



French Livestock

genetics and territories

Philippe Amé, Director, International Affairs
French Livestock Institute

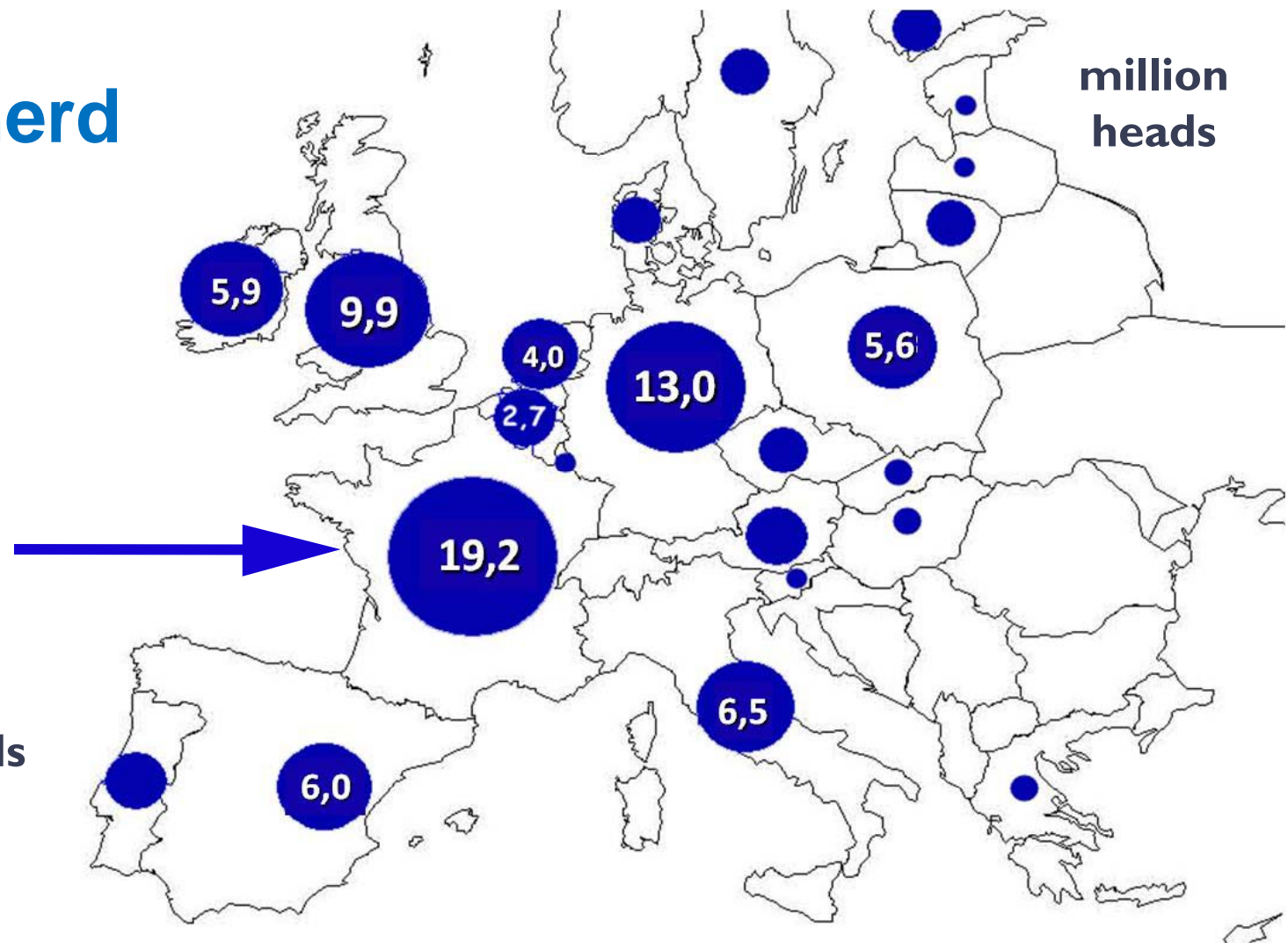
An introduction

Did you know.....?



France 1st cattle herd in EU27

Total UE 27:
87 800 000 heads



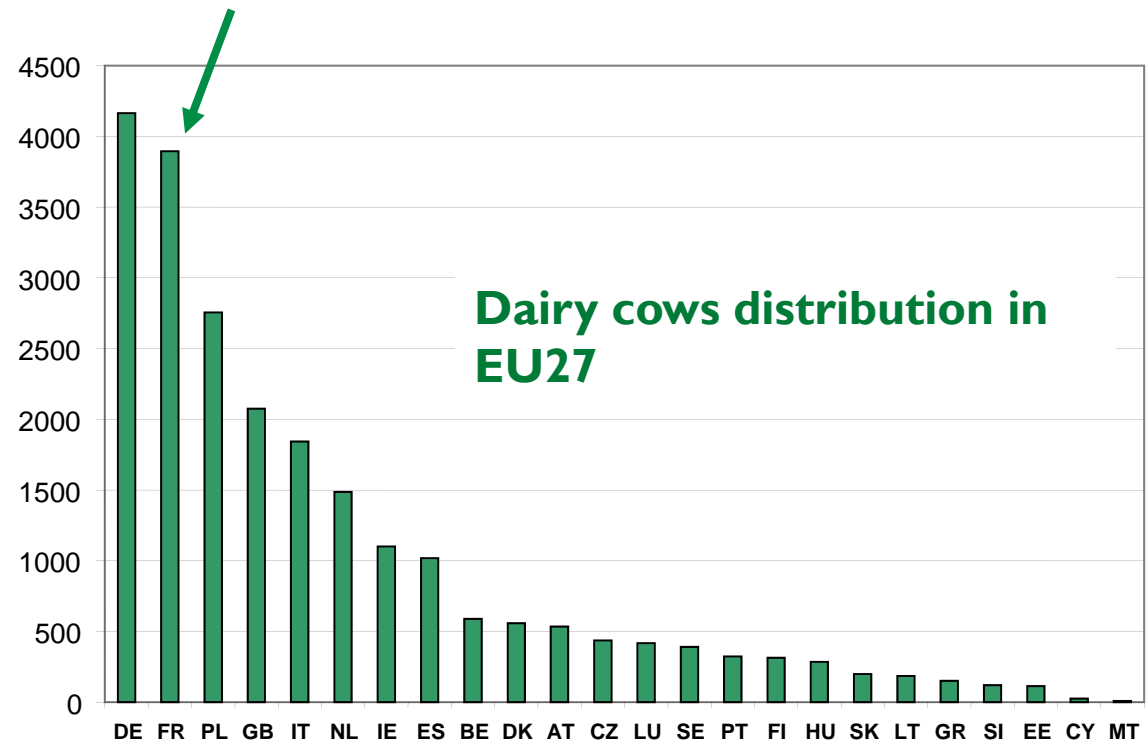
An introduction

Did you know.....?



France
2nd EU27 dairy
herd
3.8 million heads

1st world
exporter of
dairy products



An introduction

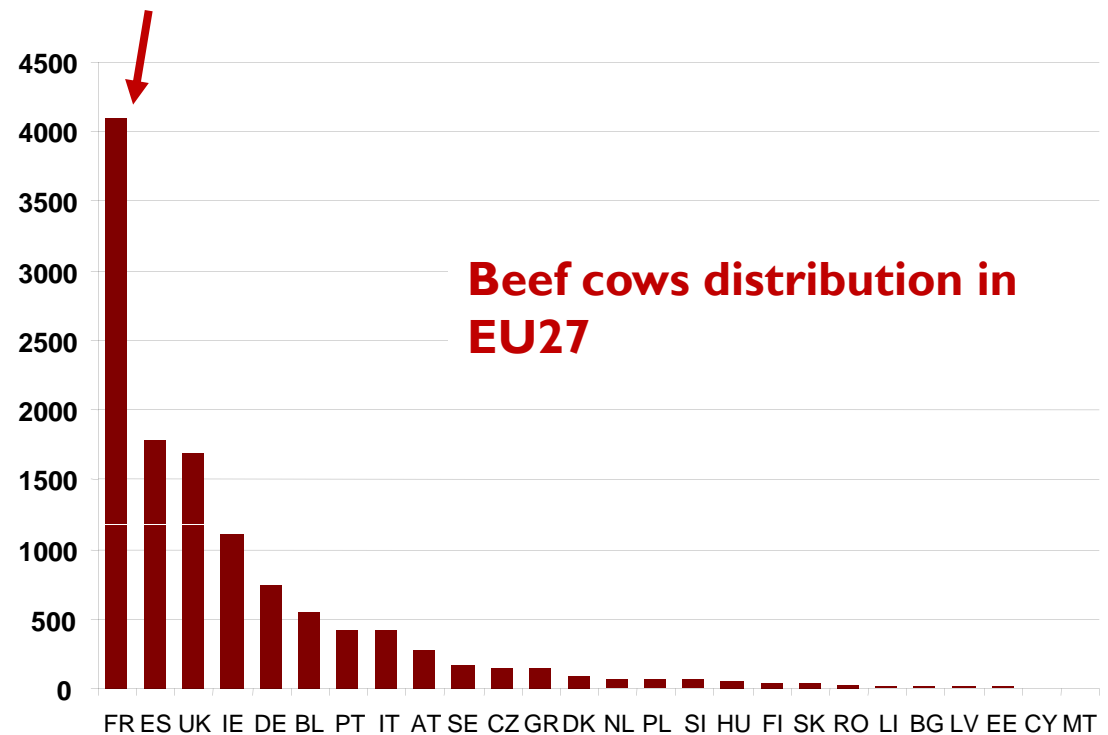
Did you know.....?



France

1st EU27 beef herd (by far!)

4.1 million cows

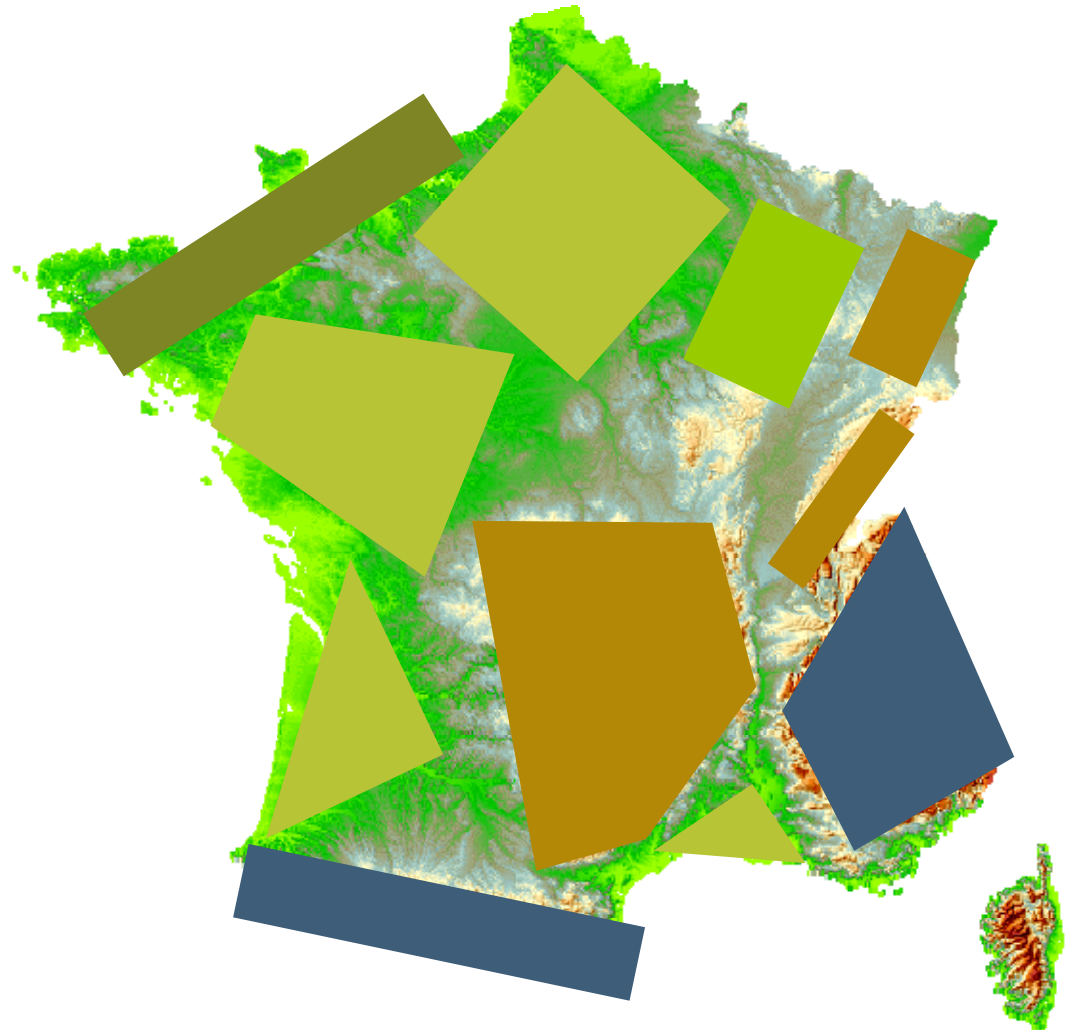


France



a multifaceted physiogeography

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

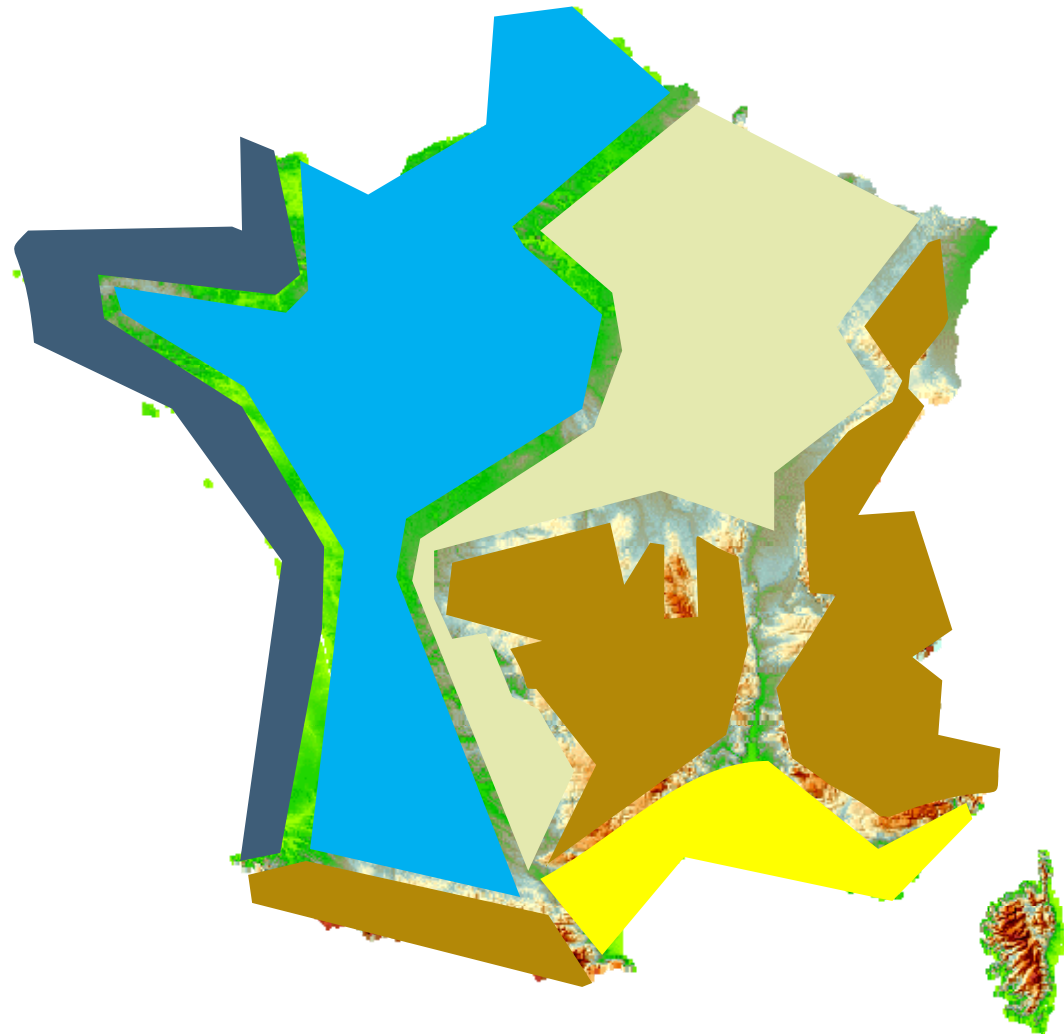


France

a range of climatic zones



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



adapted to various production environments and production objectives



French Genetic Offer

optimizing productivity response



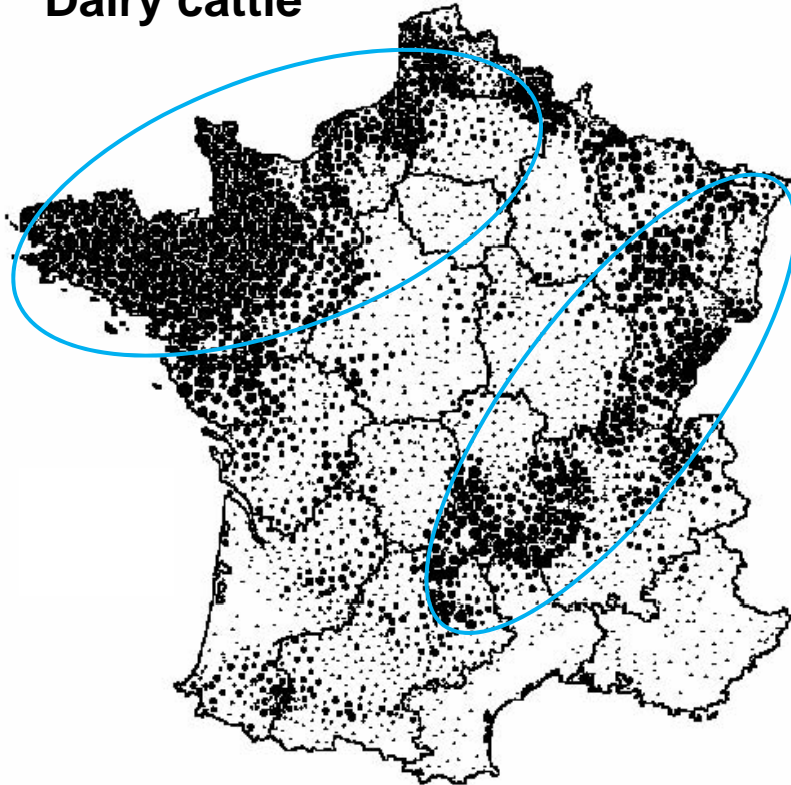
For the breeder, the best breed, the best genetic choice, is the one that fits with the specificities of the activity's environment

French Livestock

an overview of cattle density

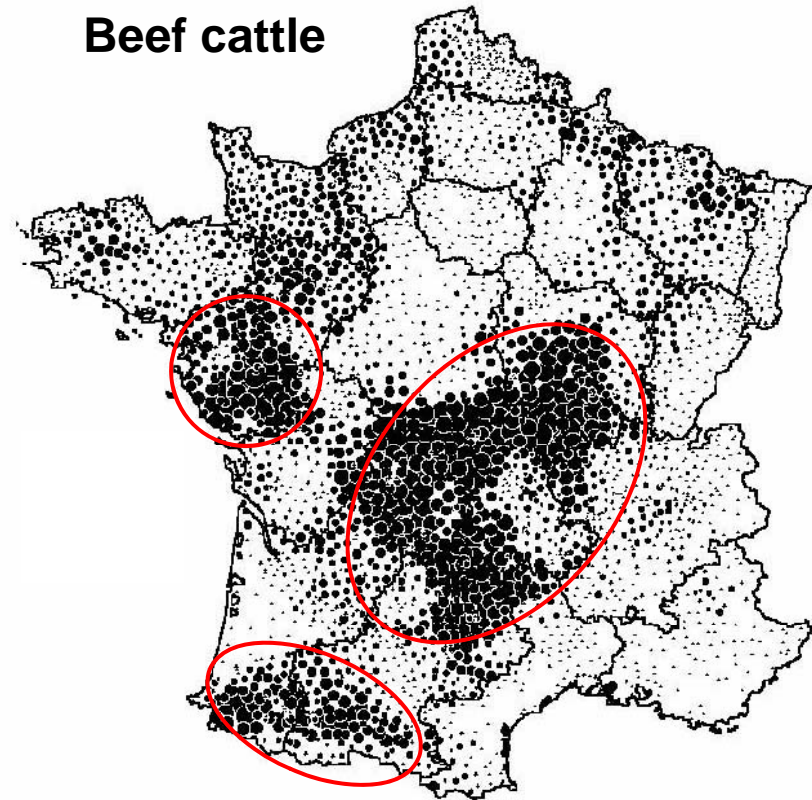


Dairy cattle



11 breeds under selection programs

Beef cattle



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

+ 15 breeds under conservation programs

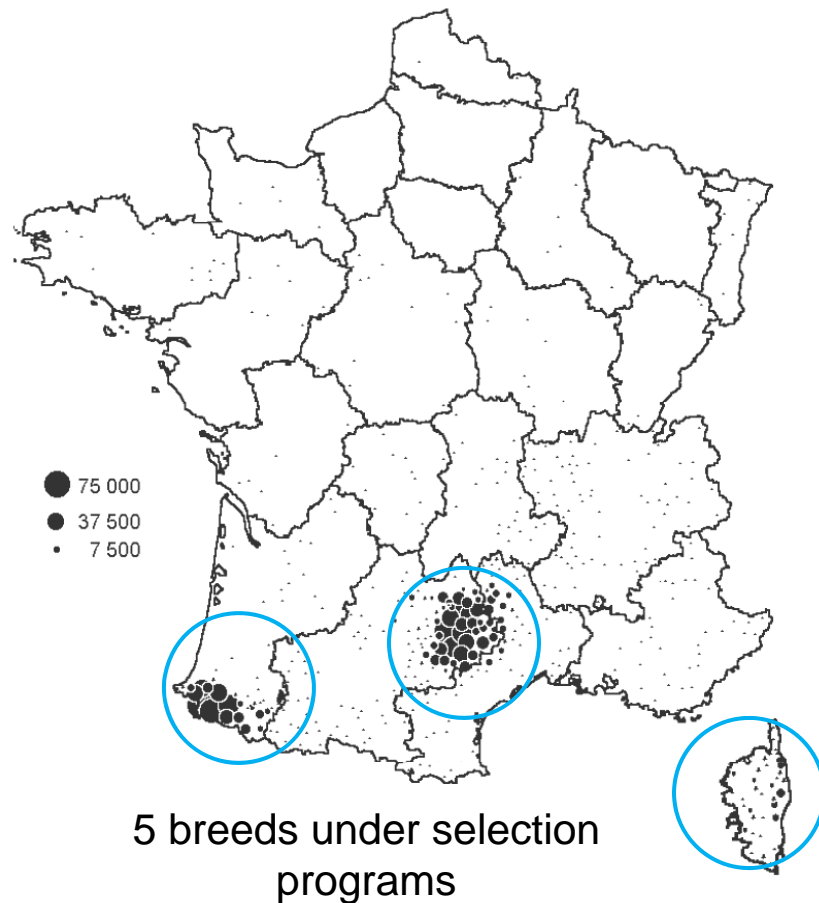
ICAR 2011

French Livestock

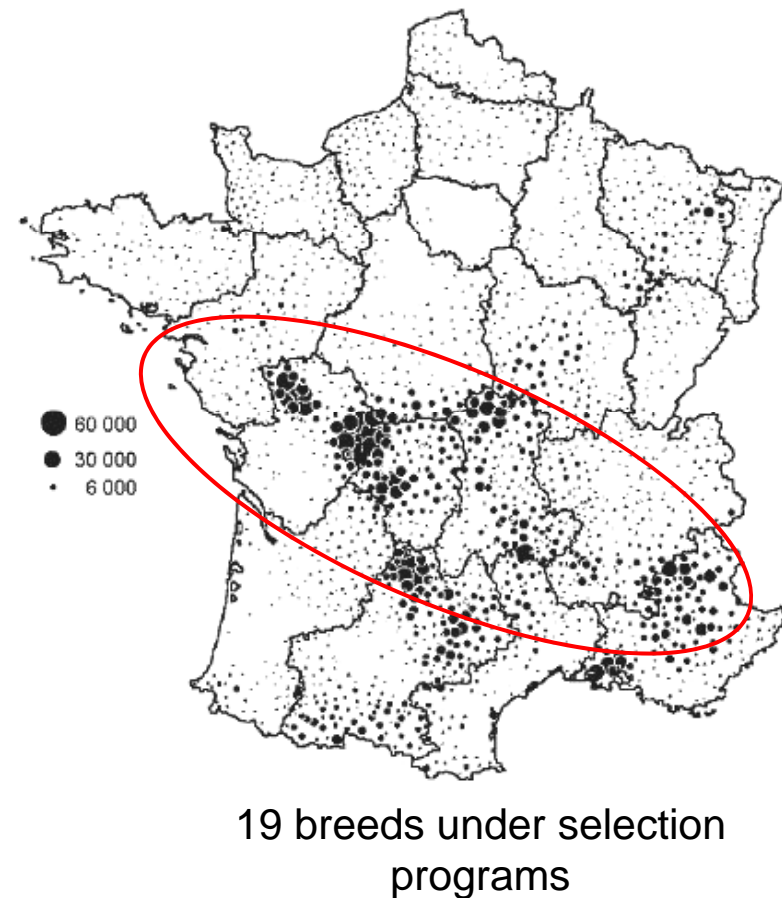
an overview of ovine density



Dairy sheep



Meat sheep



French Livestock major dairy breeds



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

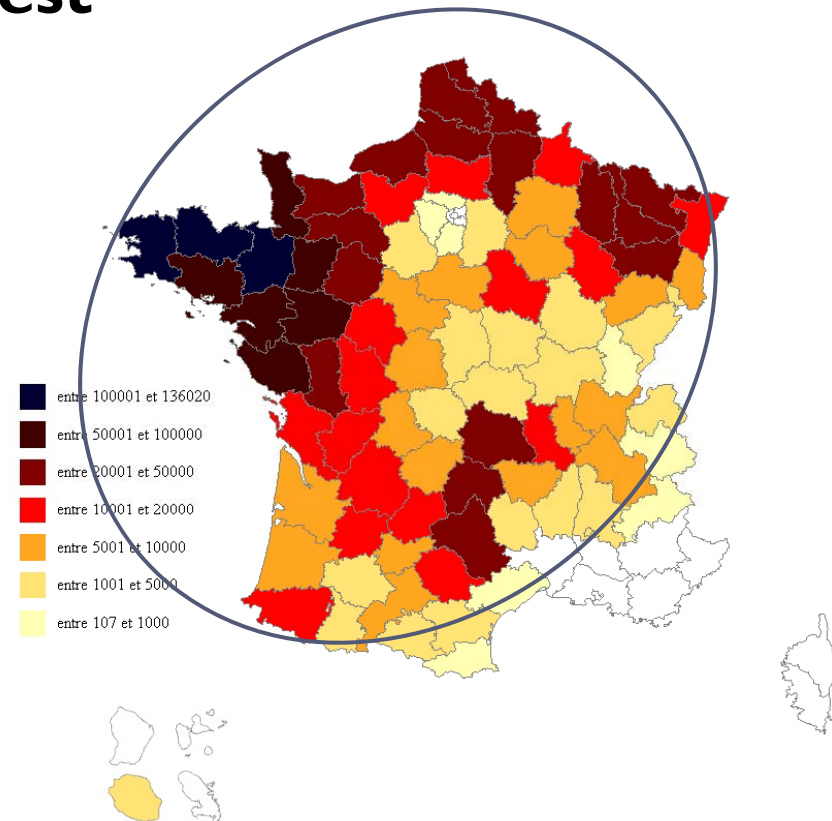


**1 600 000 cows officially
recorded**

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?

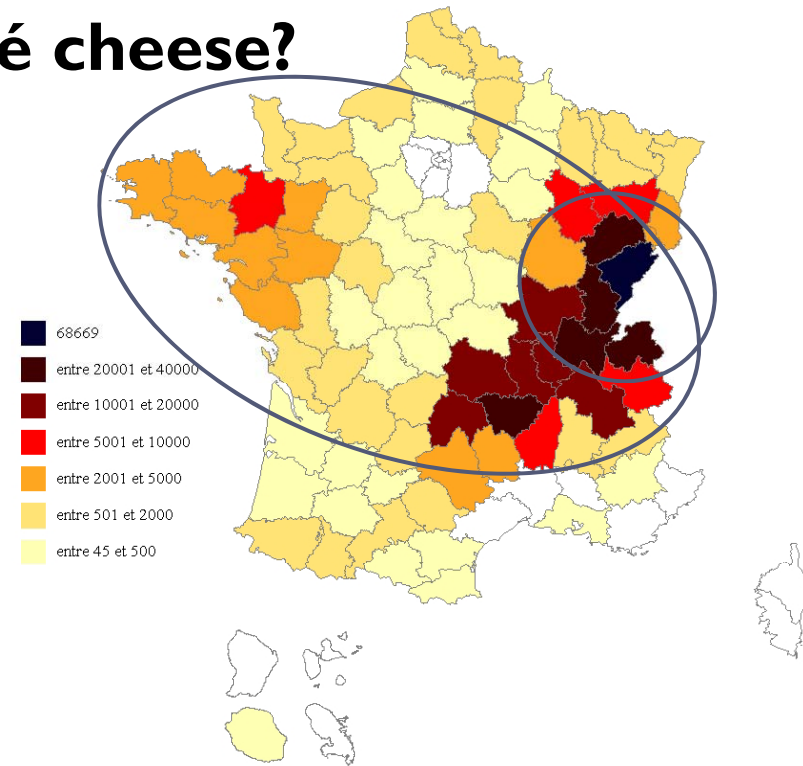


370 000
cows officially recorded

7 924 kg per lactation

F: 3,91 %

P: 3,44 %



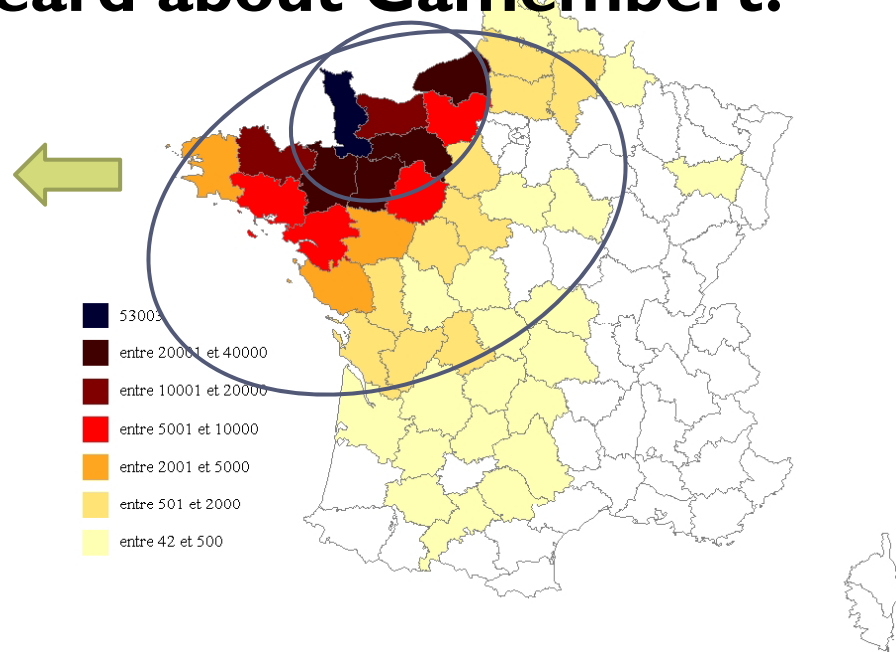
**Plus an excellent fattening
capacity and carcass quality of
bullocks !!**

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 %

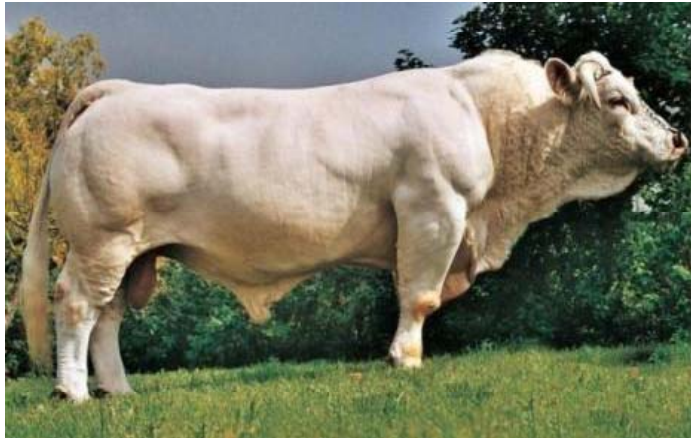
**Plus an excellent fattening
capacity and carcass quality of
bullocks !!**

French Livestock

Major beef breeds



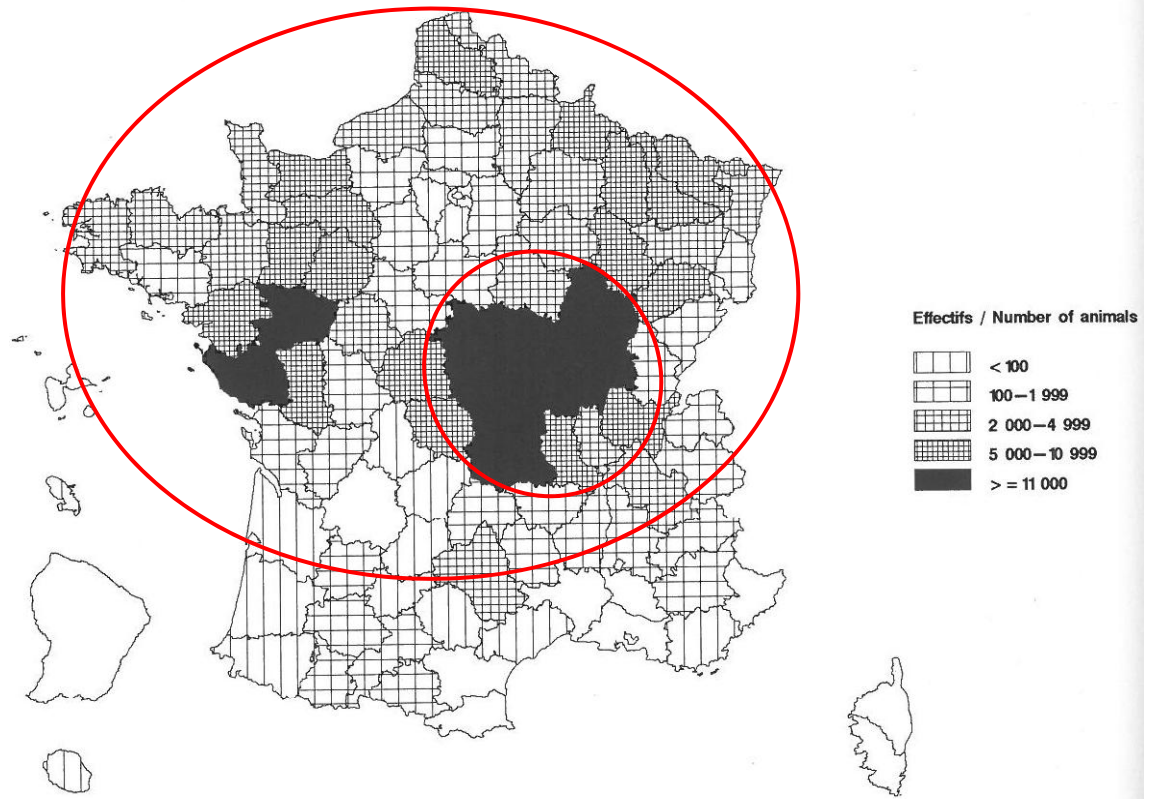
► Charolais



1 700 000 cows

370 000 cows
officially recorded

12-months bulls LW
509 kg



French Livestock

Major beef breeds



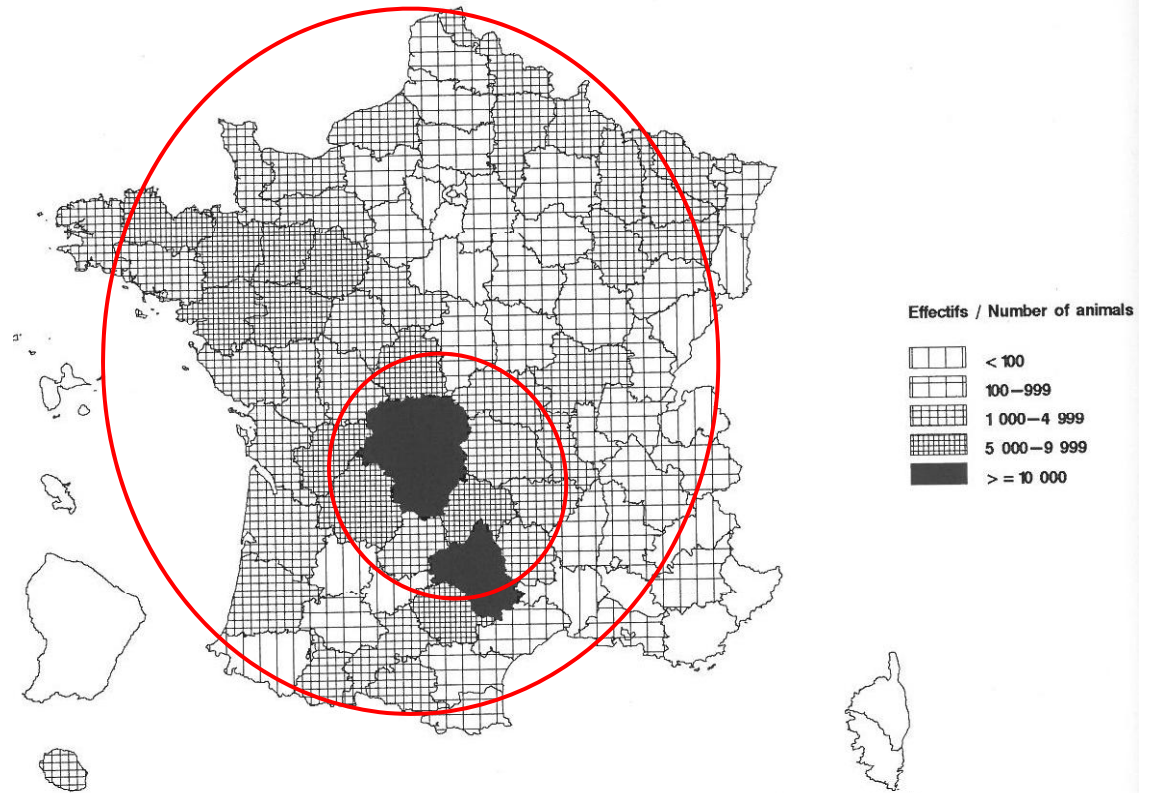
► Limousin



1 000 000 cows

240 000 cows
officially recorded

12-months bulls LW
478 kg



French Livestock

Major beef breeds



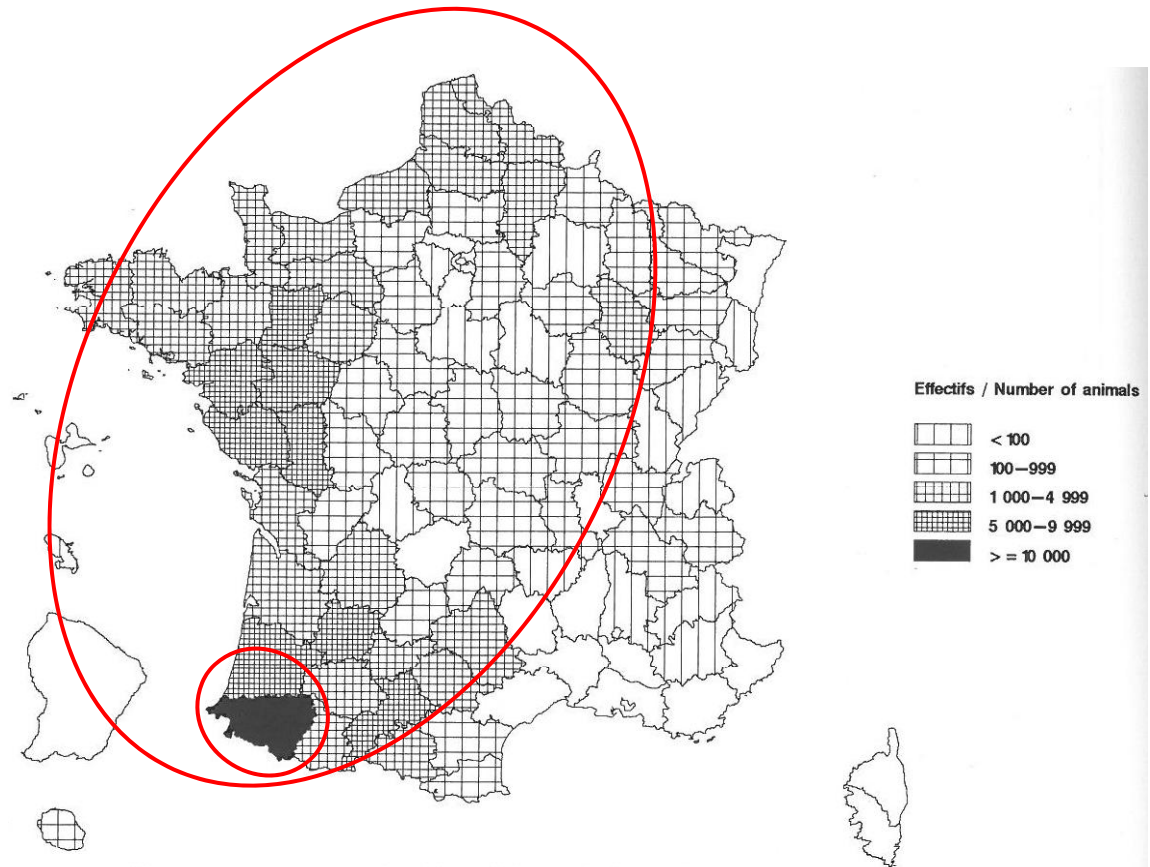
► Blonde d'Aquitaine



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)

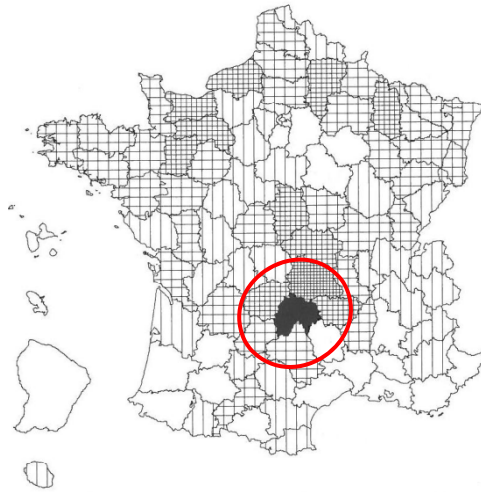


French Livestock

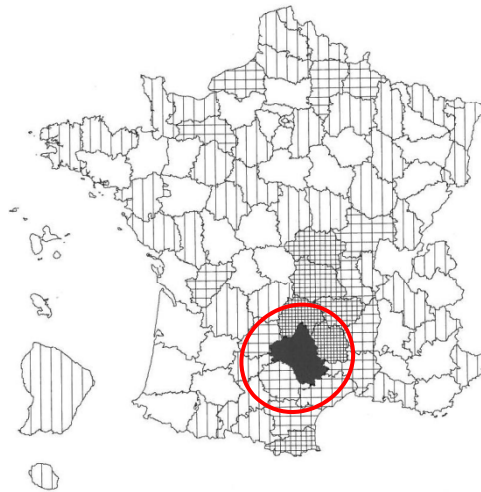
Motherhood type breeds



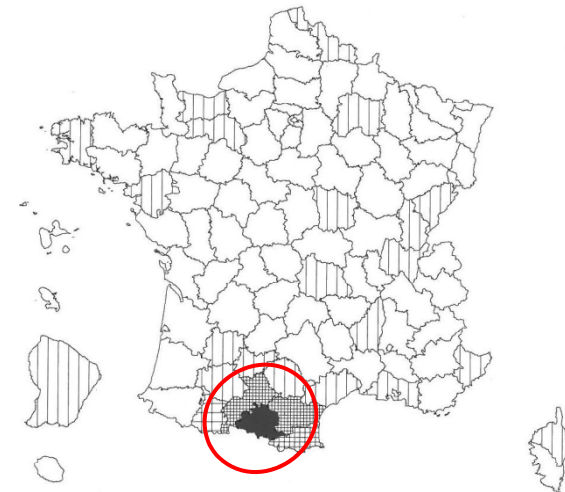
Salers



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



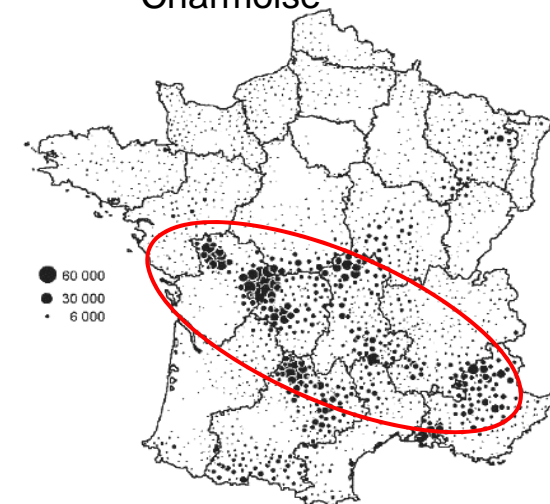
Ile de France

Smaller formats (12-13 kg carcass)



Charmoise

And more selection
schemes for a large
number of hardy
breeds



French Livestock

Ovine dairy breeds

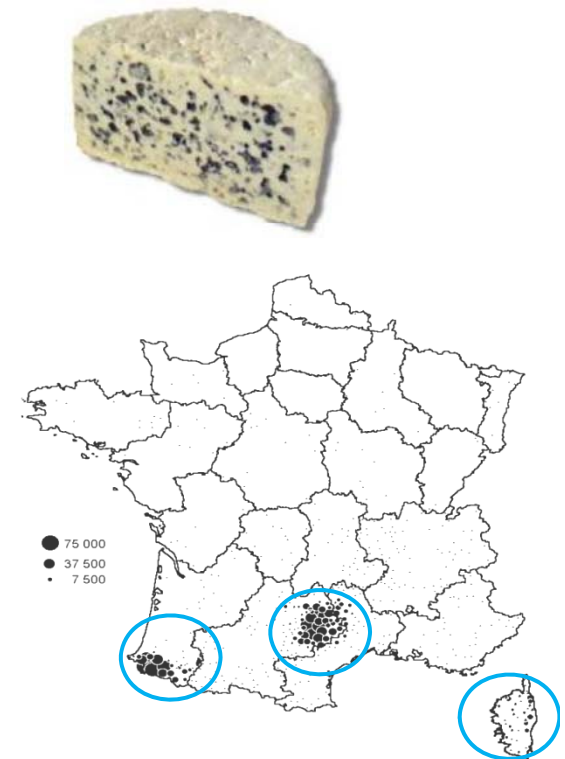


Where a market exists for dairy products...



Lacaune

260 l/lactation



French Livestock

Caprine breeds (dairy only)



France breeds for milk selection only and proposes top genetics

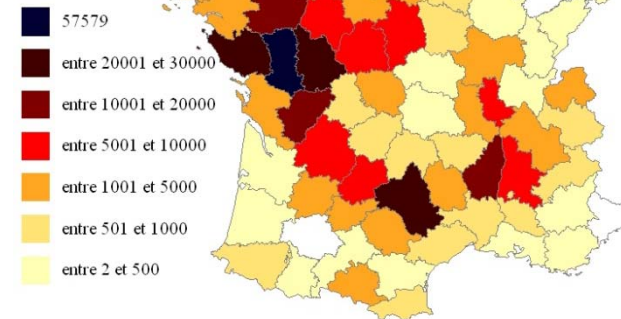
In average 800 l. + per lactation (milk recording data) with selected mothers up to 1200 l.



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

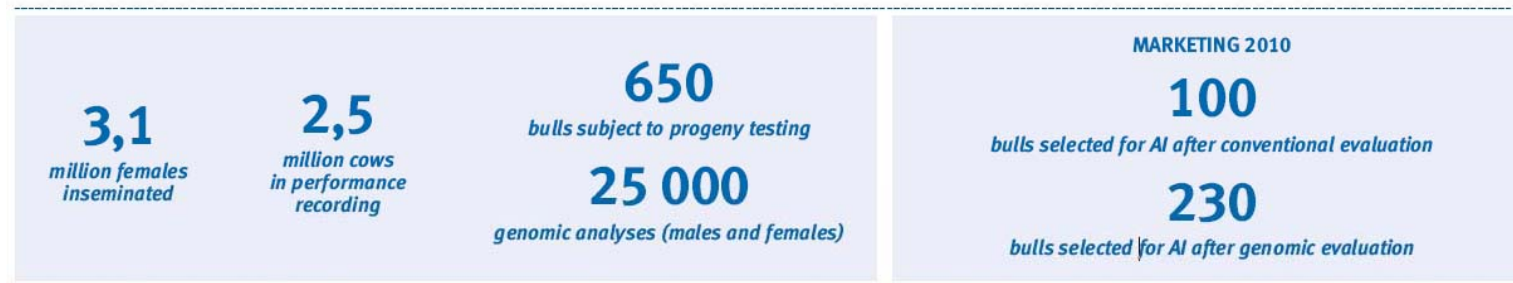
... and now: Investment in genomics!

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

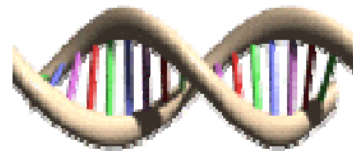


French Selection Scheme

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

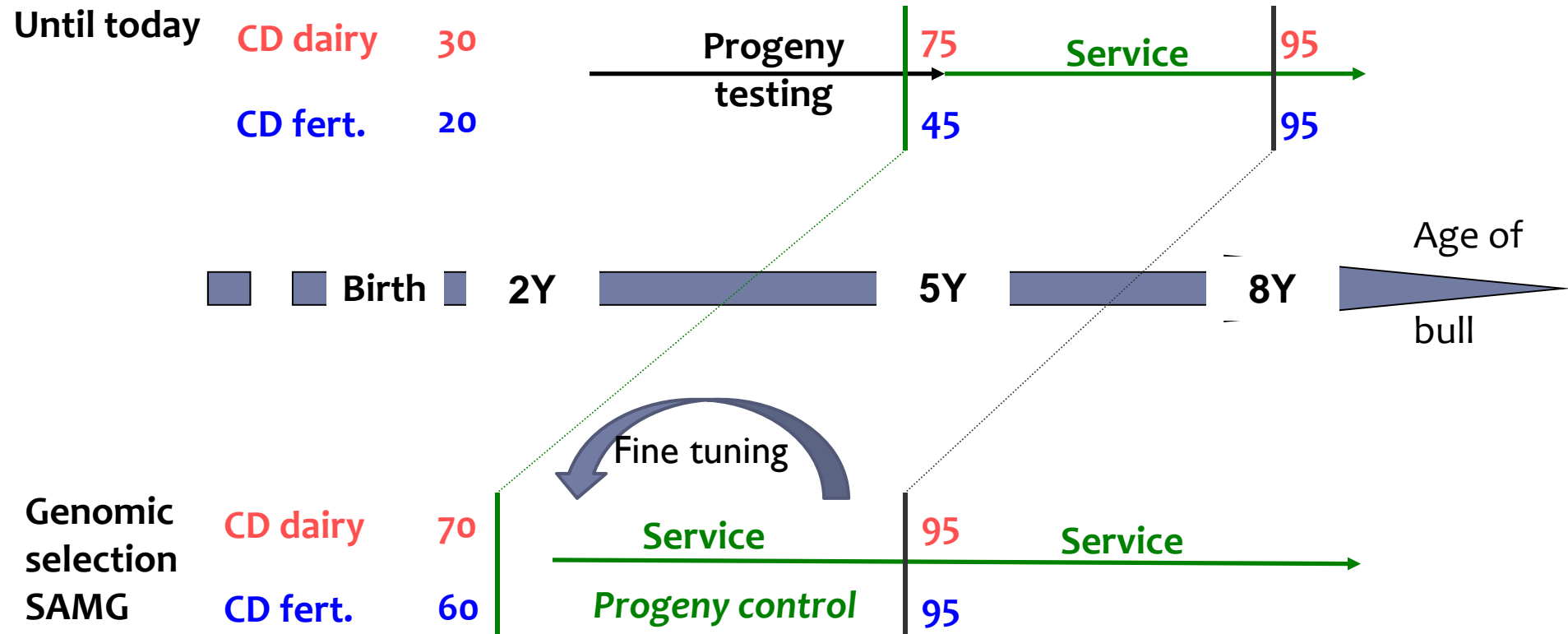


French Selection Scheme

SAMG and bull selection



time is the essence: the generation gap!



French Genetics

evidence of progress achieved

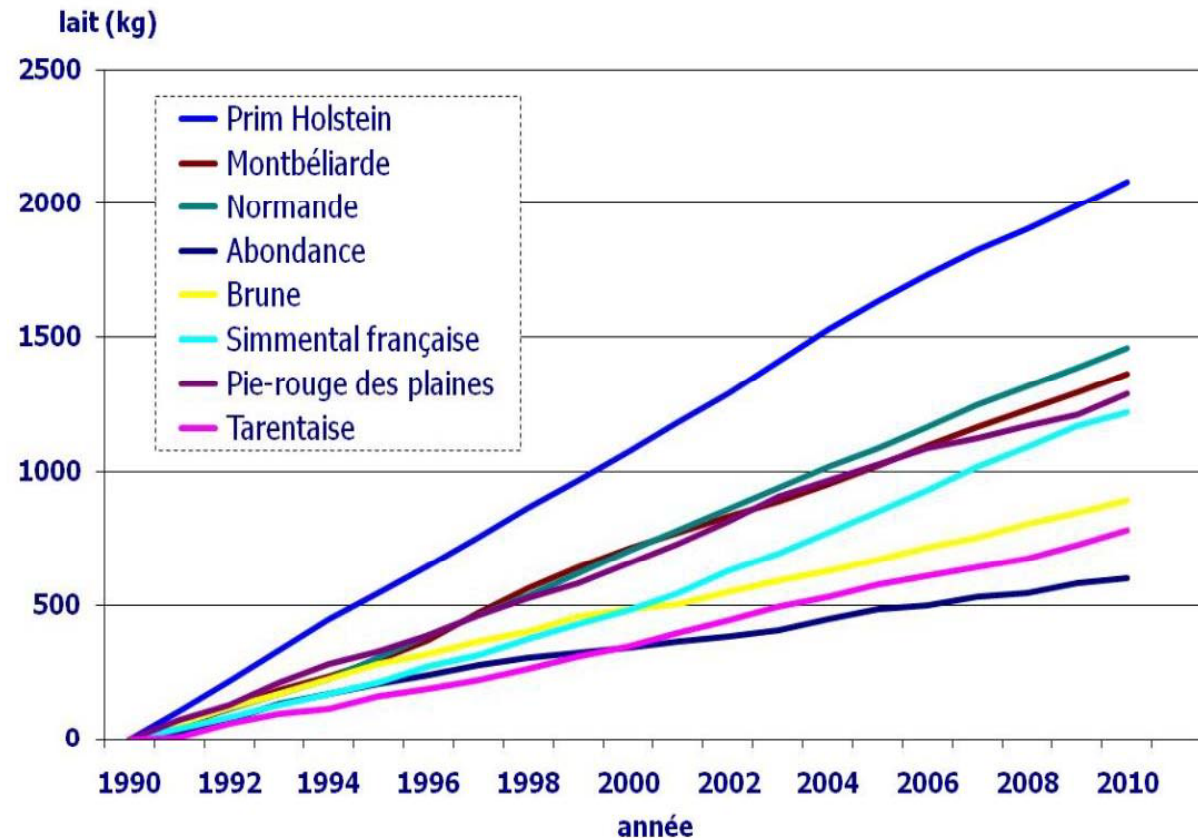


Case of dairy productivity

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

i.e

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

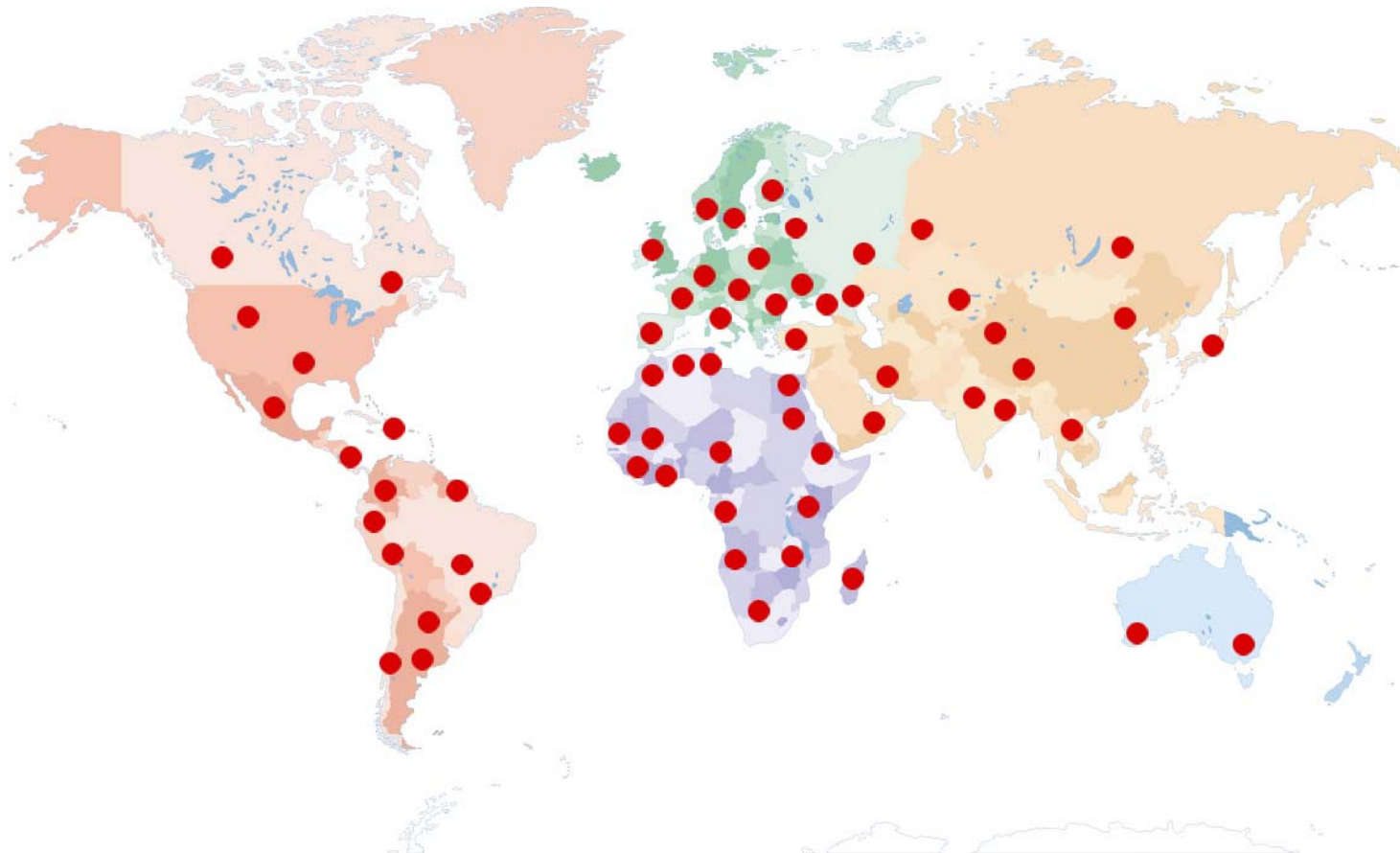


French Livestock

adaptable and appreciated worldwide



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



Manifestation