



IRISH CATTLE BREEDING FEDERATION

Ireland's Integrated Database  
– National ID is the “cornerstone”

MARTIN BURKE

ICBF Breeding Information Services Manager 2001-2012



# Ireland's Cattle Industry

- 1.2 million **Dairy** cows
  - ✓ 95% Ho/Fr with small levels of crossbreeding
  - ✓ Seasonal calving (90% calve in spring - turnout to grass)
  - ✓ A+B-C system of milk payments
  - ✓ Fertility is essential
  - ✓ Quotas lifted Apr 2015
  - ✓ DAF 'Harvest 2020' +50% output

# Ireland's Cattle Industry

- 0.9 million **Suckler** cows
  - Many small herds (<10 cows) and few large herds
  - Calves:
    - 22% replacements
    - 16% live exports to mostly EU countries
    - 62% slaughtered in Ireland mostly for export as cuts
  - Margins less

# ***Background to ICBF***

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- **Cattle breeding - previous responsibility of DAF**
  - **1997 Ernst & Young report (commissioned by DAF) identified the need to establish an authority that would “*co-ordinate cattle breeding*” in Ireland**
  - **The establishment of Irish Cattle Breeding Federation (ICBF) 1998.**
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# ICBF Structure

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- **ICBF is owned by four organisations**

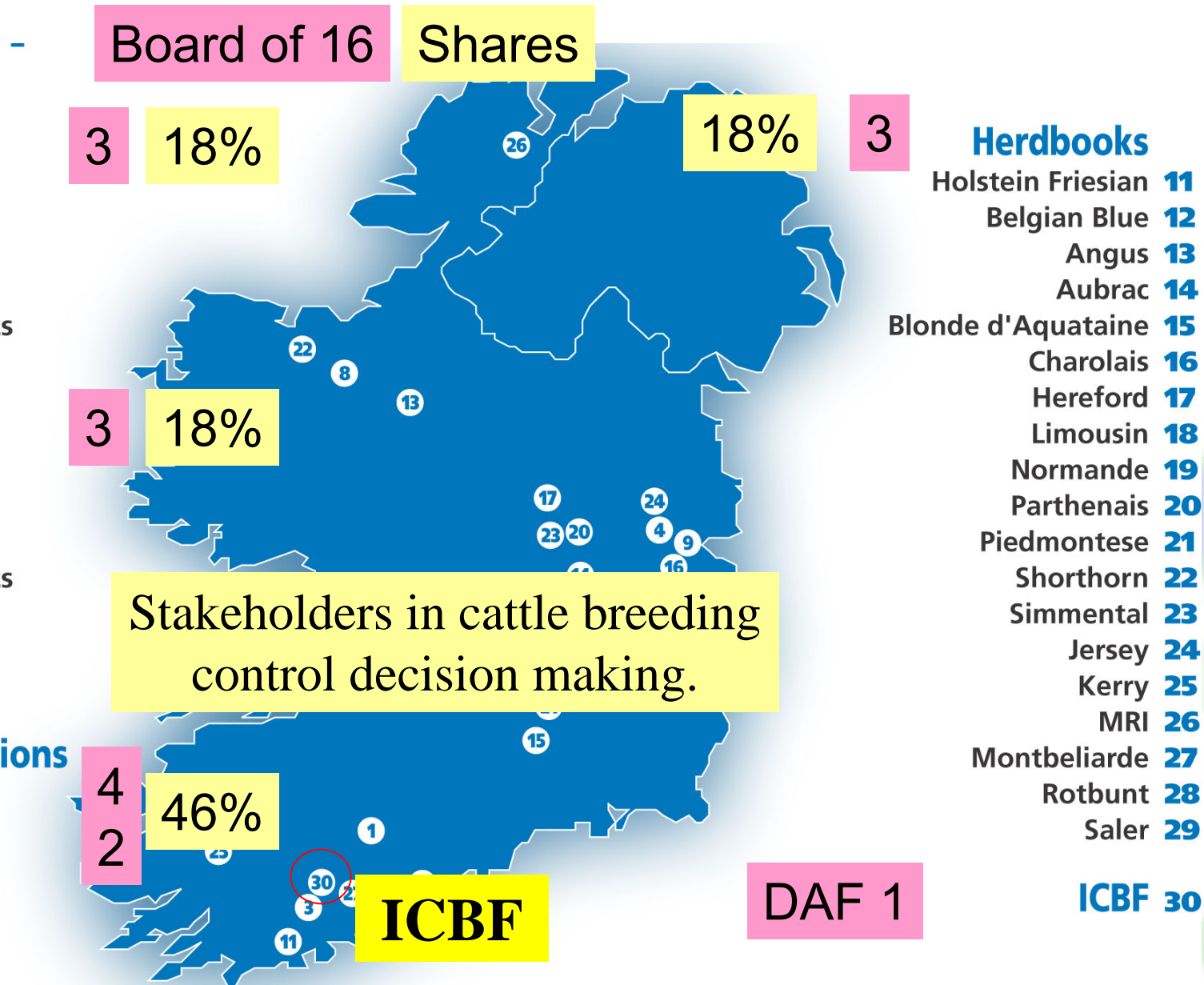
- **AI**
- **Milk recording**
- **Herdbooks**
- **Farmer organisations**

**+ DAF rep on Board**

- **Board made up of representatives from these organisations- Board dictate ICBF policy**

*ICBF is owned and controlled by farmers*

# MEMBERS AND BOARD OF ICBF



# Data & Information Sharing Agreement

- Contributors retain ownership
- Farm data through “Animal Events”
- Electronic sharing of data collected
- Data for research
- Integrated genetic evaluations
- **Herd owner** controls access NB !
- Information for service providers
- HerdPlus® - information of herd owner on web
- User-pays & full cost recovery

# Irish Cattle Breeding Federation Society Limited (ICBF)

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- *Commenced operations in 1998*
- *Joined ICAR 1998*
- *Current structure in 2000*
- *Mission: achieving the greatest possible genetic improvement in the national cattle herd - Dairy and Beef*

## *Needed a Roadmap?.....ICAR has template*

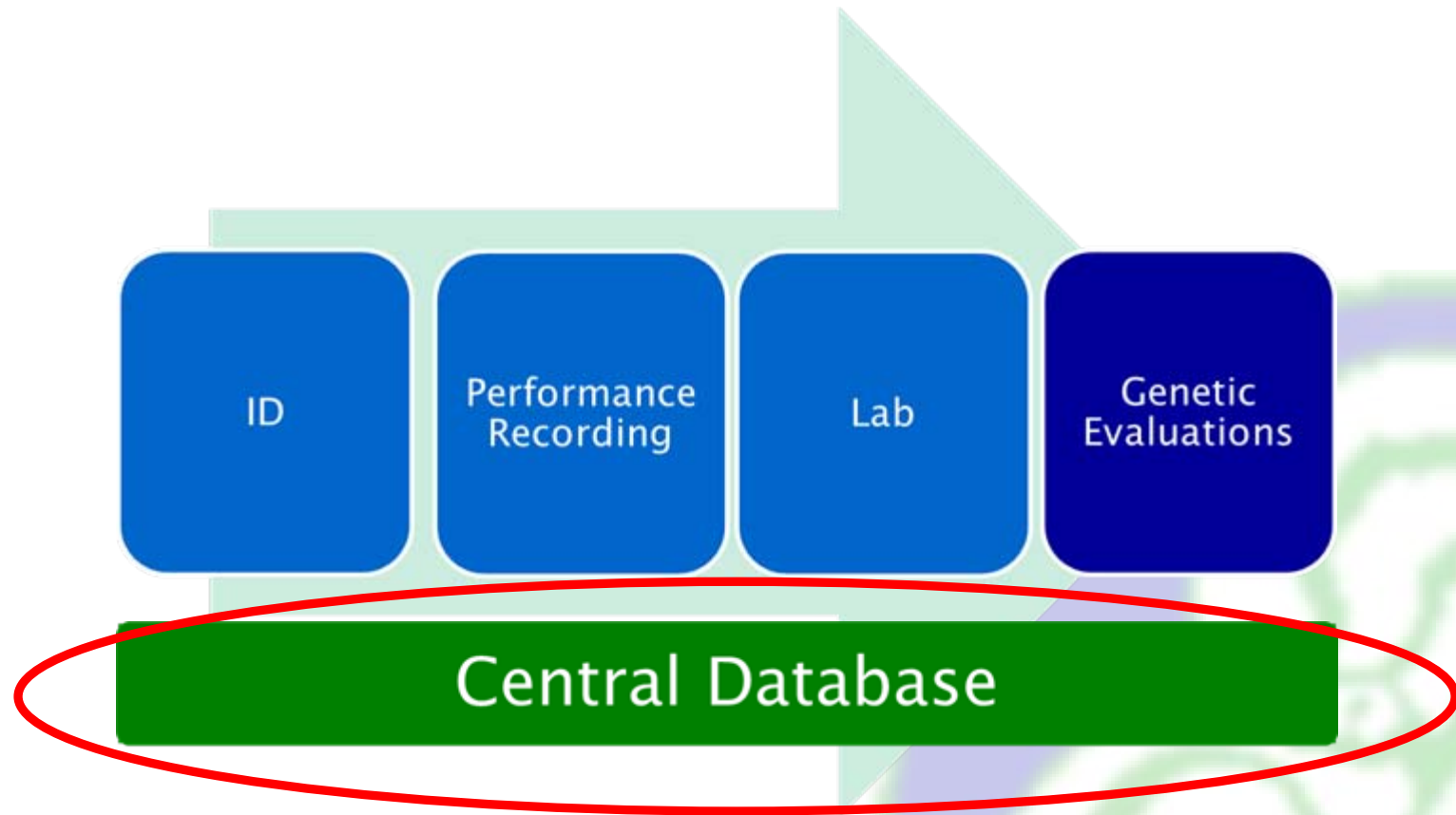


Before you head out on the journey...  
....ICAR has the map & built the road....

# *International Committee for Animal Recording (ICAR)*

ICAR Building Blocks.....

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# What is traceability?

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International  
Organization for  
Standardization

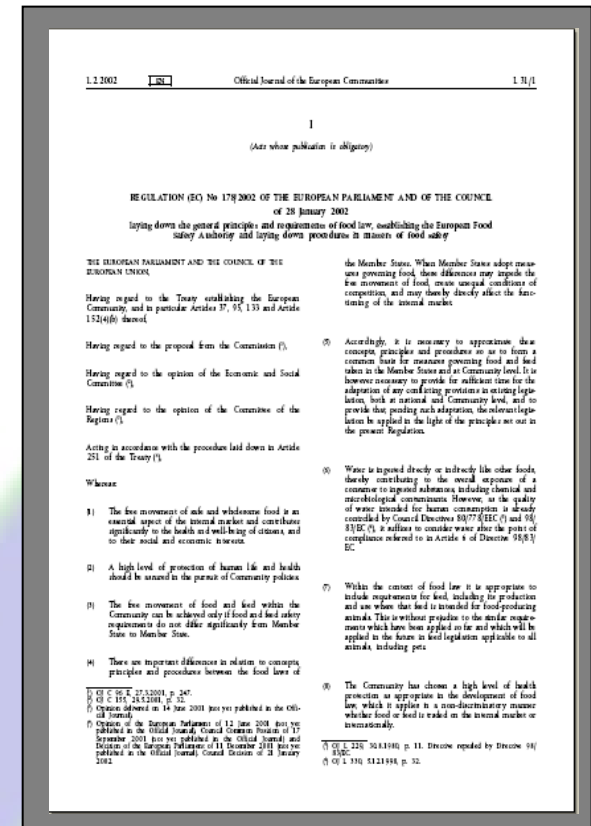
ISO 8402:1994

- *Traceability is the ability to trace the history, application or location of an entity by means of recorded information*

# ❑ What is traceability? Regulation (EC) No 178/2002

*Traceability means the ability to trace and follow:*

- a food,
  - a feed,
  - **a food-producing animal** or
  - a substance intended to be, or expected to be incorporated into a food or feed,
- through all stages of:
- production,
  - processing or
  - distribution.



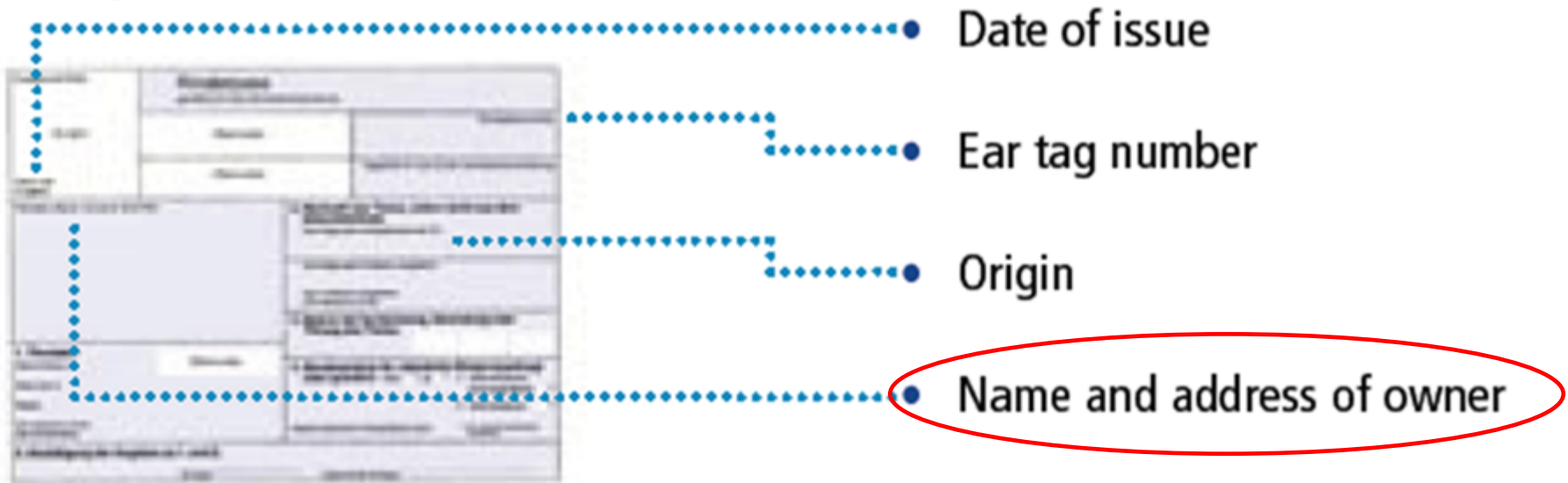
## ► Live animals:

Bovine have to carry ear tags:



## ► Live animals:

Bovine have a passport:



# Animal identification and Traceability

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- The final test of the effectiveness of a traceability system depends very much on **the performance of the database**
- A database should ensure a real time bovine-tracking -system
- This **effectiveness** will depend on how often and how quick the database is “fed”

# *The Cattle Breeding Database*

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## **Milk & Beef Recording Organisations**

- Milk Volumes & Weights

## **AI Organisations**

- Technician Service Data

## **Cattle Breeding Database**

**All Linked to the One ID !**

## **Other data**

- I&R
- CMMS
- Bull Performance Test
- Abattoirs
- International data

## **Herd-books**

- Linear scores
- Weight records

## **On-farm animal events**

- Calving
- Service
- Within-herd ID
- Health/culling
- Weight
- PD
- Dry-off

# ***Cattle Breeding – Farm Events Required?***

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## **Phase 1. ID & ancestry data**

- **Calf ID, Dam ID, DOB**
- ***Sire ID***

## **Phase 2. Performance records**

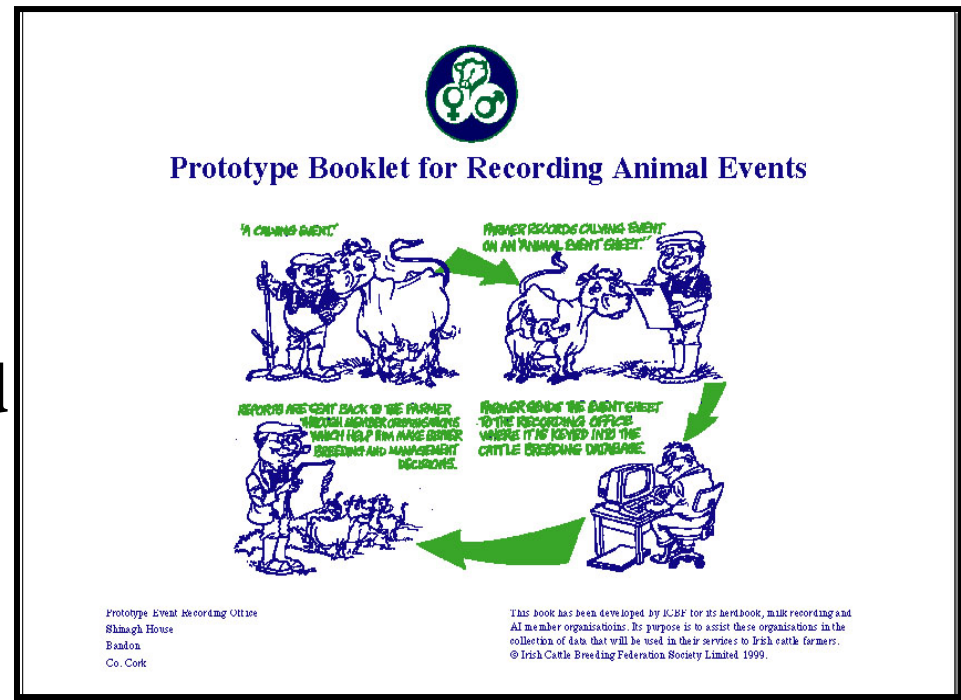
- **Calving performance**
  - **Milk weights/volumes, constituents**
  - **Beef weights/carcass values**
  - **Linear scores**
  - **Fertility data**
- 

# *Animal Events - One ID - One Stop Shop*

## Objective - one step

### 1. Remove duplication

- i. Calf Reg card
- ii. Pedigree birth card
- iii. AI calving survey
- iv. MR enrolment



### 2. Better information for farmers

- Milk recording/breeding records service
- Genetic evaluation (international)

Interbull/ICAR

# Data Recording

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- Data is the lifeblood of ICBF.
- Think of the ICBF database as a huge jigsaw puzzle.
- The more pieces of the “puzzle” we have (data), the more complete the “picture” (genetic indexes) will be.
- Recording sires, calving ease, liveweights, inseminations etc. all feed into genetic evaluations.
- How we collect data must be streamlined and “farmer efficient”....



# *Technologies for data collection*

- Hand held technologies...
  - Milk recording (electronic meters)



All made  
much easier  
by having an  
integrated  
database





# Milk Recording Electronic DIY sustained recording uptake 2014?



## 9 Milk Recording

National Milk Recording Statistics - Herds, Cows & EDIY 19/12/14						
Milk Recording Organisation	Total Herds Recorded YTD 19/12/14	No. EDIY Herds YTD 19/12/14	% Herds EDIY	Total No. Cows Recorded YTD 19/12/14	No. EDIY Cows YTD 19/12/14	% Cows EDIY
Munster	3,910	1,174	30%	337,863	107,185	32%
Progressive	2,525	1,102	44%	247,738	107,363	43%
Tipperary	117	46	39%	10,411	4,133	40%
Total	6,552	2,322	35%	596,012	218,681	37%

**From 381,425 cows in '04 to  
596,012 cows recorded in '14**

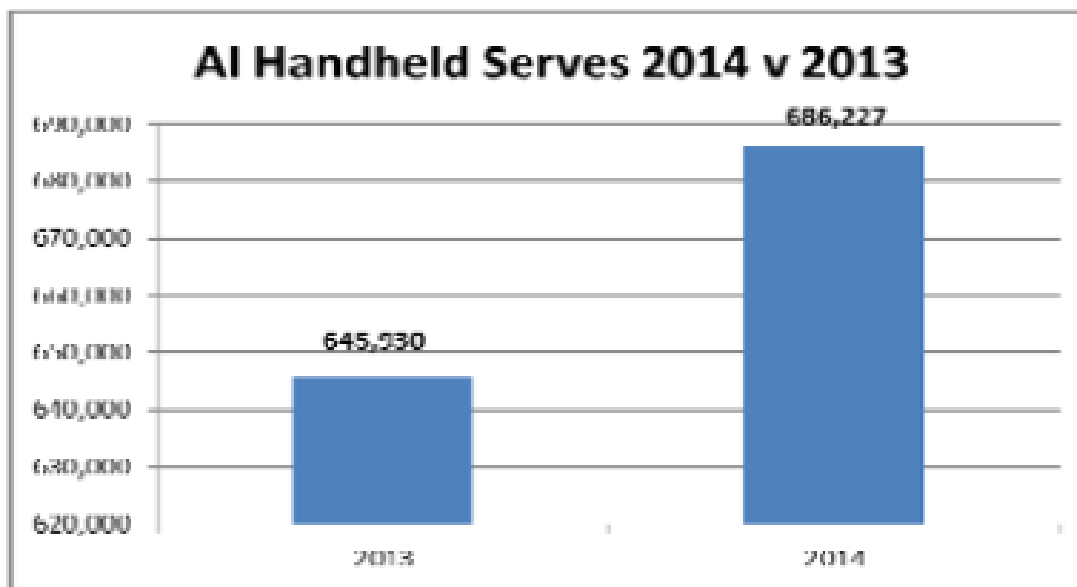
# *A.I. Handheld*

- AI handheld technology
  - Linked directly to database (GPRS).
  - All cows on hand-held.
  - Docket printed on-farm.
  - 240 now in operation (90%)
- Major benefits.
  - Inbreeding & lethal gene check.
  - Farmer support;
    - Sire Advice.
    - Fertility management
  - AI Company support;
    - Fertility management.
    - Semen invoicing & stock control





# Impact of A.I. Handheld sustained into 2014 for number serves database?

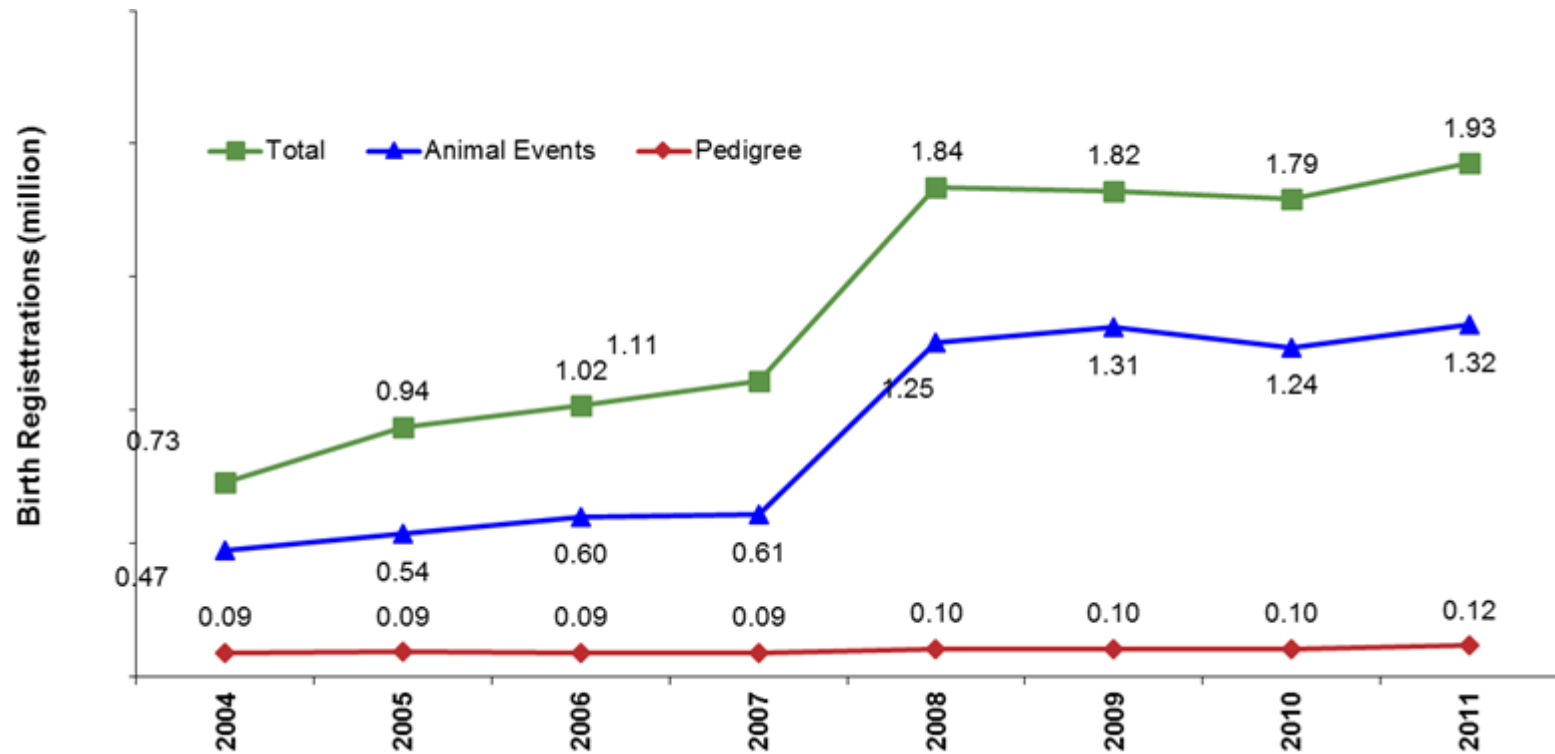


No. of AI serves hitting database Doubled from 305k in '05 to 686K in '14

# Ireland's Beef Breeding Information Service for Farmers – **Beef HerdPlus®**



# Beef Data Bank



- Vast majority of beef data in the ICBF database originates from commercial herds.
- All Pedigree Beef Breed Societies use the ICBF Herdbook Program – Taurus (28k registrations/14 breeds).

# HerdPlus<sup>®</sup> Beef Overview

- HerdPlus is a Beef Breeding Information Service.

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- Located at the centre of the ICBF Database.
- Farmers record information on their animals once

But.....

- Lots of other pieces of information are recorded on the same animals over their lifetime.
- HerdPlus Service pulls ALL of this information together.

Irish Cattle Breeding Federation (ICBF) - Microsoft Internet Explorer



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Address http://www.icbf.com/ Go Links

## Services

- [HerdPlus](#)
- [GENE IRELAND](#)
- [Genetic Evaluations](#)
  - [Farm Software Bull Files](#)
  - [Active Bull Lists](#)
- [Genomic Selection](#)
  - [Beef](#)
  - [Dairy](#)
- [Tully Beef Centre](#)
- [GROW](#)
- [Milk Recording](#)
- [Herdbook Services](#)
- [Suckler Scheme](#)



[ICBF Sign Up Form](#)

## Publications

- [This Week's Report \(pdf\)](#)
- [Past Weekly Reports](#)
- [Cattle Statistics](#)
- [Annual Reports](#)
- [Academic Papers](#)
- [Glossary](#)

## Learn more about ICBF

- [Contact Information](#)
- [Costs and Benefits](#)
- [The Database](#)
- [Members](#)
- [Structure](#)
- [International Representation](#)
- [Legal and Privacy](#)

Any comments on the new icbf website can be submitted [here](#)

## HerdPlus

Profit through Science

### Online Services

User name

Password

[Where do I get my username and password?](#)  
[Experiencing problems - Click Here](#)  
[Register your Organization](#)

### Bull Search

Search by:

☒ AI Code, Tag, Herd Book No, ITT

☐ Name or part of name

[Active Bull Lists](#)



**CALVING REPORT**



**NITRATES REPORT**



**SLAUGHTER  
REPORT**



**INBREEDING  
CHECKER**



**€URO-STAR REPORT**



**€URO-STAR  
CATALOGUE**



**SUCKLER COW  
REPORT**



**DIRECT HELPLINE TO  
ICBF STAFF**

**Herd Management Tools For Increasing Profit**



## Suckler Cow EURO-STAR REPORT



• **Suckler Herd: Mixture of homebred & bought in Females...**

**Use AI or a Pedigree Bull...**

**But**

- **What are the genetic strengths/weaknesses of your Herd / Stockbull?**
- **What is the Milk & Fertility potential of your bought replacements ?**



## 1. *How she looks. ?*

- *Farmer's own opinion*



*Also need objective info. i.e.*

## 2. *What her Genetic Potential is.*








- *ICBF has a system in place to:*
- *Identify Good & Bad Cows in your herd.*
- *Based on how much profit she has made for you*

€€€€€€€€





# SUCKLER COW REPORT

Animal Details					Ancestry Details					Euro-Star Index									
Jumbo: 565 Official Tag: IE211063470565 Animal Name: Date of Birth: 20/02/2001 Breed: LM (71.88%), UN (28.13%) Herdbook: Scored: Weighed: 22/11/2001 BLUP Index MUSCLE   SKELETAL   DOCILITY					Sire's Sire:	8790000092 FIDELE				Within Breed		Index	Rel%	Across Breed					
										★★★★★	Suckler Beef Value	€ 168	43%	★★★★★					
					Sire's Dam:	5687000466 COLOMBE				Beef Value									
										★★★	Calving Traits	€ -1	35%	★★★★★					
					Sire:	HTA HORTENSIA				★★★★★	Weanling Export	€ 90	50%	★★★					
										★★★★★	Beef Carcass	€ 97	51%	★★					
					Dam:	WPA203728				Replacement Value									
										★★★★★	Milk & Fertility	€ 126	24%	★★★★★					
					Dam's Sire:					★★★★★	Calf Quality	€ 281	52%	★★★					
										Other Key Traits									
Calving & Fertility Performance										Weanling & Carcass Performance									
	Calving Date	Tag Number	Calving Survey	Calving Interval	Sex	Current Status	Sire	Sire Breed	Age days	 Weight Kgs	 Growth Kg/Day*	 Loin (1-15)	 Hind Quarter (1-15)	Calf Quality	 Docility	Age at Slaught. (months)	 Carcass Conf. & Fat	 Carcass Weight	
1	11/02/2003	IE211063410808	Normal		M	Dead	DDI	SI		248	0.76					25	R3	336	
2	05/03/2004	IE211063420949	Normal	387	M	Dead	0011Y	LM		306	1.1					24	U4L	438	
3	20/02/2005	IE211063491078	S. Assis	351	M	Dead	90348	CH		300	0.99					24	U3	409	
4	15/01/2006	IE211063491144	Normal	328	M	Dead	90348	CH								24	U3	454	
5	22/01/2007	IE211063441288	Normal	371	F	In herd	HKG	SI		308	1.09								
6	27/01/2008	IE211063411475	Normal	369	M	Dead	HKG	SI		183	0.77					8			
7	17/01/2009	IE211063481572	Normal	355	M	In herd	HKG	SI											

- Report allows you make use of all available information
- Make better Breeding Decisions



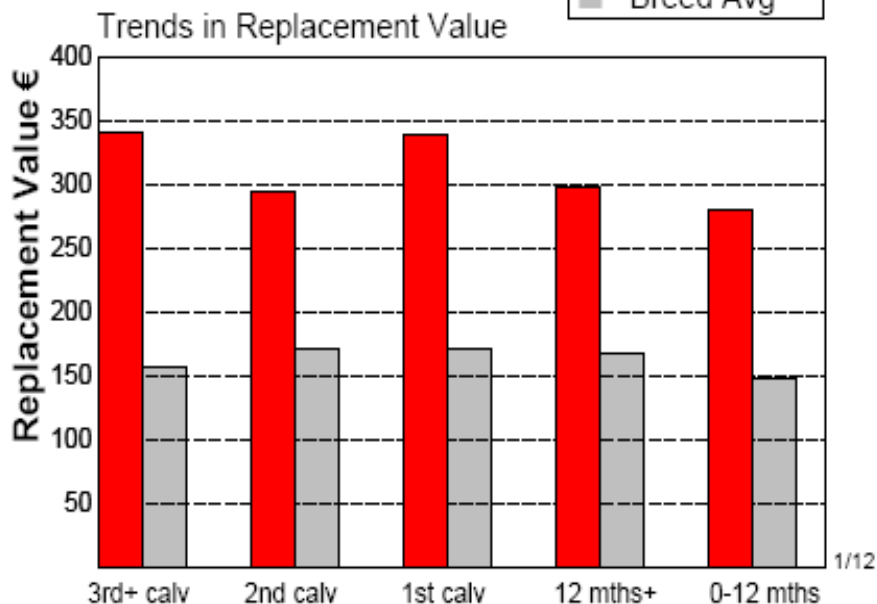
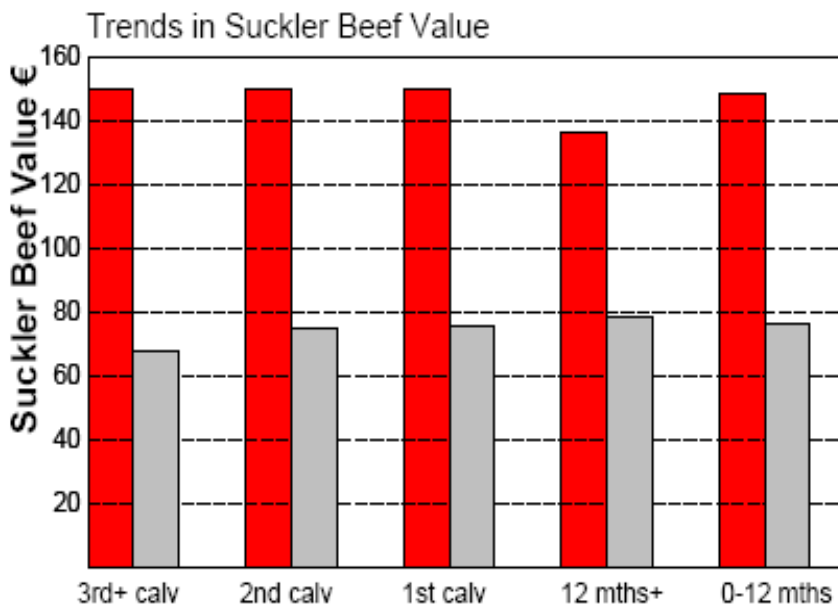
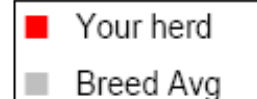
## 2. Beef €uro-Star Herd Summary - Female Young-stock.

Average beef €uro-Star values for Commercial young-stock on your farm.

>12 months	26	-€2	€71	€94	<b>€ 136</b>	€30	€268	4.6	
		****	*****	*****	<b>*****</b>	****	*****	****	
		****	***	***	<b>*****</b>	****	****	***	
0-12 months	22	-€8.9	€94	€123	<b>€ 148</b>	-€54	€335	7	
		*	*****	*****	<b>*****</b>	*	*****	*	
		**	*****	****	<b>*****</b>	***	*****	**	

## 3. Beef €uro-Star Herd Summary - Genetic trends



Genetic trends for Commercial females on your farm.



- Compares your Herd's Performance to National Average Figures



## €URO-STAR REPORT

		Suckler Beef Value (Reliability %)					
Breed		Beef Value				Replacement Value	
Group	No.	Calving Traits (Rel %)	Weanling Export (Rel %)	Beef Carcass (Rel %)		Milk & Fert (Rel %)	Calf Value (Rel %)
		Within Breed Across Breed	Within Across	Within Across		Within Across	Within Across
New Bull	1	-€ 4	€ 55	€ 81	€ 128	€ 113	€ 205
		(32%)	(37%)	(35%)	(38%)	(25%)	(36%)
		*****	***	****	*****	*****	****
		***	*	****	****	****	*****

- Gives Overview of Strengths & Weaknesses of an animal and on a farm level of the Suckler Herd



## INBREEDING CHECKER



Photo Courtesy of Irish Farmers Journal

- **Stockbull/AI Sire:** *About to purchase new Bull.....*
- 

- Is he already too closely related to cows I have at home?
- Are there daughters of this AI Sire already in my herd?



## ICBF Web Application

TEAGASC  
Logged in at : 30-Mar-2009 12:07

HOME - HerdPlus

CONTACT SUPPORT

LOG OUT

## Results Sheet



? excel csv

Basic Results

Detailed Results

Designator: IE2110634

Name: TEAGASC

Address: KILDALTON COLLEGE PILTOWN CO KILKENNY

Females

Bull(s)

Click Column Heading to sort by that attribute. Number of Animals Displayed : 72

Reset

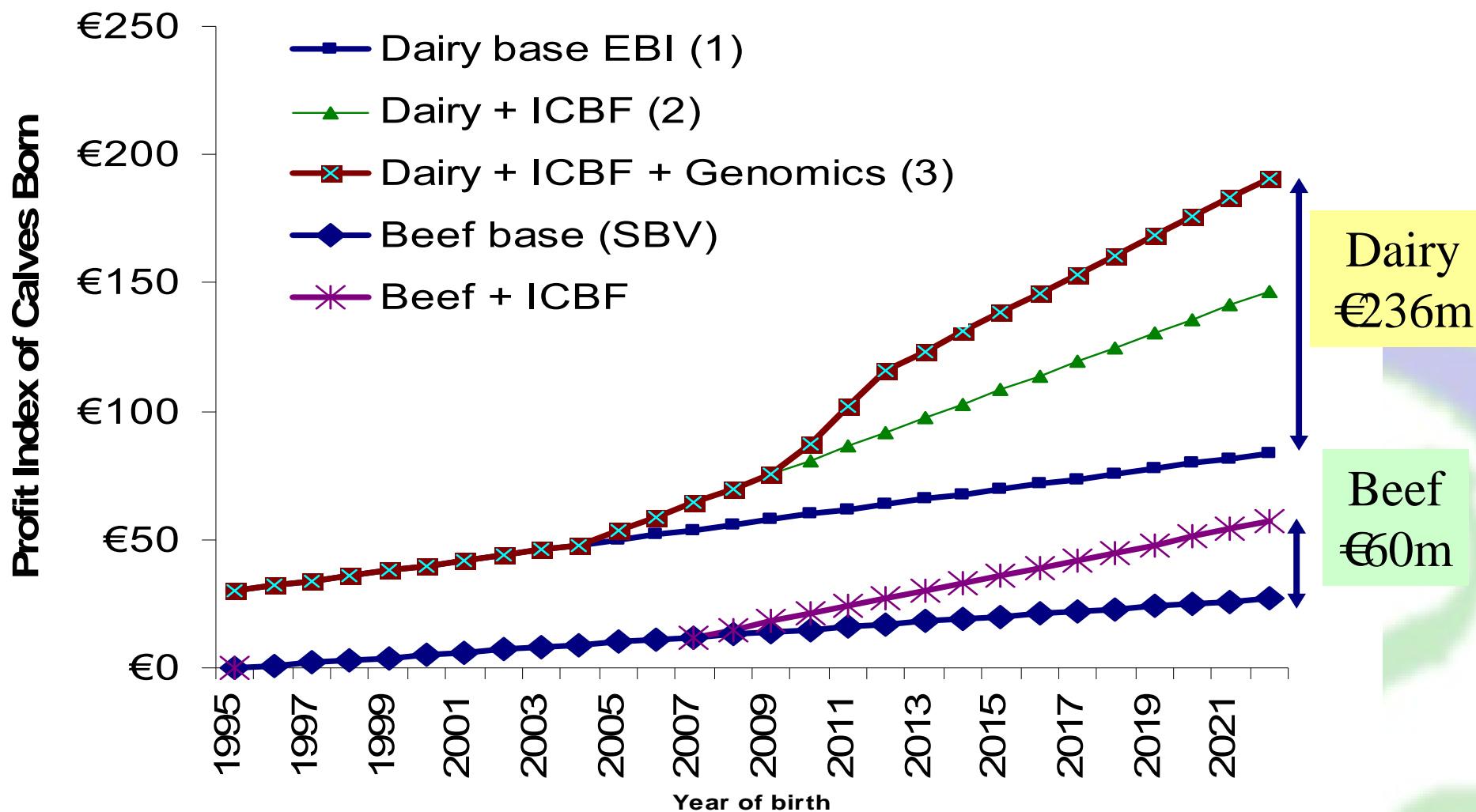
SI	Show All																		
Jumbo	Animal Number	Date of Birth	Breed	HTA (LM)															
48P	<a href="#">IEWPLS0048P</a>	01/02/96	HO (13%), FR (25%), LM (50%), UN (13%)	OK															
100Q	<a href="#">IEWPLS0100Q</a>	29/01/97	HO (19%), FR (19%), LM (50%), UN (13%)	OK															
329	<a href="#">IE211063410329</a>	10/02/99	LM (22%), SI (50%), UN (28%)	OK															
332	<a href="#">IE211063450332</a>	11/02/99	HO (25%), FR (19%), LM (50%), UN (6%)	25.00															
334	<a href="#">IE211063470334</a>	11/02/99	LM (22%), SI (50%), UN (28%)	OK															
338	<a href="#">IE211063420338</a>	17/02/99	HO (13%), FR (25%), LM (50%), UN (13%)	25.00															
374	<a href="#">IE211063460374</a>	16/03/99	HO (31%), FR (13%), LM (50%), UN (6%)	OK															
397	<a href="#">IE211063440397</a>	13/04/99	HO (25%), FR (25%), LM (50%)	OK															
446	<a href="#">IE211063430446</a>	14/02/00	HO (6%), FR (13%), LM (75%), UN (6%)	OK															
460	<a href="#">IE211063410460</a>	28/02/00	LM (22%), UN (78%)	No Sire Recorded - Inbreeding Check not possible															
509	<a href="#">IE211063480509</a>	11/04/00	LM (22%), UN (78%)	No Sire Recorded - Inbreeding Check not possible															
513	<a href="#">IE211063440513</a>	14/04/00	HO (25%), FR (25%), LM (50%)	OK															
548	<a href="#">IE211063460548</a>	09/02/01	CH (50%), LM (13%), SI (25%), UN (13%)	OK															
565	<a href="#">IE211063470565</a>	20/02/01	LM (72%), UN (28%)	25.00															
684	<a href="#">IE211063420684</a>	03/03/02	HO (75%), FR (25%)	OK															
744	<a href="#">IE211063440744</a>	25/10/02	HO (16%), FR (13%), LM (72%)	OK															

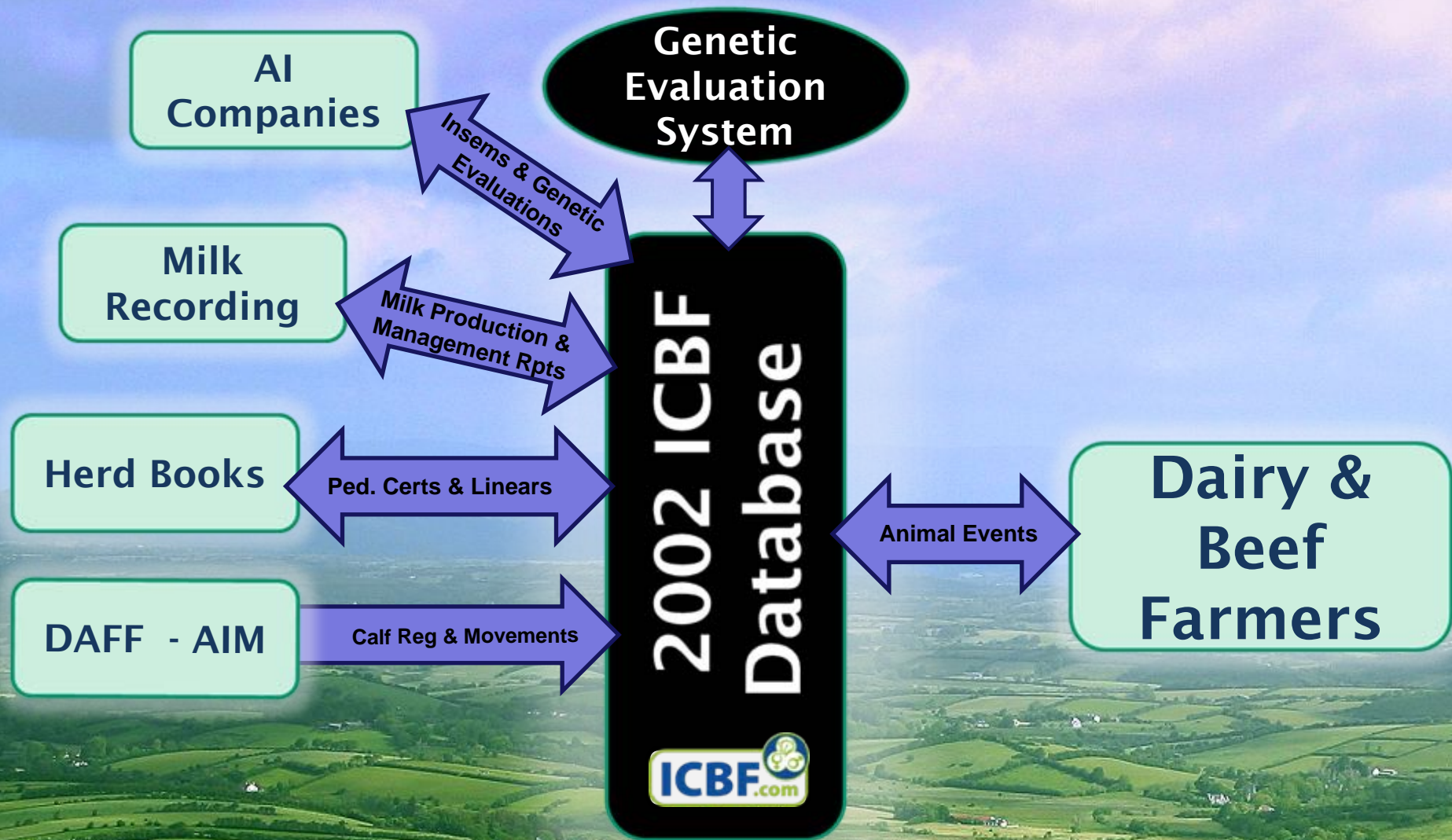


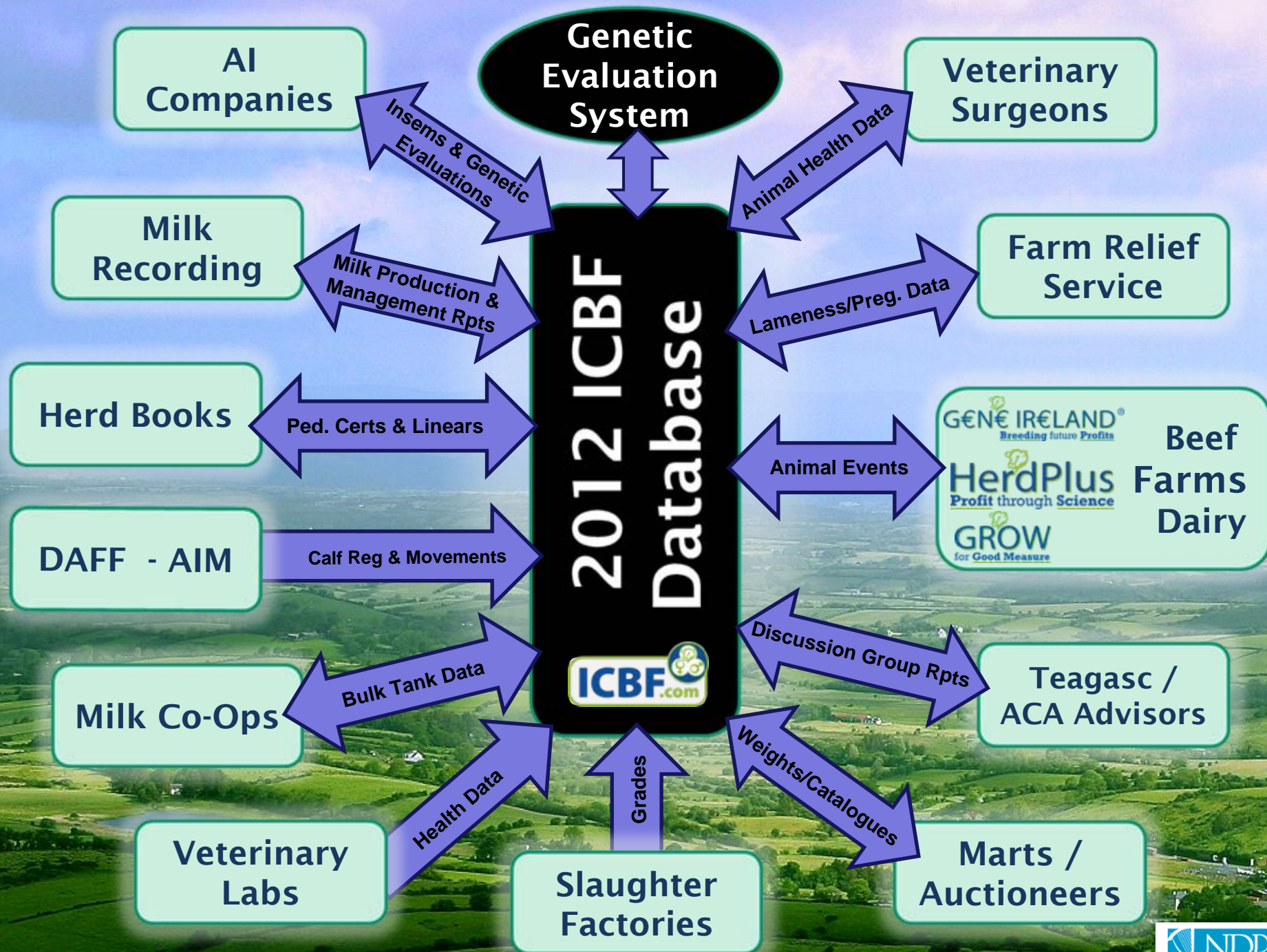
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# Projected Impact of ICBF on Genetic Gain of Dairy & Beef Calves Born in Ireland.







# Summary

- Animal breeding is a unique and powerful tool for improving the profitability of cattle farming.
- 
- Irish animal breeding has been transformed through a unique partnership between farmers, the breeding industry and DAF.
  - The national identification and traceability system adopted by Ireland has greatly facilitated Irish cattle breeding.
  - Continued investment in cattle breeding and technologies will give excellent returns.
  - The model established relies heavily on international cooperation and collaboration.
  - Membership and full participation in the activities of ICAR and Interbull are fundamental to the achievements in Ireland cattle breeding.

# HerdPlus – Social Networks



facebook Search for people, places and things Irish Cattle Breeding Federation

**Irish Cattle Breeding Federation (ICBF)**  
2,769 likes · 56 talking about this

Farming/Agriculture  
Welcome to the Official ICBF Facebook Page. Visit our website on [www.icbf.com](http://www.icbf.com)

About

## Please Follow!

Status

What have you been up to?

**Irish Cattle Breeding Federation (ICBF)** shared a link.  
Yesterday

Have you had animals born with defects? If so, ICBF would like to know!

**New and easier system designed to record defects in calves | ICBF**  
[www.icbf.com](http://www.icbf.com)

ICBF, Home of HerdPlus, is Ireland's cattle breeding organisation providing a central database that allows farmers and industry...

**Ross Hamilton**  
Facebook Group for Irish Dairy Farmers.  
17 February at 21:41

**Progressive Genetics**  
Upcoming Dairy Meetings in West of Ireland  
13 February at 16:35

**Alan Hill**  
why can I not access your website. Keeps coming up address...  
1 · 2 January at 20:57

**Progressive Genetics**  
Still available - Finishing Specialist.  
5 · 29 November 2013 at 12:52

**David Power**  
Crossbreeding with Norwegian Reds  
21 November 2013 at 17:49

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