Info session: (Re-)Evaluating Food Additives
DAY 2: 20 March 2024
SESSION 2 | Future work

UPCOMING REVISION OF THE 2012 GUIDANCE ON FOOD ADDITIVES

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Food Additives and Flavourings Team

EUROPEAN FOOD SAFETY AUTHORITY

BACKGROUND

Jul 2023

- The Panel Food Additives and Flavourings (FAF) identified the need to revise the **2012 "Guidance for submission for food additive evaluations"**

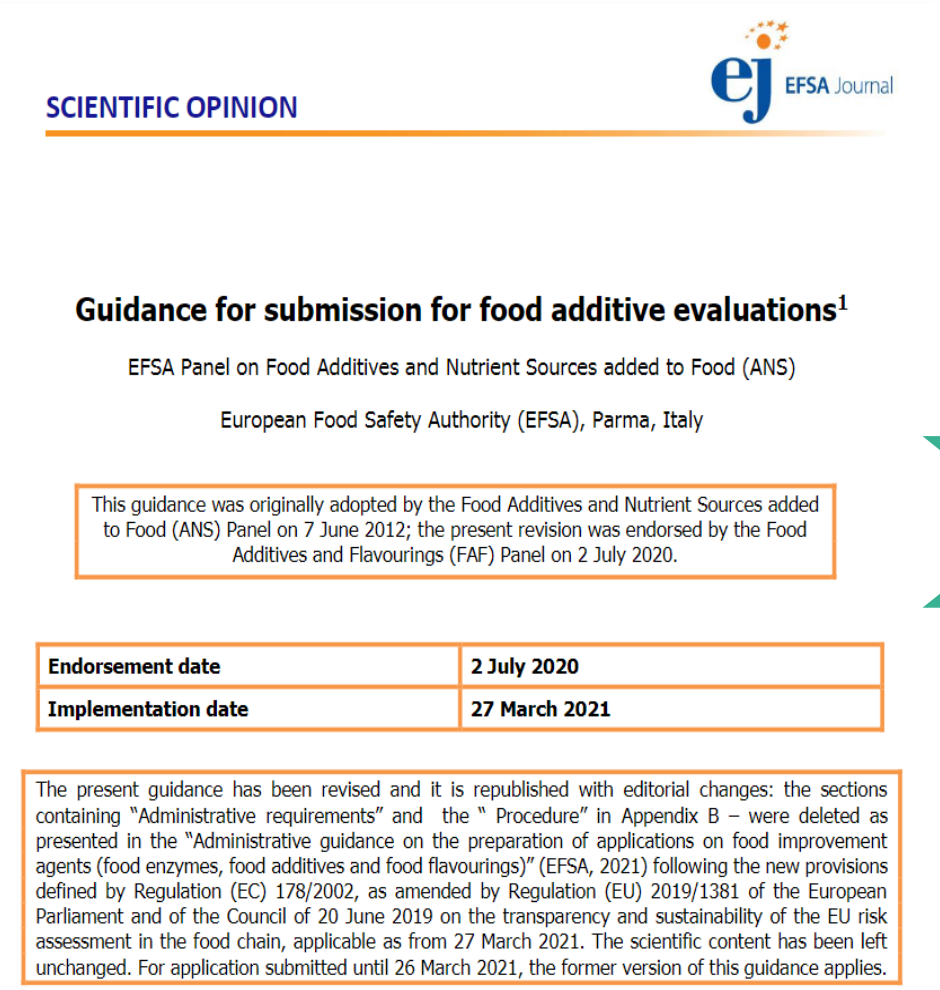
Nov 2023

- A **self-task mandate** for a revision of the guidance on food additive was approved by the EFSA Executive Director (**M-2023-00130**; EFSA-Q-2023-00713)

ToR

In accordance with Article 29(1) of Regulation (EC) No 178/2002, the European Food Safety Authority requests its scientific Panel on Food Additives and Flavourings (FAF) to revise and update the "Food Additive Guidance for submission for food additive evaluations", issued by the EFSA Panel on Food Additives and Nutrient Sources (ANS) in 2012.
The **update** of the guidance should account for the **experience gained with the practical implementation of the 2012 ANS Panel guidance in the assessment of food additives applications submitted under Regulation (EC) No 1331/2008**.
Where possible, the FAF Panel should **ensure consistency with applicable horizontal, cross-cutting guidance documents as well as the latest guidance for the risk assessment of food flavourings**.

SCOPE OF THE REVISION



SCIENTIFIC OPINION

EFSA Journal

Guidance for submission for food additive evaluations[1]

EFSA Panel on Food Additives and Nutrient Sources added to Food (ANS)

European Food Safety Authority (EFSA), Parma, Italy

This guidance was originally adopted by the Food Additives and Nutrient Sources added to Food (ANS) Panel on 7 June 2012; the present revision was endorsed by the Food Additives and Flavourings (FAF) Panel on 2 July 2020.

Endorsement date	**2 July 2020**
Implementation date	**27 March 2021**

The present guidance has been revised and it is republished with editorial changes: the sections containing "Administrative requirements" and the " Procedure" in Appendix B – were deleted as presented in the "Administrative guidance on the preparation of applications on food improvement agents (food enzymes, food additives and food flavourings)" (EFSA, 2021) following the new provisions defined by Regulation (EC) 178/2002, as amended by Regulation (EU) 2019/1381 of the European Parliament and of the Council of 20 June 2019 on the transparency and sustainability of the EU risk assessment in the food chain, applicable as from 27 March 2021. The scientific content has been left unchanged. For application submitted until 26 March 2021, the former version of this guidance applies.

Update needed to

- Account for the **experience gained** with the **assessment of food additives**

- **Ensure consistency** with latest relevant **horizontal and cross-cutting guidance documents**

- Implement the **latest developments in risk assessment methodologies**

- Align with the content of recent **sector-specific guidance documents on regulated products with elements common to food additives**

REASONS FOR THE NEED TO REVISE THE GUIDANCE (1)

Experience gained with the assessment of food additives applications

- Requests for missing information (**RFI**) and additional data requests (**ADRs**) are often sent to applicants during the **suitability** check and the **risk assessment** phase, respectively, in case **missing information/additional data** are needed and therefore the **evaluation process is put on hold**

- To avoid this, the initial technical dossier submitted by applicants should be **detailed and complete**

- EFSA identified **common requests** sent to applicants during the evaluation process of food additives applications and will consider them during the revision of the Food Additives Guidance by being more specific in the data requirements **in order to cover the identified data gaps**

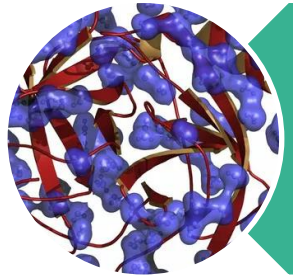
REASONS FOR THE NEED TO REVISE THE GUIDANCE (2)

Ensure consistency with horizontal guidance documents relevant for the assessment of

TECHNICAL DATA

2021 SC Guidance on technical requirements for regulated food and feed product applications to establish the presence of small particles including nanoparticles

2021 SC Guidance on risk assessment of nanomaterials to be applied in the food and feed chain: human and animal health



2021 CEP Panel Scientific Guidance for the submission of dossiers on Food Enzymes

REASONS FOR THE NEED TO REVISE THE GUIDANCE (3)

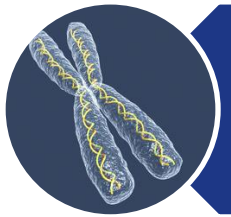
Ensure consistency with horizontal guidance documents relevant for the assessment of

GENOTOXICITY DATA

2011 SC Opinion: Genotoxicity testing strategies

2017 SC Statement: Clarification on some aspects of genotoxicity assessment (in *vivo* UDS, bone marrow, reference values)

2019 SC Statement on Genotoxicity of chemical mixtures



2021 SC Guidance on Aneugenicity assessment

REASONS FOR THE NEED TO REVISE THE GUIDANCE (4)

Implement the latest developments in

RISK ASSESSMENT METHODOLOGIES

Dietary exposure

2022 FAIM template version 2.1

DietEx tool

2022 SC Guidance on the use of the **benchmark dose approach** in risk assessment

2019 SC Guidance on the use of the **Threshold of Toxicological Concern** approach in food safety assessment

2017 SC Guidance on the risk assessment of substances present in food intended for **infants below 16 weeks of age**

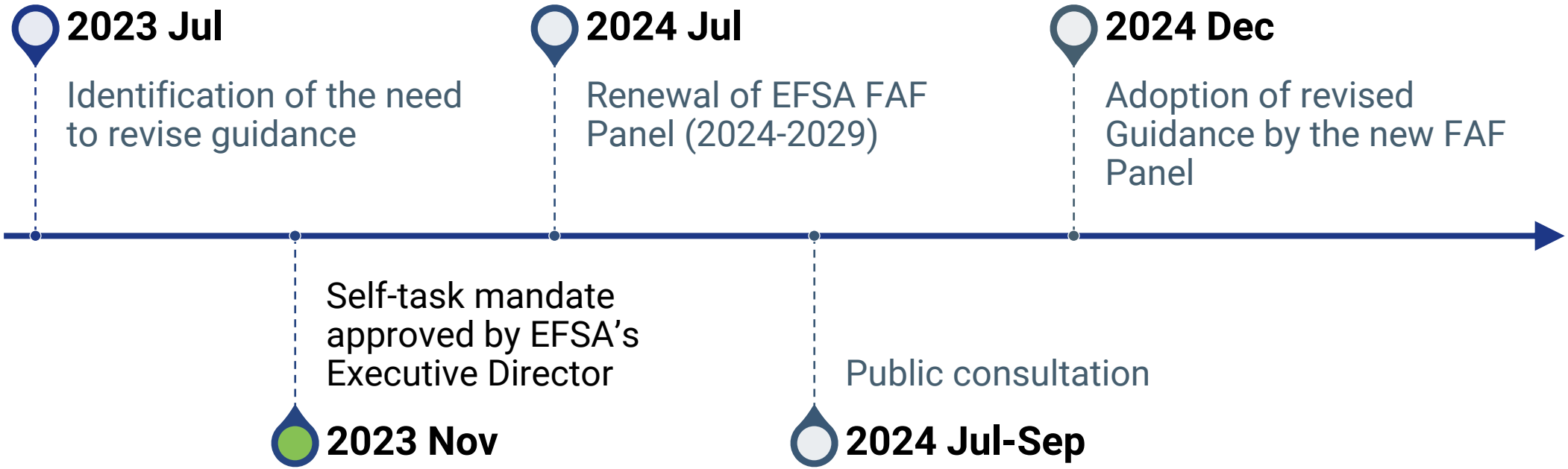
REASONS FOR THE NEED TO REVISE THE GUIDANCE (5)

Align with the content of the most recent sector-specific guidance documents on regulated products with elements common to food additives

2022 Guidance on the data required for the risk assessment of flavourings to be used in or on foods

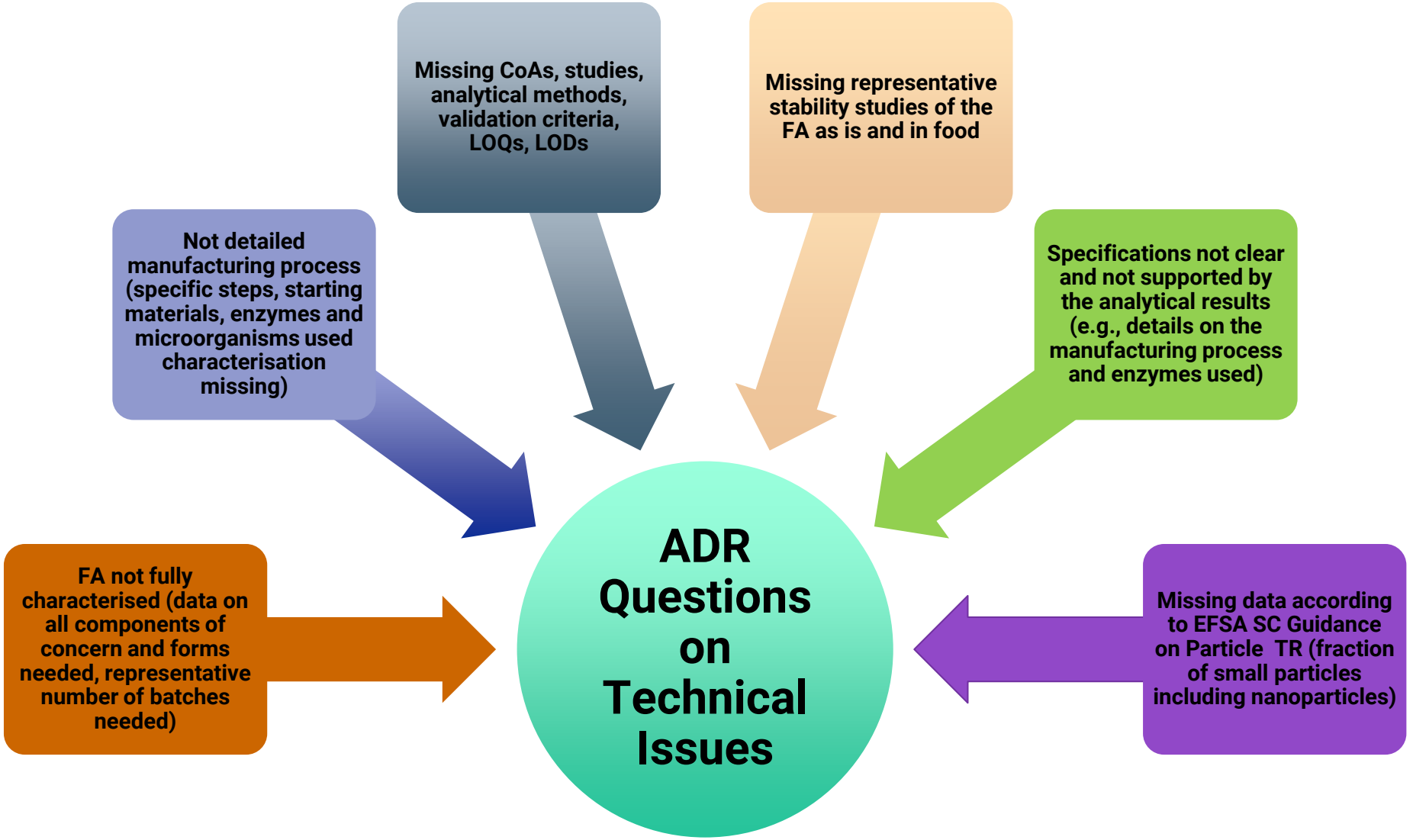
Revision of the Guidance on the preparation and submission of an application for authorisation of a novel food in the context of Regulation (EU) 2015/2283 (in public consultation until 14 Apr 2024)

TENTATIVE TIMELINES



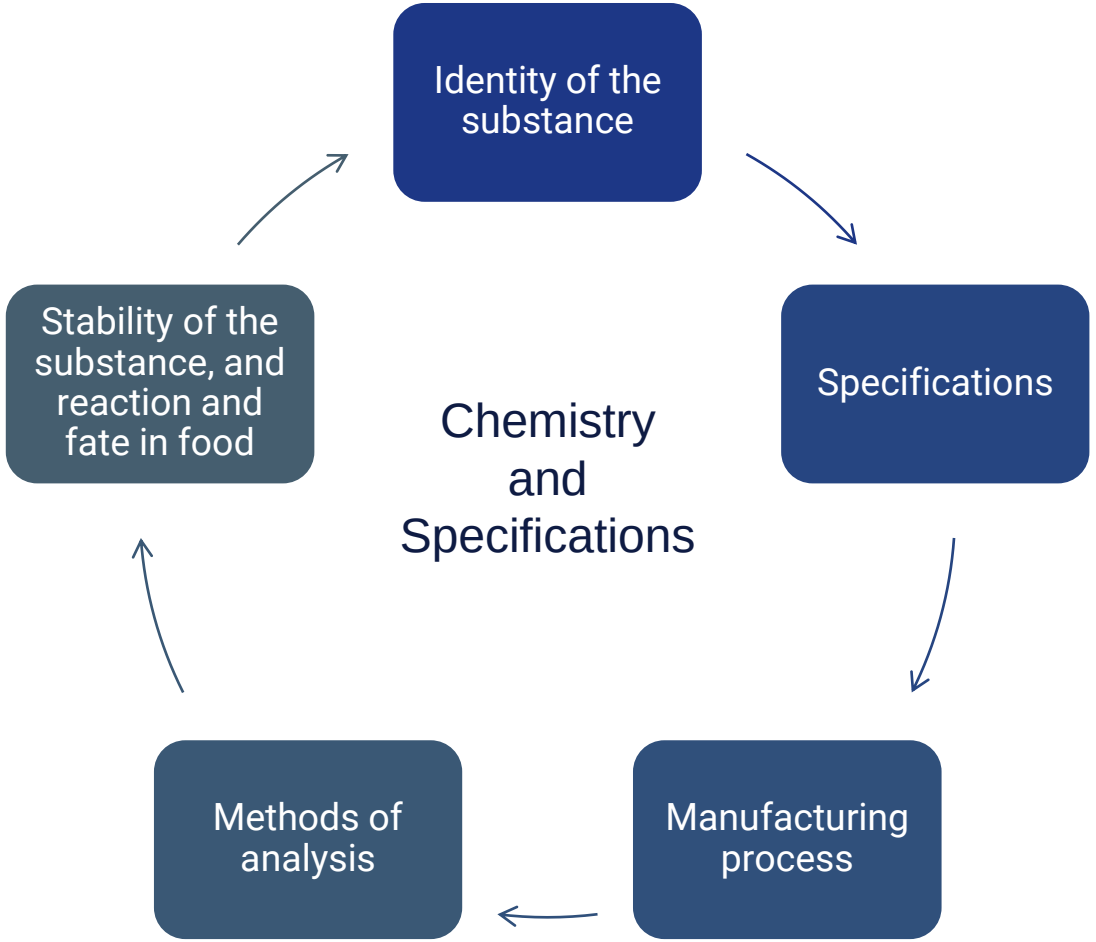
TECHNICAL DATA

COMMON QUESTIONS ON THE TECHNICAL PART OF THE ADR LETTERS SENT TO THE APPLICANTS



TECHNICAL PART STRUCTURE IN THE 2012 GUIDANCE

- ✓ No vital modifications
- ✓ Inclusion of the referred horizontal and cross-cutting guidance documents
- ✓ Common ADR will be taken in consideration



RECENT/ONGOING FOOD ADDITIVES EVALUATIONS

- The 2012 FA Guidance specifies the data requirements for the following types of food additives
- The experience has shown that this **classification is not always fitting** to the type of substances under assessment e.g.,
  - Synthetic oligonucleotides
  - Food additives from algae
  - Buffered vinegar
  - Fibre extracted from white button mushrooms (*Agaricus bisporus*)
- **More than one** category may **apply**

Single substances

Simple mixtures

- D-α-tocopheryl polyethylene glycol-1000 succinate

Complex mixtures not derived from botanical sources

Polymers

- curdlan
- pullulan

Additives derived from botanical sources

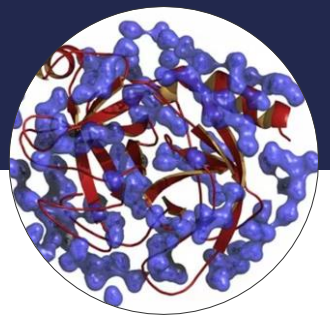
- polyphenol-rich extract
- jagua (genipin-glycine) blue
- pectin rich extract from Coffea arabica
- pea fibre concentrate
- rice bran extract and rice hull

Nanomaterials

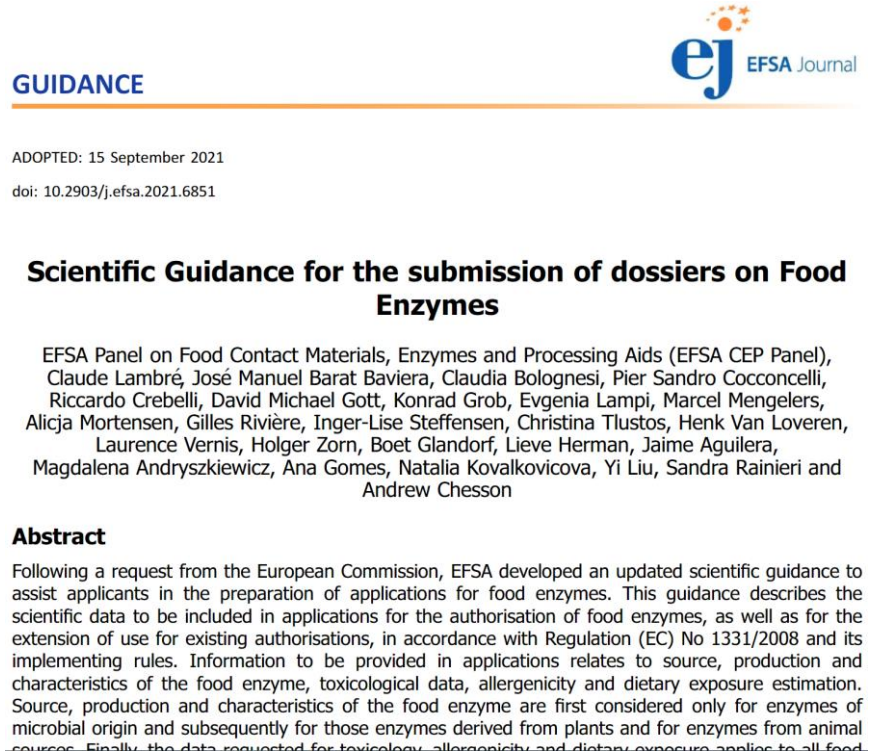
Substances containing microorganisms or derived from microorganisms

- soy leghemoglobin from genetically modified *Pichia pastoris* yeast
- blue galdieria extract
- steviol glycosides (E 960): new production process using genetically modified *Yarrowia lipolytica*
- steviol glycosides (E 960): new production process using genetically modified Saccharomyces cerevisiae

TECHNICAL DATA: EVALUATION OF ENZYMES



- Article 2(2) of Regulation (EC) No 1332/2008 on food enzymes states:
  This Regulation shall not apply to food enzymes when and insofar as they are used in the production of:
  (a) food additives
  (b) processing aids
- The safety of enzymes used in the manufacturing process of a food additive is to **be assessed within the evaluation of the new application** for the food additive
  - Detailed information on the **identity of enzyme** needed
  - Information on enzyme used if **commercially available or produced in-house**
  - Information if an **application** for its safety evaluation **has been submitted** under Regulation (EC) No 1332/2008. In case an application has been submitted, the **question number** assigned by EFSA to the corresponding application should be indicated
  - If the enzyme has not been yet assessed, detailed information should be provided according to **Section 1** of the **2021 EFSA CEP Panel Scientific Guidance for the submission of dossiers on Food Enzymes**



EFSA Journal

GUIDANCE

ADOPTED: 15 September 2021

doi: 10.2903/j.efsa.2021.6851

Scientific Guidance for the submission of dossiers on Food Enzymes

EFSA Panel on Food Contact Materials, Enzymes and Processing Aids (EFSA CEP Panel), Claude Lambré, José Manuel Barat Baviera, Claudia Bolognesi, Pier Sandro Cocconcelli, Riccardo Crebelli, David Michael Gott, Konrad Grob, Evgenia Lampi, Marcel Mengelers, Alicja Mortensen, Gilles Rivière, Inger-Lise Steffensen, Christina Tlustos, Henk Van Loveren, Laurence Vernis, Holger Zorn, Boet Glandorf, Lieve Herman, Jaime Aguilera, Magdalena Andryszkiewicz, Ana Gomes, Natalia Kovalkovicova, Yi Liu, Sandra Rainieri and Andrew Chesson

Abstract

Following a request from the European Commission, EFSA developed an updated scientific guidance to assist applicants in the preparation of applications for food enzymes. This guidance describes the scientific data to be included in applications for the authorisation of food enzymes, as well as for the extension of use for existing authorisations, in accordance with Regulation (EC) No 1331/2008 and its implementing rules. Information to be provided in applications relates to source, production and characteristics of the food enzyme, toxicological data, allergenicity and dietary exposure estimation. Source, production and characteristics of the food enzyme are first considered only for enzymes of microbial origin and subsequently for those enzymes derived from plants and for enzymes from animal sources. Finally, the data requested for toxicology, allergenicity and dietary exposure applies to all food

TECHNICAL DATA: FOOD ADDITIVES OF MICROBIAL ORIGIN

- **Characterisation of the microorganism(s)** based whenever possible (and compulsory for bacteria) on **whole genome sequencing (WGS)** analysis following the requirements of the **2021 EFSA CEP Panel Scientific Guidance for the submission of dossiers on Food Enzymes**

- For food additives obtained by **microbial fermentation**:
  - Experimental data demonstrating **absence of viable cells** of the production strain in the final product
  - If the microorganism is **genetically modified, or if AMR genes** have been found in its genome, experimental data demonstrating the **absence of DNA from the microorganism** in the product
  - Where relevant, information on the identity of **residual mycotoxins or other metabolites with possible toxigenic activity** in the final product.

TECHNICAL DATA: PRESENCE OF SMALL PARTICLES

Horizontal **SC Guidance on particle-TR** published in 2021

- Applicable to regulated food and feed products applications
- Establishes criteria to confirm whether or not the conventional risk assessment should be complemented with nanospecific considerations
- Data requirements overlap with data requirement for the identity and proposed specifications of the food additive
- **The outcome of the implementation of this guidance informs the corresponding testing strategy to be developed for a new food additive**

EFSA Journal

GUIDANCE

ADOPTED: 30 June 2021

doi: 10.2903/j.efsa.2021.6769

Guidance on technical requirements for regulated food and feed product applications to establish the presence of small particles including nanoparticles

EFSA Scientific Committee,
Simon More, Vasileios Bampidis, Diane Benford, Claude Bragard, Thorhallur Halldorsson, Antonio Hernández-Jerez, Susanne Hougaard Bennekou, Kostas Koutsoumanis, Claude Lambré, Kyriaki Machera, Hanspeter Naegeli, Søren Nielsen, Josef Schlatter, Dieter Schrenk, Vittorio Silano (deceased), Dominique Turck, Maged Younes, Jacqueline Castenmiller, Qasim Chaudhry, Francesco Cubadda, Roland Franz, David Gott, Jan Mast, Alicja Mortensen, Agnes G. Oomen, Stefan Weigel, Eric Barthelemy, Ana Rincon, Jose Tarazona and Reinhilde Schoonjans

Abstract

Following a mandate from the European Commission, EFSA has developed a Guidance on Technical Requirements (Guidance on Particle-TR), defining the criteria for assessing the presence of a fraction of small particles, and setting out information requirements for applications in the regulated food and feed product areas (e.g. novel food, food/feed additives, food contact materials and pesticides). These requirements apply to particles requiring specific assessment at the nanoscale in conventional materials that do not meet the definition of engineered nanomaterial as set out in the Novel Food Regulation (EU) 2015/2283. The guidance outlines appraisal criteria grouped in three sections, to confirm whether or not the conventional risk assessment should be complemented with nanospecific considerations. The first group addresses solubility and dissolution rate as key physicochemical properties to assess whether consumers will be exposed to particles. The second group establishes the information requirements for assessing whether the conventional material contains a fraction or consists of small particles, and its characterisation. The third group describes the information to be presented for existing safety studies to

HORIZONTAL SC GUIDANCE ON PARTICLE-TR; APPLICABILITY

chemical materials either as substances or mixtures to be assessed by EFSA

mixtures and products marketed as liquid formulations (e.g. suspensions) unless the methods described in the Guidance confirm that they do not contain small particles in suspension, and therefore can be considered as ‘true liquids’ or ‘fully solubilised solids’.

characterization of the fraction of small particles, including the particle size distribution, is needed in all cases **unless the applicant demonstrates** that the material will be fully dissolved, and **consumers will not be exposed to particles**

multi-constituent substances and mixtures. In these cases, the information to be submitted according to this Guidance on Particle-TR should cover each single constituent or each component in the mixture, as well as the full material.

In the case of (a) **botanicals and other complex materials of biological origin** with unknown or variable composition, (b) **macromolecules of biological origin** (e.g. enzymes and other proteins), or (c) **other similar cases**, the applicant should provide a rationale demonstrating that an assessment of the fraction of small particles including nanoparticles is not needed, or that is already covered in the safety assessment process.

HORIZONTAL SC GUIDANCE ON PARTICLE-TR; APPRAISAL ROUTES PROPOSED

- Solubility
- Dissolution rate
- Screening particle size
- Quantification particle size
- Coverage by existing studies

Aim: to demonstrate that consumers will not be exposed to small particles

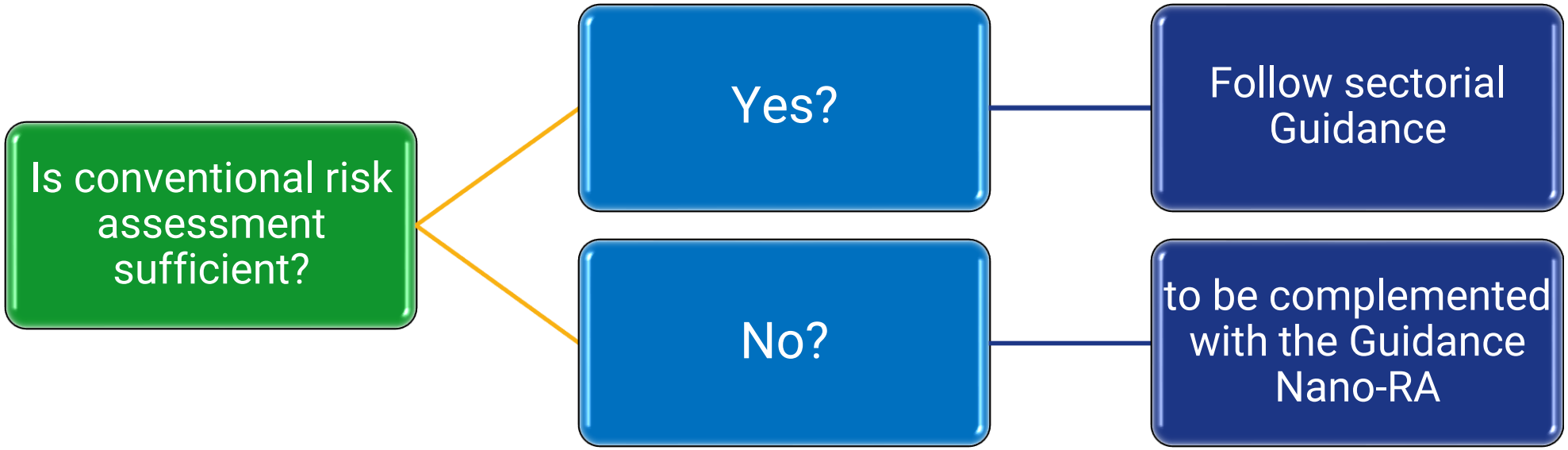
Aim: to demonstrate either the absence, or the presence of a fraction of small particles in properly dispersed samples

Aim: to demonstrate that the fraction of small particles is properly covered by already existing safety studies

Information demonstrating that, under the anticipated conditions of use, the material will be fully dissolved in the marketed product, in food, or, following ingestion will dissolve or breakdown during the digestive process in the gastrointestinal tract, and therefore consumers will not be exposed to particles through the consumption of food can be considered

SAFETY EVALUATION STRATEGY AND TESTING STRATEGY

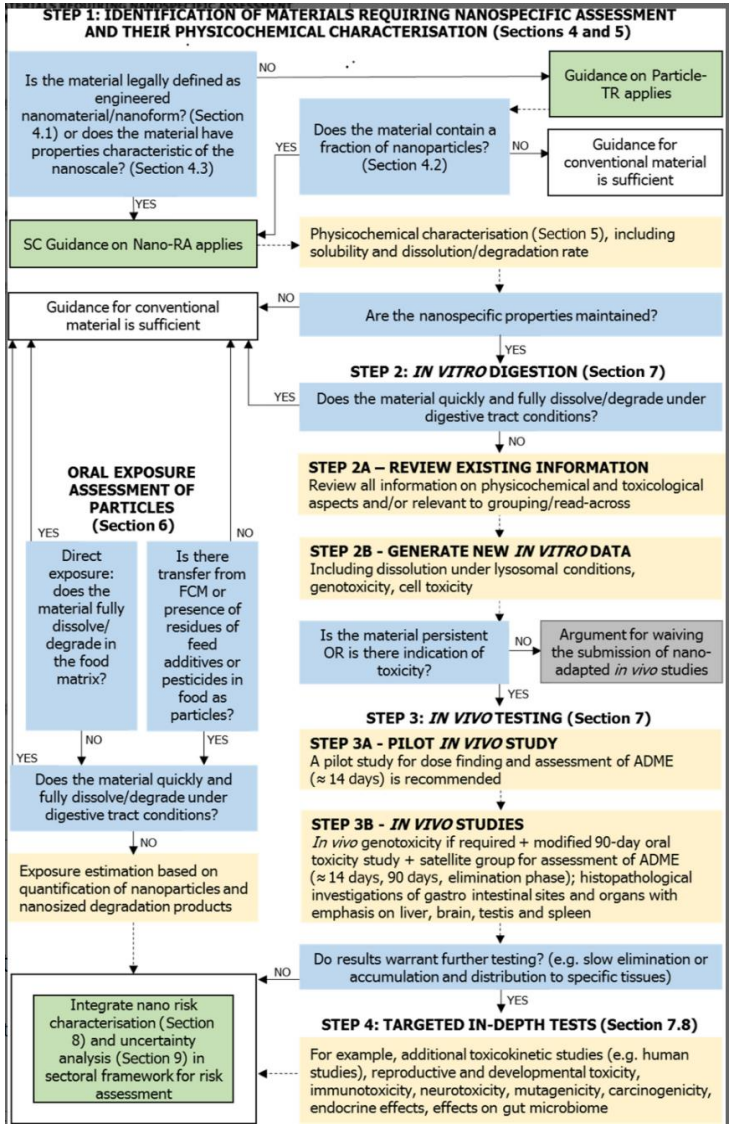
Horizontal **SC Guidance on particle-TR** published in 2021 should be considered as a starting point to decide the strategy for risk assessment.



HORIZONTAL SC GUIDANCE ON NANO-RA

Horizontal **SC Guidance on Nano-RA** published in 2021

- Applicable to:
  - Material that consists of or contains a fraction of small particles as outlined in the Guidance on Particle-TR.
  - Materials that meet the definition of engineered nanomaterial as set out in the Novel Food Regulation (EU) 2015/2283
  - nanostructured material or
  - a material, including materials formulated in the form of nanocarriers, which could retain properties that are characteristic of the nanoscale
- Complements the sectoral guidance on FA
- Exit points based on scientific evidence are provided. An exit point implies that (only) the relevant sectoral guidance on conventional materials will be sufficient.



EXPOSURE ASSESSMENT

COMMON QUESTIONS ON THE EXPOSURE PART OF THE ADR LETTERS SENT TO THE APPLICANTS

- Proposed uses
  - FCs from Reg 1333/2008 without restrictions indicated
- Use levels
  - Missing data: maximum or typical levels for each FCs
  - Data not in the correct unit/HBGV
- Dietary exposure assessment using FAIM
  - Incorrect use of the FAIM tool
  - Output not fully provided

PROPOSED USES AND USE LEVELS

PROPOSED USES

Food categories in Annex II, Part D, of Regulation (EC) No 1333/2008

MANDATORY

FoodEx2 food classification system

The lowest known level of detail on the foods

USE LEVELS

Maximum proposed use level

Typical proposed use level

Per each FCs / foods

OTHER OCCURRENCE DATA

- In case the additive is also:
  - A substance naturally present in foods
  - Added to food as nutrients
  - Carry-over from additives, flavourings, enzymes

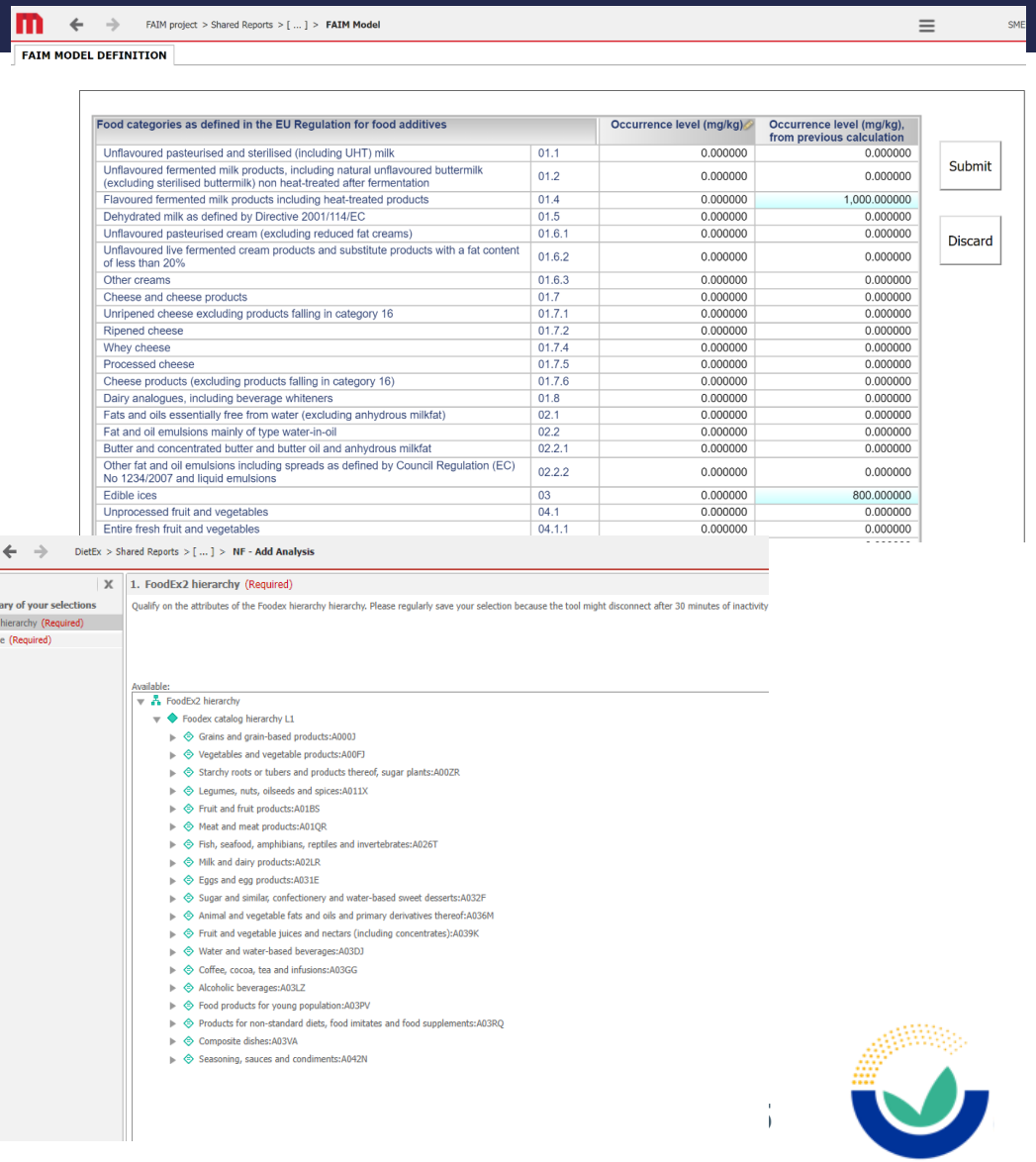
- Applicants should provide qualitative and if possible quantitative information on the occurrence levels of the substance via the different sources, as well as information on the exposure to the substance

DIETARY EXPOSURE ASSESSMENT

- Exposure assessment tools made available by EFSA
  - **FAIM** version 2.1, using the food categories according to additives legislation (Reg (EC) No1333/2008)
  - **DietEx**, based on the food categories from FoodEx2 (EFSA food nomenclature)

Both tools are based on **food consumption data** from the [EFSA Comprehensive European Food Consumption Database]

For the **general population**



EXPOSURE ASSESSMENT FOR INFANTS BELOW 16 WEEKS OF AGE

- Scientific committee guidance for infants <16 weeks of age (EFSA, 2017), depending on the substance, mean and high level of consumption to be used:
  - Substances which do not accumulate in the body:

Mean = **200 ml** / high consumption = **260 ml per kg body weight per day**

  - Exposure is calculated for the different FCs corresponding to food for infants < 16 weeks of age i.e.
    - **FC 13.1.1** Infant formulae as defined by Commission Directive 2006/141/EC
    - **FC 13.1.5.1** Dietary foods for infants for special medical purposes and special formulae for infants

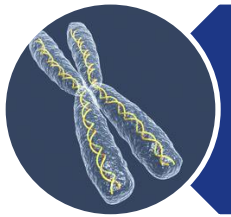
GENOTOXICITY DATA

HORIZONTAL GUIDANCE ON GENOTOXICITY

2011 SC Opinion: Genotoxicity testing strategies

2017 SC Statement: Clarification on some aspects of genotoxicity assessment (in *vivo* UDS, bone marrow, reference values)

2019 SC Statement on Genotoxicity of chemical mixtures



2021 SC Guidance on Aneugenicity assessment

1. EFSA SC OPINION ON GENOTOXICITY TESTING STRATEGIES 2011

- Genotoxicity **is an end-point *per se***: genetic damage in somatic or germ cells is associated with serious detrimental health effects, including cancer, heritable diseases and degenerative conditions
- Under the EU legislation, substances that are classified as mutagenic **should not** be deliberately added to food and feed chain, **at any dose level**
- Genotoxicity testing aims to **identify hazard** in relation to the different genotoxic endpoints:
  - Induction of **gene mutations**
  - Structural chromosomal aberrations (**clastogenicity**)
  - Numerical chromosomal aberrations (**aneugenicity**)
- No single test can simultaneously provide information on all these end-points

1. EFSA SC OPINION ON GENOTOXICITY TESTING STRATEGIES 2011

A step-wise approach is recommended for the generation and evaluation of data on genotoxic potential

Tier 1: the basic battery

- **Bacterial reverse mutation test** in *Salmonella typhimurium* and *Escherichia coli* (OECD TG 471): end-point considered - **gene mutation**.

- ***In vitro* mammalian cell micronucleus test** – MNT (OECD TG 487): end-points considered - **structural and numerical chromosome aberrations**

Outcomes:

- Negative:
  No further testing, unless available information indicates the inadequacy of the *in vitro* systems.
- Positive:
  In vivo testing is required

1. EFSA SC OPINION ON GENOTOXICITY TESTING STRATEGIES 2011

Tier 2: Follow-up* of positive results for

Gene mutation:

- **Transgenic rodent somatic and germ cell gene mutation assays** (OECD TG 488)
- ***In vivo* Mammalian Alkaline Comet Assay** (OECD TG 489)

Chromosome aberration:

➢ **Structural**

- ***In vivo* Mammalian Alkaline Comet Assay** (OECD TG 489)
- **Mammalian erythrocyte micronucleus test (MN)** (OECD TG 474)

➢ **Numerical**

- **Mammalian erythrocyte micronucleus test (MN)** (OECD TG 474)

* to be selected case-by-case based on, e.g. *in vitro* test results, structure activity relationships (SAR), metabolic and toxicokinetic considerations, potential for site of contact effects

1. EFSA OPINION ON GENOTOXICITY TESTING STRATEGIES 2011

Outcomes of *in vivo* genotoxicity testing:

- Negative (with evidence of target cell exposure): No further testing required
- Positive: Genotoxic hazard → **Assessment stops**

- A conclusion of genotoxic hazard indicates a health concern
- Even in the presence of negative carcinogenicity data, **genotoxicity *in vivo* in somatic cells is considered an adverse effect *per se***
- No quantitative risk assessment is performed

2. CLARIFICATION OF SOME ASPECTS RELATED TO GENOTOXICITY ASSESSMENT (EFSA SC, 2017)

- (1) suitability of the **unscheduled DNA synthesis (UDS)** *in vivo* assay to follow-up positive results in *in vitro* gene mutation tests;
  - UDS detects the induction of DNA repair synthesis in the liver of treated rats. The test is designed to respond to substances inducing a type of DNA damage that is repaired by excision repair, but not by other mechanisms and not unrepaired genetic damage
  - **Negative *in vivo* UDS is insufficient alone to rule out *in vivo* genotoxic potential**
- (2) how to verify the **exposure of the bone marrow (target tissue)** in *in vivo* studies, particularly in the mammalian erythrocyte micronucleus test, and which **lines of evidence** should be taken into consideration (e.g., toxic effects in the bone marrow, ADME studies, etc)
- (3) the use of data in a **weight-of-evidence approach to conclude on the genotoxic potential of substances**

3. GENOTOXICITY ASSESSMENT OF CHEMICAL MIXTURES (EFSA SC, 2019)

Chemical characterisation of mixtures
(demonstration of *identity* and *stability*)

Chemically Fully defined

Mixtures containing a substantial fraction of unidentified components

3. GENOTOXICITY ASSESSMENT OF CHEMICAL MIXTURES

Chemically fully defined mixtures

- Genotoxicity assessment of **all the components**, using all available information (e.g. QSAR analysis, read-across, reliable and relevant literature data, genotoxicity data in line with SC testing strategy (2011)): ***component-based approach***

→ If the mixture contains **one or more chemical substances** that are **evaluated to be genotoxic *in vivo* via a relevant route of administration, the whole mixture raises concern about genotoxicity**

Mixtures containing substantial fraction of unidentified components

- Identified components assessed individually for genotoxicity: ***component-based approach***
- If none of the identified components raises concern for genotoxicity, the genotoxic potential of the unidentified fraction should also be evaluated to complete the assessment of the mixture
- Unidentified fraction should be tested as first option. If not feasible, testing of the whole mixture should be undertaken: ***whole-mixture approach***

3. GENOTOXICITY ASSESSMENT OF CHEMICAL MIXTURES

Applicability of Margin of Exposure (MOE) approach only to unavoidable contaminants and impurities present in the mixture (from EFSA SC, 2019):

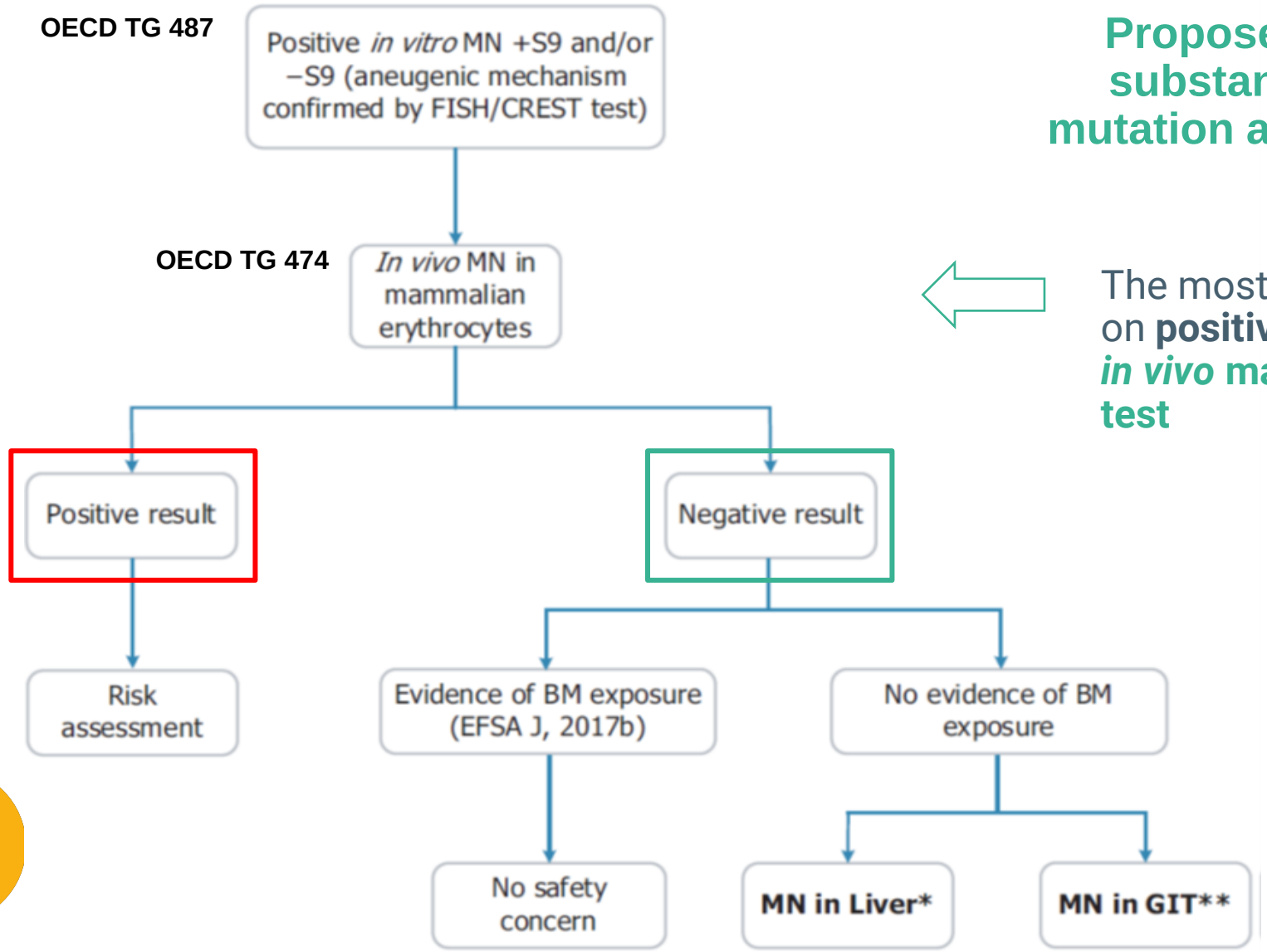
The Scientific Committee reiterates its earlier statement that chemical substances that are both genotoxic and carcinogenic should not be deliberately added to foods or used earlier in the food chain. In certain cases, i.e. unavoidable contaminants and impurities, it might be possible to conclude that human exposure is likely to be of low concern from a public health perspective. Such a conclusion may be reached based on a Margin of Exposure (MOE) approach (EFSA, 2005, 2012a) when respective carcinogenicity data are available, either for the genotoxicant itself or for a structurally closely related chemical substance. For details on the application of the MOE approach for mixtures, the reader is referred to the guidance document on combined exposure to multiple chemicals under development (EFSA in preparation, expected to be published in spring 2019). The Scientific Committee notes that in the scientific community there is, as yet, no consensus on whether and how a MOE approach could be applied to genotoxicity data alone (in the absence of relevant carcinogenicity data).

If no relevant carcinogenicity data are available and the estimated exposure to the chemical substance is very low, it might be possible to apply the Threshold of Toxicological Concern (TTC) concept (EFSA, 2012b; and EFSA ongoing revision of TTC guidance, expected to be published in spring 2019).

4. GUIDANCE ON ANEUGENICITY ASSESSMENT (EFSA SC, 2021)

- **Clastogenic substances** induce **structural chromosomal aberrations** through **DNA breaks**.
- **Aneugenic substances**
  induce **numerical chromosomal aberrations** through interactions with **cellular targets other than DNA**, such as **proteins** involved in the segregation of chromosomes during mitosis or meiosis.
  - ✓A critical number of molecular events/interactions must occur for the aneugenic effect
  - ✓ A steep dose-response relationship is typically seen (aneugenicity is usually observed in a narrow dose range)
  - ➢Therefore, a **thresholded mechanism** is plausible and a **health-based guidance value (HBGV) can be established**, taking into account the entire toxicological database

4. EFSA GUIDANCE ON ANEUGENICITY ASSESSMENT



Proposed testing scheme for aneugenic substances for which induction of gene mutation and clastogenicity has been already ruled out

The most appropriate *in vivo* tests to follow up on **positive *in vitro* results for aneugenicity** → ***in vivo* mammalian erythrocyte micronucleus test**

*:For a positive *in vitro* MNT in the **presence of S9.**

: For a positive *in vitro* MN test in the **absence of S9

RELIABILITY AND RELEVANCE OF GENOTOXICITY STUDIES (EFSA, 2023)

Technical Report

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Harmonised approach for reporting reliability and relevance of genotoxicity studies

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Abstract

This technical report describes an approach developed by the EFSA cross-cutting Working Group on Genotoxicity for the reporting of reliability and relevance of genotoxicity studies. The scope of this document is to ensure harmonisation and transparency of the approach for evaluation of genotoxicity evidence among EFSA Units dealing with scientific assessments. It is recommended to be used as a template for the drafting of genotoxicity assessments in EFSA Opinions.

TOXICITY DATA

GENERAL CONSIDERATIONS

1. **Alignment to the data requirement of the most recent sector-specific guidance documents on regulated products with elements in common to food additives**
   - Guidance on the data required for the risk assessment of flavourings to be used in or on foods (EFSA FAF Panel, 2022)
   - Revision of the Guidance on the preparation and submission of an application for authorisation of a novel food in the context of Regulation (EU) 2015/2283 (public consultation open until 14 April 2024)
2. **Safety evaluation and corresponding testing strategy**
   - A **justification of the tiered approach to toxicokinetic and toxicity testing** applied to the food additive should be submitted by applicants, including the rationale for inclusion and exclusion of specific *in vitro/in vivo* studies
   - Also, a justification for the **adequacy of conventional risk assessment** should be provided

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