

VetInspector

an automated tool for post-mortem inspection of broiler chicken

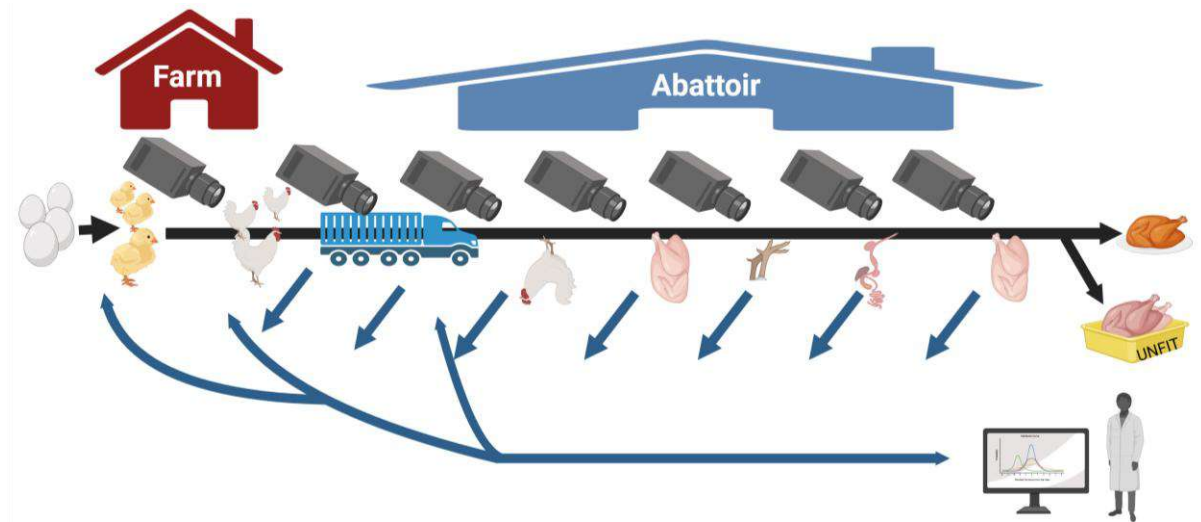
M. Majewski¹, J. Fagertun², T. Moerck², M. S. Nielsen², M. Sandberg¹

¹ Technical University of Denmark (DTU)

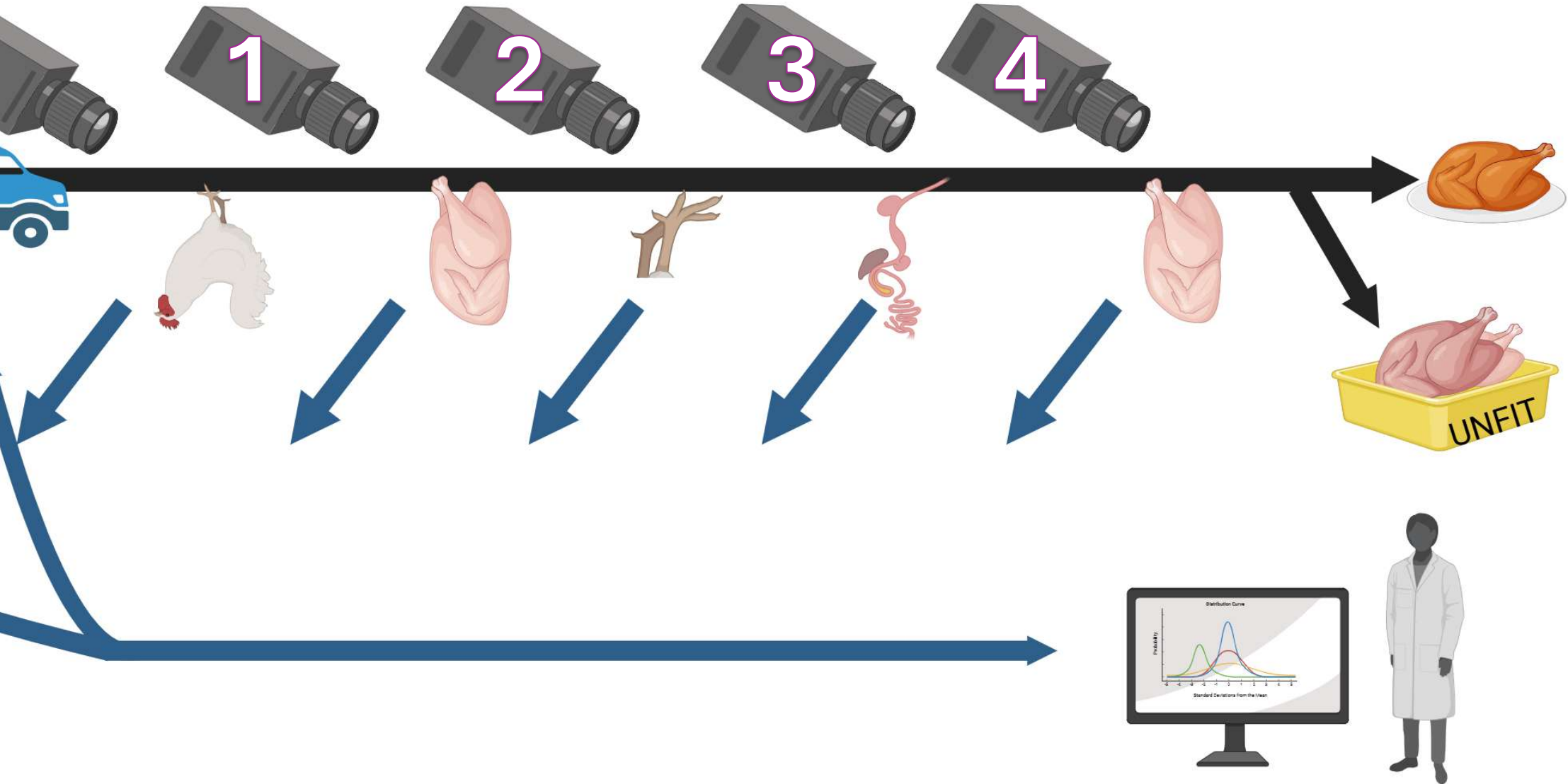
² IHFood A/S, Denmark

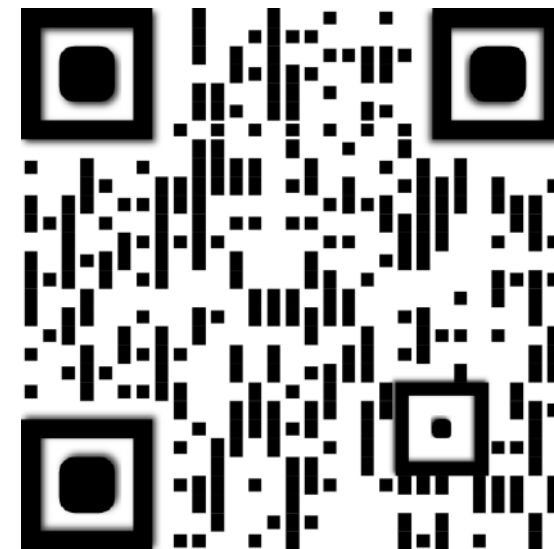
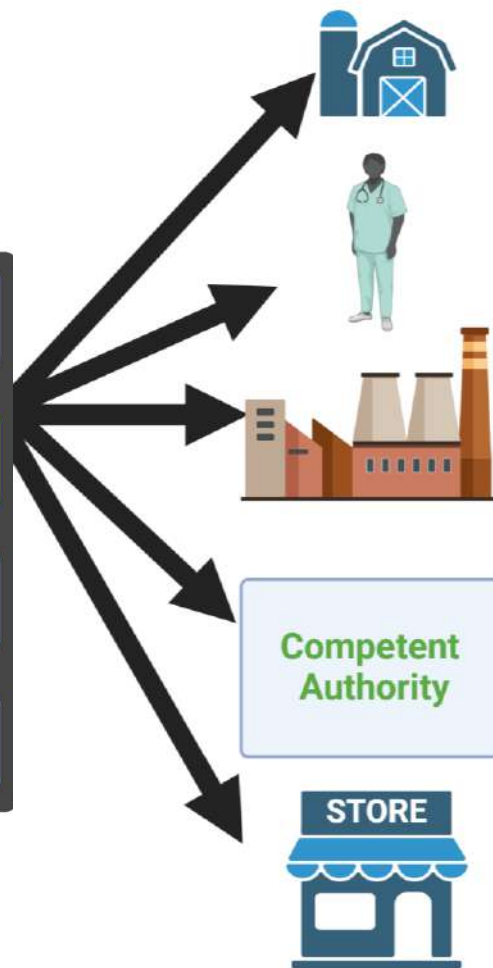
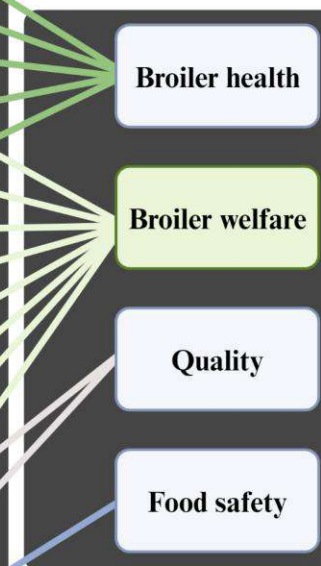
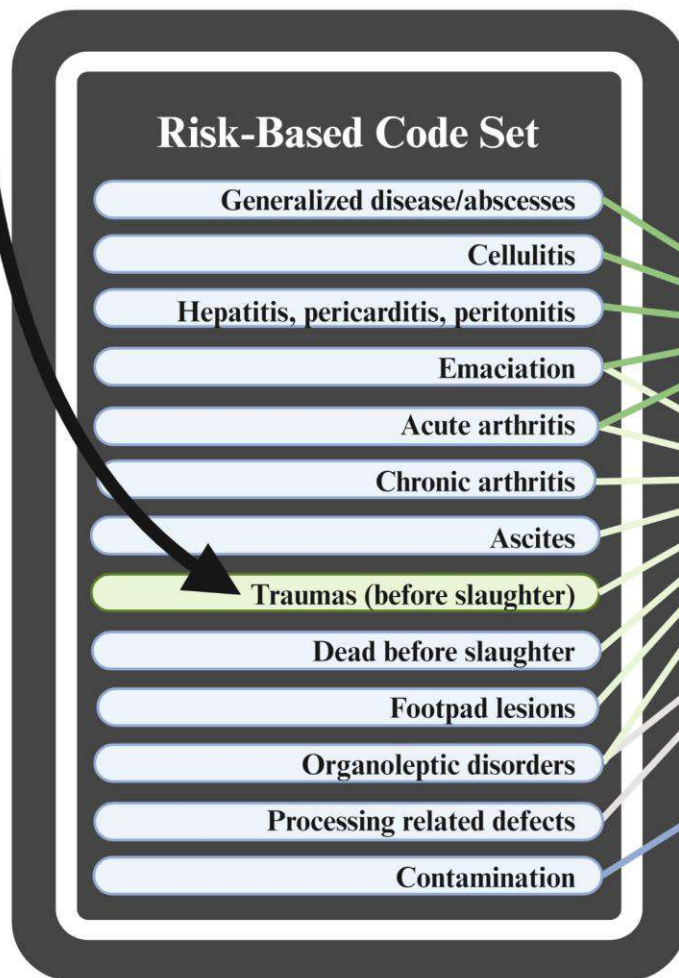
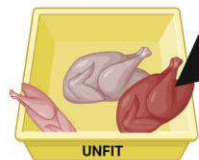
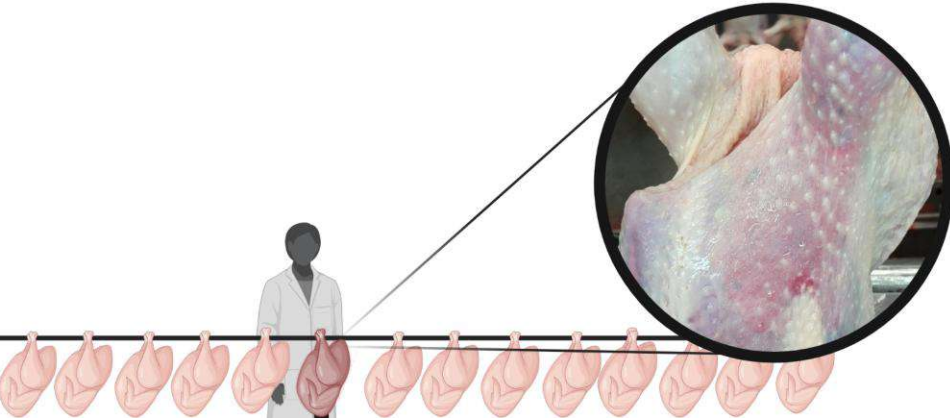
Post-mortem inspection

- Post-mortem inspection of broilers – visual assessment
- Main goal – withdraw (only) unfit carcasses
- Results – valuable for individual stakeholders
- Information – broiler welfare, broiler health, food safety
- National codes of condemnation
- Challenge – slaughter speed



Abattoir





Development of a harmonized and risk-based code system for post-mortem inspection of broilers

Michał Majewski^{a,b,*}, Lis Alban^{c,d}, Désirée S. Jansson^e, Thomai Lazou^f, Nina Langkabel^g, Dragan Antic^j, Eija Kaukonen^h, Helena Wallⁱ, Madalena Vieira Pinto^k, Laila Østergaard^l, Ole Gyvelgaard Nielsen^l, Sergio Ghidini^m, Marianne Sandberg^a

Condemnation criteria (e.g., traumas)



1



2



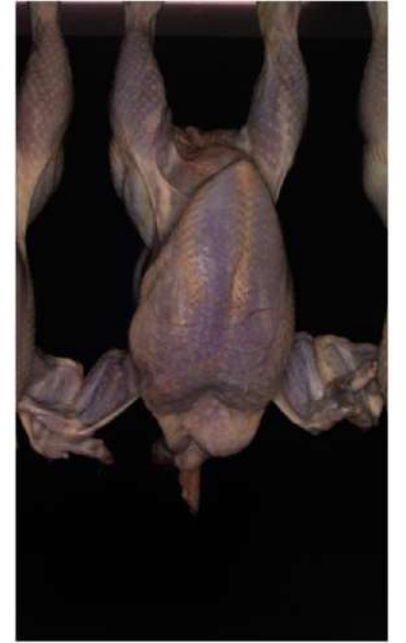
3



4



5



6



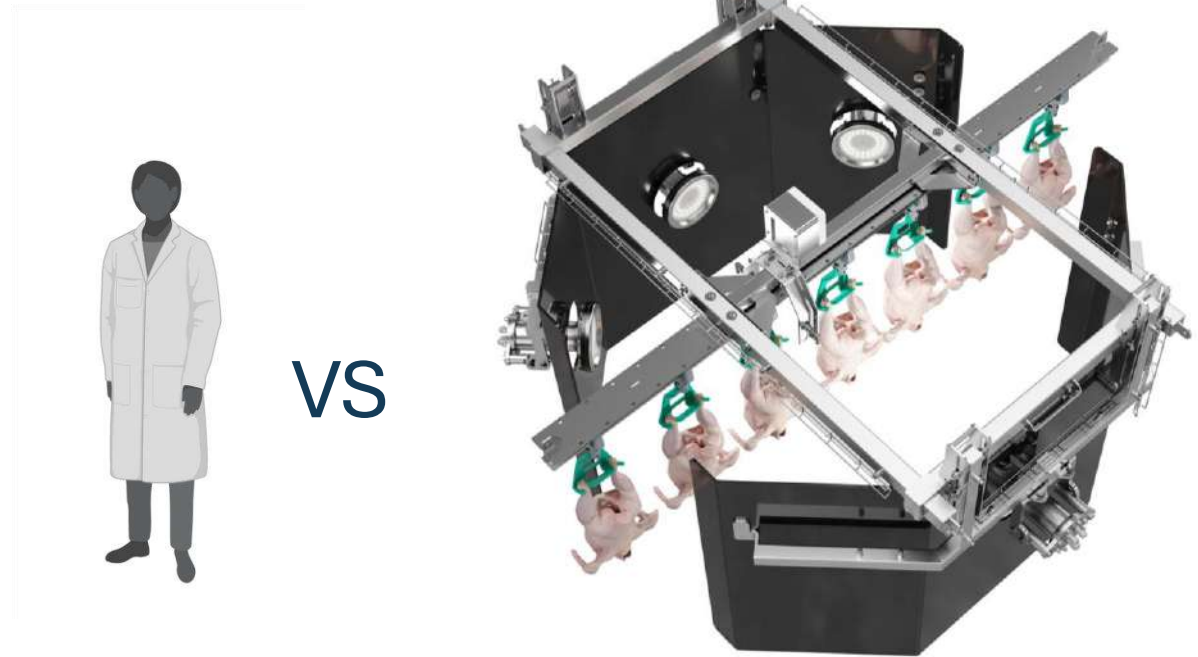
FIT

?

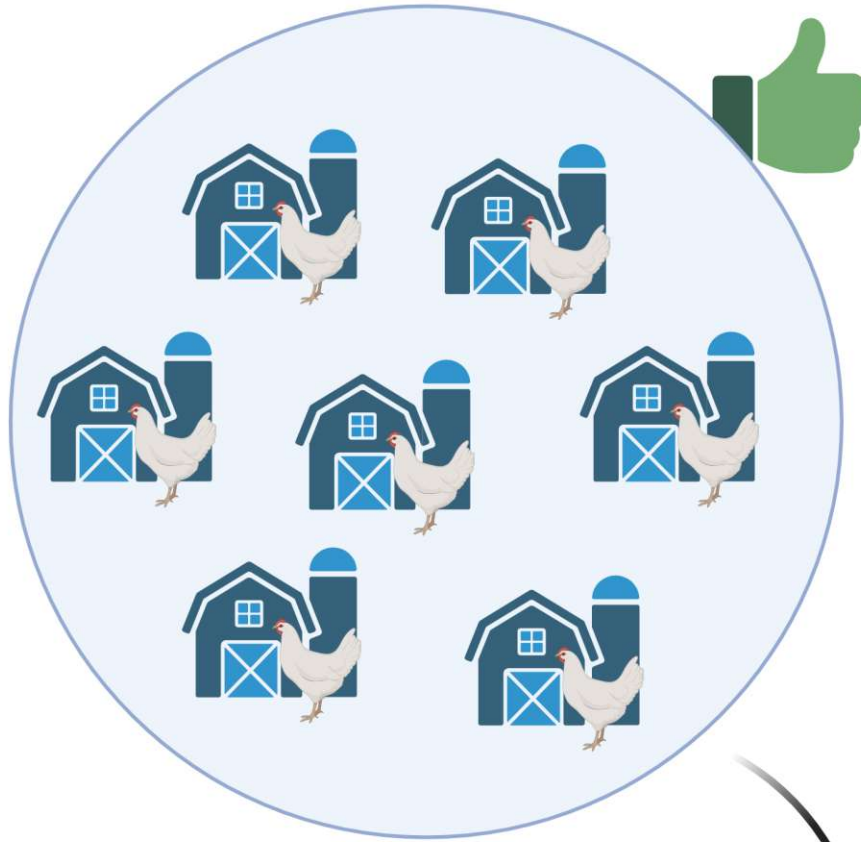
UNFIT

Validation

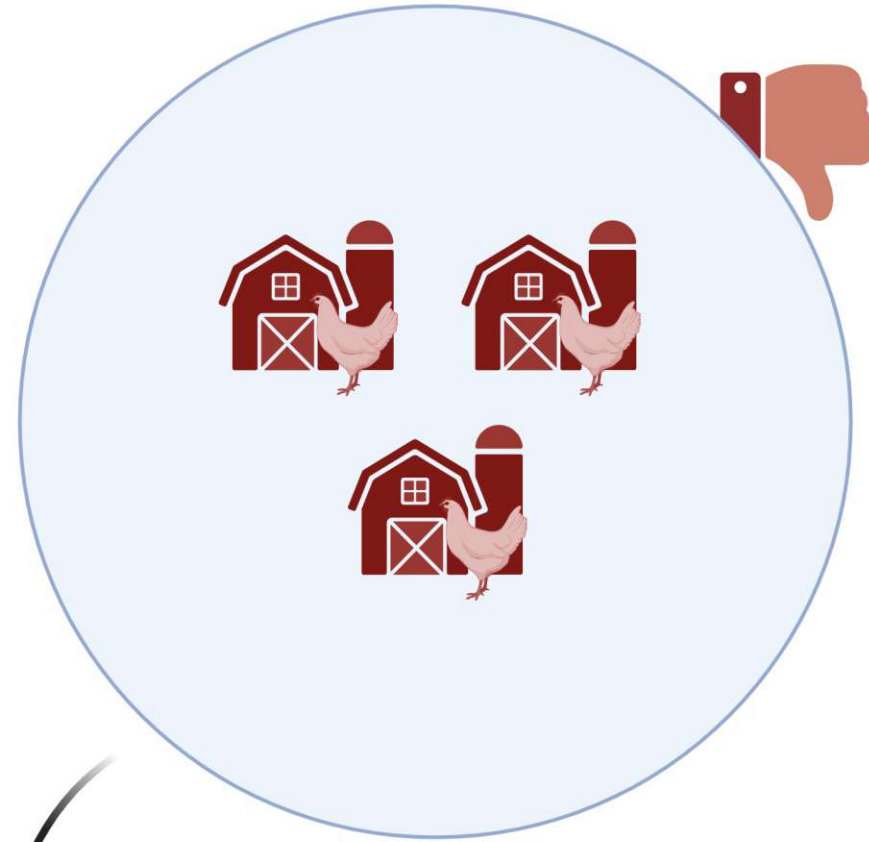
- All carcasses inspected detailly with system of cameras
 - Consistent and objective welfare, animal health and food safety performance across abattoirs
 - More than one condemnation code per carcass recorded
-
- No gold standard
 - Imbalanced datasets



Population 1
Good health farms

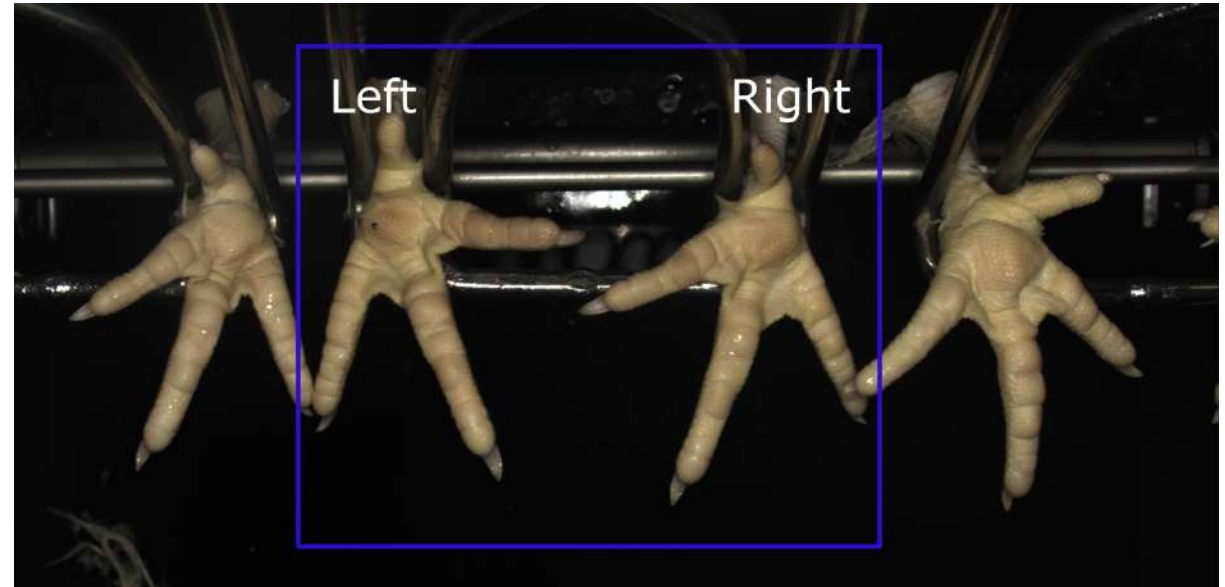


Population 2
Poor health farms



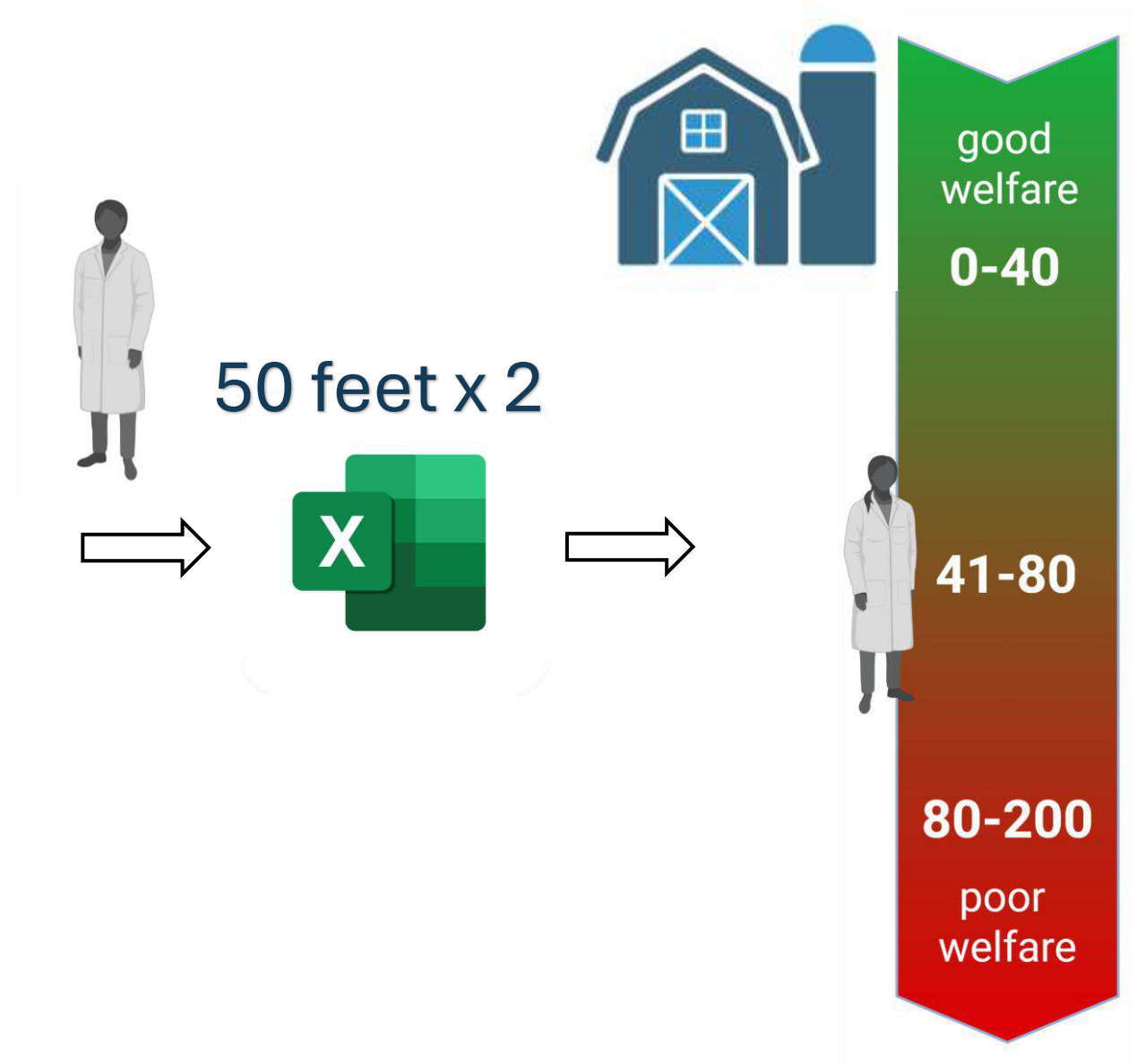
Bayesian Latent Class Analysis

Footpad dermatitis – flock welfare assessment

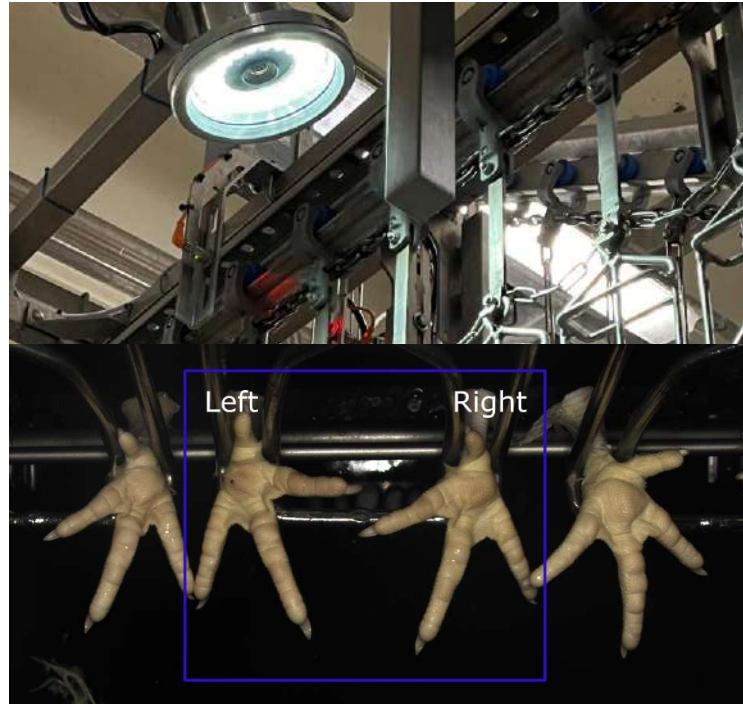
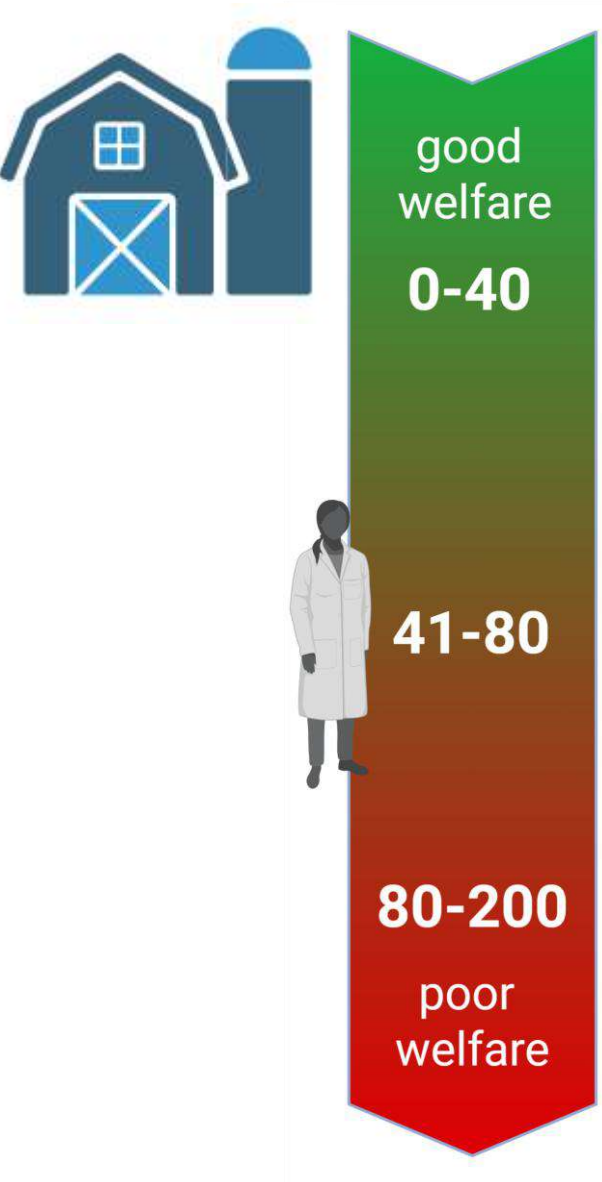


Danish footpad scoring system

Score	Severity
0	
1	
2	



Danish footpad scoring system

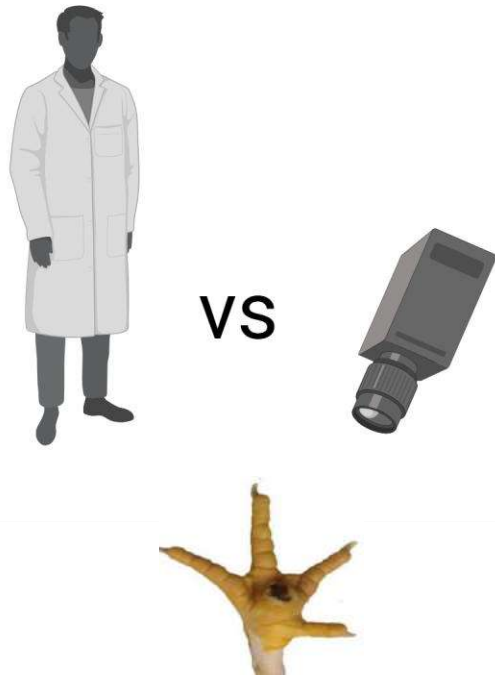


VetInspector:

- all well positioned feet
- updated system with new hardware and software (Meyn + IHFood)

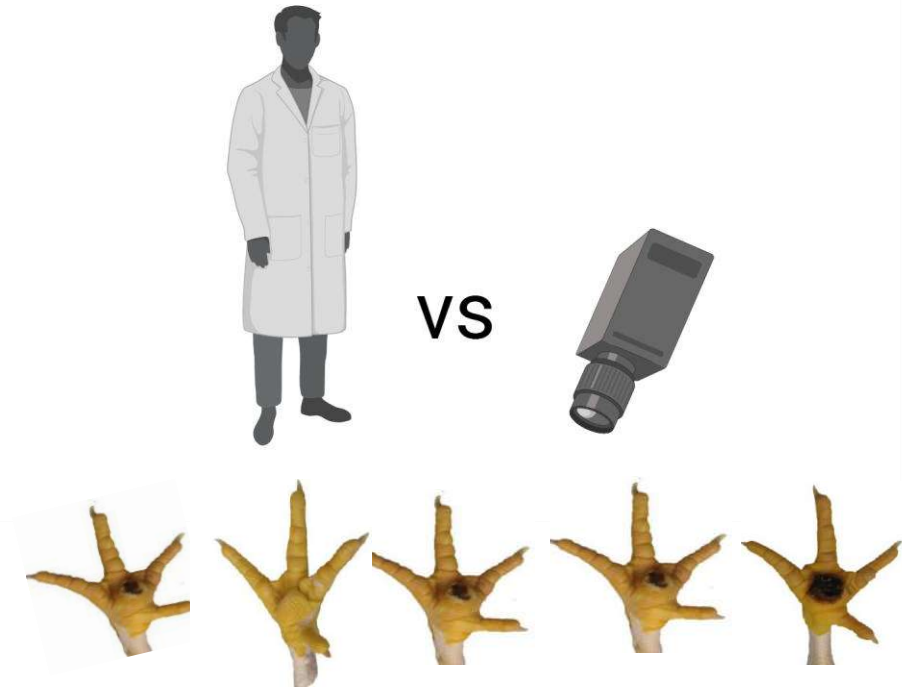
Study 1

Foot level comparison



Study 2

Flock level comparison



Take home message

- Consistent and objective welfare, animal health and food safety performance across abattoirs
- Four PMI stations: external, internal (viscera), meat hygiene and footpad dermatitis scoring
- An excellent inspection tool in the hands of the official veterinarian



Acknowledgments



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Thomai Lazou
Nina Langkabel
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Ole Gyvelgaard Nielsen
Sergio Ghidini
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