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# JECFA's role as the global scientific expert body for development of harmonized standards

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Angeliki Vlachou, Food Safety Officer  
*FAO, Secretary JECFA*



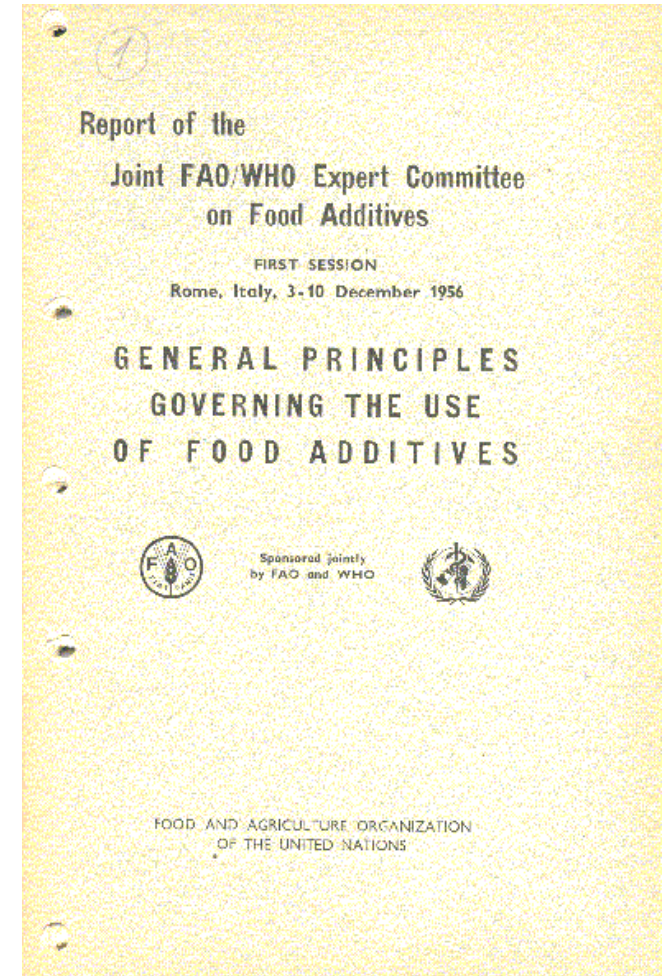
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# What is JECFA?

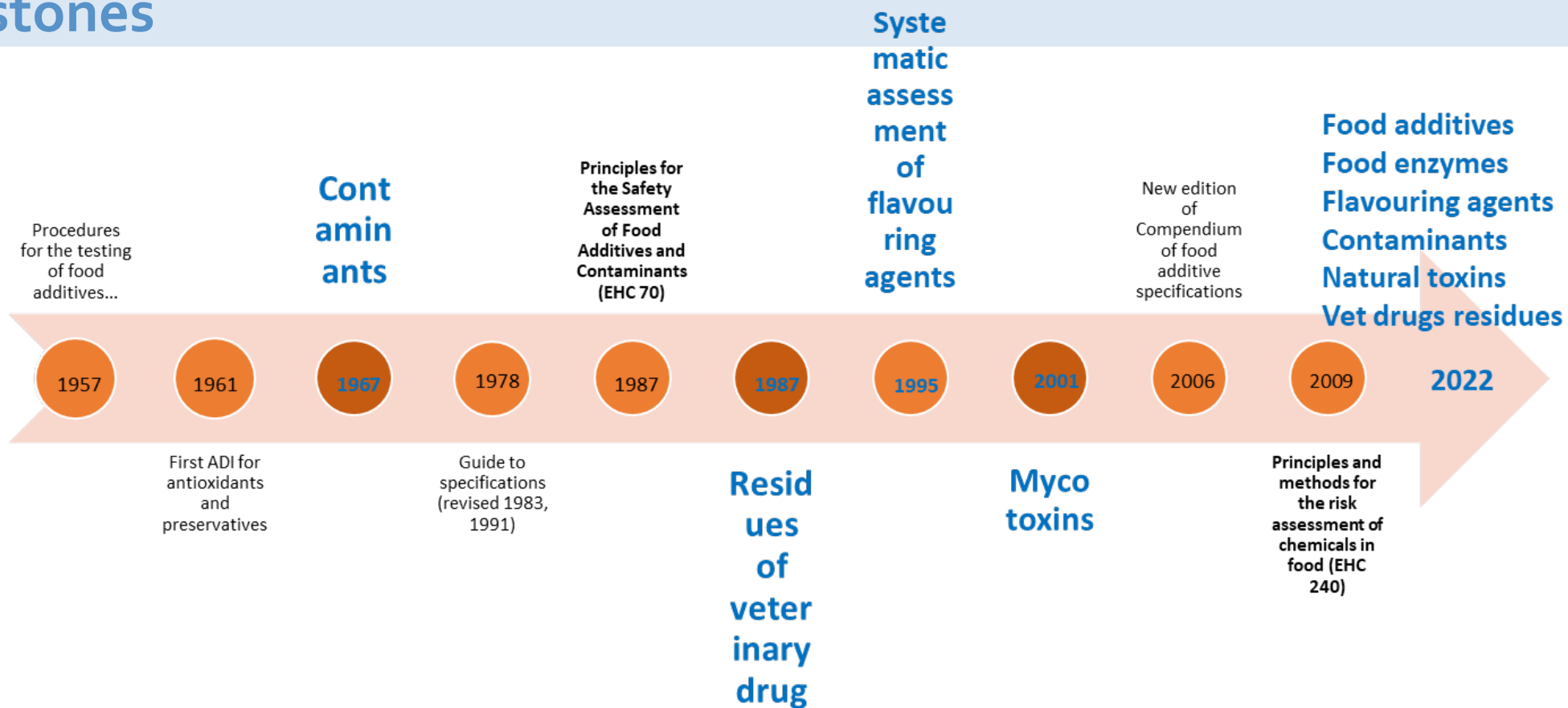
## Joint FAO/WHO Expert Committee on Food Additives

- Established in 1956 based on the outcome of the FAO/WHO conference on food additives (1955), to convene an expert committee on technical and administrative aspects of food additives in order to formulate General principles for their use.
- It restricted its discussions to non-nutritive substances added intentionally to food, generally in small quantities, to improve its appearance, flavour, texture or storage properties.
- General Principles governing the use of food additives published in 1956.





## Milestones

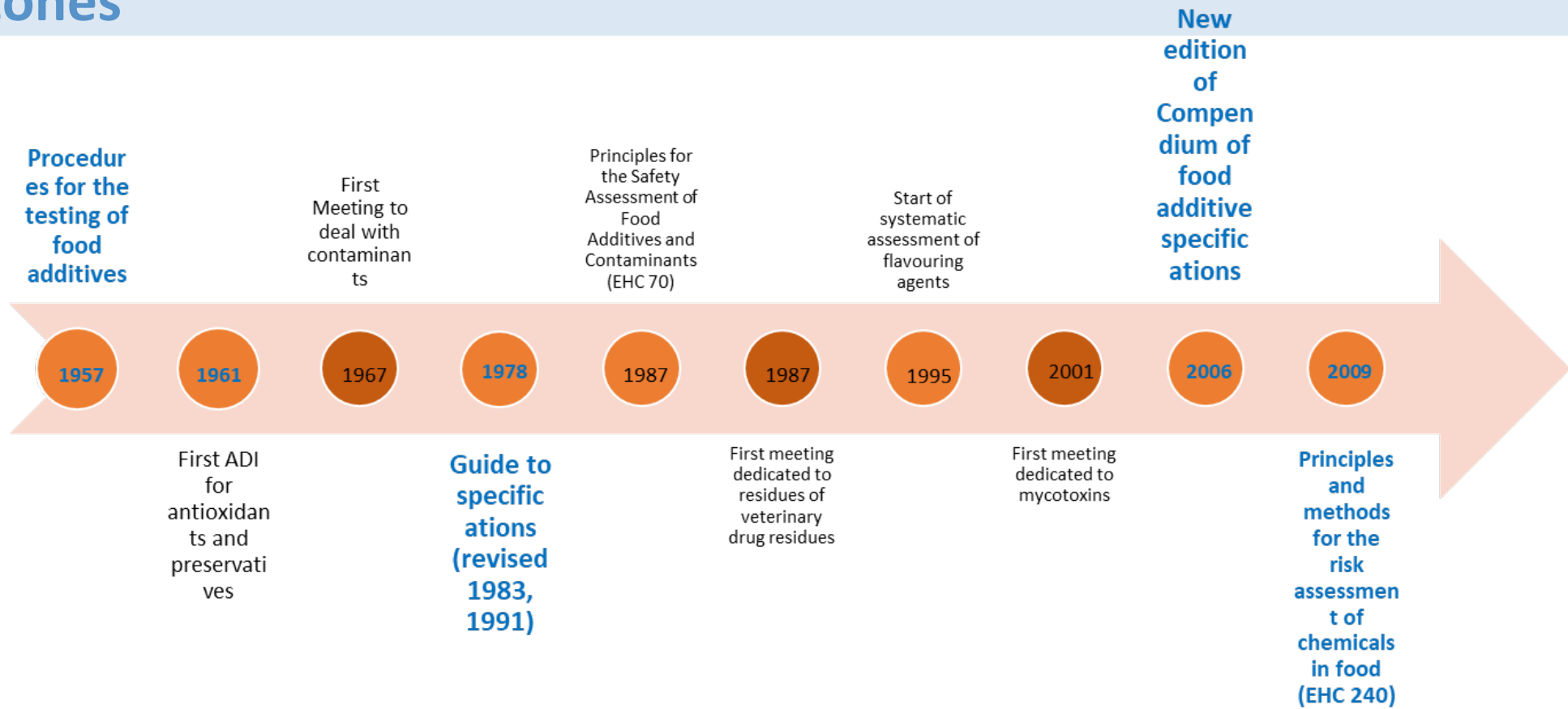




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## Milestones







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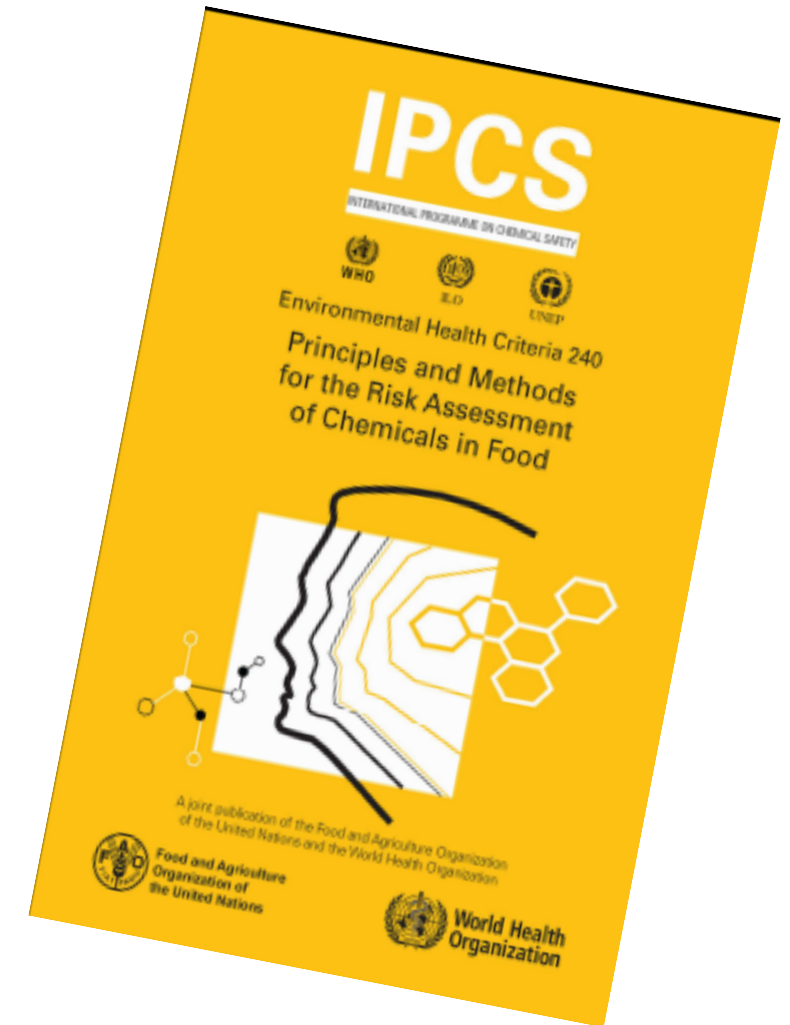
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## EHC 240: Principles and methods for the risk assessment of chemicals in food, WHO 2009

- Updated principles and methods
- Compiled all guidance developed by JECFA and JMPR since EHC 70 (1987) and EHC 104 (1990)
- Harmonize methods to the extent possible

Last update in 2020

<http://www.who.int/foodsafety/chem/principles/en/index1.html>





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## JECFA's role

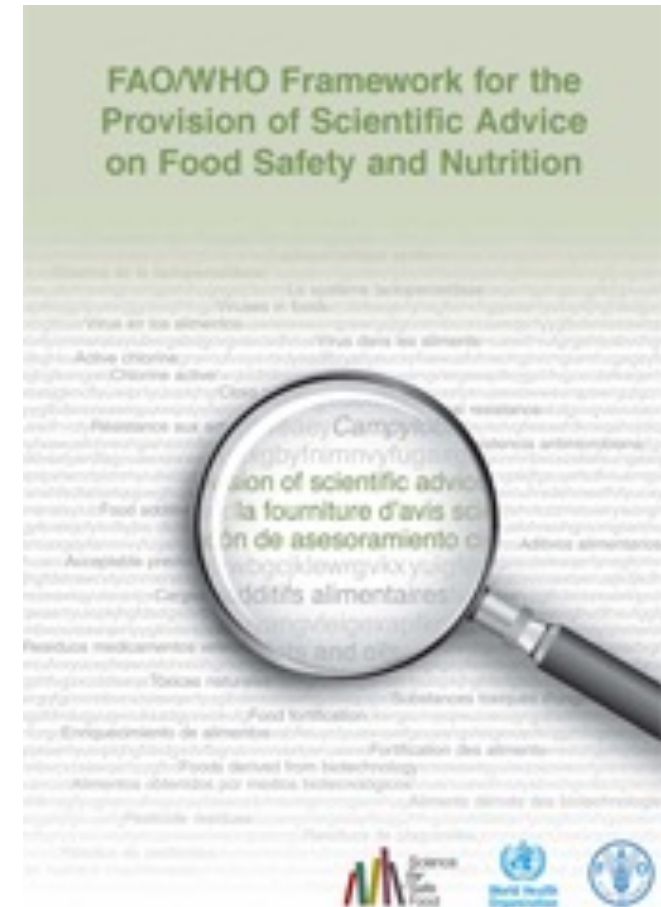
- All countries need to access reliable risk assessment of chemicals in food, but not all have the expertise and funds available to carry out separate risk assessments on large numbers of hazards.
- FAO/WHO Expert bodies performs a vital role in providing a reliable and independent source of expert advice in the international setting, thus contributing to the setting of standards on a global scale for the health protection of all consumers and for ensuring fair practices in the trade of safe food.





## Framework

- Systematic framework for applying principles and guidelines for food safety risk analysis.
- Outlines: Scope, Roles, Responsibilities and *Modus operandi*.
- Functional separation between risk assessment and risk management, ensures scientific integrity and independence, avoids confusion over the respective roles of risk assessors and risk managers, and reduces potential conflicts of interest.



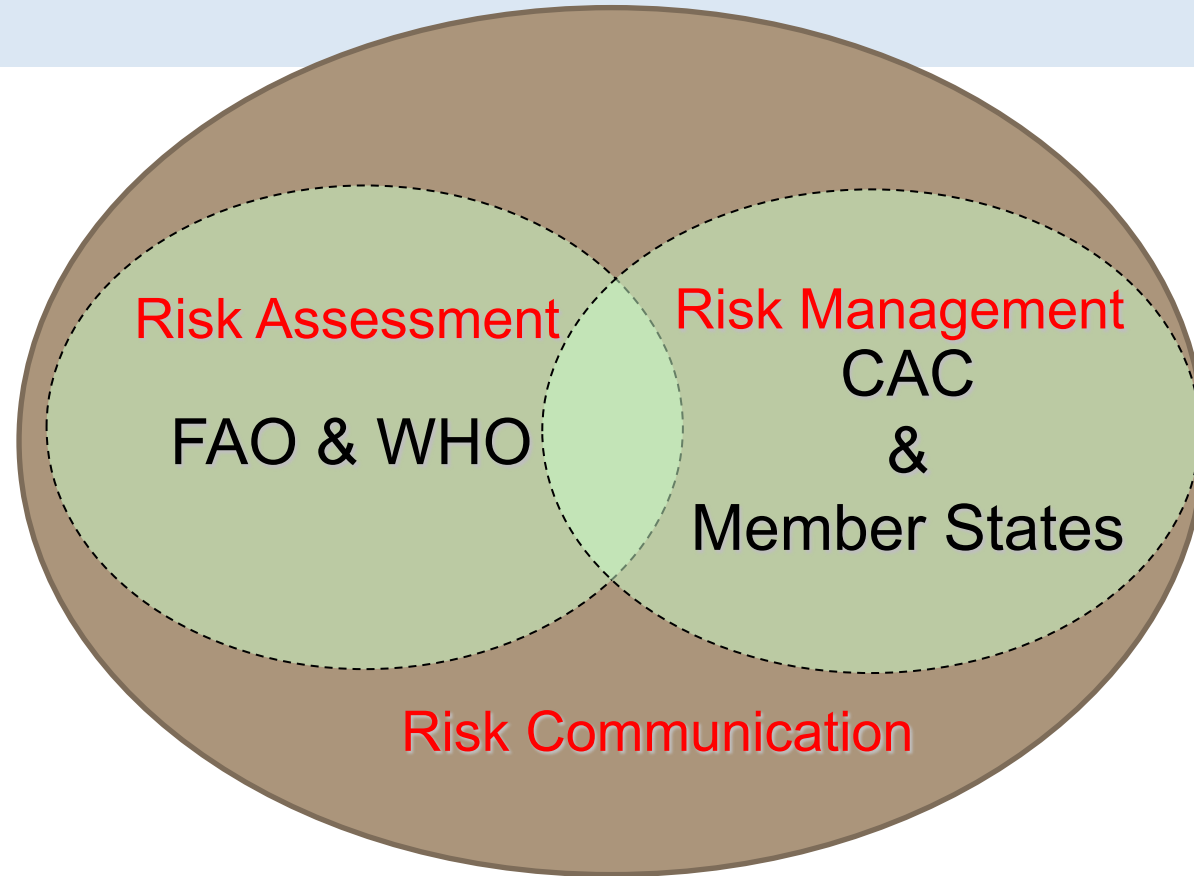


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## Risk Analysis

Scientific advice and  
information analysis



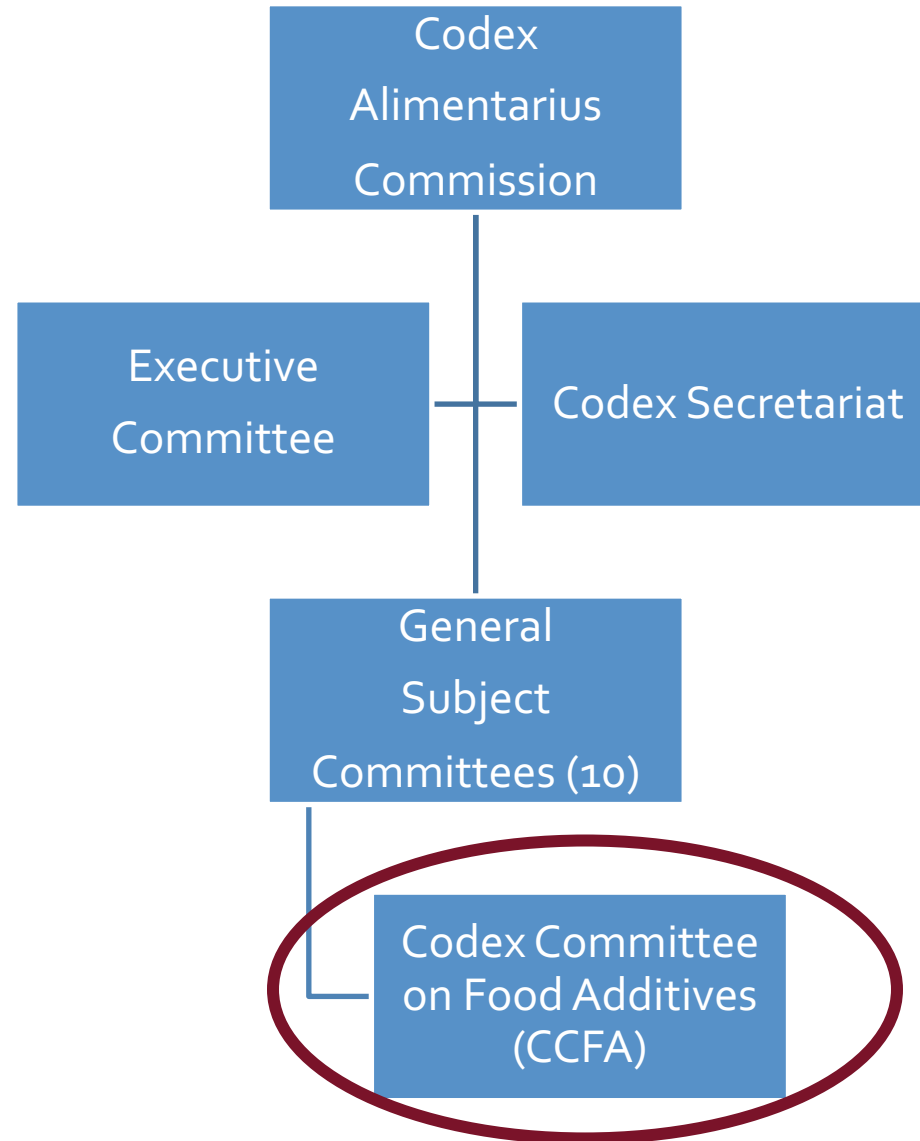
Regulation  
and control

Dialogue with stakeholders





# Structure of Codex





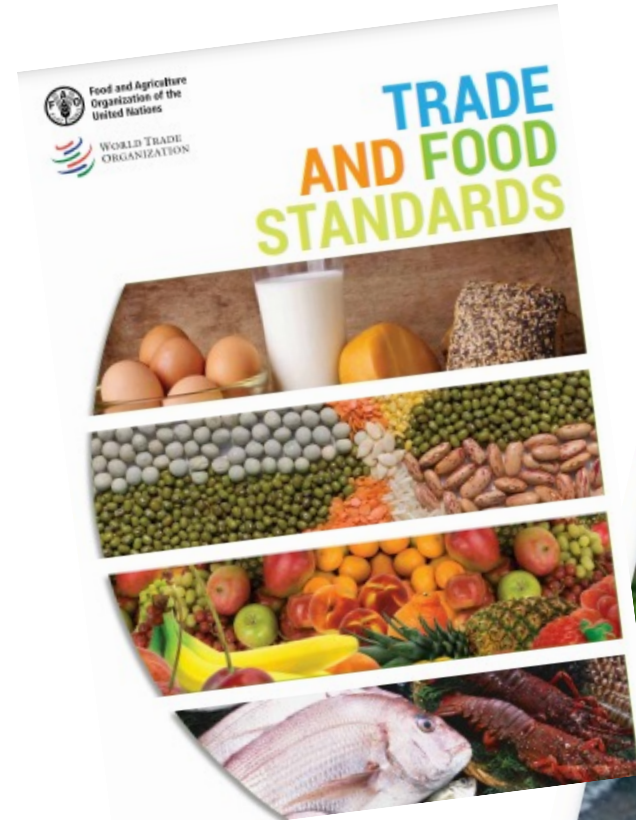


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## Why is Codex important?

- Codex food safety standards serve as international benchmarks under WTO Agreement on Sanitary and Phytosanitary measures (SPS Agreements).
- WTO members are encouraged to harmonise with Codex standards.
- Minimise unjustified Technical barriers to Trade is important to international food trade.
- Food safety and quality standards are essential for health protection and trade.



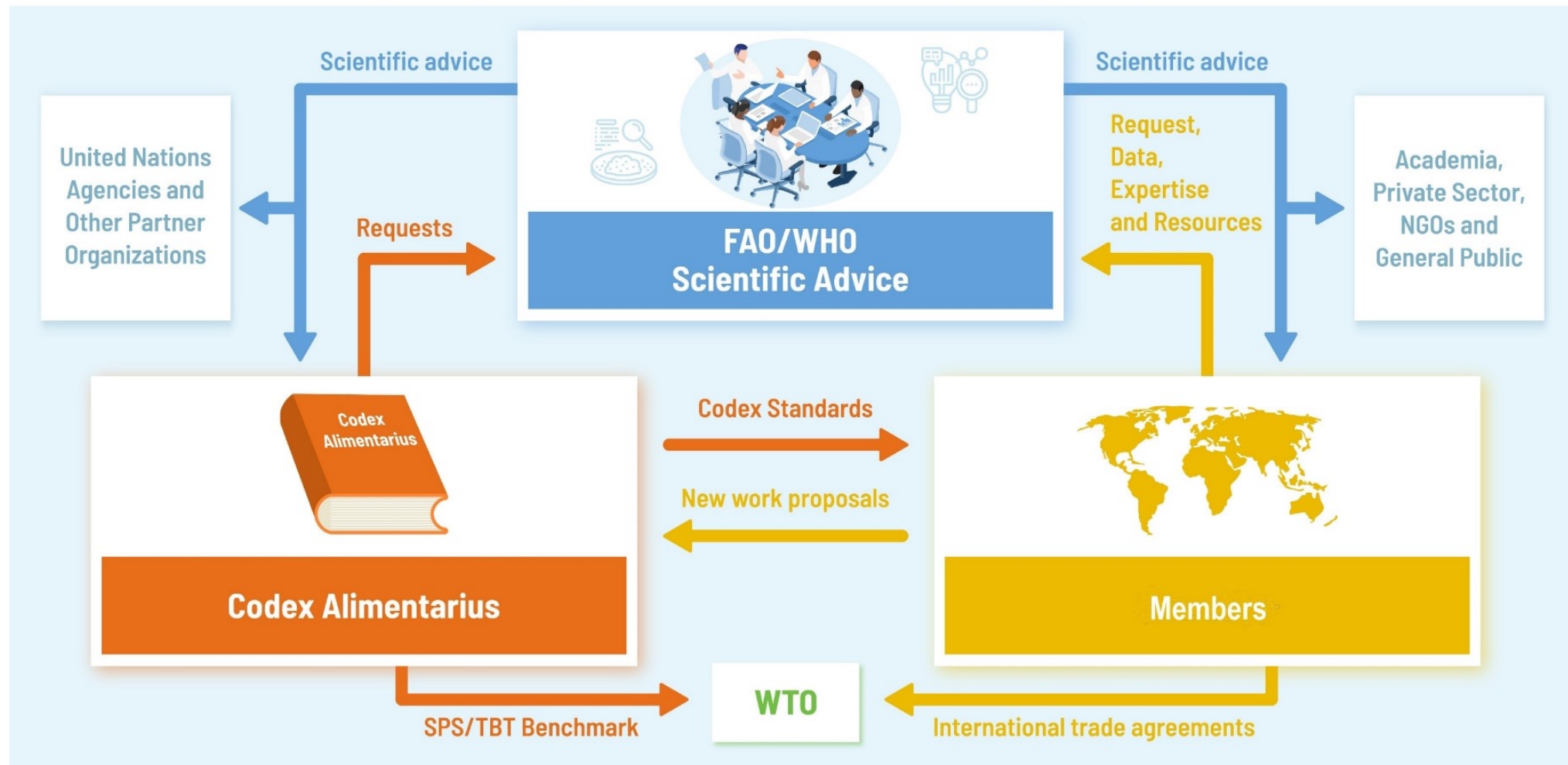




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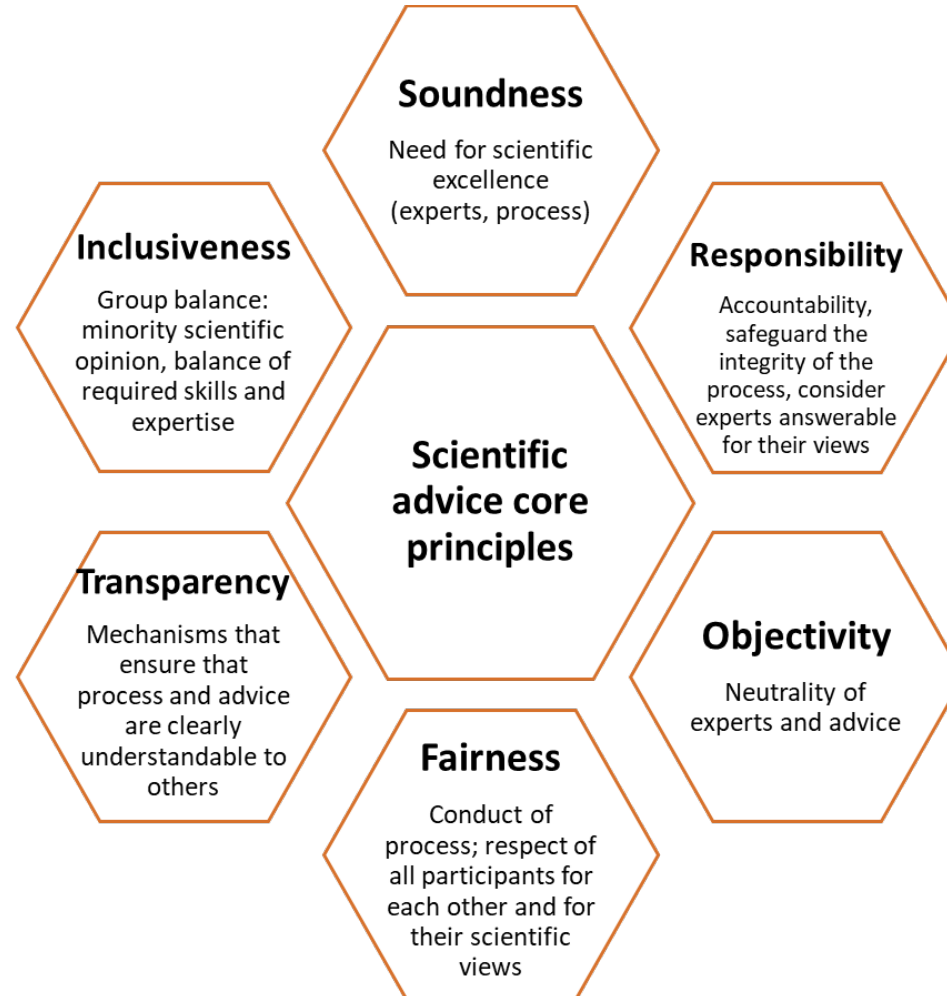
## Provision of Scientific Advice







# Core principles for provision of scientific advice





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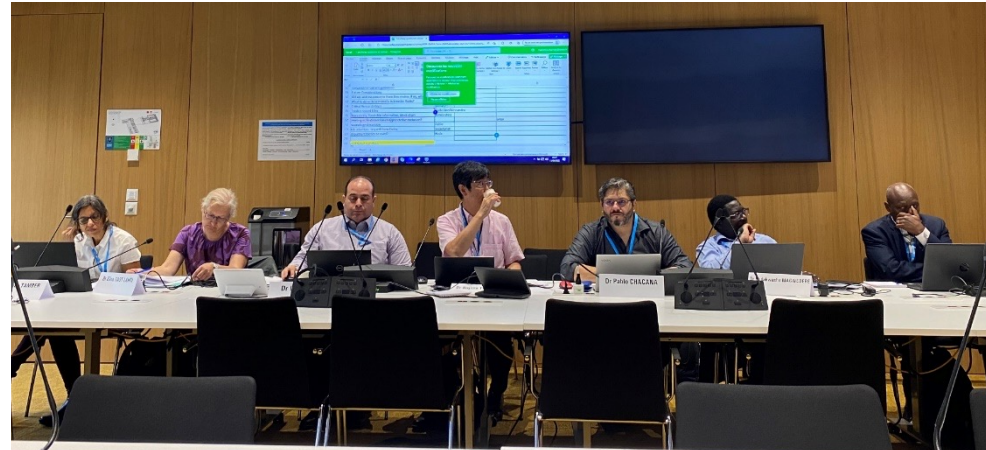
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## JECFA Meetings

2-3 times/year

1-2 weeks

Location





## JECFA work

- **Risk assessments**

- For chemicals, in most cases, the product is a risk assessment leading to the establishment of an Acceptable Daily Intake (ADI).
- Advice is also provided on exposure assessment methodology at both national and international levels.

- **Guidelines and resource documents**

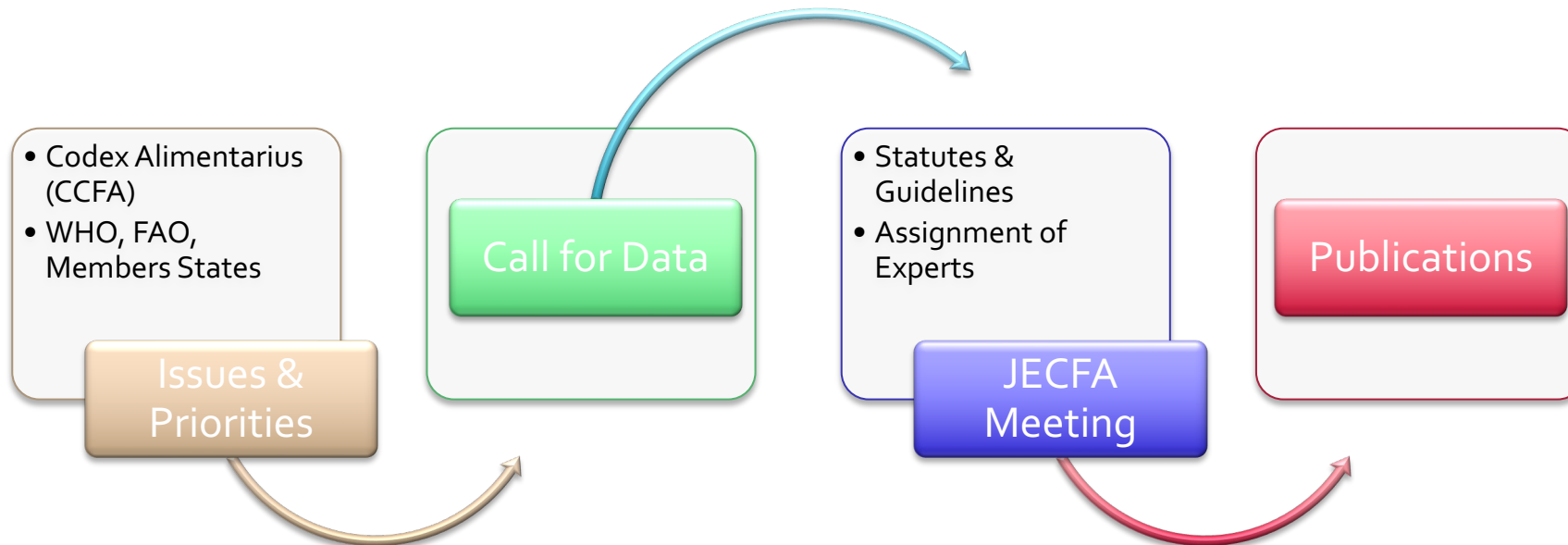
- Risk analysis, principles and methods for the risk assessment of chemicals in food.

- **Risk assessment methodology and international harmonization** which aims at:

- The promotion, development and harmonization of scientifically sound methodologies for risk assessment.



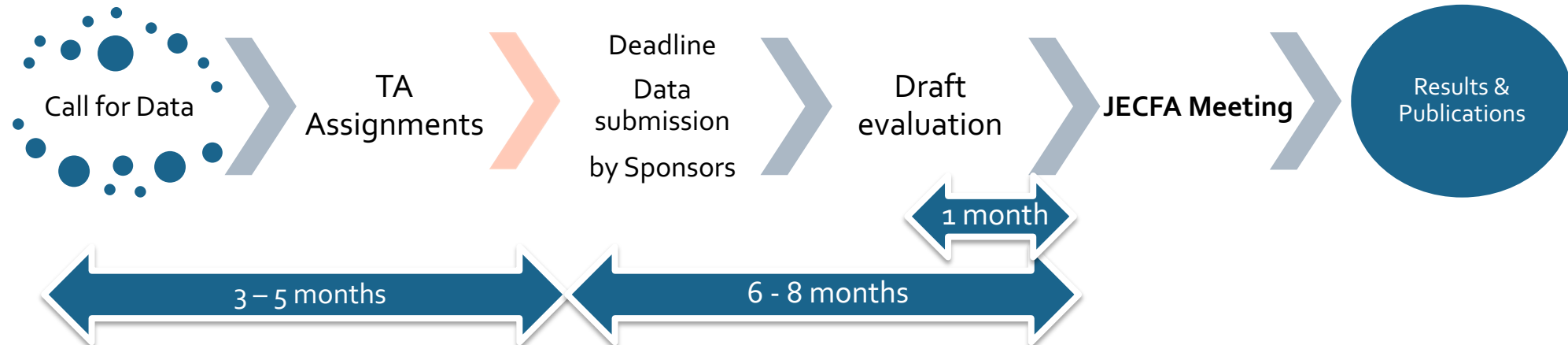
# General Process







# General Timelines





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## JECFA OUTPUT

- Summary Report:
  - Electronic summary containing only basic conclusions
- Report:
  - Concise summary of relevant information for evaluation and conclusion, including intake estimates
- Monographs:
  - Detailed description and evaluation of all available data used in evaluation
    - Toxicological Monographs
    - Specifications
- Chemical and technical assessment (CTA)

<https://www.fao.org/food-safety/resources/publications/en/>





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## Experts

- Scientific experts are selected on the basis of their competence and independence, taking into account geographical representation to ensure that all regions are represented.
- Scientific advice is the product of a group of experts selected to work in their personal capacity and not as representatives of their country/institution.
- **Selection criteria:**
  - ✓ scientific credibility,
  - ✓ relevant experience,
  - ✓ technical skills,
  - ✓ geographical and gender balance,
  - ✓ declaration of interests



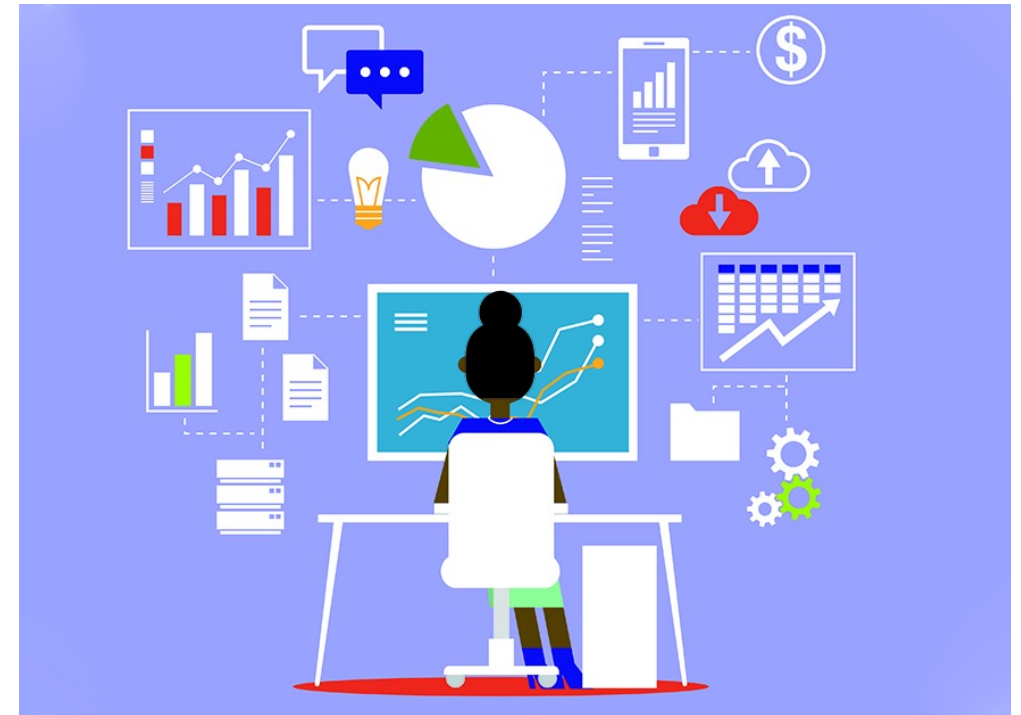


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# Data

- FAO and WHO seek to use the best available data for the provision of scientific advice.
- While the procedures for data selection may vary across meetings, the basic principles (i.e. quality, reliability, independence) are the same.
- Data from a wide variety of global sources is used, also taking into account regional differences in exposure.

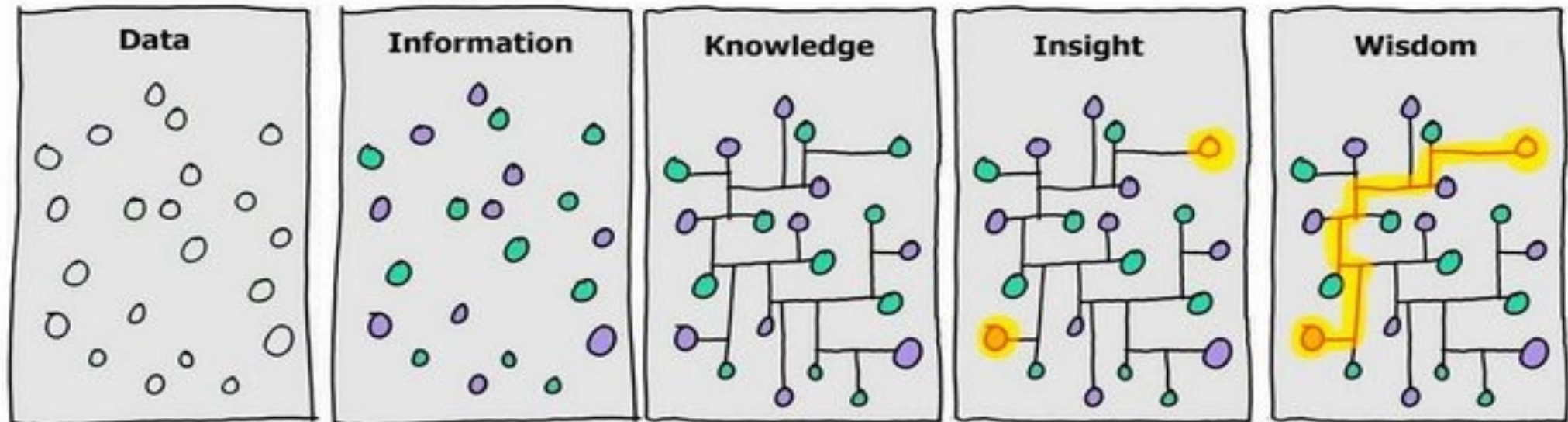






# Data

- Publicly available peer-reviewed literature is used, as well as unpublished or proprietary data submitted to the relevant FAO/WHO secretariat for this purpose.
- FAO and WHO seek to ensure that the use of data is consistent with intellectual property rights and confidentiality requirements.



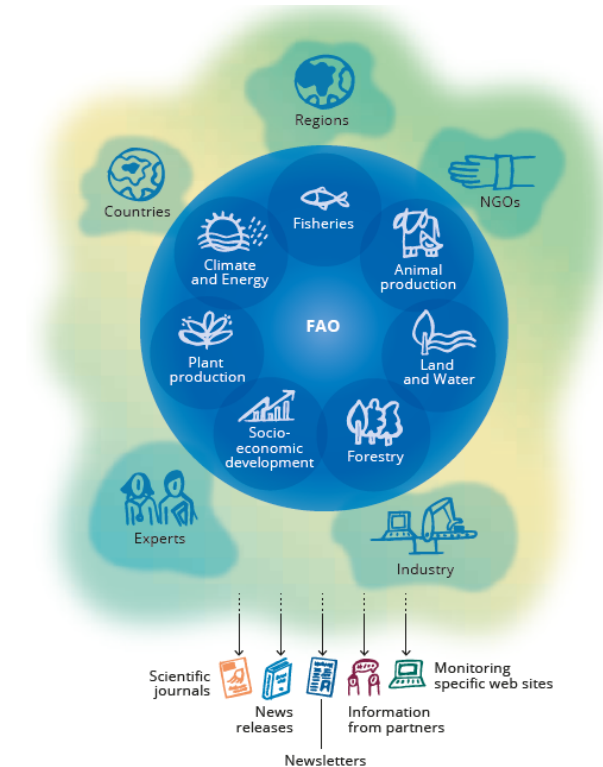


## Foresight - what is it?

- Foresight does *not* predict the future.
- Structured set of approaches for gathering and interpreting intelligence. Leads to the development of proactive strategies/plans to identify and address emerging issues in advance of their occurrence.
- Supported by a collection of 'forward looking' techniques (e.g. horizon scanning, scenario building, trend analysis, etc.) that can be used to support decision-making.
- For more info see:
- <https://www.fao.org/food-safety/scientific-advice/foresight/en/>

Responsible colleagues: Fattori, Vittorio & Mukherjee, Keya

### Foresight requires input from a wide range of stakeholders

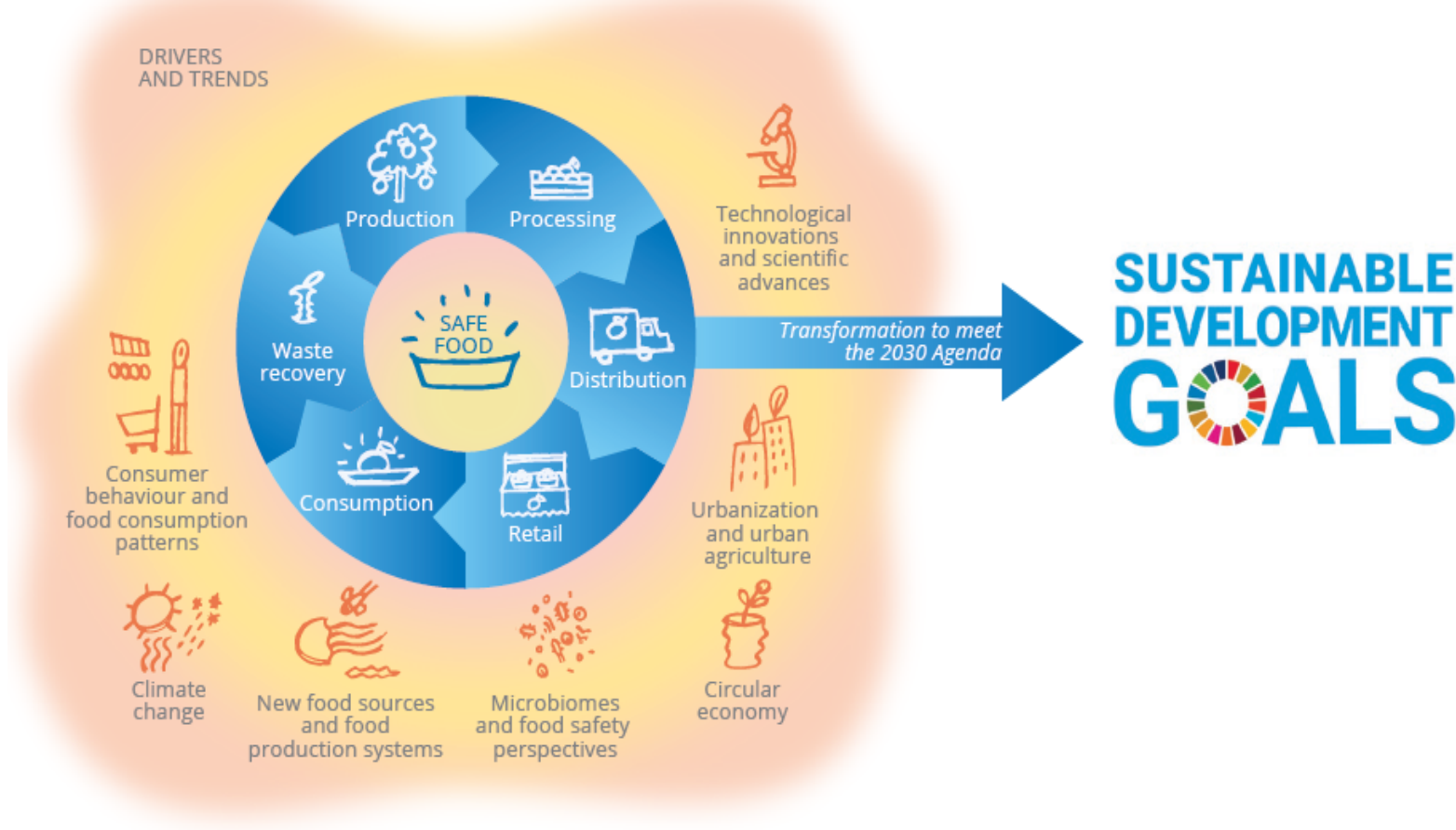




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## Changing Food Systems: more complexities in Food Safety...



As agrifood systems are transformed to meet the 2030 Agenda, foresight approaches enable identification of emerging drivers and trends, that have implications for the systems in general and particularly food safety.





## Technological innovations and scientific advances

- As science is constantly evolving, it is important to keep pace with these advancements to maintain and improve the reliability, robustness and relevance of food safety risk assessments, which in turn facilitate the establishment of appropriate regulatory frameworks and food safety standards.
- Methodologies used for food safety risk assessments largely depend on the **purpose** of the assessment as well as the **quantity and quality** of scientific data available on the substances being evaluated at the time.







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## Combined exposure to chemical mixtures

- While risk assessments of chemical hazards in food usually tend to evaluate individual compounds, humans are typically exposed to multiple low-levels of Chemicals.
- As the evaluation of chemical mixtures is an evolving area, it is vital to keep monitoring it and to update, as appropriate, the risk assessment processes, to ensure soundness and relevance of the advice that is provided.

# Thank you!

Questions?

