



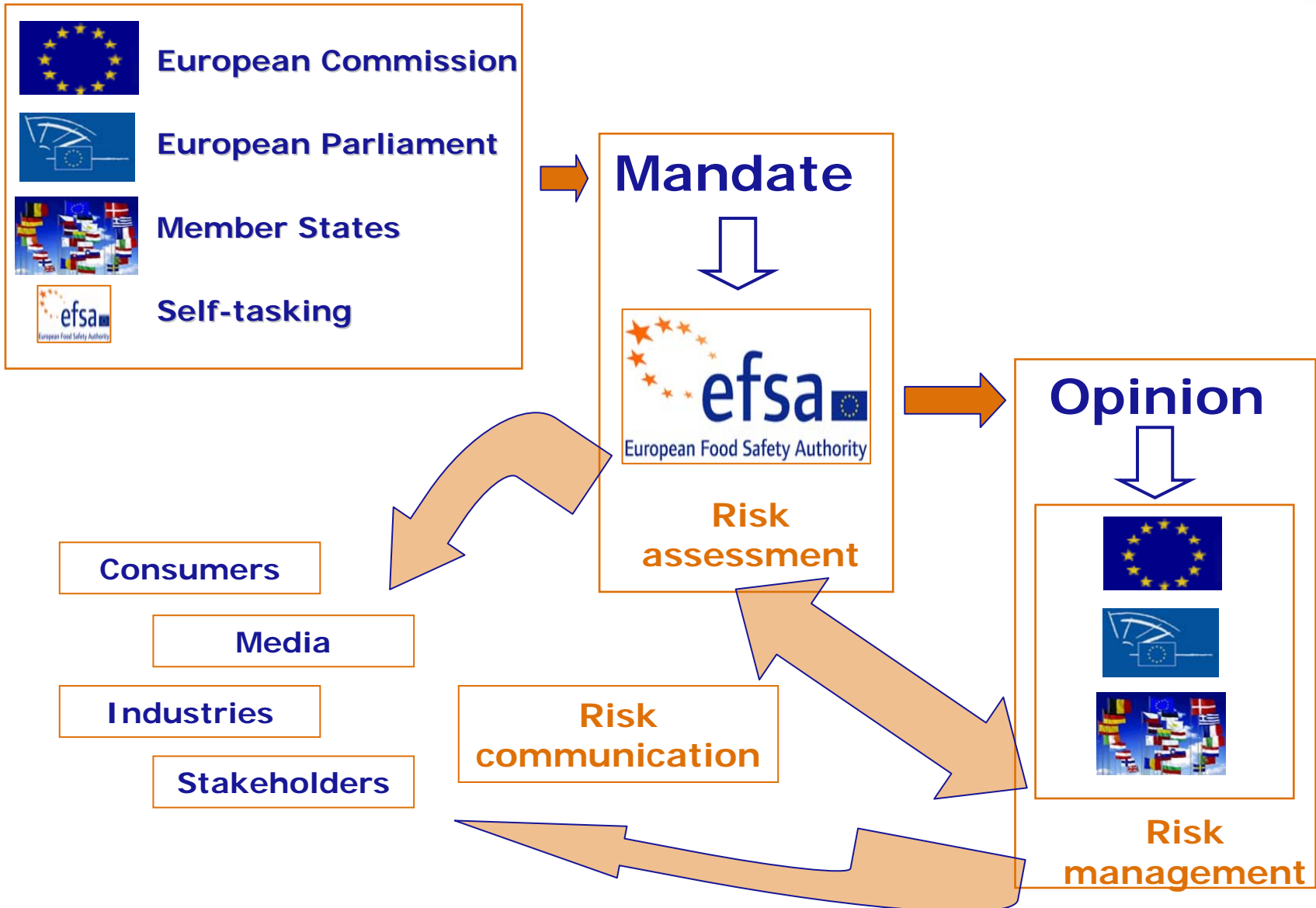
The EFSA's BIOHAZ Panel perspective on food microbiology and hygiene

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- 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**.
- Provide **independent** information on all matters within these fields with a high level of **openness** and **transparency**;
- **Risk Communication**;
- **Collaboration and Networking**.

From the question to the answer



The Scientific Panel on Biological Hazards

- The Panel on Biological Hazards deals with **questions** on biological hazards relating to **Food Safety** and **Food-borne Diseases**, including:
 - Food-borne Zoonoses;
 - Food Hygiene;
 - Microbiology;
 - Transmissible Spongiform Encephalopathies;
 - Associated Waste Management.

- **“Hygiene package”**
 - Improvement of hygiene and manufacturing (GMP/GHP)
 - Implementation of HACCP
 - Verification and validation of food safety management systems
- **Community legislation on the control of zoonoses**
 - (EC) 2160/2003 to control *Salmonella* and other zoonotic agents (production, processing and distribution)
 - Setting targets for *Salmonella* in broilers, turkeys, slaughter and breeding pigs and hens

General

- Compliance with general hygiene requirements throughout the whole food chain
 - Provisions in the Annexes of Reg. 852/2004
 - International and national guides to good practice

Specific

- Microbiological criteria
- Procedures necessary to meet targets to control hazards
- Temperature control
- Maintenance of the cold chain
- Sampling and analysis
- Food of animal origin (Reg. 853/2004)

Scientific opinions of BIOHAZ Panel on food hygiene and microbiological criteria

- EC mandate
- One of the question:
 - Identification of risk mitigation options of *Salmonella* at different stages in pig production
 - Adopted from BIOHAZ Panel in March 2006
 - **Extract** of conclusions and recommendations related to hygienic procedures and requirements

At farm level

- Optimal hygienic and management routines

At the abattoir

- Hygienic transport and lairage
- Hygienic design of establishments and facilities including their equipment
- Implementation of GHP and HACCP

At processing, storage and retail

- Hygienic procedures for the personnel, the equipment and the establishments
- Processing based on GHP and HACCP
- Temperature control
- Maintenance of cold chain

Microbiological risks in infant formulae and follow-on formulae

- Adopted in September 2004
- Recommendations on the development of guidelines for the reconstitution, handling, storage and feeding at home and at the hospital

Bacillus cereus and other *Bacillus* spp. in foodstuffs

- Adopted in January 2005
- GHP in combination with HACCP, control of temperature

Clostridium spp. in foodstuffs

- Adopted in March 2005
- GHP, GMP in combination of HACCP
 - Heating process
 - Temperature and duration of storage

A universal mitigation option to eliminate pathogens from the food chain?

- None
- Effective and cost-efficient combination measures:
 - GHP, GMP, HACCP
 - Logistic slaughtering
 - Hurdle theory, Others (??)

Example: Control of *Campylobacter* in poultry processing plants

- Reduction of fecal leakage during scalding and defeathering
- Separation of contaminated flocks
- Decontamination with chemicals such as organic acids

- Art 3 (2) Reg. (EC) 853/2004: use of substances other than potable water to remove microbial surface contamination from foods of animal origin (after evaluation and approval)
- Draft Regulation proposal setting specific conditions for such treatments is under discussion (MS's + stakeholders + non food SC)
- Limitations (draft):
 - To use one substance at a time
 - Only for poultry carcasses (to start with)
 - Need of rinsing after application
 - Information to consumer by labelling

- Non replacement of GHP and HACCP
- Substance for carcass decontamination will be regarded as:
 - **Safe**
 - when used in the manner and in the quantities proposed, would not pose any appreciable risk to the health of consumers
 - **Efficacious**
 - when any reduction of the prevalence and/or numbers of pathogenic target bacteria is significant when compared to the control
 - when this reduction is at the same time of relevance to human health

The BIOHAZ Panel opinion on microbiological criteria and targets based on risk analysis

- Microbiological criteria are used
 - For **validation and verification** of HACCP-based processes and procedures, and other hygiene control measures.
 - To assess the **acceptability** of a batch of food, including the circumstances where there is insufficient knowledge of production conditions e.g. at port-of entry.
 - In EU legislation as a way to **communicate** the level of hazard control that should be achieved.
- Meeting microbiological criteria offers some assurance that particular pathogens are not present at unacceptably high concentrations, **but does not guarantee “absence”** of those pathogens.

- **Hazard-Based**

- Decisions, standards and actions are based on objective and verifiable information on relevant hazards
- Eliminate or reduce exposure to such hazards, with the expectation that there will be a reduction in risk.

- **Risk-Based**

- Decisions, standards and actions are based on specific knowledge of risks
- Achieve an established level of health protection and should be explained and validated in these terms

- To link food safety control to public health protection
- To evaluate how public health goals can be met
- To demonstrate/evaluate the equivalence of different control measures
- To compare the effectiveness of potential control measures
- In situations where a series of options is necessary to control risks

Current Activities

1. **Review of the Community Summary Report on Trends and Sources of Zoonoses, Zoonotic Agents, Antimicrobial Resistance and Foodborne outbreaks in the European Union (2006).**
 - EFSA self-mandate.
 - Draw conclusions and identify issues of public and animal health importance.
 - Recommend (if appropriate) options to improve both public health and animal health in the Community.
 - Suggest improvements for monitoring and reporting procedures.

2. **Monitoring methods in animal populations and foodstuffs optimal from health point of view**
 - EFSA mandate
 - Verotoxigenic *Escherichia coli* (VTEC)
 - *Yersinia* spp.
 - Toxoplasma

3. Microbiological Risk Assessment in feedingstuffs for food-producing animals.

- EC mandate.
- Hazard identification (i.e. bacteria pathogenic for humans and/or animals).
- Contribution of *Salmonella* contamination in feedingstuffs towards its prevalence in animals and humans. Contamination of food produced from those animals.
- Quantification of the effect of control options (e.g. GHP, GMP, HACCP principles).
- Identify appropriate areas to set microbiological criteria and/or targets for feedingstuffs, as well as elements to be taken into account (e.g. sampling plans).

- 4. Quantitative Microbiological Risk Assessment on *Salmonella* in meat and meat products.**
 - EC mandate.
 - Evaluation of the relative contribution of different meat categories to cases of food-borne *Salmonella* spp. infections in humans.
 - Impact of the main factors along the food chain affecting prevalence, growth and transmission of *Salmonella* spp.

- 5. Updating scientific data on *Listeria monocytogenes* in ready to eat foods, and scientific advice on the establishment of different levels for *L. monocytogenes*.**
 - EC mandate.
 - Update scientific knowledge related to *L. monocytogenes* in ready-to-eat foods.
 - Provide scientific advice on the EU position for discussion on *L. monocytogenes* held by the Codex Committee on Food Hygiene

Thank you for your attention

**BIOHAZ Panel as EFSA is committed to independency
and transparency**

THANK YOU!!!

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