INTERVENTION BY PROF. SAMUEL GODEFROY

President, International Union of Food Science and Technology (IUFoST)
President and Chief Operating Officer, Global Food Regulatory Science Society (GFoRSS)
Professor, Food Risk Analysis and Regulatory Policies, Laval University, Quebec City, QC, Canada

OPENING REMARKS • Parallel Session VII: New Age Analysis in Food Testing • Global Food Regulators Summit 2024
21 September 2024, New Delhi, India

Your Excellencies, Distinguished colleagues and participants,

It is a pleasure to contribute to setting the context of this session dedicated to "New Age Analysis in Food Testing", as part of the Global Food Regulators Summit 2024.

Analytical methods used for food testing allow the identification and quantification of hazards thereby supporting Risk Assessment, a key component of food risk analysis, and thus decision-making.

When used for food control purposes, analytical methods are applied in the context of official or regulatory operations, meaning, in the context of compliance verification and possible enforcement activities, whether it be for domestically produced foods or foods traded internationally. They can also be used to support regular food monitoring activities, such as residue monitoring programs or to enable other critical surveys, such as the administration of a total diet study.

Analytical methods are also crucial to help us identify emerging food hazards or to investigate and even predict both food safety or food fraud incidents.

For this reason, analytical methods have to fulfill specific requirements of fit for purpose, robustness and validation in the food matrices of importance.

Method validation, method verification and operators' proficiency are only but some key conditions that food testing laboratories, particularly those operating in an official context, have to adhere to.

Food testing results and the way they are interpreted and then used to support food regulatory decision-making is another key consideration.

The availability of robust and trustworthy data stemming from food testing is a prerequisite to the use of such data in various disciplines of data science. Artificial intelligence supporting predictive methods would not be effective unless we start the process with the reliance upon robust data, including data resulting from food analysis.

Situations of trade disputes and disagreements in the context of compliance verification between the regulator and the regulated party are often related to discrepancies in food testing results, which emphasizes the importance to scrutinize:

1. Competencies and proficiency in food testing,
2. The selection and the performance of the analytical method, and
3. The sampling approach followed,

to cite a few considerations.

This brings to bear the importance of standardization and harmonization of analytical methods used in a global context.

To ensure that food testing and the analytical methods used for that purpose contribute effectively to the performance of food controls systems, I would like to share a few thoughts:

- Methods used for the purpose of food testing need to be applicable not only for confirmatory purposes, in the context of compliance verification, conformity assessment and enforcement but also to support preventive food (safety) management practices, meaning that we need methods to be used in process control, or methods applied in field settings with systems that are portable and rapid. Technology developments offer several solutions to address this need, such as biosensors or various portable spectroscopy approaches.
- We need to harness analytical methods to identify emerging hazards in food, for example, a contaminant identified in a food, where it is the least expected – process-induced chemicals come to mind – along with the identification of new pathogens, new toxins or new metabolites to known contaminants.
- Similarly, we need analytical methods to be developed to help identify and characterize novel foods and novel ingredients.
- Technology also needs to be put to use to enable data analysis and the application of predictive methods to support early identification of incidents, whether foodborne illness outbreaks or the next large food fraud event.
- Of course, efforts need to continue to standardize methods, and to invest not only in food testing infrastructure but also in food testing competencies and capacity building, as well as, in the development of collaborative networks and experience sharing, which would nurture a dynamic and highly reactive food testing environment.

The discussions we will have as part of today's session will contribute to unpacking some of these considerations and others. We will aim to learn from the experiences of institutions and countries whose contribution to food testing has been significant.

We are also fortunate to have with us key opinion leaders and experts, such as Dr. Clare Narrod of the Joint Institute of Food Science and Applied Nutrition (JIFSAN) and Mr. Raj Rajesekhar, Vice-Chairperson of Codex who will also contribute with their insights on this topic.

Once again, thank you for the opportunity to contribute to this Summit and to this theme in particular.