FOODSAFER
•EVERYBODY'S BUSINESS•

FoodSafeR is a 4-year Horizon Europe funded research project that started in October 2022.

The project aims to design, develop, and test the building blocks of an innovative proactive and holistic food safety warning and management system, which focuses on emerging of food safety hazards and associated risks.

FoodSafeR embodies integrated approaches to hazard characterisation and risk management in a comprehensive suite of future-oriented case studies, tools, methods, strategies, models, guidance, and training materials.

These resources are being made available in the **FoodSafeR** Open Digital Hub, a one-stop-shop platform uniting a community of professionals from the European and international food safety system.

1.Drivers

- Are developments fostering change which affect or shape the future.
- Are shaping how a society, organisation, industry, research area, technology, etc. develops (EFSA, 2010).
- Can directly influence the food system and also extend beyond the food system into other aspects of society.

2.Indicator

- Is a measurable factor (with a unit e.g. temperature in Celsius)
- Indicates or is directly or indirectly related to the possibility of the occurrence of a (re)-emerging hazard or risk or in this project a driver (e.g., 'storage and transport conditions').
- Provides information on the nature of the hazard or driver and source of risk.
- Ideally it is reliable, sensitive and quantifiable, but can either be qualitative or quantitative in nature.

Living Lab 3 was designed to identify indicators for drivers of emerging food safety hazards and was held online on 31st January 2024 organized by AIT. Drivers of food safety risks were identified and sorted along STEEP categories: social, technological, economic, environment and political. **Participants:**

- AGES (Austria)
- Agriculture and Agri-Food Canada
- AIT (Austria)
- AUA (Greece)
- Barilla (Italy)
- BfR (Germany)
- BIGH (Belgium)
- Biomin (Austria)IRIS (Spain)

- Biosense (Serbia)
- BOKU (Austria)
- FaVV-AFSCA (Belgium)
- FDA (USA)
- FFoQSI (Austria)
- FSAI (Ireland)
- Health Canada's Food Research Division

- ISPA (Italy)
- Nestle (Switzerland)
- PIWET (Poland)
- QUB (United Kingdom)
- Singapore Food Agency (Singapore)
- Gent University (Belgium)
- WUR (The Netherlands)

Highlights from Working Session

Social Drivers
- Consumer behaviour
- Demographic development
- Health and wellbeing

Technological Drivers
- Technologies in food production
- Technologies in food processing

Economic Driver
- Distribution

Environmental Drivers
- Environmental contamination
- Management of natural resources
- Bioprocesses

Political Drivers
- Legislation, policies and governance
- Geopolitical instability

FOODSAFER
•EVERYBODY'S BUSINESS•

The Team

The FoodSafeR consortium of 19 leading academic, research and industry organisations from across Europe, is led by FFoQSI.

FFoQSI is the Austrian Competence Centre for Food and Food Quality, Safety and Innovation. It is a multidisciplinary joint research hub that encompasses scientific, national and international business partners food safety authorities and stakeholders, technology SMEs and startups from the food system.

**The FoodSafeR** Advisory Board of 25 leading stakeholders from the food safety field gives us a global reach.

After a short introduction the participants were divided into 5 groups and sent into breakout rooms. Moderators awaited the participants in the breakout rooms and invited them to join the online whiteboard Mural. Each group used a pre-installed whiteboard template to discuss indicators for the subdrivers. The participants could write individual contributions, comment and add to other's contributions. The outcomes of the indicators for the subdrives of "Technologies in food processing"are presented below.
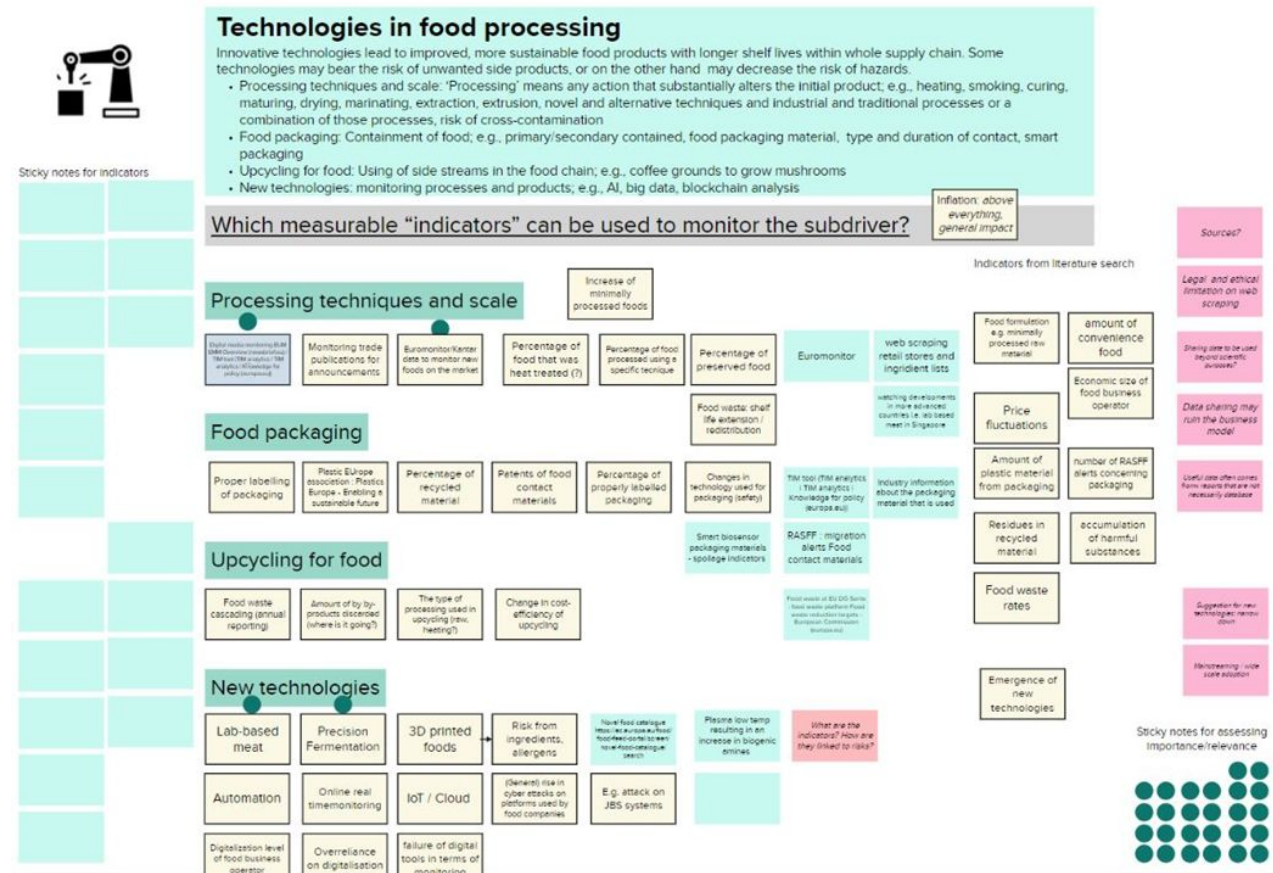
FOODSAFER
•EVERYBODY'S BUSINESS•

Working Session: The workshop outcomes were merged with the initial literature search conducted to arrive with a comprehensive list of the most relevant indicators and according databases. An example for technological drivers, their respective indicators and potential underlying databases is presented below. This list of indicators will be used as keywords in the open Digital Hub to search within a list of "DATABASES or WEBSITES".

Outlook: In the future, an alert system tool will be built in the open digital hub. This is a scalable tool that consists of an interactive dashboard that displays the real-time values of the indicators (based on the underlying data) so that users can follow the trends in the indicators via graphs. Users will also be able to set up the alerts feature so that they are notified if indicators move out of the normal range of values.

Driver	Subdriver	Indicator	Database
Technologies in food processing	Food packaging	Number of RASFF alerts concerning packaging	RASFF
	New digital technologies	Emergence of new technologies	
	Processing techniques & scale	Increase of minimally processed foods Amount of convenience food	
Technologies in food production	Bioengineering	Share of GMO cultivation / transfer of genetic traits	
	Cell-based food	Total cell-based food production / number of countries where cell-based food is approved for market entrance	
	Primary production	Total crop production: utilised agricultural area, harvested production	EUROSTAT
		Dairy food production	EUROSTAT
		Meat production	EUROSTAT
		Fishing & aquaculture production	EUROSTAT
		Indoor – outdoor production rates	
		Organic production: area, animal & crop production	EUROSTAT FAOSTAT
		Occurrence of dioxin and mycotoxins in feed	
	Products for food production	Veterinary drug use	EFSA reports
		Water use by agriculture	