



# **French Livestock** *genetics and territories*

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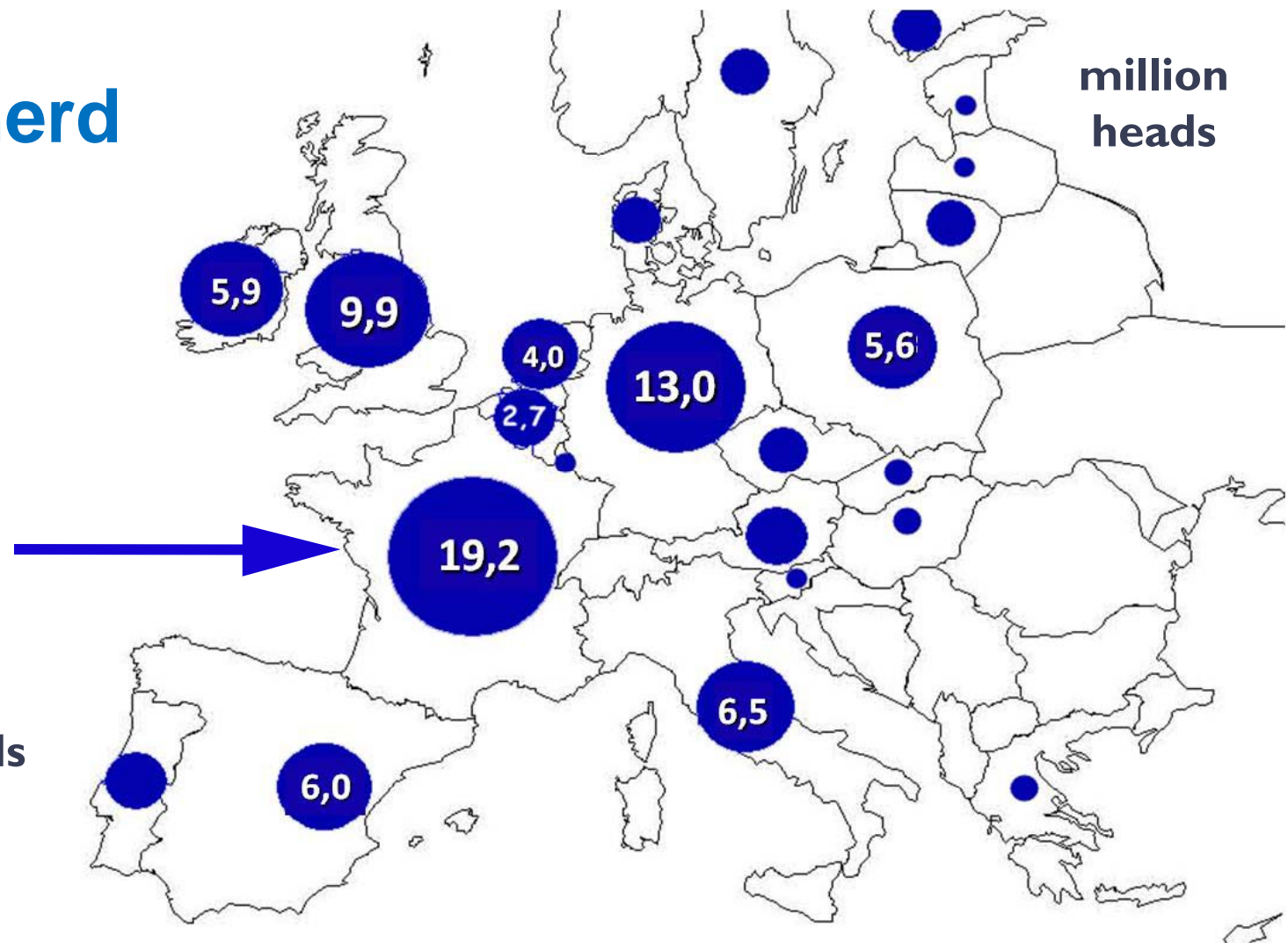
# An introduction

## Did you know.....?



## France 1st cattle herd in EU27

Total UE 27:  
87 800 000 heads



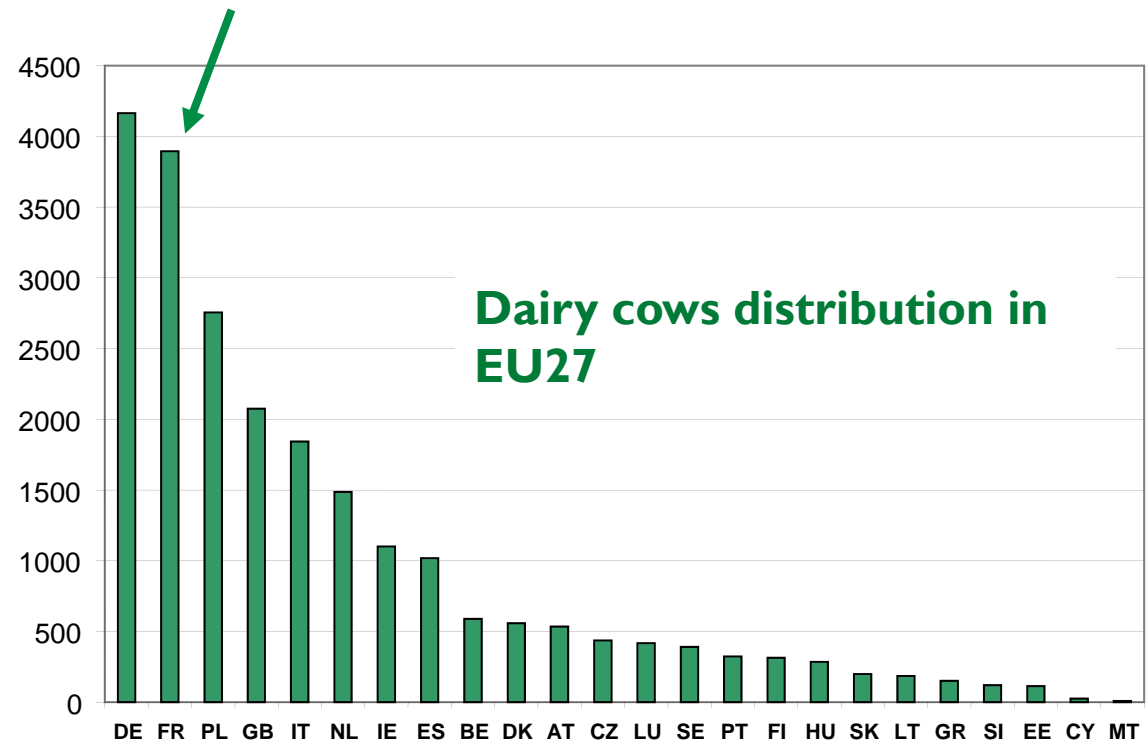
# An introduction

## Did you know.....?



**France**  
**2nd EU27 dairy**  
**herd**  
**3.8 million heads**

**1st world**  
**exporter of**  
**dairy products**



# An introduction

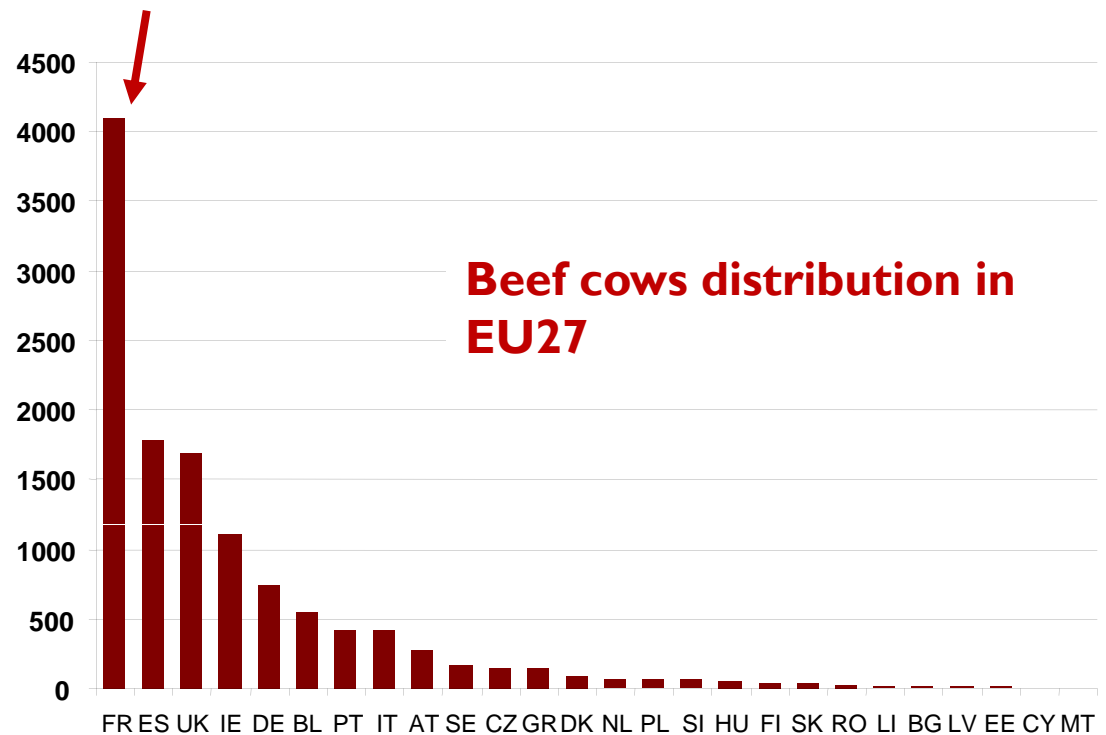
## Did you know.....?



## France

**1st EU27 beef herd (by far!)**

**4.1 million cows**

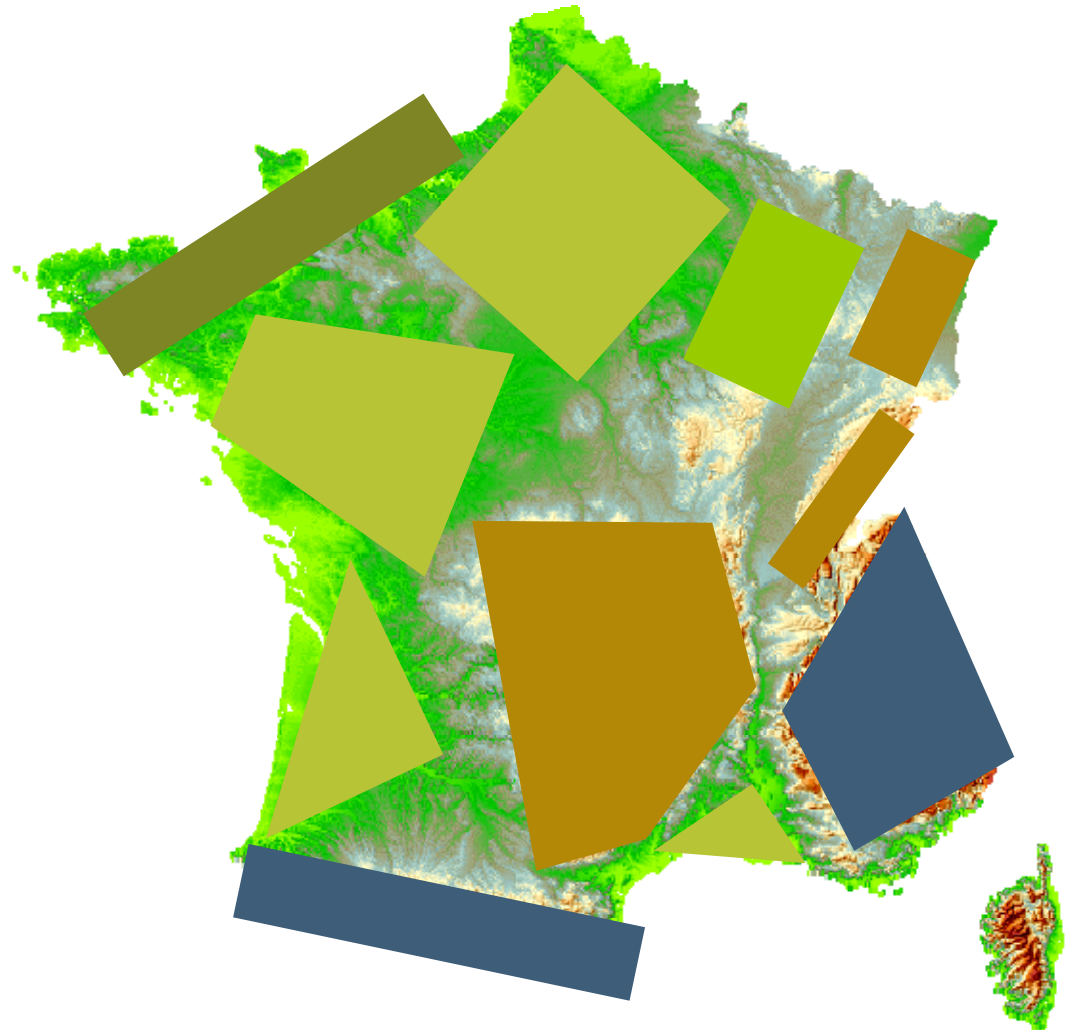


# France



## a multifaceted physiogeography

- ▶ Plains and river basins
- ▶ Groves
- ▶ Plateaux
- ▶ High mountains
- ▶ Lower old mountains
- ▶ Foothills and hilly areas

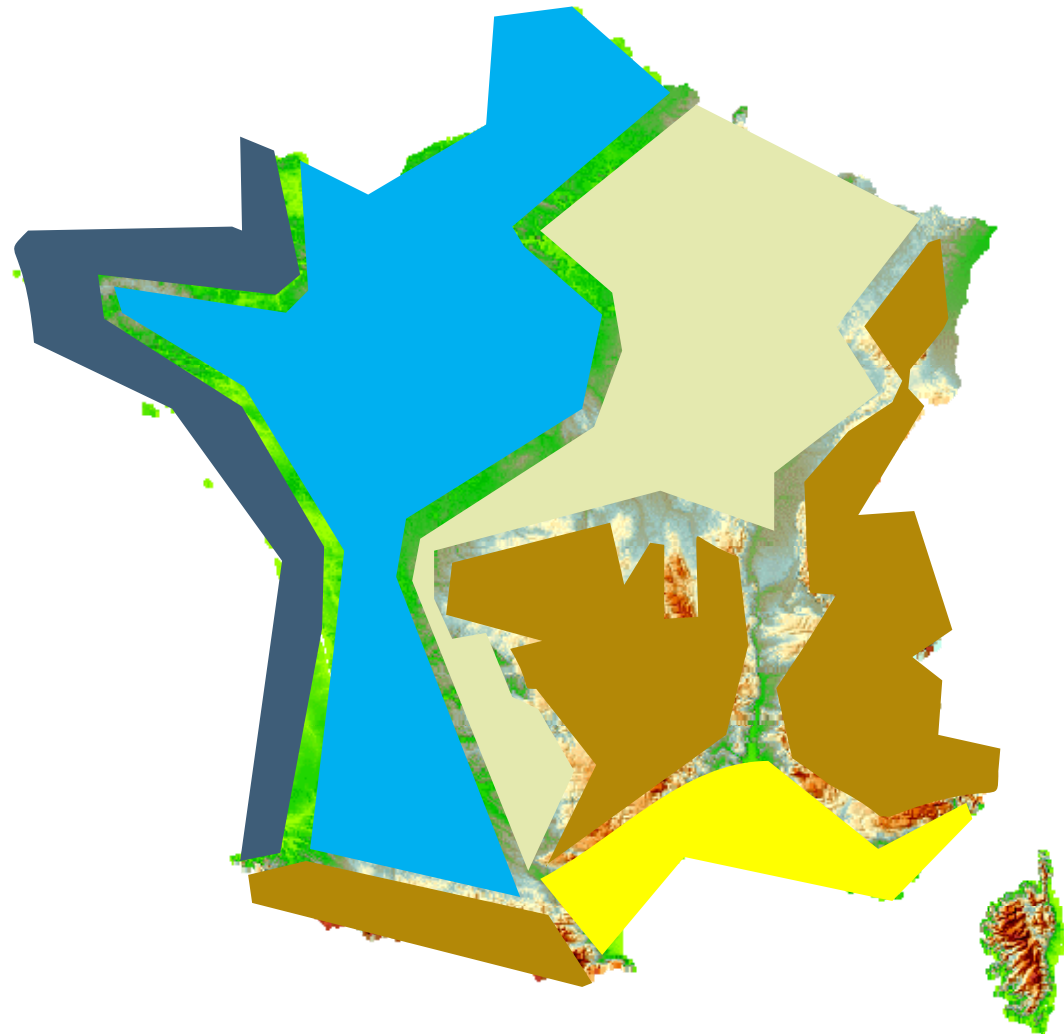


# France

a range of climatic zones



- ▶ Oceanic
- ▶ Semi-oceanic
- ▶ Continental
- ▶ Mountain
- ▶ Mediterranean





# France

a wide array of breeds of all ruminants species

adapted to various production  
environments and production objectives



# French Genetic Offer

## optimizing productivity response



**For the breeder, the best breed, the best genetic choice, is the one that fits with the specificities of the activity's environment**

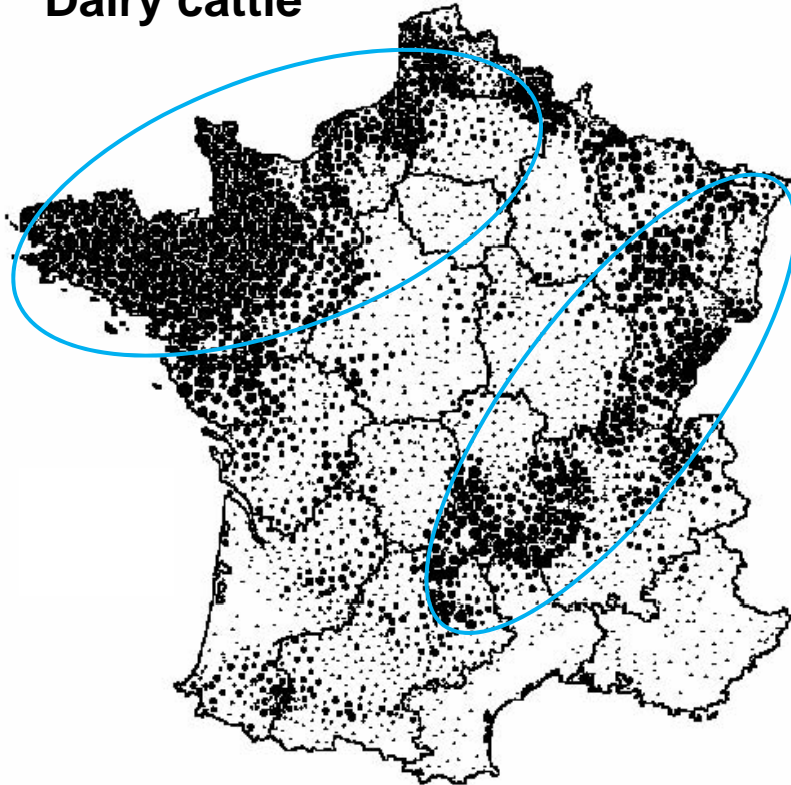


# French Livestock

## an overview of cattle density



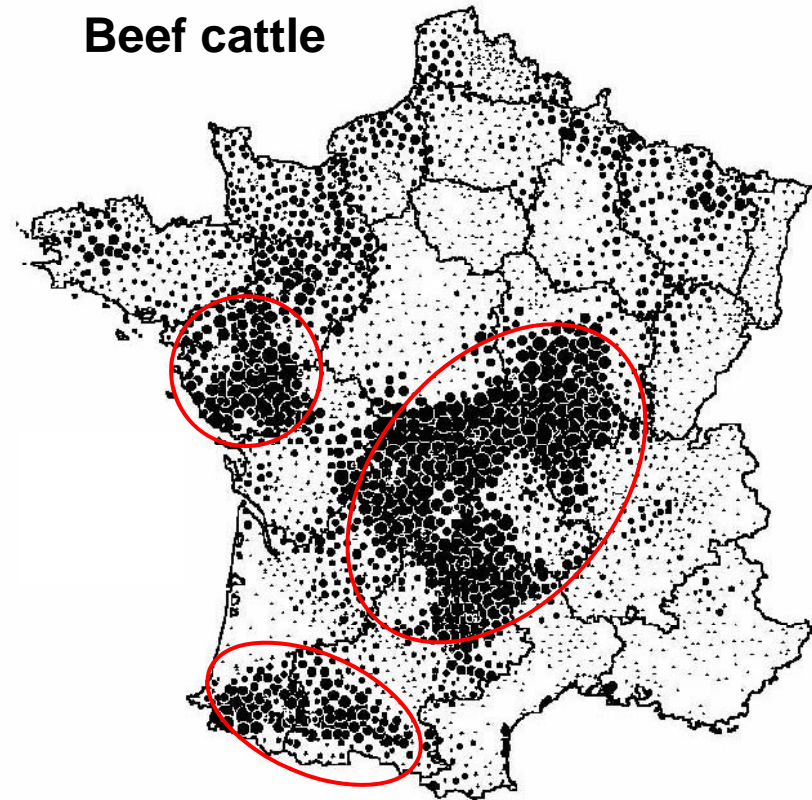
### Dairy cattle



11 breeds under selection  
programs

+ 15 breeds under  
conservation  
programs

### Beef cattle



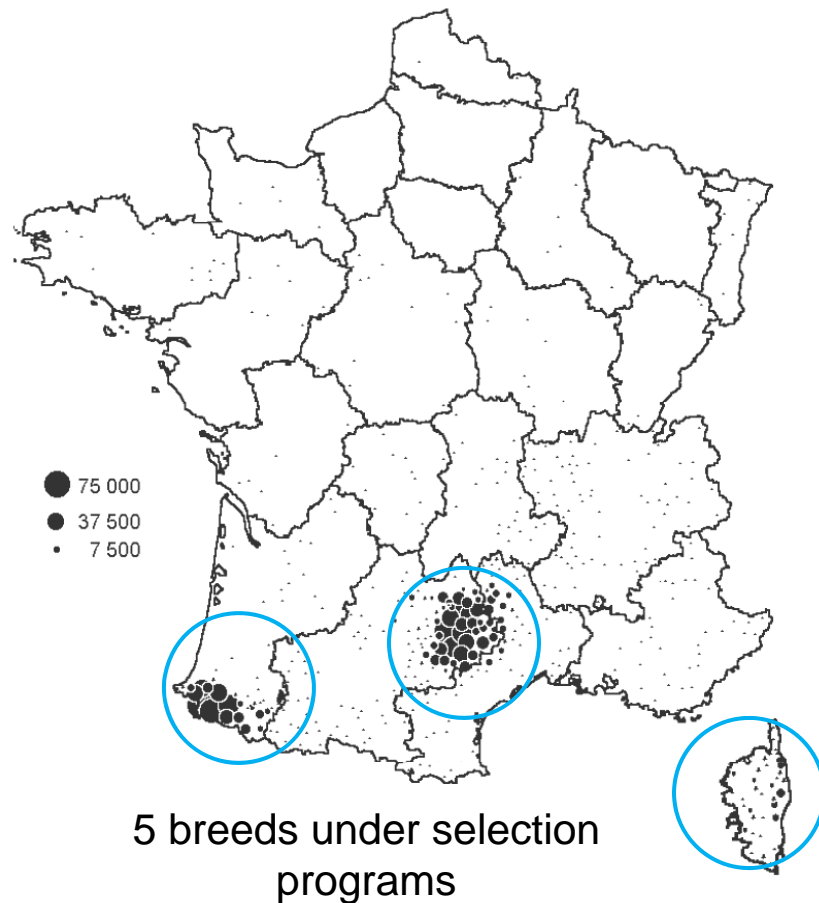
9 breeds under selection programs  
(incl. 3 hardy breeds)

# French Livestock

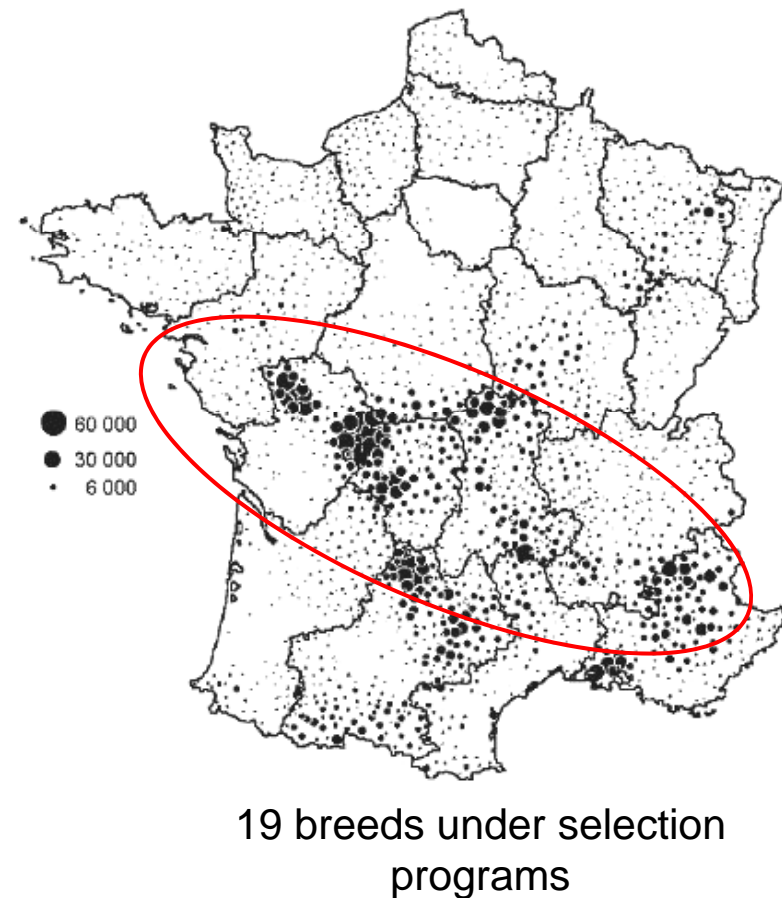
## an overview of ovine density



### Dairy sheep



### Meat sheep



# French Livestock major dairy breeds



## ► Prim'holstein: probably the best Hosltein in the world

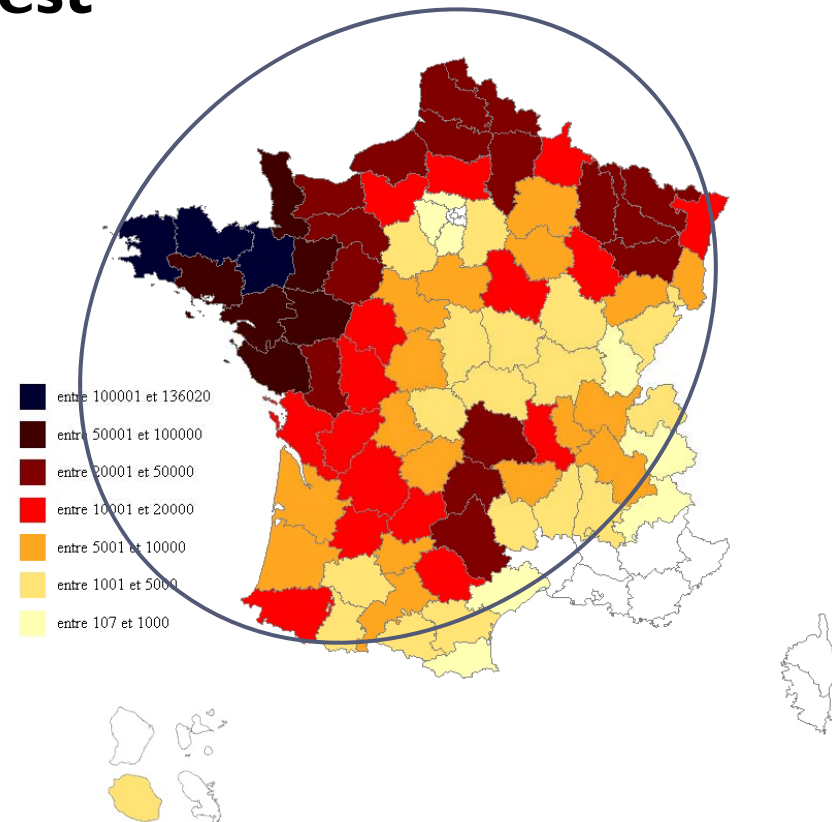


**1 600 000 cows officially  
recorded**

**10 751 kg per lactation**

**F: 3,97 %**

**P: 3,37 %**



**Interbull 2010 :  
FRENCH BULLS RANKED WORLD 2ND  
(ISU)**



# French Livestock

## Major dairy breeds



### ► Montbéliarde: ever tried Comté cheese?

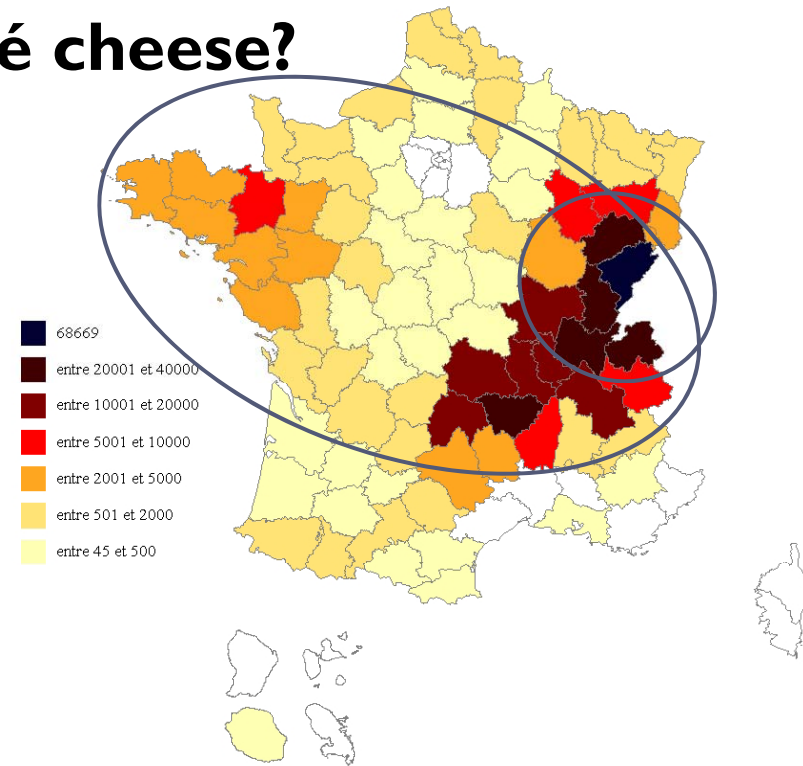


**370 000**  
cows officially recorded

**7 924 kg** per lactation

**F: 3,91 %**

**P: 3,44 %**



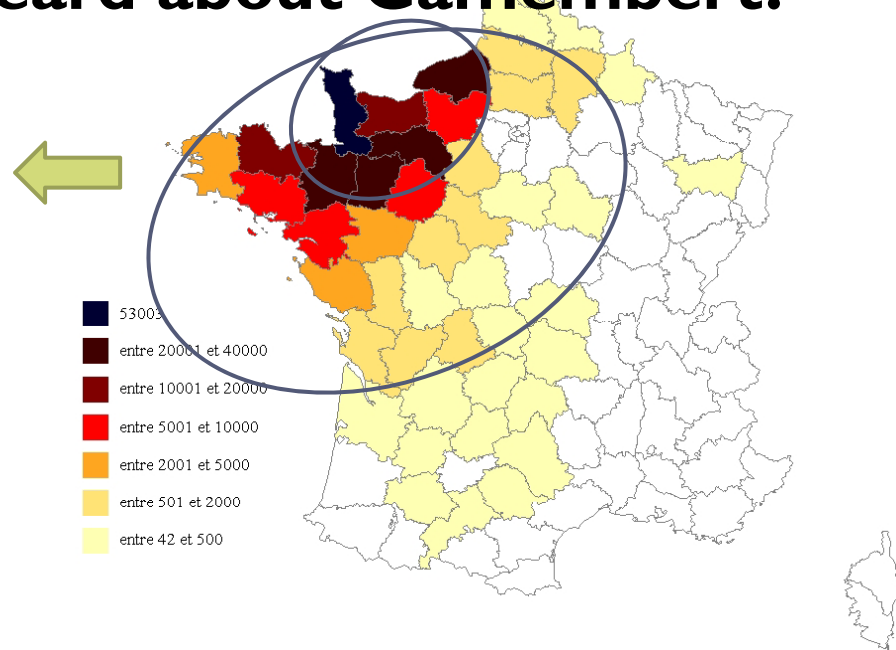
**Plus an excellent fattening  
capacity and carcass quality of  
bullocks !!**

# French Livestock

## Major dairy breeds



### ► Normande: of course you heard about Camembert?



**220 000 cows officially  
recorded**

**7 469 kg per lactation**

**F: 4,29 %**

**P: 3,63 %**

**Plus an excellent fattening  
capacity and carcass quality of  
bullocks !!**

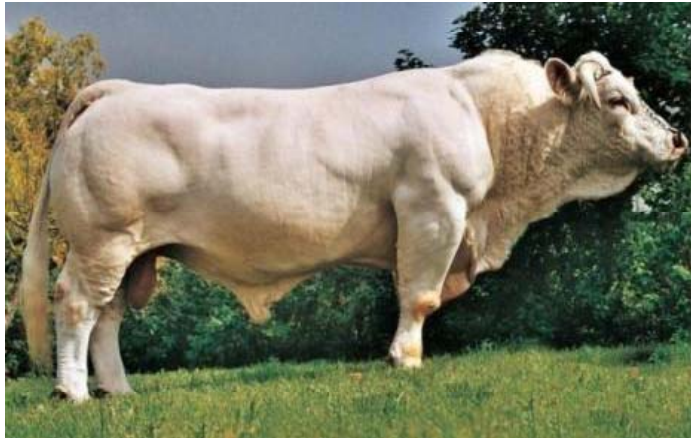


# French Livestock

## Major beef breeds



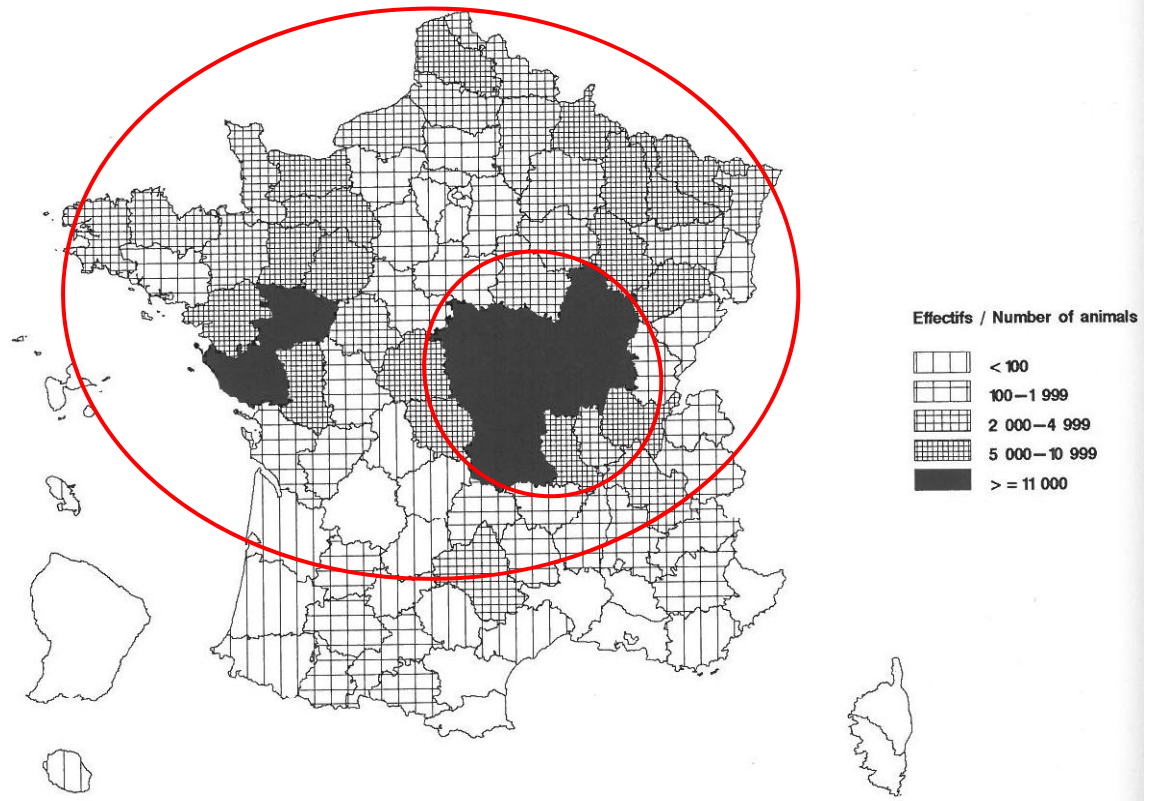
### ► Charolais



**1 700 000 cows**

**370 000 cows**  
officially recorded

**12-months bulls LW**  
**509 kg**



# French Livestock

## Major beef breeds



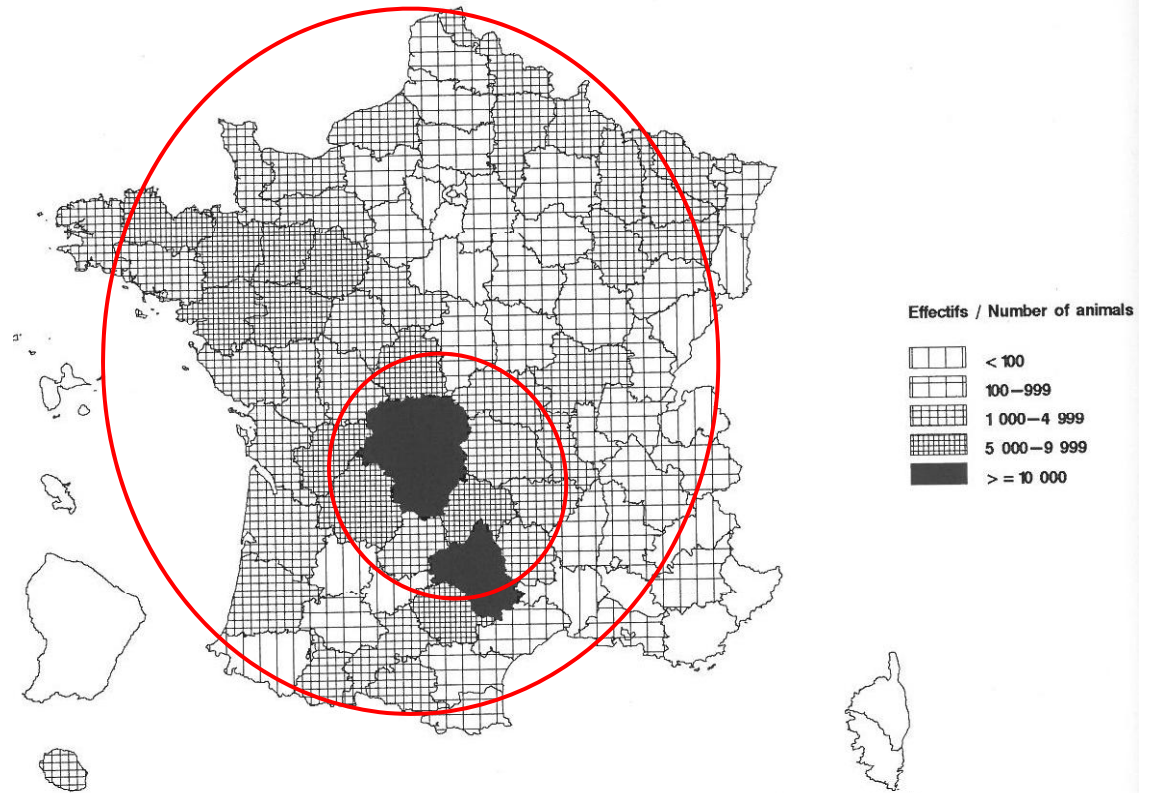
### ► Limousin



**1 000 000 cows**

**240 000 cows**  
officially recorded

**12-months bulls LW**  
**478 kg**





# French Livestock

## Major beef breeds



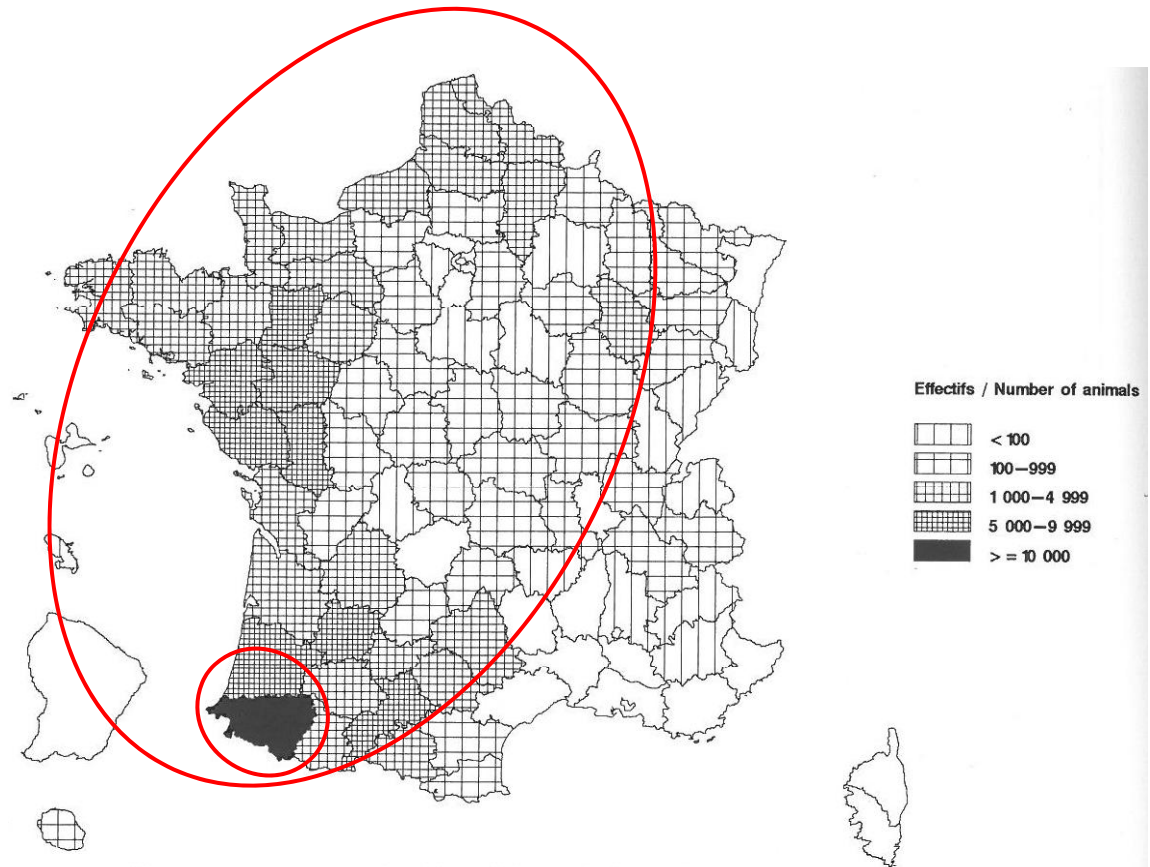
### ► Blonde d'Aquitaine



**530 000 cows**

**150 000 cows**  
officially recorded

**12-months bulls LW**  
**519 kg**



# French Livestock

## Major beef breeds



### Outstanding fattening performance

**Limousine**



**Charolais**



**Blonde d'Aquitaine**



**Daily gain: 1.4 à 1.8 kg**  
**Carcass conformation and format**  
**Feed conversion ratio**



# French Livestock

## Motherhood type breeds



### ► Hardy beef breeds

#### Salers



#### Aubrac



#### Gasconne



- **RÉSISTANCE** to extreme temperatures and feed variable availability
- **Excellent legs and hoofs** (walking capacity)
- **Easy CALVING** and **FERTILITY** (1 calf per year)



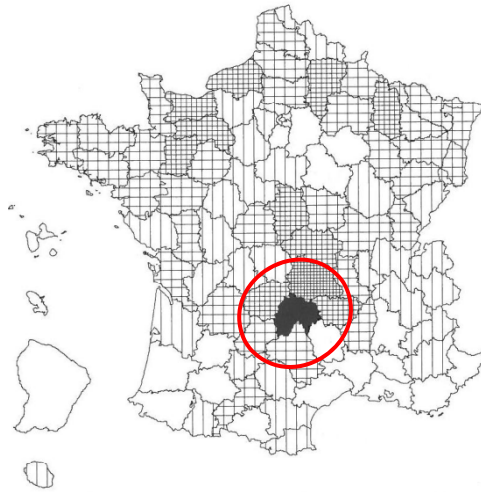


# French Livestock

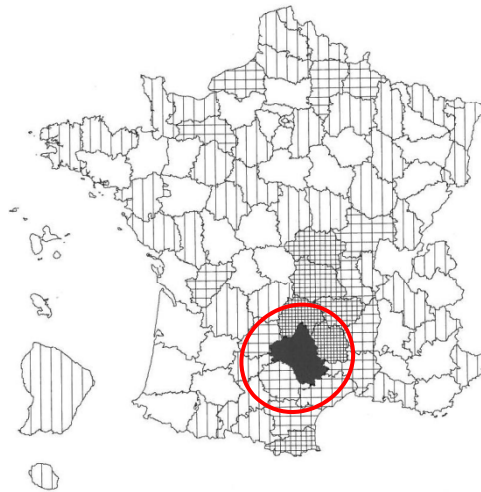
## Motherhood type breeds



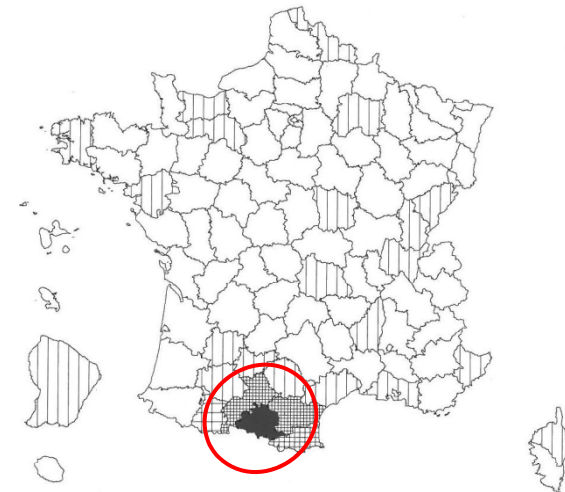
**Salers**



**Aubrac**



**Gasconne**



# French Livestock

## Motherhood type breeds



**Some of them in Siberia (2010) ..... like at home!**

Salers



Limousine



Aubrac



Charolaise



# French Livestock

## Motherhood type breeds



**Heterosis and economics: the other dimension in the equation**

**Charolais x Salers**



**Blonde x Gasconne**



**Charolais x Aubrac**



- **Management and feeding: LESS DEMANDING**
- **Daily gain during fattening: 1200-1500 G**
- **Carcass weight from 340 to 380 KG**



# French Livestock

## Ovine meat breeds



### SPECIALIZED BREEDS

Large formats (about 18 kg carcass)



Charollais



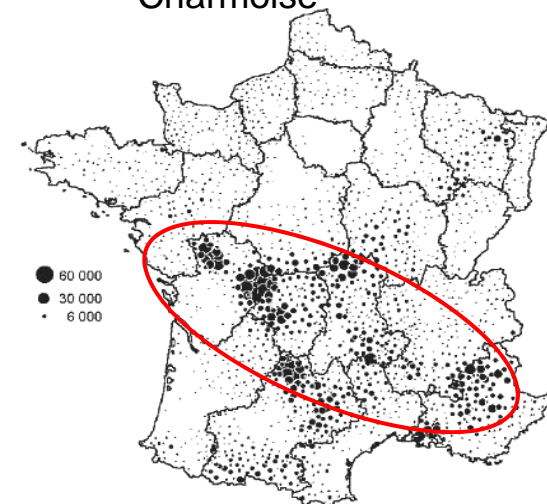
Ile de France

Smaller formats (12-13 kg carcass)



Charmoise

And more selection  
schemes for a large  
number of hardy  
breeds



# French Livestock

## Ovine dairy breeds

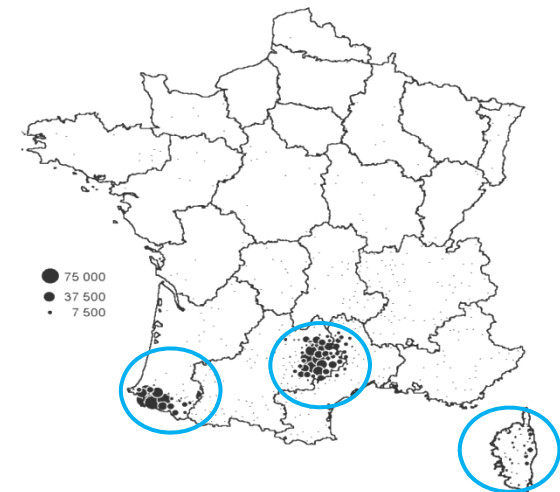


**Where a market exists for dairy products...**



Lacaune

**260 l/lactation**





# French Livestock

## Caprine breeds (dairy only)



**France breeds for milk selection only and proposes top genetics**

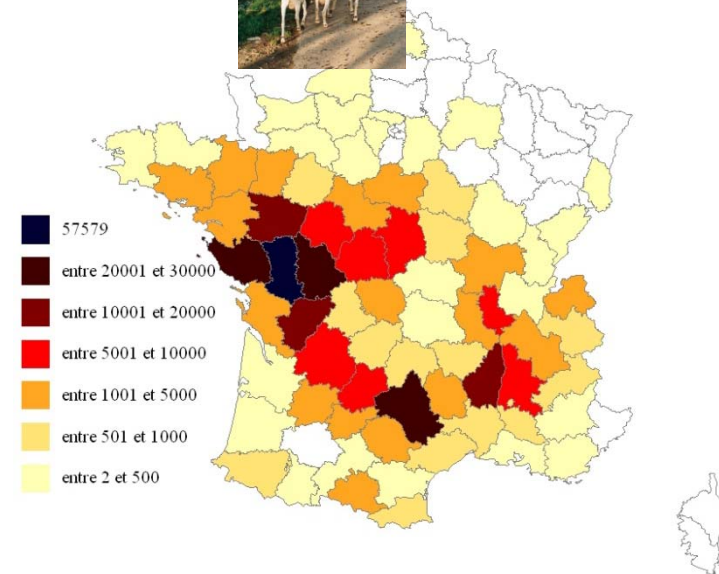
In average 800 l. + per lactation (milk recording data) with selected mothers up to 1200 l.



Saanen



Alpine



# French Selection Scheme

securing present and future performance



- **Reliable information system** (generalized identification, performance control, scoring, weighing)
- **Outstanding sanitary monitoring and control**
- **Size of the selection nucleus and applied genetic pressure**



Since  
1966: the  
breeders  
are at the  
center of  
the setup

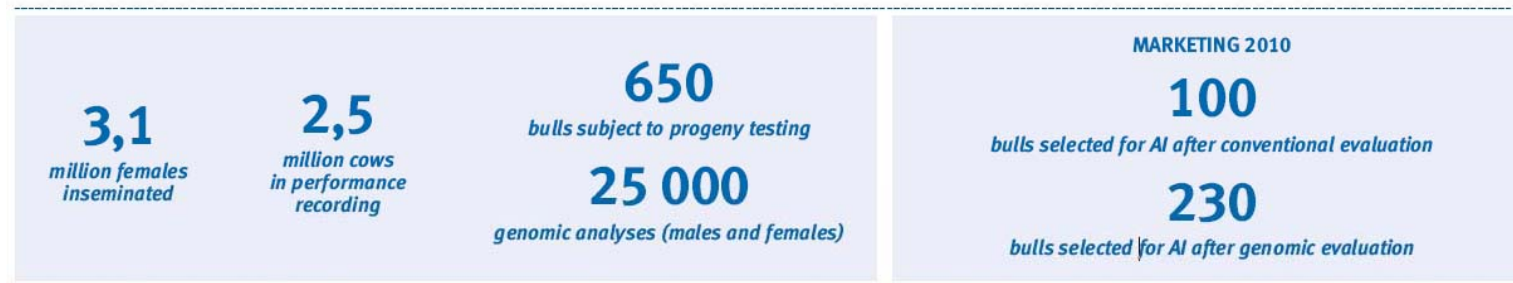
**... and now: Investment in genomics!**

# French Selection Scheme

## securing present and future performance



### Genetic pressure in cattle



# French Selection Scheme securing present and future performance



## Genetic pressure in small ruminants

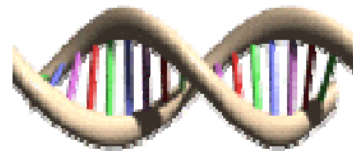


# French Selection Scheme

## securing present and future performance



## Genomics: Predictive genetic value of individuals



- ▶ from gene markers
- ▶ **based on a reference population:** to establish the relationships between markers and phenotypes



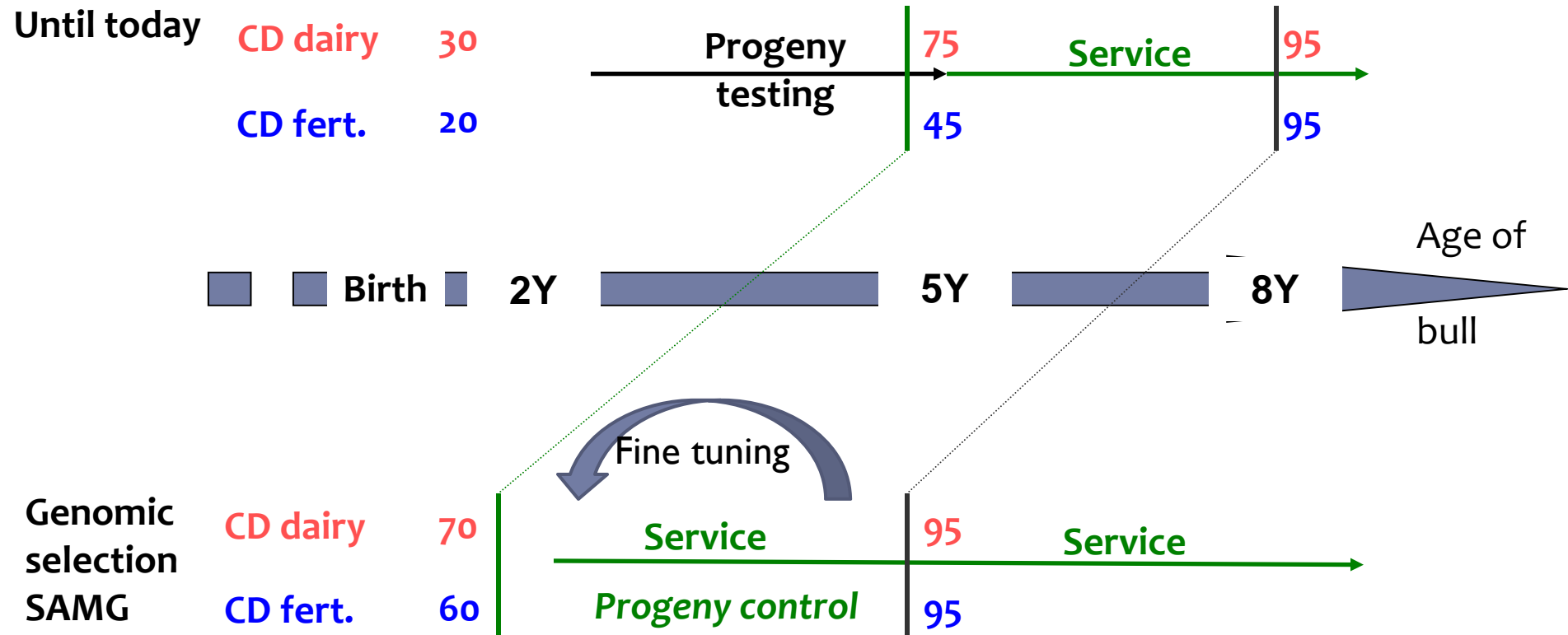


# French Selection Scheme

## SAMG and bull selection



time is the essence: the generation gap!



# French Genetics

evidence of progress achieved

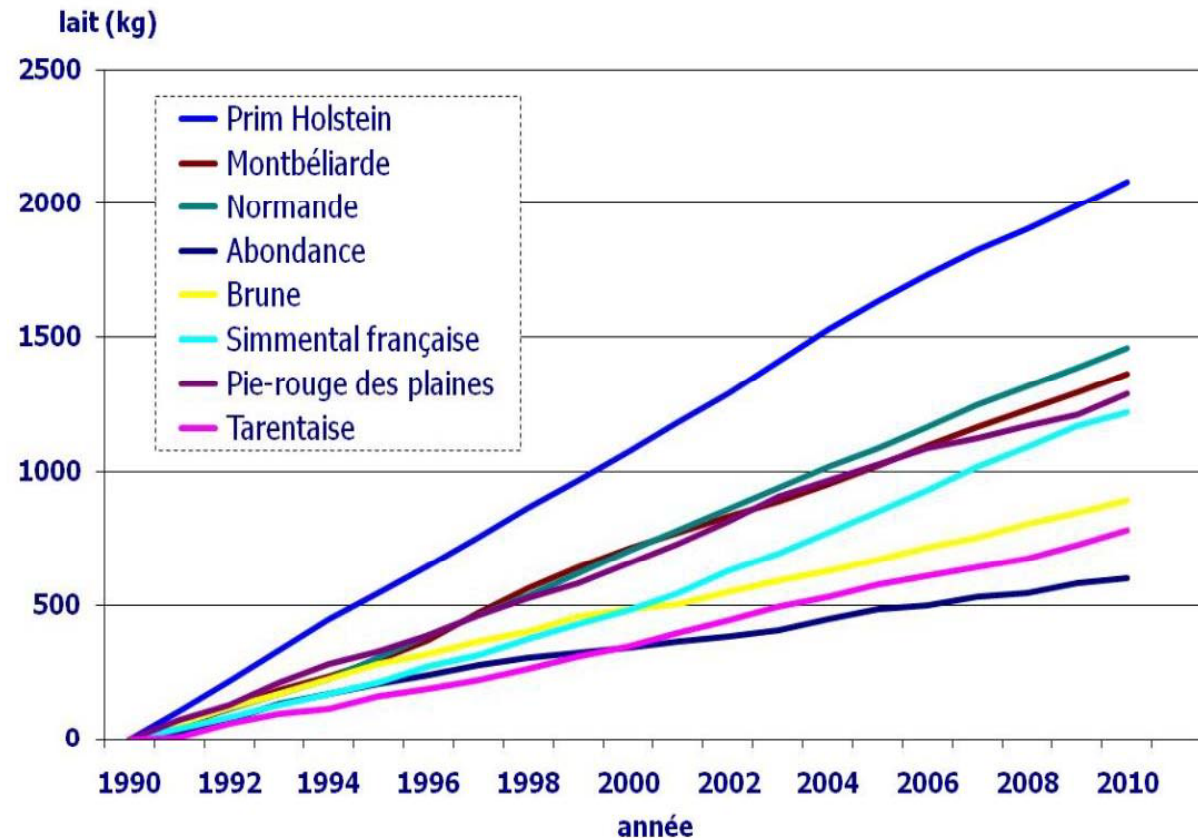


## Case of dairy productivity

**+ 80 to 110 l /y**  
(depending on breed)

i.e

**+ 1000 l / lactation in  
10 years**

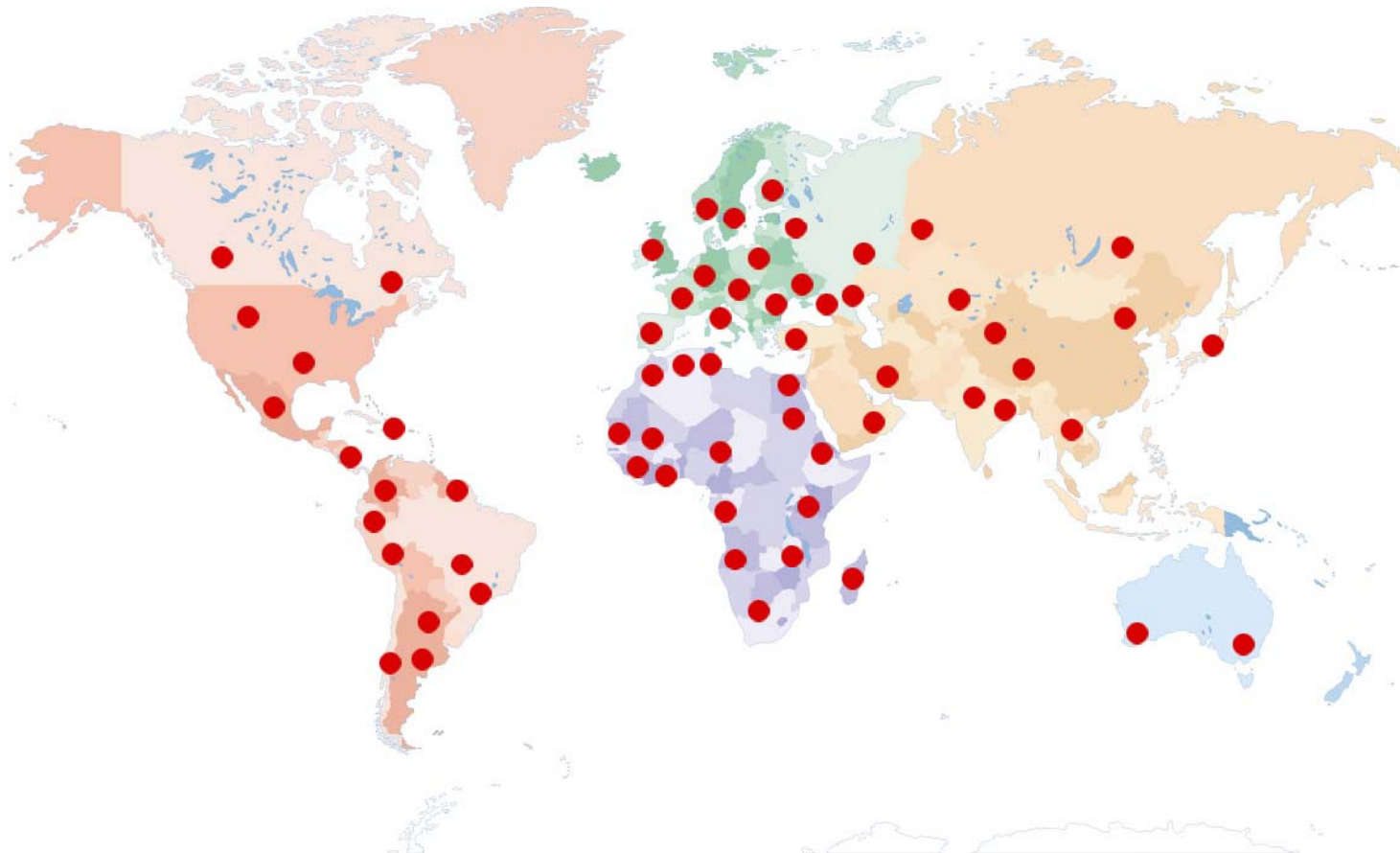


# French Livestock

adaptable and appreciated worldwide



**French genetics is used successfully by breeders in more than 80 countries on the 5 continents**



Manifestation