
Anticipating future EU food and nutrition challenges: foresight for policy preparedness

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Today's food systems are challenged by a number of social, economic and environmental changes on European as well as on global level. These will influence our ability to provide sufficient, safe, nutritious and affordable food. While the need for increased food production to feed future populations has experienced a lot of interest, potential future challenges for the quality of food in terms of food safety and nutrition received less attention. With the aim to assess the EU's current food policy capacity to respond successfully to the challenges and to identify appropriate policy responses, the JRC, in collaboration with the Directorate General for Health and Food Safety, carries out a Foresight study on food safety and nutrition in 2050. Foresight is a medium-to-long-term vision building process aimed at present-day policy or business decisions.

Considering future possible trends in e.g. climate change and natural resources, trade, technologies, and food values, four scenarios for the EU in 2050 were developed:

- A global, complex food chain provides convenient, highly processed foods for the world
- The EU embraces the circular economy and targets self-sufficiency in food
- An economically weak EU relies on technology imports and a strong north-atlantic partnership
- A strong EU "Phood" industry provides high-tech foods for health-conscious consumers

In participatory workshops, involving a broad range of relevant stakeholders, participants identified potential future food safety and nutrition challenges on the basis of the scenarios. These challenges are then used as test cases for the resilience of the current EU regulatory and policy framework. Preliminary results will be presented.

Session 5.24. Nutritional behaviour research: transferring knowledge into daily life

How can we modify nutritional behaviour? A systems perspective dealing with complexity

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As nutritional behaviour (NB) is a complex phenomenon, starting points for successful modification must be deduced from a systems perspective.

A cause-effect model which allows deducing promising starting points was developed by identifying factors of NB and their direct causal relationships on basis of current literature and expert consultation. The relationships were specified by strength (weak, medium, and strong) and type (promoting and restricting). To develop the model and for subsequent analyses, elements of three instruments were combined: (1) Nutrition-ecological modelling (NutriMod, Schneider and Hoffmann 2011), further developed to NutriMod+ST (strength, type), was especially used to depict the model. (2) Sensitivity model (SeMo) was amongst others used for analysing roles of factors in the system which e.g. indicate whether a factor is suitable as control lever or indicator (Vester 2007). (3) Cross-impact balance analysis (CIB) was amongst others used to analyse effects of external impulses on the system based on consistent scenarios. Thereto, scenarios with and without impulses were compared (Weimer-Jehle 2013).

The model demonstrates each factor's degree of influence on the system and each factor's own influencability. The model also presents the interplay of all relationships and therefore reveals cause-effect chains, feedback loops, multicausalities, and side effects and consequently eigendynamics within the complex phenomenon. Depending on the different analyses conducted, mainly four of nineteen factors, partly in combination, were identified as promising starting points to modify NB.

Taking into account several of these relevant factors in parallel and considering the interplay of all factors allows developing more promising measures. This makes it possible e.g. to prevent unintended side effects and uncontrolled reinforcement due to an intense influence of the system on some factors in addition to the impact of a measure. Therefore, future measures should consider and deal with complexity to be more successful in modifying NB.

References:

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Theory into practice: working with families in weight management interventions

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The prevalence of childhood overweight and obesity continues to rise in low-income and middle-income countries across the world. One approach in addressing this rise in overweight is to work with families either in the clinical setting or within the context of a community based intervention. Understanding the different perspectives of