EMERGING RISKS EXCHANGE NETWORK (EREN)
Minutes of the 32nd meeting

29-30 October 2024
09:00-17:30 / 09:00-13:00
Minutes agreed on 20 November 2024

Location: EFSA - Parma (Meeting Room 00/M09)/Webconference

Attendees:

- Network Participants:

Country	Organisation
Austria	Austrian Agency for Health and Food Safety (AGES)
Belgium	Federal Agency for the Safety of the Food Chain Control Policy
Belgium	University of Liege
Bulgaria	Risk Assessment Center on Food Chain (RACFCH), Ministry of Agriculture
Croatia	Croatian Agency for Agriculture and Food (HAPIH)
Cyprus	State General Laboratory
Czech Republic	Ministry of Agriculture of the Czech Republic
Denmark	National Food Institute
Estonia	National Centre for Laboratory Research and Risk Assessment (LABRIS)
Finland	Finnish Food Authority
France	French Agency for Food, Environmental and Occupational Health & Safety (ANSES)
Germany	Federal Office of Consumer Protection and Food Safety (BVL)
Greece	Hellenic Food Authority - Directorate of Risk Assessment & Nutrition
Hungary	University of Veterinary Medicine
Ireland	Food Safety Authority of Ireland
Italy	Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna
Latvia	Institute of Food Safety, Animal Health and Environment "BIOR"
Lithuania	National Food and Veterinary Risk Assessment Institute
Luxembourg	Luxembourg Veterinary and Food Administration - ALVA
Netherlands	Netherlands Food and Consumer Product Safety Authority (NVWA)
Norway	Norwegian Food Safety Authority
Poland	National Veterinary Research Institute
Portugal	ASAE - Autoridade de Segurança Alimentar e Económica
Slovak Republic	Food Safety Authority - Ministry of Agriculture and Rural Development

Country	Organisation
Slovenia	Ministry of Agriculture, Forestry and Food Administration of the Republic of Slovenia for Food Safety, Veterinary Sector and Plant Protection
Spain	Departamento de Patología Animal, Facultad de Veterinaria, Universidad de Zaragoza
Spain	Spanish Agency for Food Safety and Nutrition (AESAN)
Sweden	Swedish Food Agency

- Observers:
  Switzerland: Federal Food Safety and Veterinary Office Switzerland;
  Bosnia Herzegovina: Food Safety Agency of Bosnia and Herzegovina; Montenegro: Institute for Public Health; North Macedonia: Food and Veterinary Agency; Serbia: Ministry of Agriculture, Forestry and Water Management, Veterinary Directorate; Türkiye: General Directorate of Food and Control, Dept. of Risk Assessment; CFIA and Food and Nutrition Directorate Canada; FAO; WHO; FSANZ and Ministry for Primary Industries New Zealand.

- European Commission/Other EU Agencies representatives:
  DG SANTE; EEA, ECDC; EC SCHEER; ECHA.

- EFSA:
  KNOW Unit: Bernard Bottex (Chair), Milen Georgiev, Aurore Czerwiec, Raquel Garcia Mattas, Georgia Gkrintzali, Aikaterini Vlachou,
  Marina Mukhamadieva (EFSA contractor, D-fine)[1]
  PREV Unit: Marco Binaglia, Mathilde Colas [2]

1. Welcome and apologies for absence

Bernard Bottex (Chair) opened the 32nd EREN meeting in Parma, greeting both on-site and virtual attendees. He emphasized the significance of scientific collaboration and welcomed new members and observers from Finland, Slovenia, Sweden, EEA, ECHA, Canada's Food and Nutrition Directorate, and IPA[3] countries including Bosnia Herzegovina, Montenegro, North Macedonia, Serbia, and Türkiye. Participation guidelines were clarified. Apologies were noted from Malta and Romania.

2. Adoption of agenda

The agenda was adopted without changes.

[1] Attended agenda point 5.6.4
[2] Attended agenda points 4.4-4.11
[3] Overview - Instrument for Pre-accession Assistance - European Commission

3. Follow up from previous meeting

3.1. Updated Briefing Notes, ERAP updates, ToR, Definitions, Newsletter, Onboarding Sessions

Participants were briefed on the classification and updates of Briefing Notes (BN) since the 31st EREN meeting. A short discussion on new survey features in ERAP and access issues related to the EU survey alternative for gathering input on topics for assessment ensued. Updates to the Terms of Reference (ToR) were announced, ready for later discussion and approval. The definitions on emerging risk were reviewed but further mapping out on the usage by others may be necessary. The upcoming third issue of the emerging risk newsletter and a recent onboarding session for new EREN members on 25 September 2024 were noted. The 31st EREN meeting minutes were approved through a written procedure by 20 June 2024 and published on the EFSA website the following day.

4. MSs signals and updates

4.1. Foodborne infections caused by *Edwardsiella tarda*

A presentation from Germany informed about foodborne infections caused by *Edwardsiella tarda*, predominantly in tropical and subtropical regions, highlighting the risk associated with aquaculture fish production and climate change. The survey results indicated an increase in the exposure. Changes in the detection methods, clinical awareness, and certain drivers like consumption of raw fish might increase the reported cases. The discussion outlined the potential emergence of *Edwardsiella tarda* as a foodborne pathogen, with concerns about its actual prevalence in fish and sea food at retail levels. The need for more data on prevalence, the situation in EU, especially human cases, and the agreement to classify this topic as needing further information were noted.

4.2. Foodborne outbreaks caused by Yersinia spp.

Foodborne outbreaks caused by Yersinia spp., were also discussed, with Germany observing an increase in case numbers, with most outbreaks being small and occurring in private households. The identification of sources of infection and exposure pathways were highlighted as major challenges. Different countries reported varying trends, with some experiencing stability and others noting increases. It was referred that data collection in Europe might be inconsistent as surveillance for yersiniosis is not mandatory. The impact of diagnostic methods, including PCR, on reporting rates is acknowledged. Some countries suggest potential climatic influences, trade or shift in the population food choices as factors to consider. There was a perception of increased exposure, although no new drivers were identified by the experts. Further studies are needed to understand better the increase in cases, whether linked to specific food matrices and consumption pattern, improved diagnosis, exposure routes, or new populations at risk. The group concluded that more data are needed for a further assessment and suggested

classifying this topic as further information needed. EFSA will forward the signal to the BIOHAZ Panel (as the last opinion was in 2007).

4.3. Red Dwarf Honeybee

Cyprus reported the detection of the red dwarf honeybee (*Apis florea)*, in Malta, possibly introduced via commercial vessels. This species, smaller than the common western honeybee, is adaptable to various climates and could potentially compete with local bees and spread pathogens. Although there's no concrete evidence of its negative impact, the theoretical risks include competition and disease transmission. The identified colony in Malta has been eradicated, but vigilance for potential new colonies is essential. During discussions, opinions varied; some experts suggested the risks might be overstated, given the coexistence of European and *Apis florea* bees in Asia. Nonetheless, from a biodiversity perspective, preventive actions are recommended. Considerations such as possible economic implications and the non-aggressive nature of the bees were mentioned, with the primary concern being the introduction of novel parasites and viruses. A consensus emerged on the need for caution regarding this potential invasion, and therefore the issue was classified as an emerging risk, with recommendations to seek input from apicultural and biodiversity specialists for a thorough evaluation.

4.4. Suspected edible oil contaminated with industrial chemical substances

Ireland expressed concern over possible contamination of edible oils with industrial chemicals, resulting from malpractices in China's soybean oil sector. It was suggested that trucks used for transporting both petroleum products and edible oils might not be adequately cleaned, risking contamination with substances like benzene, heavy metals, and mineral oil hydrocarbons. Although this hazard isn't new, it's gaining attention due to the increased number of reports for improper tanker use. The problem seems to direct on risk management, particularly import controls and food fraud. The need for tighter controls, and further analysis to gauge the problem's scale was emphasized. Identifying chemical markers for industrial contaminants in edible oils is crucial. With emerging analytical methods to detect mineral oils at low concentrations and ongoing discussions about options for wider use, EFSA highlighted the importance of communication with stakeholders like FEDIOL to prevent such fraudulent activities. The network also mentioned the environmental concerns of inappropriate oil recycling. The consensus was the necessity for more information, and the suggestion to flag this issue to the European Commission's Food Fraud Network.

4.5. Chlormequat found in urine of US consumers

Chlormequat, a plant growth regulator, has been detected in increasing quantities in urine samples in US, with a notable increase in 2023. The substance, reviewed by EFSA in 2016, is approved for use in food crops like wheat, oats, and barley in the EU, UK, and Canada. However, the increased detection in urine samples, particularly in the US, has raised questions about potential changes in exposure levels. The majority of the participants concluded that chlormequat is not an

emerging risk, given the existing regulation and residue monitoring in place. The increase in detection rates in the US was noted but is not fully understood, and no similar data for Europe are available. The briefing note with final status "not emerging risk" will be kept in the repository for the time being.

4.6. 3-MCPD in pre-fried foods

A recent NGO study has detected 3-MCPD, a potential carcinogen and kidney damaging in animals, at concerning levels in pre-fried foods, such as frozen fish sticks. According to the study results, a child weighing 30 kg may surpass the TDI for 3-MCPD with just five fish sticks. This prompts a review of whether the presence of 3-MCPD in such foods is underestimated and if monitoring and regulatory measures should be updated. Currently, 3-MCPD is checked in oils, and its increased levels in fried foods could indicate higher exposure. The surveys responses underlined that 3-MCPD was previously assessed by EFSA and a TDI has been defined. Practices aiming at reducing as much as possible to the presence of this substance in food have also been put in place by the food sector. Still, Member States were invited to collect data on 3-MCPD in pre-fried foods and consumption trends to decide whether a refinement of the exposure assessment is needed. The briefing note was therefore categorized as 'further information needed'.

4.7. Risks of home composting

The topic of home composting was brought up by Hungary, pointing out potential risks associated with improper composting practices, such as bacterial contamination and attraction of pests. While home composting can be beneficial, guidance and regulations on safe usage, especially when compost is used for growing food crops, were deemed necessary. The members of the network acknowledged these risks but emphasized that they are not new and proper education on composting methods could mitigate them. The consensus was that while more convincing information towards risk might be needed, home composting should not currently be classified as an emerging risk. The topic could be revisited if new data suggests a link to health outbreaks.

4.8. Sucralose

The EREN discussion on sucralose centred around new studies suggesting potential adverse effects, such as genotoxicity, inflammation, oxidative stress, and a decrease in immune functions. It was referred that, although the studies were conducted on mice with higher doses than typical human consumption, these findings have prompted a re-evaluation of sucralose's safety, currently undertaken by EFSA. Survey responses weighed in, indicating that while sucralose is under review, no new target groups for adverse effects have been identified, and some information on chronic effects and dietary assessment is missing. The conclusion drawn was that sucralose is not classified as an emerging risk, pending ongoing assessment by EFSA, with results expected by mid-2025.

4.9. Gluten migration from biodegradable Food Contact Material

EREN discussed the potential risk for individuals with celiac disease or gluten sensitivity related to the increased use of bio-based and biodegradable food contact materials, some of which contain gluten. A study showed that gluten can migrate into food, depending on the properties of both the food and the food contact material, as well as the contact duration between the material and the food. Currently, the regulations do not require mandatory allergen labelling for food contact materials, which may constitute potential risk for uninformed consumers with gluten-related health issues. The experts providing feedback in the survey have recognized that while gluten as an allergen is not new, its migration from these new materials may constitute a novel hazard. The network identified a need for further investigation into the level of gluten migration and its health impact. The majority agreed that this issue should be considered an emerging risk due to the potential increased exposure from these materials and the lack of consumer information. The recommendation directed on the necessity for proper information/labelling to manage the risk effectively.

4.10. Research shows vertical transmission of Salmonella Reading in breeders

Salmonella Reading has been subject in the United States of America of multi-state outbreaks associated with contaminated turkey products and contact with turkeys. Research suggested that Salmonella Reading can colonize the reproductive tissues of breeder hens and may potentially transfer vertically to eggs, although confirmation under real conditions is needed. The survey responses indicated that while Salmonella Reading is not a new hazard and its prevalence in Europe is currently low, the situation in the US is of concern and warrants attention. The conclusion was that more information is needed on Salmonella Reading, particularly evidence of vertical transmission at production environment and its impact on human health. The topic is not currently a priority for monitoring in Europe, and few human cases have been reported in the past. However, due to the potential risk and outbreaks in the US and Canada, there was a suggestion to monitor such cases and distribution of new turkey-adapted lineage.

4.11. Trifluoracetic acid (TFA)

TFA is a derivative of hydrofluorocarbons and PFAS used in refrigerants, pharmaceuticals, and pesticides, and recently found in water sources. EFSA, in 2019, deemed TFA safe as a pesticide metabolite, but new findings on reproductive and developmental risks have prompted a re-evaluation. Despite the US's plans to phase out hydrofluorocarbons, finding alternatives remains a challenge. EFSA has received a mandate from the European Commission to review the health-based guidance value for TFA, and a classification proposal is being prepared by the European Chemical Agency (ECHA), which will likely impact the approval of active substances forming TFA as a groundwater metabolite. EFSA's pesticide unit indicated that various pesticide active substances produce TFA as a metabolite in soil and groundwater. After obtaining more robust toxicological data, including

studies in rabbits showing adverse teratogenic effects, EFSA derived an acceptable daily intake. EFSA has launched a targeted call for data to reassess toxicological reference values for TFA, and the classification as reproductive toxicity 1B is under discussion at ECHA. The issue of TFA is therefore on the radar of EFSA, with a review of new information concerning developmental toxicity. The broader exposure to TFA from various water and soil sources was noted, and it was proposed to flag TFA as an emerging risk, with the caveat that the ongoing evaluation and follow-up is already in progress.

4.12. Oriental fruit fly (*Bactrocera dorsalis*)

The Oriental fruit fly, *Bactrocera dorsalis*, is a significant threat to agriculture due to its ability to feed on over 500 species of fruits and vegetables. The fly, native to Southeast Asia, has been expanding its reach in Europe since the 2000s. The larvae of the fly cause extensive damage to crops, potentially leading to total harvest loss. In the European Union, *Bactrocera dorsalis* is classified already as a harmful pest and listed as a regulated quarantine organism. EU countries are required to implement stringent import controls, enhanced surveillance, and effective pest management strategies. Some experts noted that global warming and international travel could be drivers of the pest's propagation and extended exposure. The survey responses outlined that while the agricultural threat from *Bactrocera dorsalis* is well-known, it is already recognized as a priority pest in EU legislation, with measures in place to prevent its spread. The pest is also regulated in the USA and has been the subject of significant analysis and management efforts. The consensus among experts was that *Bactrocera dorsalis* is not an emerging risk as it has been monitored and managed throughout Europe.

5. EFSA and EREN activities

5.1. Improvement in detection and analytics of citrinins

Germany presented an update on the improvement in the detection and analytics of citrinins. Citrinin is a mycotoxin produced by several species of fungi, including Penicillium and Aspergillus, and is commonly found in various cereals, posing a potential health risk due to its suspected carcinogenic properties and toxicity to the kidney and liver. The key points discussed in the meeting regarding the improvement in detection and analytics of citrinins included:

- The progress made in analytical methods to detect citrinin in food and feed. This includes advancements in testing procedures that allow for more accurate and sensitive detection of citrinin levels.
- The need for better understanding of the occurrence and distribution of citrinins in the food chain, which requires comprehensive surveillance and monitoring data.
- Consideration of the potential presence of citrinins in new or previously under-investigated food matrices, which may have emerged due to changes in food production, processing, or consumption patterns.

The presentation emphasized the importance of continued research and collaboration to enhance the detection and analysis of citrinins, ensuring food safety and protecting public health. The discussion also highlighted the challenges in the field and the

necessity for ongoing methodological advancements to address the evolving landscape of mycotoxin risks. More toxicological data are needed to derive a Health Based Guidance Value (HBGV) for citrinin.

5.2. Re-emergence of pathogens and vectors in Belgium

During the 32nd EREN meeting, a discussion took place regarding the re-emergence of pathogens and vectors in Belgium. The key points of this discussion included:

- The observation of an increase in cases of certain vector-borne diseases and the re-emergence of pathogens that pose a public health concern.
- An examination of the factors driving the re-emergence, which may include climate change, global travel and trade, urbanization, and changes in land use and agricultural practices.
- The identification of specific vectors, such as mosquitoes and ticks, that are responsible for transmitting diseases to humans and animals, and the monitoring of their spread and establishment in new geographical areas.
- The importance of surveillance and early detection systems to track the spread of vectors and the diseases they carry, enabling timely public health interventions and preventive measures.
- The discussion of specific cases and outbreaks that have occurred in Belgium, highlighting the need for a One Health approach that considers the interconnectedness of human, animal, and environmental health.

The discussion underlined the necessity for continued vigilance, research, and cross-sectoral collaboration to address the challenges posed by the re-emergence of pathogens and vectors, and to mitigate their impact on public health and agriculture.

5.3. KOZO": the coordination group against zoonotic threats in Denmark

Denmark shared information about the KOZO coordination group, which is a collaborative effort aimed at addressing zoonotic threats. The key points discussed about KOZO included:

- The group's objective to prepare and coordinate responses to zoonotic outbreaks that could potentially affect public health.
- KOZO's composition, which includes experts from various Danish health authorities, veterinary authorities, and other relevant agencies.
- The emphasis on proactive measures and information sharing among different sectors to enhance preparedness and outbreak control.
- The group's role in facilitating rapid communication and problem-solving during zoonotic disease emergencies.

The KOZO coordination group represents Denmark's commitment to a One Health approach, ensuring effective management of zoonotic threats through interdisciplinary cooperation.

5.4. Cryptosporidium contamination of drinking water - Potential for topic development

Spain reported about lessons from the outbreak of gastroenteritis linked to Cryptosporidium in river water in 2023, affecting about 500 individuals with symptoms such as diarrhoea and fever. Local authorities halted the use of the contaminated water and eventually resolved the outbreak with ultraviolet radiation treatment. Cryptosporidium, a faecal-oral transmitted parasite, is a global public health issue, capable of causing significant waterborne and foodborne outbreaks. It is resilient in the environment, often found in high concentrations in surface water, especially from livestock-rich regions. Contamination risks increase with environmental factors like heavy rainfall and inadequate water treatment. The case underscores the urgency for effective water treatment, monitoring, and understanding environmental contamination risks to safeguard public health. EFSA has previous notes from 2013 that could be revisited and updated in light of recent events.

5.5. Project proposal on chemical risks related to alternative protein products

Hungary presented the idea of Content Food project, proposed by the University of Veterinary Medicine in Budapest, to examine contaminants in meat substitutes. The project, aiming for funding from Hungary's HuRyzen fund, requires international collaboration. It will focus on a selection of chemical contaminants such as acrylamide, 3-MCPD, polycyclic aromatic hydrocarbons, and metals in plant-based and other alternative proteins. Due to limited resources, mycotoxins are not included in the project. The growing consumption of meat alternatives for health and environmental reasons brings the need to understand potential risks. Interest in collaboration has been shown by Sweden, Portugal, and potentially few other EREN members. The project plans to conduct comparative research across countries on food products derived from wheat, beans, soy, mycoprotein, and insects, starting with market analysis and literature reviews. It comprises three main components: creating a chemical contaminant database and knowledge graph, conducting sampling and analysis, and performing risk assessments. Findings will be shared through publications. The team intends to initiate the project in January of the next year for a three-year duration, pending funding approval or exploring alternative funding options if needed.

5.6. EFSA updates on projects

5.6.1. Emerging chemicals, Ocean

The EFSA technical report "Emerging chemical risks in food and feed" [4] was published in August 2024; it reviews EFSA's activities on emerging chemicals from 2020-2023, evaluates the current identification process, and discusses collaborative actions for a sustainable identification system and improved information sharing in the wake of new early warning system regulations. Further, a hybrid workshop took place on

[4] https://www.efsa.europa.eu/en/supporting/pub/en-8992

September 26th-27th, 2024, focusing on the EFSA's identification of emerging chemicals and enhancing information exchange with stakeholders. The discussions from the workshop will inform the development of an early warning system for emerging chemical risks, as part of the new legislative proposals on chemical assessment. Participants included 11 in-person representatives from various EU institutions and member states, alongside approximately 30 online attendees. Further actions include creation of a Working Group (WG) to define better relevant terminology in the context.

The "Exploring the Future of Ocean Resources and Their Impact on Food and Feed Safety" project is complete, with the report now available on the web[5]. Briefing notes on potential food and feed safety issues are detailed in appendix H of the report. The notes will be consulted with subject matter experts before they undergo an environmental scanning process.

5.6.2. Food supplement

During the meeting, an update was offered about the Focal Points Food Supplements tailor made activity including an update on the progress and expansion of the community involved in the project, with new observer-participants from Greece, Romania, Croatia, Slovenia, Hungary, Latvia, and Sweden. The project focuses on two main work packages: i) the review of case reports from monitoring/ nutrivigilance systems associating consumption of food supplements other than vitamins and minerals and adverse health effects, and ii) making use of the EFSA Compendium of Botanicals, identify the substances naturally occurring in plants and predicted to be toxic, trace back in which plant parts these substances are found, and whether these substances are present in food supplements made out of these plants and marketed in Europe. There were technical questions raised about the applicability domain challenges with natural substances and the confidence in QSAR predictions. The results of this QSAR analysis and a report describing in detail the methodology applied will published end of this year or early 2025. The Network will be regularly updated on the project's progress and potential emerging risks identified.

5.6.3. Food fraud

The nearly complete project has developed a computational model to filter from food frauds notifications, those more likely to be of food safety concern. The project established a system to analyse food fraud incidents, focused on government data, excluding private databases. It involved reviewing data sources, extracting and structuring data, creating and refining the model, and applying it to identify risks. Over 160,000 incidents from 186 countries informed the model, using techniques like logistic regression to predict food fraud in specific commodities and regions. Hosted in EFSA's innovation zone, the model helps prioritize fraud issues for food safety. A final report will document the methodology, and the model is intended to be integrated into EFSA's systems. The model's accuracy has been validated using historical data and blind tests, ensuring its effectiveness in highlighting fraud with priority in safety concerns; it will be presented to the European Commission Food Fraud Network in November 2024.

[5] https://efsa.onlinelibrary.wiley.com/doi/abs/10.2903/sp.efsa.2024.EN-9058

5.6.4. Emerging risk analysis platform (ERAP)

The meeting covered the latest progress on the Emerging Risk Analysis Platform (ERAP), noting new features like a survey tool and streamlined briefing note creation, informed by user feedback. There are also available helpful guidance materials such as training videos and a user guide within a collaborative Teams space, with plans to keep these resources current and a growing Q&A section. Now that the main development of ERAP has finished, efforts will concentrate on user support and evaluating feedback. Technical issues are being addressed with ongoing service desk support, and users are encouraged to suggest further improvements. Participants were encouraged to systematically use the platform from now on.

5.7. HOLiFOOD updates

The Holifood project focuses on preparing for future challenges in food safety by conducting research and demonstrating outcomes through three supply chains: poultry, meat, and legumes, primarily lentils. The project involves creating prediction models using various data sources, including EFSA data on food safety outcomes and data on drivers that influence these outcomes. The consortium has developed models to predict food safety outcomes based on monitoring data and identified drivers, with a Delphi panel selecting meaningful data sources. The initial results indicate that factors such as control systems, corruption indexes, and government effectiveness are key drivers influencing food safety outcomes. The project is moving towards validation and future prediction work. Additionally, text mining exercises have been conducted, with feedback from stakeholders on the visualization of outcomes. These exercises will also expand to scientific publications and other sources. A significant component of the project is holistic risk assessment, which aims to combine health risks, nutritional benefits, environmental impacts, and economic dimensions into decision-making. Different aggregation methods are being explored across the three supply chains: conventional risk-benefit assessment for maize, multi-criteria decision analysis (MCDA) for lentils, and monetization for poultry. A position paper has been published outlining the methodologies for holistic risk assessment in food safety, discussing challenges and benefits. The next steps involve applying these methodologies to the supply chains, with preliminary results on lentils considering climate change, dietary shifts, and government subsidies, and on poultry factoring in microbiological hazards, chemical hazards, nutritional benefits, environmental impacts, and economic dimensions. The presentation concluded with an invitation for network members to participate in validation and provide feedback on the project's tools and dashboards through online meetings. The project looks forward to sharing results on emerging risk predictions.

5.8. MPI New Zealand Food Safety updates

MPI, New Zealand Food Safety updated on their emerging risks efforts, highlighting the importance of internal and external collaboration for food safety risk management. New Zealand's approach is based on shared responsibility between regulators and the food industry, leading to the creation of a fortnightly public report for informing businesses. This report, running for nine months, aggregates data from various sources, including scientific literature and databases like RASFF, covering outbreaks and product recalls. However, the modern influx of recycled and AI-

generated content presents challenges to maintaining an effective information scanning system. To combat this, New Zealand Food Safety collaborates with domestic partners like the Ministry for Primary Industries and Food Standards Australia New Zealand, aiming to enhance efficiency and informed decision-making. They also referenced the annual Foodborne Illness Report, which contributes to their foresight activities by analysing microbiological hazards. Expressing appreciation for the collaborative community, they suggested sharing New Zealand's food safety reports on platforms like FoodSafeR to promote global awareness and collaboration. Participants of the meeting were invited to provide feedback on MPI reports.

5.9. FAO updates

FAO presented updates on the organization's work in food safety foresight, highlighting the rapidly changing global agri-food system due to various drivers like climate change, globalization, population growth, urbanization, and scientific advancements. He emphasized the importance of foresight as a proactive approach to address future challenges and opportunities, rather than predicting the future. FAO has an internal network across multiple disciplines and external partnerships worldwide, including with EFSA. A report on FAO's foresight process was referred as accessible on their website[6].

Key updates included:

- Changing Food Consumption Patterns: FAO is monitoring shifts in consumer attitudes towards food safety, environmental impact, and animal welfare. Trends towards plant-based products, precision fermentation, and 3D food printing are noted, with a meeting report on these topics published recently.
- Food Safety Hazards with New Foods: While many hazards in new foods are similar to conventional foods, specific issues arise from the transformation of well-characterized raw materials into significantly different end products. Regulatory foresight and international standards may need updates to address these new food safety issues.
- Circular Economy and Food Safety: FAO's report and technical briefs cover four case studies: water recycling, plastics recycling in food packaging, food loss and waste as substrates for insect rearing, and integrated farming systems. These studies examine the food safety implications of optimizing resources and the transfer of pathogens between systems.
- Climate Change: FAO has published various documents on the topic, viewing it as a critical consideration for emerging risk identification.
- Environmental Inhibitors: FAO's work on methanogenesis and nitrogen inhibitors is gaining attention, especially regarding their residues in food and trade implications due to the lack of international food safety standards for these products.
- Personalized Nutrition: A report in finalization focuses on food supplements and functional foods, considering the interactions between supplements and pharmaceuticals, the safety of bioactive ingredients, regulation, and challenges of online purchases.

FAO concluded by reiterating the importance of identifying emerging food safety challenges proactively and the necessity of collaboration with partners like EFSA. It

[6] https://openknowledge.fao.org/handle/20.500.14283/cb8667en

was mentioned that while some issues may not require immediate regulatory action, it's crucial to start gathering evidence for future policy considerations.

6. Methodology

6.1. Bioavailability methods

Denmark presented some methodological considerations about bioavailability of nutrients, chemicals, and contaminants in foods, and the importance of considering how substances are absorbed and utilized by the body for risk assessment and excreted for risk assessment. The discussion touched on the latest research and methodologies in bioavailability studies, including in vitro and in vivo models and on consideration of the relevance of bioavailability data in risk assessment and the establishment and update of dietary guidelines. Denmark's input on bioavailability methods highlights the need for continued development and refinement of these techniques to ensure accurate and relevant health risk assessments. The presented examples referred to techniques developed by various manufacturers to enhance the bioavailability of curcumin, such as adding other substances like piperine from black pepper or creating complex formulations like liposomes, micelles, and phytosomes. These methods can significantly increase the absorption of curcumin compared to unformulated curcumin. There have been cases of liver injury associated with the consumption of curcumin supplements, particularly those with increased bioavailability. This has prompted regulatory actions in some EU countries, including Italy and France, where specific daily intake recommendations have been made, and warnings have been added to labels. The network raised questions about whether the techniques used to increase bioavailability should fall under the novel food regulation due to significant changes in the composition or structure of the food. There was also a suggestion that existing guidance values are based on curcumin with low bioavailability and may not be applicable to formulations with increased bioavailability. Overall, the discussion highlighted the importance of considering actual bioavailability when assessing the safety of a food or a food product.

7. Terms Of Reference (ToR) updates

EFSA presented the latest updates to the Terms of Reference, which serve as the foundational document outlining the scope, responsibilities, and procedures of the group or committee in question. These updates are intended to ensure that the ToR remain current and aligned with the latest scientific developments, operational needs, and regulatory requirements. The updated ToR will guide future work, collaborations, and decision-making processes within the context of EFSA's mission to protect consumers and ensure food safety in the European Union. The ToR was reviewed, refinements suggested, texts discussed, and all updates endorsed. The resulting document will be sent to the Advisory Forum for final review.

8. StaDG-ER info

During the 32nd EREN meeting, EFSA provided information about the Stakeholder Discussion Group on Emerging Risks (StaDG-ER). Several critical issues were brought to discussion at StaDG-ER. The group delved into the potential foodborne transmission of Helicobacter pullorum and the presence of glass fibres in shellfish,

raising concerns about consumer safety. Discussions also revisited the topic of increasing rates of Mono-n-hexyl phthalate (MnHexP) and the expanding prevalence and host range of vector-transmitted bacteria 'Candidatus Arsenophonus phytopathogenicus' and 'Candidatus Phytoplasma solani,' known to affect sugar beets with the "Basses Richesses" syndrome. StaDG-ER discussed also updates offered via identification systems of participating stakeholders and related events. Various topics were brought up such as increasing mycotoxins levels in Europe, the emerging market of insect-based foods with reported labelling non-compliance for those sold online, the transmission of rat Hepatitis E Virus (HEV) to humans with pigs acting as intermediate host. The next meeting of the Stakeholders Discussion Group on Emerging Risks will take place in Brussels on 28-29 November 2024.

9. FoodSafeR session

FoodSafeR is a collaborative platform for the community dealing with emerging risks identification and environmental scanning in general. The associated digital hub offers a range of features, including a main dashboard to share activities and information, workspaces to collaborate on specific issues, and network section to identify relevant expertise and establish contact. , Users can post and participate in discussions, follow topics via hashtags, and stay updated with curated news feeds.

FoodSafeR is still in development, with planned enhancements including a wizard to guide users through the platform, improved governance, a code of conduct, and moderation features.

The presentation encouraged the EREN Members to register to FOODSAFER, explore the platform's capabilities, and contribute to the growth of the community by sharing feedback Support is available for any technical issues or questions.

10. Any Other Business

IPA countries who were participating for the first time to the Emerging Risks Exchange Network were invited to provide feedback on the meeting. Representatives expressed gratitude for the invitation to join the network and found the meeting very useful. They appreciated the opportunity to observe and learn about emerging risk identification, including consideration on new hazards, change in the exposure or susceptible population but also about challenges, and methods within the EU regulatory framework. IPA countries are interested in participating in projects as junior partners and are seeking guidance on data sharing through the network, specifically concerning foodborne diseases, residues, and veterinary medicinal products. Overall, the meeting was seen as beneficial for sharing experiences and knowledge that could be applied within their respective countries.

Estonia presented information on the proposed arrangements for 33rd EREN meeting in Tallin, Estonia, on 22-23 May 2024, which was endorsed by the network.

The chair summarised the key points of the discussion, thanked the participants both in-person and online, and closed the meeting.

Closure of the meeting