

# The European Food Safety Authority

The role of EFSA in risk assessment

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# Disclaimer

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- Rather, I am an independent expert appointed to one of the EFSA Panels (the CEF-panel)
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# Overview

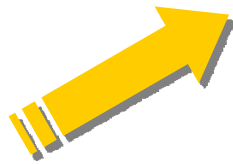
- Creation of EFSA
- What EFSA does
- Structure of EFSA
- Risk assessment process
- Communications
- Challenges
- Further information

## Origins

- Series of food scares (e.g. BSE, dioxins)
  - Loss of consumer confidence in safety of food chain and damaged trust in public authorities
  - Creation of agencies to handle food issues at national level
- ➔ Need to strengthen EU food safety system and policy

## EFSA has three main goals

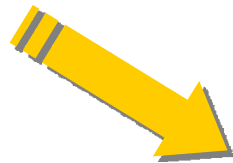
Make a  
significant  
contribution to:



Improving EU food safety



Re-building consumer  
confidence in EU food safety



Re-building confidence of  
trading partners in the EU  
food supply

## **Legal basis**

Regulation EC 178/2002 – January 2002

- General principles / requirements of Food Law
- Establishment of EFSA
- Rapid alert system, crisis management and emergencies

# What EFSA does

## Mandate

- Provision of scientific advice and support for Community legislation/policies in all fields with direct/indirect impact on food and feed safety
- Provision of independent information on all matters within these fields
- Risk communication

# What EFSA does

## The main changes

- Risk assessment separated from risk management
- EFSA not part of European Commission nor answerable to it
- EFSA has independent Management Board
- EFSA works in close co-operation with national authorities
- EFSA actively considers and meet stakeholder needs, especially consumers

# What EFSA does

## **EFSA's tasks**

1. Provide scientific advice, opinions, information, and technical support for Community legislation and policies
2. Collect and analyse data to allow characterisation and monitoring of risks
3. Promote and coordinate development of uniform risk assessment methodologies
4. Communicate risks related to all aspects of EFSA's mandate

## Who can task EFSA?

- European Commission
- European Parliament
- Member States
- EFSA can also task itself

# What EFSA does

## Core values

**Scientific  
excellence**

**Independence**

**Openness**

**Transparency**

**Responsiveness**

## Observation

Having an independent  
science-based risk  
assessment authority such  
as EFSA fits well with the  
general and specific  
provisions of the agreement  
on SPS Measures

# EFSA structure

**Management  
Board**

**Advisory  
Forum**

**EFSA Directorate  
and Staff**

**Scientific Committee  
and Panels**

## MB Composition

### 14 Members

- Selected on basis of individual expertise and competence through an open call
- Members do not represent EU Member States
- Widely range of backgrounds (e.g. consumer, government, agriculture, industry, retail as well as scientific experience)

**1 Member** representing the European Commission (DG SANCO)

## **MB Role**

- Ensure EFSA works effectively and efficiently
- Establish budget, agree work programmes and monitor implementation
- Ensure Authority stays within remit of Founding Regulation
- Appoint Executive Director, Scientific Committee and Panels

## **Advisory Forum**

- Representatives from national food safety authorities/bodies with role equivalent to EFSA
- One representative per Member State (special representatives for animal health and plant health)
- Commission and European Parliament invited as observers
- Special invitees (accession countries, observers from Norway, Iceland, Switzerland)

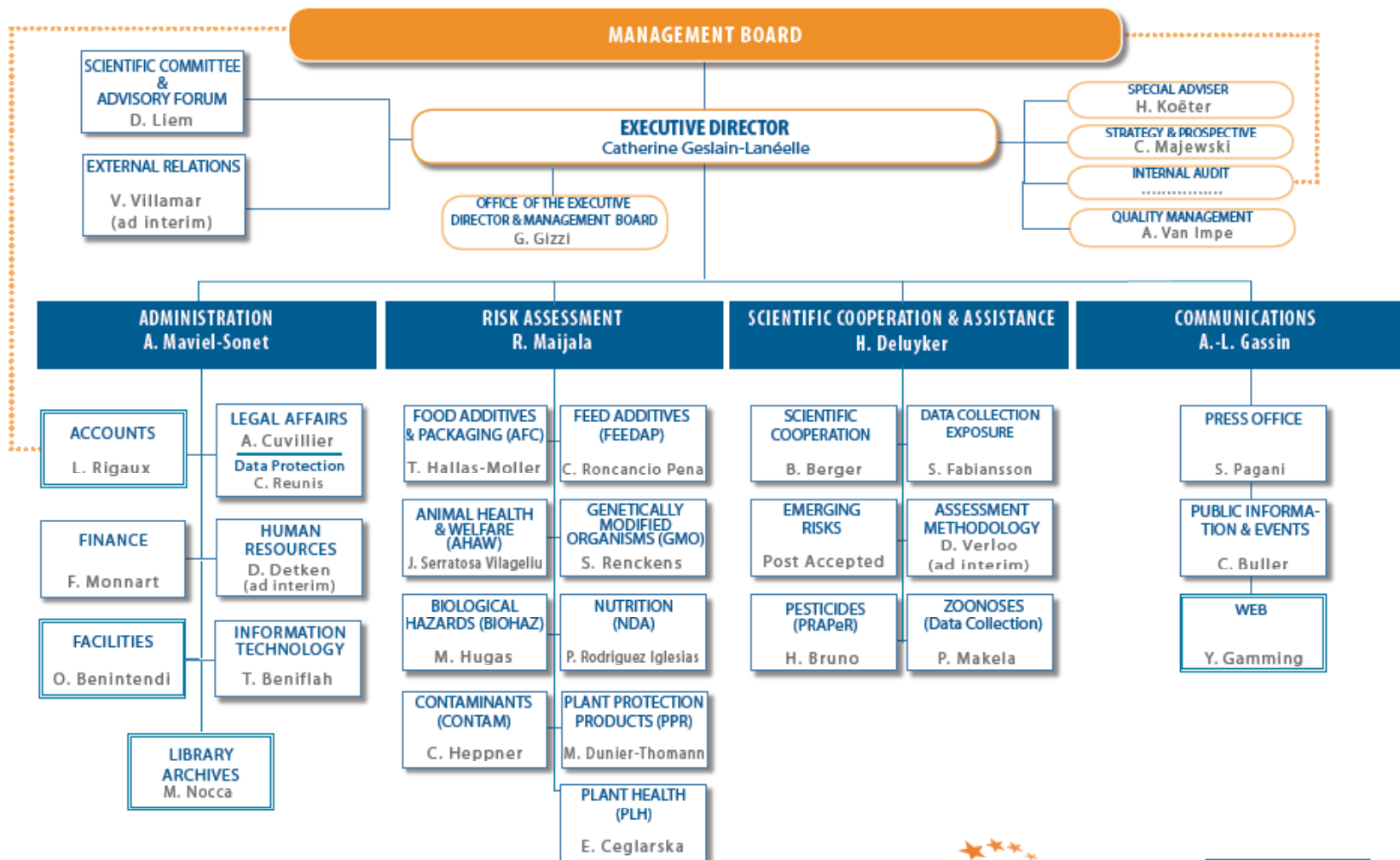
## AF Role

- Advise EFSA on scientific matters, work programme/priorities and emerging risks
- Ensure close collaboration between national bodies and EFSA
- Assist in resolving contentious scientific issues and avoiding divergent views on food/feed safety issues
- Avoid duplication of scientific effort
- Play a key role in sharing and disseminating information
- Assist in increasing scientific co-operation between Member States

## EFSA Staff

- Over 300 in February 2008
- Genuinely multinational and multicultural
- Temporary agents, contract agents, national experts

# EFSA Structure



## Scientific Panels

- Food additives and nutrient sources (ANS)
- Food contact materials, enzymes, flavourings and processing aids (CEF)
- Animal Health and Welfare (AHAW)
- Biological hazards (BIOHAZ)
- Contaminants in the food chain (CONTAM)
- Additives and products in animal feed (FEEDAP)
- Genetically modified organisms (GMO)
- Dietetic products, nutrition and allergies (NDA)
- Plant health (PLH)
- Plant Protection Products (PPR)

## Scientific Panels

- Structure defined in Founding Regulation and carried over from Commission
- Cover whole food chain
- Members appointed by Management Board following open call for applications
- Selected on basis of proven scientific excellence, experience in relevant fields, specialised expertise
- Geographical balance and gender also taken into account
- Maximum 21 members per panel
- Composition re-established every three years

## Scientific Committee

### COMPOSITION

- Chairs of nine Scientific Panels
- Six scientists not members of any Panel

### ROLE

- General co-ordination of EFSA's scientific work, ensure consistency of opinions
- Guidance and scientific advice on multi-sectoral issues
- Establish expert working groups
- Advice on risk assessment and policies related to EFSA scientific work

## RA – what is it?

Evaluation of the potential for adverse effects on human health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food or feedstuffs

$$\text{Risk} = f [\text{hazard}] * [\text{exposure}]$$

- Hazard identification – what?
- Hazard characterisation – how bad?
- Frequency/level of occurrence – how often or how much?

## HAZARDS

- Chemical agent
- Biological agent
- Physical agent

..... with the potential to cause an adverse health effect.

## CHEMICAL HAZARDS

- Environmental contaminants – dioxins, PCBs, metals
- Natural toxicants – mycotoxins, phycotoxins
- Pesticides
- Veterinary drugs
- Processing contaminants
- Additives – to food & feed
- Packaging migration
- Allergens
- Deliberate adulteration



## **BIOLOGICAL HAZARDS**

- Bacteria: Salmonella, Listeria, E.coli O:157, Clostridium botulinum
- Prions: TSEs (BSE, Scrapie)
- Viruses: norovirus
- Parasites: trichinella, cysticercosis, anisakis

## **PHYSICAL HAZARDS**

- Glass, stones, insects, and other debris in food

## Communication

Provide appropriate, consistent, accurate and timely communications on food safety issues to all interested parties, stakeholders and the public at large, based on the Authority's risk assessments and scientific expertise

## **Context**

27 Member States with different attitudes and perceptions regarding:

- Nutrition and health
- Food safety
- Risk

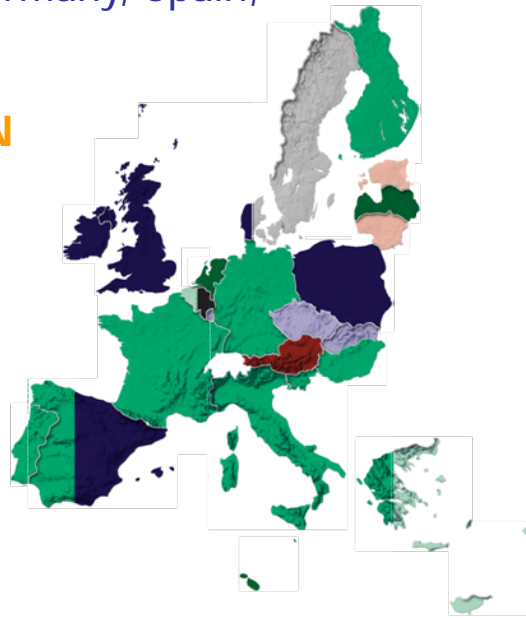
## Risk perceptions: Top Concerns

**PESTICIDES:** Greece, Italy, Hungary, France, Portugal, Slovenia, Germany, Spain, Finland

**NEW VIRUSES LIKE AVIAN INFLUENZA:** Malta, Latvia, The Netherlands

**RESIDUES IN MEAT:** Cyprus, Greece, Belgium

**FOOD HYGIENE OUTSIDE HOME:** Poland, United Kingdom, Denmark, Ireland, Spain



**CONTAMINATION BY BACTERIA:** Czech Republic, Luxembourg, Slovakia

**POLLUTANTS LIKE MERCURY OR DIOXINS:** Belgium

**GMOs:** Austria

**ADDITIVES:** Lithuania, Estonia

**WELFARE OF FARMED ANIMALS:** Denmark, Sweden

## Communicating uncertainty

The risk assessment should also communicate:

- any Assumptions made
- any Uncertainties in the information used including Gaps
- any Limitations of the current state of understanding

The process of risk assessment and (in risk management) the determination of acceptable levels of risk implies the routine use of 'safety margins' to ensure adequate precautions are taken to protect health.

# Challenges

- Re-evaluation of existing hazards (substances, processes etc) up to modern standards
- Immunotoxicity, reprotoxicity, new end-points?
- Human genetic variability and genetic factors in risk
- New technologies, e.g. nanotechnology, animal cloning, gene doping
- Emerging risks – chemical, biological

# EFSA - further information

<http://www.efsa.europa.eu>

AHAW Panel. Basic Information for the Development of the Animal Welfare Risk Assessment Guidelines

FEEDAP Panel. Guidelines for the assessment of additives in animal nutrition

GMO Panel. Guidance document of the GMO Panel for the risk assessment of genetically modified plants and derived food and feed

PPR Panel. Guidance documents -for the implementation of Council Directive 91/414/EEC (Plant Protection Products)

.....etc.