IRISH CATTLE BREEDING FEDERATION

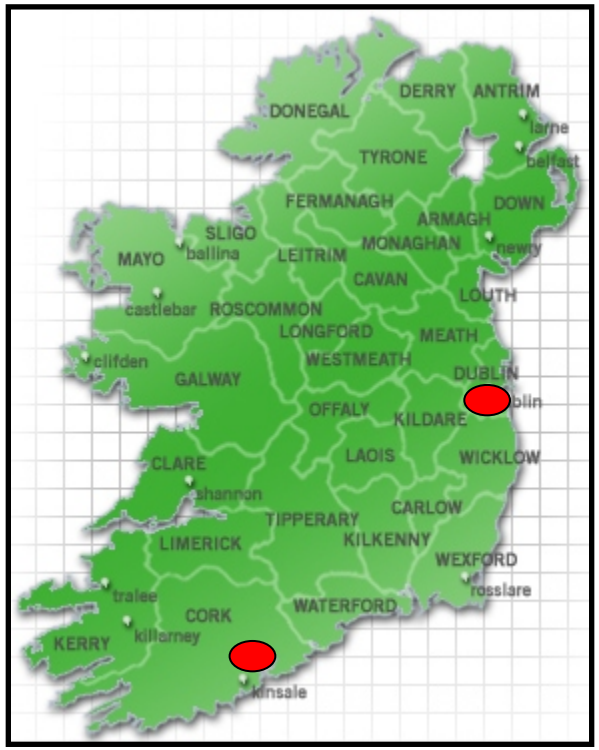
Using integrated solutions to achieve high levels of performance recording in Beef Herds

Sean, Coughlan

2nd June 2010
Riga, Latvia

National Development Plan
Transforming Ireland

A quick look on the map



Beef Production in Ireland*

2 million cows

- **1 000 000 beef cows**
- **17 cows / herd**
- **6 major beef breeds**
- **350k Dairy cows also bred to beef sires**

Destination

- 22% replacement

- 16% Live export

- 62% Slaughtered in Ireland

* Stat 2006

Key Components To Successful Integration

- There are a number of key components to achieving high levels of performance recording falling into three categories
  - Systems
  - Processes
  - Culture of cooperation across the industry
- Inevitably, success is dependent on synergy between the systems and processes, which is supported by the appropriate culture.

Key Components To Successful Integration

- Ireland's Dept of Agriculture Systems
- Setting up of ICBF and the cattle breeding database
- Animal Events recording
- Animal Welfare, Recording and Breeding Scheme
- A culture of sharing and cooperation

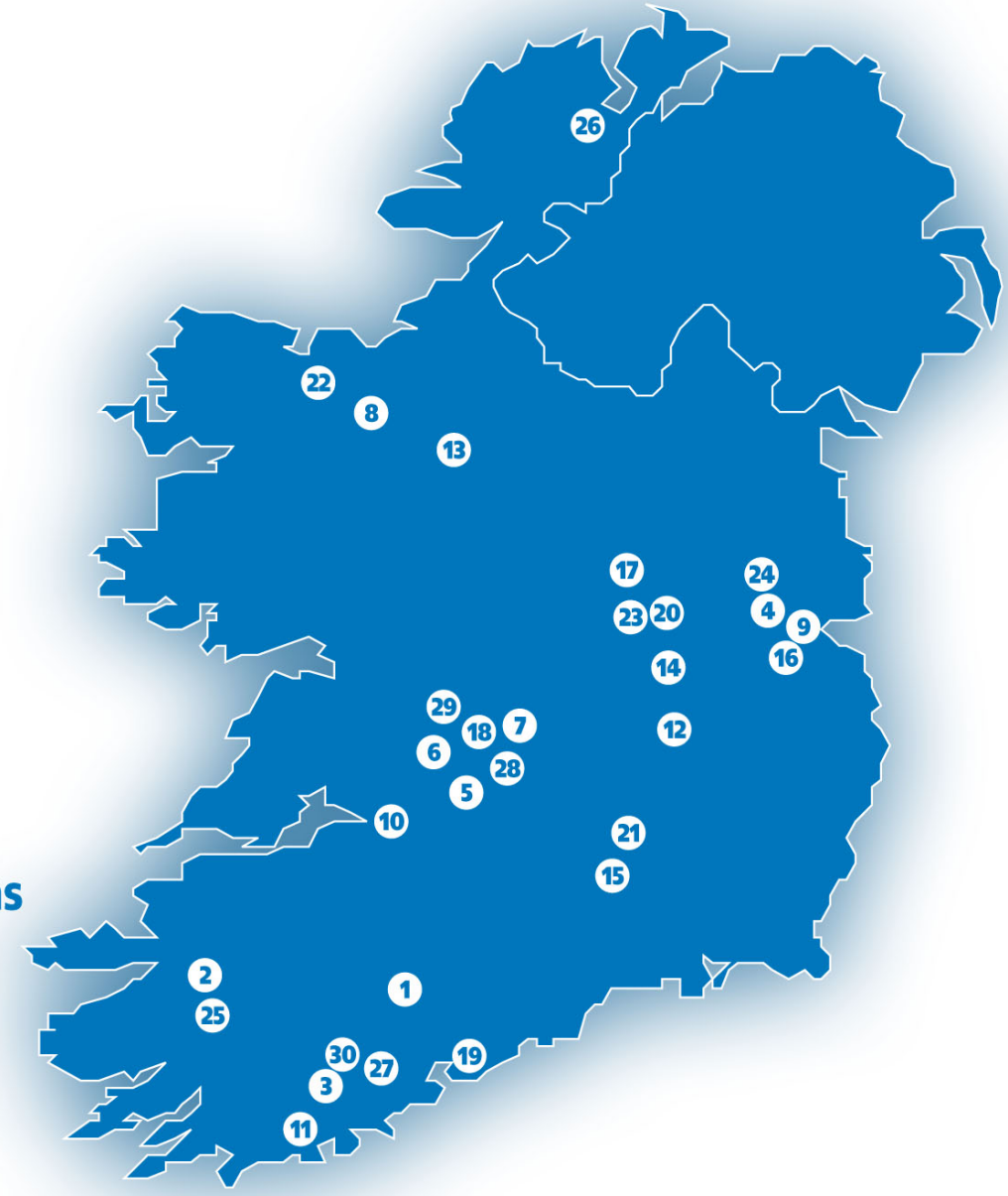
Systems – Dept of Agriculture (DAFF)

- In 1996, the concept of a lifetime identifier (tag) was introduced in Ireland. This would allow a multitude of identifiers of animals to be replaced over time by one form of identification
- The identification and registration system was complimented by a comprehensive animal movement system (CMMS)
- These systems were very well implemented in Ireland by DAFF and its agents, and have since been fundamental to the integration of data across systems.
- These systems are the subject of on-going improvement programmes under the Animal Identification and Movement System (AIM).
- DAFF have facilitated the use of the data for cattle breeding purposes

Systems – Central Cattle Breeding Database

- In 1998, Irish Cattle Breeding Federation (ICBF), with Dr. Brian Wickham as chief executive was set up
- Having set up the organisation, the first main task was to set up the central cattle breeding database
- This was a significant task, with data and processes from over 30 different sources needing to be consolidated
- The following slide gives a geographical overview of those shareholders involved in the set-up of ICBF.

One Database, Many Partners
less duplication and cost for farmers



AI

Munster AI
1 - Dairygold
2 - Kerry
3 - SWS
4 Progressive Genetics
5 Dovea AI

Milk Recording

1 Dairygold
2 Kerry
3 SWS
4 Progressive Genetics
6 Arrabawn
7 Tipperary
8 Connacht Gold

Farm Organisations

9 IFA
10 ICMSA

Herdbooks

Holstein Friesian 11
Belgian Blue 12
Angus 13
Aubrac 14
Blonde d'Aquataine 15
Charolais 16
Hereford 17
Limousin 18
Normande 19
Parthenais 20
Piedmontese 21
Shorthorn 22
Simmental 23
Jersey 24
Kerry 25
MRI 26
Montbeliarde 27
Rotbunt 28
Saler 29

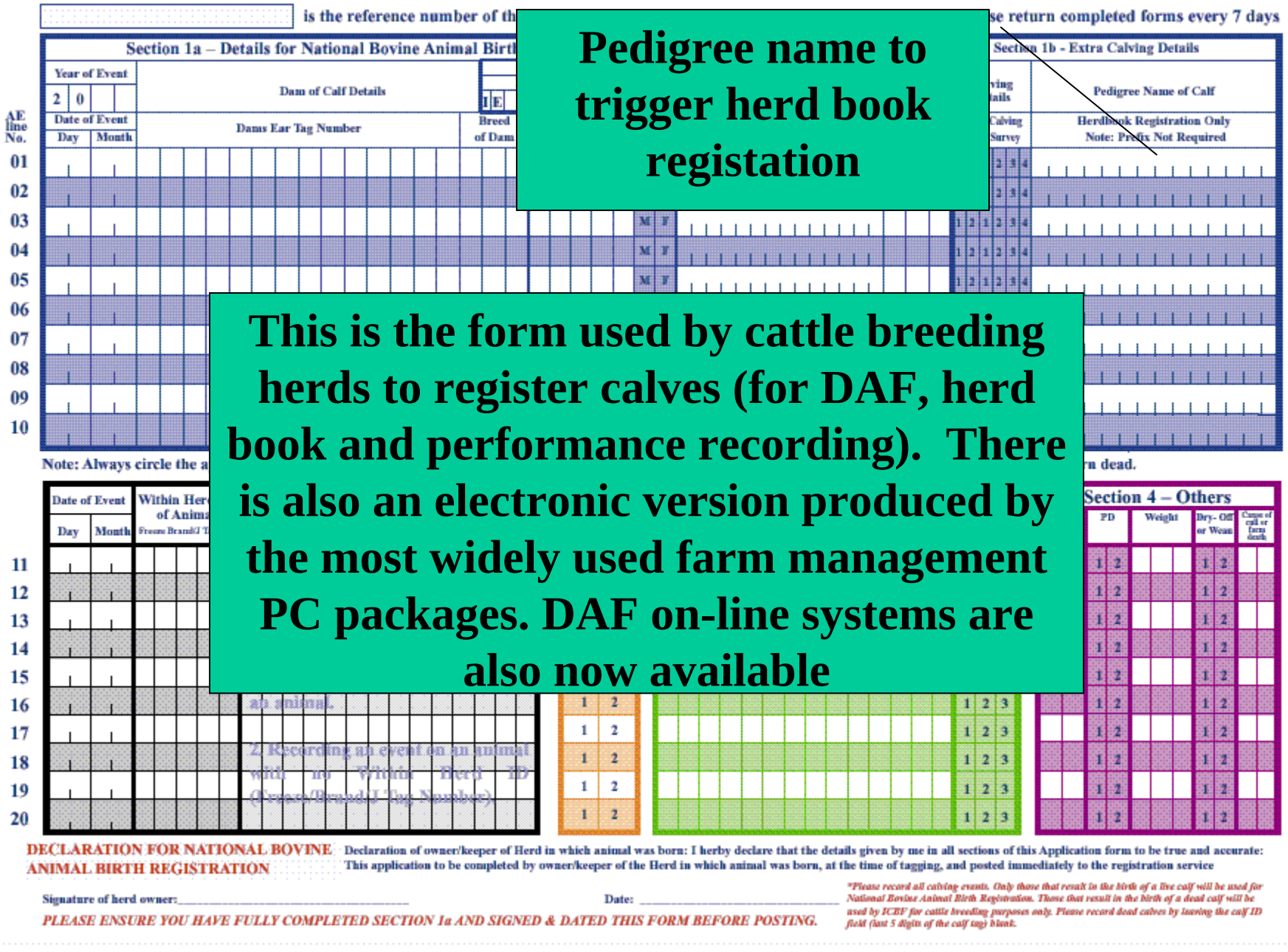
ICBF 30

Animal Events Recording

- Prior to the setting up of ICBF, there was no mainstream process for recording the sires of calves at birth.
- In 2002, Animal Events recording was launched.
- It's key objective was to allow mainstream recording of sires at birth, and remove duplication
  - White cards
  - Pedigree birth cards
  - AI calving survey
  - Milk/Beef Recording
    - Enrollment
    - Calving Dates
- The following slide gives an example of the original Animal Events sheet

Pedigree name to trigger herd book registation

This is the form used by cattle breeding herds to register calves (for DAF, herd book and performance recording). There is also an electronic version produced by the most widely used farm management PC packages. DAF on-line systems are also now available



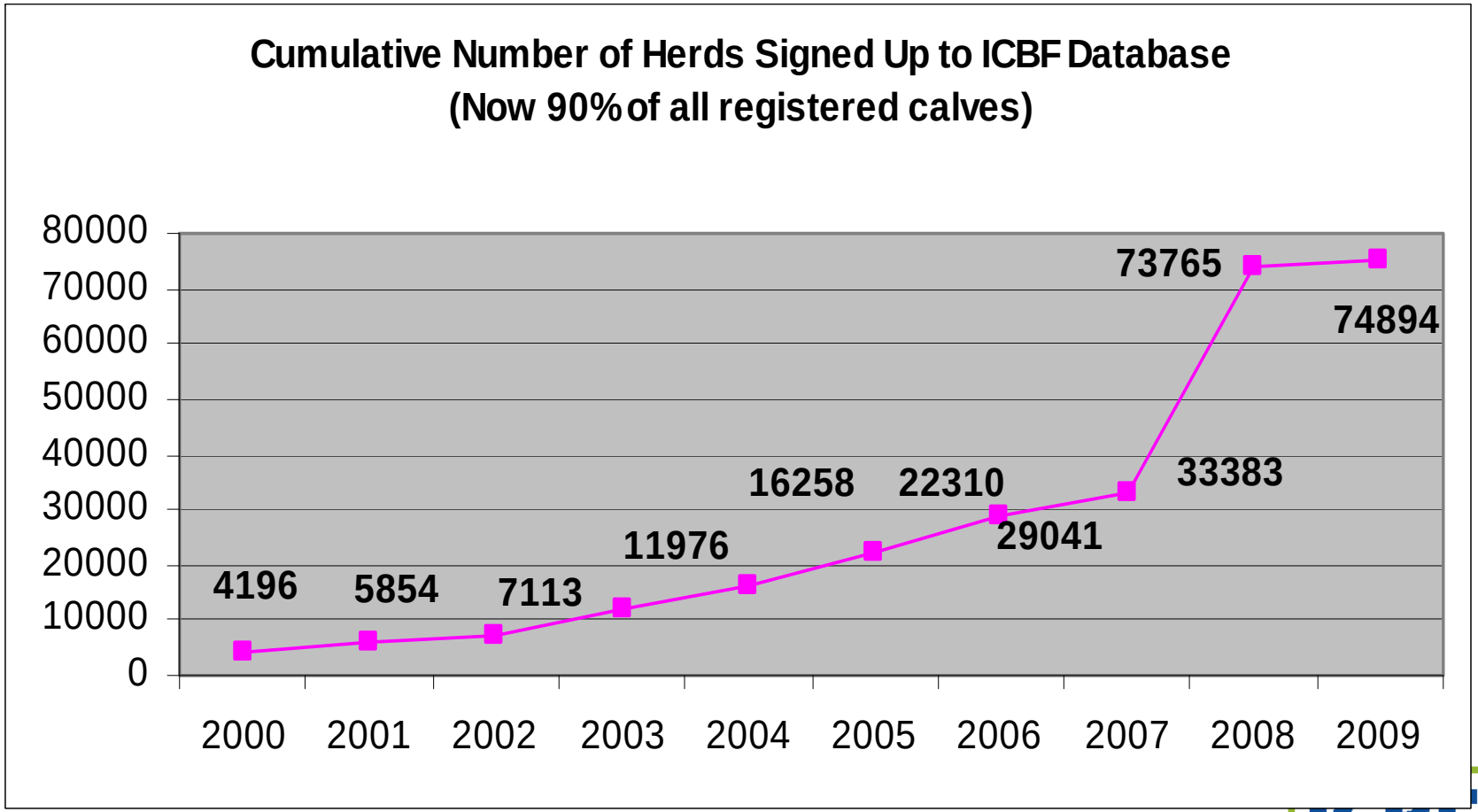
Animal Welfare, Recording, and Breeding Scheme (AWRB)

- Launched on Jan 1st 2008
- Has revolutionised beef performance recording in Ireland
- Brought over 40k herds into main-stream recording through the roll-out of Animal Events
- Has both a welfare and breeding focus
- Is sustainable
- Electronic and Paper based recording

Key Elements of the Suckler Cow Welfare Scheme

- Driven by DAFF and Farmer Representative Organisations
- **Sire** of calf and calving ease recorded at birth via Animal Events
- Disbudding by 21 days
- Recording of castrations
- Meal feeding introduction – min 4 weeks prior to weaning, 2 weeks after weaning
- Calf quality and calf docility scores at weaning
- From a cattle breeding perspective, the results have been dramatic.

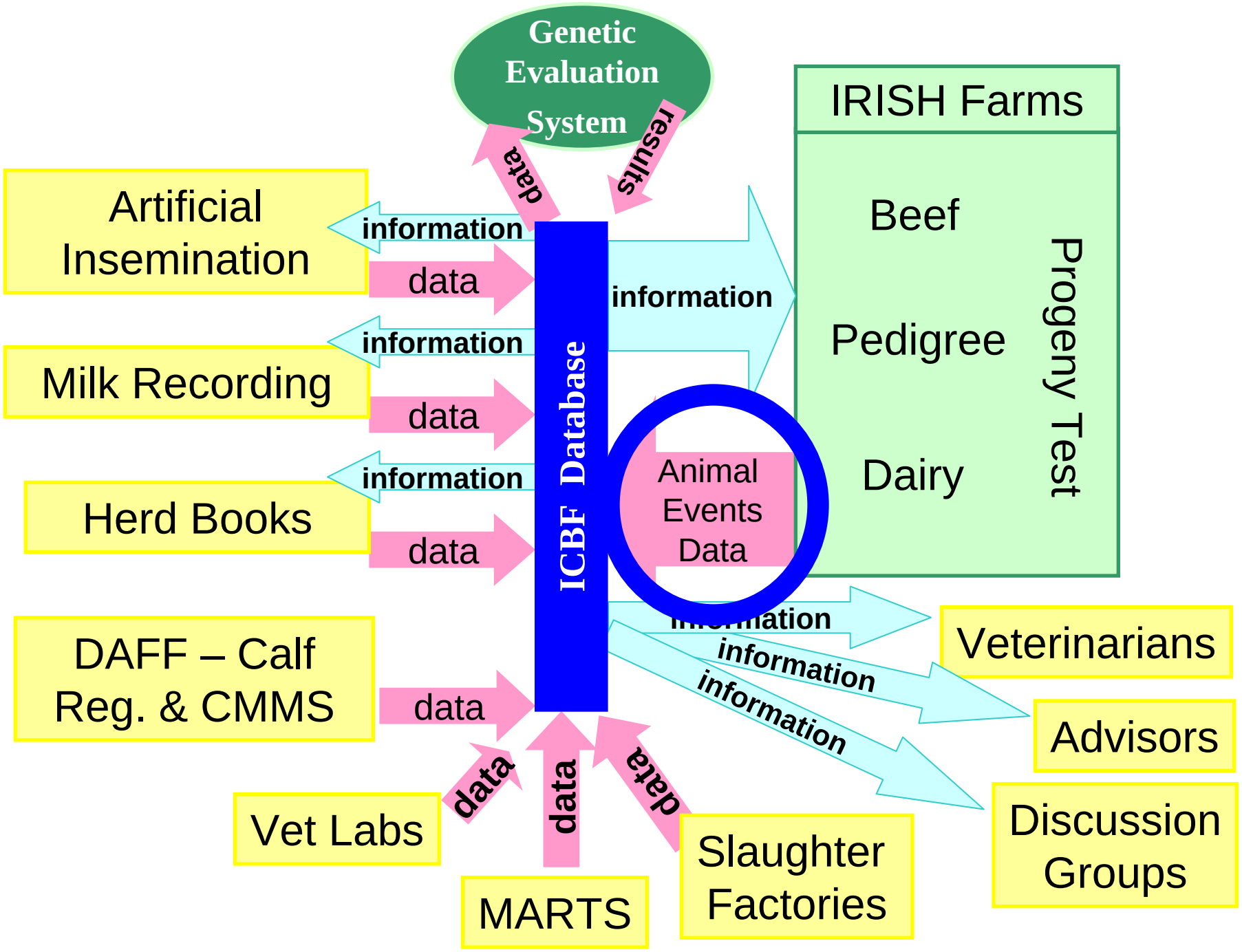
ICBF Database has 90% coverage of breeding animals in Ireland



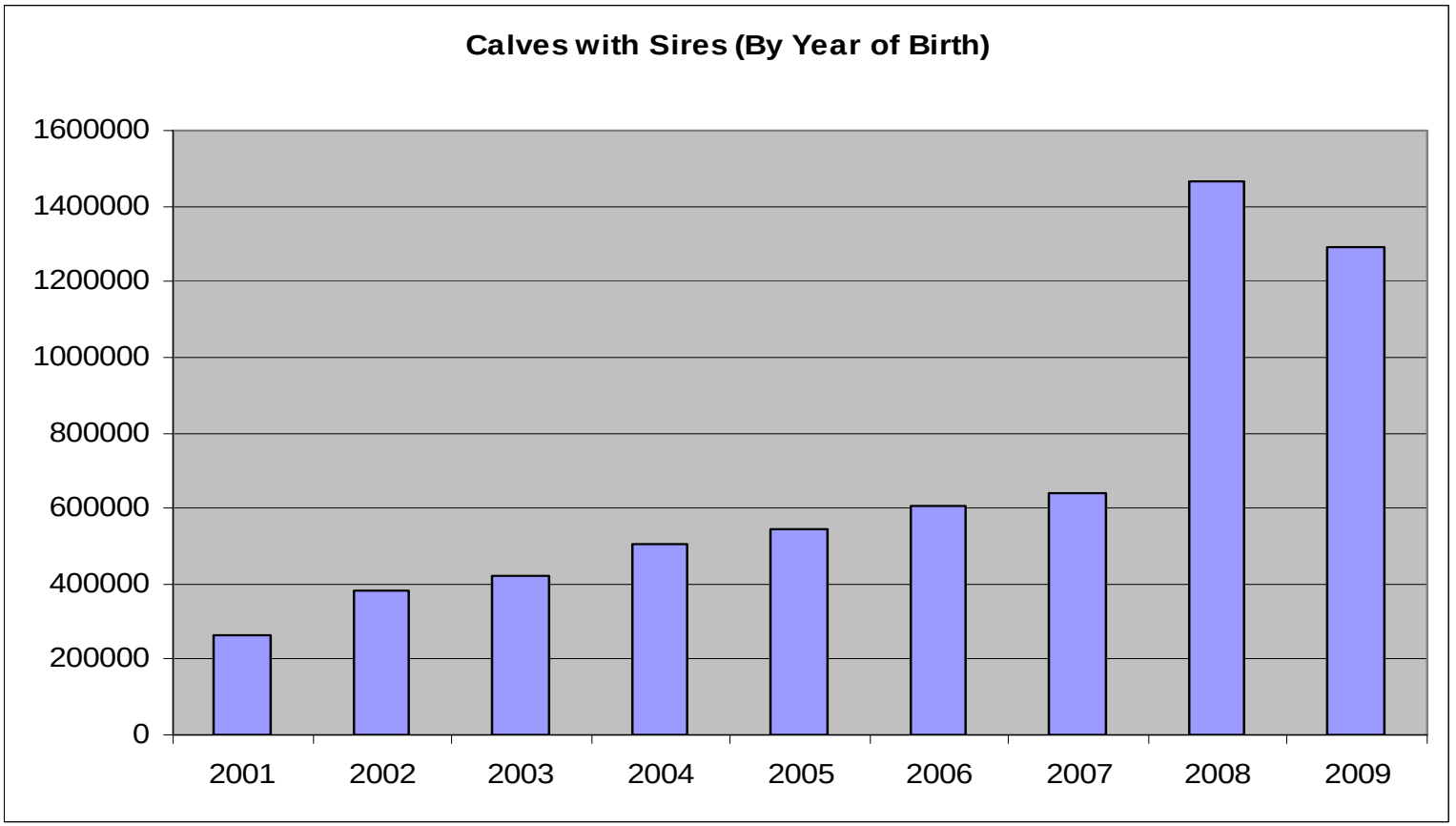
Fostering and Developing a Culture of Sharing and Cooperation

- Having a culture of 'working together for the benefit of cattle farmers' is critical in order to maximise the benefit of systems and processes.
- The culture of sharing has been fundamental to ICBF since its inception.
- ICBF's status as a 'non-profit' making entity has been helpful in this regard.
- Government support though the Dept of Agriculture in terms of data sharing has been hugely beneficial
- Farmers and their cooperatives have been very supportive – each of the 75,000 herd-owners have given individual permission to access their data for cattle breeding purposes

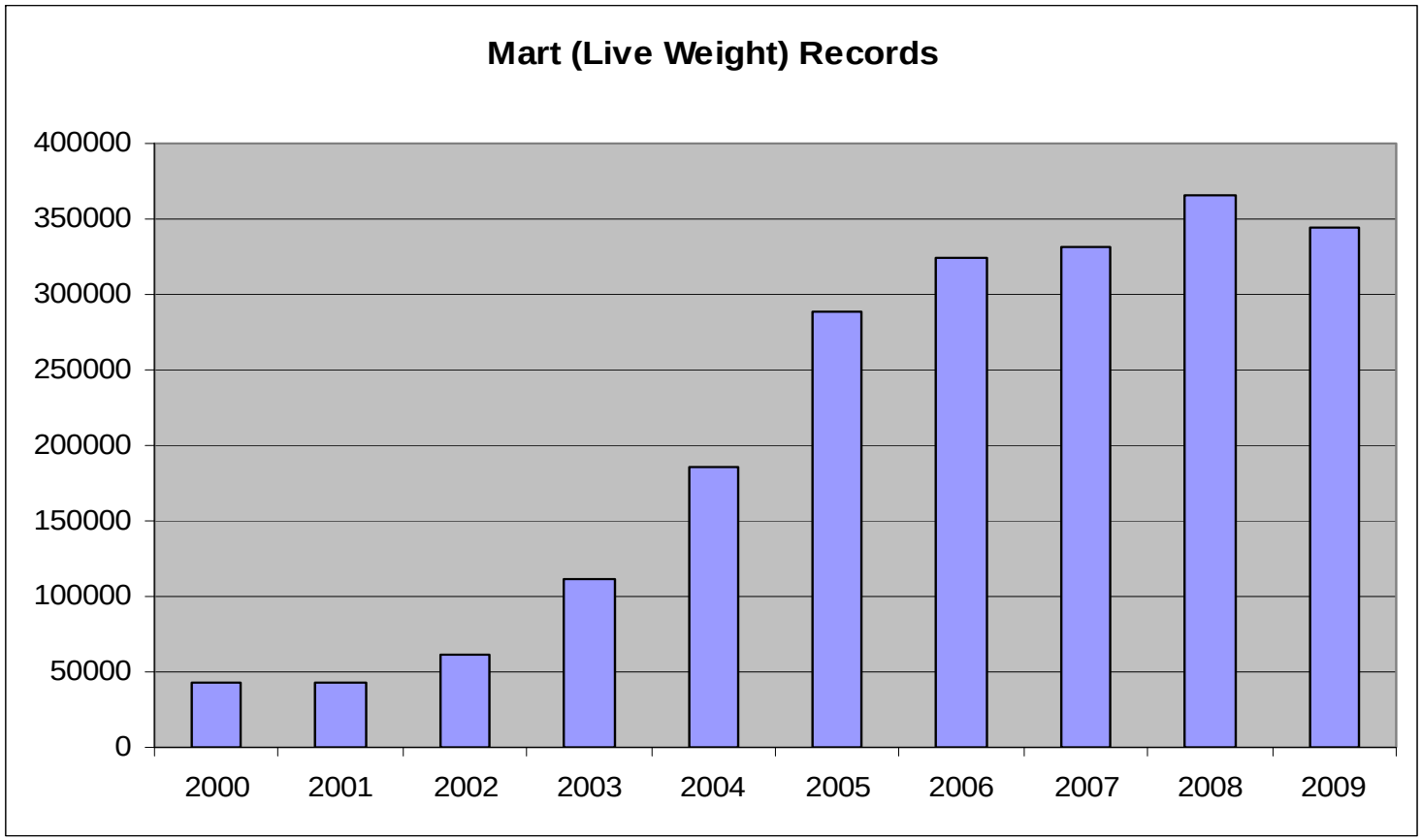
The Result (so far)


Genetic Evaluation System
data
results
IRISH Farms
Beef
Pedigree
Dairy
Progeny Test
Artificial Insemination
information
data
Milk Recording
information
data
Herd Books
information
data
DAFF – Calf Reg. & CMMS
data
ICBF Database
information
Animal Events Data
information
information
information
Veterinarians
Advisors
Discussion Groups
Vet Labs
data
MARTS
data
Slaughter Factories
data

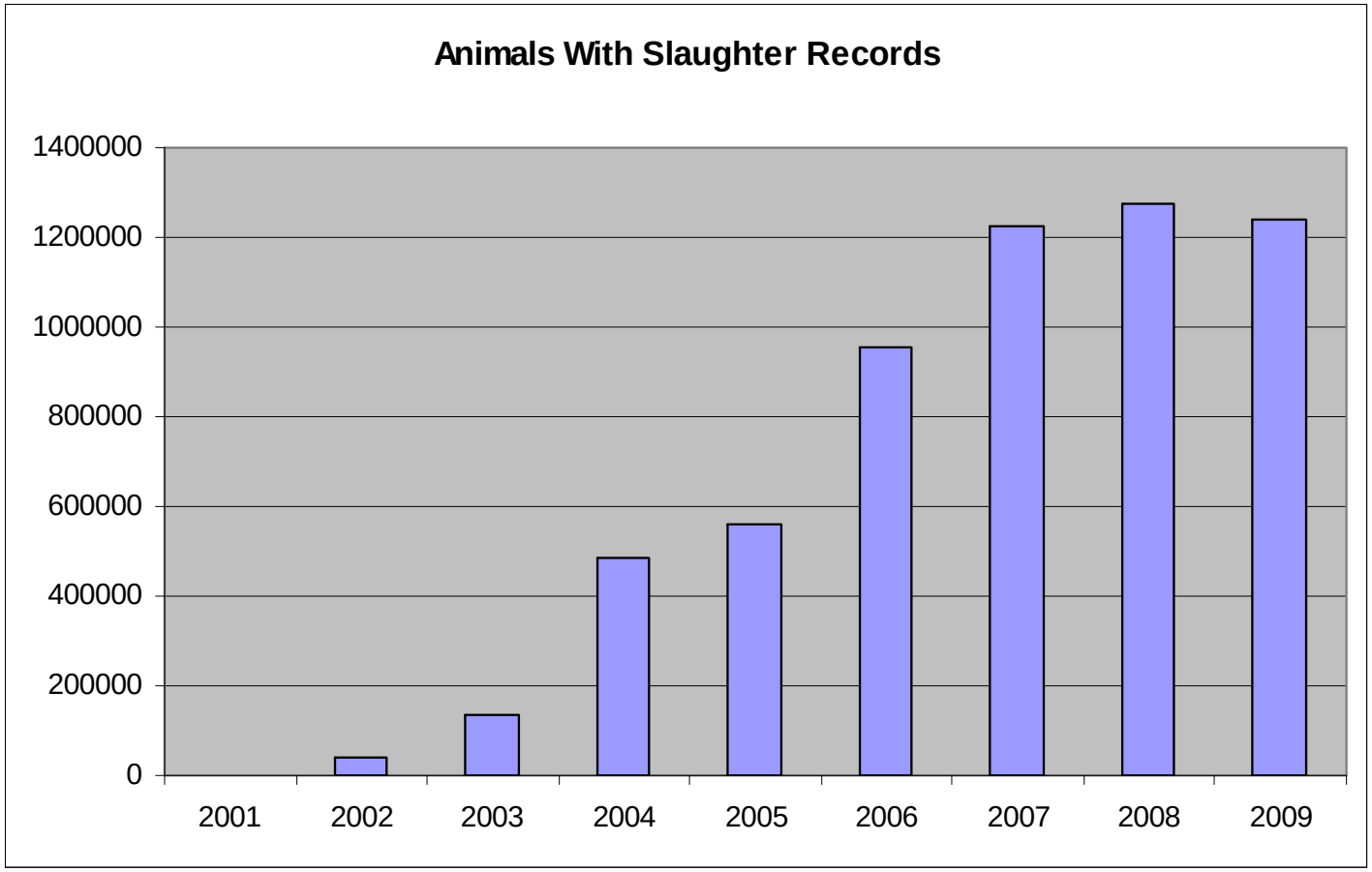
Sire Recording Levels – Dramatic Increase



Live-Weight Recording Levels – Dramatic Increase



Slaughter Weight Recording Levels – Dramatic Increase



Beef Bull €uro-Star Evaluation

ICBF Genetic Evaluations Service « Search Again

€uro-Star Rating (ICBF, April 2010)

AI Code:	CF52	Breed:	CH (100%)	Sire:	HERMES / HME
Animal Name:	DOONALLY NEW	Owner:	NATIONAL CATTLE BREEDING CNTR	Dam:	INTRUSE / 7193100567
Date of Birth:	18-JAN-1997	Date of Evaluation:	April 2010	MGS:	CAMPAGNARD / 1887109836
National ID:		€uro-star Index	Calving Traits	Weanling	Beef Carcass	Milk
International ID:	CHLFRAM007197126709	Linear Type	Pedigree		

% Rank	Star Rating (within breed)	Index and Traits	€uro-Value	% Rank
94%	★★★★★	Suckler Beef Value (SBV)	€131	94%
98%	★★★★★	Weanling Export	€108	99%
99%	★★★★★	Beef Carcass	€176	99%
1%	★	Daughter Fertility	€-81	1%
1%	★	Daughter Milk	€-121	1%
		Other Key Traits		
11%	★	Calving Difficulty (% 3 or 4)	11.28%	5%
99%	★★★★★	Gestation Length (Days)	.79 Day(s)	78%
92%	★★★★★	Docility (1-5 score)	0.14	93%

Data Reliability: 40% - 60% = Average 20 - 40% = Below Average < 20% = Poor

Overall Index – SBV in €

Sub Indexes –in €

Key traits phenotype units

The Next Stage

Key areas to progress further

- Increase the number of live-weight records
- Develop the integration with laboratories to the next level to assist with health performance recording

In Summary….

- A central cattle breeding database has removed duplication across the cattle breeding industry and provided a platform to improve farm profitability through breeding
- A supportive DAFF has helped create a synergy between regulatory data and cattle breeding
- Creating a culture of sharing of data across the industry removes duplication and cost, and increases value