

**Welfare<sup>®</sup>**  
Quality

Science and society improving animal welfare

**Creating a welfare scoring system**  
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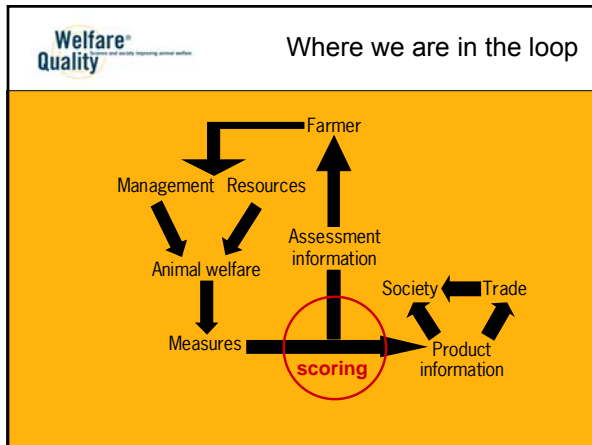
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**What is scoring?**

The collage shows various welfare indicators: 'Body condition' (cows in a field), 'Lying down' (cows in a stall), 'cleanliness' (a cow in a clean stall), 'injuries' (a cow with a wound), 'pasture' (cows in a field), 'Social behaviour' (cows interacting), 'Fear of humans' (a cow being handled), and 'lameness' (a cow with a blue bandage on its leg).

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**Welfare Quality** Quality of life and health improving animal welfare

### Typical questions

Shall we consider the **average** state of animals in a herd vs. put more attention on the **worse animals**?




Can one aspect of welfare **compensate** for another?



Shall the final judgement be based on what seems good welfare in theory or on what can realistically be achieved in practice?

**theoretical vs. pragmatic approaches**




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**Welfare Quality** Quality of life and health improving animal welfare

### Criteria & principles of animal welfare

Principles	Criteria
Good feeding 	1. Absence of prolonged hunger
	2. Absence of prolonged thirst
	3. Comfort around resting
Good housing 	4. Thermal comfort
	5. Ease of movement
	6. Absence of injuries
Good health 	7. Absence of disease
	8. Absence of pain induced by management procedures
	9. Expression of social behaviours
Appropriate behaviour 	10. Expression of other behaviours
	11. Good human-animal relationship
	12. Positive emotional state

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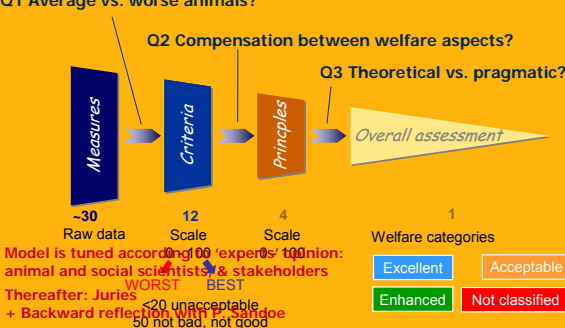
**Welfare Quality** Quality of life and health improving animal welfare

### Sequential evaluation structure

Q1 Average vs. worse animals?

Q2 Compensation between welfare aspects?

Q3 Theoretical vs. pragmatic?



Model is tuned according to 100 'experts' opinion: animal and social scientists & stakeholders

Thereafter: Juries

+ Backward reflection: what if candidate is not bad, not good

Welfare categories: Excellent, Acceptable, Enhanced, Not classified

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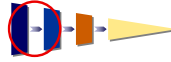
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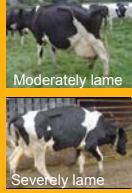
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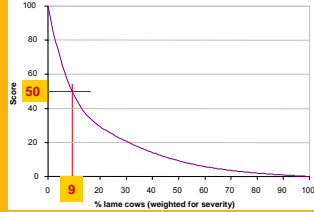
## From measures to criteria Q1 Average vs. worst animals?



Criterion: absence of injuries  
Measure: % lame cows



Expert opinion (animal scientists who develop measures) is used to transform data into scores that express compliance with welfare criteria



The worst animals are given priority  
Average welfare is also important (eg [5% severely + 50% moderately lame animals] results in a lower score than [10% severely lame+ 90% not lame]) } **balance**

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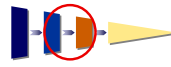
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## From criteria to principles Q2 compensation between criteria?



Experts consulted: animal and social scientists

More importance assigned to some criteria  
Example: principle 'Good feeding'



More importance assigned to bad scores  
(i.e. no full compensation between good and bad scores)

We use an operator that allows these two rationales  
Compensation between criteria is small

Hunger	Thirst	Good Feeding
25	75	39
50	50	50
75	25	31

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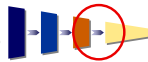
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## From principles to overall assessment Q3 theoretical vs. pragmatic approach?



### 4 welfare categories

(from consultation with stakeholders  
in the Advisory Committee of Welfare Quality®)

<b>Excellent</b>	may correspond to a niche market
<b>Enhanced</b>	farms with good farming practices but not excellent ⇒ may serve for general quality voluntary labels
<b>Acceptable</b>	acceptable welfare level, but insufficient to be labelled
<b>Not classified</b>	very poor welfare

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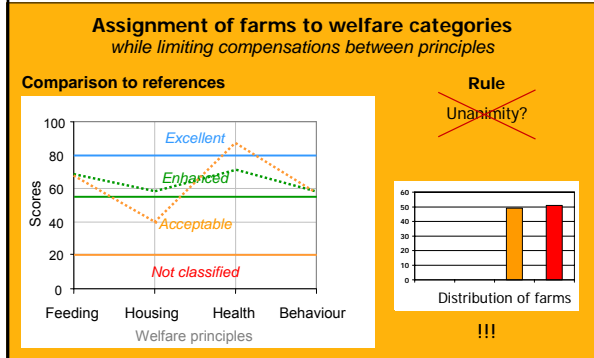
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From principles to overall assessment  
**Q3 theoretical vs. pragmatic approach?**




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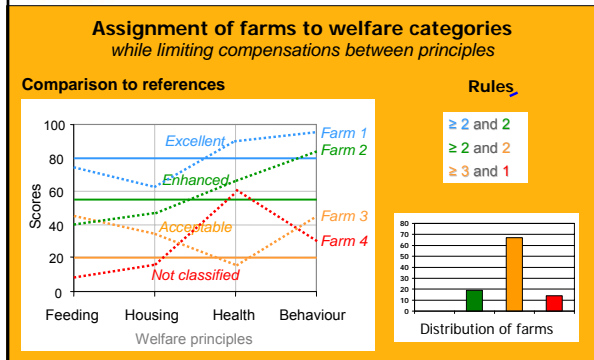
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From principles to overall assessment  
**Q3 theoretical vs. pragmatic approach?**




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**Welfare Quality** the international standard for assessing animal welfare

**Citizens juries**

Jury = about 10 members in Norway, Italy, UK

**Response to the scoring system: Agree on**

- balance between theory & pragmatism
- limited compensation between criteria
- + no compensation when 1 score is very low

**Consequences for the scoring model**

To reflect citizens' views appropriately, a stricter rule is required:  
*if 1 score < 20 then the farm is NOT acceptable*

This is not realistic at present (more than 50% would be not classified)  
 we should plan a revision of the scoring model (in 15-20 years?)  
 when sufficient progresses have been made

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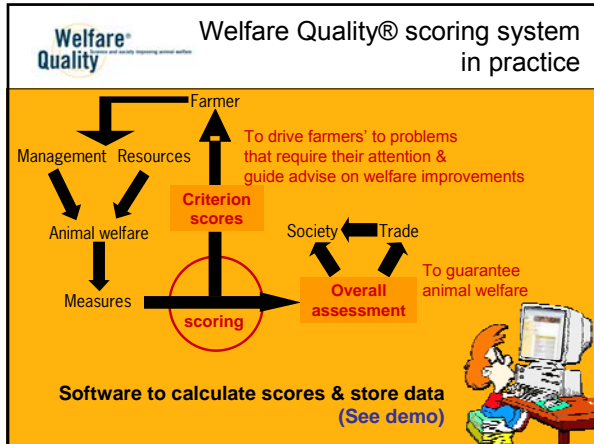
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