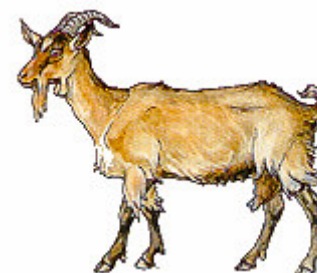
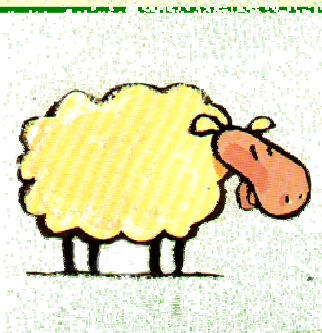


Mediterranean sheep and goat: an uncertain future.



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EAAP – Bled Congress – Sept 2004

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SMALL RUMINANTS LIKE MEDITERRANEAN REGIONS...!

- Thanks to a better ability than beef to survive in dry pasture, and apart from British Isles, small ruminants in Europe are globally **concentrated in Mediterranean regions.**
- In EU-15, **sheep & goat is the only animal production lead by a Mediterranean country** (Eurostat, year 2002).
 - Spain: 29 % of EU output, and first flock
 - UK: 25 % & 2nd flock
 - Greece: 13 %
- Therefore, small ruminants are an important issue for Mediterranean countries.

SUMMARY

- **Flocks and evolution**
 - **Production systems**
 - **Economic efficiencies**
 - **Environmental issues**
 - **CAP effects**

MEDITERRANEAN SHEEP & GOAT FLOCKS

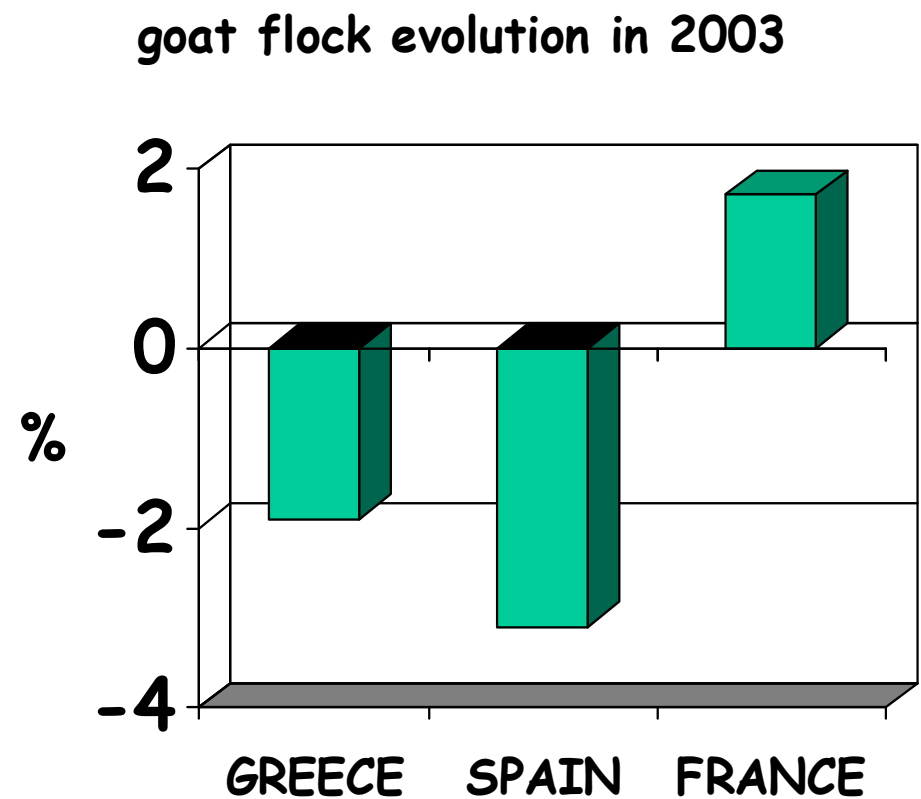
(Millions on Jan. 2004)	SPAIN	FRANCE	ITALY	GREECE
Meat ewes	<u>14,6</u>	5,2	1,4	0,4
Milk ewes	2,9	1,6	<u>5,7</u>	<u>6,1</u>
Goats	2,2	1,1	0,8	<u>3,9</u>

Spain is leader in meat sheep and diversified,
Italy important in milk sheep and **Greece** leader in milk sheep and goat

Source: Eurostat

FLOCKS EVOLUTIONS

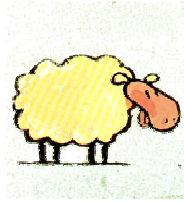
- **Sheep flock** in EU-15 is on a decrease trend since 1998, it is supposed to keep decreasing again in 2004, like in Spain (*Harley 2004*)
- **Goat flock** in EU-15 lost 2% in 2003 (see graph), but should stabilise in 2004 thanks to a + 1,1% evolution for the Greek flock. (*Harley 2004*)



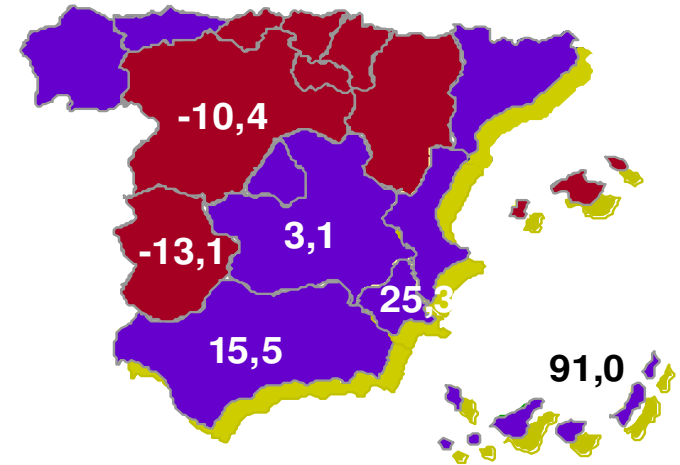
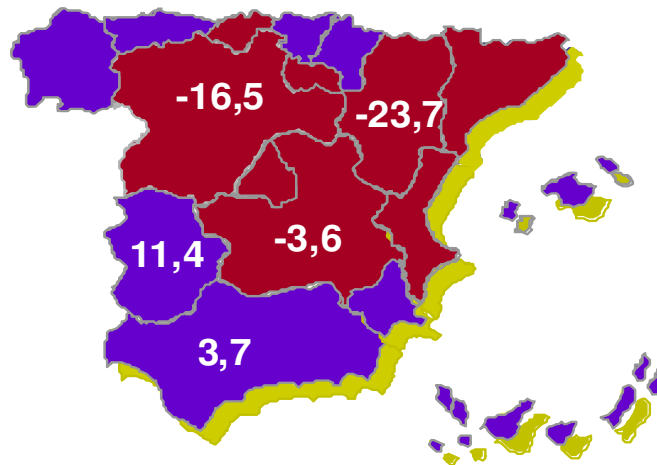
Source: Eurostat

SMALL RUMINANTS MIGRATE TOWARDS THE SOUTH...!

- In France for sheep like in Spain for sheep and goat, flocks are migrating southwards for the recent years.



*Evolution in
Spanish flocks
2003/2002*



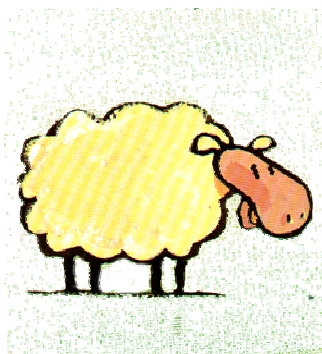
■ increase
■ decrease

SUMMARY

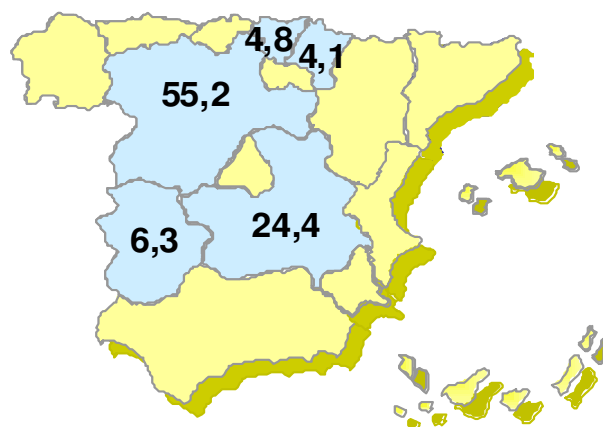
- **Flocks and evolution**
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SHEEP OR GOAT, MILK OR MEAT ?

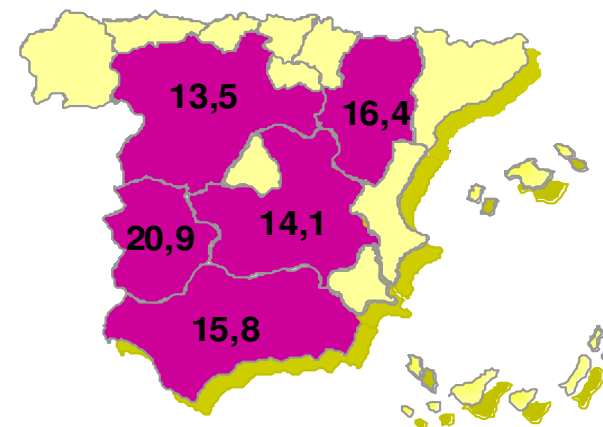
- SPAIN: the 4 productions are closely associated



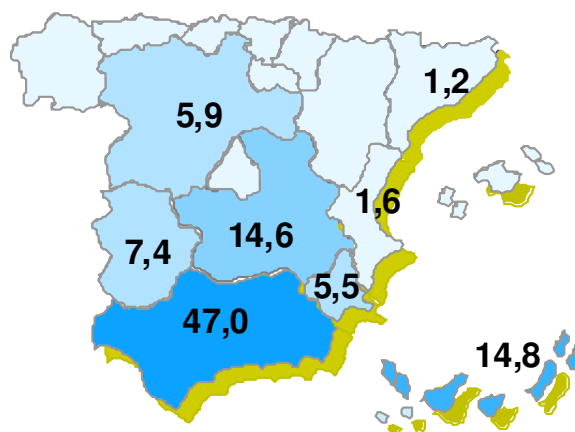
milk (%)



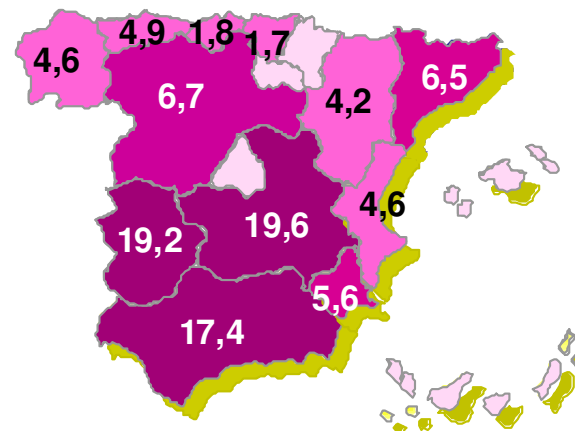
meat (%)



milk (%)



meat (%)



Source: MAPA 2003

SHEEP OR GOAT, MILK OR MEAT ?

- **SPAIN:** very complex association between the 4 productions
- **FRANCE:**
 - Milk sheep grouped in some regions (Roquefort, Atlantic Pyrenées & Corsica)
 - Meat sheep in the southern half of France (sometimes associated to milk sheep in Roquefort)
 - Only milk goat, more concentrated in western center region
- **ITALY:**
 - Mainly milk sheep concentrated in Sardinia
- **GREECE:**
 - Meat systems very rare
 - Milk sheep and goat often associated on the farms and rather scattered on the national territory

VERY DIVERSE PRODUCTION SYSTEMS - 1

- FRANCE
 - **Milk sheep:** from the small familial cheese makers in **Corsica** (100 ewes with 100 litres/ewe) to the intensive milk producers in **Roquefort** (500 ewes with 300 litres/ewe)
 - **Meat sheep:** from the small intensive farms in Segala **Central** Mountain (300 ewes with 2 lamb/ewe. year close to zero grazing) to the large extensive farms in **Provence** (1500 ewes with 1 lamb/ewe. year in outdoor systems)
 - **Goat:** from large intensive farms in **non-Mediterranean** areas (500 goat in zero grazing, 900 litres/goat) to small cheese familial farms in **Provence** (50 goats, outdoor systems, 400 litres/goat)

VERY DIVERSE PRODUCTION SYSTEMS - 2

- SPAIN
 - **Milk sheep:** from the small familial cheese makers in **Basque** area (100 ewes) to the large milk producers in **Castilian** plateau (1000s ewes)
 - **Meat sheep:** from the **Aragon** large intensive farms (zero grazing) to the extensive farms in **Extremadur** (outdoor systems in Dehesa)
- ITALY
 - **Sardinian milk sheep:** from very intensive irrigated farms in lowlands (12 ewes/ha, often more than 300 ewes and more than 200 litres/ewe), to extensive pastoral farms in mountains (2 ewes/ha, smaller flocks and milk yields)

A DIFFICULT ANALYSIS

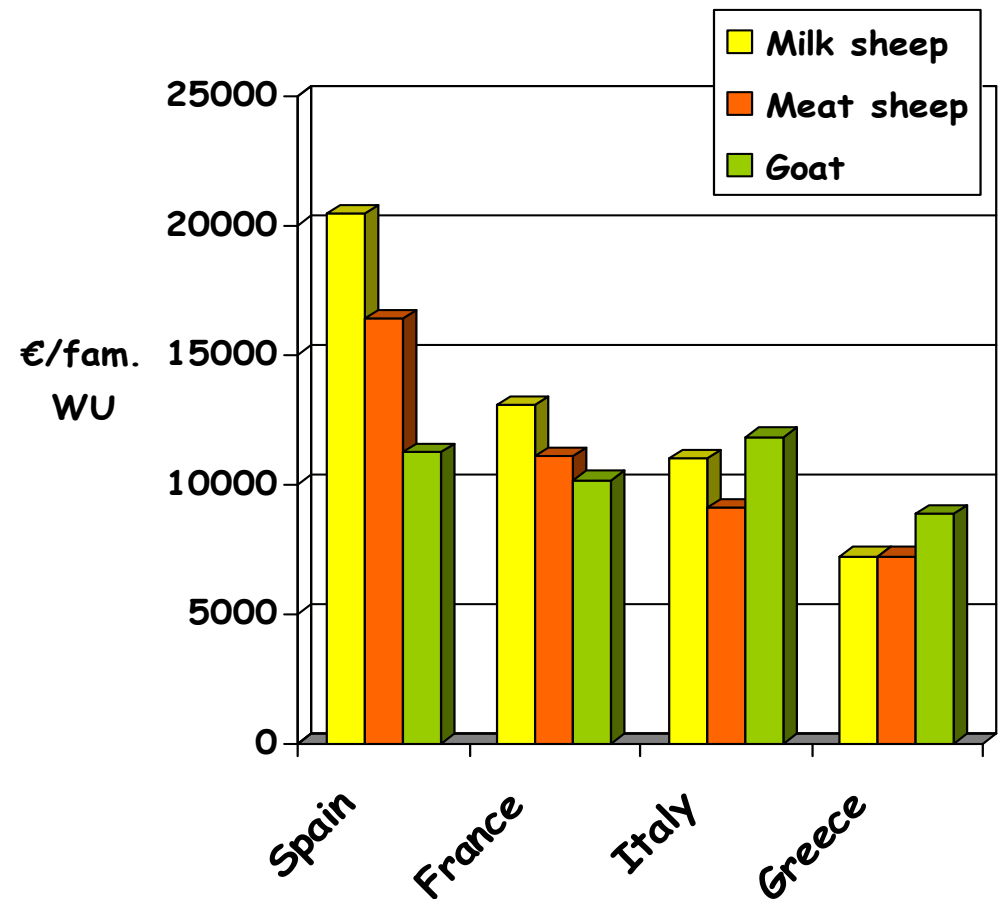
- On the contrary of the Northern half of Europe, Mediterranean EU countries often associate:
 - **milk and meat sheep** (Spain)
 - **milk and meat goat** (Spain)
 - **milk sheep and goat** (Greece)
- So, it is **hard to analyse** those different production systems independently
- Moreover, the production systems are **very different** within and between countries, which makes the comparisons still more difficult.

SUMMARY

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INCOMES COMPARISON

- **Milk sheep** have generally better incomes than **meat sheep** farms
- **Goat** income is rather uniform in Mediterranean countries
- **Spain** seems to have better income than the other countries

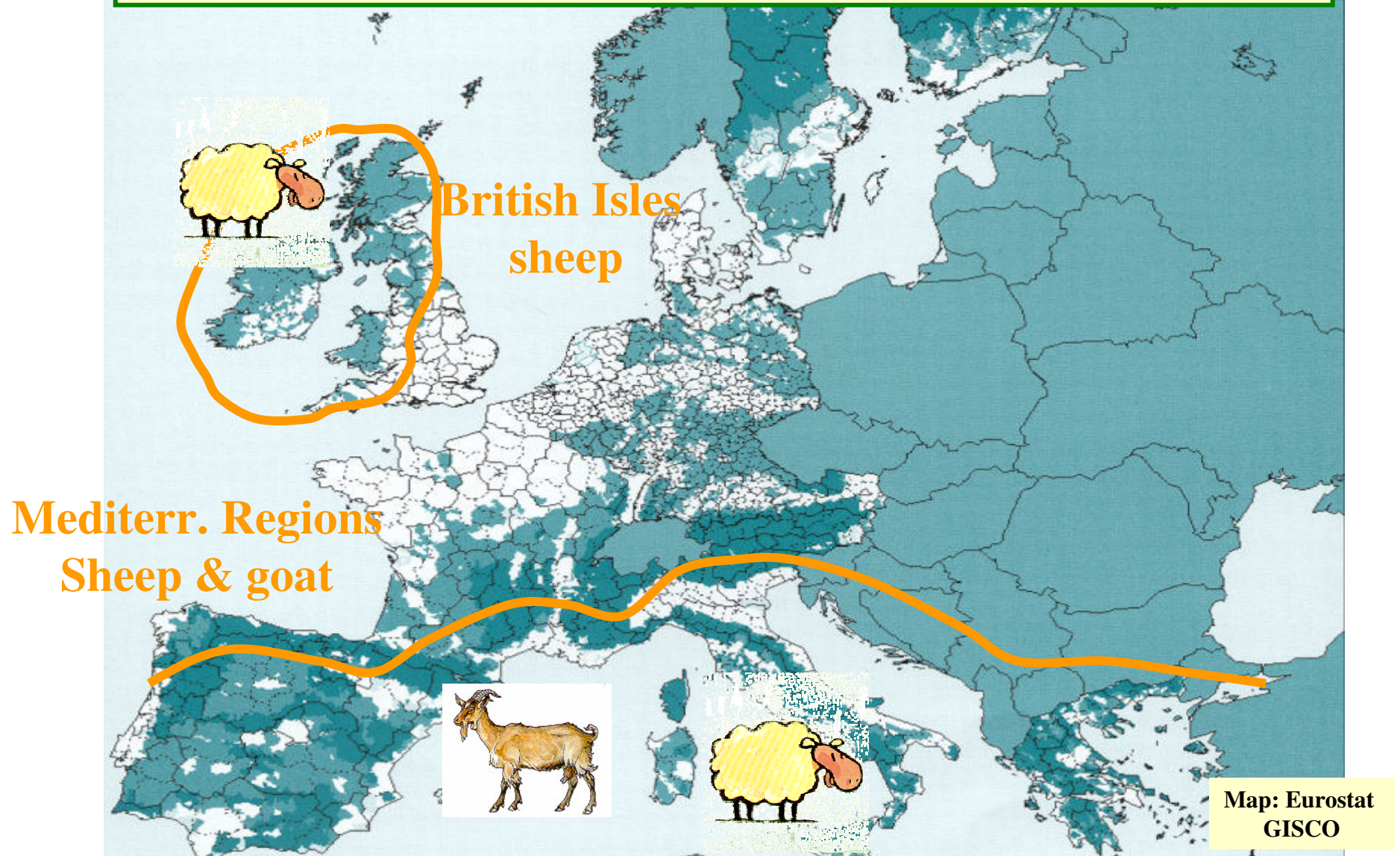


Source: Ashworth 2000 from FADN

SUMMARY

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SMALL RUMINANTS & LESS FAVOURABLE AREAS (in blue)



INTENSIVE OR EXTENSIVE ?

- Sheep and goat productions, being frequently the only possible production in less favoured areas, are **most often extensive**.
- They are fundamental to **maintain social activities** in remote areas and to keep the vegetation **out of fire danger**.
- However, in Greece and Spain some **intensive systems** are settling **in fertile plain areas**. In the mountainous Roquefort area, as for dry Aragon plains, some farms tend to **zero grazing systems**.

SUMMARY

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A HIGH SUBSIDIES DEPENDANCE

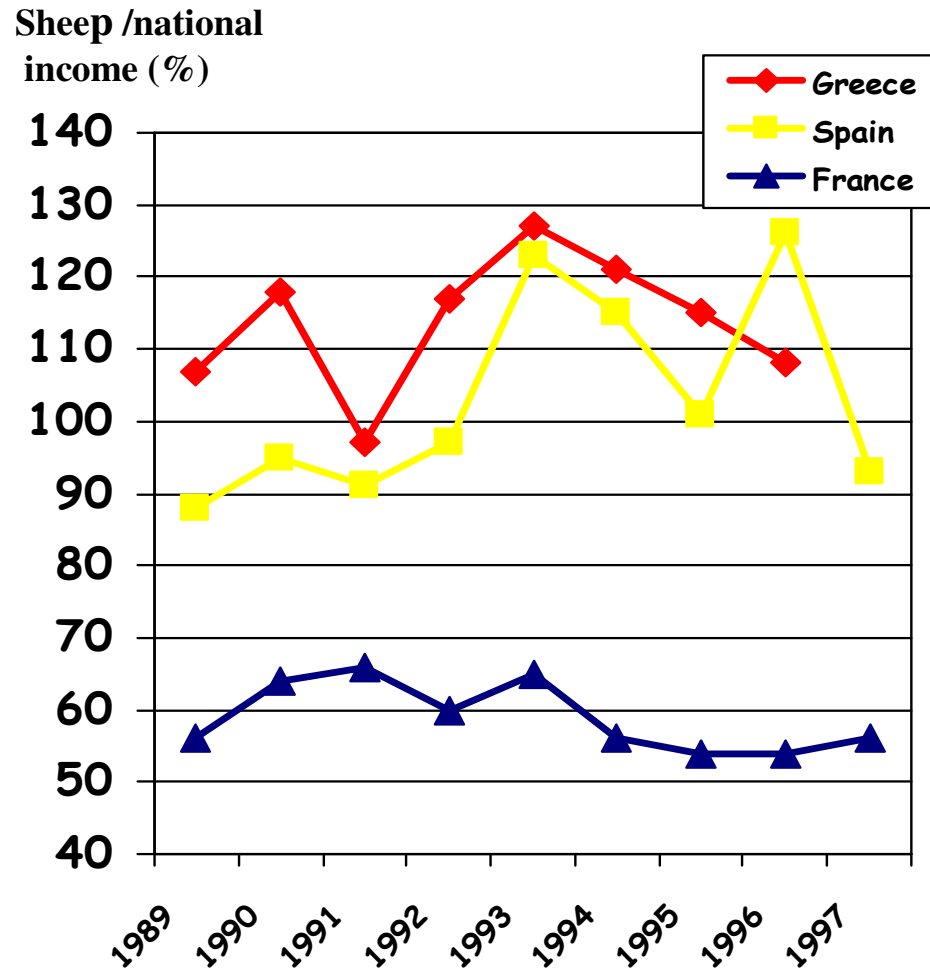
subsidies/gross production (%)	Italy	Spain	Greece	France
sheep milk	344	249	170	72
sheep meat	219	165	159	45
goat	260	272	155	104

Sheep or goat farmers are highly dependant on subsidies.
France is relatively less dependant than other Mediterranean countries

Source: Colson 1999 & FADN

LOW COMPETITIVENESS FOR FRENCH SHEEP FARMS

- Compared to other productions, French sheep farms have a lower competitiveness than Spanish or Greek ones.
- Moreover, there are more alternatives to sheep in France than in dryer regions in Spain, Italy or Greece
- Therefore, French sheep farms could be more endangered by CAP reform than in other Mediterranean countries



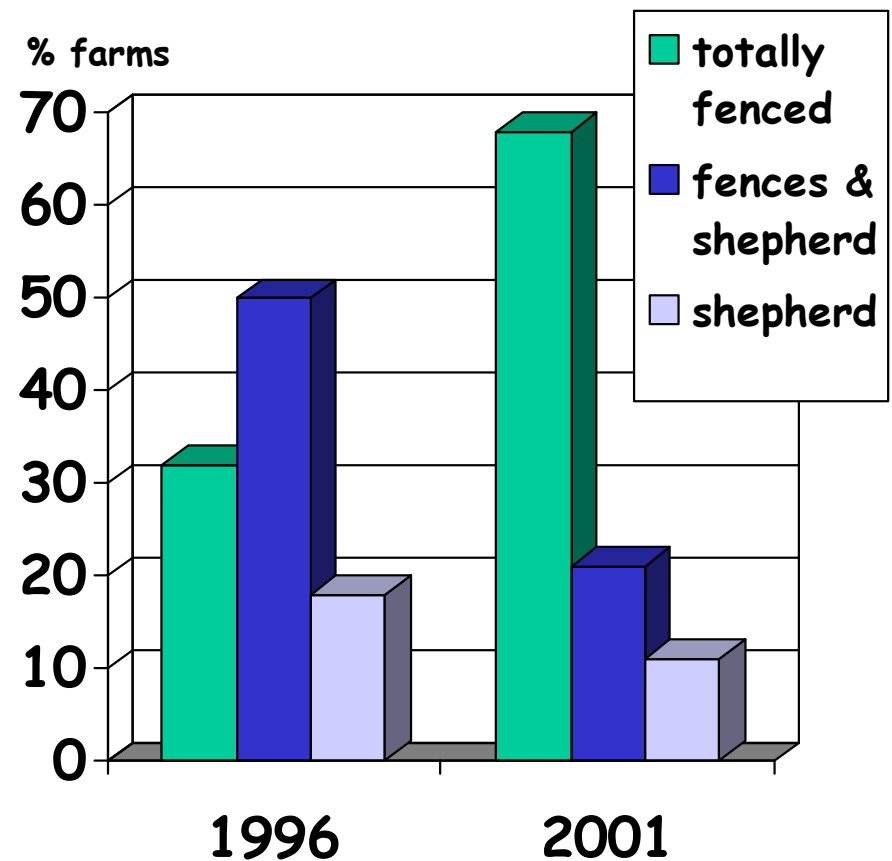
Source: Ashworth 2000

LABOUR QUESTION ?

- **Labour** is more & more considered to be the key question for the sustainability of sheep and goat farms in southern Europe.
- **Solutions** to face this problem can be:
 - Having 2 to 3 persons on the same farm (GAEC or EARL in France)
 - Cooperative flocks and equipments (Castellan regions in Spain)
 - Collective flock keeping (Vezeira system in Portugal)
 - Intensive food mechanisation (Unifeed system in Aragon)
 - Fencing to save shepherd time (widespread technique)
 - Diversification in plant productions
 - Leaving small ruminants (rather widespread) ...!

THE END OF SHEPHERD...?

- **Fencing is developing** very fast to face the labour pressure.
- See the French example of the dry region of Diois in southern Alps.



Source: Sauvaget & Poisson 2001

A VERY UNCERTAIN FUTURE ...

- Due to very high diversity and to important dependence to subsidies, the future for sheep and goat farms in Mediterranean regions is **very uncertain**.
- The **drier the regions** are, the less alternative small ruminants have and therefore the **more stable** they should be.
- Anyway, two elements will be key points for small ruminants sustainability in Europe
 - Ability to **face high labour** pressure
 - Ability to **develop or create quality products** attached to territories with high added value. In this sector Mediterranean countries have had a good creativity, specially in sheep and goat milk products.

FOR A BETTER EUROPEAN FUTURE

- The lamb or cheese market are **more and more European**
- Small ruminant farms have an **extremely rich diversity** in Europe
- So, whatever the European policy, small ruminant professionals would draw profit in grouping more often for a **better European exchange** and benchmarking to face the future.