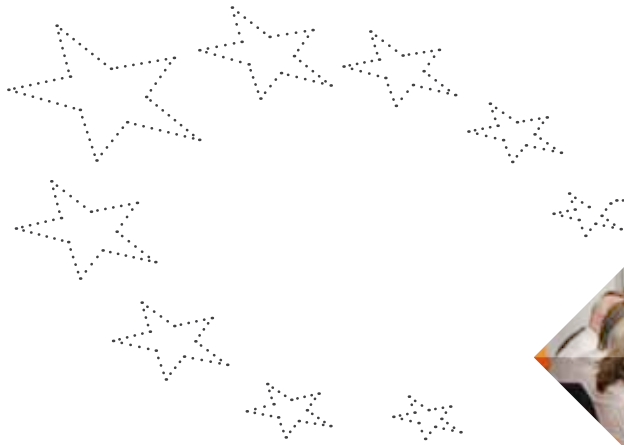


..... *Science protecting consumers*

# from field to fork .....



Committed to ensuring that Europe's food is safe



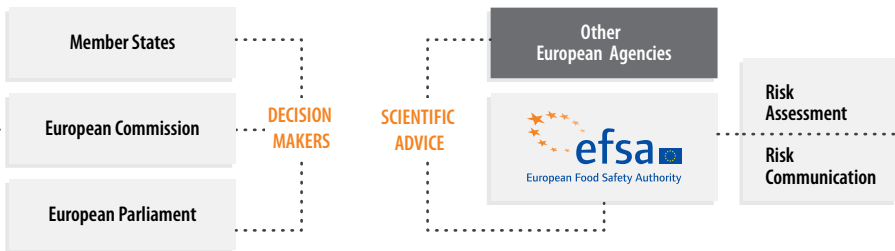
# EFSA

– a science-based organisation that protects and informs consumers

■ The European Food Safety Authority (EFSA) provides impartial, high-calibre scientific advice to help inform decisions of policy makers about food-related risks. This is a crucial part of an institutional framework in the European Union (EU) that ensures the safety of consumers, as well as animals and the environment from any risks associated with the food chain. EFSA's key activity is scientific risk assessment, a specialised field of

applied science that involves reviewing scientific data and studies in order to evaluate risks associated with certain hazards. The Authority also has an important role in communicating its advice to its principal partners, stakeholders and the public at large in a timely, clear and meaningful way, helping to bridge the gap between science and the consumer.





# Europe working together for safer food

■ In 2002 after a series of food-related alerts that impacted on human health and shook public confidence, the EU adopted the General Food Law (Regulation EC 178/2002), providing a comprehensive framework for the EU's science-based food regulatory system. Key elements were the functional separation of risk assessment and risk management and the establishment of EFSA with its emphasis on scientific excellence, independence, openness, transparency and responsiveness – still EFSA's key values today. While EFSA took on the role of risk assessor, EU risk managers (European Commission, European Parliament and EU Member States) retained control over regulatory decision-making, policy and prevention and control measures.

A crucial aspect in the success of this system lies in the active engagement and co-operation with stakeholders and partners at European and national levels. Through its Advisory Forum EFSA works in close co-operation with the national food safety authorities on scientific, data collection and monitoring, and communications activities. The Authority also holds regular meetings with organisations representing consumers, industry, environmental NGOs and other stakeholders to encourage their involvement and understanding of its work.

## THE FOOD CHAIN – FROM FIELD TO FORK

*Europe's food chain is continually evolving and EFSA's remit has evolved to cover an increasingly complex number of areas related to the safety of the food chain: food-borne diseases, contaminants, animal health and welfare, plant protection, food production and distribution, food sector innovation to name a few. Today, the advice that EFSA provides to risk managers underpins many of the laws and regulations in place to protect European consumers from food-related risks – from field to farm and factory to fork.*

# Field and farm

## Plant protection

■ Agricultural crops provide the bulk of our food and feed supply. EFSA helps to protect consumers by providing the scientific advice that underpins the regulation of the safe use of pesticides and other plant protection products. The Authority has helped the EU to evaluate hundreds of active substances used in pesticides and to establish common science-based limits for permitted residue levels in Europe. EFSA's scientists also evaluate the risks posed by pests and weeds to plant health including farm crops and, in turn, on the environment.

## Animals

■ The health and welfare of food-producing animals (such as cattle, chicken and pigs)

during breeding, rearing, transportation and slaughter can have important consequences for human health. EFSA assesses the impact that the conditions and treatment of animals can have both on animal and human health, including industry operators.

About 75 % of the new diseases that have affected humans since 2000 have originated from animals or products of animal origin. So-called "zoonotic" diseases are diseases that can be transmitted to humans by animals, including through food. EFSA's scientific advice, data collection and monitoring have contributed to an EU-wide campaign to control and reduce the presence of bacteria like *Salmonella* and *Campylobacter* that, when present in animals, can infect food. As a result, over five years human cases of salmonellosis were reduced by one-half to 100,000,



substantially increasing consumer protection from such food-borne diseases.

EFSA also assesses the safety of animal feed, which is important for the health of animals, the environment and for the safety of foods of animal origin. Since EFSA's establishment in 2002, the Authority's risk assessment and monitoring work has been a continual, strong thread supporting the ongoing risk management efforts that have seen the number of cases of BSE in cattle reported across the EU drop from several thousands in the early 2000s to 44 in 2010.

## Environment

Increasingly, EFSA is required to consider the food chain's possible impact on the biodiversity

of plant and animal habitats. For example, the Authority performs environmental risk assessments of genetically-modified crops as well as pesticides and feed additives used by farmers. EFSA also assesses possible risks to human and animal health from environmental contaminants. Air, soil, water and plants can be contaminated by environmental pollutants and substances, for example metals in soil or toxins produced by certain types of fungi. This can often be the result of human activities such as industrial emissions or car exhausts. People can be exposed to them from the environment or by ingesting contaminated food or water. Their accumulation in the body can lead to harmful effects over time.





# Factory to fork

## Transportation and storage

- Raw materials used in food production or animals and animal carcasses in transit or in storage may be exposed to potential risks from biological infection and chemical contamination. For example, there may be chemical residues from previous cargoes found in freight containers used to transport edible oils and fats. EFSA assesses the risks of such contamination from contact with, for instance, machinery, vehicles and packaging materials, and provides scientific advice to risk managers on possible measures to limit these risks.

## Food preparation and production

- In Europe, the food sector is regulated to protect consumers from potential risks related to food and feed while also leaving room for companies to innovate. The Authority evaluates the safety of regulated food ingredients such as additives, flavourings, enzymes and nutritional substances with a view to supporting risk managers in authorising their use in foods. For example, EFSA has evaluated thousands of flavourings used in foods and by 2020 is scheduled to complete the re-evaluation of all



food additives authorised in the EU prior to 2009. EFSA's scientific advice informs the decisions of risk managers regarding the safety and permitted uses of these ingredients; in some cases, some flavourings and additives have been removed from the EU market as a consequence of EFSA's work. The Authority also assesses the safety of

food production processes (for instance recycling of plastics used in food packaging) and processing aids used by the food industry.



## Food sector innovation

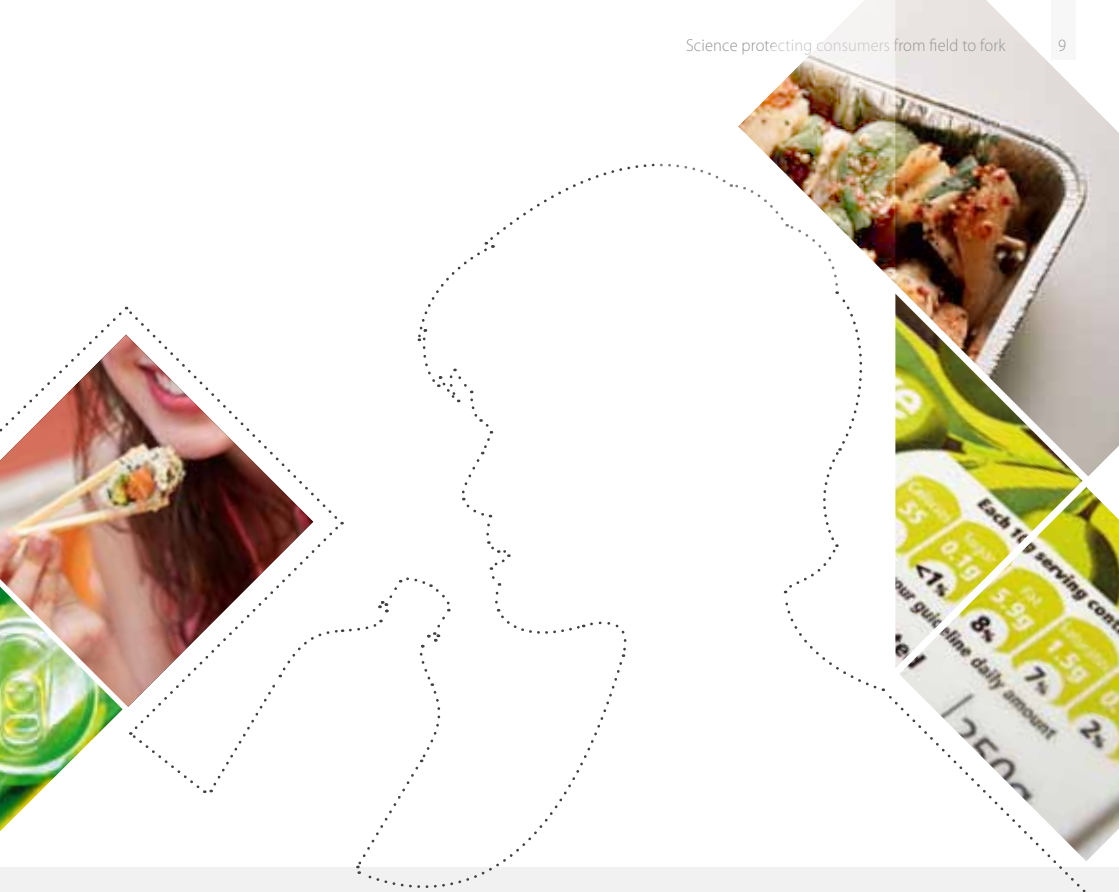
■ Consumers demand much more from their food in terms of choice, quality, price, nutritional value and availability than only a generation ago. The food sector has responded to these product and information needs by innovating, through new ingredients, technologies, food products and related communications. As Europe's food safety watchdog, together with its partners at European and national level, EFSA is directly involved in assessing the science behind such innovations with respect to their safety and in some instances, their efficacy.

In the biotechnology area, for example, EU legislation required that EFSA develop a comparative risk assessment approach to

consider the potential impact of genetically modified (GM) crops or animals that evaluates their effects against traditional non-GM equivalents. The Authority has also provided scientific advice on cloning and novel foods and now considers nanotechnology in its risk assessments of several food sector products, including additives and food packaging.

Claims made about the nutrition or health benefits of foods can provide information which can help consumers in choosing a healthy diet. EFSA evaluates the scientific basis of such claims to help ensure that they are not misleading. By the end of 2012, EFSA had evaluated more than 3,000 health claims.





## Food consumption

Underpinning all of EFSA's work are the huge strides made in the area of data collection on food consumption trends and habits. EFSA has consistently increased its support to data collection and other scientific cooperation with Member States, allocating in 2012 over €9 million to these activities. This progress helps us to understand better what we eat, informing EFSA's work both in the area of food safety and that related to advice on nutrition, diet and health.

EFSA's scientific work also supports decisions about nutritional guidance; its reference values for nutrient and energy intakes take account of the latest studies and help public authorities

in Member States to establish nutritional recommendations and provide practical food-based dietary advice.

In recent decades there has been a proliferation of materials and products used in food packaging, containers, receptacles and utensils. The Authority assesses potential risks related to the use of plastics, paper, active and intelligent substances, inks and resins used in food contact materials, including recycled materials, before they are authorised for use in the EU.



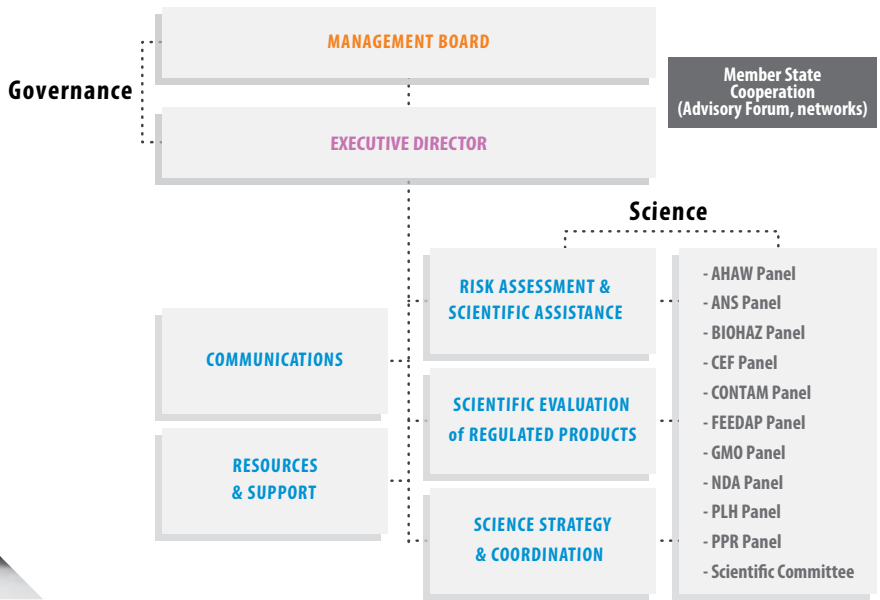
# How EFSA works

■ EFSA is governed by an independent Management Board whose members are appointed to act in the public interest and do not represent any government, organisation or sector. The 15-member Board sets EFSA's budget and approves the annual work programme. EFSA's Executive Director is the legal representative of the Authority. S/he is responsible for all operational matters, staffing issues and drawing up the annual work programme in consultation with the European Commission, European Parliament and EU Member States.

EFSA's scientific work is led by its Scientific Committee and its 10 Scientific Panels composed of leading scientists in their fields. Additional experts participate in working groups when more specialised knowledge is required. The Scientific Committee provides advice on cross-cutting issues while the Panels

carry out risk assessments and provide expert guidance in specific areas:

- **Additives and products or substances used in animal feed**
- **Animal health and welfare**
- **Biological hazards, including BSE-TSE-related risks**
- **Contaminants in the food chain**
- **Dietetic products, nutrition and allergies**
- **Food additives and nutrient sources added to food**
- **Food contact materials, enzymes, flavourings and processing aids**
- **Genetically modified organisms**
- **Plant health**
- **Plant protection products and their residues**



The scientific advice of EFSA's experts is the outcome of collective deliberations and decisions, each member having an equal say. In addition, EFSA applies a robust set of internal mechanisms and working processes to safeguard the independence of its scientific work, including demanding declaration of interests requirements.

The highly-qualified scientific staff in EFSA's three scientific directorates support these groups and carry out evaluations themselves in some areas, such as the peer review of active substances used in pesticides. Together with national partners, EFSA staff also play a vital role in harmonising and expanding the scope of data collection and monitoring activities – for example on food consumption, zoonotic diseases, pesticides, contaminants – that improve the quality of EFSA's risk assessments.

Guided by its Science Strategy, the Authority stays in tune with international scientific

developments, including new risk assessment methodologies and breakthroughs, thanks to the knowledge of its experts and ties with scientific networks and food safety agencies around the globe.

Through its risk communications activities, EFSA seeks to raise awareness and further explain the implications of its scientific assessments. As laid down in its Communications Strategy, the Authority does this by analysing public perception of risks linked to food and explaining and contextualising risks associated with the food chain. Working with key actors including national authorities, stakeholders and media helps EFSA to relay messages to different audiences. The Authority also promotes consistency of messages by co-ordinating communications with other risk assessment bodies and risk managers such as the European Commission and EU Member States.

