

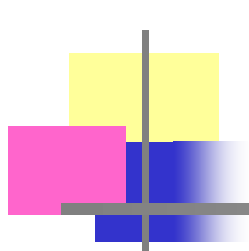
Differences of technology adoption and objectives of mountain cattle farmers depending on continuity prospects

Olaizola A., García-Martínez A., Bernués A.



EAAP2007





Introduction



The relationships between family and farm business affect the decision making process.



Differences in behaviour and the different adjustments

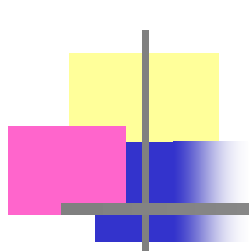


The objectives of the farmers are numerous, diverse and often in conflict with each other.



Business objectives change over the stages of the family cycle.

The presence or absence of a successor may have influence upon business objectives and farm performance.



Introduction and Objectives

-  **The abandonment of farming activities has been a continuous process in many European mountain areas.**
-  **Continuity of farm is a central issue when assessing the sustainability of agro-ecosystems in mountain and other less favoured areas in the short-medium term.**

Analyse the importance of farmers' objectives and technological changes in farming systems happened in the past and farmers' intention in the future, depending on farm continuity.

Methodology

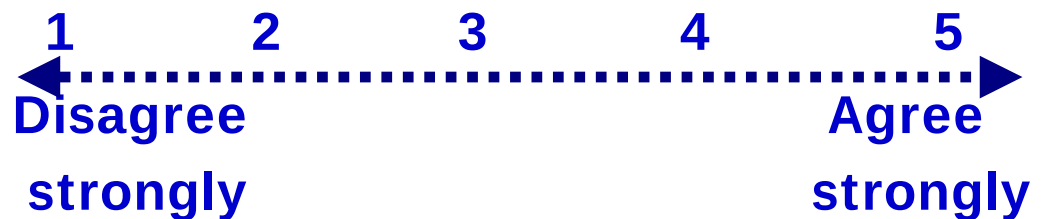


👉 **71 cattle farms in 3 valleys of the Central Spanish Pyrenees.**

👉 **Direct questionnaire applied to farmers in 2004:**
farm structure, family and labour, management farm
and economics performance.

🔗 **Farmers' Objectives**

Likert Scale



🔗 **Changes in farming systems: 5 years period previous to the survey and in the 5period years after the survey**

Methodology



☞ Farm Continuity for the next 15 years:

With continuity:

- Farmers < 50 years old and intention to continue
- Farmers older than 50 with descendants willing to continue in agriculture.

Without or uncertain continuity:

- Farmers > 50 years old, without successor
- Farmers younger than 50 who don't know if they will continue.

🌀 Differences among 3 valleys

🌀 Differences between farmers objectives. Student's T

🌀 Differences between changes in farming systems. Chi-Square

Results



👉 General characteristics of cattle farms

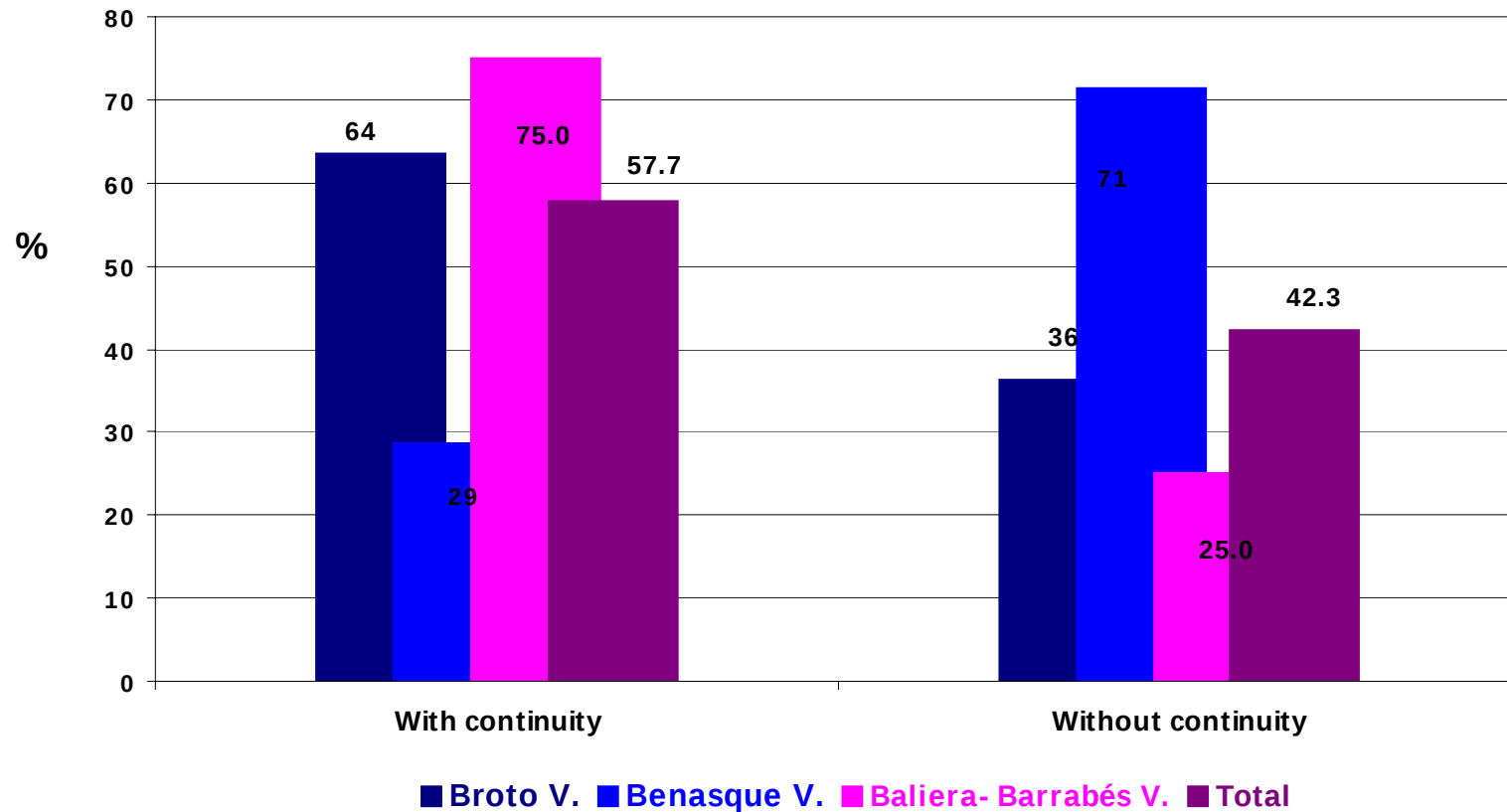
	Broto Valley	Baliera Valley	Benasque Valley	Total
No. Farms	22	28	21	71
Land area ha	34.8	106.2	43.5	66.1
Livestock Unit	69.1	82.6	54	70.1
Age of farmer	47	47	51	48
Annual Working Unit	1.4	1.6	1.1	1.4
Off-farm job farmer (%)	27.3	17.2	33.3	25
Off-farm job family (%)	77.3	48.3	52.4	58.3

➡ Evolution of some indicators in the three valleys of the area of study

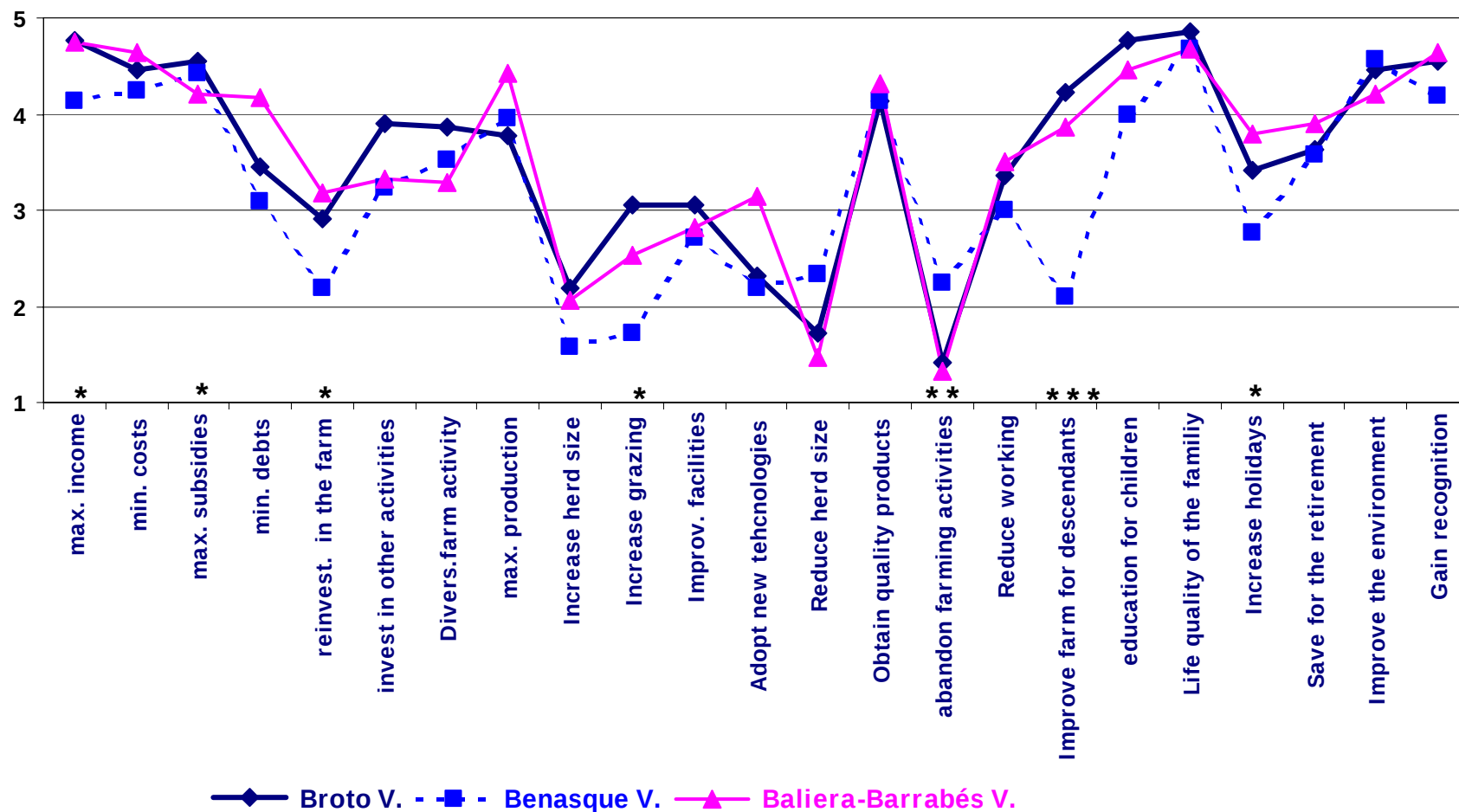
	Broto Valley			Benasque Valley			Baliera-Barrabés Valley		
	1991	2003	<i>dif.(%)</i>	1991	2003	<i>dif.(%)</i>	1991	2003	<i>dif.(%)</i>
Population	831	849	2.2	2370	3078	29.9	715	668	-6.6
% active population									
- agriculture	47.4	1.5	-96.7	19	1.4	-92.6	48.7	13.3	-72.6
- tourism	43.8	89.2	103.7	56.8	79.6	40.2	34.5	56.2	63.1
No. Cattle farms	102	58	-43.1	156	55	-64.7	87	53	-39.1
No. of cows	2537	2446	-3.6	3803	3101	-18.5	2069	3566	72.4



👉 Farm Continuity for the next 15 years

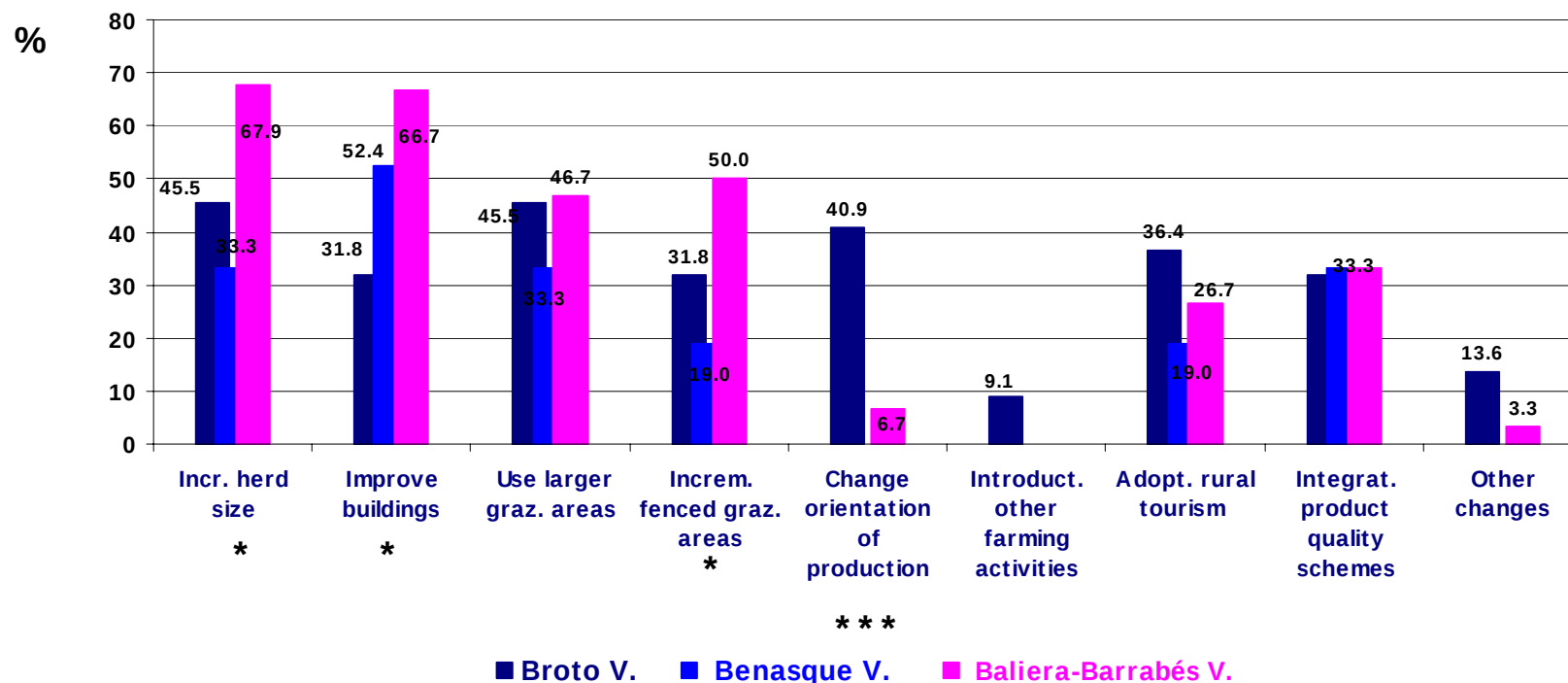


👉 Farmer's objectives in 3 Valleys



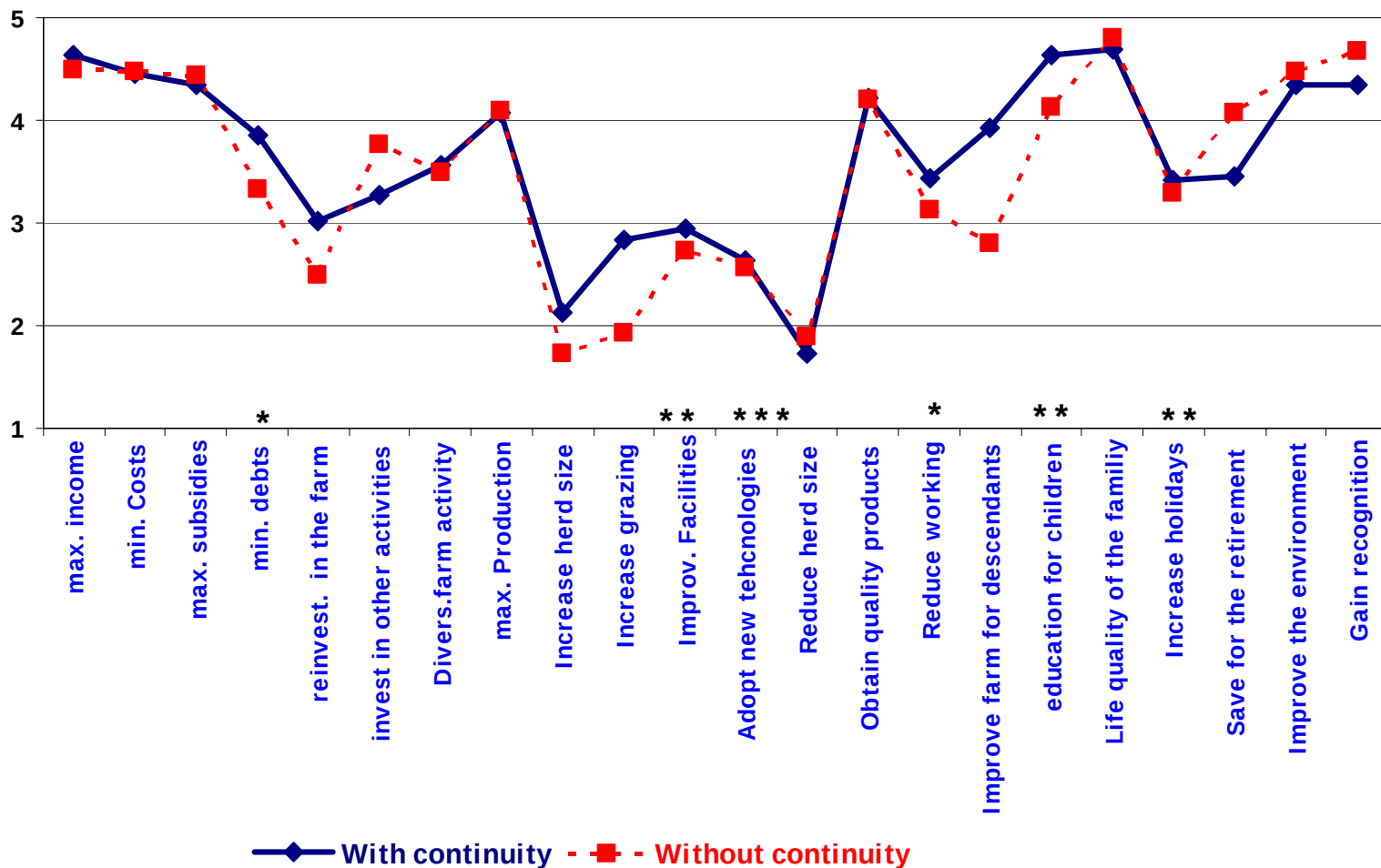
* $p < 0.05$ ** $p < 0.01$ *** $p < 0.000$

☞ Changes in farming systems during 5-year period previous to the interview



* $p < 0.05$ ** $p < 0.01$ *** $p < 0.000$

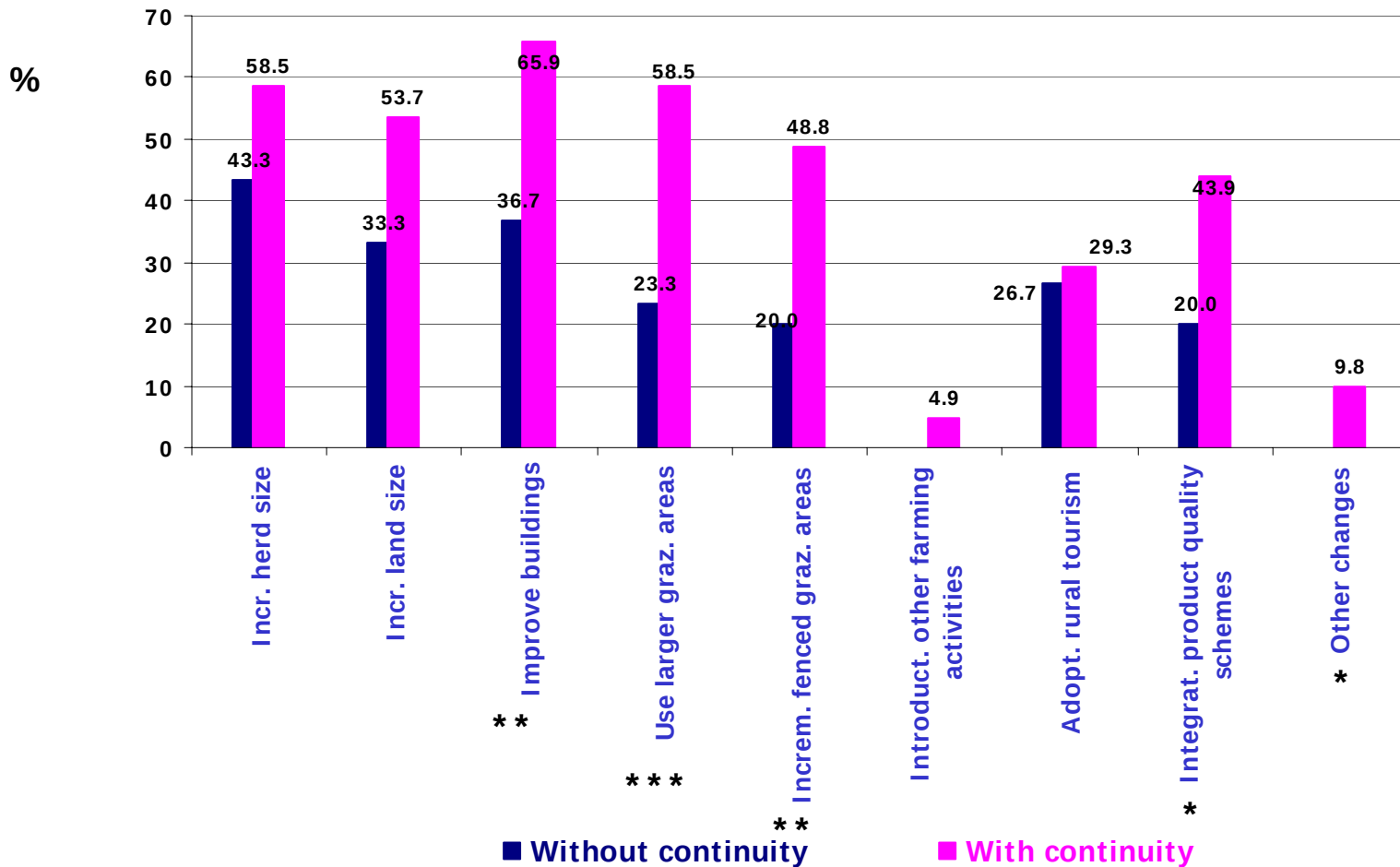
👉 Farmers' objectives and continuity prospects



* $p < 0.05$ ** $p < 0.01$ *** $p < 0.000$

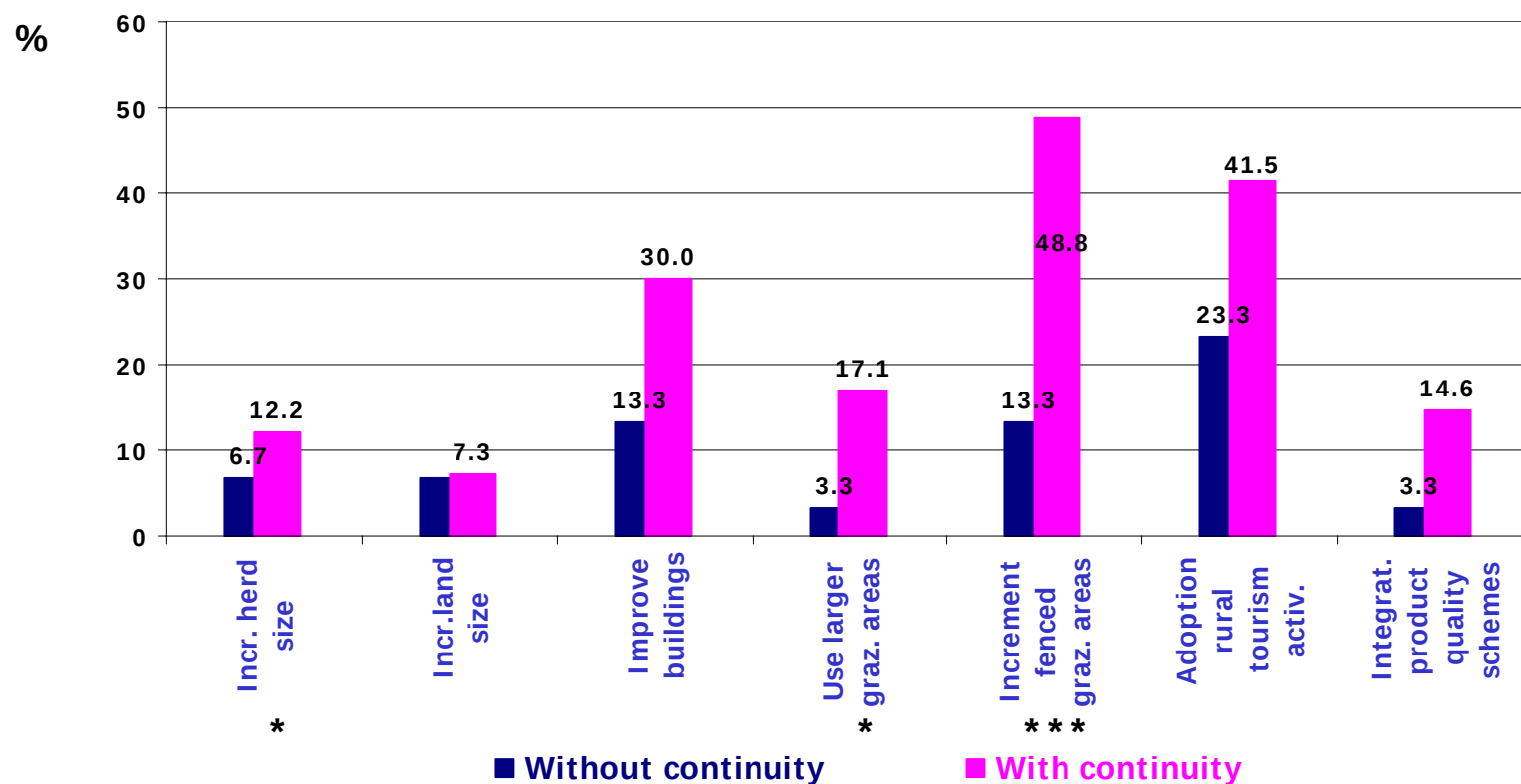


Changes in farming systems during 5-year period previous and continuity of the farms

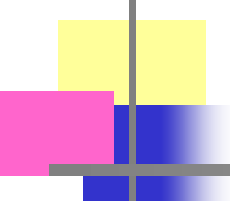


* $p < 0.05$ ** $p < 0.01$ *** $p < 0.000$

Changes in farming systems for the next 5 years and continuity of the farms



* $p < 0.05$ ** $p < 0.01$ *** $p < 0.000$



Concluding remarks

- Differences among 3 valleys (continuity, farmers' objectives and changes in farming systems): the external factors (location) also affect objectives and values of the farm household.
- Cattle farms without continuity were very important (42 %): the process of abandonment of farming activities will continue in this area.
- Most important objectives of farmers were social or lifestyle and monetary objectives.
- Reduction of debts, adoption of new technologies, good education for children, holidays...: more important for farmers with continuity
- Improvement of buildings, more grazing, fenced grazing areas: more frequent in farms with good chances of continuity
- For the next 5 years: no significant differences in changes such as diversification towards tourism activities, integration into product quality schemes.
- The link between the farmers' objectives and the family and the internal and external factors need to be explored further within a multidimensional framework.