

On-farm slaughter of cattle – prospects for efficient veterinary inspection and good animal welfare

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Industrialised slaughter

- Animal transport from farm, including loading and unloading
- Exposure to unfamiliar environments, animals and persons
- Overnight lairage
- High line speed, difficulties to cope with hassle and balking, risks of rough animal handling
- Resulting animal stress and sometimes poor meat quality

Extensively reared cattle

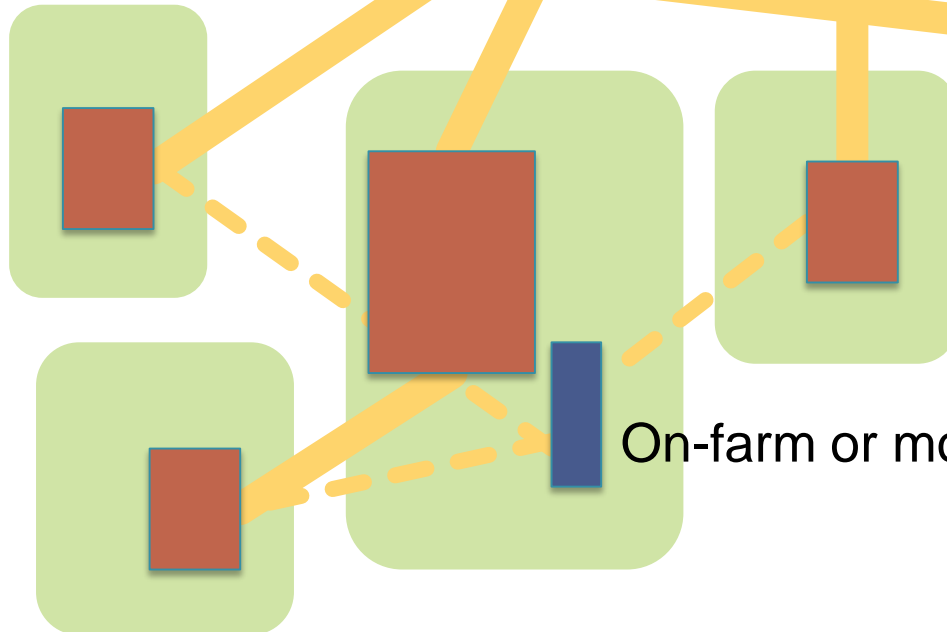
- Mainly suckler cows, heifers and steers kept on pasture, certain breeds
- Less used to human handling, easily stressed – animal welfare and occupational safety risks
- Animals not always suitable to bring alive into abattoir, sometimes not received for processing by plant

On-farm slaughter

- No (or limited) live animal transport from home farm
- Artisan food producers and some consumer groups interested in locally produced meat and high animal-welfare standards
- Can be achieved by:
 - On-farm stationary abattoir
 - Mobile abattoir
 - Stunning and bleeding on farm, animals brought dead to nearby abattoir
- Comparatively high inspection costs (but governmental subsidies)



Large-scale slaughterhouse

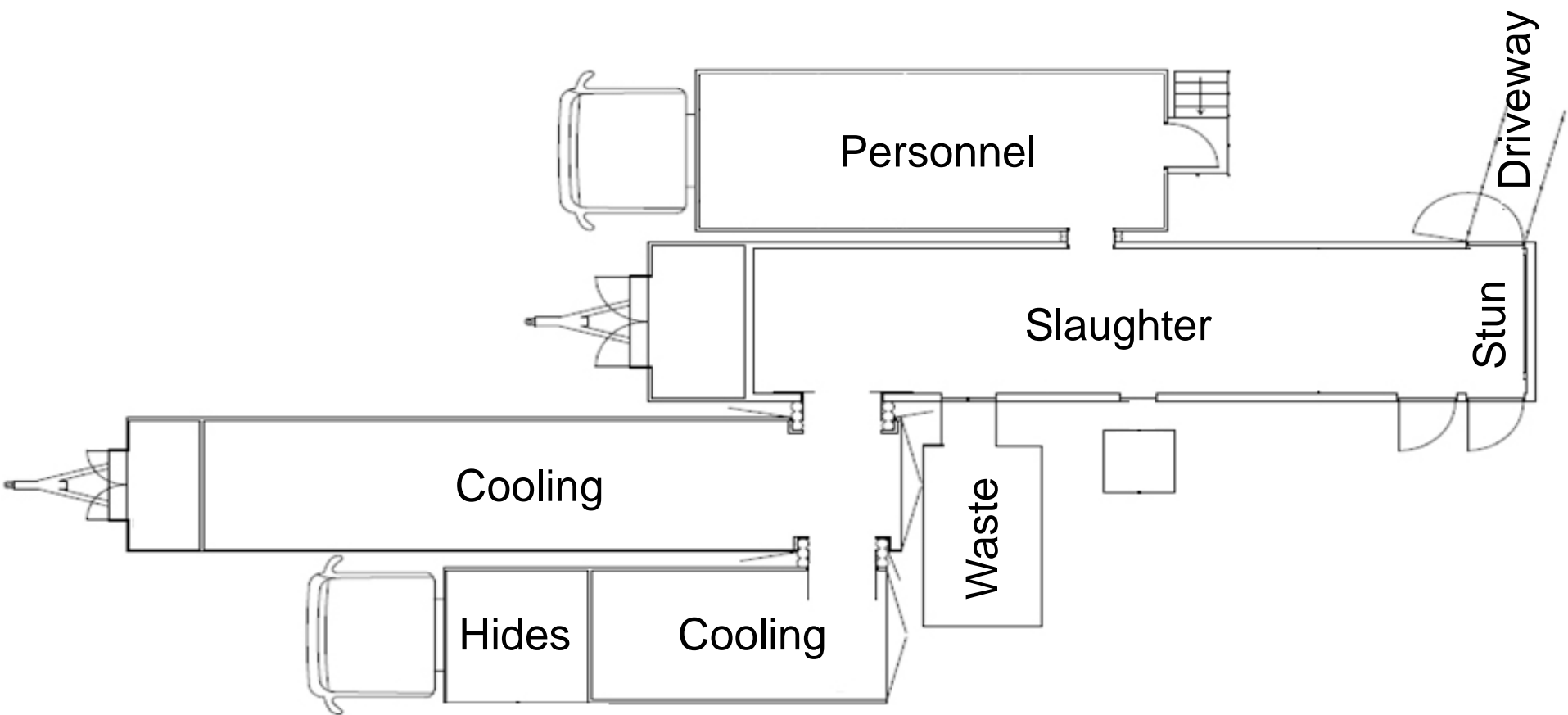


On-farm or mobile abattoir

Mobile slaughter

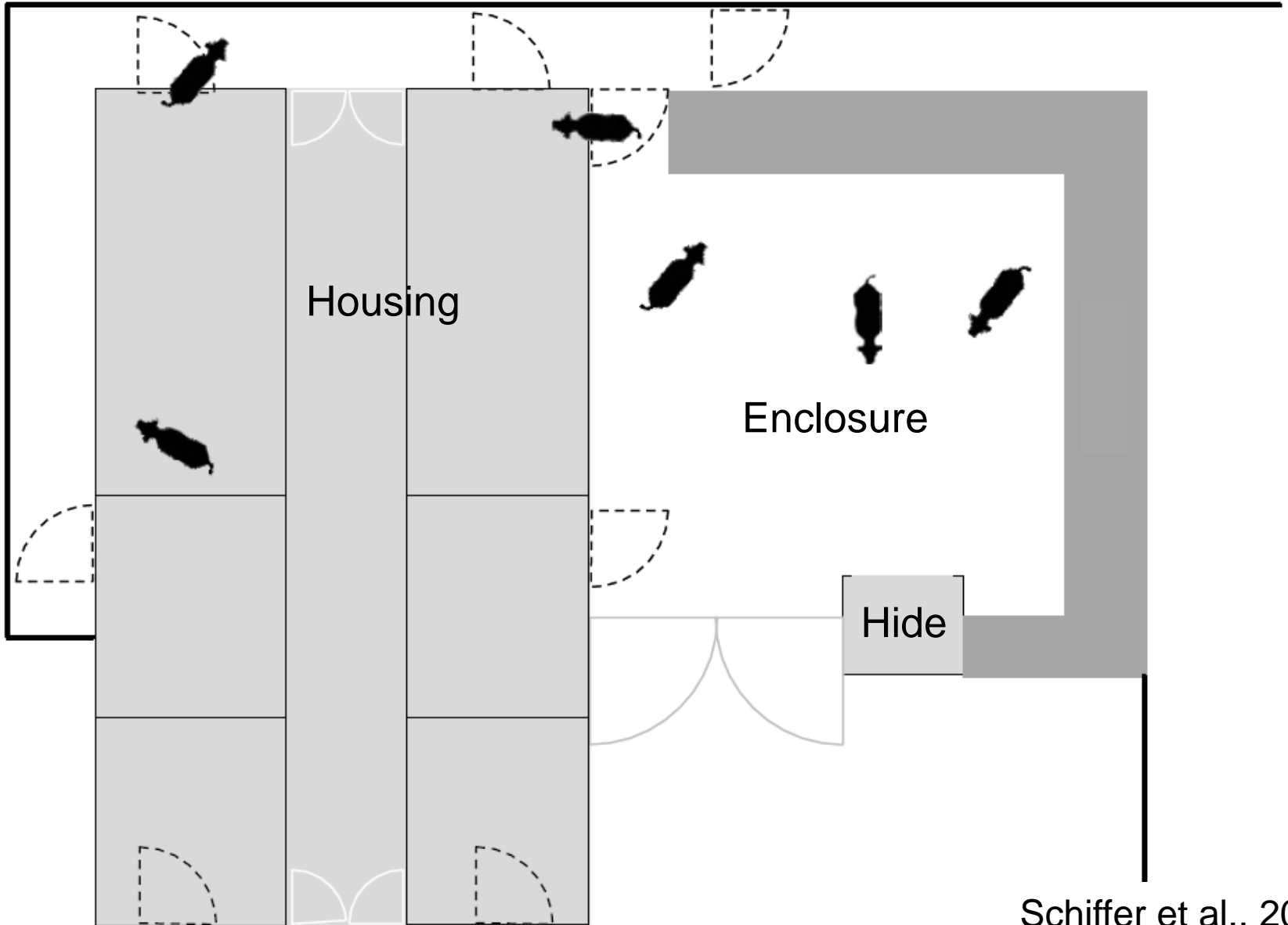
- One commercial mobile cattle unit operating in Sweden
- Capacity approx. 30-35 cattle per day, normally operating 3 days per week
- Self-contained, housed in two trucks, including cooling unit
- Mobile inspection pen
- Centrally located tendering and cutting plants

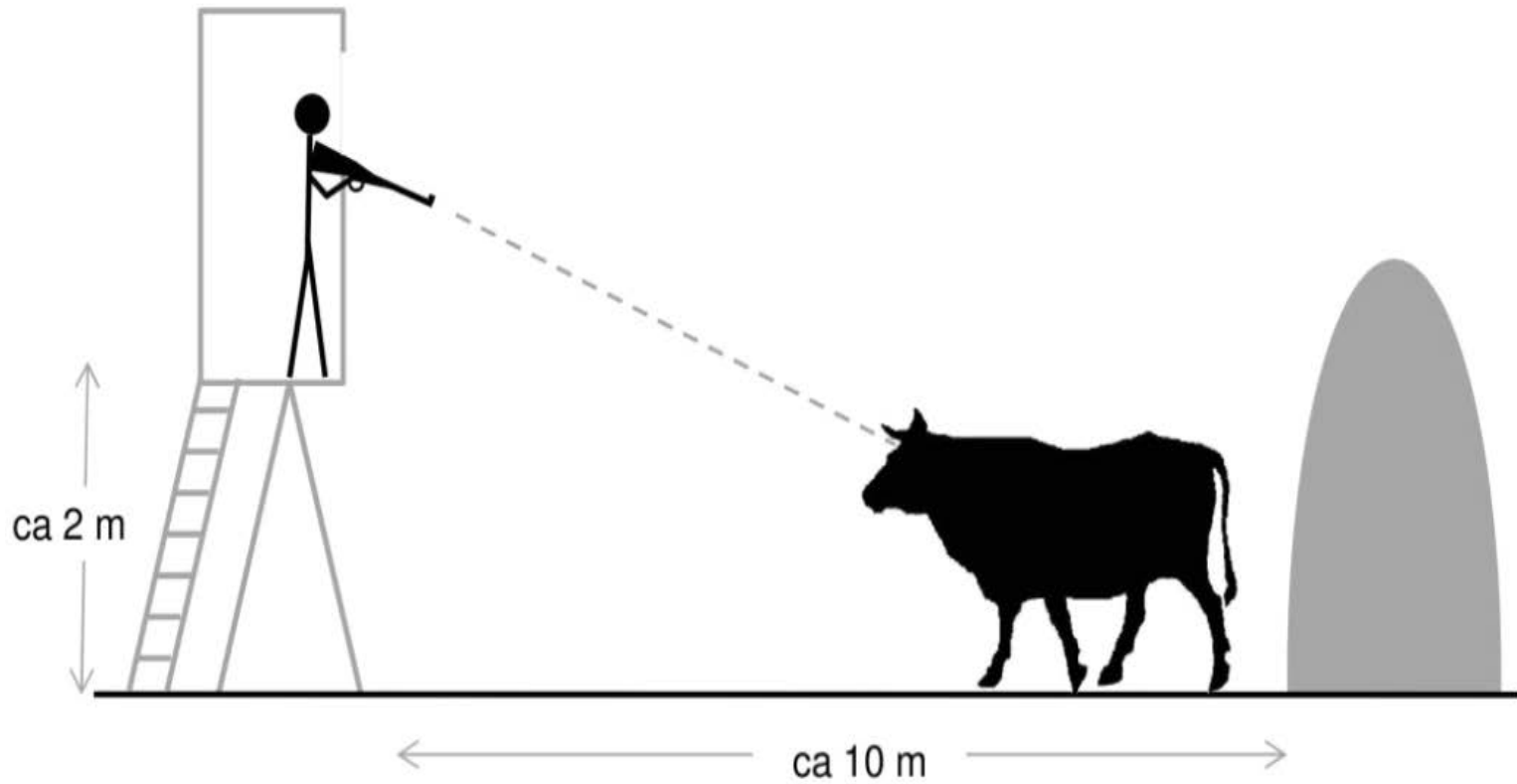
Mobile abattoir



Stunning and bleeding on farm before transport to abattoir

- One animal at the time
- *Ante-mortem* inspection on farm
- Shot in forehead with rifle at 5-15 m distance in small enclosure in small group of familiar animals, bleeding as soon as possible
- Transport of dead animal to nearby abattoir for processing and *post-mortem* inspection
- Not compliant with EU 853/2004, but practised in Germany





Remote inspection

- Remote OV
- OA or SH technician present at slaughter, equipped with gear for digital image transfer
- Wireless transmission via mobile network or satellites
- Remote guidance using augmented reality

Augmented Reality

- A realtime combination of visual layers of reality and digital data such as text, images, video clips or 3D
- Uses visual clues or GPS coordinates for orientation
- Can be run as a mobile app

Potential benefits

- Short or eliminated animal transports
- Minimal animal exposure to unfamiliar animals and persons, low stress handling, short or eliminated lairage
- Producer insight into slaughterhouse procedures
- Effective use of competent labour
- Standardised inspection
- Contribution to rural development

Concerns

- Adequate animal handling and stunning
- Slaughter hygiene
- Reliable technical solutions, bandwidth, connectivity, backup system
- Valid and reliable control – depending on prevalence of diseases and non-compliances
- Maintained skills despite small volumes

Required research and development

- Research on animal welfare and food safety including reliability of technical equipment and of remote inspection
- Appropriate facilities and practices for animal handling, stunning, bleeding and transfer of bodies to slaughterhouse
- Training and guidance of stockpersons, shooters, OA and OV
- Flexible interpretation of current legislation, or additional legislation



Thanks for your attention!

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