

## **Combined exposure to multiple chemicals: working towards the implementation in regulatory risk assessment**

**Bruno Dujardin**

*European Food Safety Authority (EFSA), Parma, Italy*

The European Food Safety Authority (EFSA) provides scientific advice to the European Commission, the European Parliament and the EU Member States on risks associated with the food chain. Guided by this mission, EFSA already acquired robust knowledge and expertise in the field of dietary exposure to single chemicals or (restricted, pre-defined) groups of chemicals. There is a growing scientific consensus, however, that the effect of simultaneous exposure to multiple chemicals (also referred to as unintentional mixtures) must be considered, and the EU Chemicals Strategy for Sustainability (CSS) has set the goal of improving public health protection from risks caused by such unintentional mixtures. EFSA therefore committed, as part of its Strategy 2027, to develop the risk assessment of combined exposure to multiple chemicals across regulatory domains.

Considerable progress has been made in the field of pesticides, where dietary cumulative risk assessment has been recently implemented for pesticides affecting the nervous system, thyroid and cranio-facial alterations. Cumulative risk assessments for pesticides affecting liver and kidneys are ongoing. Furthermore, EFSA supports the development of open-source tools that will facilitate the execution of such assessments by national competent authorities and a roadmap for action on the Risk Assessment of Combined Exposure to Multiple Chemicals (RACEMiC) has recently been issued, laying down the corner stones for possible implementation in other regulatory frameworks.

This oral presentation will provide an overview of the ongoing initiatives in this area and provide insight on how EFSA will leverage the experience gained in the field of pesticides to implement this type of assessments in other domains and build the assessment capacity with Member States.

\* E-mail: [bruno.dujardin@efsa.europa.eu](mailto:bruno.dujardin@efsa.europa.eu)