Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria

iSAGE Innovation for Sustainable Sheep and Goat Production in Europe

Potential and limitations of genomic selection in small ruminants

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Partners involved

Industry: **AGRAMA, ARDIEKIN, ASSAF.E, CAPGENES, CNBL, FRIZARTA**

Research: **INIA, AUTH, IDELE, CITA, IRIAF**

France, Greece and Spain

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Background

- **Genomic Selection programs in dairy cattle industry are in place and working:** well organized, "one large population", "willing to innovate", international collaboration tradition.

- **Why does it work from a genetic perspective?**
  Improves the relationship matrix

- **What about the small ruminant populations?**
  Many breeds, large Ne, economic resources

Aims

- **What is the perception of small ruminant stakeholders ?** to identify potential limitations and possible drivers?

- **What could we do to get the most?** to maximize the amount of information

- **What about the main actors: "farmers"?** would they be willing to adopt the genomic tools?

Conclusions (I)

- Limiting factors:
  - Costs of genotyping and phenotyping
  - Change in breeding structures: cooperative work
  - Media effort to revert public opinion
  - Farmer's Attitude toward Traditional selection

- Driving factors:
  - Stimulate extension services toward G&G , business oriented.

Conclusions (II)

- Genotyping scenarios

Same cost of genotyping:

- Provide different responses
- Different correlated responses

- Comprehensive selection objective?
  - More complex production scenarios
  - Non directional variability?

CITA, INIA and IRIAF thanks to

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