Communications methodology a breakthrough for social science at EFSA

EFSA’s new approach to communicating scientific uncertainties was made possible by fusing the expertise of social scientists, natural scientists and communicators. The experts’ knowledge of social research on people’s understanding of uncertainties and their ability to apply this in a food safety context was critical in developing this new communications methodology.

EFSA’s guidance on communication of uncertainties in scientific assessments provides a structured approach for tailoring information on uncertainties in food safety assessments to diverse audiences across Europe. Primarily intended for science communicators at EFSA, it is a companion to the more technical 2018 EFSA Scientific Committee guidance on uncertainty analysis in scientific assessments.

This comes as EFSA is integrating social sciences in its work, both to strengthen communication on complex scientific topics and to contextualise assessments, particularly in areas of public interest. We asked four of the authors of the guidance about this milestone and the significance for EFSA of cooperation between the “social” and “natural” sciences.

The guidance: practical advice, future research

Laura Maxim is a social researcher on uncertainty and chemical policies. She said: “To my knowledge, this is the first practical guidance on communicating uncertainty ever produced. It goes beyond the generalities previously proposed by other public authorities and academia, and provides specific solutions to the real situations being faced by EFSA’s communicators.”

Michael Siegrist, a professor of psychology specialising in consumer behaviours, echoed this point with a note of caution: “Our attempt to formulate evidence-based uncertainty communication is an important achievement. But for many of the practical questions we faced there is insufficient evidence available. I could well address some of these questions in my future research.”

Laura Maxim may also build on the experience in her academic work. “EFSA’s experience and practical needs can produce an impressive list of further research needs, as we have seen in the guidance. This is stimulating for researchers and for me in particular,” she added.

Linking up with EFSA ‘natural sciences’ assessors

Andy Hart is a biologist specialising in methodologies and tools for uncertainty analysis, with several years of experience as an assessor at EFSA. He said: “This work confirms that well-designed social science studies can provide us with valuable information on how people understand potentially complex scientific concepts like expressions of uncertainty.”

EFSA is providing training to its assessors – external experts and staff – to use the Scientific Committee guidance. “I will include findings from our review in future courses where communication of uncertainty is discussed, and recommend it for further reading,” he added.

“The interaction with natural scientists, like all interdisciplinary groups of scientists, breaks down barriers,” Laura Maxim said. “Time is limited so everyone has to be open and share their knowledge in an understandable way. It obliges us to write in a mutually intelligible way, resulting in clearer communications for readers of the guidance too.”

Putting the ‘social’ into regulatory science

Is there a future for social science at EFSA? Michael Siegrist thinks so. “For solving almost all the problems relevant for today’s society, close collaboration between social and natural scientists is needed. We can provide insights on how humans make decisions, and how information should be presented so that people can make informed decisions.”

Andy Hart agrees: “Social science evidence and expertise is essential to assess how citizens will respond to actions such as dietary advice.” Referring to the responsibilities of EU and national policy-makers with whom EFSA works closely, he added: “This may affect the impact of different risk management options.”

Using the guidance – what do the communicators think?

Anthony Smith works on content production in EFSA’s Communication Unit. He said: “Our communication shadows the work of our scientific assessors. Since they are following a gradual approach, we will also take time to embed the changes in our working practices.

“Even then, it will not radically change how we communicate on science, not as much as, say, social media and new technologies do. But it is an innovative and practical tool that will allow us to be more transparent about our scientists’ confidence in their conclusions and in the underlying scientific evidence.”

Communicating scientific uncertainty: a tailored approach for increased transparency

Guidance document: communication of uncertainty in scientific assessments