Bundesinstitut für Risikobewertung

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Innovative approaches to risk assessment of chemicals

WHO and the BfR jointly organise annual ILMERAC scientific conference

Probabilistic risk assessment (PRA) aims to provide the most realistic estimate of health risks possible, taking into account scientific probabilities and uncertainties. What role can this method play in the risk assessment of chemicals today? How can the results be communicated to risk management and the public? And how can risk assessment as a whole be made even more innovative?

Participating institutions of *the International Liaison Group on Methods for Risk Assessment of Chemicals in Food and Feed* (ILMERAC) and representatives of external scientific institutions, national risk assessment agencies and intergovernmental bodies discussed these and other questions during the ILMERAC annual meeting. It took place in Geneva from 1 to 2 October 2025 and was jointly organised by the World Health Organisation (WHO) and the German Federal Institute for Risk Assessment (BfR).

A total of over 150 experts took part in the scientific conference, both in person and online.

The annual ILMERAC conference was dedicated to "The probable future of risk assessment" and, with this title, referred in particular to current efforts to make the risk assessment of chemicals more innovative – for example, through the use of probabilistic methods that also account for scientific uncertainties in risk analysis.

The two-day conference was officially opened on 1 October 2025 by Dr Luz Maria De Regil, Director of the WHO Department of Nutrition and Food Safety.

On the first day of the conference, which was open to ILMERAC members as well as experts from other national authorities, research institutes, and international organisations, speakers discussed the current and future use of probabilistic risk assessment (PRA) in the assessment of chemicals, as well as the challenges and opportunities of communicating

probabilistic results to risk management and the public. A prerequisite for successful communication is a uniform understanding of PRA, especially among scientists.

In addition, a session on New Approach Methodologies (NAMs) provided a comprehensive overview of the global regulatory introduction of alternative, animal-free methods. Participants discussed the need to pool efforts to promote innovation and engage in open dialogue across various sectors.

On the second day of the event, past and future activities of the network were discussed among the participating institutions. In particular, they discussed how synergies can continue to be created in the global risk assessment framework and how this can help avoid duplication of work or divergences, for example. Under the theme "Chemical Risk Assessment Connected – Global Perspectives", two other networks, the WHO Chemical Risk Assessment Network and the Global Food Regulatory Science Society (GFORSS), presented their activities and made proposals for meaningful cooperation with ILMERAC in an inter-networking context.

ILMERAC will continue to act as a facilitator of open, constructive and innovative cross-border cooperation. One of the aims of the ILMERAC network is to support the development of new risk assessment methods for chemicals in food and feed. Since January 2024, the BfR has been chairing ILMERAC and hosting its Scientific Secretariat.

Further information on ILMERAC is available on the BfR website
International Liaison Group on Methods for Risk Assessment of Chemicals in Food and Feed (ILMERAC)
https://www.bfr.bund.de/en/about-us/co-operation/global-co-operation/international-liaison-group-on-methods-for-risk-assessment-of-che/

About the BfR

The German Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the remit of the Federal Ministry of Food, Agriculture and Rural Affairs (BMLEH). It protects human health preventively in the areas of public health and veterinary public health. The BfR advises the Federal Government and the German federal states on issues relating to food, feed, chemical and product safety. The BfR conducts its own research on topics closely related to its assessment tasks.

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Publisher:
Federal Institute for Risk Assessment
Max-Dohrn-Straße 8-10
10589 Berlin
T +49 30 18412-0
F +49 30 18412-99099
bfr@bfr.bund.de
bfr.bund.de

Public institution
Represented by the President Professor Dr. Dr. Dr. h. c. Andreas Hensel
Supervisory authority: Federal Ministry of Food, Agriculture and Rural Affairs
VAT ID number: DE 165 893 448
Responsible for content: Dr Suzan Fiack

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