



# Better Training for Safer Food *Initiative*

Training course on “Animal Welfare in pig production”

**Social and economical aspects of animal  
welfare concerning farming of pigs**

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# Society's influences on AW through the actors of the animal production chain

@ State (voters)

@ Market (consumers)

@ Civil society (citizens)

## Stakeholders

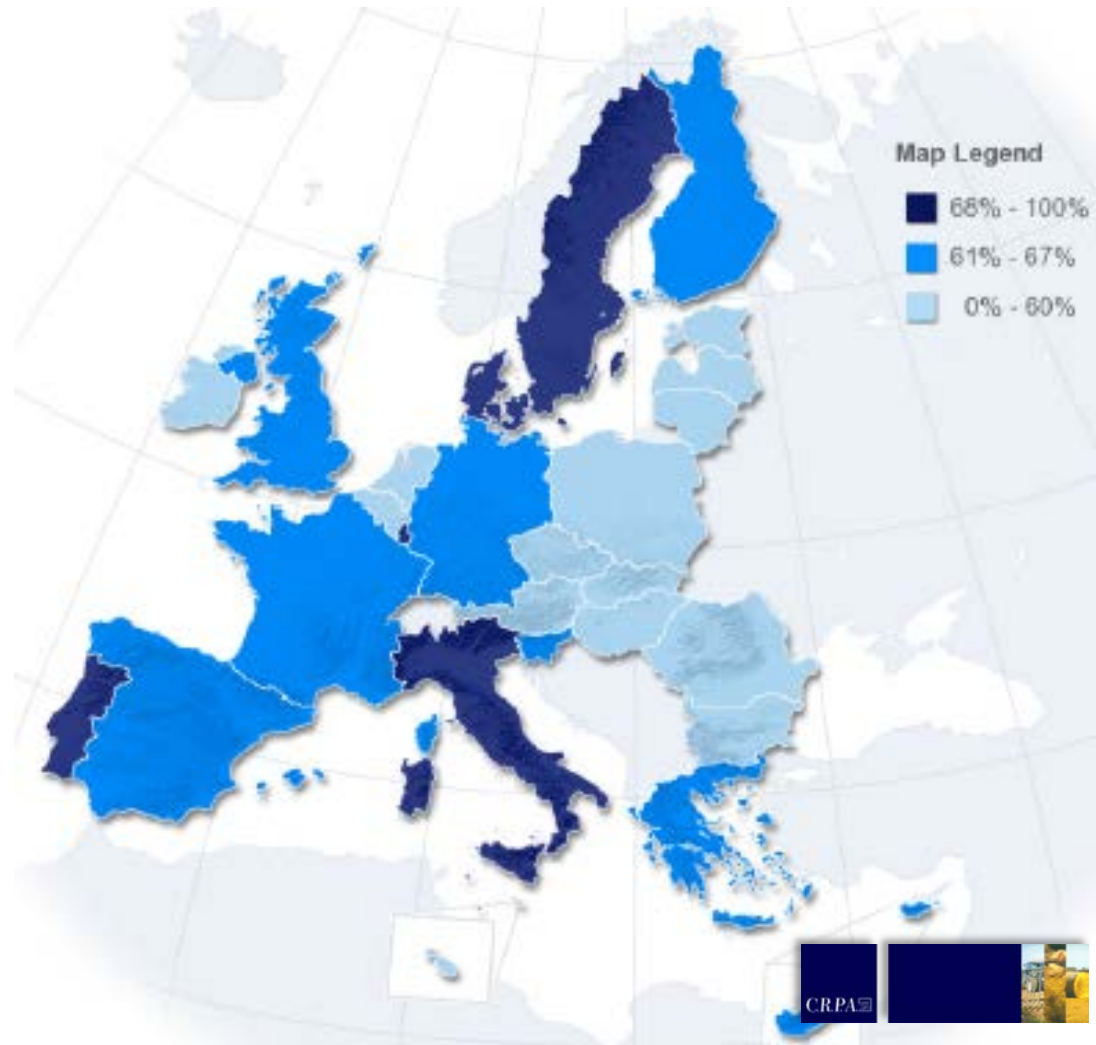
- 🌐 **Actors of the pig supply chain (farmers, feed companies, transporters, slaughterhouses, advisors, pork processors, retailers)**
- 🌐 **Citizens and consumers (NGOs, consumers associations)**
- 🌐 **Government (policy makers, competent authorities)**
- 🌐 **Research and education**

Since 2005, the percentage of EU citizens expressing worry about farm animal welfare has risen from 60% to 64%. No country saw a downward shift

On a spontaneous basis, consumers reported being most concerned with chemicals and toxins, food poisoning, and diet-related disease, but the greatest increases in worry were regarding freshness, additives, colours, and preservatives

On a prompted basis, welfare of farm animals was considered a medium level worry for EU citizens, with Luxembourg, Portugal and Italy showing the highest levels and Romania, Bulgaria and Hungary the least

### Geographical Representation of % of consumers expressing worry over the Welfare of Farmed Animals (Eurobarometer 354, 2010)



## Policy options for animal AW development

- ④ Legislation (EU, national)
- ④ International agreements by international organisations (OIE, FAO, WSPA, COE)
- ④ Negotiations and bilateral free trade agreements with EU third countries
- ④ Public information and education
- ④ Codes of practices (voluntary, national/international)
- ④ Labelling schemes (mandatory, voluntary, input/output)
- ④ AW output-based assessment (e.g. Welfare Quality® protocol)
- ④ Private quality assurance schemes (with third party auditing) 1
- ④ Upgraded standards (organic, non organic) proposed by NGOs, multiple retailers, farmers associations and international organisations (e.g. OIE)
- ④ Corporate programs established by retailers and foodservice
- ④ Incentives to producers (rural development plan)
- ④ Awards to retailers and producers from animal protection NGOs

## Policy options for AW development

- ⌚ Proliferation of many different AW initiatives threatens to create more consumer confusion due to a lack of transparency, differences in criteria, and the overall complexity of the issue
- ⌚ Surveys and interviews with consumers from around the world report that individuals rely significantly on their social values and belief structure when making purchasing decisions
- ⌚ While this demonstrates a definite change in attitude, actual buying patterns in the marketplace indicate that the percentage of consumers acting on their beliefs is smaller than what is reported, generally keeping socially conscious products in niche categories
- ⌚ Market studies show that products with particular emphasis on AW are often not in very high demand when consumers stand at the cold display counter

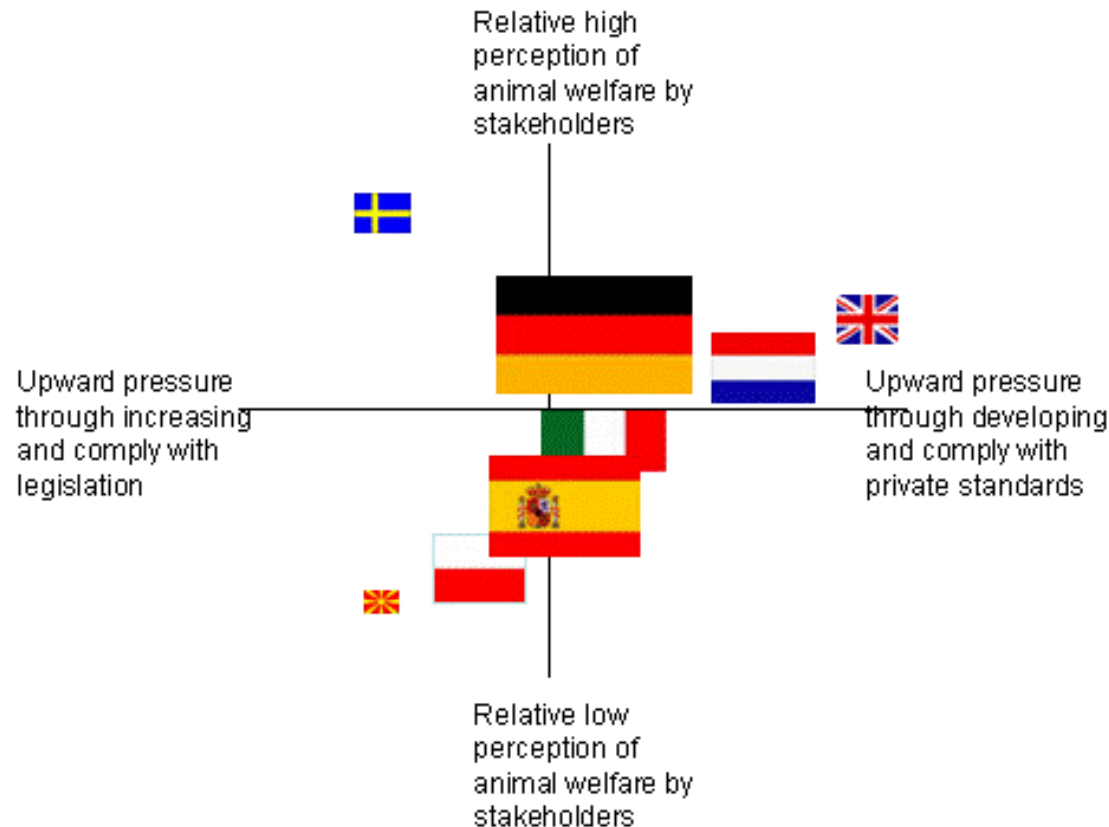
**Explanations to understand some **lack of correlation between citizens' attitude towards AW and consumers' choices for AW friendly products** (Danish Centre for Animal Welfare, 2010):**

- 1. as consumers, people are also taken up with other factors than AW such as price, eating quality, food safety, environment protection, national provenance**
- 2. as AW is frequently not put on the agenda at all in supermarkets the consumer who does not have AW on his or her list of relevant items to relate to is therefore not reminded that he or she is also a citizen who might very well be highly interested in AW**
- 3. having a politically correct attitudes in a questionnaire costs nothing. The respondents replies may reflect an attempt to please the person conducting the study and therefore not accord with their actual views**
- 4. questionnaire as a methodological tool. It is difficult to ask about AW in a questionnaire without reminding the respondents that this particular subject might be of importance**



# Current upwards pressures and relative animal welfare levels as perceived in society for 8 European countries

(the flag size shows the relative size of the farm production (pigs, poultry) for each country)



## A common welfare goal for Europe ... but via different routes?

## Preferences of stakeholders participating in EconWelfare seminars and workshops

	Chain actors (including farmers)	NGOs	Retailers
- Enforcement of legislation	+	+	+
- Standards based on scientific knowledge	+		
- Voluntary schemes + labelling	+		
- Social/economic incentives and fair share for farmers	+	+	
- Info/education for consumers	+	+	+
- Training for chain actors	+		+
- Public/private partnership to monitor/control AW			+
- Brands instead of labels			+

EconWelfare, 2011

## Policy options for AW development

Spending on “**ethical food and drink**” **in the UK**, increased by **51%** from 2010 to 2012 to £10160 million

**Fair trade food** sales increased by **46%** to £1552 million

Sales of **Freedom Food** certified products increased by **77%**, from £572 million to £1012 million

**Organic foods** declined by **10%** to £1332 million

(Cooperative Bank’s Ethical Consumerism Report, 2013)

Pork produced to **RSPCA**’s higher welfare standards has risen by 200% between 2009 and 2012. 31% of all British farmed pigs are now being reared under **Freedom Food** (Freedom Food, 2013)

## Farm level Cost/Benefit Analysis

- ⌚ Comparison of real farms with different housing systems
- ⌚ Data collection on farm
- ⌚ Comparison of representative model farms
- ⌚ Estimate of cost/benefit of AW measures according to scientific literature

## Farm level Cost/Benefit Analysis

Comparison between four stylized pig production systems  
(Seibert and Norwood, 2011):

- A. Confinement-stall**
- B. Confinement-pen**
- C. Confinement-enhanced**
- D. Shelter-pasture**

Cost estimates are informative but imperfect due to differences  
in:

- @ pig breed
- @ herd size
- @ use of growth hormones and subtherapeutic antibiotics



AW factor	Confinement- Stall	Confinement- Pen	Confinement- Enhanced	Shelter- Pasture
	Level of provision of each factor (each provision is assumed good for AW)			
Access to food, water, and health care	high	high	high	high
Space per animal	very low	low	high	very high
Protection against injuries	sows: very high growers: very low	sows: very low growers: very low	medium-very high	very high
Outdoor access	very low	very low	very low-medium	very high
Foraging and rooting material	very low	very low	medium	very high
Ability to express normal husbandry behaviors	very low	very low	medium	very high
No physical alterations (e.g. tail docking)	very low	very low	low-high	medium-very high
Survival rate of nursing piglets	very high	very low	low-high	very low-medium
Overall welfare assessment	very low	low	medium-very high	very high
Cost per kg LW (\$)¹	0,99	1,069-1,076 + 8-9%	1,166-1,430 + 18-44%	1,166 + 18%

¹) Corn cost 118 \$/t; live weight at slaughter 120 kg

## Farm level Cost/Benefit Analysis

Comparison between four stylized pig production systems  
(Seibert and Norwood, 2011)

- ④ Cost of changing U.S. pork production from sow stall to group housing would be modest, by 9% at farm level and 2% at the retail level
- ④ Cost of changing U.S. pork production from sow stalls to free-range would increase pig production costs by 18% at farm level and 5% at the retail level if costs were passed on to consumers in full

## Farm level Cost/Benefit Analysis

Cost of pig rearing 6-95 kgLW in five housing systems (Bornett et al. 2003)

- A.** Fully slatted
- B.** Partly slatted
- C.** High welfare straw-based (RCPA/Freedom Food)
- D.** Free range
- E.** Organic

Housing system	Production cost (UK pence/kg of carcass weight)
Slatted-floor	92,0
Partly slatted	94,6 (+3%)
High welfare straw-based (RSPCA)	98,8 (+7%)
Free range	99,3 (+8%)
Organic	130,1 (+41%)



## Farm level Cost / Benefit Analysis

**Additional costs and benefits due to upgrading AW standards above EU regulations**

**„Econwelfare standard” = set of norms**

**Norms = single animal husbandry practices (quantifiable in terms of additional inputs and measurable potential benefits)**

**Basis for constructing „Econwelfare standard” – initiatives analyzed in the project (RSPCA, ...)**

**Source of parameters for the C/B model – farm surveys and normative data, expert’s judgment**

# Cost/Benefit Analysis - a process

Two types of standards:

- „moderate” (applicable for large scale, intensive production systems)
- „premium” (more restrictive, higher level of AW requirements)

Key assumptions:

Potential cost/benefits (eg. veterinary costs, labour input, mortality of animals, feed requirements, productivity, investments)

# EconWelfare moderate and premium standards

## Standard - Fattening Pigs (Majevski et al., 2012)

Norms	Moderate	Premium
Allowance of roughage	Roughage (straw) added to the daily ration	Fresh or dried fodder, or silage added to the daily ration
Facilities to avoid competition for feed (trough width/heads)	33cm per fattening pig	33cm per fattening pig
Bedding materials in laying area on farm	Lying areas must be sufficiently covered with straw	Lying areas must be sufficiently covered with straw
Avoidance or limitation of slatted floors	50% of the indoor surface area shall be solid	100% of the indoor surface area shall be solid
Lightening on farm (intensity, natural light, photoperiod)	Ratio Floor:Window must be 15:1, additional electric lightening	
Space allowance (indoor)	>30 up to 50 kg – 0.52 m <sup>2</sup> ; >50 up to 85 kg – 0.72 m <sup>2</sup> ; >85 up to 110 kg – 0.85 m <sup>2</sup> ; >110 kg - 1,3 m <sup>2</sup>	>30 up to 50 kg – 0.8 m <sup>2</sup> ; >50 up to 85 kg – 1.1 m <sup>2</sup> ; >85 up to 110 kg – 1.3 m <sup>2</sup> ; >110 kg - 2 m <sup>2</sup>
Access to outdoor run on farm	Not required (not feasible for large scale)	>30 up to 50 kg – 0.6 m <sup>2</sup> ; >50 up to 85 kg – 0.8 m <sup>2</sup> ; >85 up to 110 kg – 1 m <sup>2</sup> ; >110 kg - 1.2 m <sup>2</sup> (outdoor)

## Direct costs/benefits from introducing upgraded AW standards - fattening pigs (Majevski et al., 2012)

Country	Moderate			Premium		
	Benefit €/pig	Costs €/pig	NET Cost €/kg	Benefit €/pig	Costs €/pig	NET Cost €/kg
PL	3,56	7,84	0,04	8,72	29,80	0,20
NL	4,72	37,51	0,28	9,20	90,77	0,70
SE	4,05	11,01	0,06	12,84	76,93	0,56
UK	0,78	8,83	0,08	8,03	31,04	0,23
ES	2,78	32,64	0,28	9,80	67,69	0,55
DE	10,56	28,70	0,15	19,76	78,78	0,50
MK	3,99	5,59	0,02	8,89	26,29	0,17
IT	6,18	24,83	0,12	13,32	49,60	0,23

# Farm level Cost and Benefit – results

EconWelfare key messages:

- ② Improving AW through more animal friendly housing systems or upgraded standards „costs money”
- ② Additional costs of upgrading differ between countries



Other consideration

- ② A given proportionate % rise in farmgate costs inevitably becomes smaller through the subsequent value adding processes in the food supply chain (marketing, slaughter, processing, packing, retailing, catering) (McInerny, 2004)
- ② If higher production costs at farm level for upgraded standards are passed on to consumers in full the price increase is relatively low

## Conclusions 1

- ④ There seems to be no single 'European view' of animal welfare, but a collection of 'cultures' with different norms, values and sense of urgency to deal with the issue
- ④ There is no one-solution-fits-all policy for all countries
- ④ In some countries the process of market development has led to the development of an assortment of differentiated animal-friendly products that tap different levels of willing to pay (WTP) for animal welfare. In other countries the development is still at more rudimentary stages
- ④ There is a need for commonly agreed definitions of AW and production systems with participation of all stakeholders in the food chain, to avoid emotional, ill-informed and inaccurate descriptions by some organisations in the media

## Conclusions 2

- ⌚ Improving AW through more animal friendly housing systems or upgraded standards „costs money”
- ⌚ Distortion of competition between MSs related to AW due to:
  - differences between national legislation and EU legislation (Sweden, UK stall ban)
  - differences between rearing and housing systems in use in the EU MSs
  - differences in enforcement of existing EU legislation because of different local interpretation and implementation

## Conclusions 3

- @ Animal friendly products are likely to be legitimized through active involvement from animal-interest groups
- @ Collaboration between animal protection NGOs, multiple retailers and actors in the production chain often creates the necessary conditions to launch animal welfare standards on the market
- @ As the niche for products offering AW assurance matures, as international approaches become more organized, and as consumer attitudes stabilize, it is expected that opportunities for producers will grow



## Conclusions 4

- ⊗ Although many stakeholders believe that the market in the most viable direction to improve farm AW, economic productivity of the chain remains an issue that on a fundamental level conflicts with the objective to improve AW
- ⊗ A more animal friendly future can, however, only be created with substantial policy attention from not only market stakeholders, but also civil society and governmental stakeholders in society to guide the market in the desired direction

(Ingenbleek et al., 2013)

# Thanks for your attention





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