



Evidence of ineffective cleaning and disinfection procedures in pig transport

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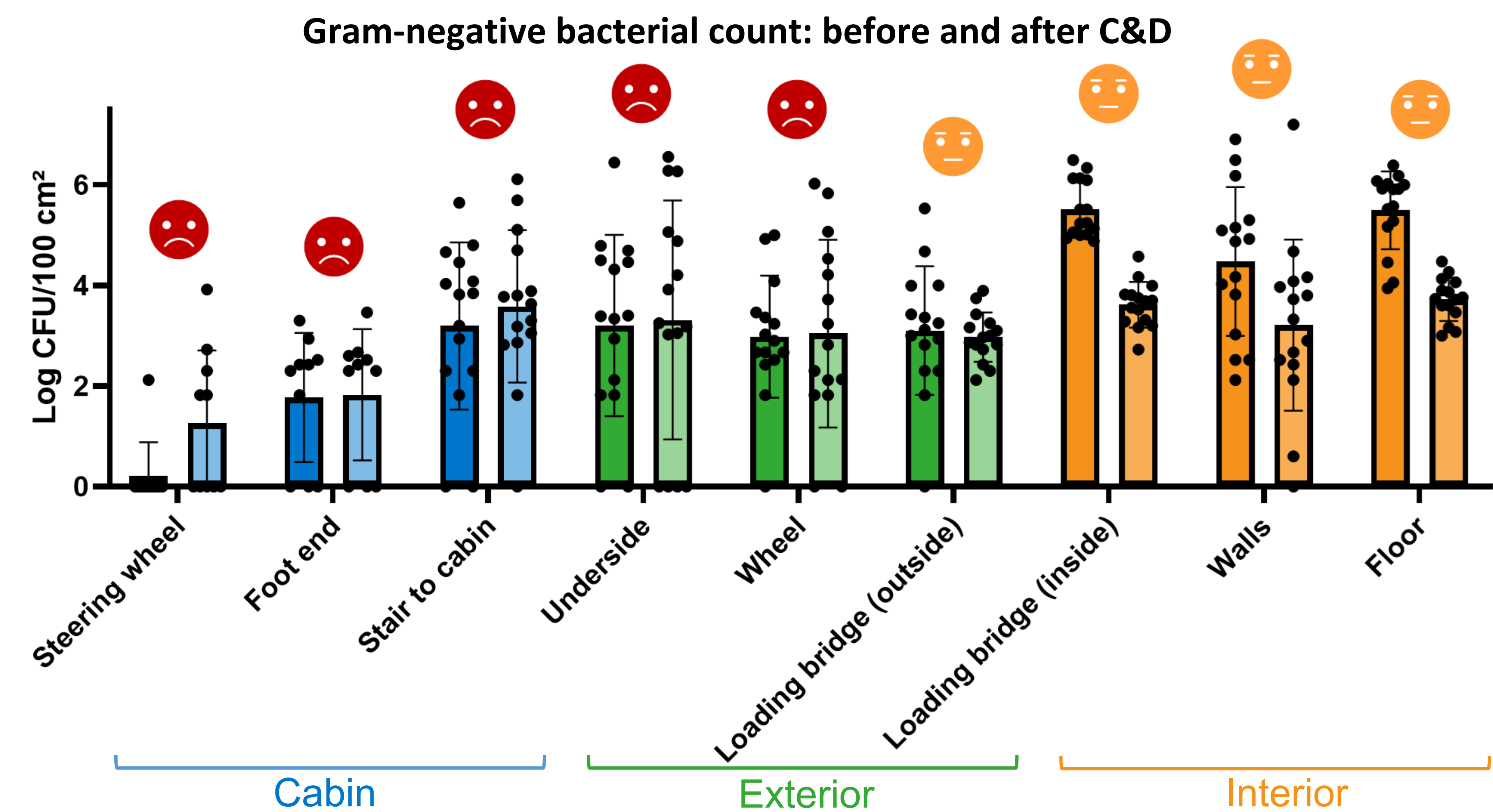
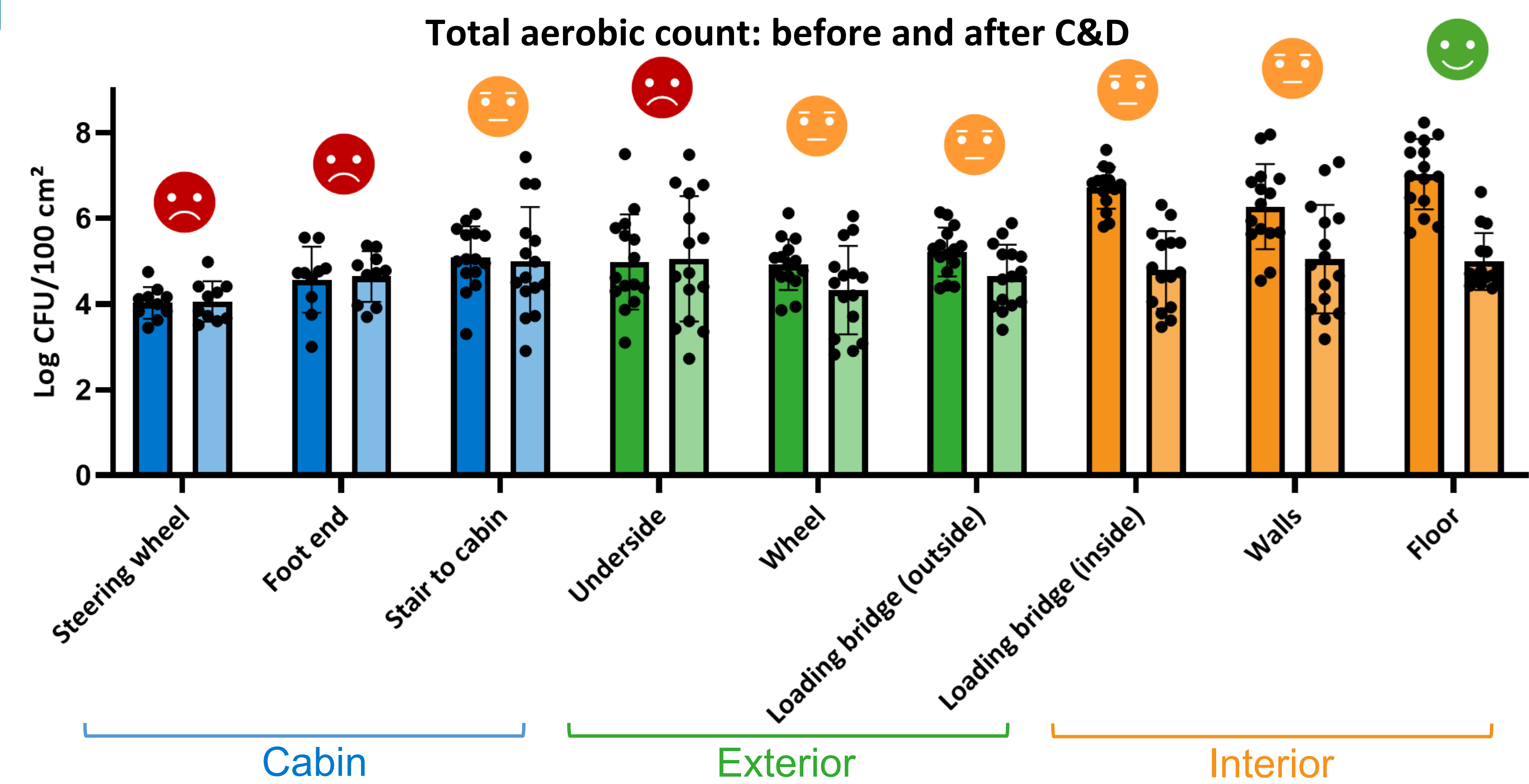
1. Introduction and Objective

- Pig transport vehicles can act as **mechanical vectors** for pathogens in livestock systems.
- To **limit transmission**, trucks should undergo thorough **cleaning and disinfection (C&D)** after every journey.
- This field study **assesses the effectiveness of C&D** performed by truck drivers at a Belgian **pig slaughterhouse**.

Summary/Key Points

- C&D showed **limited reduction of bacterial load**. Some locations had increased contamination after C&D.
- All sampled locations remain **fecally contaminated** when leaving the slaughterhouse.
- Current practices are **inadequate** to prevent transmission via pig transport vehicles.

3. Results and Discussion



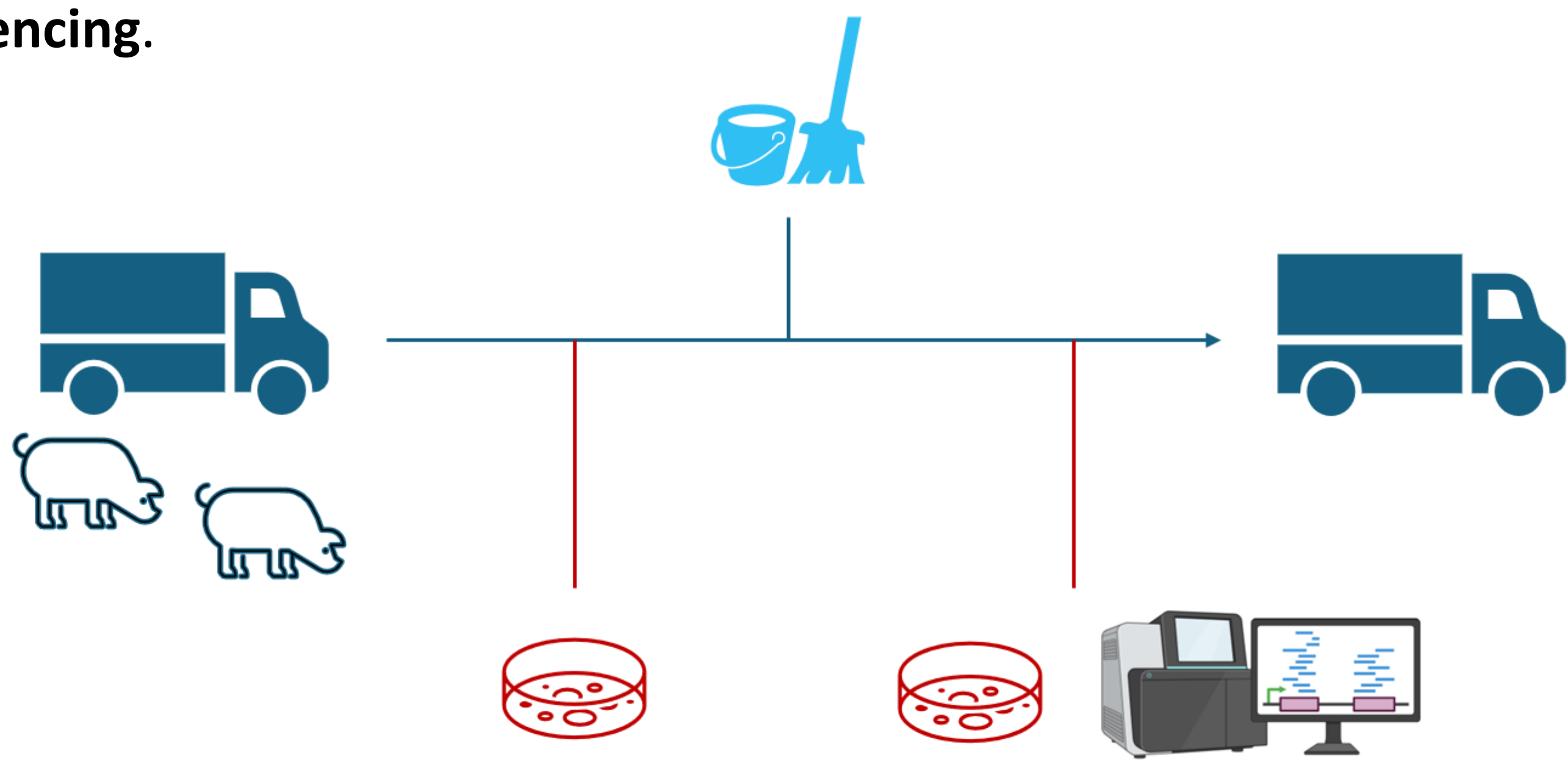
- Aerobic bacteria levels** decreased in most areas after C&D, except the steering wheel, foot end, and underside; only the floor met acceptable reduction standards.
- Despite C&D, all sampled areas still contained **gram-negative bacteria**.
- Nearly all dominant bacterial genera (19 out of 20) originate from the **porcine gut**.

4. Conclusion

- Pig trucks are **not effectively** cleaned and disinfected at this Belgian slaughterhouse.
- All sampled locations remain **fecally contaminated after C&D**.
- Porcine gut-associated bacteria** were detected after disinfection in the interior of the trailer.

2. Materials and Methods

- Fifteen** pig trucks were sampled before cleaning and after disinfection at a Belgian slaughterhouse.
- Cabin, exterior and interior of the trailer were swabbed.
- Bacterial load was assessed using **total aerobic count** and **gram-negative bacterial count**, serving as an indicator of fecal contamination.
- Residual microbiota on animal-contact surfaces were analyzed by **16S rRNA sequencing**.



Interior of trailer: before cleaning



Interior of trailer: after disinfection



Trailer of the trucks were cleaned and disinfected until visually clean.

5. Acknowledgements and References

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