

# MR Ireland - Electronic DIY

08/06/2006

Martin Burke ICBF



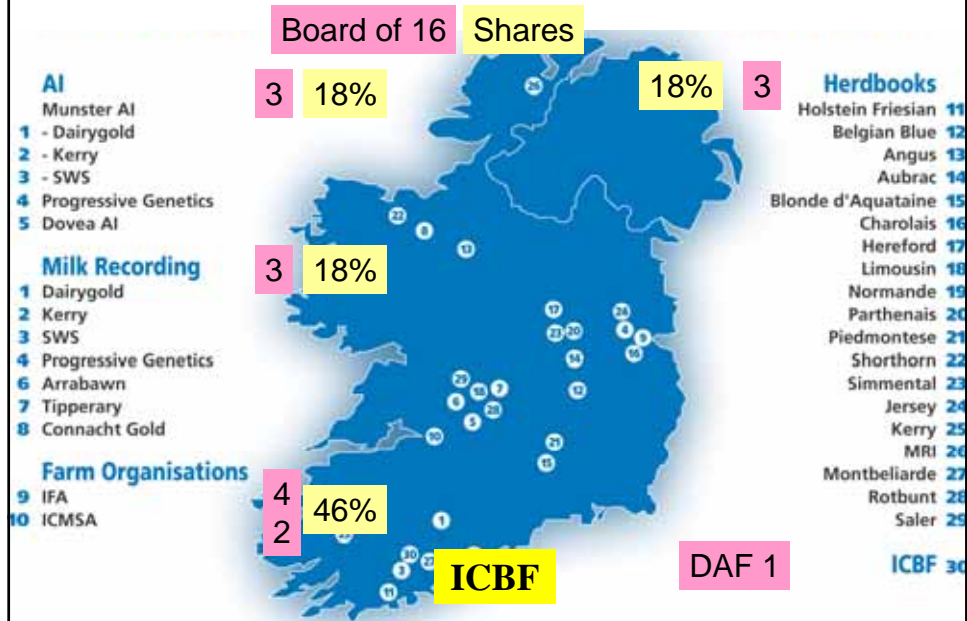
IRISH CATTLE BREEDING FEDERATION

## The impact of new technologies on performance recording and genetic evaluation of dairy cattle in Ireland.

MARTIN BURKE, ANDREW CROMIE – ICBF

*ICAR 2008 Niagara Falls, 19<sup>th</sup> June 2008*

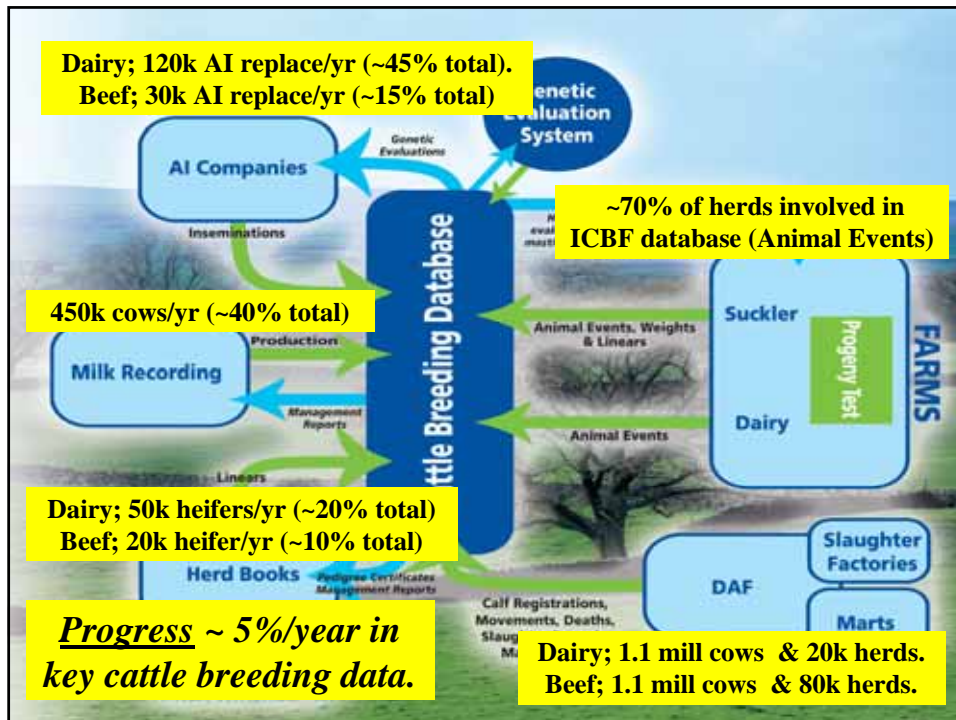
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## Technologies for data collection

- Hand held technologies...

– Milk recording (electronic meters)

All made much easier by having an integrated database



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## Electronic Milk Recording System

Data Handler      Auto Sampling  
Electronic Meter



Meter automatically  
deposits sample into  
Barcoded bottles

- ✓ Cows' IDs loaded direct from database
- ✓ Meter Records Milk Volume Electronically
- ✓ Meter automatically agitates/samples
- ✓ Barcoded vial, no writing, more accurate
- ✓ Milk Yields electronically loaded to dbase
- ✓ Lab results electronically loaded to dbase
- ✓ Meters delivered - No Capital Purchase

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## Electronic DIY – “Cell” Model

### Equipment required:

80 x Tru Test Electronic Milk Meters  
7 x Data Handlers, (DHS)  
1 x Portable Printer,  
5,000 barcoded vials, and tray accessories etc  
Laptop for data Xfer  
Ancillary charging, data Xfer equipment, etc.  
Ford Transit Van , 2.4d, LWB 1 tonne, custom  
Each cell serving approx 150 farmers  
ICBF calibrate each meter annually.



Van customised so we meters  
ara charged on the move

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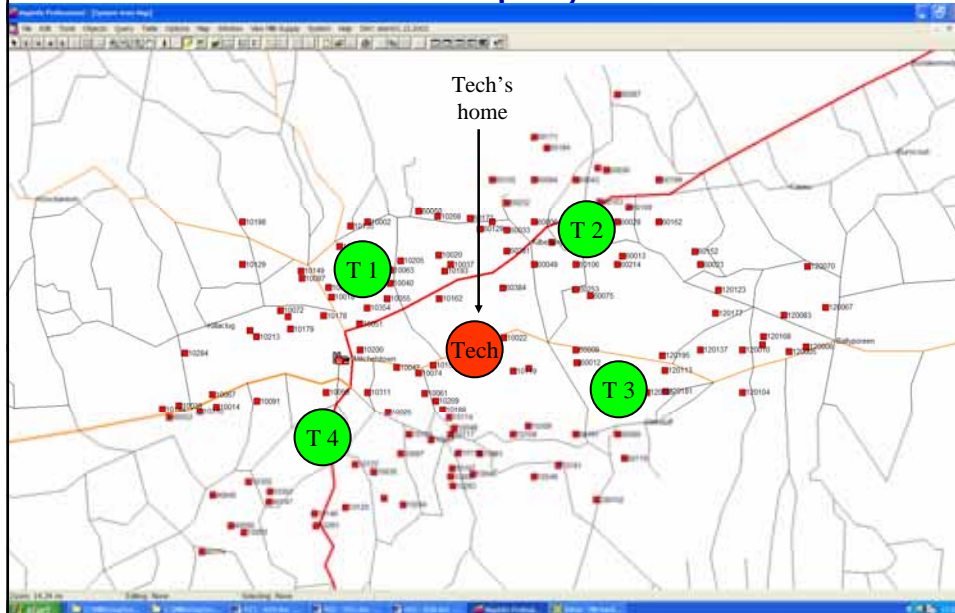


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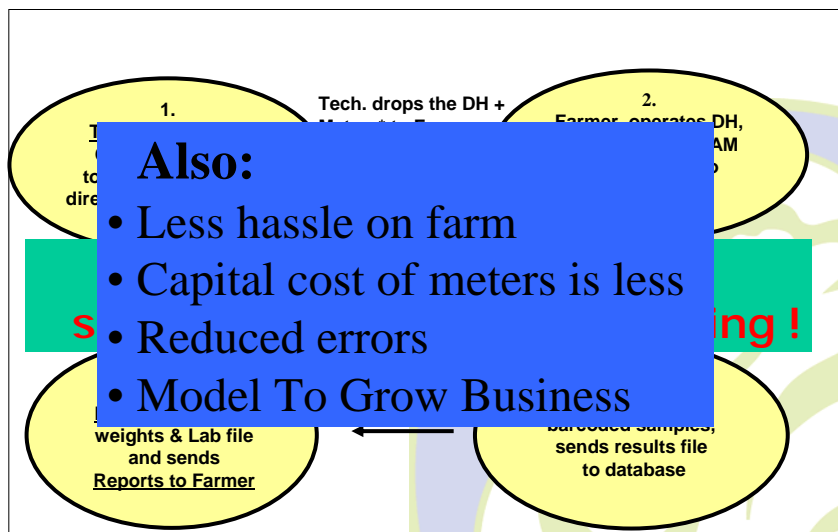
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## Electronic DIY – Example Cell TRAINER Deployment



## Electronic DIY System





## Impact of Electronic DIY on recording uptake ?



*Table 1. Trends in EDIY Milk Recording (2004 -2007).*

	2004	2005	2006	2007
Total Dairy Cows	1,121,000	1,101,000	1,087,100	1,079,800
Cows in Milk Recording	381,425	380,196	408,375	428,179
% Total Dairy Cows	34.0%	34.5%	37.6%	39.7%
Cows in EDIY Milk Recording	7231	30198	99562	119890
% Milk Recorded Cows in EDIY	1.9%	7.9%	24.4%	28.0%

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## A.I. Handheld Recording

(Artificial Insemination)

### Problems with existing system

- Docket written by AI technician may not contain correct animal details, difficult to match tag information.
- May be a delay in keying docket.
- No in-breeding checks.
- Data received by ICBF was poor.
- Difficult to generate valuable reports for farmers.

### Solution

- Introduce AI handhelds to provide a better service.

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## 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



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## Features: Current V's Proposed Systems

Feature	Current	Proposed
• Docket Processing	Yes	Yes
• Inbreeding		
• Lethal G		
• Info to T		
• Real time		
• Tighter S		
• Sire advi		
• More acc		
• Single d		
• More acc		
• Effective		
• Supports farm management reports	No	Yes

• New System provides a significantly better service for farmers while eliminating manual processing and reducing error levels.

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## Impact of A.I. Handheld on number serves hitting database?



*Table 2. Trends in recording of insemination data.*

	2005	2006	2007
Technician AI	213,719	291,081	498,073
DIY AI	91,396	137,046	156,651
Total AI	305,115	428,127	654,724

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**“HerdPlus” is ICBF’s Web Service.** [www.icbf.com](http://www.icbf.com)

**HerdPlus**  
Profit. Through Precision.

With username & password, Breeder can access & update his animals data, reports, etc



**SIRE ADVICE & INBREEDING**



**EBI REPORT**



**HERD FERTILITY MANAGEMENT**



**ON-LINE HERD MANAGEMENT**



**BREEDING CHART**



**DIRECT HELPLINE TO ICBF STAFF**

**Herd Management Tools For Increasing Profit**

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## HerdPlus Web Site Developments



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## HerdPlus Web Site offers Integrated Technologies



FE	Animal Number	Calving Date	Last Mated	Last Served	Last Bull	Mm Servs	Last Preg	Days in Calf	Days in MIL	Dry Date	Exp Calving Date
863	IE151013700955		0	28-APR-08	RIUJ	1		54			31-JAN-09
863	IE151013700955		0	28-APR-08	TCC	1		54			31-JAN-09
545	IE151013733945	12-MAR-08	1	28-APR-08	AV	1		54	97		31-JAN-09
819	IE151013760518	25-FEB-08	4	28-APR-08	RIUJ	1		54	113		31-JAN-09
1006	IE151013770000		0	28-APR-08	RIUJ	1		54			30-JAN-09
118	IE151013780000		0	28-APR-08	RIUJ	1		54			30-JAN-09
118	IE151013780000		0	28-APR-08	RIUJ	1		54			30-JAN-09
862	IE151013790000		0	28-APR-08	RIUJ	1		54			30-JAN-09
870	IE151013732879		0	21-APR-08	TCC	1		57			26-JAN-09
759	IE151013710259	22-FEB-08	3	21-APR-08	RZE	1		57	116		26-JAN-09
431	IE151013710431	23-SEP-07	4	21-APR-08	SZU	3		57	268		26-JAN-09
448	IE151013743648	15-OCT-07	3	22-MAY-08	MZY	4		26	246		28-FEB-09

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## Sire Advice New Release Feb '08



- Sire Advice program run by breeder – if he “saves” his run, then his selected bulls get loaded to AI Handheld automatically.



### Sire Advice can be run:

- For all AI Bulls
- For all Dairy Breeds
- Directly by the farmer

### ICBF's Suggested Bulls

- Maximise average EBI.
- Min. Avg Inbreeding.
- Min. cost of Semen.
- Min. difference between Prod. & Fert. sub index.

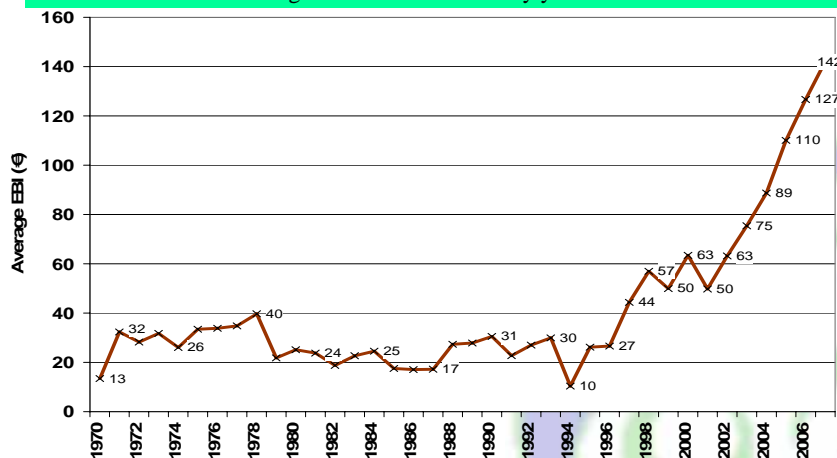


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## Impact of New Technologies on genetic merit of Irish Dairy Herd?

Figure 1. Trend in average Economic Breeding Index (EBI €) of Holstein Friesian bulls registered for use in A.I. by year of birth.



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*Thank You !*

