

29 October, 13:00-17:00

FOOD SAFETY VULNERABILITIES IN A CIRCULAR ECONOMY

First Stakeholder Workshop

Stefan Haenen, Dimitri Weibel
(Prospex)

Trusted science for safe food



Agenda for today

13h00	Welcome and introduction
	'Food safety vulnerabilities in a circular economy' – presentation by EFSA and Q&A
	Literature research framework for the EFSA project – presentation by Harper Adams University and Q&A
	Identified emerging risks in novel food and feed from literature research – presentation by Harper Adams University and interactive discussion
	Identifying additional emerging risks in novel food and feed – brainstorm
14h45	BREAK
15h05	Emerging risk characterization methodology – interactive discussion
	Future stakeholder engagement for the EFSA project (mapping and activities) – presentation by Prospex and interactive discussion
	Final discussion on stakeholder engagement approach
	Next steps and wrap-up
17h00	END OF THE WORKSHOP

HOUSEKEEPING

- This session will be recorded for note-taking purposes
- Keep your camera on and remain muted unless speaking
- Chatham House Rule: free to use information, but no 'who said what'
- Your participation is key:
 - Please use the chat at any time
 - "Raise Hand" function if you want to take the floor

So please...

Write in the chat:

Your name and organisation

+

Where you are based



'Food safety vulnerabilities in a circular economy' – introduction to the EFSA project

Angelo Maggiore

Scientific Officer
Risk Assessment and Scientific Assistance Department
Scientific Committee - Emerging Risks Unit

Trusted science for safe food



Literature research framework for the EFSA project – presentation by Harper Adams University

Trusted science for safe food

A collage of images representing various aspects of food and agriculture, including tomatoes, peas, a cow, and a molecular structure, set against a background of colorful triangles and a network diagram.

A collage of three images. The top image shows two black and white cows in a grassy field under a bright sky. The middle image is a close-up of a cow's face, looking directly at the camera. The bottom image is a network diagram with a central house icon and many lines connecting it to other nodes, representing a network or data flow.

“By 2030, what do you think will be the most important trends in novel and circular food and feed?”

Please click on link in the chat!



Identifying additional emerging risks in novel food and feed – brainstorm

Trusted science for safe food

Considering the presentation, are there any **additional** emerging risks in novel food and feed you see?

Digital flip charts

• x

• x

• x

What potential emerging risks do you see coming from this trends landscape in novel food and feed by 2030?

Digital flip charts

• x

• x

• x

BREAK TIME!

BACK IN PLENARY AT **xx:xx!**



Emerging Risk Characterization Methodology – interactive discussion

Trusted science for safe food

Generalities

- type of emerging risk (new hazard, increased exposure);
- type of biological, physical and chemical hazards in food, feed or in the environment;
- in case of application of products on/in environmental matrices: type, amount and frequency of application of products, e.g. sludges on soil;
- food/feed products, plant or animal species that are at risk;
- locations within a supply chain where new and emerging risks are most likely to emerge;
- area in the EFSA's remit.

Available data underpinning the definition of emerging risk

- Available data underpinning the definition of emerging risk
- available (eco)toxicological, bioaccumulation and environmental accumulation, epidemiological, biomonitoring (e.g. HBM4EU project), consumption and occurrence data;
- severity, duration and frequency of the expected effects on human, plant and animal health,
- description of the exposure pathways;
- interactions with other contaminants and possible additive effects.

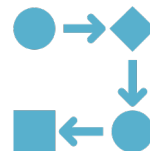
Available risk management and reduction measures

- monitoring systems/programs, practices to lower or eliminate the contamination risks,
- possible solutions to achieve a safe circular economy practice / technology etc
- existing international/national regulations/guidelines

Other qualifying criteria

- impacts on economy, environment, social aspects, and food security,
- scale (local, national, regional, European, global),
- evidence base,
- available detection methods
- strength of the association with circular economy imminence
- parallels and interactions with other areas and emerging issues
- data gaps and research needs, including needs for new analytical approaches

Discussion questions



How would you see this methodology being implemented? What would be the format?



Which areas (information sources, data types, etc.) – should we be looking for to spot / identify 'new' emerging risks?



Future stakeholder engagement for the EFSA project – stakeholder mapping approach

Trusted science for safe food



- Identify relevant stakeholders that can contribute to the project.
- Categorise stakeholders to offer a comprehensive overview of players in the field of circular economy.
- Enable a broad diversity of perspectives into the project, thus improving the richness of contributions and research outputs.
- Support the research team and the partners' network in the identification of emerging risks, notably by highlighting stakeholders' interests and potential contributions to the project.
- Lay the groundwork for future stakeholder engagement plans and enlarging of the EFSA network

- 'Circular food/feed economy': broad scope
 - Many ancillary topics: resource efficiency / avoiding & reducing food waste / local food chains / climate neutrality / regenerative agriculture / ...
 - Food/feed + environment/climate
 - EU AND international
- Foresight process and need to detect 'unknown unknowns'

⇒ How to make this mapping comprehensive, yet targeted and practical?

⇒ How to introduce some fluidity in the design?

Mapping structure

Figure 1: Criteria 3 - Value circle of actors' expertise in the food/feed circular value chain, based on FAO (2014)¹³

Criteria	Sub-criteria
1. Geographical Scope	EU/International
2. Organisational affiliation	Farmers and Primary Producers /Businesses/Environmental/Health NGOs /Consumers/Academia and Research /Public Institutions/Others
3. Expertise in the CE value chain	Production / Aggregation & Processing / Distribution/Consumption/Recycling & Waste Management /Regulation & Policy/Research / Others
4. Action Scope	Human health (food); Animal Health (Feed) / Environment and climate
5. Expertise in emerging risks	Macro-areas and CE practices from literature research framework
6. Contribution to the project	<qualitative description>
7. Engagement in the project	Yes/No



In the blue inner circle: Practitioners
In the green outer circle: Regulatory, Policy and Research Actors

Multi-methods approach:

1. Desk research based on mapping structure
2. Interviews (project + mapping discussion)
3. Expression of interest

⇒ Results

- 9 organisations interviewed
- Many recommendations for mapping areas (cities; organic sector; animal health and pharma; feed ingredients; upcycled food and feed ingredients; raw meat in pet food; (bio/biodeg) plastics in agriculture, etc)
- 320 stakeholders mapping (60 existing, 80 call for STKs)



Future stakeholder engagement for the EFSA project – stakeholder engagement approach

Trusted science for safe food

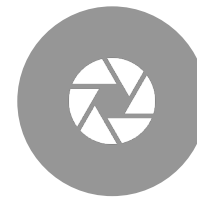


- Identify potential emerging risks for food and feed safety and the environment in the transition to a circular economy
- Identify challenges / synergies / opportunities / conflicts in the context of environmental and food safety risk assessment activities
- Develop principles and strategies for integrated risk assessment approaches

Three pillars



1. EMERGING RISK
OBSERVATORY AND
STRATEGIC
FORESIGHT



2. INTEGRATED
RISK ASSESSMENT
APPROACHES



3. RISK PERCEPTIONS: CITIZEN
ENGAGEMENT/SOCIAL
ACCEPTANCE

1. Emerging risk observatory and strategic foresight

Workstreams:

- A: Expanding the horizon – building longer-term perspective and preparedness
- B: Risk identification
- C: Characterization

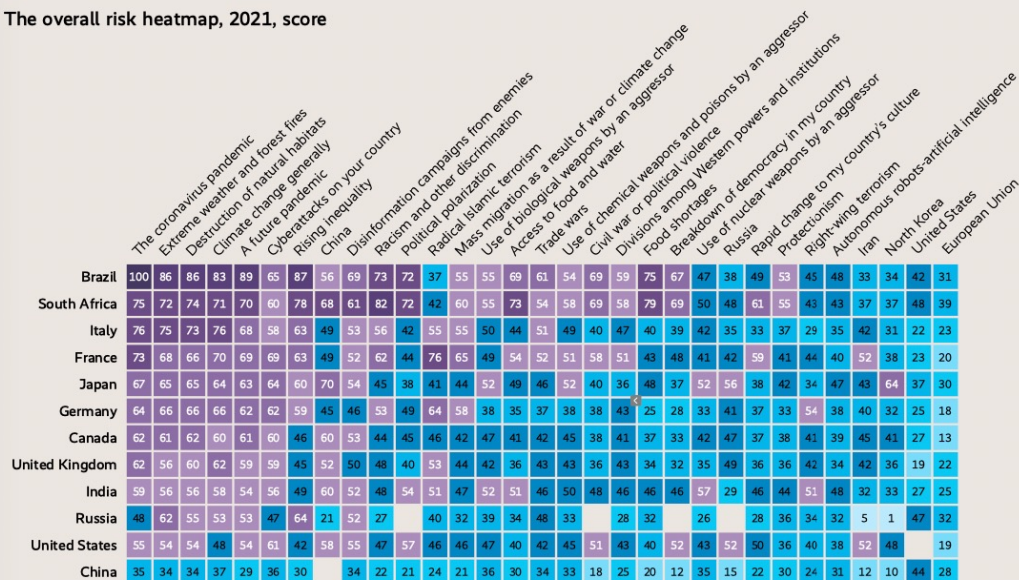
Timing for activities: short-term start-up + continuous

Outcome: emerging risk heatmap (living document / publication) and set of strategic scenarios



Example of heatmap – Munich Security Report 2021

The overall risk heatmap, 2021, score



*In the United States, China, and Russia, citizens were not asked to assess the risk from their own country.

In Russia, citizens were not asked about "political polarization," "civil war and political violence," or the "breakdown of democracy."



- ⇒ Building longer-term perspective and preparedness
- ⇒ Participatory scenario development process (exploring alternative futures for the circular food/feed economy)



Planning for the unexpected



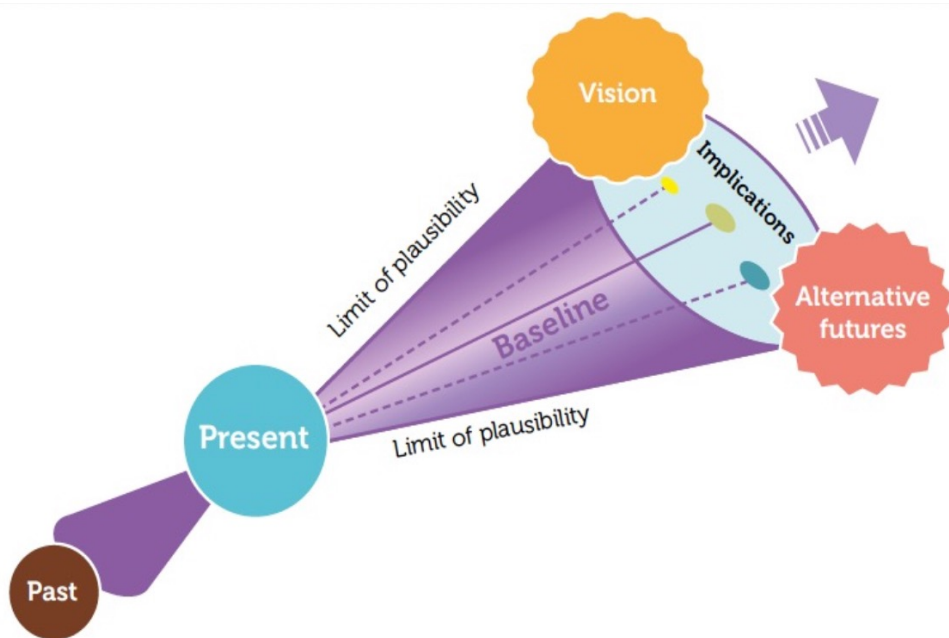
9/11 Commission report:

- “the most important failure was one of imagination”

Royal Academy (LSE) on the '08 financial crisis:

- “the failure to foresee the timing, extent and severity of the crisis and to head it off (...) was principally a failure of the collective imagination of many bright people (...) to understand the risks to the system as a whole”





Scenarios – key characteristics

- About what can happen to us (CONTEXT / SYSTEM), NOT about what we can do (STRATEGY / OPTIONS)
- About POSSIBILITY, NOT plausibility
- About 'Alternative Futures', NOT about good/best ('vision') or bad/worst

Visual source: Future Motions (2018)



Multiple ways to identify risks for future characterization

- ⇒ Continuous: via crowd-sourcing survey
- ⇒ Ad hoc: from existing stakeholder network
- ⇒ Ideation: emerging risk identification workshops with new external stakeholders (using scenarios)



- ⇒ Select identified emerging risks
- ⇒ Analyse and validate selected emerging risks – implement methodology

Activities:

- Ad hoc expert working sessions
- ...



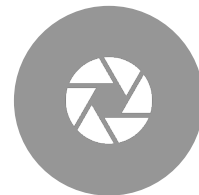
2. Integrated risk assessment approaches

Objectives

- Distil from characterisation process key challenges, opportunities, synergies, and detected potential conflicts between food safety and environmental risk assessments
- Explore ways of addressing these in the context of environmental and food safety risk assessment activities
- Develop principles and strategies for integrated risk assessment approaches

Activities: high-level / closed-door workshops

Timing for activities: medium to long-term



3. Risk perceptions: citizen engagement/social acceptance

Objectives

- Assess and address citizen concerns
- Distil drivers for resistance and barriers to acceptance
- Identify success ingredients for societal acceptance

Activities: citizen labs (localised, e.g. at food fairs), school / student / youth engagement, etc.

Timing for activities: long term



- Additional interests identified:
 - Expertise pooling/capacity building with external experts
 - Best practice exchange (safety of procedures): site visits, etc.



Final discussion on stakeholder engagement approach

Trusted science for safe food

To what extent do you believe the strategy presented will be adequate to identify emerging risks and CE practices?

To what extent do you believe the strategy presented will be adequate to address foresight and different futures?

Please click on link in the chat!



European Food Safety Authority

STAY CONNECTED!



Subscribe to

www.efsa.europa.eu/en/news/newsletters

www.efsa.europa.eu/en/rss



Engage with careers

www.efsa.europa.eu/en/engage/careers



Follow us on Twitter

[@efsa_eu](https://twitter.com/efsa_eu)

[@plants_efsa](https://twitter.com/plants_efsa)

[@methods_efsa](https://twitter.com/methods_efsa)