



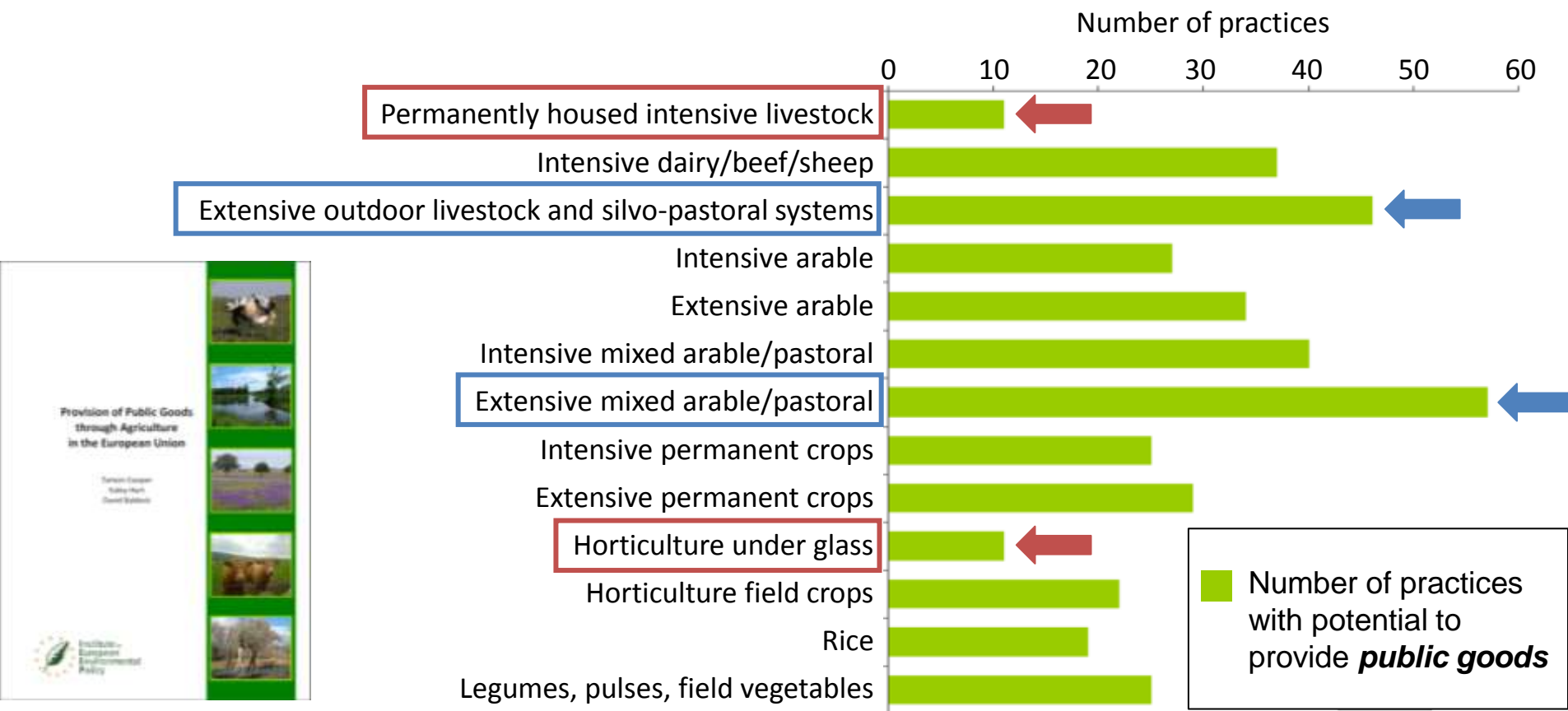
PESagri: A novel payments for ecosystem services framework for targeted agrienvironmental policy

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How to fairly reward the delivery of ecosystem services (ES) by farmers?



Different managements (agricultural practices) render farming systems with different potential to provide ES

- **Objective:** to design and apply a generic framework of management-based payments for ES (PESagri) for sheep and sheep-crop farming systems

➤ Material and methods:

- Starting point
 - 66 **agricultural practices** on **relevant ES** (EU report)
 - 10 monitored **sheep and mixed sheep-crop farms** in Aragón (SP)

- Delphi panel

- Questionnaire:

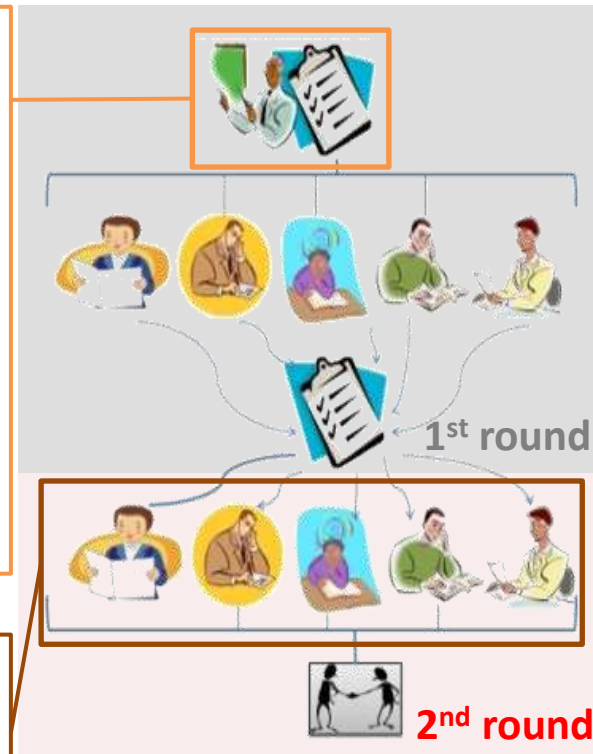
- Description of the **diversity of Mediterranean agro-ecosystems**



- **Positive contribution of 36 farming practices on ES:**
0: none, 1: very low – 5: very high; Don't know

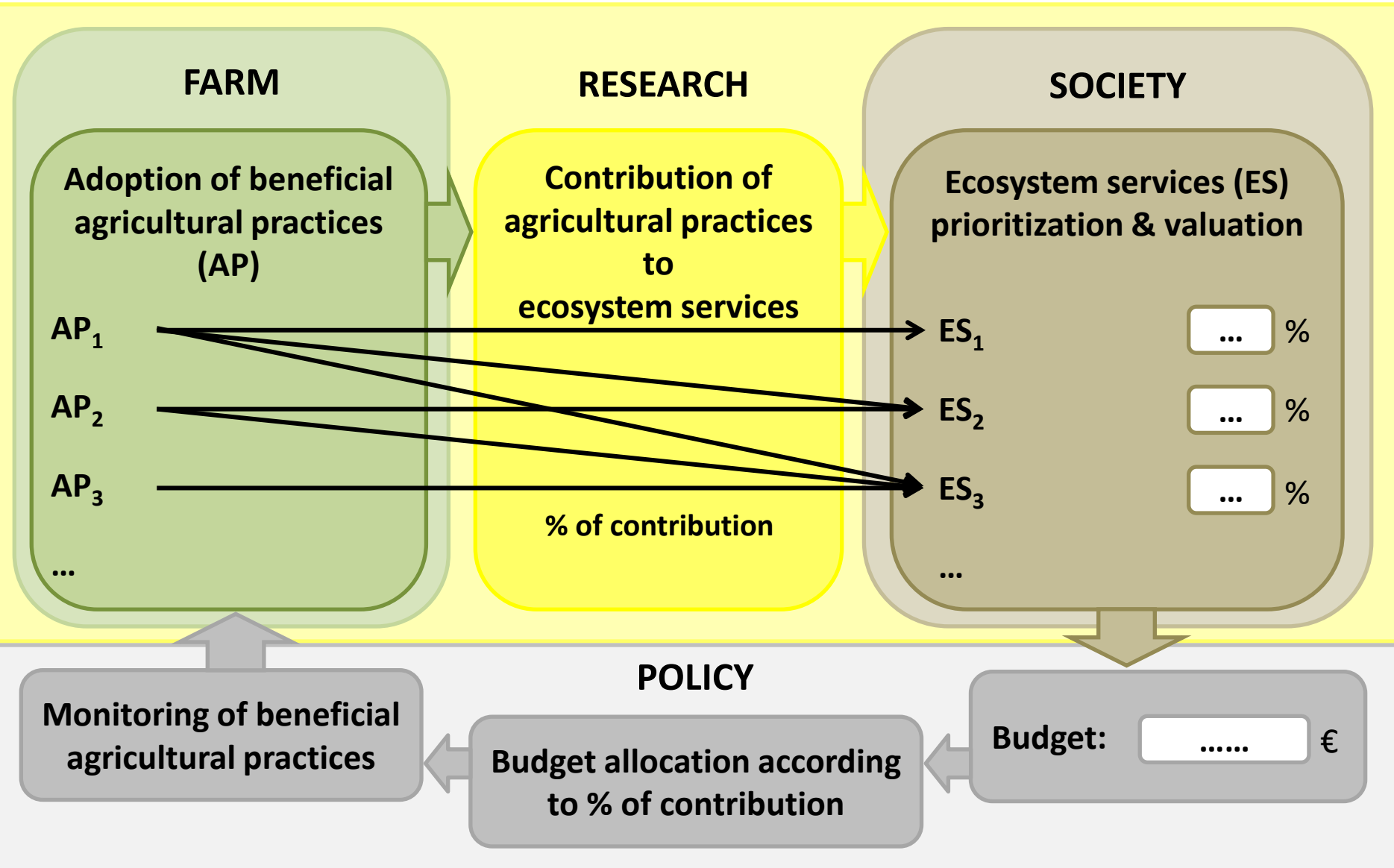
- Experts on agriculture – environment (n = 61):

- Researchers (n = 29)
 - Technicians/managers (n = 32)





PESagri



PESagri

1. PESagri focuses on **agricultural activity as the main driver of many ES**, and reflect the **views of all stakeholders involved** (farmers, policy-makers, researchers, society).
2. It is able to **elucidate the contribution of real agricultural practices at the farms to the provision of diverse ES** and, potentially, **reward farmers** according to the ES they deliver.
3. It is **generic, customizable** according to particular agro-ecosystems and policy targets, and **easy to use**.
4. The **quantification of the multiple effects** of agricultural practices on one or several ES is central in the operation of the framework:
 - when a particular ES is the only target → promote particular practices that have a strong influence on this ES
 - when several ES are the target → promote multiple practices with synergic effects to deliver ES in bundles.

Seminar of the FAO-CIHEAM Network on Sheep and Goats
Innovation for Sustainability in Sheep and Goats

Thanks for your attention...



... and contribution to sustainability!

- Contribution of farming practices on a specific ES:

Farming practices	Contribution on ES	
	Scores	%
1 st	\sum respondents' scores*	$\frac{\sum \text{respondents' scores}}{\text{Total score}} \cdot 100$
2 nd	"	"
...	"	"
n th	"	"
All	Total score	100 %

*Scores (Likert scale) with **ponderation** by self-appraisal

on *expert knowledge*:

- x 0.2 (*very low*)
- x 0.4 (*low*)
- x 0.6 (*intermediate*)
- x 0.8 (*high*)
- x 1.0 (*very high knowledge*)