

If you were a cow, what would you prefer?



➤ Context and objectives

- Recent surveys showed that French citizens are increasingly concerned about agricultural production systems and the conditions in which animals are reared (*OpinionWay survey for Lit Ouesterel, 2022*)
- The aim of this study was to clarify the concept of “eco-citizen dairy farming system” we developed in the Coccinelle project (*i.e. a system that meets citizens’ expectations in terms of environmental impact, animal welfare, product quality and living conditions for farmers*)
- We designed a serious game that we presented to groups of visitors at two public events (*Auvergne Volcanoes Park Festival & Paris International Agricultural Show*).
- We tried to deduce their mental representations by asking them:
” **If you were a cow, what would you prefer?** ”



➤ Material used

- A set of 36 cards grouped into 12 'dimensions of farming': breed type, dehorning, breeding method, milking, calf rearing, farmer-animal relationship, health monitoring, type of housing, type of fodder, scratching equipment, grazing facilities & type of fences
- Each dimension was illustrated by 3 cards showing 3 practices faced by a dairy cow, with a photo on the front and a short explanatory text on the back
- A board with empty squares for the 12 dimensions, on which visitors placed the card representing the practice they considered to be the most positive for a cow (POS)
- Two boxes for the cards describing the practices judged neutral (NEU) or unacceptable (NEG) by the participants



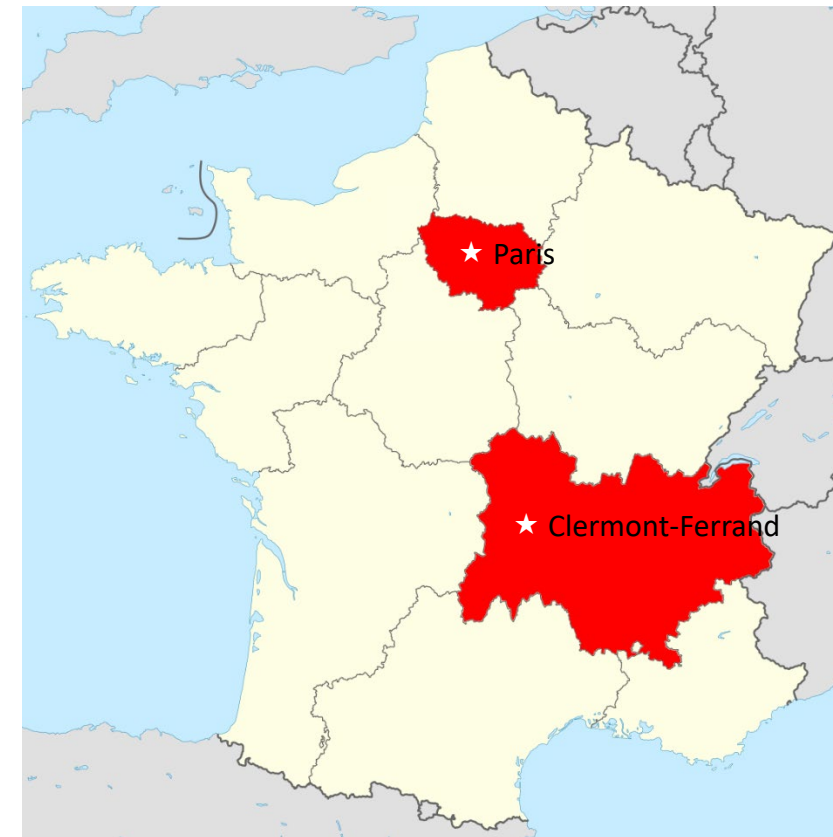
➤ Game process and data treatment

- Before each game session, the order in which the 12 dimensions were presented to the group of participants was randomly selected
- At the end of the session, an anonymous questionnaire was used to characterize the group, according to gender, age, place of residence, proximity to the livestock sector (*0=none → 3=daily*), etc.
- The number of **POS**, **NEU** and **NEG** responses was counted for each practice in order to identify those considered 'consensual' (*i.e. with a POS rate >75%*)
- For the remaining practices, the influence of group characteristics on **POS** (*vs NEG+NEU*) and **NEG** (*vs POS+NEU*) perceptions was tested using logistic regression models



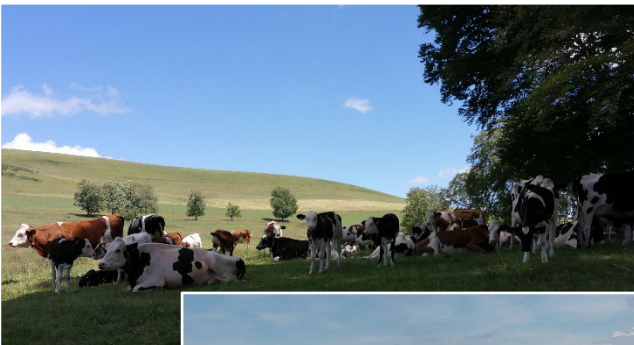
➤ Socio-demographic characteristics of the groups

- 160 groups of 1 to 5 adults played the game
(268 people, gender-balanced, with an average age of 46 years)
- The majority of the participants were from the regions **Ile de France** and **Auvergne Rhône-Alpes** (28% and 27%)
- They were **mostly urban** (61%)
- The rural population was concentrated in Auvergne Rhône-Alpes (42% of the sample)
- 56% of the participants had “**Rare interactions**” with the livestock sector (*none or occasional*)

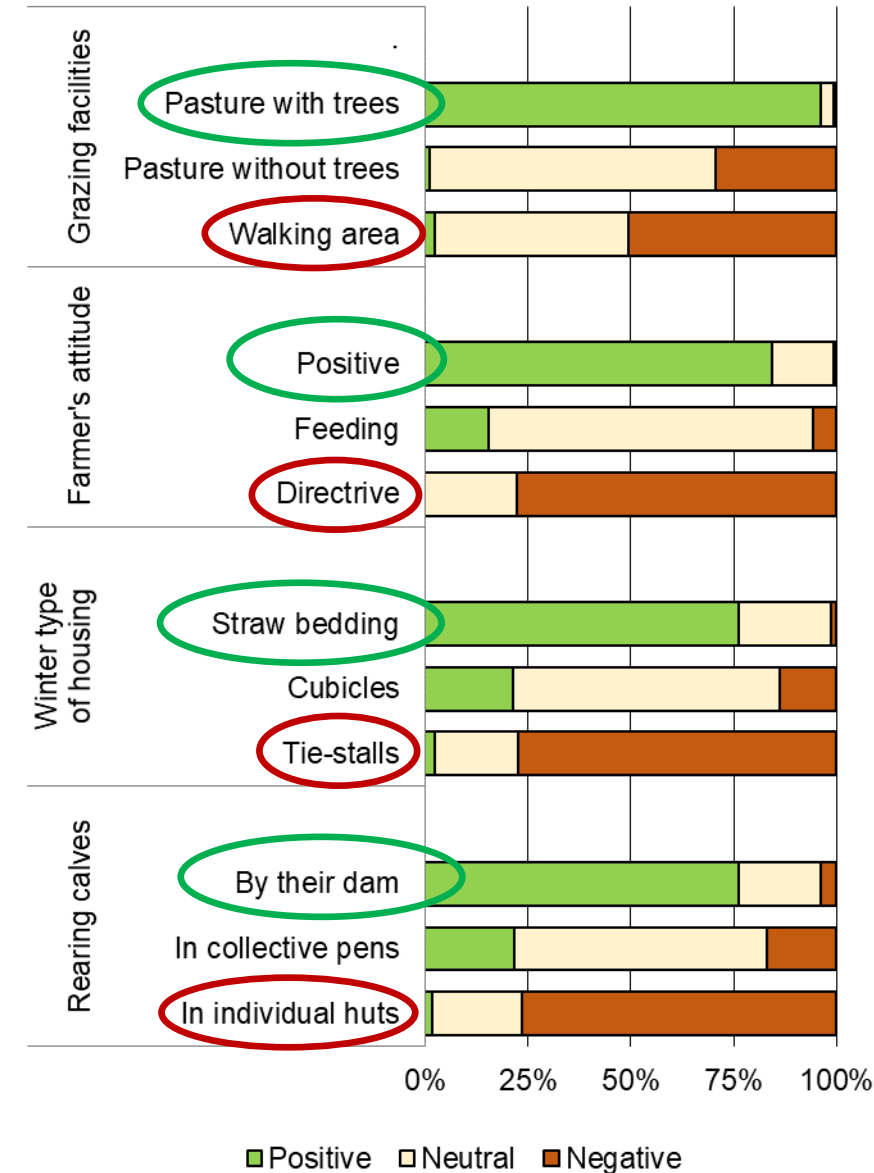


➤ Perception of the practices - 1

- In four dimensions (*grazing facilities, farmer-animal relationship, type of housing & calf rearing*) there was a strong consensus (**POS >75%**) in favour of one practice (*and a majority vote to reject another: **NEG >50%***)



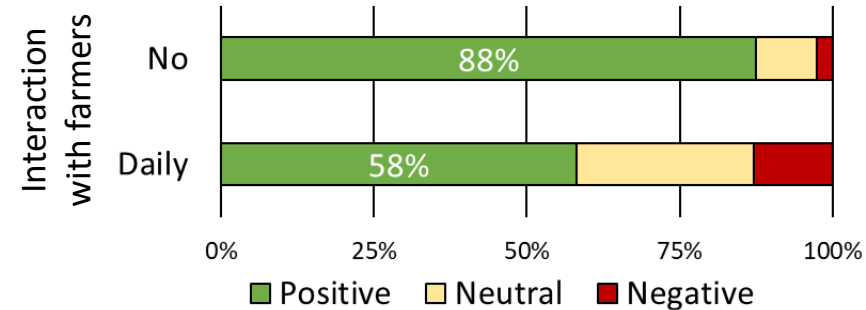
- In the other 8 dimensions, participants' preferences were less marked (**POS between 49% and 70%**)



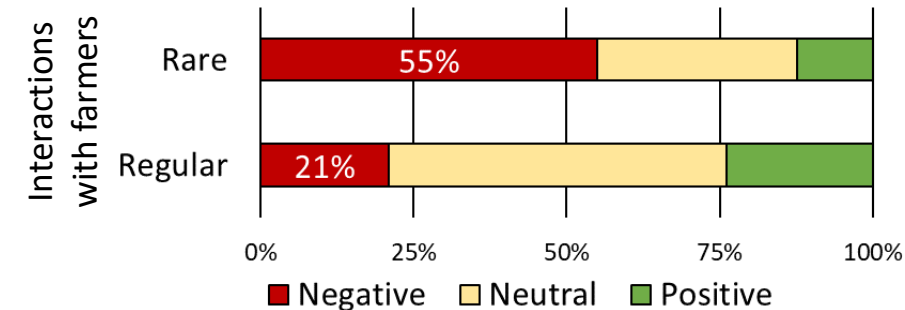
➤ Perception of the practices - 2

- Only 4 practices were linked to the socio-demographic characteristics of participants:

- ✓ Groups with “No interaction” with farmers were **more favorable** to **Rearing calves with the dams** than those with “Daily interaction”



- ✓ Groups with “Rare interactions” with farmers (*none or occasional*) had a **more negative perception** of **Artificial insemination** than other groups



- ✓ **Sensors for health monitoring & Rotating brushes for scratching** were judged more negatively by the oldest groups (*probably less open to innovations such as digital technologies*)



➤ Conclusion

- Thanks to a game-based approach, this study provided a better understanding of the image that citizens have of an ideal dairy farming system
- Identifying farming practices that are considered negative is a good starting point for initiating discussions between farmers and citizens, in order to co-design new practices that meet society's expectations
- **Dam-calf separation at birth** and **Artificial insemination** are the two practices that divide farmers and citizens the most
 - ✓ At the very least, these two practices require farmers to communicate their motivations to use them, as they consider them indispensable
 - ✓ These two practices could also be seen by the livestock sector as needing to evolve and serve as a lever for a greater acceptance of dairy farming



Thank you for your attention

