

# Profiles of cattle transporters on biosecurity practices in Spain

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## Background

- Animal movements are a risk factor for the spread and dissemination of pathogens.
- There is limited data on the use of biosecurity measures in cattle transport.

## Objective

To identify profiles of cattle drivers based on their implementation of biosecurity practices

### Data collection:

82 drivers surveyed face-to-face and/or phone at slaughterhouses, clean & disinfect centres and livestock markets.

### Assessment of profiles:

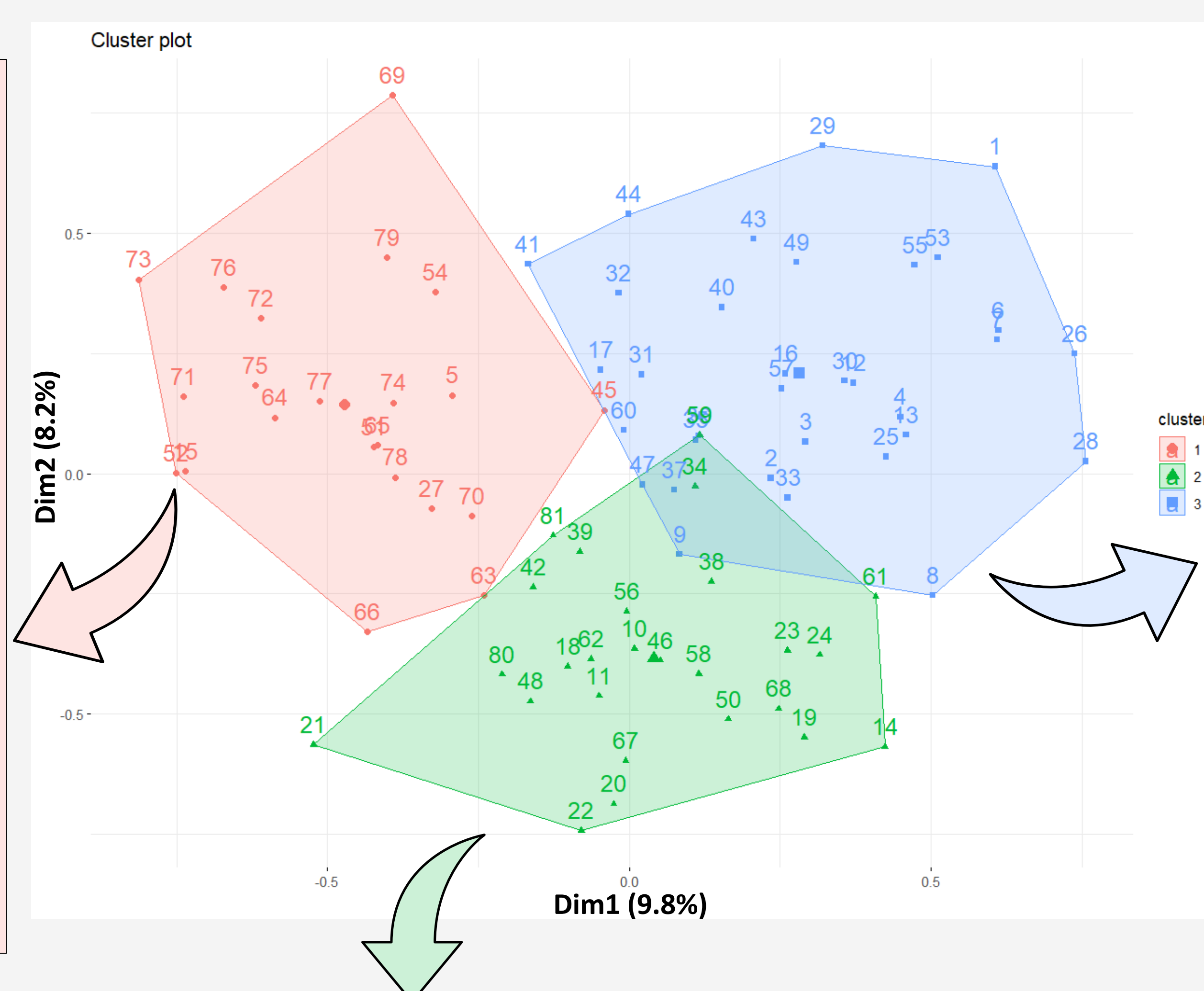
- Multiple correspondence analysis (MCA).
- Hierarchical clustering on principal components (HCPC).

### MCA results:

- The MCA analysis was performed on 22 variables, resulting in 54 active categories.
- We retained 8 out of 32 dimensions (elbow rule, cut-off point 4.8%), which explained 53.1% of variance.

### Cluster 1: 27% of drivers

- Self-employed.
- Vehicle: Truck.
- Less than 1 trip to slaughterhouses per week.
- Mainly works with beef farms.
- 1 travel per day.
- Never enter the truck cab with dirty clothes.
- C&D of vehicles: No detergent and use of disinfectant.
- Occasionally contact with animals remain on the farm.



### Cluster 3: 41% of drivers

- Production company or cooperative.
- More than 6 trips to slaughterhouses per week.
- Indistinctly works with beef and dairy farms.
- 2 travels per day.
- Frequently enter the truck cab with dirty clothes.
- C&D of vehicles: use of detergent and disinfectant.
- Frequently contact with animals remain on the farm.

### Cluster 2: 32% of drivers

- Transport company.
- Cross-border travels.
- Vehicle: Full trailers.
- 2 to 6 trips to slaughterhouses per week.
- Use of clothes drawer to separate clean and dirty clothes.
- Frequently requests for the C&D certificate

## Conclusions and discussion

- Limitations: Explorative MCA, low number of observations per active category.
- Driver profiles depends on some categories such as affiliation, number of weekly trips to slaughterhouse and daily travels.
- Biosecurity measures may vary between driver profiles: Products used during C&D of vehicles, contact with animals, entering to the truck cab with dirty clothes
- The identification of these profiles may enable to target more efficiently awareness campaigns to improve biosecurity in animal transport



### Acknowledgements