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EFSA Scientific Assessments on Animal Welfare and interaction with animal disease and food safety

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EFSA's Mission

The Authority shall provide ***scientific advice*** **and** ***scientific and technical support*** for the Community's legislation and policies in all fields which have a direct or indirect impact on food and feed safety.

It shall provide ***independent information*** on all matters within these fields and ***communicate on risks***.

AHAW Panel - mandate

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The Animal Health and Welfare Panel deals with questions on all aspects of animal health and animal welfare, primarily relating to food producing animals, including fish.

General Approach according to Regulation 178/2002

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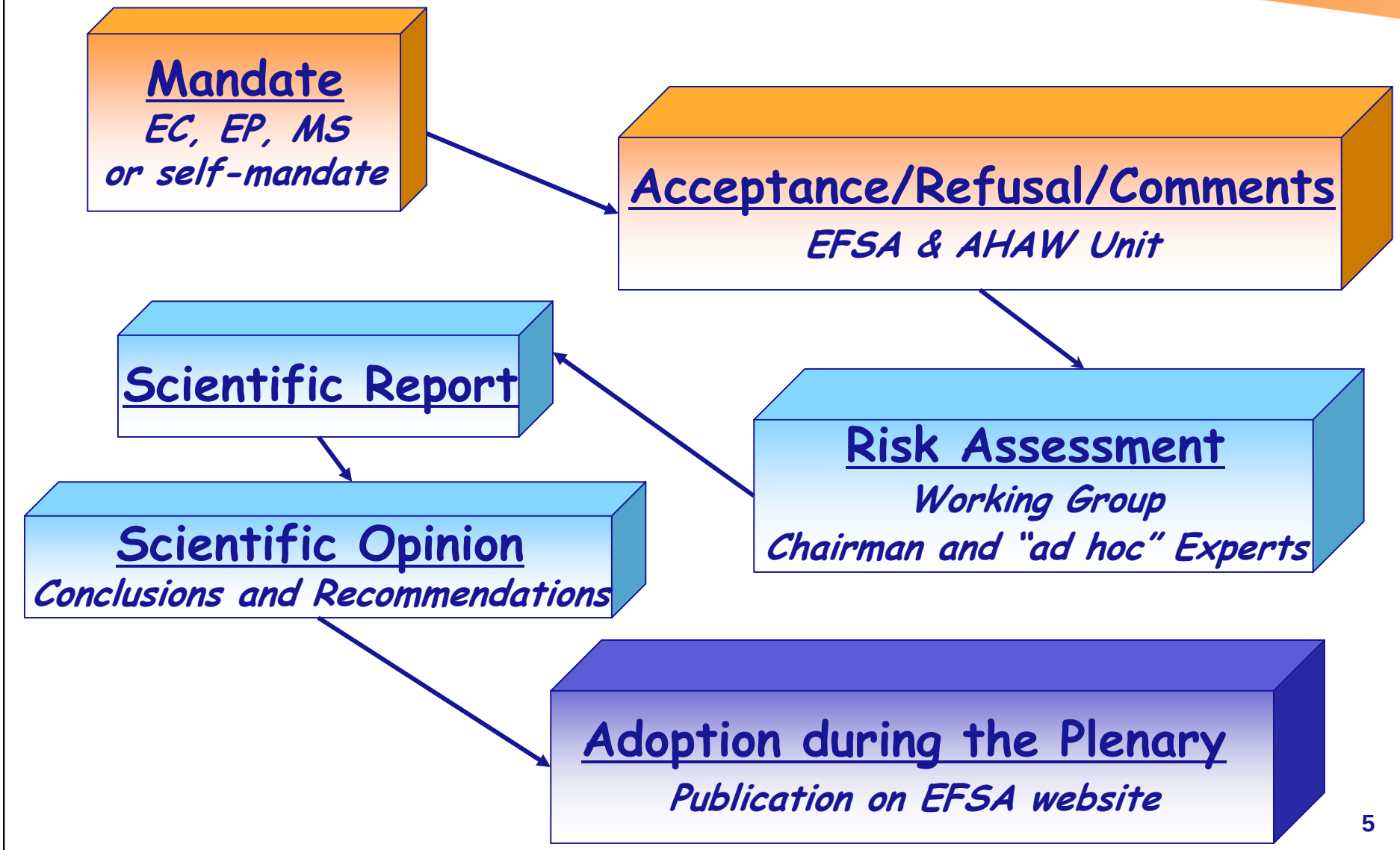
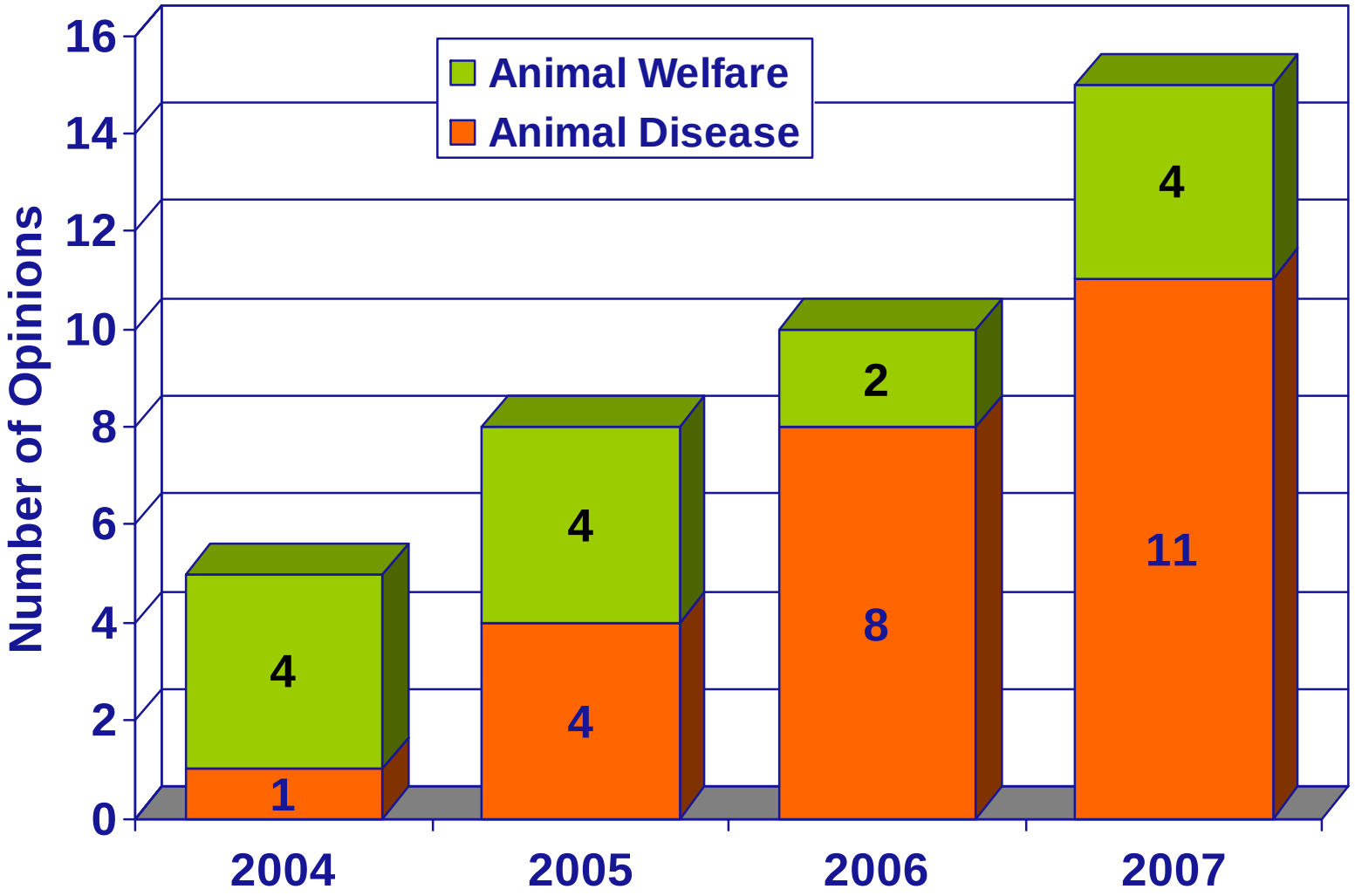
Ethical, socio-economic, cultural and religious aspects **are outside the scope of the EFSA's remit**

⇨ Risk Managers (EC) deal with legitimate and legal factors, "including societal, economic, traditional, ethical and environmental factors and the feasibility of controls"

Development of Scientific Opinion



Scientific Opinions 2004-2008



Animal Welfare Scientific Opinions 2004-2009

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Scientific Opinions	Year	AD	FS
Transport	2004	X	
Stunning/killing of main species	2004	X	X
Castration of piglets	2004		X
Microclimate in transport	2004	X	
Laying hens	(pub. 2005)	X	X
Farmed domestic rabbits	2005	X	
Pig: space allowance/floor types	2005	X	X
Laboratory animals 	2005		
Avian Influenza	2005	X	
Import of wild birds	2006	X	
Calf farming systems 	2006	X	X

Animal Welfare
Scientific Opinions 2004-2009

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Scientific Opinions	Year	AD	FS
Stunning/killing of minor species	2006		X
Pig welfare: Sows and boars	2007		X
Pig welfare: Fattening pigs	2007		X
Pig welfare: Tail Biting	2007		X
Stunning/killing methods of Seals 	2007		
Salmon Welfare 	2008	X	X
Trout Welfare 	*2008*	X	X
Carp Welfare 	*2008*	X	X
European eel Welfare 	*2008*	X	X
Sea bream/sea bass Welfare 	*2008*	X	X
Dairy Cows Welfare 	*2009*	X	X
Stunning and Killing of fish (8 sp)	*2009*		X

Interaction among AW, AD and FS in EFSA's Scientific Opinions

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Farming and Management Systems

Species	AW Issue	Impact	
		AD	FS (public health)
Laying hens	Non-cage systems	*S. Enteritidis*	Egg contamination. Risk of Salmonellosis
Laying hens	Nest condition (Cleanliness)		Eggshell contamination Risk of Salmonellosis
Poultry	Outdoor systems	Highly Pathogenic AI (HPAI)	HPAI in humans

Interaction among AW, AD and FS in EFSA's Scientific Opinions

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Farming and Management Systems

Species	AW Issue	Impact	
		AD	FS (public health)
Calves	Floor & bedding conditions, humidity, ventilation	Accumulation of pathogens	Foodborne pathogens contamination (*Salmonella*)
Calves	Stress, large groups, space allowance, mixing from different sources, restocking	Increased susceptibility, cross-contam, pathogens spread	Risk of foodborne pathogen contamination (i.e. *Salmonella*)

Interaction among AW, AD and FS in EFSA's Scientific Opinions

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Farming and Management Systems

Species	AW Issue	Impact	
		AD	FS (public health)
Pig	Bedding materials	Salmonella, Campylobacter	Meat contamination Risk Salmonellosis
Pig	Bedding materials (straw) floor types (e.g. causing abrasion to feet or snout)	FMD, Aujesky, Vesicular Stomatitis	

Interaction among AW, AD and FS in EFSA's Scientific Opinions

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Farming and Management Systems

Species	AW Issue	Impact	
		AD	FS (public health)
Pig	Feeding liquid (fermented) feeds	Enteric diseases (L. monocytogenes)	
Pig	Outdoor systems	Wildlife pathogens (e.i. *Toxoplasma, Salmonella, Brucella*)	Foodborne pathogens. Risk of Toxoplasmosis, Salmonellosis and Brucellosis

Interaction among AW, AD and FS in EFSA's Scientific Opinions

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Transport

Species	AW Issue	Impact	
		AD	FS (public health)
All species	Related stress	Susceptibility to and transmission of AD (e.g. FMD, CSF)	
Cattle		Shipping fever (Pasteurella spp, BRSV, IBR, E. Coli and Salmonella spp)	Meat contamination Salmonella in humans
All species	Mixing animals at staging points	Spread of infectious diseases (e.g. E. Coli, Salmonella)	Meat contamination Risk of Salmonellosis

Interaction among AW, AD and FS in EFSA's Scientific Opinions

Stunning and killing

Species	AW Issue	Impact	
		AD	FS (public health)
Cattle	Captive bolt stunner with pithing	-	Contaminated nervous tissue into edible parts Risk of BSE/CJD
Goat	Penetrative captive bolt	-	Contaminated nervous tissue into edible parts Risk of BSE/CJD
Ducks, geese, quail	Electrical water bath stunning	-	Aspiration of stunner water and subsequent contamination of the lung. Risk of microbial contamination (Inedible Lungs)

Welfare Indicators

- **Community Action Plan on the Protection and Welfare of Animals (2006-2010):** specifically stating the **development of precise and measurable animal welfare indicators** to facilitate a proper and uniform enforcement of the animal welfare legislation and increase the efficiency of the controls and standards applied.

- **New EU Animal Strategy EU (2007-2013)**: has a priority goal on the **promotion of farming practices and animal welfare** to prevent animal health related threats. The **development of simple and reliable performance indicators** will help to measure progress towards the strategy's goals.

Welfare Indicators

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- EFSA should include, whenever possible, **objective measurable welfare indicators (animal-based) in the Conclusions and Recommendations of the Scientific Opinions**, in order to:
  - ✓try to **quantify** the adverse effects on animals exposed to an hazard
  - ✓ **give to the Risk Managers** essential **tools**
  - ✓ **decide** what is acceptable or unacceptable
  - ✓ **judge** as objectively as possible the **state of well being** of animals in an husbandry system.
  - ✓ **allow the epidemiological surveillance and the implementation of a monitoring and control system of animal health (welfare and disease) at farm level**.

RA in AW: development of Standardised Welfare Indicators

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Animal Needs and Hazards Identification

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Major Risk Identification (Farm, transport, slaughterhouse)

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Welfare Indicators Development (animal-based)

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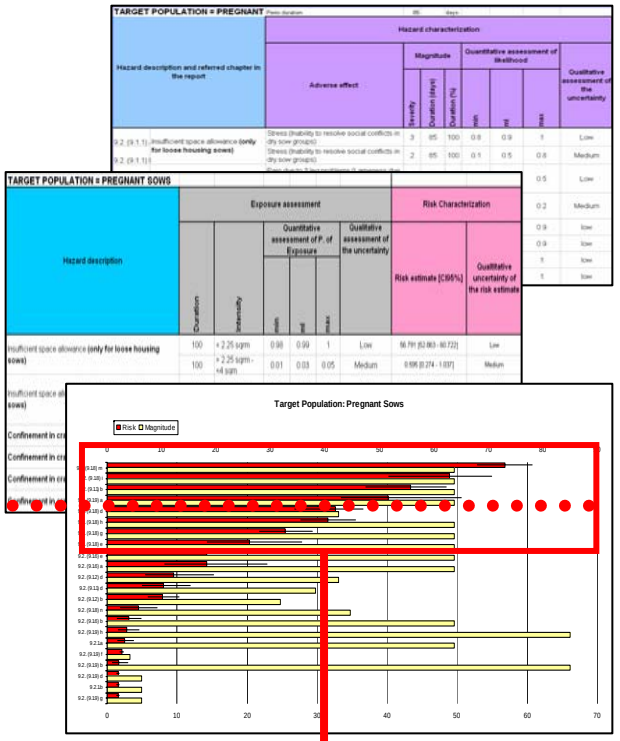
Monitoring and Control Measures (Animal Welfare and Disease)



Welfare Indicators

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Control and Monitoring Tools

Interaction among AW, AD and FS in EFSA's Scientific Opinions

Conclusions

- Animal Welfare has an overall impact, not only focused on welfare aspects, but also considering factors with possible incidence on animal diseases and food safety.
- The evaluation of the overall interaction between animal welfare, animal disease and food safety may support the development of control and monitoring plans at farm level through specific indicators.

For any additional info:

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Thanks for your attention !!