

### ***Critical and Emerging issues in Food Safety and Quality-Austria***

**Critical issues** are those that are the most pressing ones, and as such need to be addressed and considered as priorities. They can be known issues that are actually present/already occurring or even recurring. They can also be completely new or emerging. With the word “issues” is meant either hazards/challenges or opportunities or even trends that might have an impact on food safety and quality.

**Emerging issues** are those that are new, unexpected, or can cause change in the status quo. Many factors inside and outside the food production system(s) could directly and/or indirectly lead to emerging issues in food safety and quality.

*Examples of “drivers of change” that could lead to emerging issues*

- **Globalization of trade:** Food safety must be considered within a global context that is dynamic and evolving as part of the globalization process: increased international trade, more integrated markets, more rapid adoption of new technologies, increased market concentration, and information transfer, can all have important implications (both positive and negative) in food safety.
- **New distribution channels**  
Increase in online retailers will eventually get to the food retail market; are there any food safety risks that might arise from such a change of the retail market, where the local store might be replaced with automated warehouses and logistics in distributing it to the end consumer?
- **Economic factors:** budgetary pressures on national governments to improve efficiencies and reduce spending on national food safety systems; the ability/ willingness of food enterprises to implement adequate food safety measures; trends in food adulteration and food fraud; fluctuation of food prices. All these, and many other economic factors can impact on food safety at different levels.
- **Climate change:** Climate change, perhaps the most compelling environmental issue of our time, can affect patterns of occurrence of food safety hazards. Indeed international commitment to address environmental issues has a significant impact on agricultural development strategies and on food safety
- **New technologies:** The increasing role of new and emerging technologies in food production, post-harvest treatment, processing, packaging and sanitary treatment is also significant in the context of food safety and more globalised food trade.
- **Scientific progress:** Technical and scientific innovation has multiple impacts on food safety and its management. More sensitive detection methods are providing new tools for investigating and indeed discovering new food safety hazards. Recent advances in food safety related sciences give us a better understanding of food-borne disease, and the role played by some food contaminants in the etiology of some pathologies and disorders.
- **Urbanization:** With the global population growing there is a sustained trend of migration from rural to urban areas. Cities (and surrounding areas) are increasingly becoming places where food is produced (i.e. urban and peri-urban agriculture). This plays an important role in how people procure food, what people eat, the nature of food traded and the interactions among food systems, people and the environment.
- **Regulatory landscape**  
The regulatory landscape is changing with an increased importance on bilateral or multilateral treaties, emergence of private standards etc that can affect the food supply chain.
- **Public attention to food safety:** Increasing public awareness of food safety hazards, concern over hazards to health attributable to food hazards and reduced confidence in the ability of current food supply systems to manage food safety risks are additional factors to be considered in the food safety evolving context. At the same time food insecurity – an extreme manifestation of a large and growing wealth disparity within countries and among countries – remains a pressing global concern with important implications for decision-making on food safety at all levels.

**Please note** that the above are just some examples of drivers and the list is not complete. In responding to question #1 please consider these and any other broad drivers that you think could lead to emerging issues in food safety and quality.

## # 1 - Identification of critical and emerging issues

Please identify what you believe to be the 3-5 most **critical issues** related to Food Safety and Quality, from **present to the next 2 - 5 years**.

- 1) Antibiotic resistance
- 2) Endocrine disruptors
- 3) Climate change
- 4) Environmental contaminants

Please identify what you believe to be the 3-5 most important **emerging issues** related to Food Safety and Quality **in the next 2 to 5 years**.

- 1) Antibiotic resistance
- 2) New ecological niches for pests due to changes in production systems
- 3) International trade

## # 2 - For each issue you have identified above please provide a **short explanation**<sup>1</sup> (1 or 2 paragraphs)

### **Antibiotic resistance:**

Since the proportion of resistant organisms has increased in recent years, measures must continue to be taken to prevent the further development and spread of AMR. This includes increased efforts on preventive measures. New resistance mechanisms are identified and new detection methods provide evidence for more genes and mechanisms. For this reason, a comprehensive approach must be taken to curb AMR globally.

**Endocrine disruptors** in the context of food production and their effect on human and animal health: Further research is needed on definitions and effects on animal and human metabolism.

### **Climate change:**

increases the vulnerability of agricultural production, may increase the intensity of plant protection measures and the occurrence of new pests, diseases and microorganisms. Food safety issues of insects as protein resources may become a global topic.

### **Environmental contaminants:**

Presence / detection of environmental contaminants or their metabolites from agricultural, industrial or household waste.

### **International trade:**

may result in new risks formerly unknown in other countries of the world.

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<sup>1</sup> In providing a **short explanation** of 1 -2 paragraphs please briefly explain: 1) why you selected that issue (i.e. on what basis - information/data, knowledge or assumption - you made that choice) and 2) the expected and/or actual impacts of the issue (whether the impact would be sector-specific, affect only some sub-populations or countries/regions, whether it would be related to public health or trade etc)