Key questions about consumers and food risks

• How do experts and consumers differ in perceptions of food risks and risk management activities?
• What are the barriers to effective risk communication?
• What are the information needs of consumers and how does this vary between individuals and cultures?
• How do peoples’ attitudes change in different contexts?
• How does consumer confidence in food safety and evaluation of food safety management practices change over time?
• How do the public react to information about risk uncertainty?
• How do we understand risk variability across different population groups?
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
  - **Potentially catastrophic risks** concern people most
  - **Unnatural (technological) risks** are more threatening than natural ones
- **Ethical representations** and concerns are emerging as an important determinant of consumer decision making
- Perceptions that the **“truth” is being hidden** increases both risk perception and distrust in regulators and communicators
Assessing perceptions of food risks - Results of survey research

FAMILIAR

Saturated Fats

Sugar

Organic Produce

Colouring

Nitrates

BSE

Pesticide Residue

Hormone Residue

Genetically Altered Foods

DREADED

Salmonella

C Botulinum

(Adapted from Fife-Schaw and Rowe, 2000)
Risk Analysis Framework; improving trust through increased transparency?

Risk Assessment

Risk Management

Risk Communication and Stakeholder Involvement

(after WHO, 1998)
Public distrust in the process of risk analysis

- The *signal potential* of various risk incidents has demonstrated that risk management is “out of control”

- Increasing availability of accessible specialist information (for example, via the Internet).

- Public reliance on the decisions of expert or elite groups is no longer a tenable way to conduct risk analyses

- The rise of the “consumer citizen”, means that societal disquiet with risk management and risk assessment may be expressed through consumer preference and choice *in the marketplace* ("To buy or not to buy")
Risk Analysis Framework; improving trust through increased transparency?

Risk Assessment
- Which hazards?
- When are they assessed and with which method?
- What consequences are judged important, and with what level of uncertainty?
- Who is affected?

Risk Management
How do values influence the selection and implementation of policy alternatives?

Risk Communication and Stakeholder Involvement
Interactive exchange of information and opinions

Increased transparency results in the need for additional communication and stakeholder involvement
Some additional effects of increased transparency in risk analysis

- Does *increased transparency* increase consumer confidence?
- Decreased transparency will *reduce* confidence ("what is being hidden?")
- Increased transparency may also decrease confidence unless there is *proactive communication* about various factors inherent in risk management and risk assessment:
  - Uncertainties (of different types, e.g. measurement *versus* who is affected)
  - Methodological issues (e.g. probabilistic *versus* deterministic risk assessment)
  - Variabilities across populations
  - Values used in the decision-making process (*management and assessment*)
- EXPLICIT co-operation between natural and social sciences
Cross Cultural Differences – Trust and information Sources about GM Foods

(Miles et al in press)
Consumer Confidence in Food Safety Management

- What drives consumer confidence in food safety?
- What factors drive changes in confidence?
- What consequences might arise?
Consumer Trust in Food Safety Risk Management

- Who *trusts* whom to provide information and protect consumers?
- Does this vary *cross-culturally*?
Key factors influencing consumer perceptions of food risk management

- Trust in food risk managers
- Systems of control and law enforcement
- Efforts of consumer education
- Media reporting
- Responsibility for managing food hazards
- Role of science and risk assessments
- Risk acceptability

(Van Kleef et al., 2005 - EU SAFE FOODS project, CT-2004-506446 WP4 social representation study)
• But should we be discussing risk – benefit analysis??
The social amplification of risk

• External events may influence public risk perceptions, through
  - amplification (increase)
  - attenuation (decrease)

Did this happen in Europe in the case of GM foods?
The genetically modified tomato paste – accepted by consumers (1996)

- Consumer choice (voluntary consumption)
- Consumer benefit
- No interest to media

Clearly labelled therefore traceable
The social amplification of risk

After Kasperon et al, 1988
Social amplification of risk
Change in UK consumer attitudes

(Frewer et al., 2002)
• Individual differences in health beliefs and information needs
Individual Differences in Seeking Food Safety Information

heavy non-users
- Low trait worry and health locus of control
- Male, less well educated

average users
- Low health locus of control
- Low confidence in information
- Male, highly educated, no child care responsibility

heavy users
- Active information seekers
- Confident information sources
- Female, with young children

formal source users
- Confident about scientific and government sources
- High health locus of control
- Highly educated

social source users
- Use social networks and retailers for information
- High trait worry
- Younger, female, low education

(Kornelis, Frewer and de Jonge, preparation)
As natural science knowledge about risk variability increases (for example, as more is known about individual susceptibilities to risks through advances in genomic research), there will be increased need for targeted communication for those at risk (for example, obesity or unhealthy food choices on one hand, nutrigenomics on the other).

New consumer concerns will arise as new technologies emerge (e.g. post-genomic technologies, nanotechnology).

Risk-benefit communication important.
Conclusions (2)

- Communication needs to focus on risk-benefit trade-off
- Individual differences in acceptance of bioactive ingredients
Thank you!