The impact of stockmanship on the welfare of growing pigs

E. von Borell and D. Schäffer

TiHaL

Martin-Luther-University Halle-Wittenberg
Department of Animal Husbandry & Ecology

Stockmanship in growing pigs?

- Behaviour, health and productivity of pigs are greatly influenced by the specific design of housing equipment, climatic factors and **stockmanship** (EU Council directive)

- **Stockmanship:** The knowledgeable and skillful handling of livestock in a safe, efficient, effective, and low-stress manner

Stockmanship in a wider sense

- handling skills
- preventing and treating lameness
- preventing and treating internal and external parasites
- giving medicines by injection
- providing appropriate care to sick and injured pigs
- management of pigs to minimise aggression

……

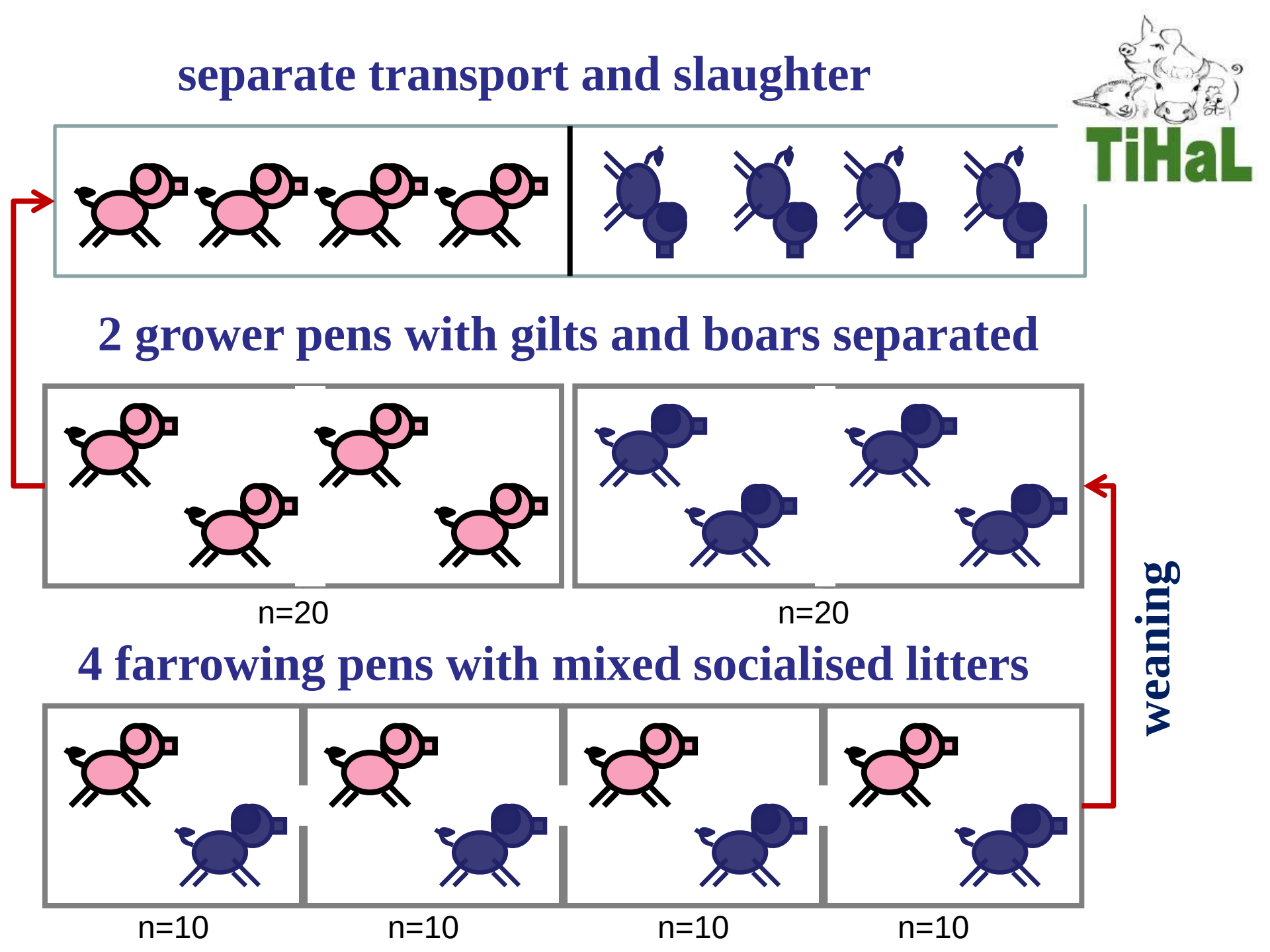
Stockmanship attributes (FAWC, 2007)

- **Knowledge of animal husbandry.** Sound knowledge of the biology and husbandry of farm animals, including how their needs may be best provided for in all circumstances.
- **Skills in animal husbandry.** Demonstrable skills in observation, handling, care and treatment of animals, and problem detection and resolution.
- **Personal qualities.** Affinity and empathy with animals, dedication and patience.

Issues to consider

- Early socialisation & group stability
- Split sex rearing and marketing
- Routine welfare and health care monitoring
- Automatisation and precision farming
- On-farm animal based indicators
- Animal integrity
- Outcome-based indicators at slaughter

Early socialisation & group stability (no mixing after 10d of age) Kutzer et al. 2009


separate transport and slaughter
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2 grower pens with gilts and boars separated
n=20
n=20
4 farrowing pens with mixed socialised litters
weaning
n=10
n=10
n=10
n=10

Concept of animal integrity

- **Animal outcome-based indicators:**
  Body condition & damage, morbidity, behavioural & functional deviations

- **Challenge:**
  Intact and healthy pigs in group housing adjusted to their functional, resource and social needs

What makes a good indicator?

- **Availability:** easy to obtain
- **Simplicity:** easy to perform (practicability)
- **Validity:** the degree (accuracy) to measure the issue of interest
- **Specificity:** to measure exactly what we want to be measured
- **Reliability:** consistency of measures
- **Sensitivity:** capacity to detect changes in the issue of interest

Concept of Critical Control & Management Points

On-farm self control (Management & stockmanship)

- **Health & welfare management plan**
  (Prophylaxis, hygiene, feeding, animal care, routine monitoring & documentation)

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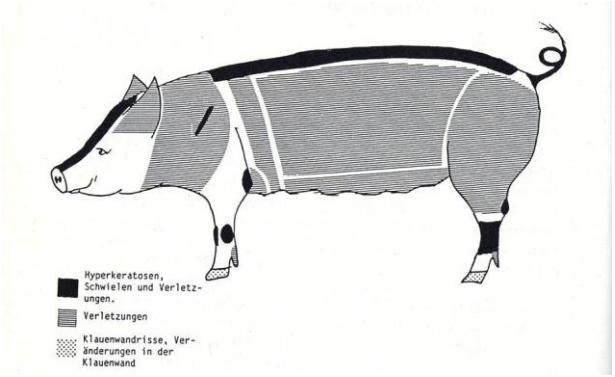
- **Animal integrity & resources**
  (Checklist based on integument scoring & functional resource needs)

Integrity and resources



Animal based risk assessment

Integrity

Ethics

Welfare

Sustainability
cost-benefit
analysis

Risk assessment castration & tail docking

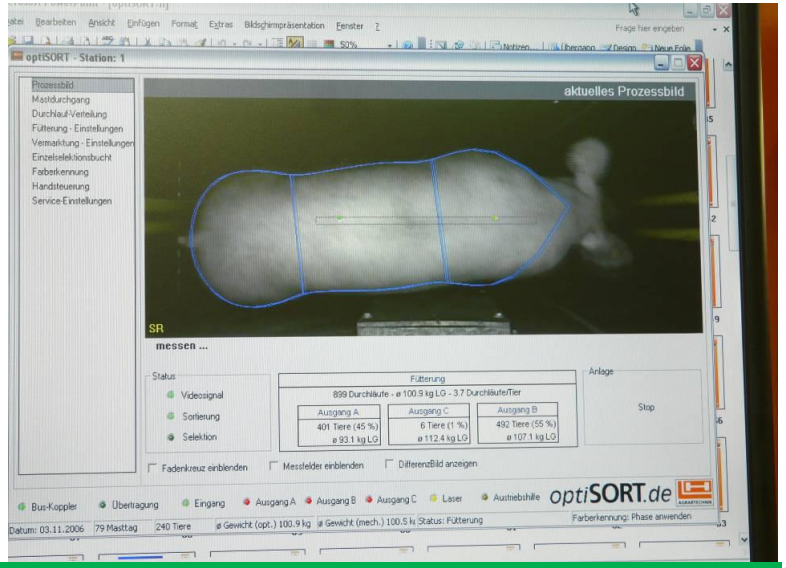
- **Benefit: reduced aggression & risk of injury > curative measure (prevention of harm)**
- **Cost: painful intervention;**
  consideration of functional aspects: tail > signal; castration > loss of sexual function

Conclusion:

acceptable, as long as anaesthesia & pain treatment is used, given that no sustainable alternatives are available (i.e. other genotype, housing & management);

questionable under ethical (integrity & aesthetics) and functional aspects

Stockmanship vs. automatisation



„Industrial (mass) pig housing“: welfare

- **Welfare of each animal has to be considered**
- **Welfare legislation does not differentiate between animal numbers (herd size)**
- **Animal health (> factorial diseases) depend on specific housing and management factors**
- **<u>Crucial factor</u>: stockmanship, replacing direct animal - human interation by automatisation & precision management in large herds (?)**

Consumer perception of industrial mass animal housing (Kayser & Spiller, 2011)

Cattle herd size: 500
(more than average herd size)

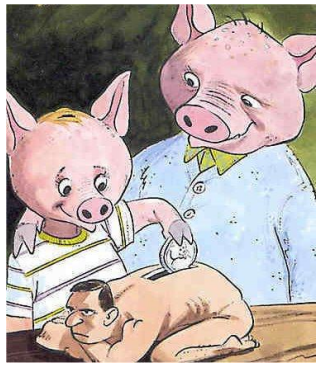
Pigs: 1000
(less than average)

Poultry: 5000
much less than average)

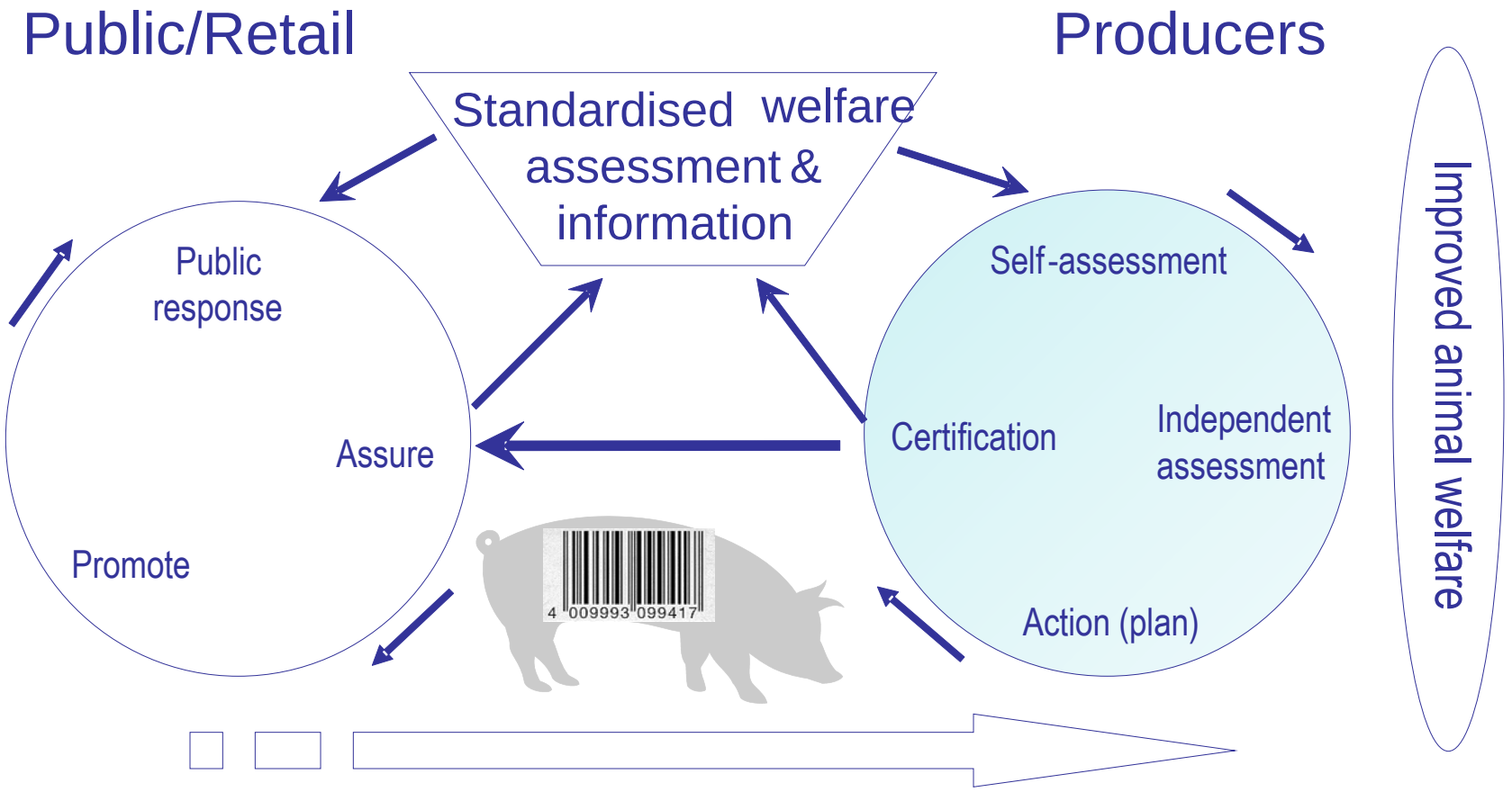
Herd size of which 90 % of the consumers speak about mass animal housing

Future challenge

- Integration of outcome-based parameters into existing documentation- and control systems
- Requirements: valid & reliable indicators and risk assessment (control points)
- Practicability (economic efficiency)
- International compliance of animal welfare standards
- Demand for self control, consultation & market differentiation (labeling)
- Motivation & attitude of farmer



Quality welfare assurance



(Webster, 2007)