

## Animal oriented design: Case Pigs

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kennis, natuur en  
voedselkwaliteit

+ stakeholders

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### This presentation

background

science

implications

Dealing with the animal welfare issue in a societal context

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### Background

Simple approach: *Animal welfare* is

- highly relevant to society
- complex
- highly related to housing conditions
- interest-, emotion- and value-laden

Make it simple: *animal oriented design*  
based on available scientific information

! to reduce the social / market dispute

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### Animal welfare: 3D-approach

Comfort, Respect and 'Humane'

- **Comfort** of the animal: Quality of life as experienced by the animal

+ **Respect** for the animal: Meeting the species-implied way of life

+ **Comfort** of the public: desirable appearance

→ Design on basis of the animal **NEEDS**

Extreme functional approach to animal welfare  
to meet innovation aim #1: OPENNESS!

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### Functional approach!

design based on animal *needs* ≠ facilitate natural behaviour elements

*In other words:*

What animals *can do* is not normative for the design,

It's what they *want to do*, where they have motivation for

Potentially controversial

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### Needs

- Sociality
- Nutrition
- Safety
- Exploration
- Thermocomfort
- Health
- .....

N ≈ 11\*

\*Bracke 2001; Schouten et al. 2001

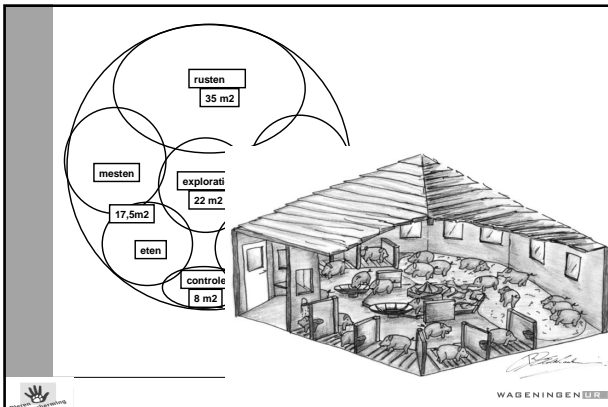
Methodic design approach

### Requirements

- .....
- . . . .
- m<sup>2</sup>
- # animals
- air composition
- T
- .....

N ≈ 59

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a result: **information sources**

Needs central: motivation is a key issue  
 -> preference tests / operant conditioning tests  
 'Price elasticity' / consumer demand' idea

- Discussion about degree of fulfillment of requirement
- Interpretation of study results: difficult!

a result: **relevance of outdoor access**

Outdoor access for pigs?

- A need?
- A requirement?

3D-approach:

**welfare**  $\Sigma$  (Comfort, Respect and Appearance)

X(?) ... ..

**Comfortable pigs:**

- Adequate housing conditions
- Adequate genes
- Match between these two

Breeding for welfare:  
 Contradiction? Delicate issue!

Lesson:  
 Not the  $\Delta$ needs, but  $\Delta$ adaptive capacity is OK

Potentially controversial

**Main results**

- Stakeholders: "Gap is not as wide as thought"
- Research Group: "Vast amount of info, but limited help for several issues"
- Funder: "Non-orthodox working delivers other results"
- Policy: "Helps in making alliances"
- Farmers journals: "This is clear!"

