

A large variety of dairy goat production systems exists in France. Some of them widely rely on off-farm inputs and are therefore subjected to raw materials and energy price variations. In this context, the French Institute for Agricultural Research (Inra), professionals of goat sector of Poitou-Charentes Region (Brilac) and structures of development have created 2 additional research and development schemes for high performances and sustainable goat farming systems.

### Location

In the main area of French dairy goat industry

➔ **Poitou-Charentes and Pays de la Loire**

- ✓ 50% of national delivered milk collection
- ✓ 26% of French goat herd



Mixed farming systems region

Oceanic climate with dry summers:

➔ Average annual temperature: 11.6°C – 52.9°F

➔ Rainfall: 804 mm/year



### Objectives

Main challenges:

- ✓ Develop proportion of grazing or preserved grass in ration
- ✓ Optimize self-sufficiency of goats systems
- ✓ Integrate grassland in crops systems
- ✓ Apply agroecology principles

To find a **compromise between economy and environment**

### System Experiment Patuchev

Experimental device to **assess goat breeding systems using cultivated pasture**

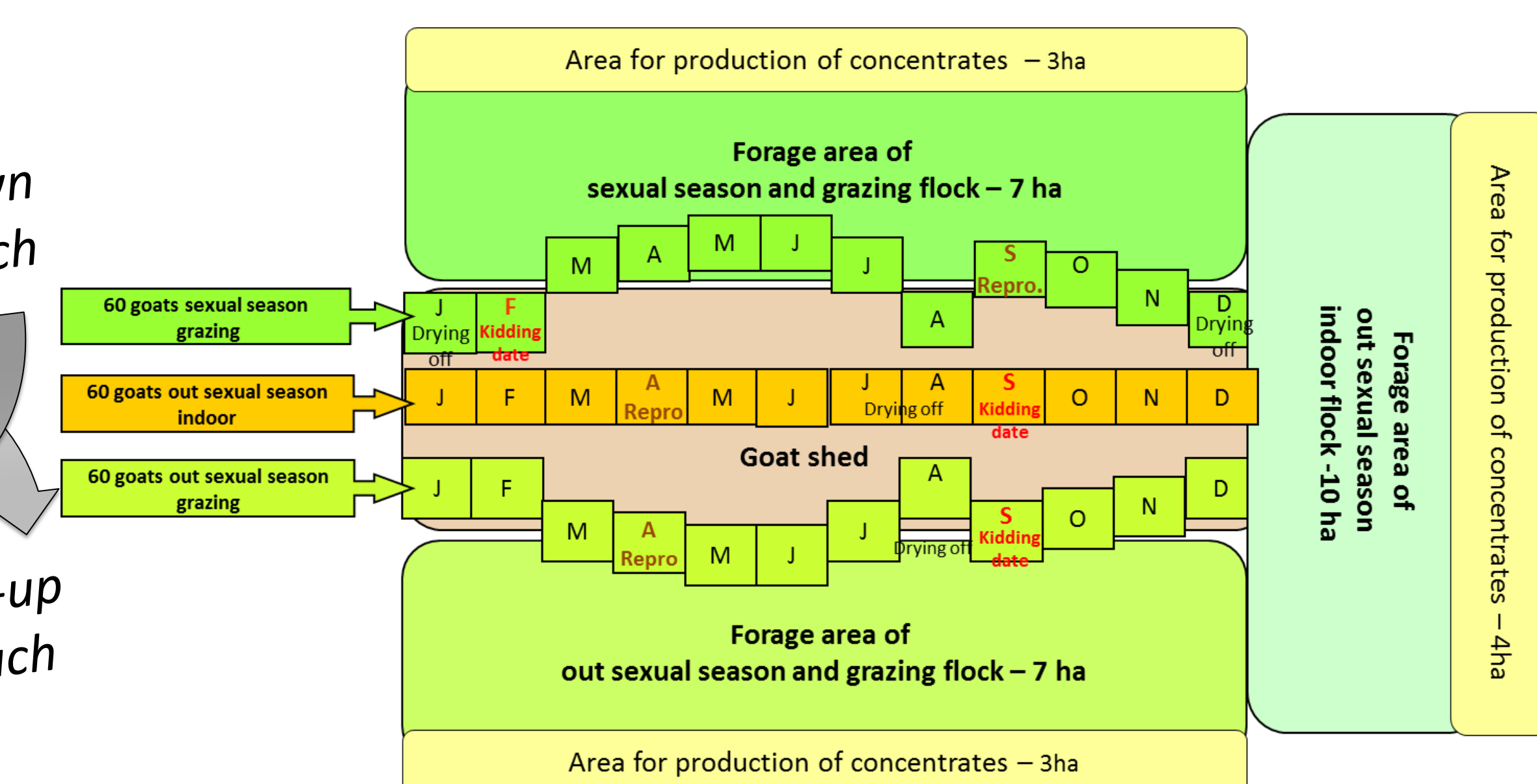
- 30 hectares of cultivated area
- 180 French alpine goats equally divided into 3 groups:



- ➔ **Reproduction:** out or in sexual season
- ➔ **Nutrition:** grazing + hay or exclusive hay

Top-down approach

Bottom-up approach



**Systemic and multidisciplinary approach**



With financial support:



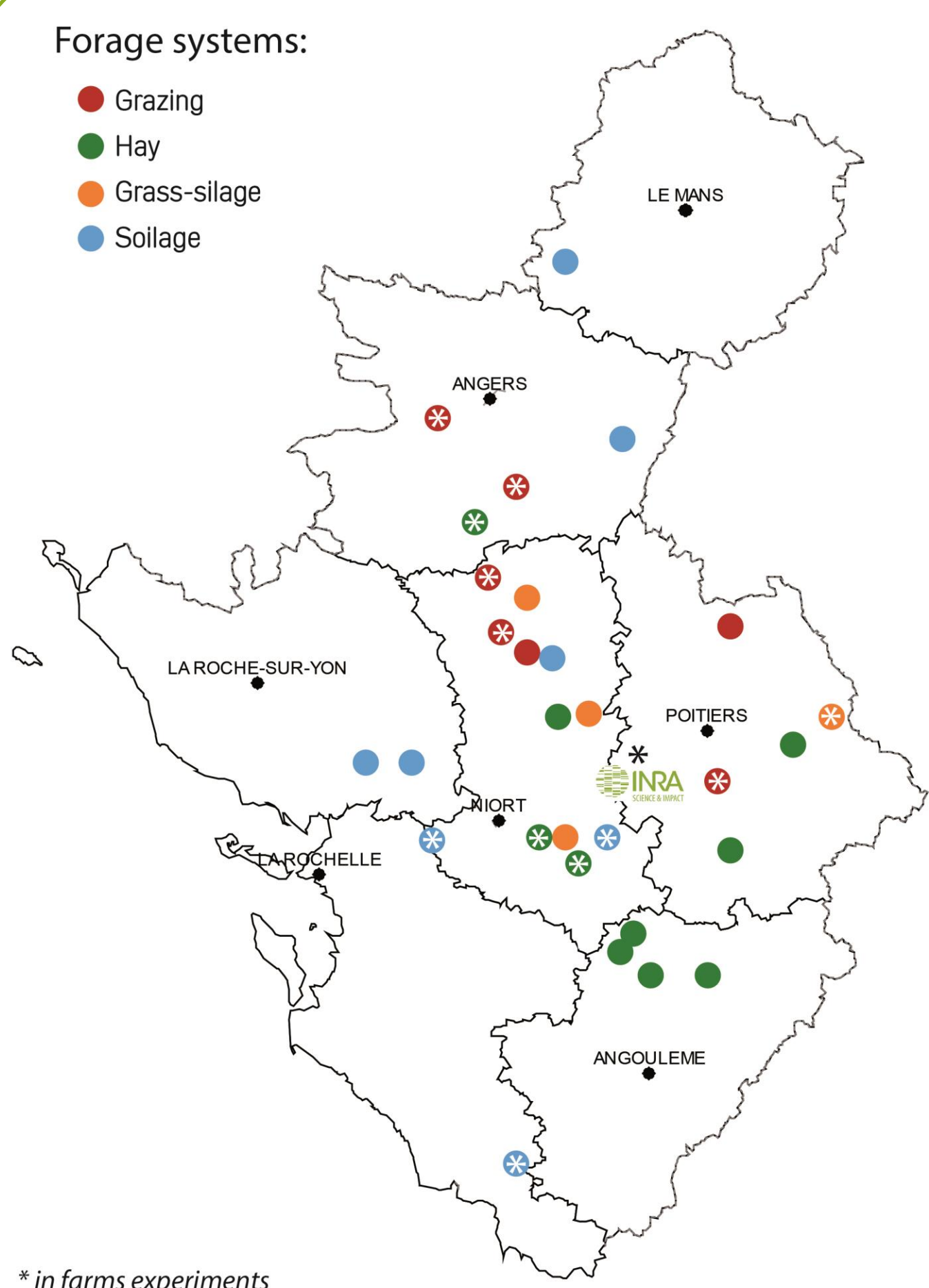
Member of:



### REDCap network

Forage systems:

- Grazing
- Hay
- Grass-silage
- Solilage



Animation of the project and network:  
Engineer of the French Livestock Institute

Top-down approach

Bottom-up approach

Technical design

TECHNICIANS GROUP

4 meetings a year to work on methods, results and diffusion.

BREEDERS GROUP

2 meetings a year with presentation of the results, discussion on their expectations and technical needs

### Conclusion

This organization gives a wide place to **exchange** and thereby eases the emergence of innovative research issues. These two projects are conducted by 2 different organizations, but with a strong wish to **work in interaction** with each other, and all those involved.

Experiments in farms or in experimental unit are established together to **upgrade sustainability of goat farming systems**.

This overview shows that the context and tools to support the functioning of Research and Development in the goat sector are **structured and operational**.

