'Aquitaine (British Blonde), Highland, Limousin , Lincoln Red, Red Poll, Saler, Stabiliser, Sussex.		Reproduction, Calving/Birth, Growth , Carcass, Maternal, Docility
FECL		INIA	Spain	Limousin		Birth, Growth, Maternal, Carcass
FGE		INRA	France	Aubrac, Salers, Gasconne, Limousine , Charolaise , Rouge des Prés, Parthenaise, Blonde d'Aquitaine, Bazadaise	Cross breeds for veal production	Reproduction, Calving/Birth, Growth , Morphology, Carcass, Maternal, Docility
ICBF			Ireland	Angus, Aubrac, Belgian Blue, Blonde d'Aquitaine, Charolais , Hereford, Limousin , Parthenaise, Piedmontese, Saler, Simmental.	All breeds & crosses.	Reproduction, Calving/Birth, Growth , Carcass, Maternal
SVM			Sweden	Simmental, Highland Cattle, Angus, Hereford, Blonde D'Aquitaine, Charolais , Limousine		Reproduction, calving maternal/direct, growth maternal/direct, carcass classification.
VFL			Denmark	Simmental, Original Braun Swiss, Grauvieh, Highland Cattle, Gelbvieh, Dexter, Saler, Angus, Galloway, Hereford, Piedmontese, Blonde D'Aquitaine, Beef Shorthorn, Charolais , Limousine , Belgian Blue Cattle	All breeds	Reproduction, calving maternal/direct, growth maternal/direct, carcass classification, conformation
FABA			Finland	Angus, Charolais , Limousin , Simmental, Hereford, Highland cattle	All breeds & crosses	Reproduction, Calving/Birth, Growth , Carcass, Maternal

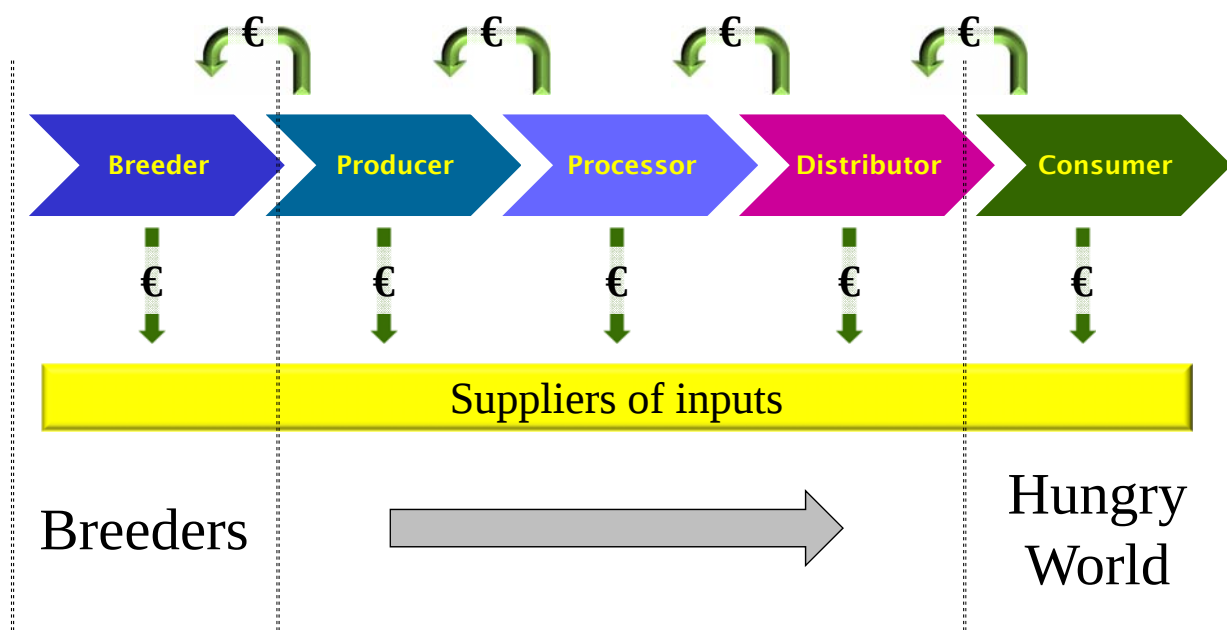
INTERBEEF

IMPLICATIONS FOR HEREFORD BREEDERS

Key Elements for Hereford Breeders

- Identification and performance recording – local
- Breeding objective – local with evaluations provided locally
- Link to commercial progeny performance
- Link internationally for genetic evaluation & research
- Use information to select breeding stock worldwide

Summary



Summary

- Ireland has developed an integrated infrastructure for beef and dairy cattle breeding which is providing very valuable breeding information to Irish cattle farmers.
- Interbeef is being established to facilitate international genetic evaluations of beef breeds & beef traits.
- Hereford cattle breeding stands to benefit greatly from the improved accuracy of genetic evaluations that will result.
- With collaboration and co-operation we can improve the ability of beef producers to feed the world profitably.