

# LIFE PRODUCTION BREEDING

**Omar Bonetti<sup>1</sup>**

**Paolo Carnier<sup>2</sup> Attilio Rossoni<sup>1</sup>**



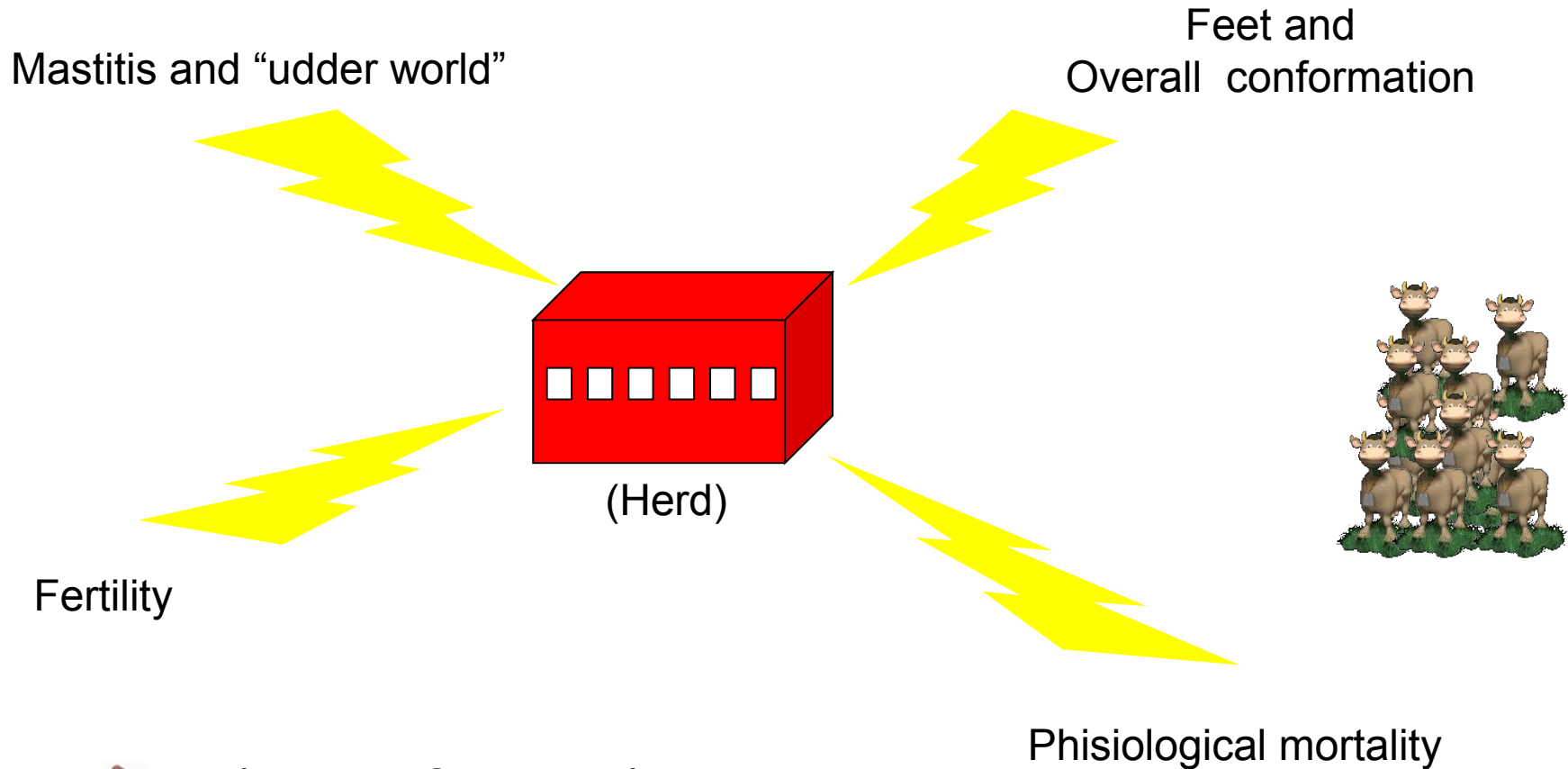
<sup>1</sup> Italian Brown Cattle Breeders' Association

<sup>2</sup> Department of Animal Science – University of Padova

# The Longevity question



# Relevance of culling



➤ Reduction of not productive performance that increasing culling rate, forcing to buy animals





# Why life production breeding

- Reduction of overall costs:
  - Reduction of needed Heifers
    - Feeding costs
    - Veterinary costs
    - Herd space
    - Insemination costs
  - Increase of production time
    - Veterinary costs
    - Increase of production level (primiparus vs pluriparus)
- Culling calves
- Intensity of selection (genetic progress)
- Internal raise
  - No external pathogens

# The italian approach





# What's your philosophy?

- Involuntary culling:
- Sanitary problems (~70%)
    - Mastitis
    - Placenta retention
    - Calving ease
    - Feet problems

FREQUENTLY  
A GOOD COW

**I MUST** cull this cow

- Voluntary culling:
- Low production  
(1<sup>st</sup> lactation)
  - Low fertility level
  - Bad conformation

BAD COW

**I WANT** to cull this cow

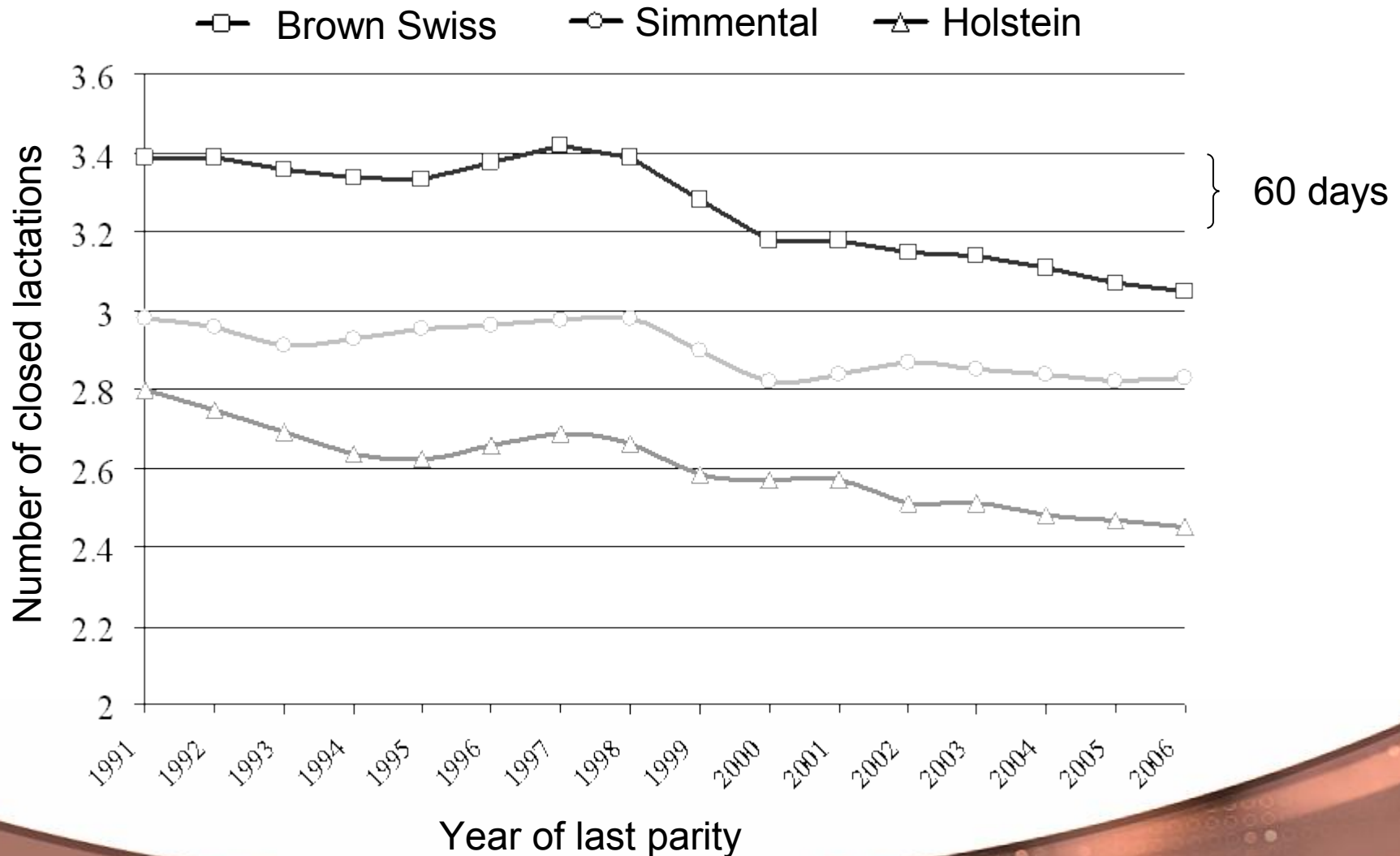


# Italian approach

	Uncensored (culled)		Total
	Number	%	
Lactations	711.061	75,0	947.996
Cows	250.986	77,5	323.849
Herds	10.533		
Sires	11.082		

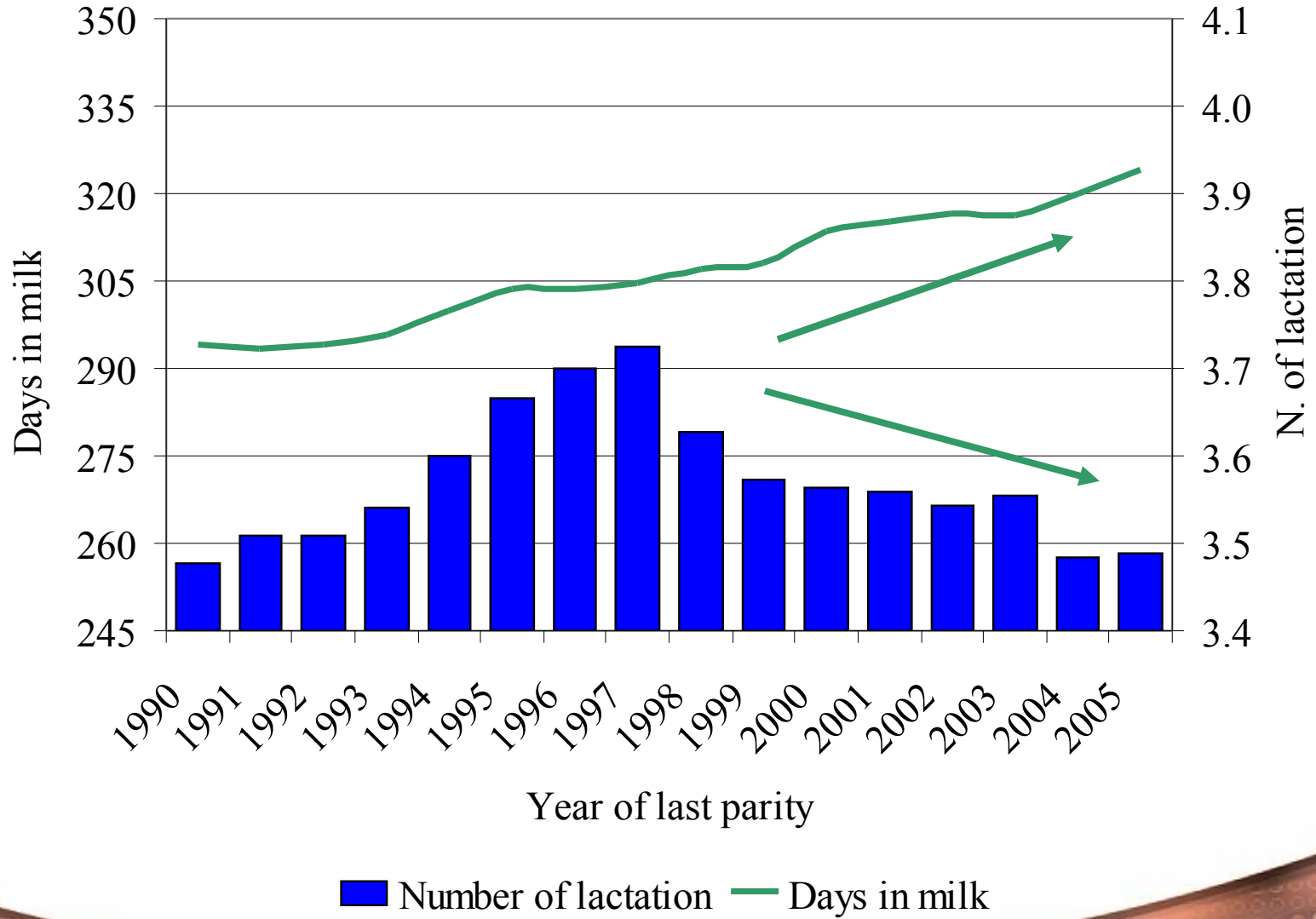


# Longevity in Italian dairy cows



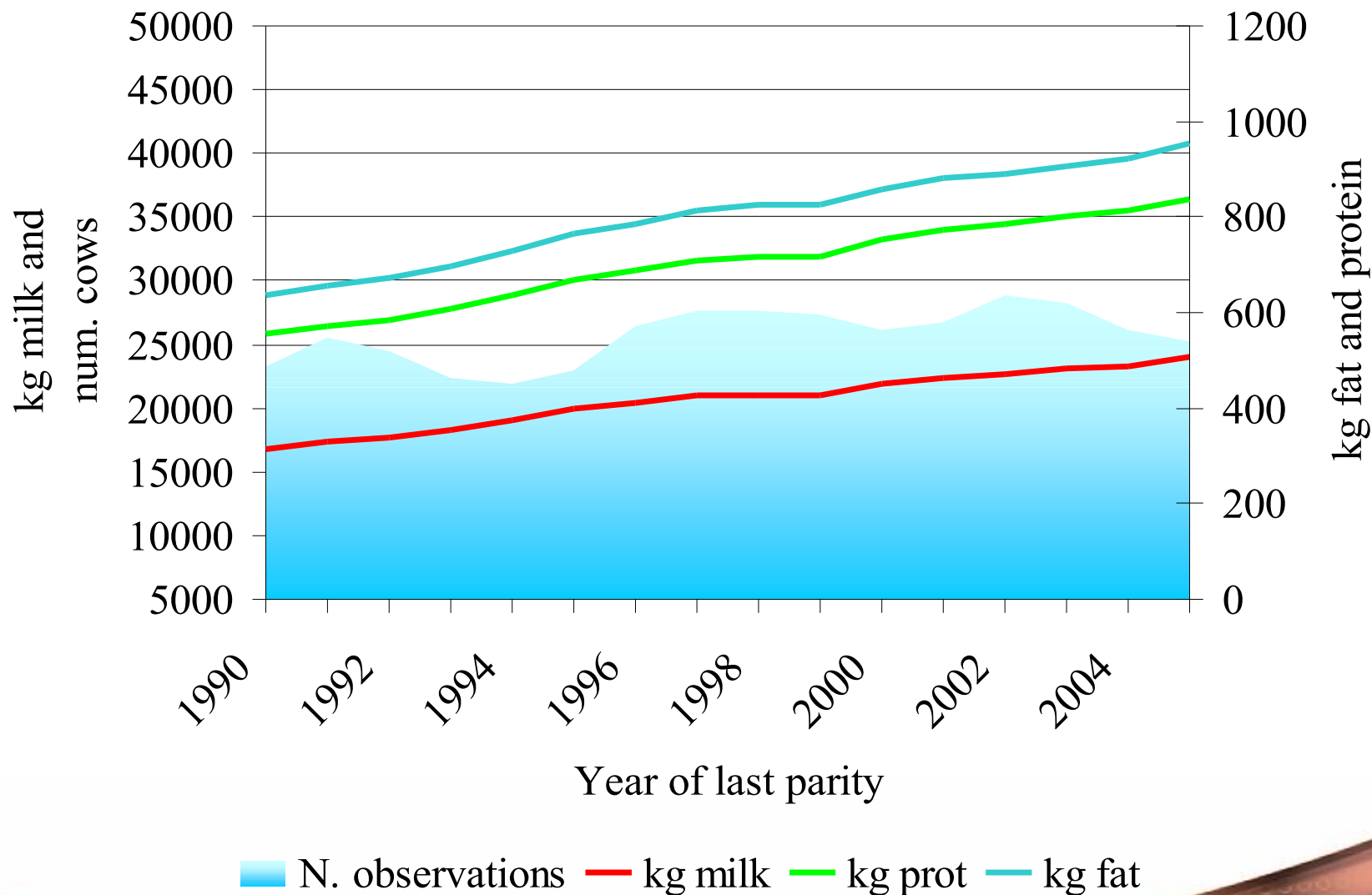


# Phenotypic trend 1/2



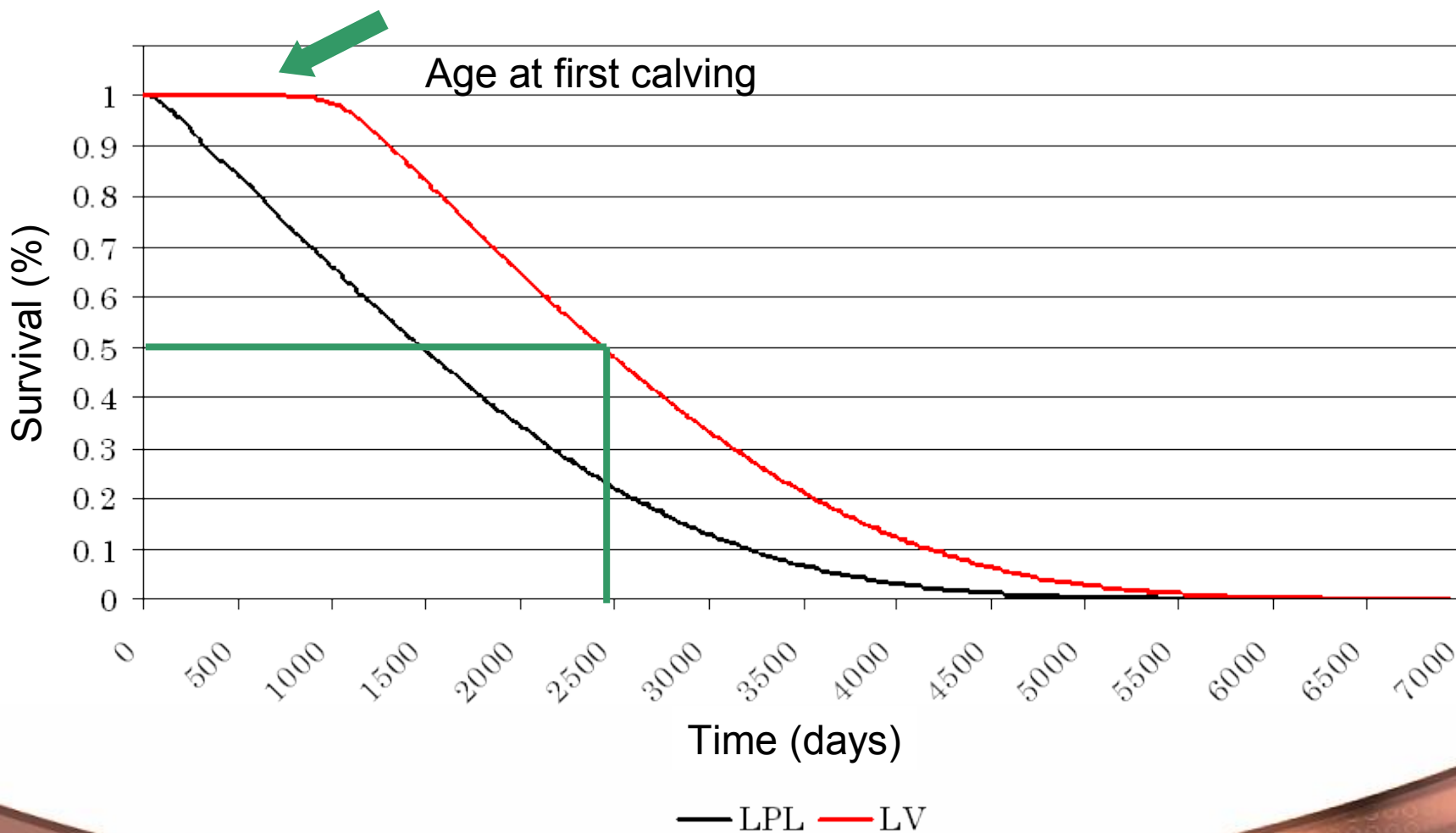


# Phenotypic trend 2/2





# Length of life (LV) Length of productive life (LPL)





# Environmental risk effects:

Age at first calving

Production level

Herd effect

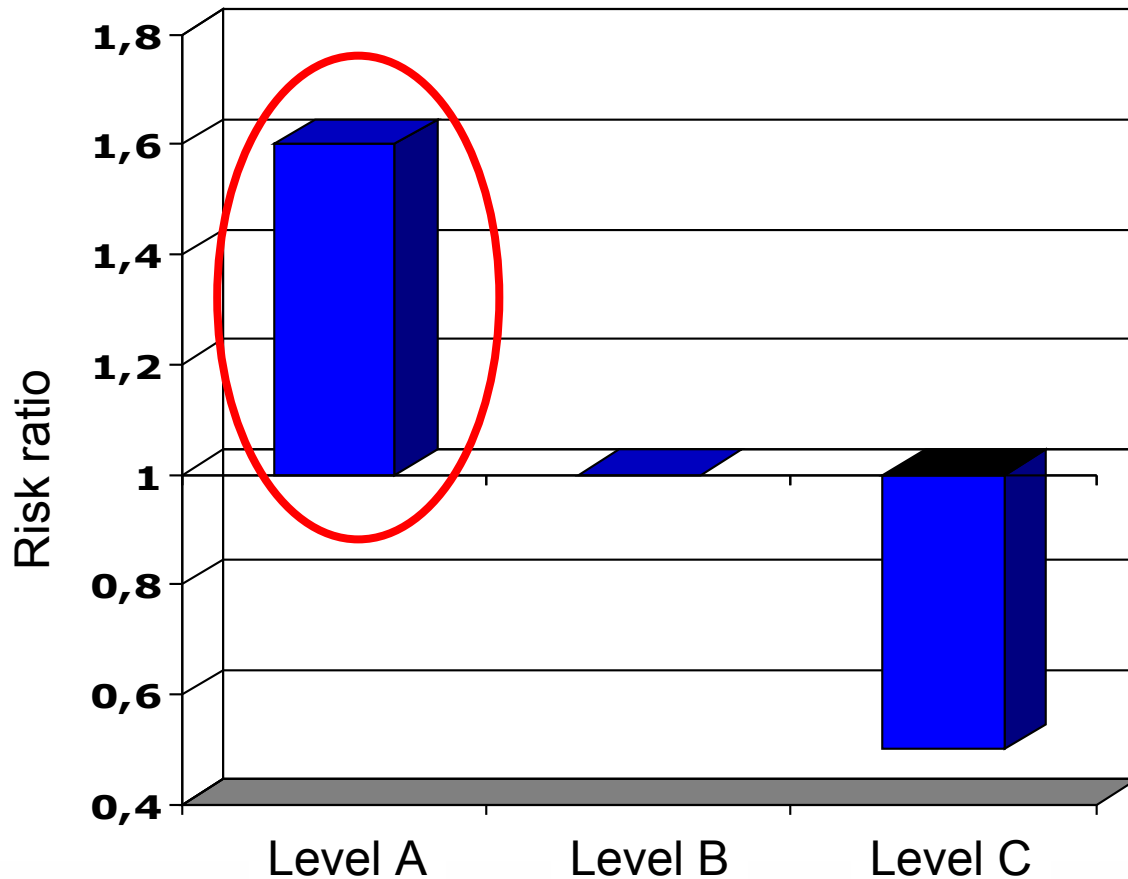
Herd size

Changes in herd size





# How to read the results:



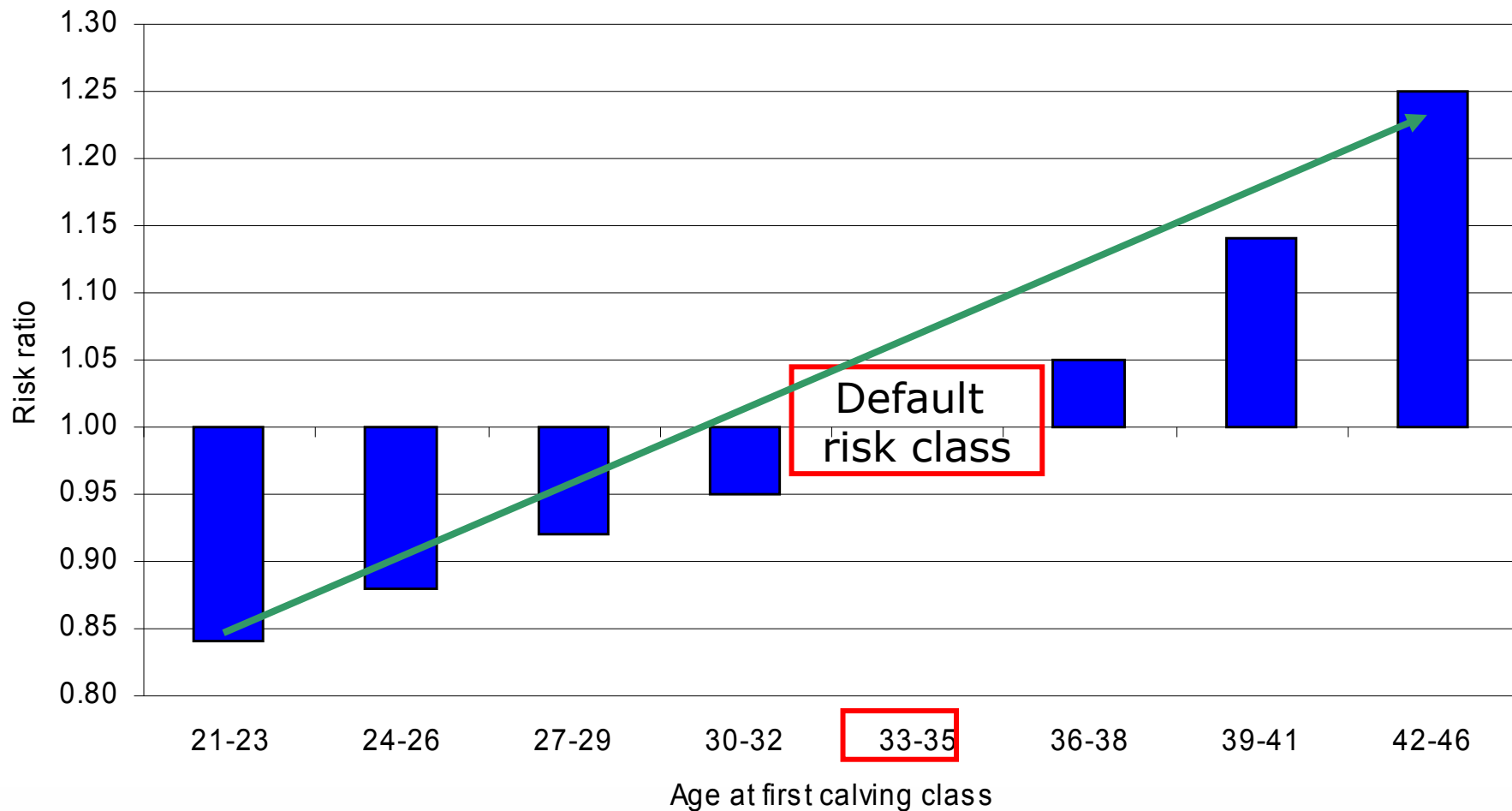
Risk ratio  $>1$  : higher risk compared to population average

Risk ratio  $=1$  : null risk, this is the default risk class

Risk ratio  $<1$  : lower risk compared to population average



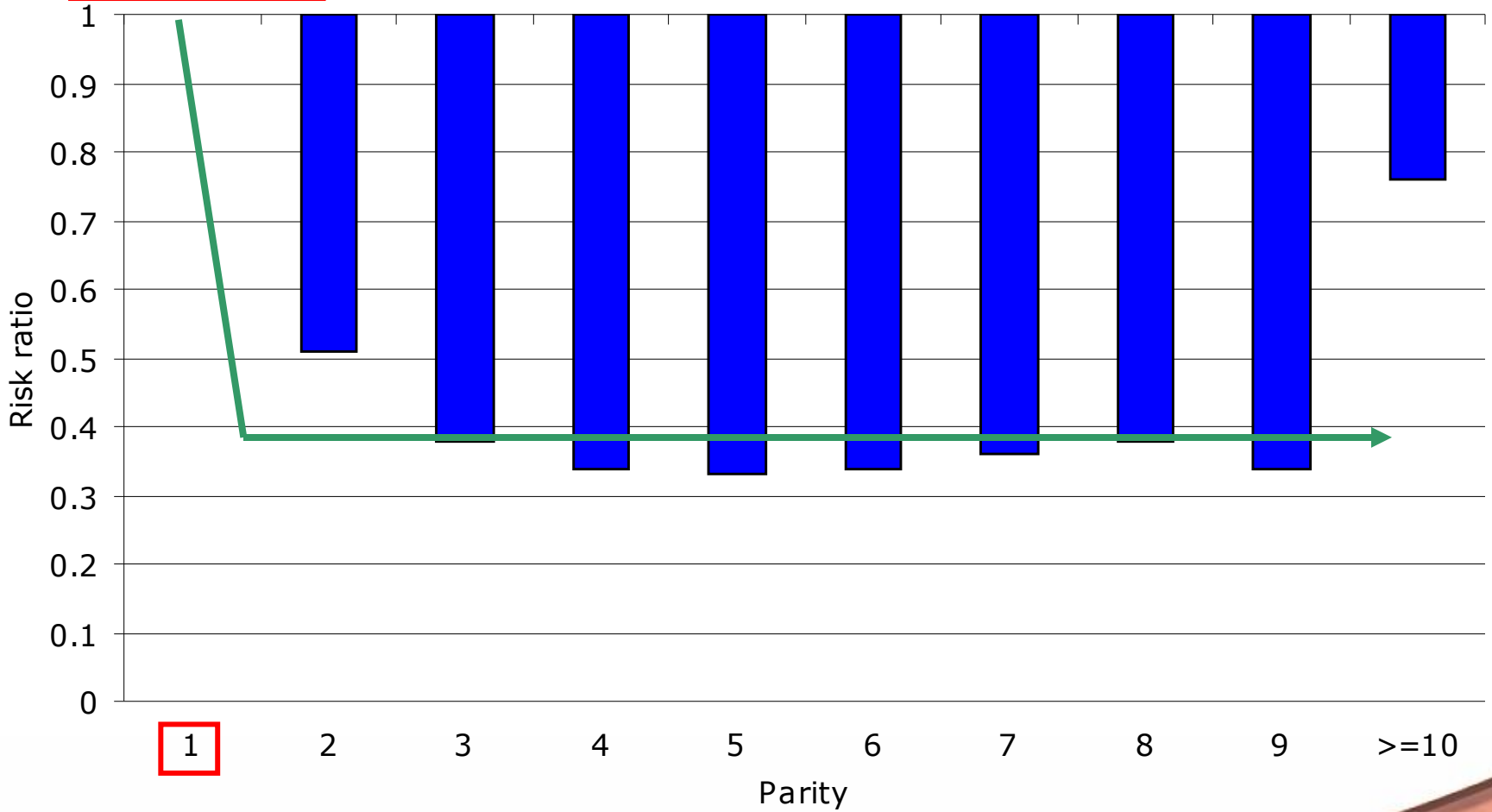
# Age at first calving





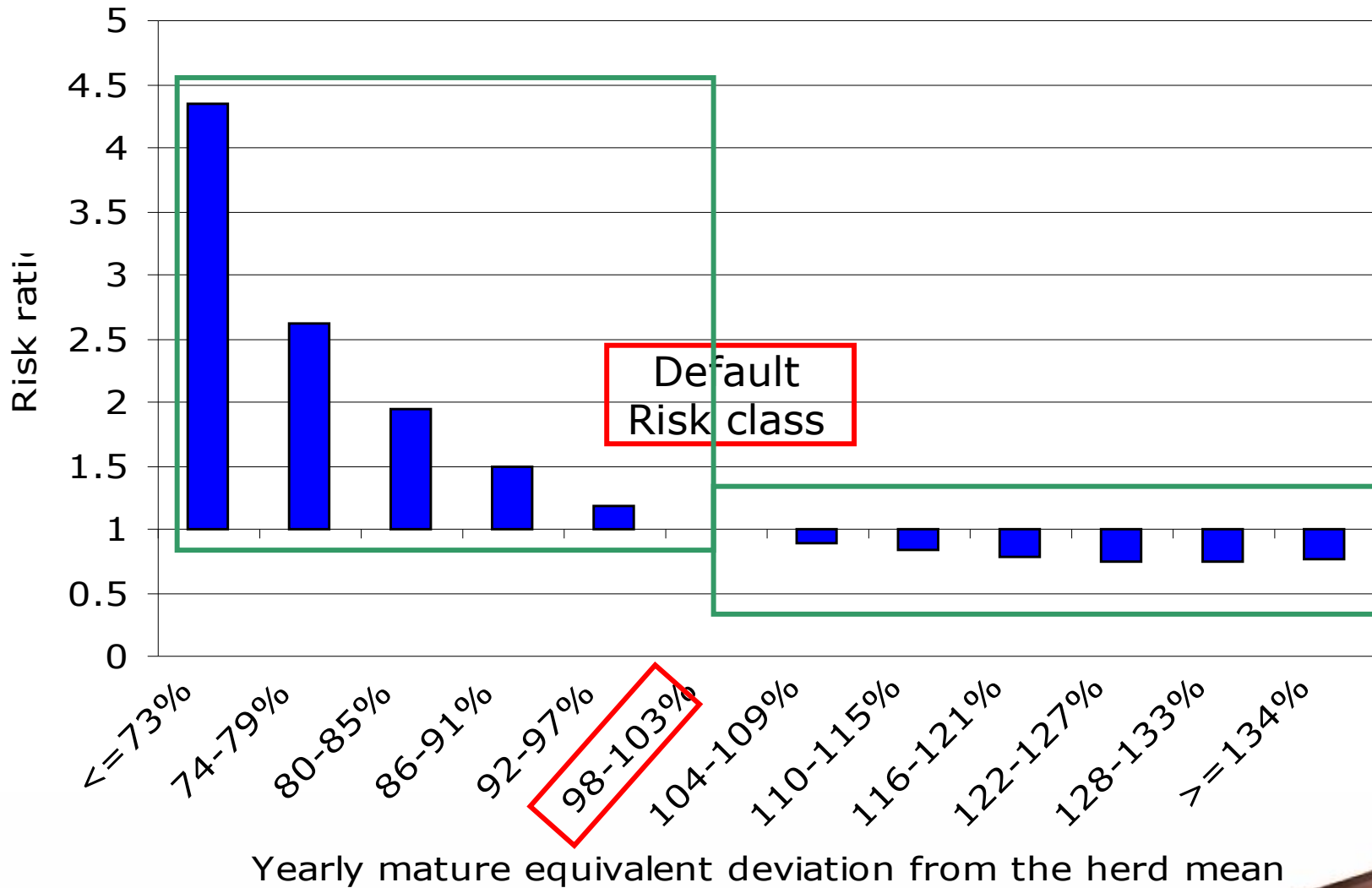
# Parity

Default  
Risk class



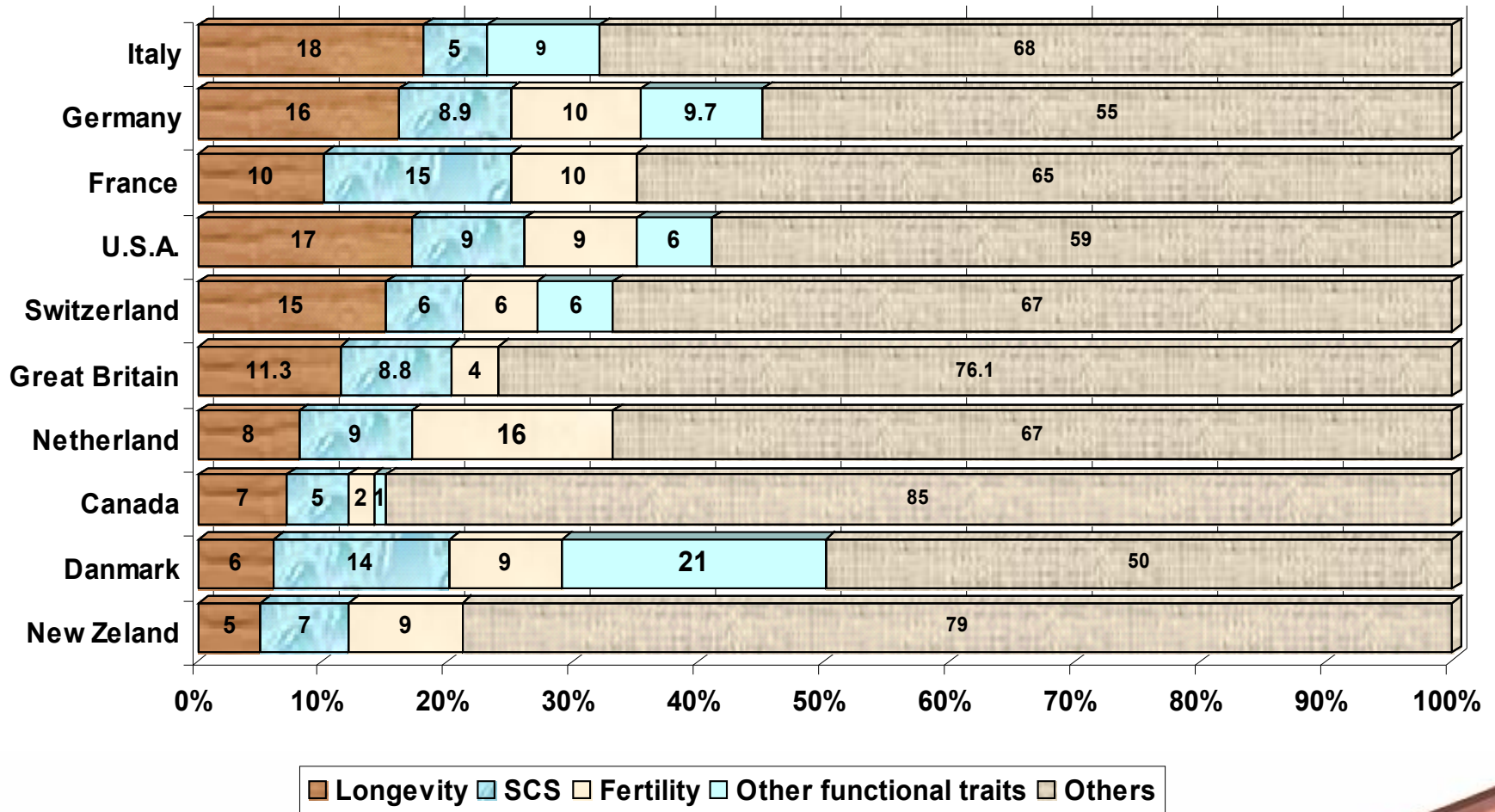


# Production level





# Weight of functional traits in national selection goals



# What can we do?

- Take care of the animals!
- “Make your own” heifers rising
- Evaluate the true culling causes
- Define the goals and consequently the culling choice
- Ask for your Breeder’s Association assistance
- ...why not: genetic improvement (correct Sire choice)



Questions?



# Thanks for your attention!

