

“L’image de l’agriculture au XXIe siècle”

Murten, 1 April 2011

Land and landscape maintenance services provided by farmers in the Piedmont mountain and hill areas

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- **The research project**
- **Land maintenance service supply**
 - ✓ Status quo and possibilities (direct investigation)
 - ✓ Economic impact (desk investigation)
- **Conclusions**

The research project



Objective:

to investigate the relationship between institutions and farms on the possible delivery of land and landscape services made possible by the law

Research funded under
Fondazione CRT's announcement

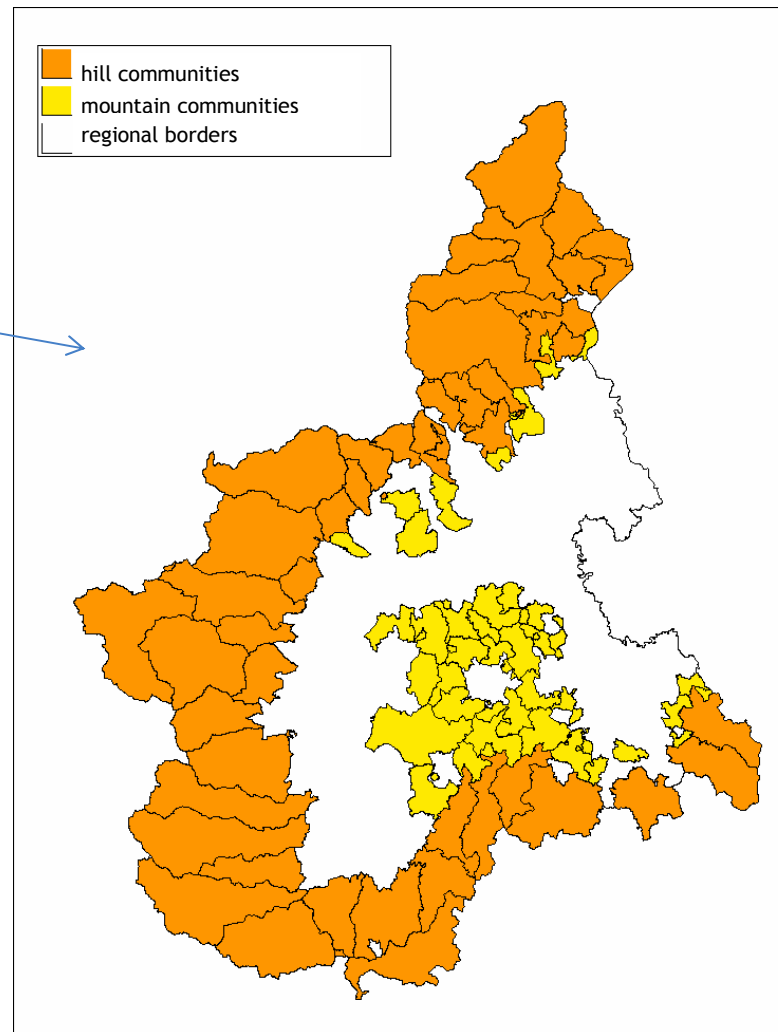
Progetto Alfieri 2007



The research project



The administrative level of observation



- ✓ **48** mountain communities (**CM**)
 - ✓ **35** hill communities (**CC**)
- Equal to **67%** regional land

Normative Framework:

Two national laws formalised the public authorities' decision to make agreements with farmers regarding the supply of land and landscape maintenance services for public land (Territorial Farming Agreements - TFA):

- ✓ **Italian Decree on Reorientation and Modernisation of Agriculture (n. 228/01);**
- ✓ **New Rules for the Development of Mountain Areas (Law 97/94).**

The research project

Two points:

1. **Demand** analysis of land and landscape maintenance service (**LMS**) by the public authorities

2. **Supply** analysis of land and landscape maintenance service (**LMS**) by farms

Direct investigation

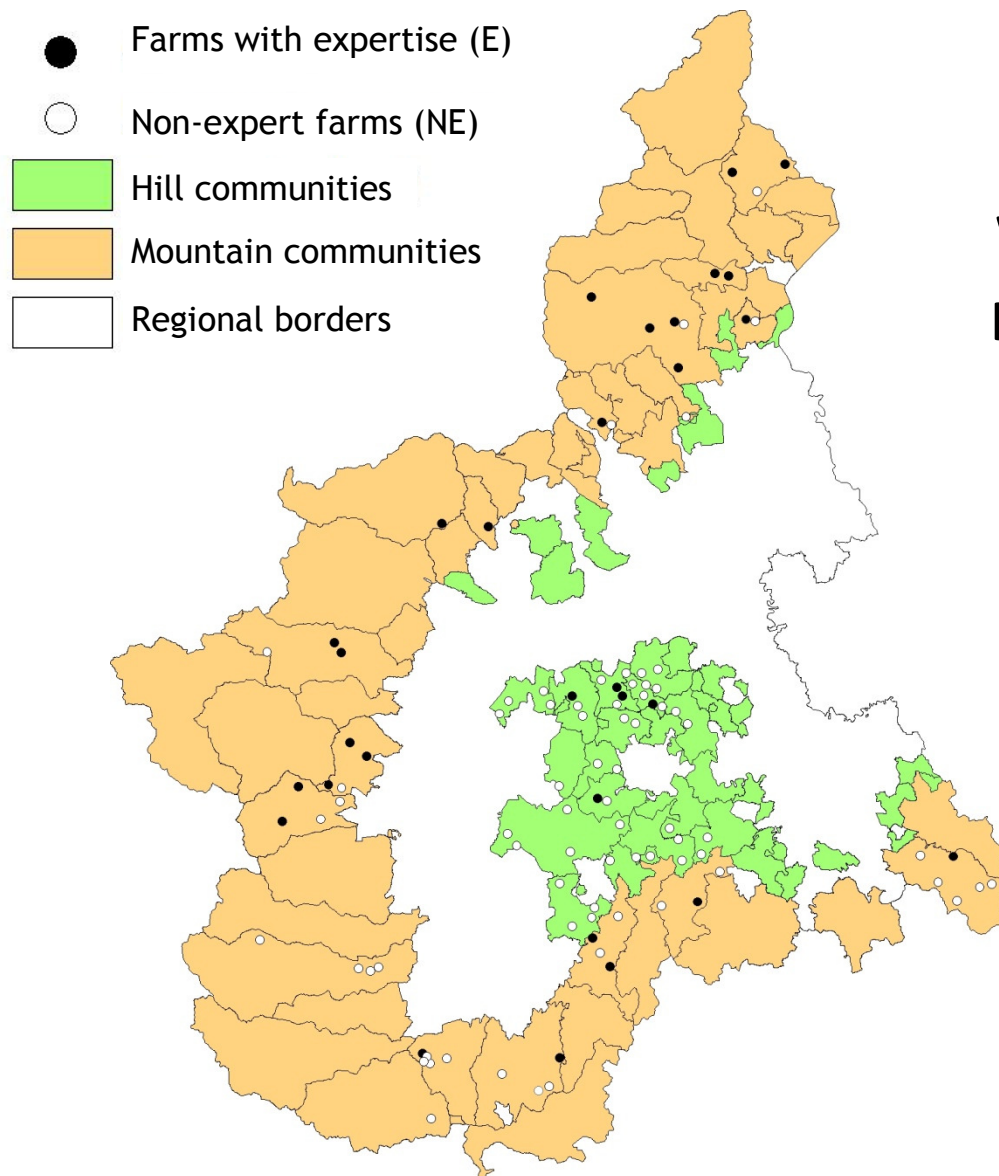
Questionnaire survey

Desk investigation

financial analysis /simulation

Direct interviews: sample of **100** mountain and hill land farms:

- **“Farms with expertise” (E):** to define the economic and structural characteristics of farms which had won public tenders for land maintenance, plus the attitudes/inclinations of the farmers involved
- **“Non-expert farms” (NE):** farmers who have never supplied this type of service, in order to understand the reasons, and to identify the technical/management aspects which may place restrictions on this activity or discourage potential service providers



Supply survey, farms with expertise (E) and non-expert farms (NE)

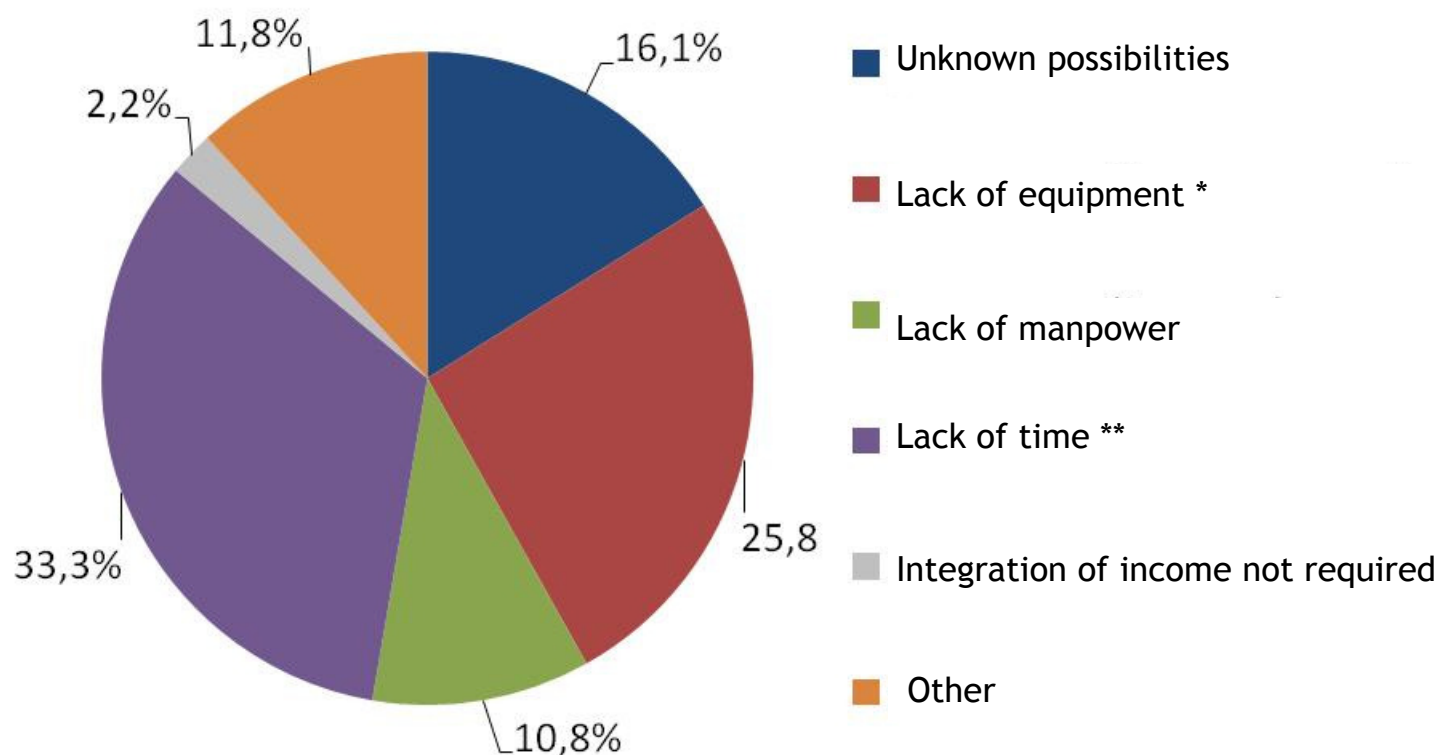
Farms	MC	HC	Tot.
E	25	4	29
NE	29	43	72
Total	54	47	101

A selection of farms stratified by province, area (MC, HC) and access to TFA; FADN method (N/n)

The farms surveyed:

- they are mostly **individual farms** (89.1%) run with only direct family workers (71.3%) or with family labour prevalent (23.8%)
- they are medium-sized **professional farms**:
 - ✓ 49.5% is between 5 and 30 hectares of UAA, 37.6% from 30 to 100 hectares;
 - ✓ 53.8% of those livestock is between 20 and 100 LU

NE farms - motivations

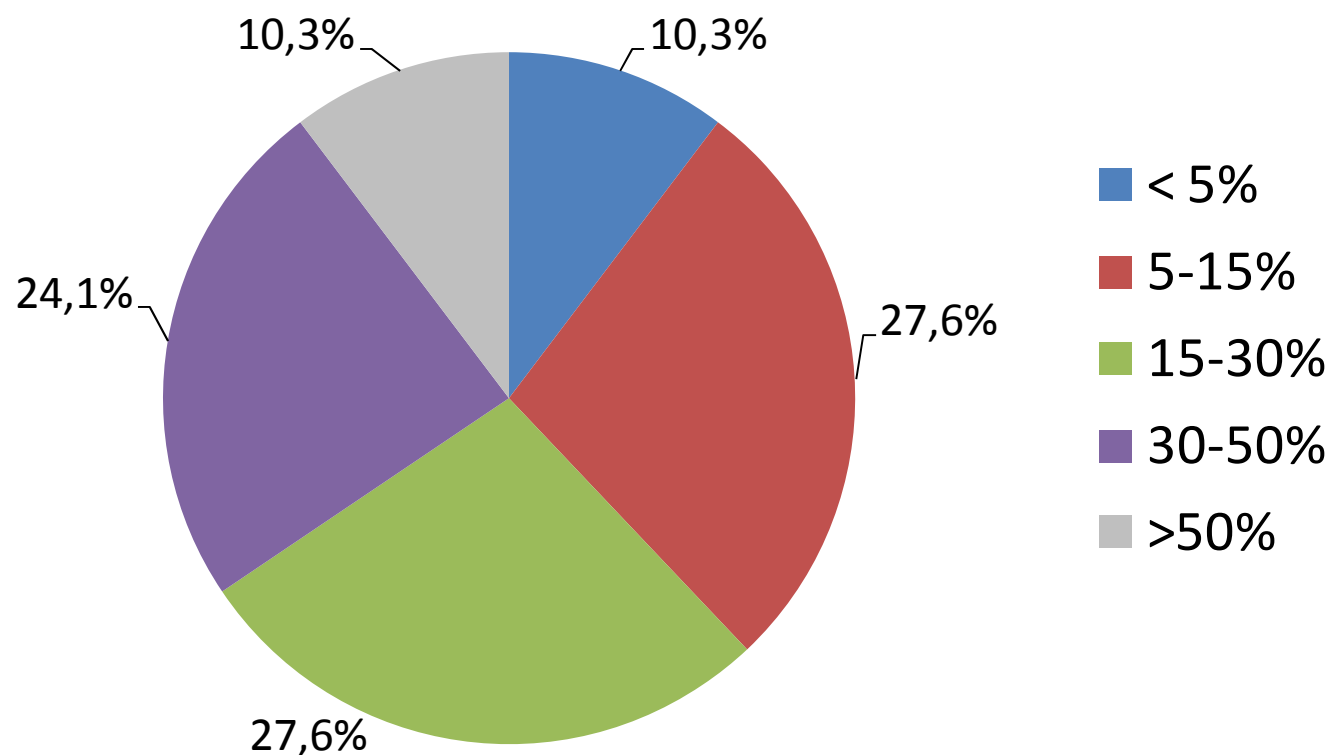


*multiple answers possible
% calculated on the number of citations*

* Most cited response by farms: i) in HC; ii) a field crops

** Most cited response by farms : i) in MC; ii) vineyards or livestock farms

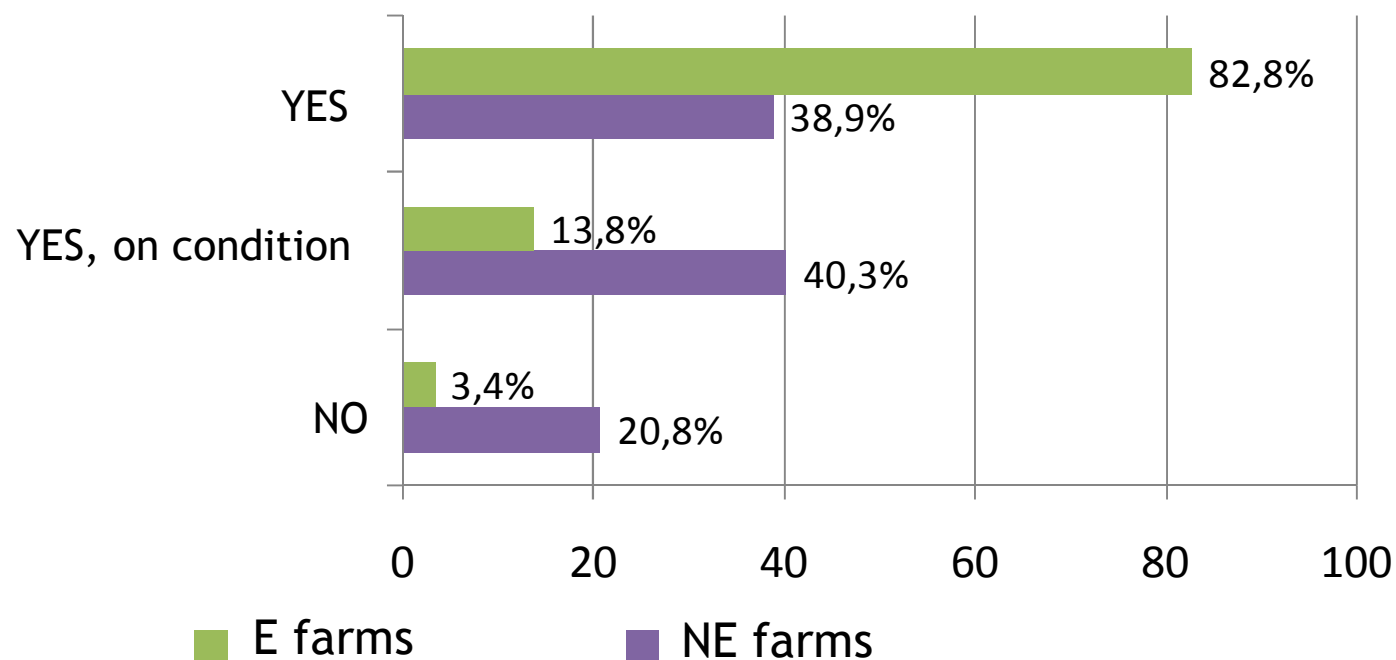
E farms - % of income by LMS (2007-09)



For **86.2%** of respondents, the payments were **ready**

For **93.1%** they were **proper**

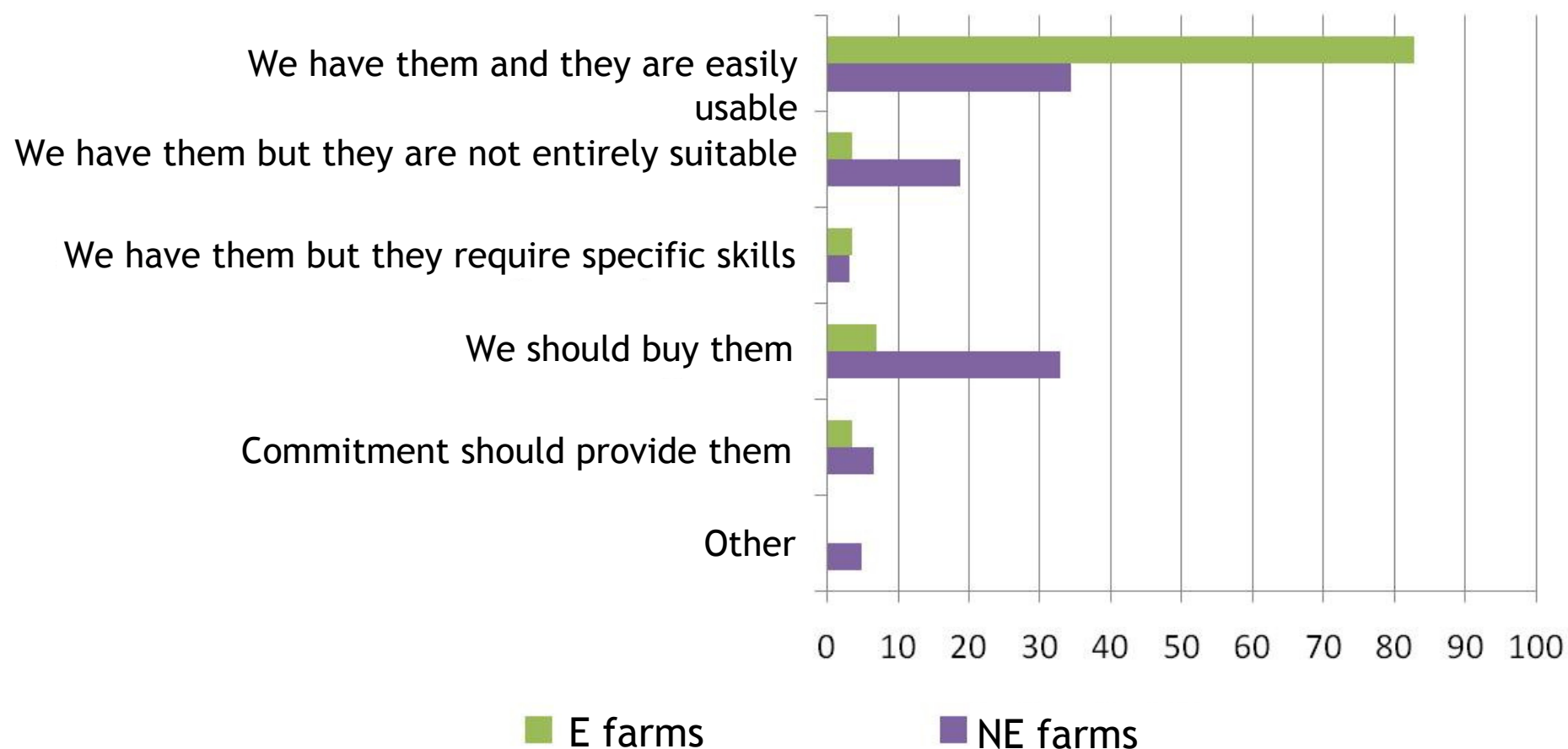
E and NE farms - willingness to provide LMS in the future



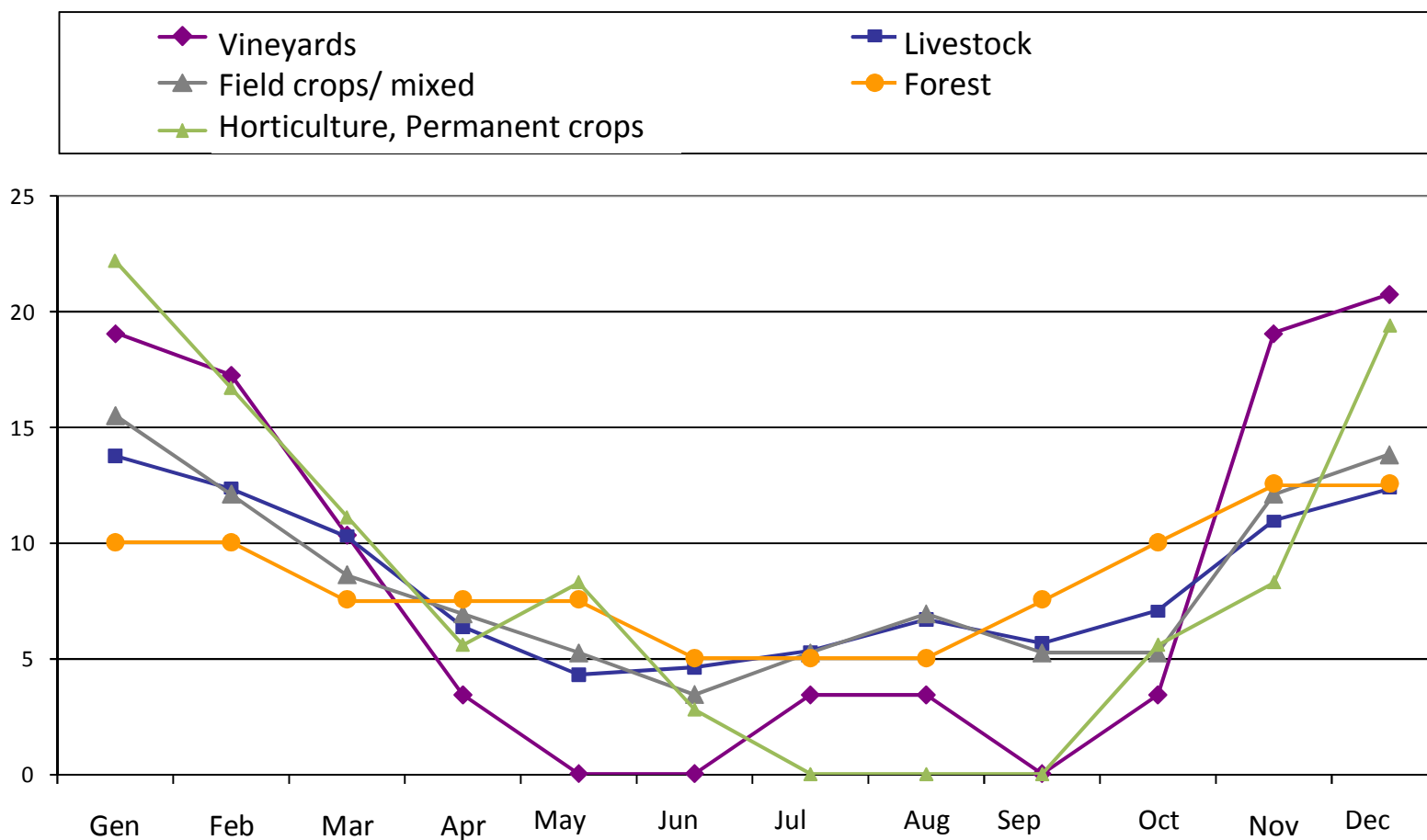
Conditions:

if the organization contracting entity improves , if the remuneration improves , if the institution provides its own machinery (40% of citations in NE)

E and NE farms – machinery and equipment

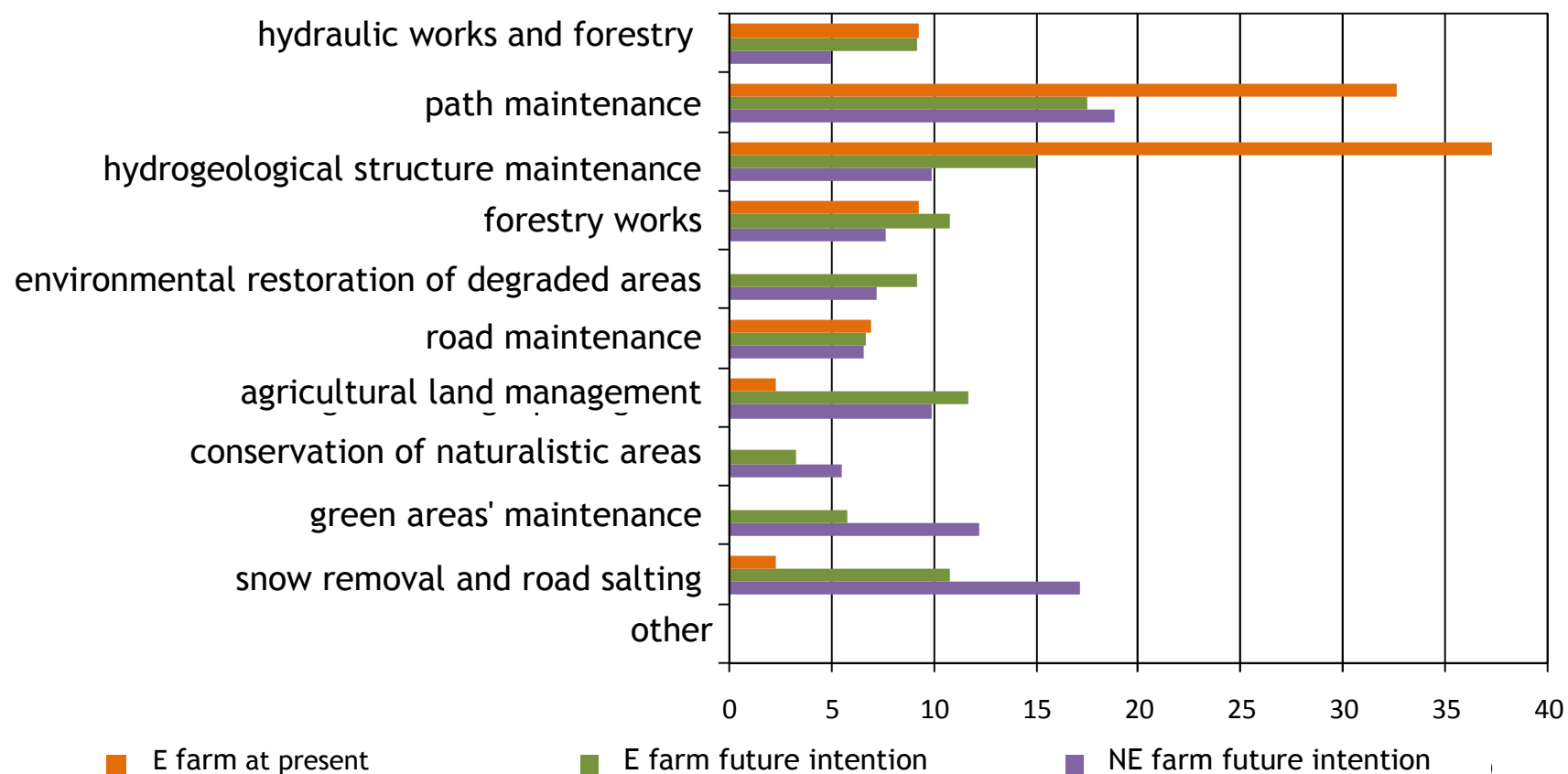


E and NE farms – lack of time



*multiple answers possible
% calculated on the number of citations*

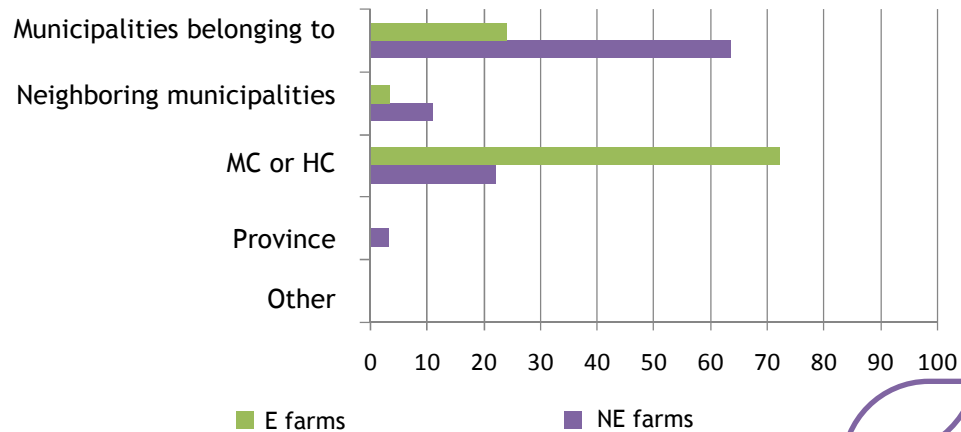
E and NE farms: type of land maintenance works



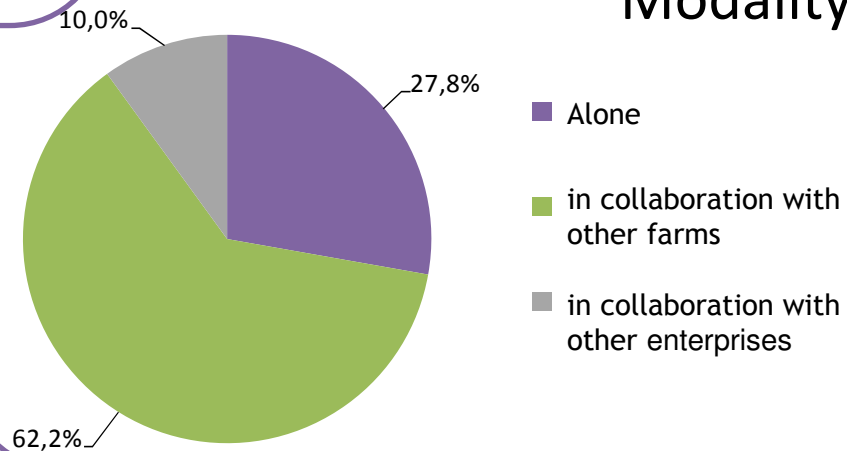
*multiple answers possible
% calculated on the number of citations*

E and NE farms - preferences

Commitment



Modality



The research project

Two points:

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2. **Supply** analysis of land and landscape maintenance service (**LMS**) by farms

Direct investigation

Questionnaire survey

Desk investigation

financial analysis /simulation

Cost-effectiveness of LMS

Simulation of the possible economic effects for farm income

Revenues

Public tenders

Costs

FADN data

Example :
Preservation of the hydrological water courses

«Model technique of LMS»

For each operation of LMS:

- **Description:** eg. Thinning of woodland degraded..
- **Unit price** (Regional price list)
- **Average quantity** (Public tenders)

LMS supply: revenues

Operation	UM	Value
Thinning of woodland degraded	€	6.761
Scrub clearance of road or river embankments overgrown with brambles	€	7.810
Felling of trees with minimum difficulty	€	399
Removal of dead wood	€	692
Total	€	15.663
Value / sqm	(€/mq)	1,34
Value / h	(€/h)	664

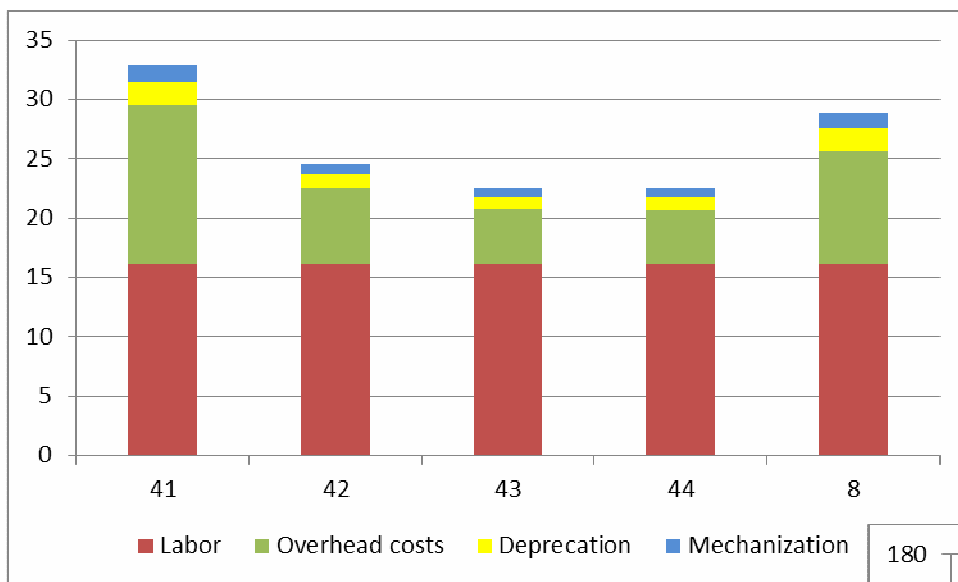
FADN data 2005-2007

- **«farm type»**
 - ✓ Located in HC and MC
 - ✓ Type of farm: livestock and mixed for MC; livestock, mixed and field crop for HC
 - ✓ Availability to carry out LMS: availability of working hours by permanent workers (family labour)



400 farms in MC and 160 farms in HC

LMS supply: costs



Mechanization
Depreciation of machinery
Overhead costs

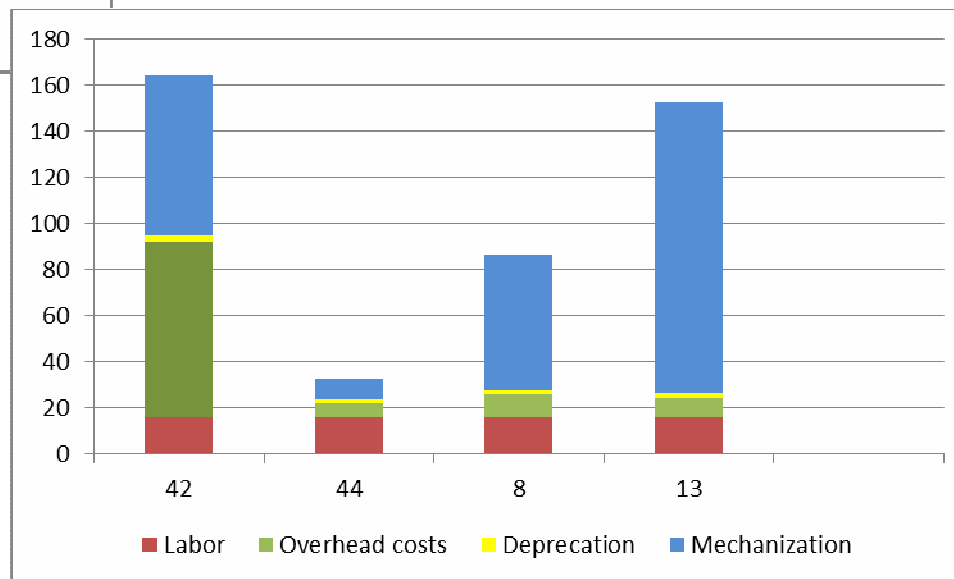


FADN
 costs allocated using the
 technique of opportunity cost
 (work on the farm)

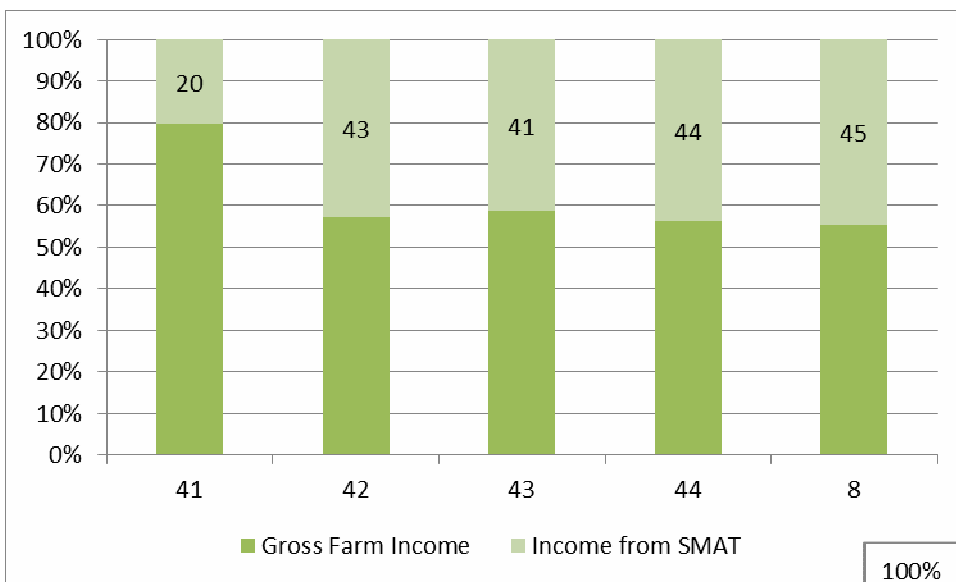
Mountain Community

Labour (tender 16,1 €/h)

Hill Community

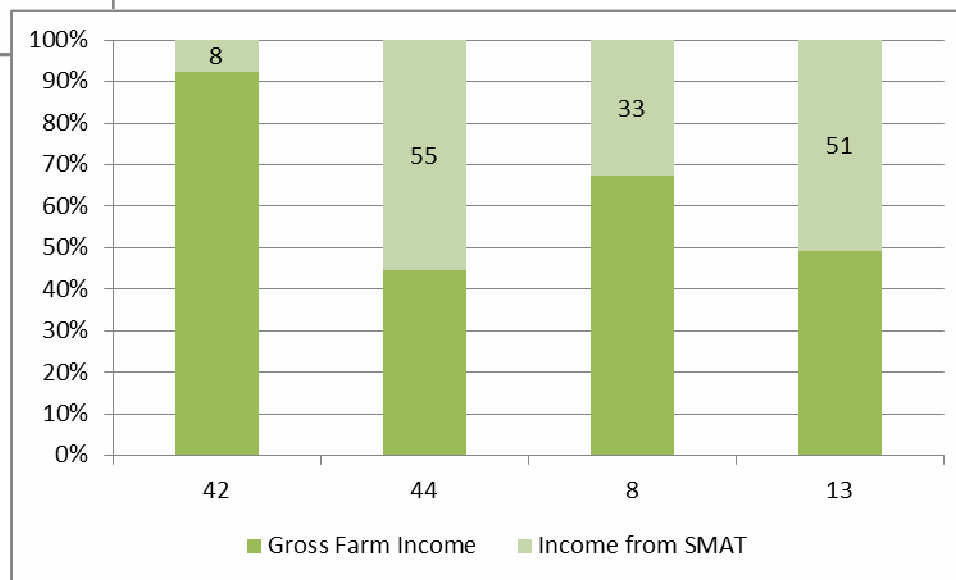


LMS supply: income



Incidence of **Income from SMAT** and **Gross Farm Income** on the **Revenue of farms**

Mountain Community



Hill Community

Supply SMAT:

- **Positive feedback** from both “Farms with expertise” (E) and “Non-expert farms” (NE) on the opportunity of **continue/start** LMS
- **Successful integration for income** mostly for farms in marginal areas
- Presence of some **limits of diffusion** of experiences: **mechanization, times** for agricultural works and labour for LMS supply

Guidelines:

- More dissemination of **information** (demand and supply sides)
- **Simplification and standardization** of administrative procedures
- Integration of LMS in territorial and sectorial **programming** (eg. rural development policies)



Thank you

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Back

Supply SMAT: Costs

Labor (tender 16,1 €/h)

Mechanization

Depreciation of machinery

Overhead costs

FADN

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OPE	Labor	Overhead costs	Deprecation	Mechanization	Total
41	16,1	13,4	2,0	1,4	32,9
42	16,1	6,4	1,2	0,9	24,6
43	16,1	4,7	1,0	0,7	22,4
44	16,1	4,6	1,1	0,7	22,5
8	16,1	9,5	2,0	1,3	28,8

Supply SMAT: Income

OTE	€/hour			€/tender
	Revenues	Total Costs	Revenue-Costs	Revenue-Costs
41	664	32,9	631,1	15.147
42	664	24,6	639,4	15.345
43	664	22,4	641,6	15.399
44	664	22,5	641,5	15.397
8	664	28,8	635,2	15.244

OTE	€/hour			€/tender
	Revenues	Total Costs	Revenue-Costs	Revenue-Costs
42	664	163,9	500,1	12.004
44	664	32,6	631,4	15.154
8	664	86,4	577,6	13.862
13	664	152,0	512,0	12.287

Demand SMAT:

- **Differences between MC and HC:**
 - ✓ Low knowledge of the possibilities given by regulations on HC
 - ✓ longest experience in land management and better inside organization in MC
 - ✓ greater extension of public ownership and marginal conditions in mountain areas
- **Positive feedback** from both implementing and non-implementing authorities on the opportunity of involving farmers