Communicating scientific uncertainty: a tailored approach for increased transparency

Different audiences can better understand scientific uncertainties when expressions and communications formats are tailored to their needs. EFSA’s new and targeted approach to uncertainty communication will help communicators to further boost the transparency of its scientific advice.

Primarily intended for science communicators, the guidance is a companion to the technical EFSA Scientific Committee guidance on uncertainty analysis in scientific assessments from 2018. EFSA is gradually implementing these two new guidance documents for assessors and communicators.

More clarity for decision-makers

Barbara Gallani, head of communication, engagement and cooperation at EFSA, said: “EFSA’s harmonised approaches to uncertainty analysis and now also to uncertainty communication are improving the consistency and clarity of our scientific advice for decision-makers in the EU food safety system.

“In particular, the communication approach we have developed aims to increase understanding of how our scientific experts express their confidence in the methods and underlying scientific evidence used in their assessments, and in their conclusions about potential risks.”

How the guidance was developed

The guidance on uncertainty communication is an innovative and practical tool for communicators to provide uncertainty information and is based on social research and expertise.

“For the first time at EFSA, experts from social science disciplines such as sociology and psychology contributed to the development of an official EFSA publication, working together with our assessors from the natural sciences and science communicators,” Ms Gallani said.

Evidence of people’s understanding/awareness of uncertainty information and how they use it was extracted from published research. Several studies came to light thanks to a public consultation.

Applying these findings to examples of EFSA scientific evaluations, the experts developed a body of practical instructions and advice for communicators to follow, generally and in specific contexts. This information is layered for different audiences (e.g. technical, informed, entry) who were grouped according to criteria such as their scientific literacy and familiarity with food safety issues.

Working with partners and stakeholders

The guidance document benefited from dialogue with our partners in the European Commission and EU Member States. Risk managers and communicators were briefed regularly on its development and contributed through workshops and consultations to the final version. Stakeholder groups such as NGOs, consumer associations and food operators were also involved.

Ms Gallani concluded: “Through the improvements we make to our scientific methodologies – including our communications approaches – our goal remains to support our partners who manage the EU food safety system in the interests of Europe and its citizens.”