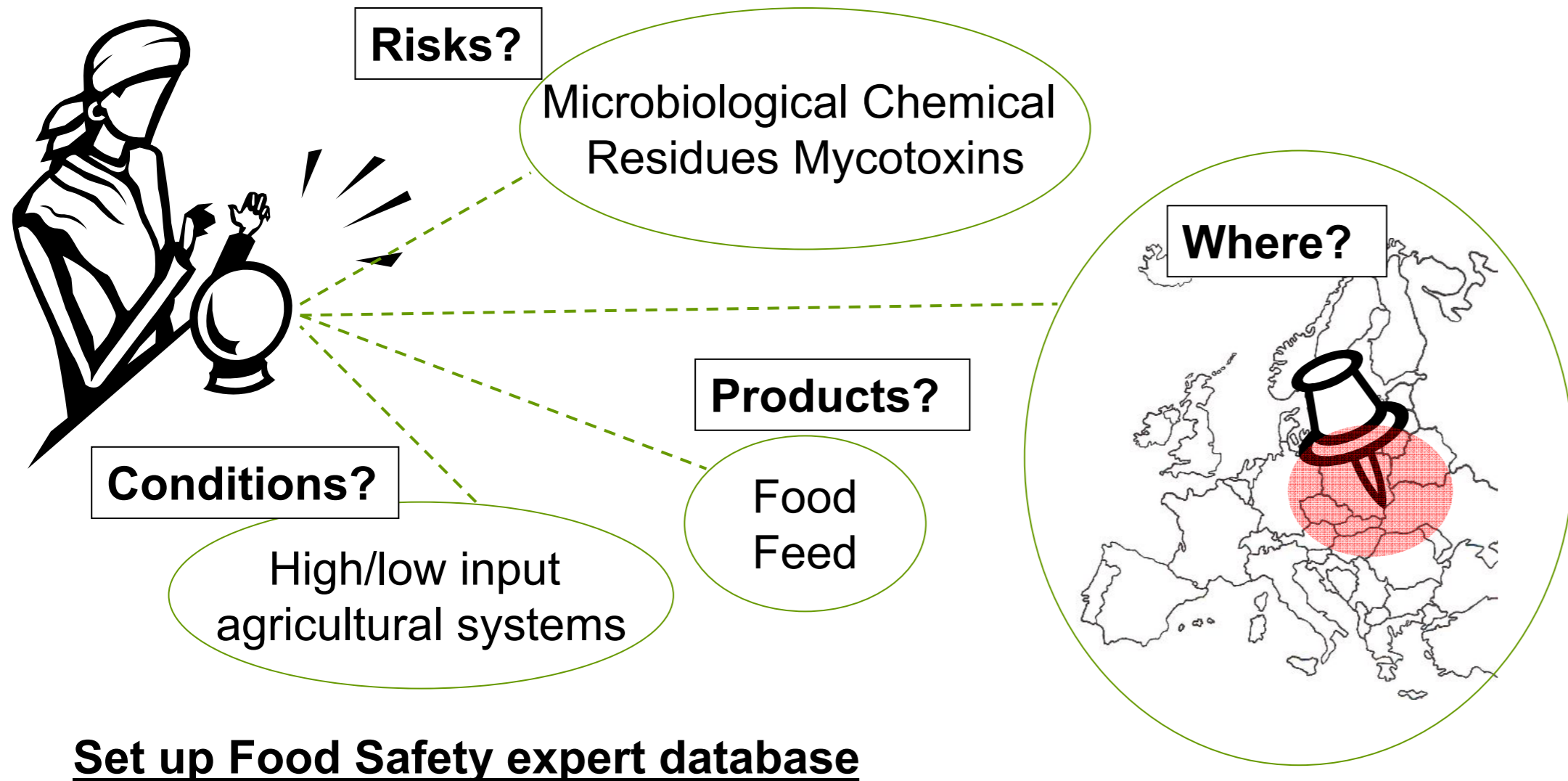




Promoting Food Safety through a New Integrated Risk Analysis Approach for Foods

Does the expanding European market lead to new food safety risks and can we identify them early?

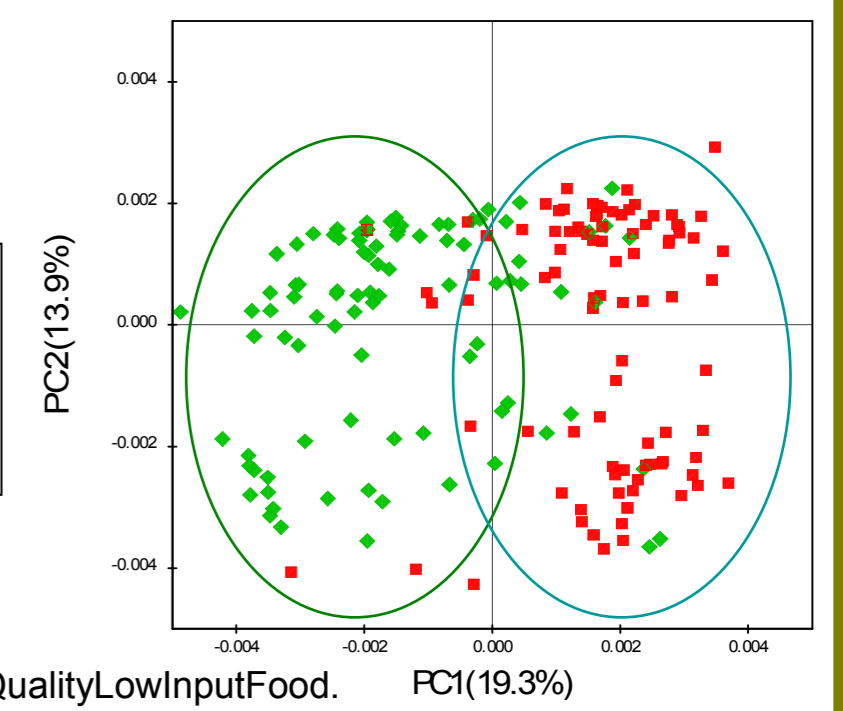
Early detection and assessment of emerging health risk



Are there inherent risks attached to different breeding approaches and agricultural production practices?

- Checking the variation in gene, protein expression and crop composition within different breeding systems, agricultural practices and geographical variation
- Identification of risks associated with specific breeding methods (e.g. GMO; *in vitro* culture)
- Comparison of risks between organic vs. conventional agriculture
- Selected crops: Potato and Maize

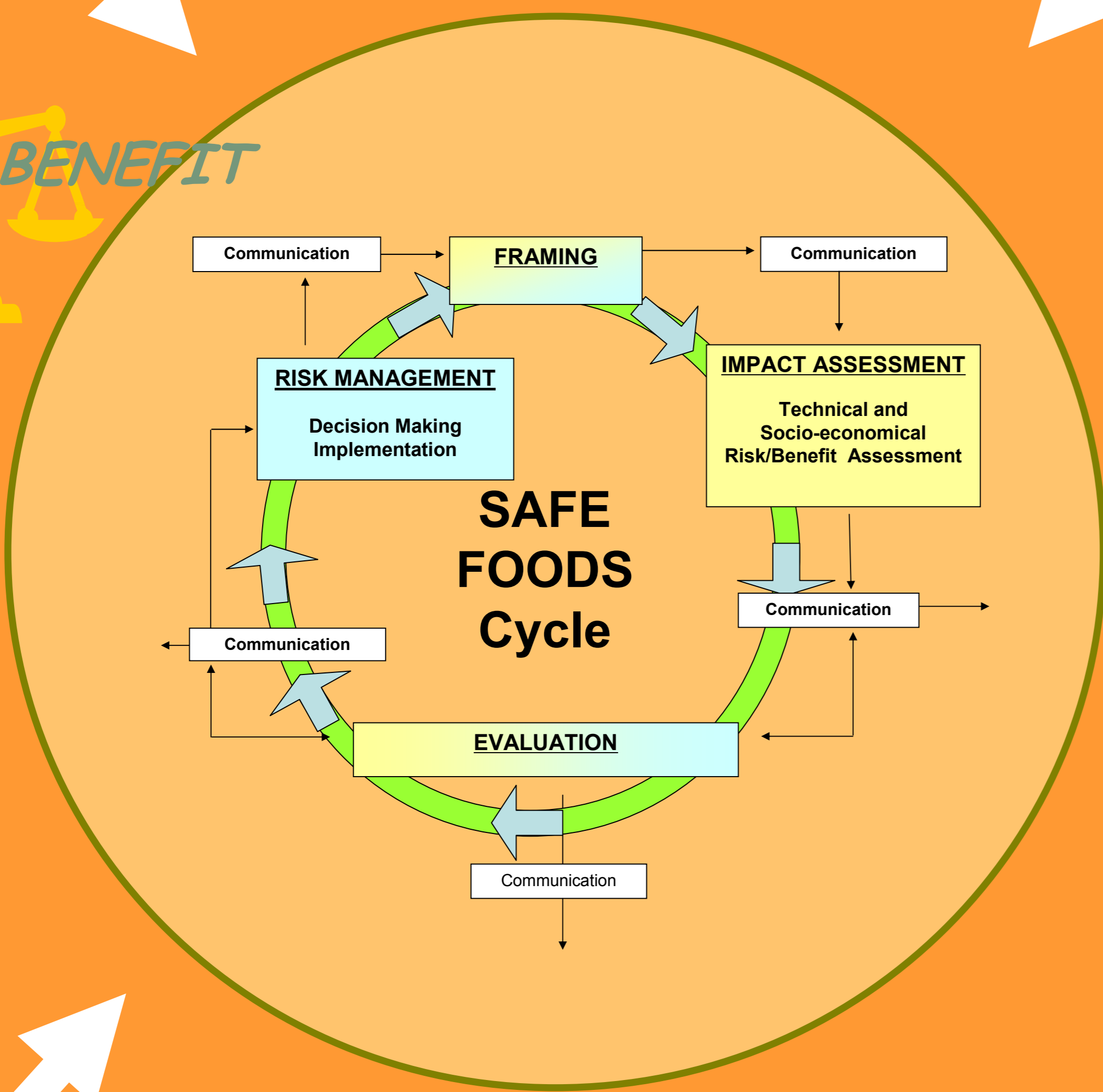
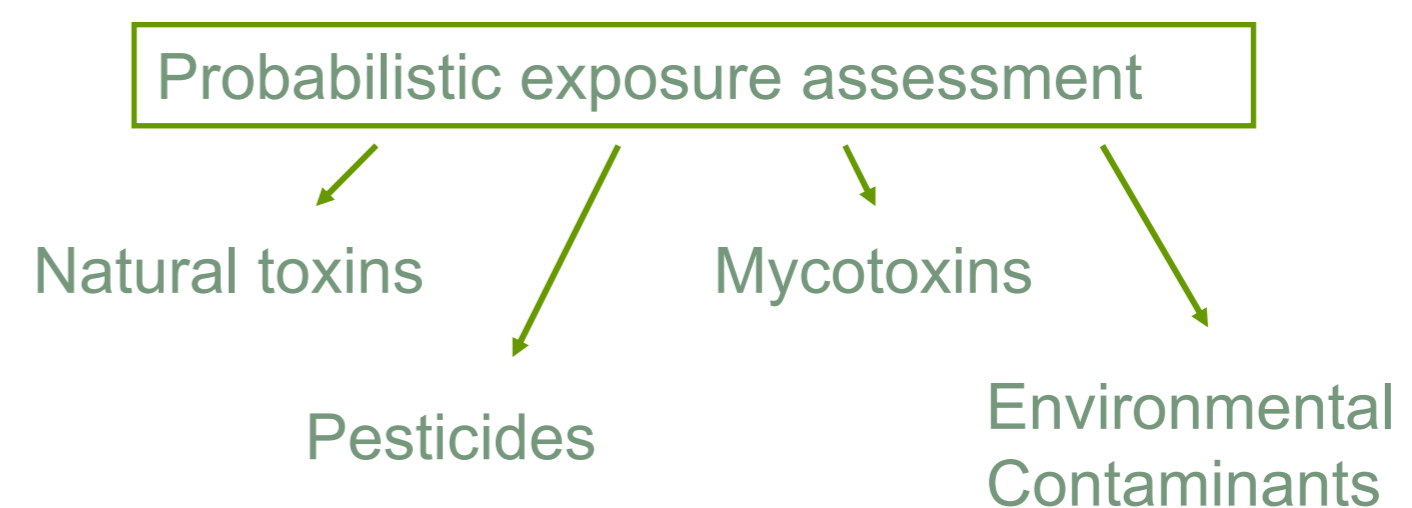
NMR analysis of the effects of fertiliser treatment on potato : compost vs. mineral



Field trials were carried out under WP2.1 of the IP QualityLowInputFood.

What is the health impact of human exposure to combinations of food contaminants, and natural toxins?

- Performing probabilistic risk modelling of food contaminants and natural toxins.
- Developing probabilistic models to evaluate the risk of combined exposure of chemical contaminants and natural toxins.
- Evaluating uncertainties in risk assessment, i.e. exposure, occurrence of adverse effects, and variations in susceptibility.



How do risk analysis and communication practices affect consumer confidence?



- Examining public and stakeholder perceptions and attitudes towards food risk analysis.
- Considering cultural and individual differences in attitudes, perceptions, and beliefs about risk management practices.

Some results

- Experts have more trust than consumers in the efficacy of risk management practices.
- Trust is linked to consideration of their "motives" and "interests".
- **Experts:** → are concerned about current food risk management practices. → argue that there are hidden food hazards that do not get enough attention → believe that consumers lack essential knowledge about food risks
- **Consumers:** → Perceive specific risks to be *over-managed* → Report a "food safety information overload"

What should be the role of institutions in risk management practices?

- Reviewing institutional procedures and structures to cope with new food risks and analysing their compatibility with the new requirements of risk management.
- Providing suggestions for a more active stakeholder participation in risk management processes. Who, when, and how to involve them?



- A Comparative Institutional Analysis on Food Safety Regulation in Europe