

## Transparency: The way to enhance effective risk communication

Professor Lynn Frewer  
Food Safety and Consumer  
Behaviour



## Consumer perceptions of risk, benefit, uncertainty and cost

*Contextualizing consumer attitudes towards food safety issues*



## Emerging societal issues in the Agri-food sector

- Consumer Health
- Food Safety
- Food Quality
- Sustainability



## The key questions that need to be asked

- What is driving consumer perceptions of *risk* and *benefit*?
- Who *trusts* whom to inform and regulate?
- How does this relate to *consumer confidence* in the food chain and associated science base?
- Are there *cross-cultural, inter- and intra-* individual differences in perceptions and information needs?
- How do other consumer attitudes (*ethics, wider value systems*) relate to perceptions of risk and benefit?
- How do the public react to information about *risk/benefit uncertainty*?
- How do we understand *risk/benefit variability* across different population groups

*What does this mean for consumer decision-making about health, wellbeing, and choice?*



## Consumer risk perception

- The **psychology of risk perception** drives public risk attitudes
  - An **involuntary risk** over which people have no control is more threatening than one people choose to take
    - Dioxin contamination of the food chain
  - Potentially **catastrophic risks** concern people most
    - Major food poisoning outbreak
  - **Unnatural (technological) risks** are more threatening than natural ones
    - Gene technology, nanotechnology, convergent technologies versus  
Organic production, ecological foods



## Consumer risk perception

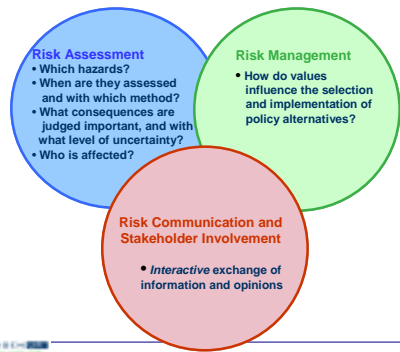
- **Ethical representations, values and concerns** are emerging as an important determinant of societal and consumer decision making
  - animal welfare
  - environmental impact,
  - sustainability
- Perceptions that the **“truth” is being hidden** increases both risk perception and distrust in regulators and communicators
  - increased transparency in risk management



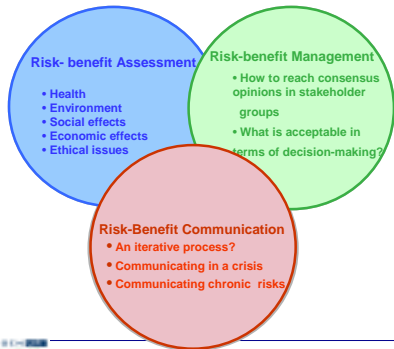
## Risk Analysis Framework; improving trust through increased transparency?



## Increased transparency raises more communication needs?



## A Risk-benefit Analysis Framework; improving trust through increased transparency?



## Trust in regulatory institutions and risk-benefit governance

- People may not always have a view regarding different Agri-food technology applications or food safety issues
- Trust in regulatory institutions is important, particularly in the area of potentially controversial applications or food safety issues
- People may react emotionally in response to specific issues (particularly if they do not want to think about relevant issues in depth)

Building societal trust in food risk management:

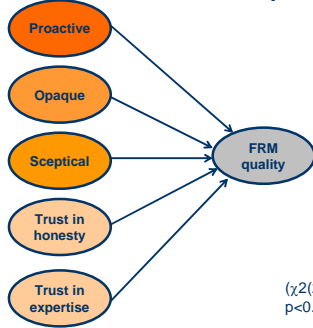
What needs to be communicated?

## What determines good food risk management?

The constructs (derived from lay-expert focus groups)

- Proactive consumer protection
- Opaque and reactive risk management
- Scepticism regarding risk assessment and risk communication practices
- Trust in expertise of food risk managers
- Trust in honesty of food risk managers

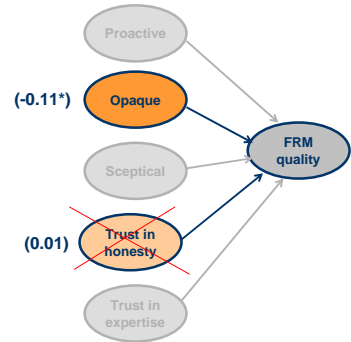
### Structural model – FRM quality



( $\chi^2(2420)=8429$ ,  $p<0.01$ ; RMSEA=0.07).

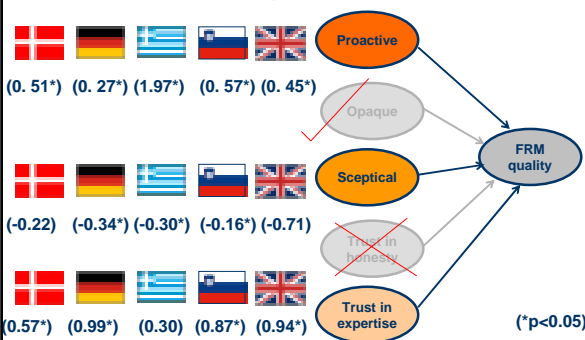
Van Kleef et al., submitted, risk analysis

### Quantitative results: no country differences



(\* $p<0.05$ )

### Country differences



(\* $p<0.05$ )

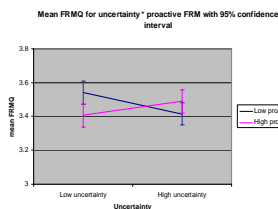
### Quantitative results

- Factors of universal importance
  - Pro-active consumer protection
  - Opaque and reactive risk management
  - Trust in the expertise of food risk managers (*except Greece*)
- Factors of local importance related to food risk management quality evaluations:
  - Scepticism in risk assessment and communication practices

### Communication example; GM potato with nutrition benefits

- Uncertainty x Proactive management communication

High uncertainty about the risks associated with the food, people prefer **proactive** FRM activities.



Low uncertainty about the risks associated with the VAP, people are **less concerned** about proactive FRM activities.

$F(1,2) = 9.85$ ,  $p = 0.002$

Van Dijk, H., Van Kleef, E., Frewer, L.J., et al. (in preparation). Consumer responses to communication about food risk management.

### Explaining individual differences

Psychological factors determine consumer attitudes, decision-making and impact on self-protective behaviors and food choices



Thank you!

Any Questions?