

Trends in the association of herbivores and pigs in the Massif Central

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Valoriser les Atouts de la
complémentarité PORcins et bovins dans
les Territoires HERbagers du Massif-
Central

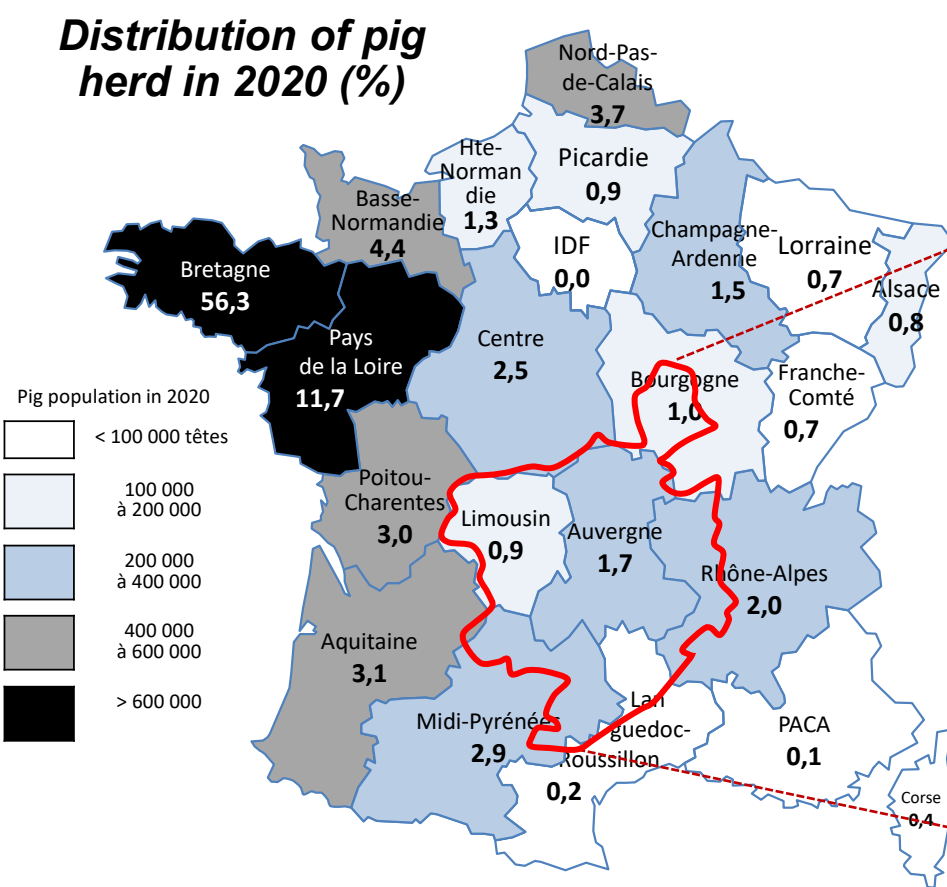


Projet financé par l'Etat (FNADT) dans le cadre de la Convention Massif Central

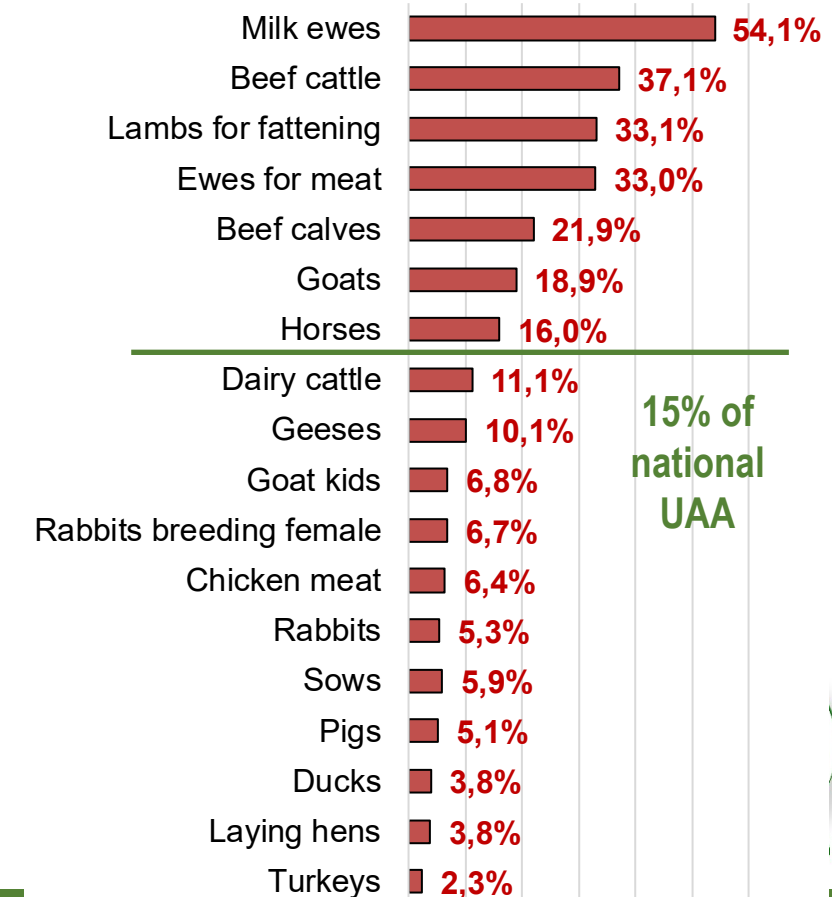
The Massif Central

- **Territory of 85,000 km², the size of Austria**, over 4 regions
- **Grassland** (81% of the UAA) and **mountainous** (95% of cantons in less-favoured areas and 60% in mountain areas)
- **Livestock breeding land**: 78% of farms in the Massif breed livestock compared to 51% nationally
- **High density of herbivorous and low density of pigs**

Distribution of pig herd in 2020 (%)

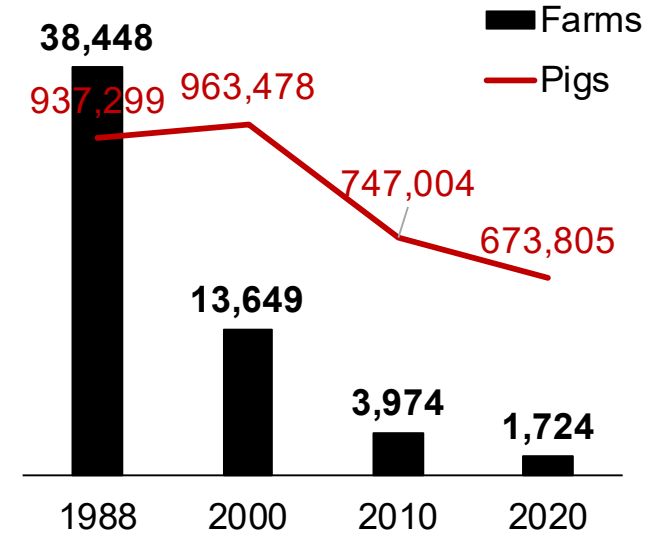


Share of the total in the Massif Central

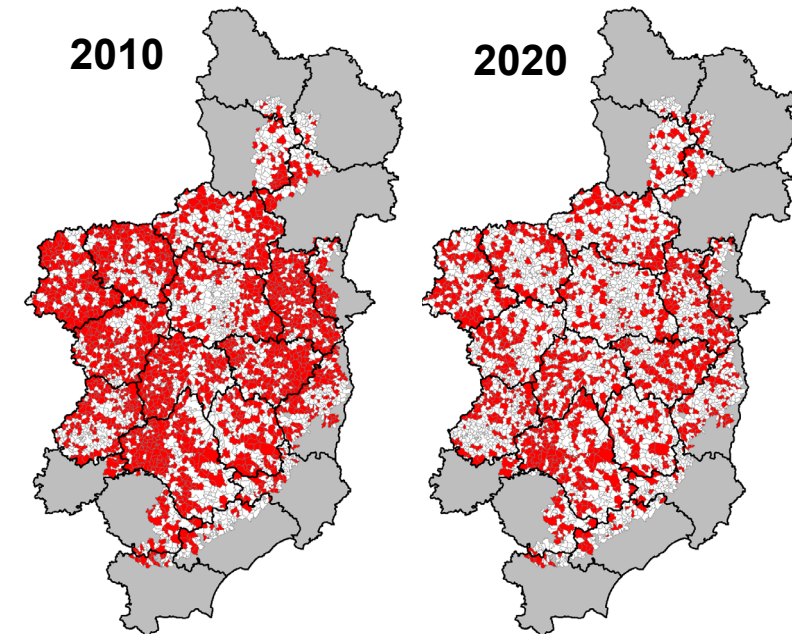


APORTHE project

Change in pig farms and pig herd number



Communes with one or more farm with pig(s)



➤ Final objective:

To consolidate pork production in the Massif Central

- The number of farms and pigs is falling
- The territory is becoming sparser
- Pig production is included in mixed farms

➤ Operational objectives:

1. To promote the resilience of mixed farms in the Massif central to facilitate their transmission and modernization (2018-2020)
2. To stimulate the takeover of farms and establishing careers in pig production in the Massif thanks to grouping pigs and cows together (2023-2025)

Method: two complementary approaches

Multi-year quantitative survey

Data analysis: BDPORC, Agricultural census



Quantify and characterize the structural and territorial dynamics of pig production and farming systems in the Massif Central

- ✓ What forms of livestock farming in this territory?
- ✓ How do mixed breeding farms differ from specialized ones?

Multi-actor qualitative survey

Semi-structured interviews



Pig farmers

Teachers, students,
advisors

Identify the obstacles and levers,
structural, organizational or representation
of the profession, to the pig activity **with**
herbivores



Analyse of individual data from agricultural censuses

- Exhaustive but ten-year survey (2010, 2020)
- All agricultural holdings
- Many data (≠ 900) on surface areas, livestock, workforce, production and marketing methods, etc.

1. Identify **farms located in the Massif Central** based on its 3,942 cantons
2. Identify **farms of significant size**
3. Qualify the **granivorous** (G = 0, vs, Pig, Poultry, others) **and herbivorous** (H = 0, vs, BC, DC, others) **activities**
4. **Cross G and H** to distinguish types of livestock farms that are variously specialized or diversified

Number of farms by type in 2020		G - Dominant granivore breeding type				
		None or very small	PIG	Poultry	Others	All
H – Dominant herbivorous breeding type	None or very small	5,848	194	716	74	6,832
	BEEF CATTLE	20,445	351	729	148	21,673
	DAIRY CATTLE	7,466	138	226	113	7,943
	Others	8,015	77	284	89	8,465
	All	41,774	760	1,955	424	44,913

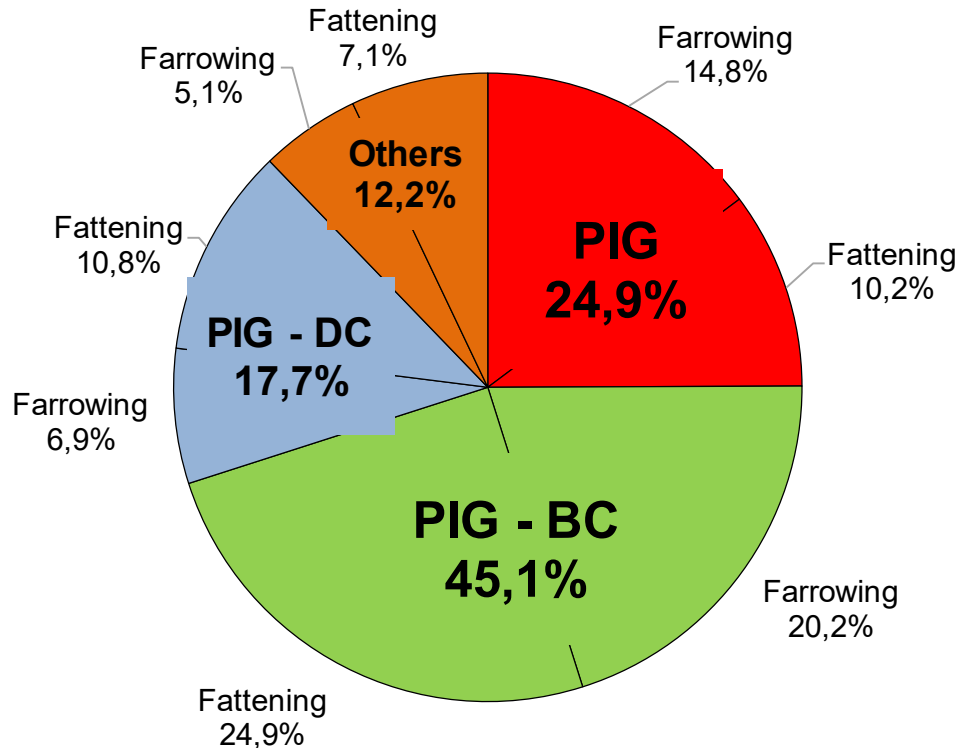


Three quarters of pig farms have significant herbivorous activity*, mainly beef cattle

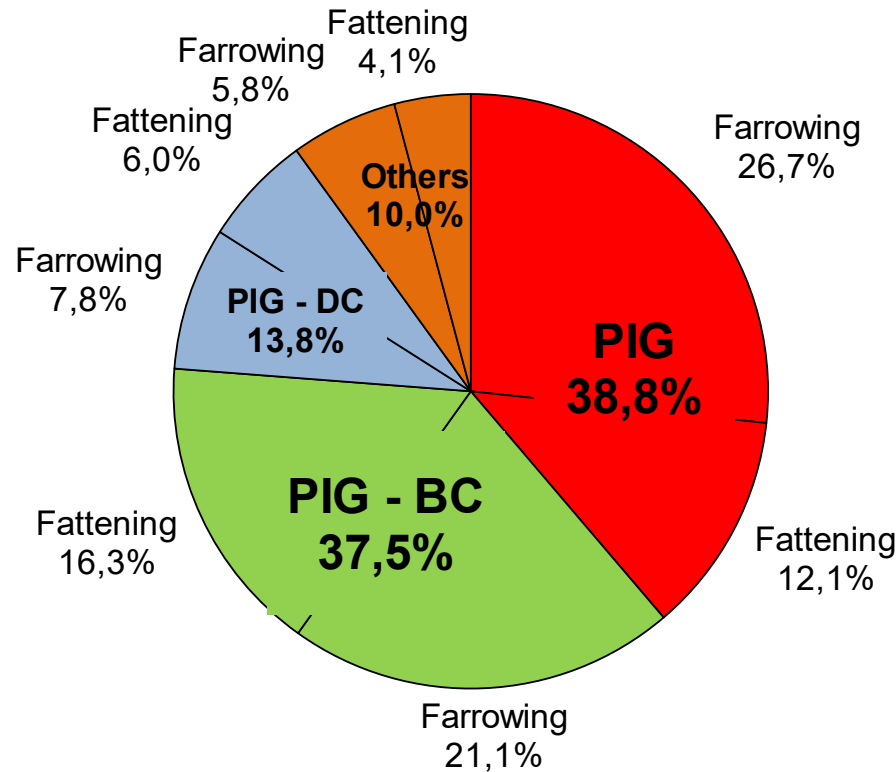
DC = Dairy Cattle

BC = Beef Cattle

Pig farms (%)



Pig herd (%)



Mixed farming is an issue for pig farmers

In the Massif Central, **more than 60% of pigs** are associated with herbivores but **only 2.5% of DC and 2.0% of BC** are associated with pigs.

Mixed farms are mainly specialized in fattening, unlike specialized farms which more often have sows

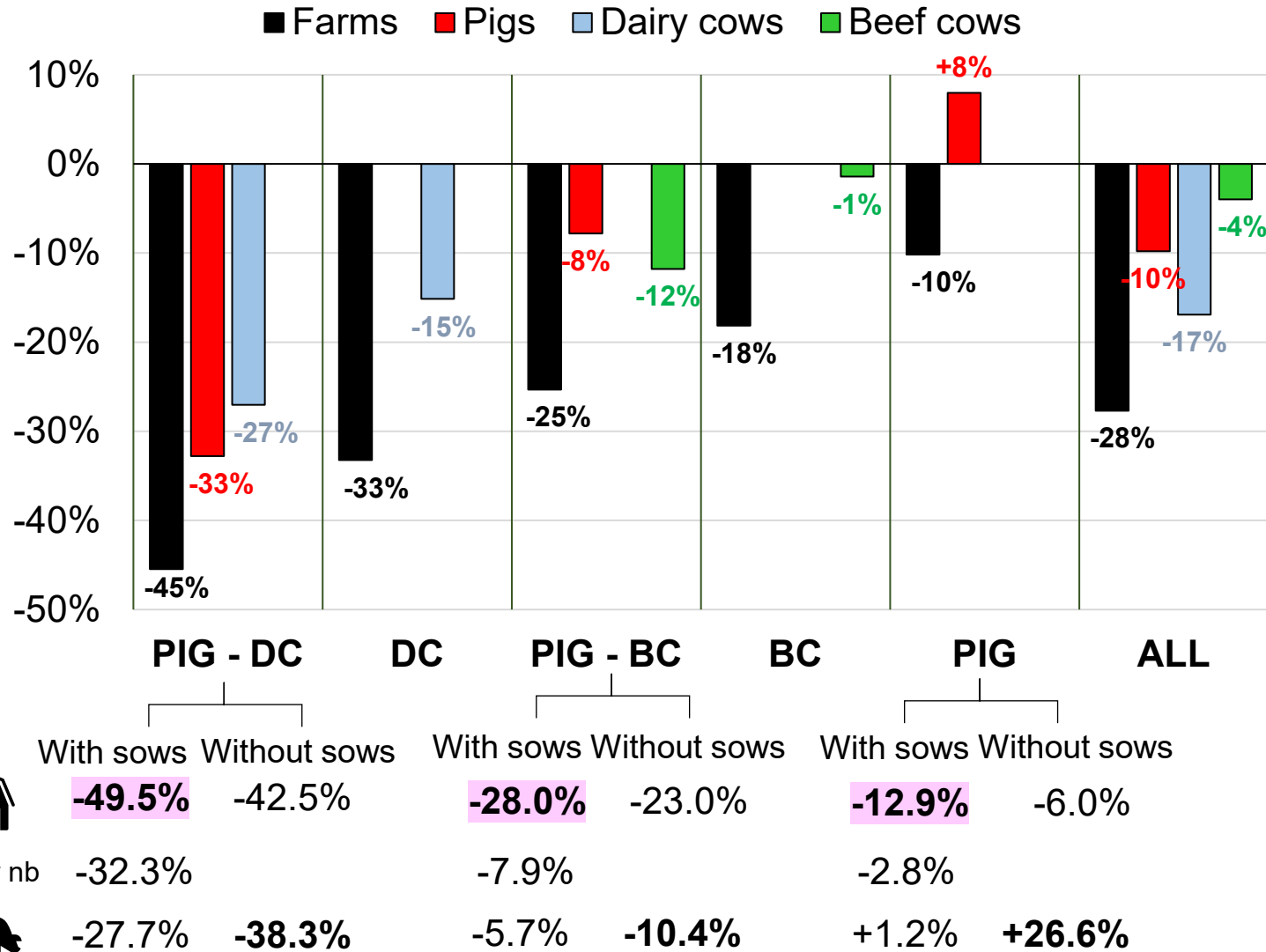
PIG-DC is proportionally comparable to France (14.1%)
PIG-BC is specific to the Massif Central (France: 8.1%)



* > 8 UGB herbivores, 5 DC, 5 BC, 10 goats, 50 beef ewes, 25 dairy ewes, 20 sows, 100 pigs.... ⇒ n = 778 pig farms

Dynamics of the different types of livestock farms in the Massif central

Evolution between 2010 and 2020 of the number of farms and livestock by type



1. Mixity is declining.

The numbers of farms and their herds are falling more sharply in mixed farms than in specialized ones.

2. The PIG-DC model is in crisis.

3. The number of **farms with sows** is **falling more sharply** than those with only fattening.

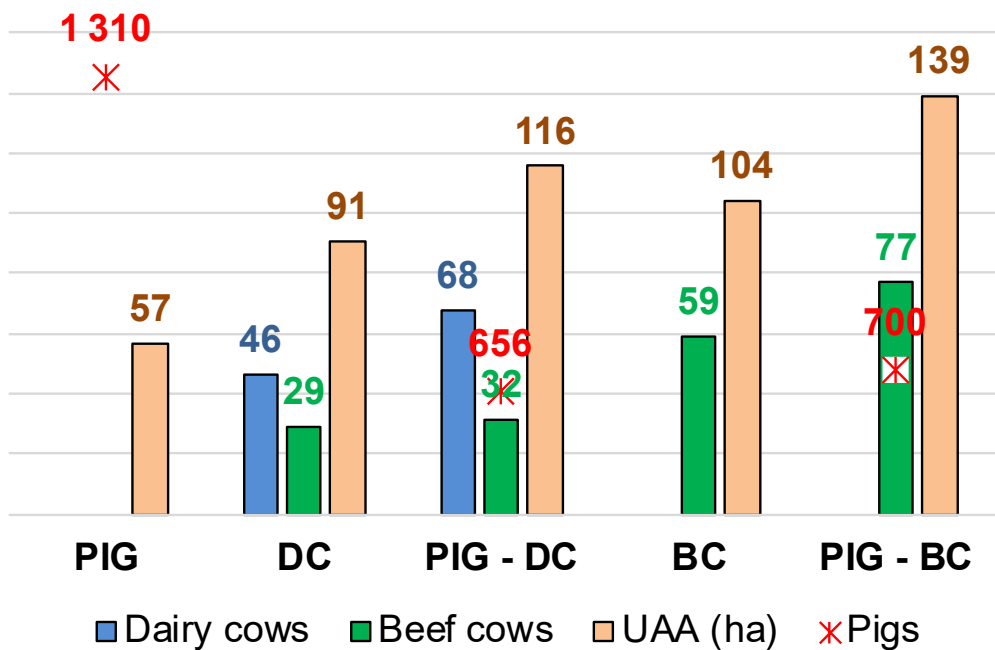
4. Due to excessive workload, **PIG-DC farms stop farrowing.**

5. For fattening farms, the pig herd declines in mixed farms while it increases in specialized ones
 ⇒ effect of the **separation of the activities** in different legal structures?



Mixity does not harm the size of herbivorous livestock or land

Average size of pig and cattle herd (in heads), UAA (in ha)



Change in average size between 2010 and 2020

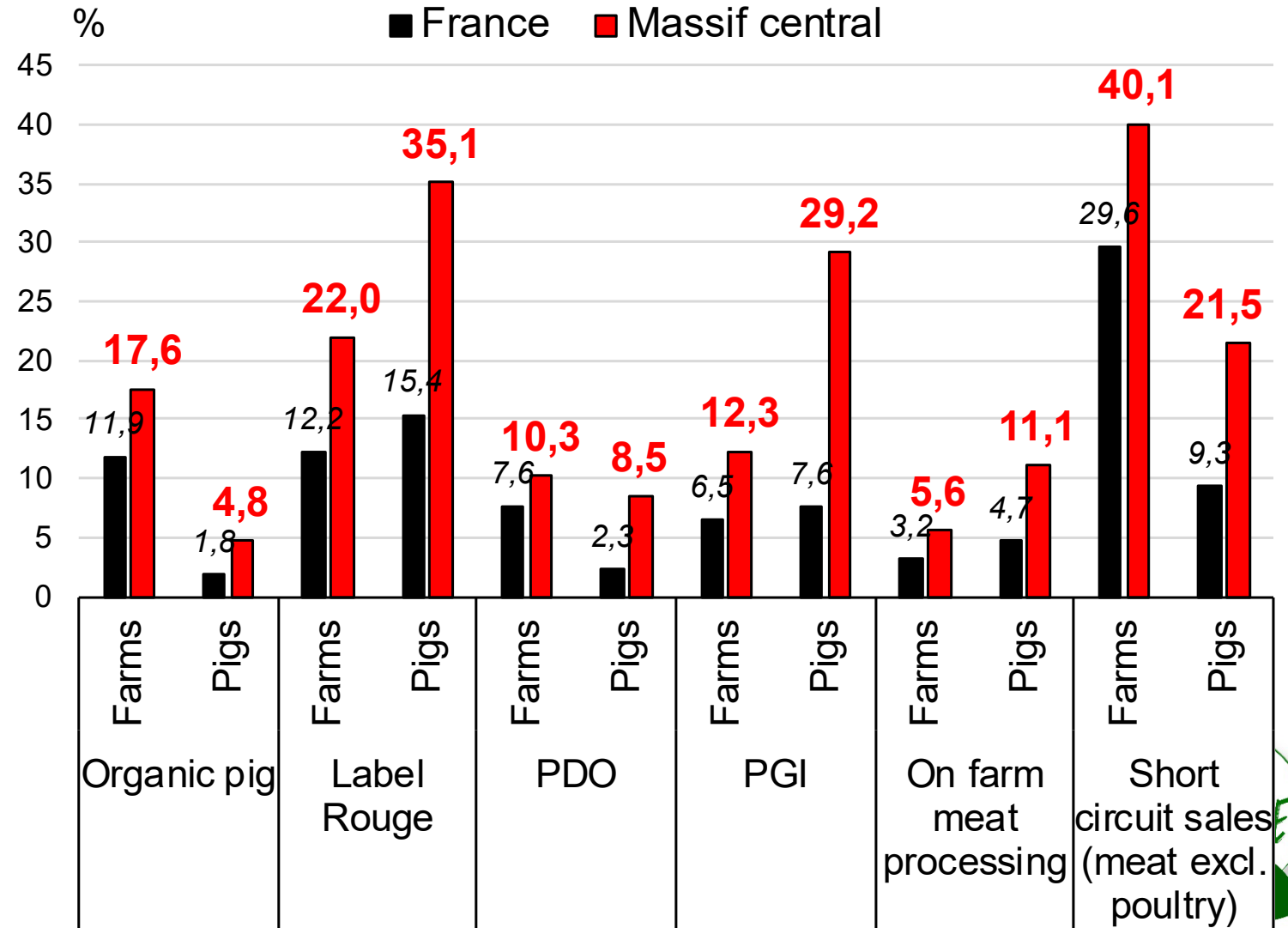
20/10 (%)	PIG	DC	BC	PIG-DC	PIG-BC
Pigs	+20.4			+23.3	+23.5
Sows	+34.2			+11.6	+27.8
Dairy cows		+27.1		+33.8	
Beef cows			+20.4		+18.1
UAA	+58.9	+26.3	+25.5	+33.2	+36.7

- 1. Mixed farms have **larger numbers of cattle and more UAA** but a **smaller pig livestock**. Pork is a complementary production for mixed farms.
- 2. The **increase in the average size** of herds did not compensate for the cessations of activity. Total herds fell in the Massif central.
- 3. The PIG-DC mixed farms have increased their numbers of **cows more than of pigs and sows**.
- 4. Farms combining dairy cows and farrowing pigs require the most **work**
 - PIG-DC: 3.24 AWU / farm **3.70 AWU when sows**
 - PIG-BC: 2.58
 - PIG: 2.43
 - DC: 1.95
 - **BC: 1.45 AWU / farm**



The search for value through quality signs, on-farm processing or short circuits is a way of compensating for natural handicaps

- Two thirds of pig farms and 60% of pigs in Massif central are in **mountain areas**.
- Farms in Massif are **more involved in quality signs** than at national level. Dried charcuterie is a marker of the identity of the territory, highlighted by these quality and origin certifications...
- The **Label Rouge** mainly concerns PIG-BC farms while the PDO concerns more PIG-DC farms.



Insights



1. Pork has a leverage effect

Only 4% of livestock farms in the Massif central have pigs BUT pork contributes to the dynamics of all animal sectors, slaughterhouses, animal feed, advice, etc., to the jobs in the region and to gastronomy... **Pork is more than food !**

2. Pig farming is very diverse in terms of

combinations of production, size of farms, activity (farrowing, finishing, farrowing-to-finishing), mode of production and marketing, size and type of workforce...

This diversity can constitute **a lever of attractiveness which can be activated to maintain pig production.**

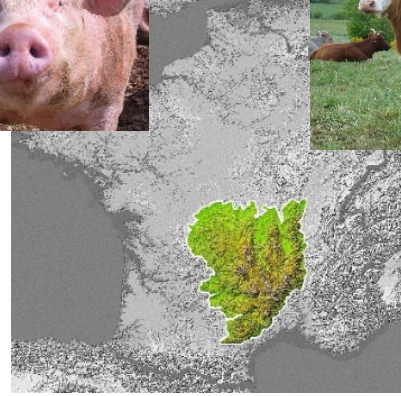
3. Hybridization-interactions

Livestock farming in the Massif Central is characterized by the coexistence of different modes of production and marketing within the territories, cooperatives or farms, by the allocation of the workforce to the different productions.

A mixed farm is not the sum of its specialized productions.

4. The perception and methods of analysis of livestock farming need to be adapted

The reading grid of livestock farming is generally technico-economic making it unsuitable to analyse the resilience of mixed farming. It doesn't take into account the complementarity between productions and the social and societal benefits of mixed farming.



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Thanks for your attention

For more information:

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