IRISH CATTLE BREEDING FEDERATION

Beef Data Recording In Ireland

Current Experience & Future Potential of an Industry Integrated National Database



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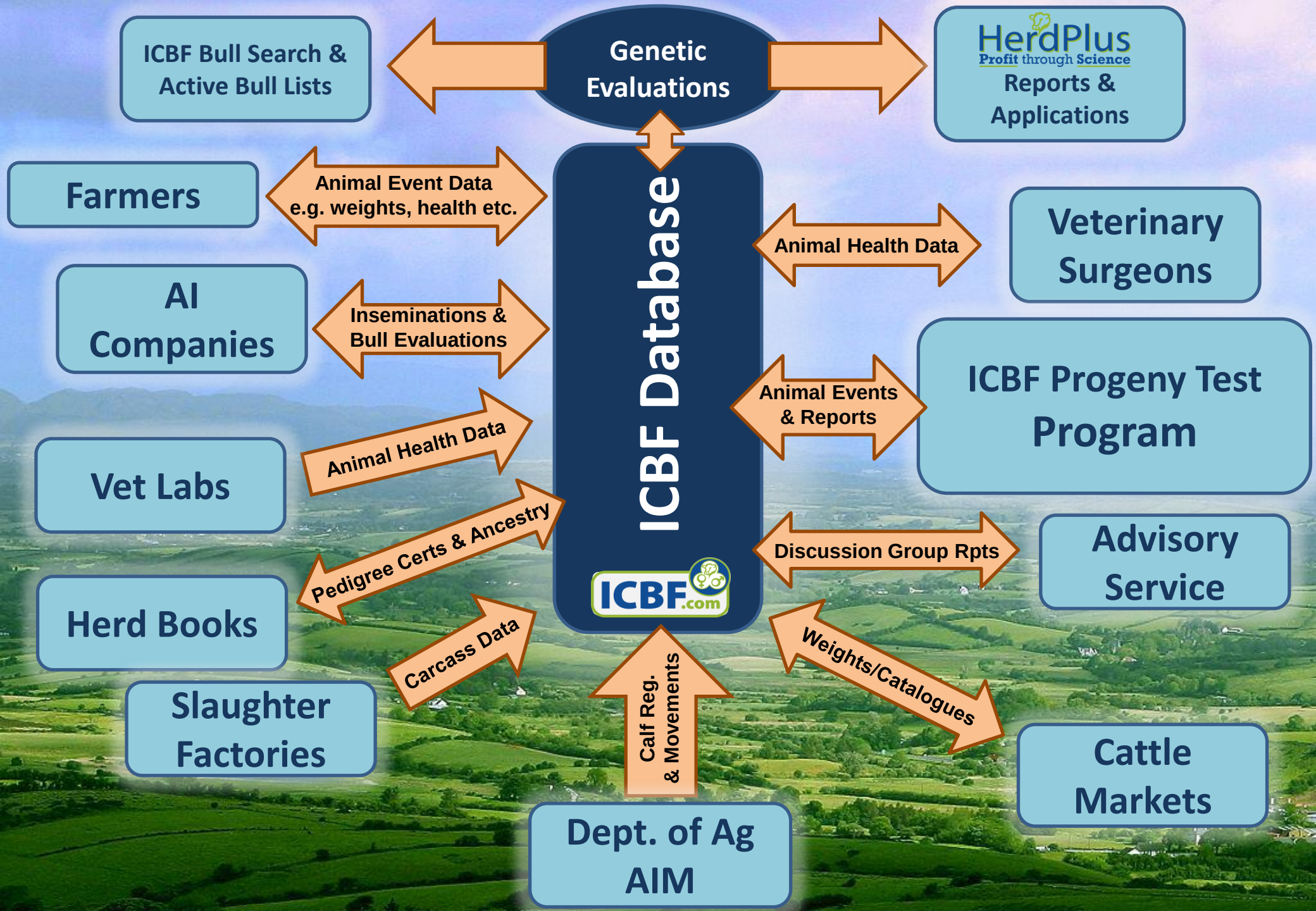
ICBF

NDP
National Development Plan
Transforming Ireland


ICBF Bull Search & Active Bull Lists
Genetic Evaluations
HerdPlus
Profit through Science
Reports & Applications
Farmers
Animal Event Data e.g. weights, health etc.
ICBF Database
Animal Health Data
Veterinary Surgeons
AI Companies
Inseminations & Bull Evaluations
Animal Events & Reports
ICBF Progeny Test Program
Animal Health Data
Vet Labs
Pedigree Certs & Ancestry
Discussion Group Rpts
Advisory Service
Herd Books
Carcass Data
Calf Reg. & Movements
Weights/Catalogues
Slaughter Factories
Cattle Markets
Dept. of Ag AIM
ICBF.com

Most Significant Data Flow

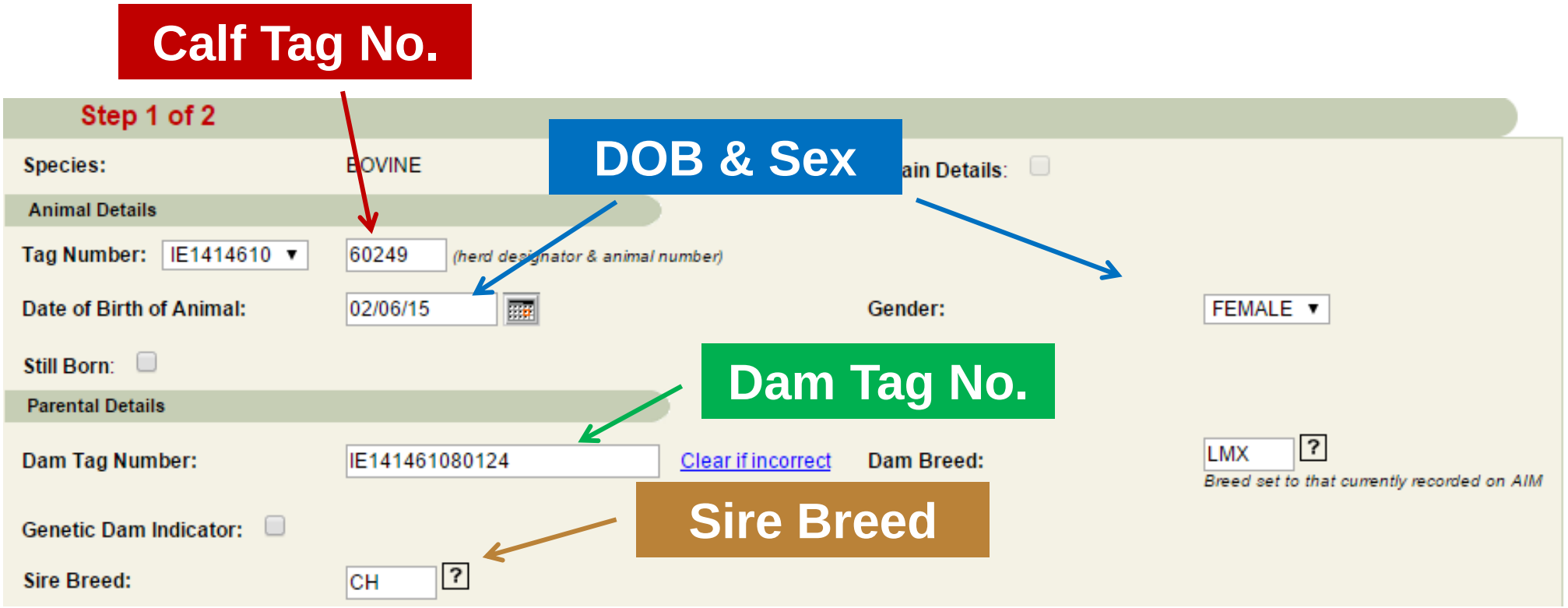
- Births & Deaths
- Animal Movements
- Animal Events

Irish Beef Cow Herd

The Numbers

- Approx. 1 million beef cows in 60,000 herds (17 cows/herd)
- Ranging in herd size from 1 – 250.

What's Recorded at Birth

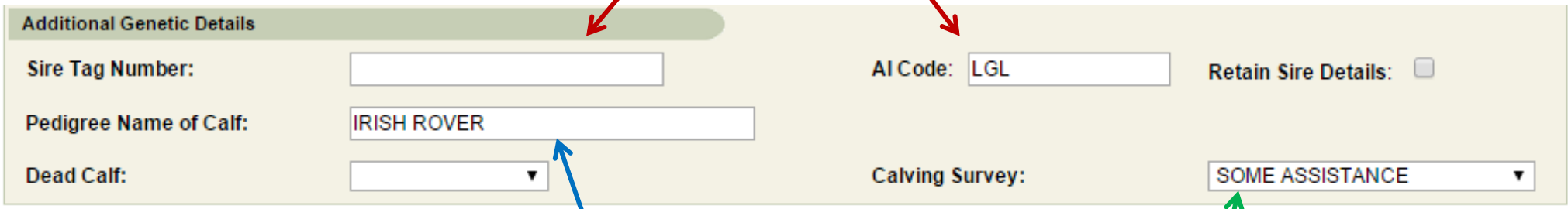


All Compulsory Data

What's Recorded at Birth

Additional Data

Sire Tag or AI Code



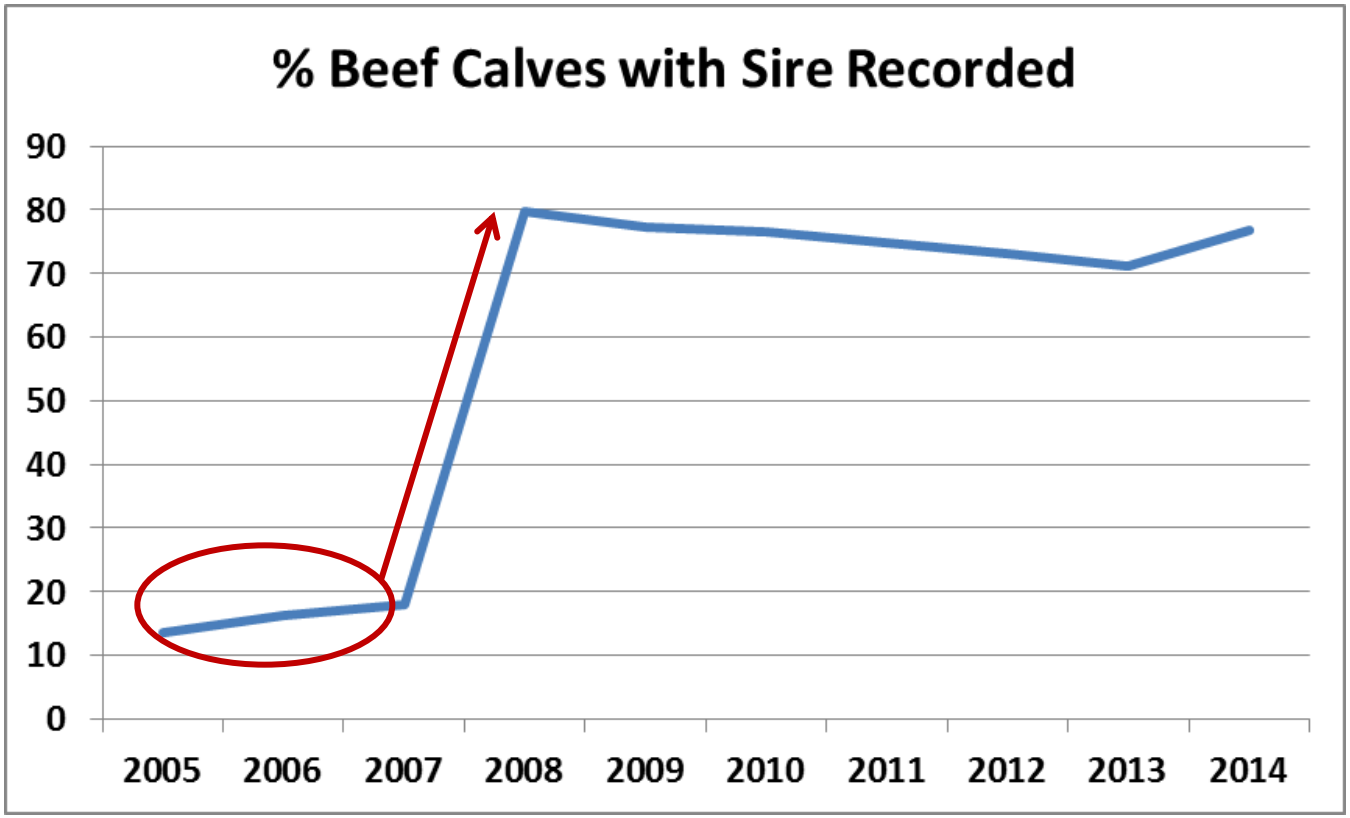
Name
Pedigree Calves Only

Calving Survey

All Optional Data!!

Beef Sire Recording in Ireland

All beef calves born 2005-2014

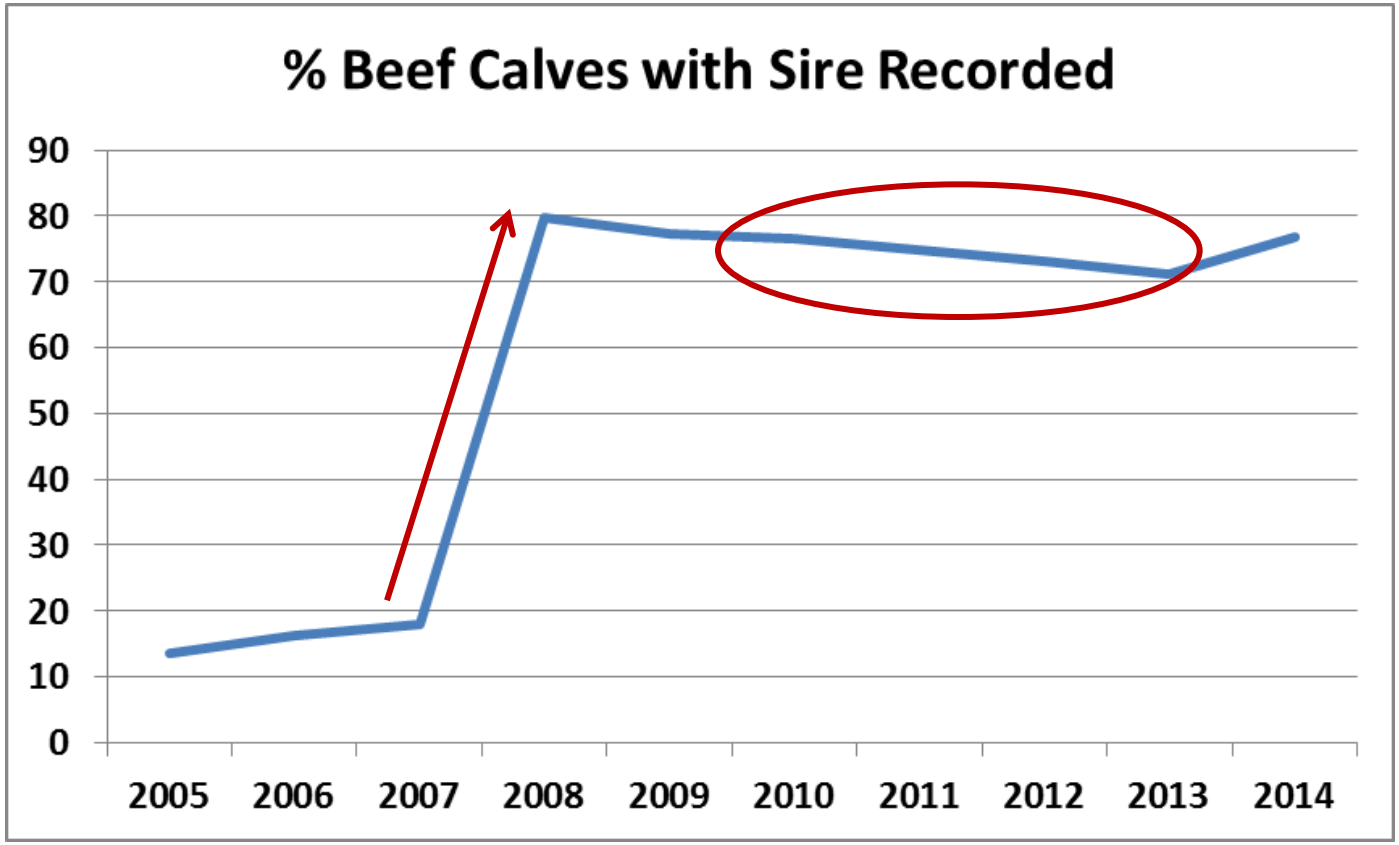


- Pre 2008 less than 20% calves.
- 2008 increased to 80% calves.
- What caused sudden increase?!!

Suckler Cow Welfare Scheme

2008-2012

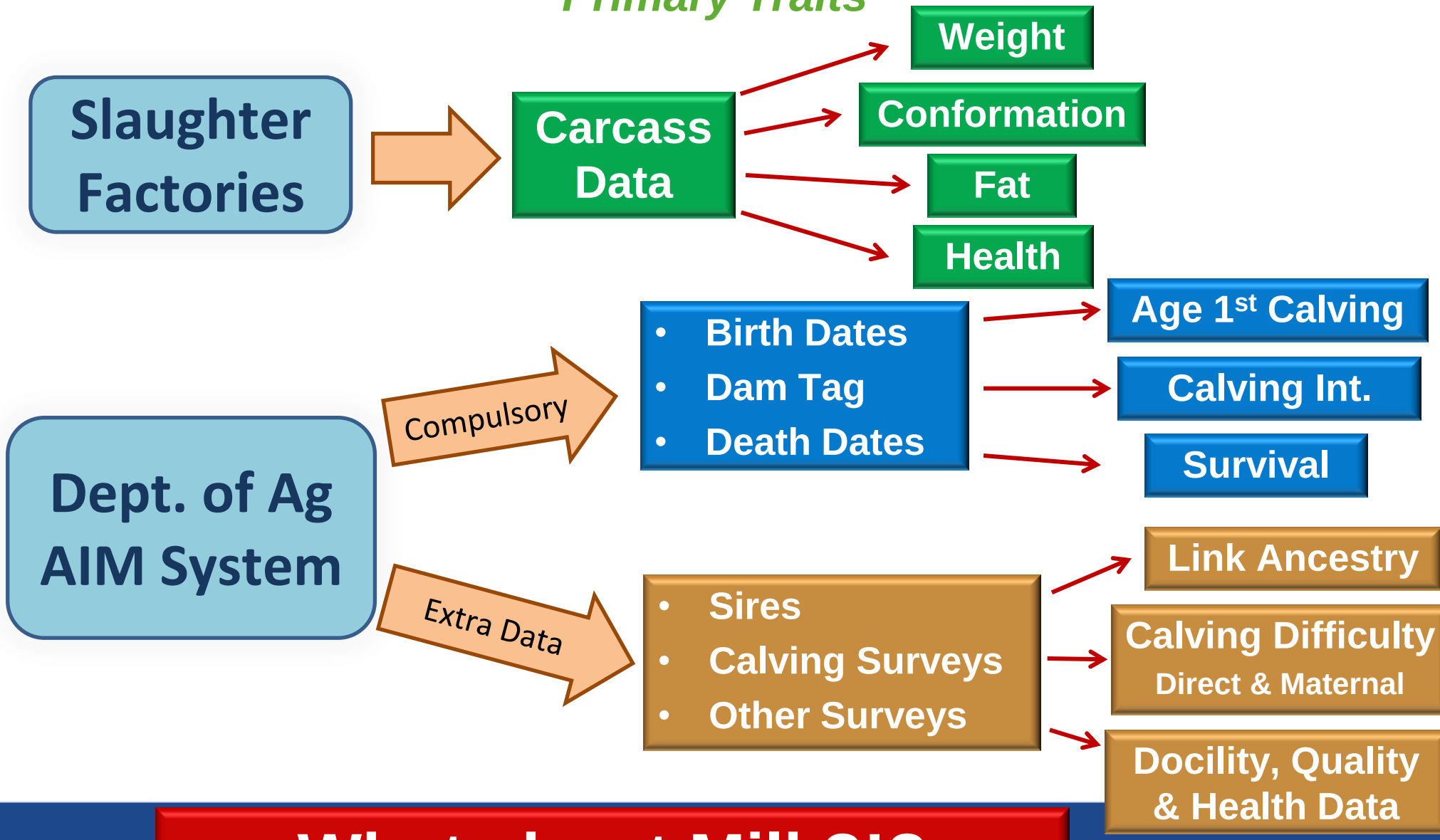
- Cow & calf welfare and data recording - €80 per cow.
- Sire recording key component.



- Effect of reduction of payment to €40 mid scheme.

Data Availability

Primary Traits



What about Milk?!?

Irish Beef Index

Euro-Stars

Calving & Carcass Traits

- Good data submission.
- Reliabilities increase quickly.

Maternal Traits

- Less data (particularly milk).
- Slower increase in reliability.

		Euro value per progeny	Index reliability	Star Rating (across all beef breeds)
		€163	68% (High)	★★★★½
		€-39	48%	
		€203	86%	

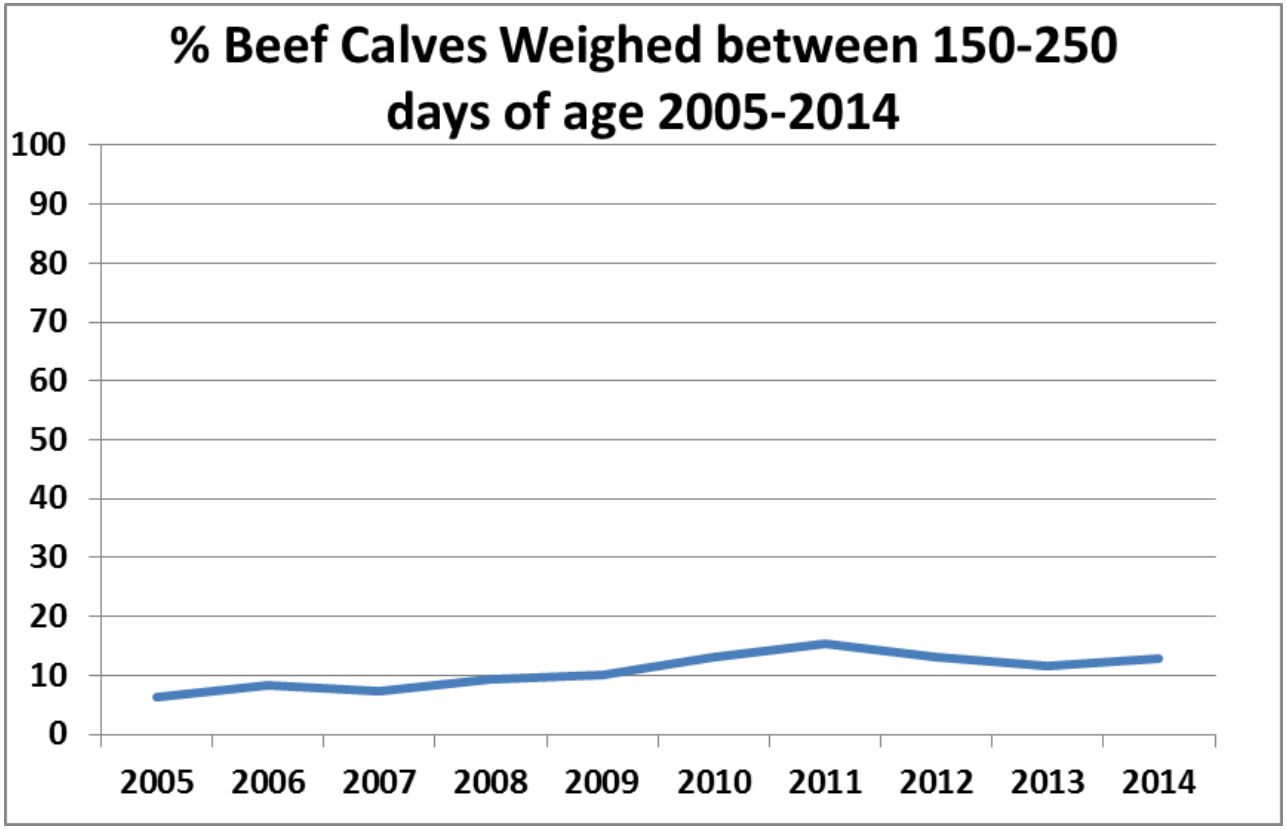
Trait reliability

	Calving difficulty (% 3 & 4) ⓘ Breed ave: 4.95%, All breeds ave: 4.98%	5.80%	98% (V High)	
★★★★½	Docility (1-5 scale) Breed ave: -0.06, All breeds ave: 0.00	0.02 scale	79% (High)	★★★☆☆
★★★★★	Carcass weight (kg)	32kg	82% (V High)	★★★★½
★		2.24 scale	77% (High)	★★★★½
		32kg	82% (V High)	★★★★½
	Daughter calving difficulty (% 3 & 4) Breed ave: 5.45%, All breeds ave: 6.15%	6.7%	31% (Low)	
★★★★½	Daughter milk (kg) Breed ave: -0.84kg, All breeds ave: 0.31kg	2.77kg	34% (Low)	★★★½☆
★★☆☆☆	Daughter calving interval (days) Breed ave: 1.09 days, All breeds ave: -0.32 days	1.93days	53% (Average)	★☆☆☆☆

★★☆☆☆	Daughter calving interval (days) Breed ave: 1.09 days, All breeds ave: -0.32 days	1.93days	53% (Average)	★☆☆☆☆

Challenge

Milk: The Problem Trait



- Low levels of weighing of suckler beef calves (<20% in 2014).
- Weighing equipment expensive.
- Laborious. Poor facilities & land fragmentation.

Solution

Milk

- No major increase in on-farm weighing likely.
- Free weight recording not sustainable.
- Farmer cow milk scores (1-5) now being submitted.

- High correlation between scores and weaning weights ~0.9

Solution

Milk: Profile of an Irish AI Bull

- Limousin bull – Ardlea Dan.
- Born 2008.
- Entered stud 2010.
- 20,958 progeny.
- 734 daughters calved.
- Only 30 maternal weaning weights.
- 117 daughter milk scores!!
- Much faster increase in trait reliability.

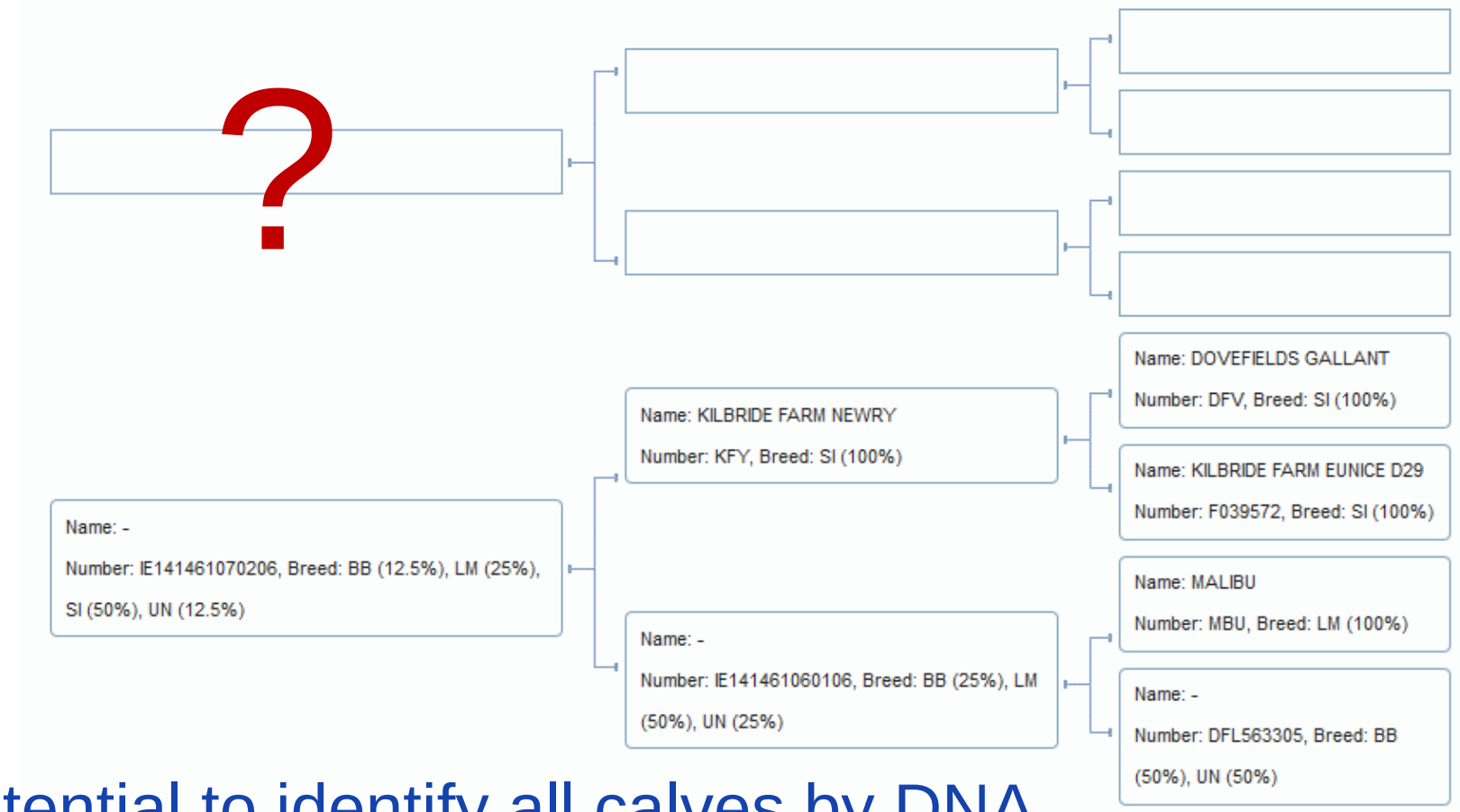
Challenge

Farmer Data Recording

- Still ¼ of calves born in 2014 with no sire.
- What will happen in the absence of financial incentives?!?
- Education & awareness.

Genotyping

Solution to a Problem



- Potential to identify all calves by DNA.
- Will only require date of birth at registration.

Future

Beef Data & Genomics Program (BDGP) 2015-2020

- Most comprehensive yet.
- Payment per hectare (~€80-€90 per cow).
- Requirements

  - Record Data e.g. sires, calving surveys etc.

  - Genotype 60% of herd each year.

  - Introduce high index breeding stock into herd.
- Has secured vital data flows.

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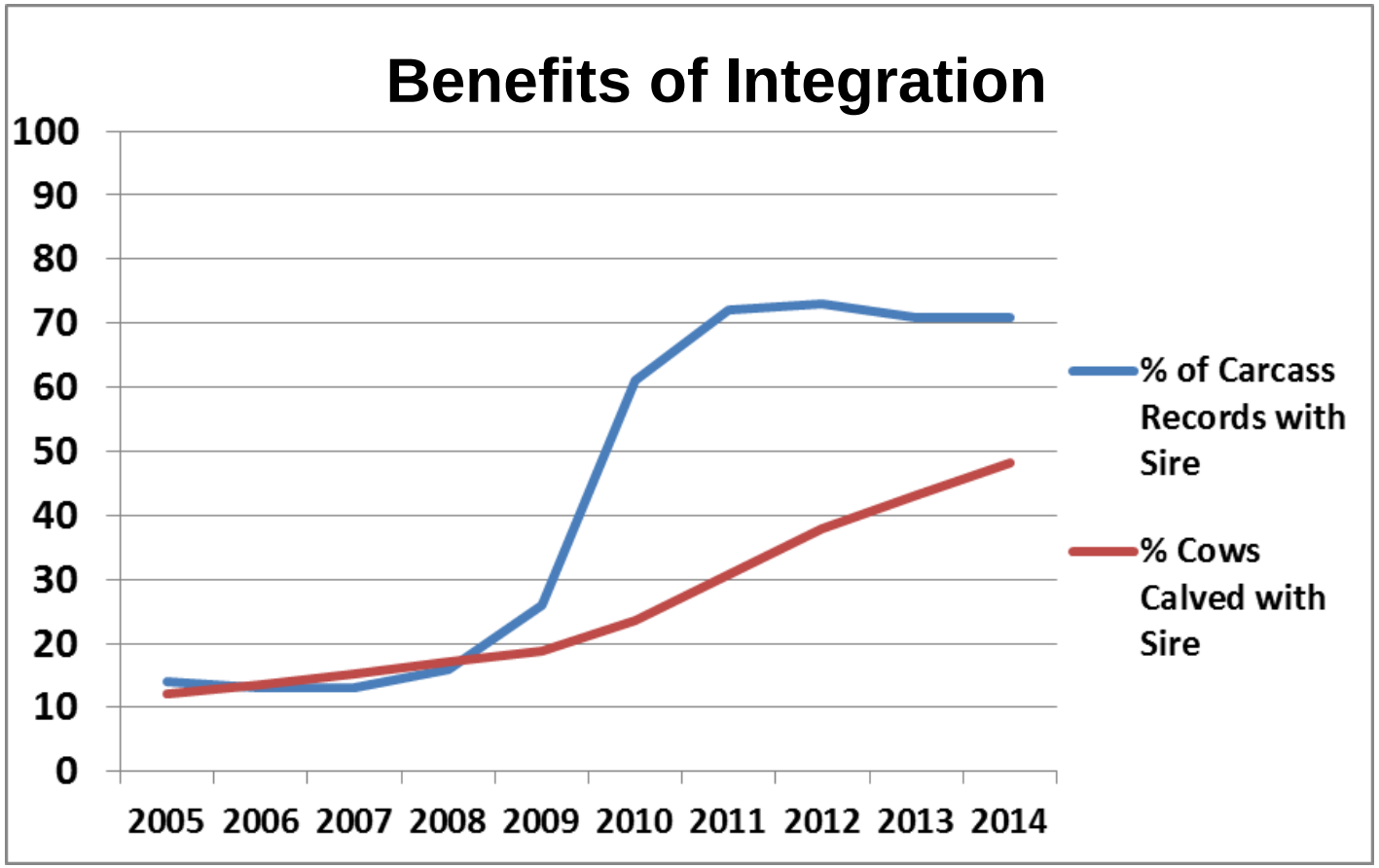
Summary



- Huge benefits to ICBF database from industry integration.
- Education – Increase awareness & engagement with farmers.

Acknowledgements

John McCarthy

Kevin Downing

Pat Donnellan

Lisa Ring

Jen McClure

Mags Kelleher

Michael Keane

Ross Evans

Caitriona Scanlan

Thank You