



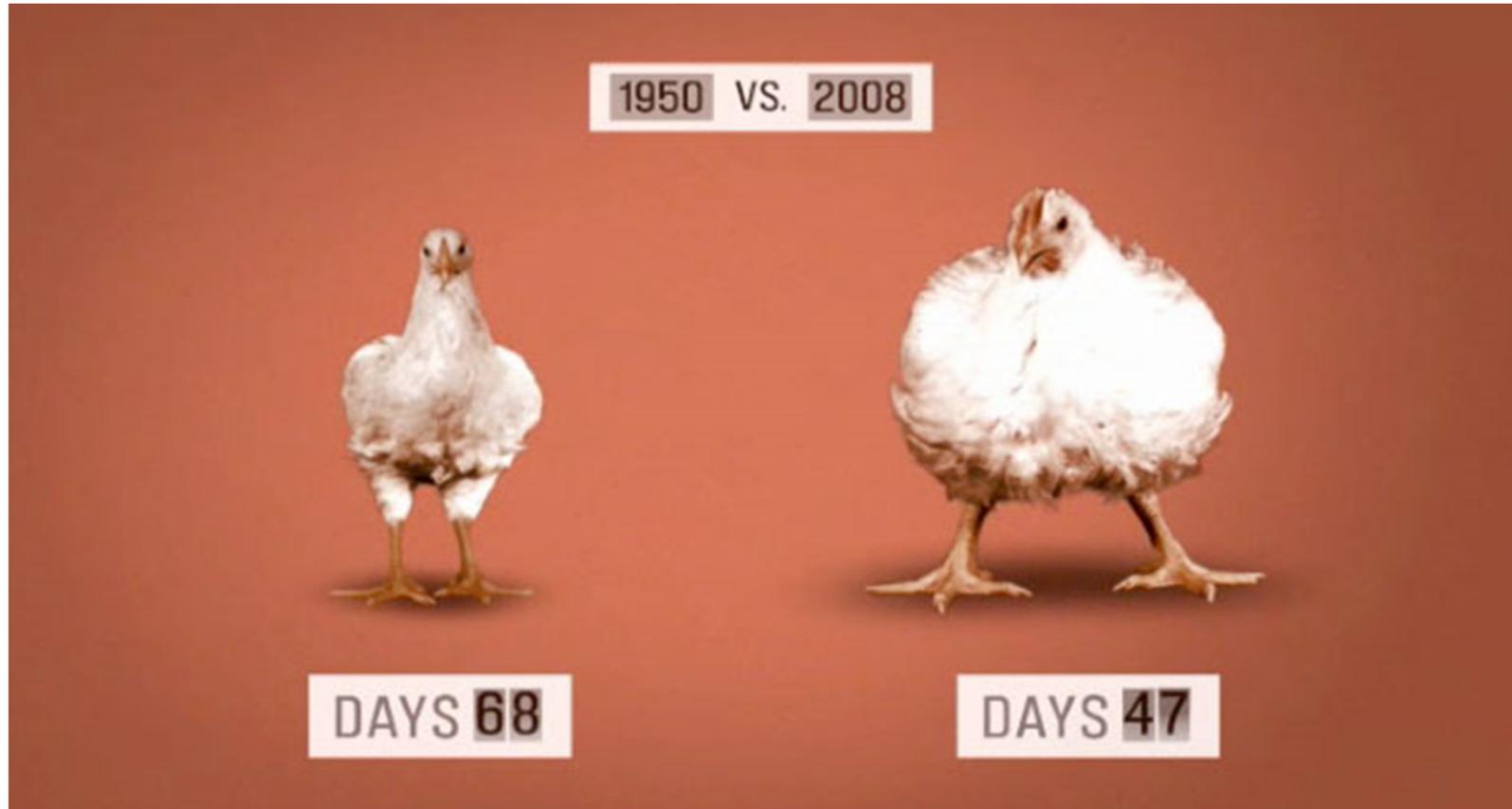
IRISH CATTLE BREEDING FEDERATION

# ICBF – Simplifying Animal Health With Technology



# Breeding....

Same amount of feeding.....



# MEMBERS, BOARD & SHARES -

## ICBF

Board

Shares

- 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

DAFF - 1

AI - 3

MR - 3

HB - 3

FO - 6

AI - 18%

MR - 18%

HB - 18%

FO - 46%

### 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

Stakeholders in cattle breeding control decision making.

2015

AI Companies

Insems & Genetic Evaluations

Veterinary Surgeons

Animal Health Data

Milk Recording

Milk Production & Management Rpts

Farm Relief Service

Lameness/Preg. Data

Herd Books

Ped. Certs & Linears

Dairy & Beef Farmers  
HerdPlus  
Profit through Science

Animal Events

DAFF - AIM

Calf Reg & Movements

ICBF Database



Discussion Group Rpts

Farm Advisors

Milk Co-Ops

Bulk Tank Milk Data

Weights/Catalogues

AHI National Programmes

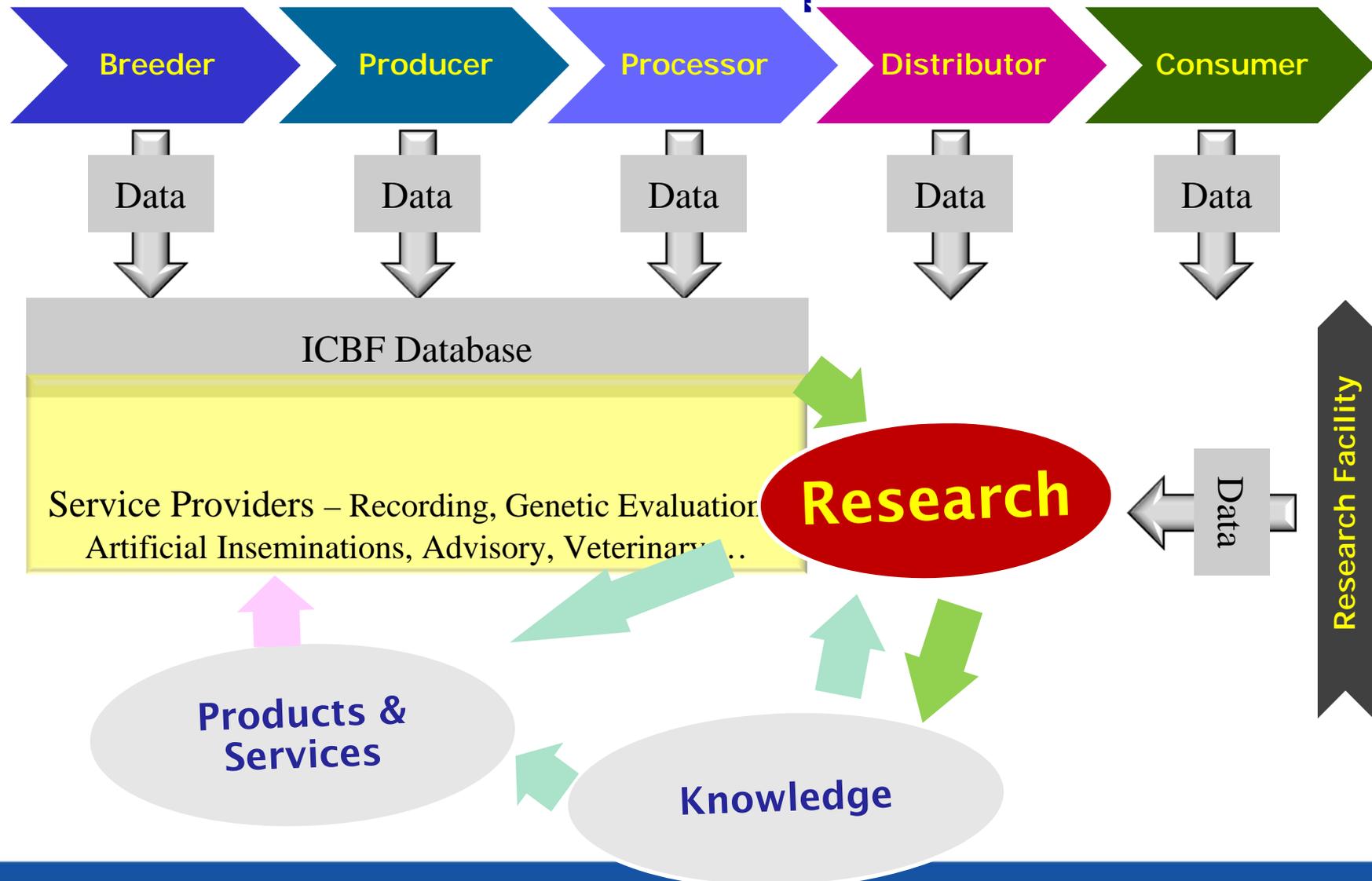
Health Data

Slaughter Factories

Grades

Marts

# Irish Model – research, innovation and service development.



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# National/International Considerations

**We support:**

ICAR Standards & Guidelines



**In order to get:**

Data from other sources we can trust

Interbull (dairy) & Interbeef (beef)

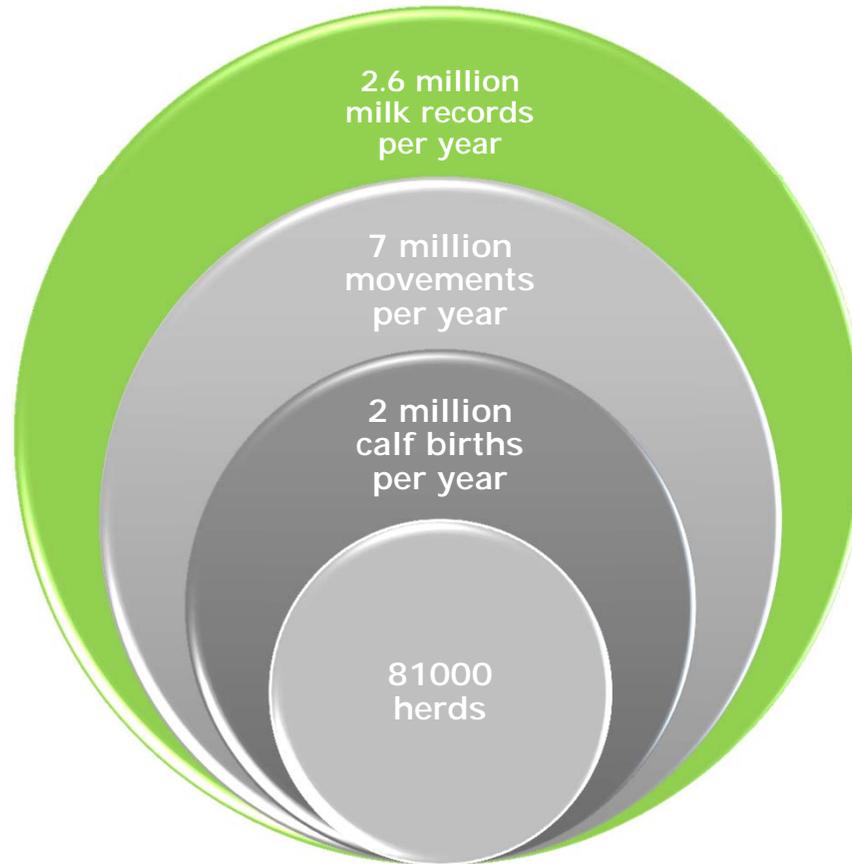


Genetic evaluations from other countries we can trust

Standardisation is key for powerful data

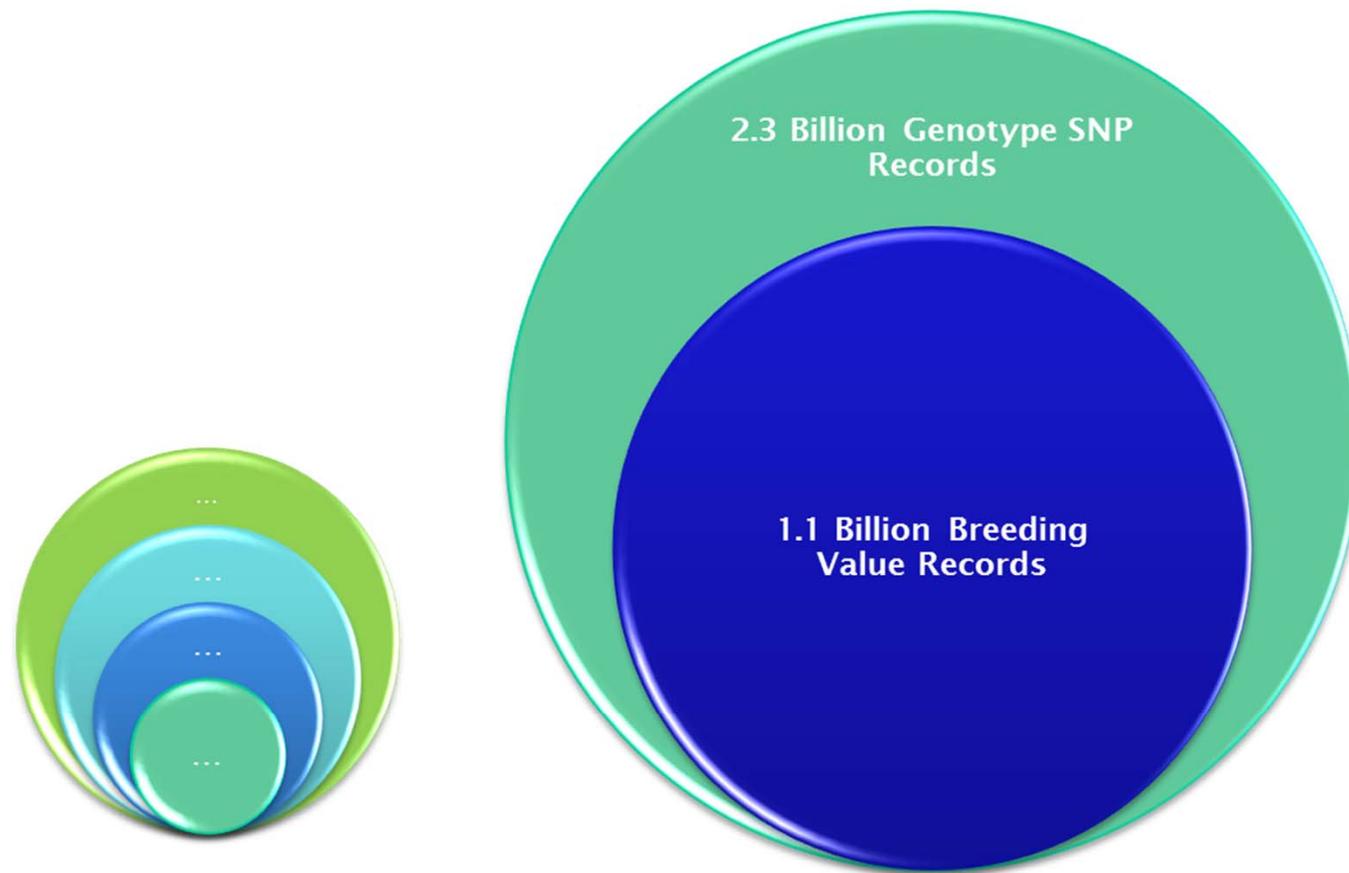
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# Size of Regular Data Set



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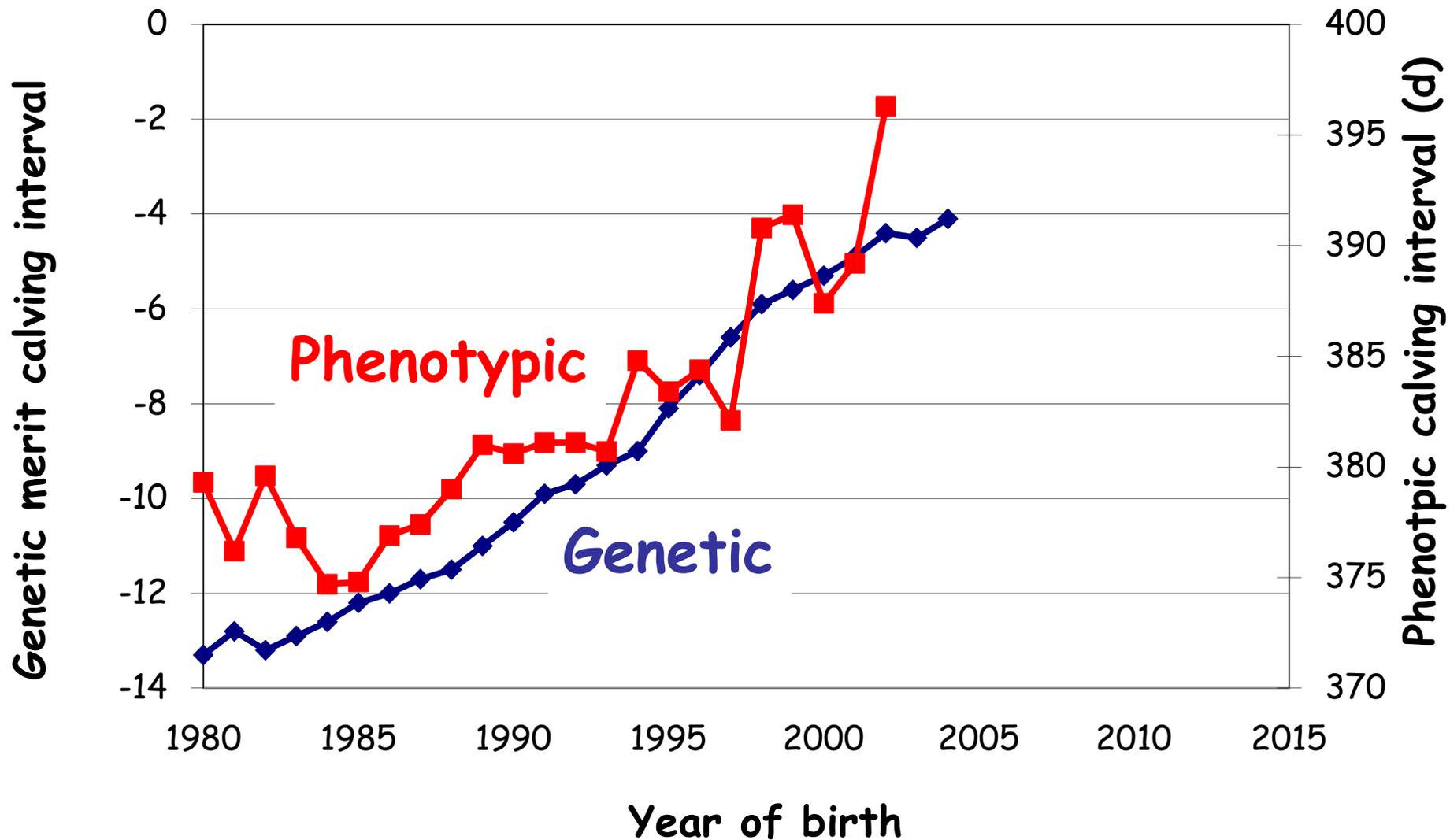
## Size of Larger Data Sets



# Genetics and disease

- “Genetics has nothing to do with disease”
- “It’s all management”
- “Breeding is too slow”
- “We can eradicate it”

# The power of breeding!!!!



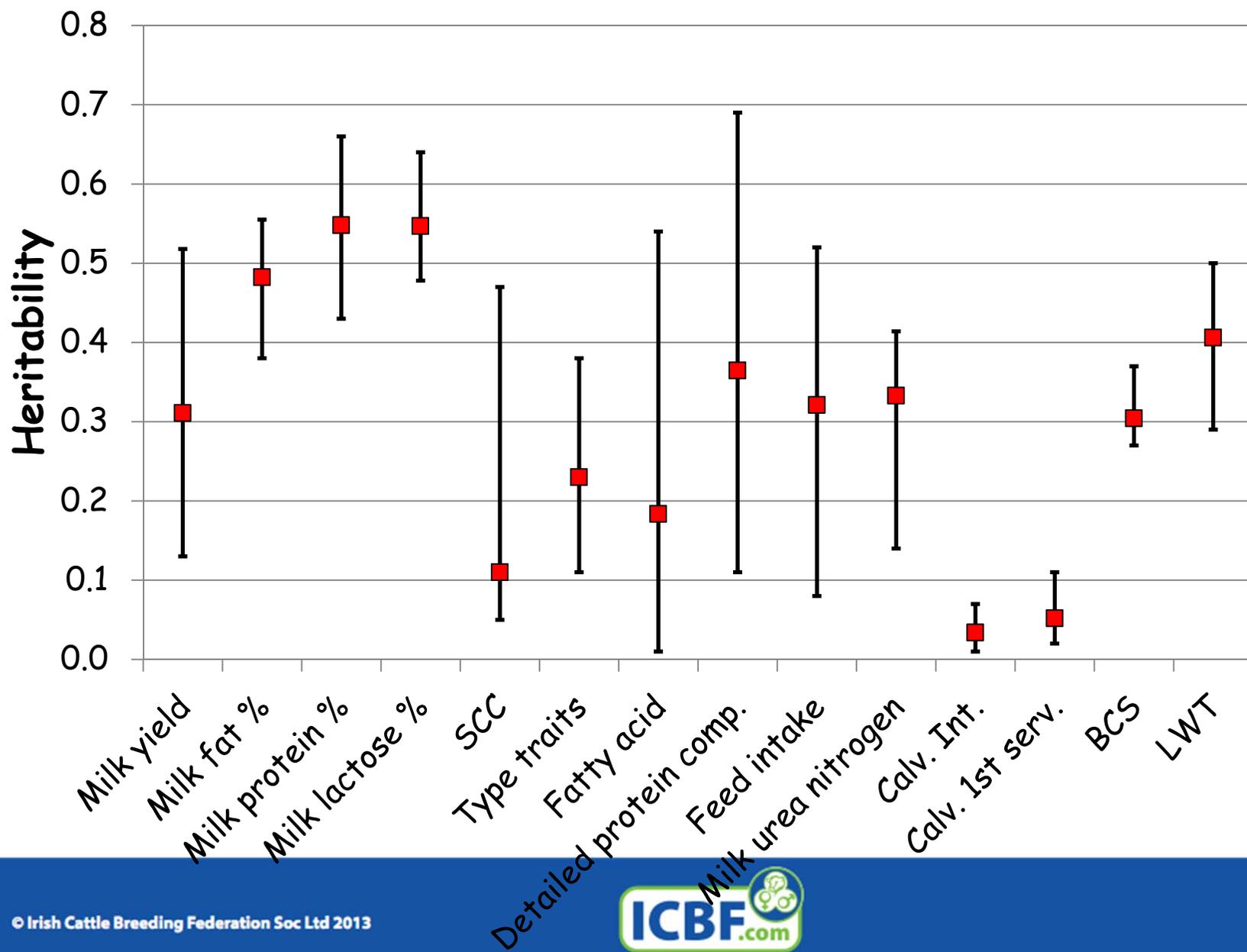
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# Characteristics of the ideal cow

1. Produce a large quantity of high value product
2. Good reproductive performance
3. Good health status
4. Good longevity
5. Does not eat a large quantity
6. Easy to manage
7. Good **Product quality**
8. Low **Feed intake & environment**
9. Res **Animal health & disease**

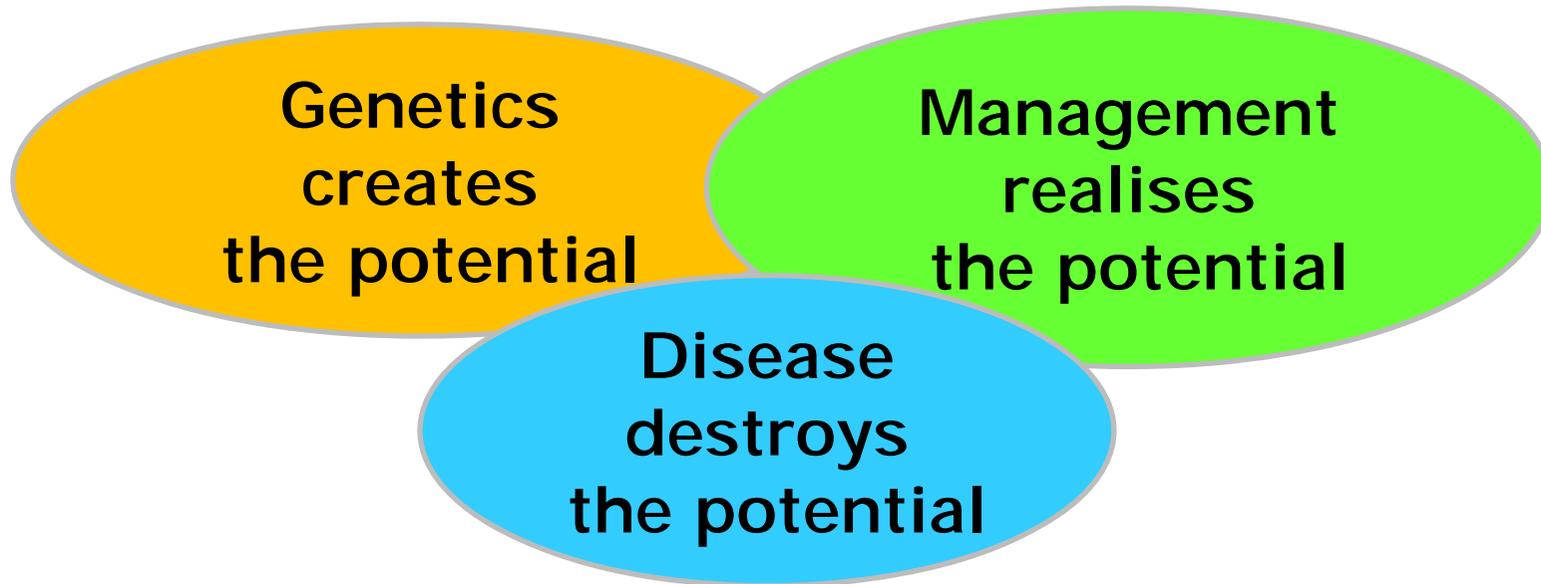
**Cannot be  
taken in  
isolation**

# The Majority of Traits are Heritable



# Why genetics??

- Genetics contributed ~50% of **change** in performance in most populations



*Easy to manage a genetically healthy cow to be unhealthy but difficult/expensive to manage a genetically unhealthy cow to be healthy*



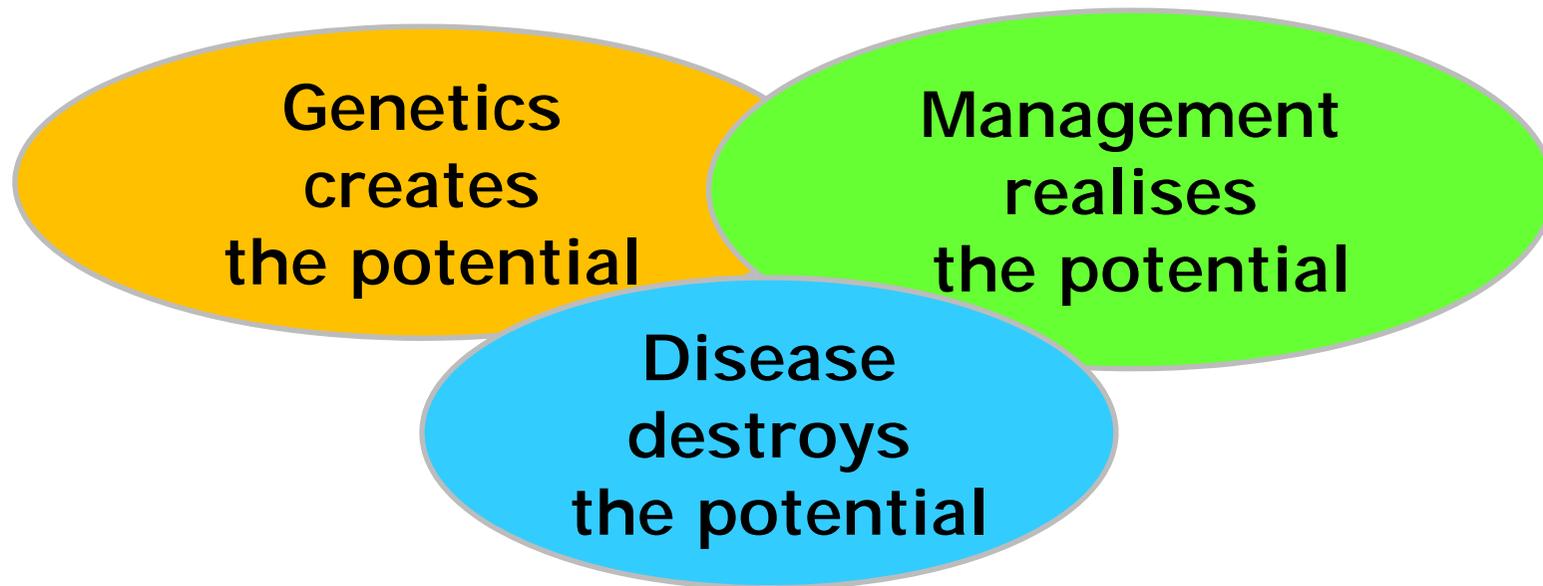
# MIR Implementation



To develop innovative bio-models and predictive equations for building web applications to provide dairy farmers and their consultants with new information and decision making tools like:

- Pregnancy diagnosis
- Predictor of the ability to conceive
- Heats detector
- Mastitis predictor
- Acidosis detector
- Energetic balance calculator
- Methane gauge

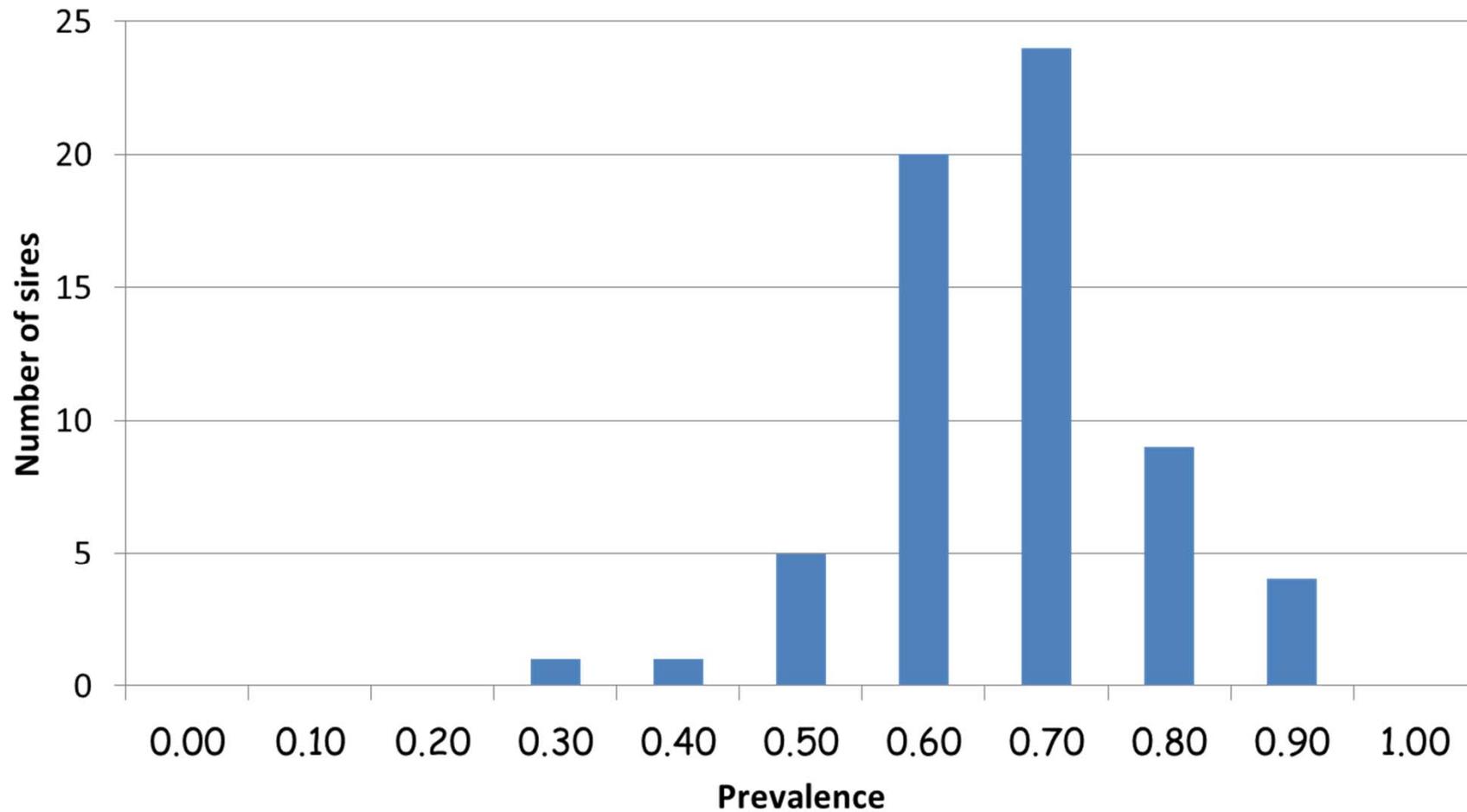
# Breeding and Health



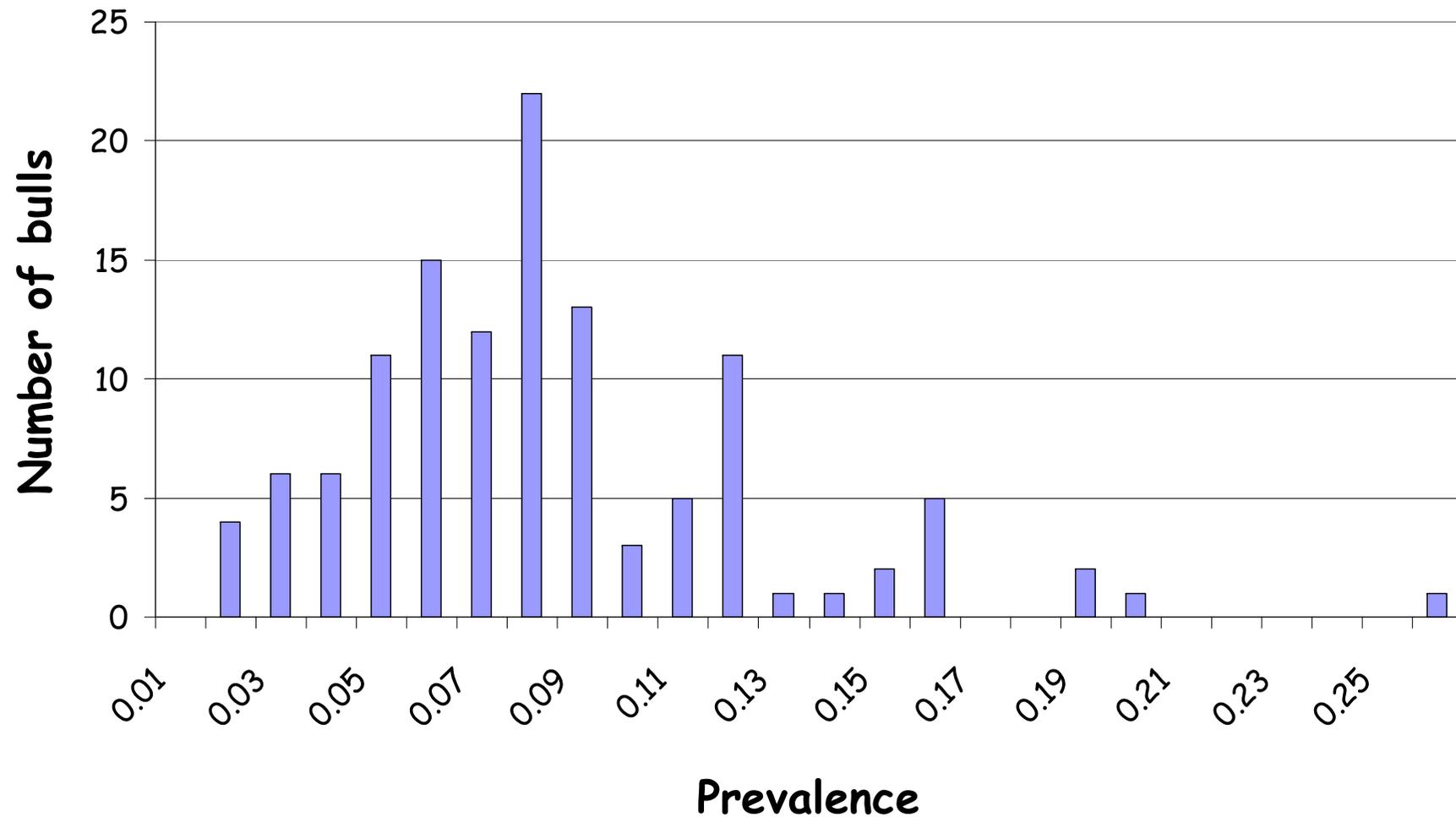
**Animal health is the “new fertility”  
...and breeding has a role in its control**

**Data, Data, Data, Data.....**

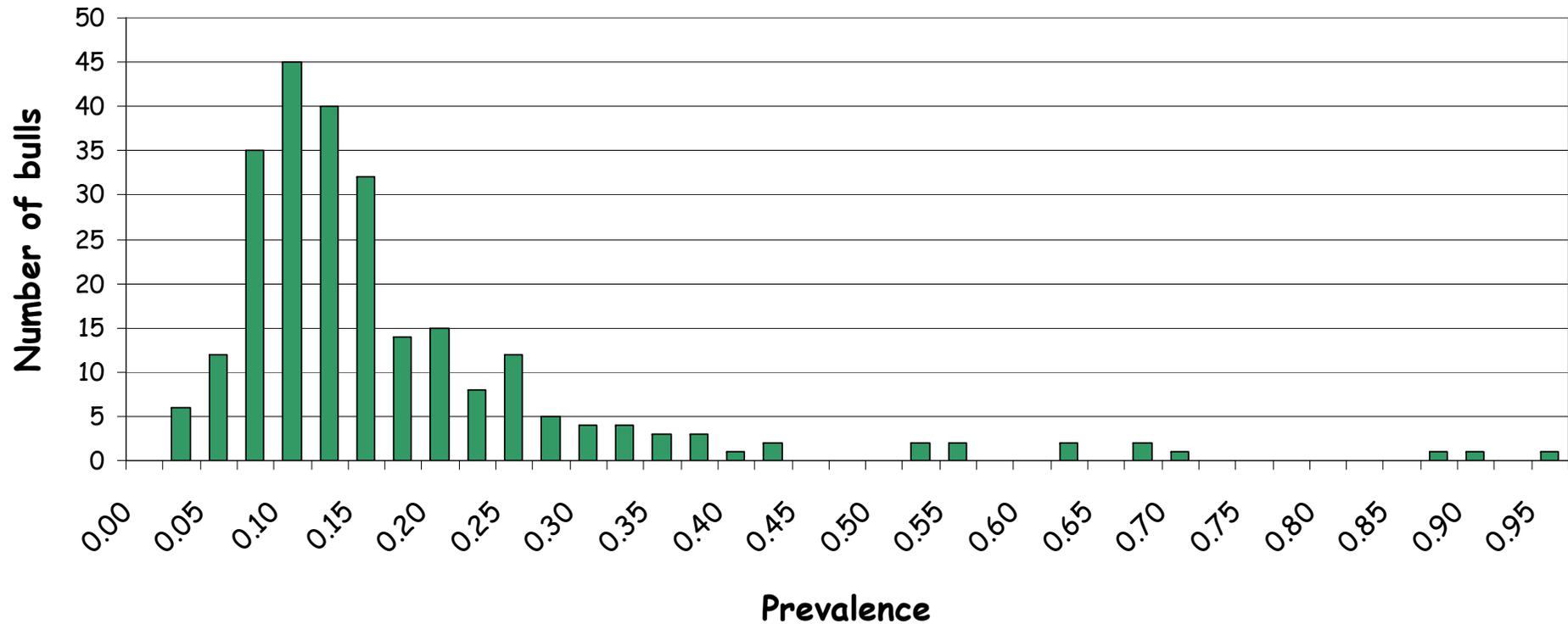
# Liver fluke - sire prevalence



# BVD - sire prevalence



# TB - sire prevalence



# Take home messages

- Considerable exploitable genetic variability in health/quality traits
- Animal health is going to become the next biggest “thing”
- Building links to take all usable data for a sustainable national herd
- Need to ensure that the farmer benefits from the data gathered on his/her farm
- Ireland well positioned structurally

# Acknowledgements

- DAFM
- AHI
- Teagasc (Donagh Berry)