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CHAPTER 11

Food legislation of European Union

Authors:
Koponicsné Györke Diána ORCID 0000-0003-1367-3741, Hungarian University of Agriculture and Life Sciences
Szabó Kinga ORCID 0000-0002-0691-4730, Hungarian University of Agriculture and Life Sciences

11.1 Common Agricultural Policy

The beginning of the development of the Common Agricultural Policy (CAP) can be linked to the Messina Conference (1955) preceding the Treaty of Rome (TR). This is where the idea of a single, common market first arose for the founding member states. Thus, when the Treaty of Rome was concluded in 1957, the goals of the initial CAP were formulated. Initially, the support system as a whole was subordinated to these goals. The goals of the later CAP were recorded in Article 39 of the TR[1]:

1. increasing agricultural productivity through the development of technology, the reasonable increase of production and the optimal use of assets - with particular regard to increasing employment;
2. ensuring a fair level of income for people living in agriculture;
3. stabilization of agricultural product markets;
4. establishing the safety of the food supply;
5. and ensuring that consumers get food at a realistic price.

By achieving the above goals, the agricultural politicians tried to handle the two biggest challenges: to create self-sufficiency in the internal market from basic agricultural products, and to provide a meaningful answer to the basic problems of rural communities, which are the fragmented product structure, the emigration resulting from production difficulties, and the resulting lack of labor was typical.

At the 1958 conference in Stresa, the ministers of agriculture of the member states of the European Economic Community and the actors of the sector agreed on the conceptual elements of the CAP. Thus, the goals generally formulated in the Treaty of Rome were concretized in the three basic principles of common market organizations:

1. the principle of uniformity of agricultural markets,
2. he principle of community preference,
3. the principle of financial solidarity.

The principle of the uniformity of the markets created the completely free movement of goods between the six founding member states. Of course, this also had ancillary elements, such as unified price and competition regulation, a coordinated administrative and health care system, or a common foreign trade policy[2].

Following the conclusion of the conference in Stresa, Sicco Mansholt, Commissioner for Agriculture, was tasked with working out the details of the CAP. The system he developed – which was adopted by the council in 1962 after long discussions – was based on guaranteed prices and joint financing.

The CAP thus became the first and for a long time the only fully integrated policy of the European Economic Community.

The main areas of regulation of the common agricultural policy can be summarized below[3]:

1. common market and price policy: since the national agricultural policies of the 6 member countries differed greatly, the coordination of the regimes was unsatisfactory. Common market organization thus became the first (and until 2000, the only) pillar of the CAP.
2. the aim of the agricultural structure policy is to modernize agricultural production by developing technologies, increasing plant sizes, and supporting agricultural vocational training.
3. harmonization of the legislation applicable to member countries in the fields of public health, animal and plant health issues, taxation, quality and product labeling.

The market regulation of the CAP is based on the Common Market Organizations. Their purpose is to regulate and stabilize agricultural product markets in the long term. The basis of their operation is the principle that internal market prices must always be higher than world market prices, thus ensuring that sufficient quantities of food are always available. Based on the Common Market Organizations, it was given by the system of intervention acquisitions and foreign and domestic market regulation.

On the basis of the above goals and principles, an agricultural policy was formed, which was based on internal market prices higher than world market prices. The high internal market prices stabilized the functioning of the agricultural markets and brought predictability to the sector. At the same time, agricultural supply increased and food security increased. In the sector exposed to risks, the income of producers increased, which led to investments, modernization and increased productivity – thus food security.

The joint regulation aimed at the quality of agricultural products and food began immediately after its establishment. The different food safety and quality requirements of the member states constituted a limitation, practically a technical obstacle, to the free flow of goods. The creation of uniform regulations on the technical quality requirements of food was a very lengthy process. The development of each piece of Community legislation took years, as an unanimous decision in the Council was required[3]. Of course, if a member country feared that the given regulation would be disadvantageous in its own economy, it could prevent the adoption of the proposal.

For some products and product groups, the directive regarding the composition and the production process, which is still valid today, was prepared. This type of regulation of product regulations is called vertical regulation. Regulated products include: cocoa, chocolate, certain types of sugar, fruit juices, jams, jams, quick-frozen vegetables and fruit, mineral waters, coffee extracts, etc.

From the beginning, the horizontal regulation of foods, independent of the type of product, serves to protect the health and safety of consumers. Horizontal regulations apply to a group of products or to the totality of products: for example, the purity of additives, materials and objects in contact with food, labeling of food, official food control, food for special nutritional purposes, genetically modified (GMO) plant products created by biotechnological processes , etc.[3]

11.2 Codex Alimentarius

The international food law, i.e. Codex Alimentarius, is a common reference for consumers, food producers, processors, national food control authorities and international food trade accepted throughout the world. The standardization organization was established in 1962 by two specialized organizations of the UN, the Food and Agriculture Organization (FAO) and the World Health Organization (WHO). It was the goals of the UN standardization program:

- protecting consumers' health and ensuring fair trade,
- promoting the standardization activities of international organizations,

- defining, initiating and managing the priorities of the standardization activity through the relevant organizations,
- development of regional and international standards, where cooperation with other international standardization organizations is possible,
- publication of standards.

Any country that is a member of one of the UN organizations, FAO and/or WHO, can be a member of the Codex Alimentarius. The number of members is currently (2021) 189 countries and the EU as the only organization. Only the member countries have the right to vote, but more than 200 other organizations also participate in the standardization work with consultation rights[URL 1].

11.2.1 Documents of the Codex alimentarius

Codex alimentarius consists of a collection of standards, good practices and guidelines. The documents of the code include the *standards related to specific products,* which describe the characteristics and quality parameters of each product. Most product lines have standards, but regulations do not cover all product groups. The most important regulated groups are the following:

- cereals and their derivatives (e.g. vegetable proteins);
- fats and oils;
- fish, fishing products;
- fresh fruits and vegetables;
- preserved and quick-frozen fruits and vegetables;
- fruit juices;
- meats and meat products;
- milk and milk products;
- sugar, cocoa products, chocolate and other products;
- natural mineral water.

On the other hand, there are *general, horizontal standards* that may also contain product-specific standards. Thus, in addition to the general regulations for all packaged foods, food labeling standards may also contain product-specific provisions. General standards also include standards for the use of additives, standards determining the maximum value of toxins and pollutants. Testing and sampling rules are also prescribed in standards.

Practical standards (Code of Practice) describe the important procedures to be applied throughout the food chain as a whole or in individual areas (e.g. production, transport, catering, etc.). Among these, one of the most well-known and perhaps the most important food hygiene documents is HACCP.

In Guidelines, the Codex Alimentarius Committee lays down principles and policies in certain areas of the food chain (e.g. the addition of essential nutrients to food), as well as the implementation of policies in certain areas (e.g. the labeling of organic food) [URL 2].

11.2.2 Bodies of the Codex alimentarius

The Commission is the main decision-making body of Codex. It defines the goals to be achieved, the principles to be defined and the framework of the concrete standard-setting work. These include long- and medium-term strategies and plans, the development of specific documents, and the approval of materials developed by specialist committees. Similarly to the UN General Assembly, it does not consist of appointed members, but rather a meeting held once a year of the representatives of the member countries. It usually meets in Rome or Geneva. In addition to delegates, observer organizations can also participate in the meetings of the Central Committee.

Between meetings of the Main Committee, the *Executive Committee* manages and supervises the specific work. Its members are elected or appointed. Meets as necessary and prepares the meetings of the Central

Committee. Its members are the chairman of the Main Committee and his deputies, the head of the regional coordination committees (there are six such committees). regional coordinators and one member each from the seven main regions of the world.

The *Secretariat* operating at the FAO headquarters in Rome brings together the operational tasks at many locations. Its task is to resolve frictions between the work of individual committees and to ensure that individual documents and procedures comply with the Codex's strictly fixed procedural rules (Procedural Manual).

Codex documents are developed in many countries of the world, in different bodies (see Figure 1). In *the General Committees*, they deal with horizontal topics affecting the entire food chain (this is why they are also called horizontal committees). There are currently 10 such committees. Each member country undertakes the operation of the specialized committees. The host country provides the secretariats of the specialist committees and organizes the annual meetings. The specialist committees propose the documents to be developed and, if the Main Committee agrees, they carry out their development. *Product committees* differ from general committees in that they deal with one product group each, which is why they are also called vertical committees. After the product committees have established the regulation of a product, they are transformed into the so-called dormant committees. (On the other hand, the work of the General Committees is continuous.) At present, 4 active product committees assist the work of Codex: Codex Committee on Fats and Oils, Codex Committee on Fish and Fish Products, Codex Committee on Fresh Fruit and Vegetables, and Codex Committee on Spices.

Ad hoc Intergovernmental Task Forces differ from specialized committees in that their mandate is for a specific period of time (5 years) and only for the creation of predetermined documents.

Six Regional *Coordination Committees* operate in order to help express and enforce the interests of regions with different levels of development and culture. It is essentially a two-way activity. On the one hand, the individual coordination committees have the opportunity to influence the work going on in the Codex according to their own interests, and on the other hand, they can develop independent documents for their own area[URL 3].

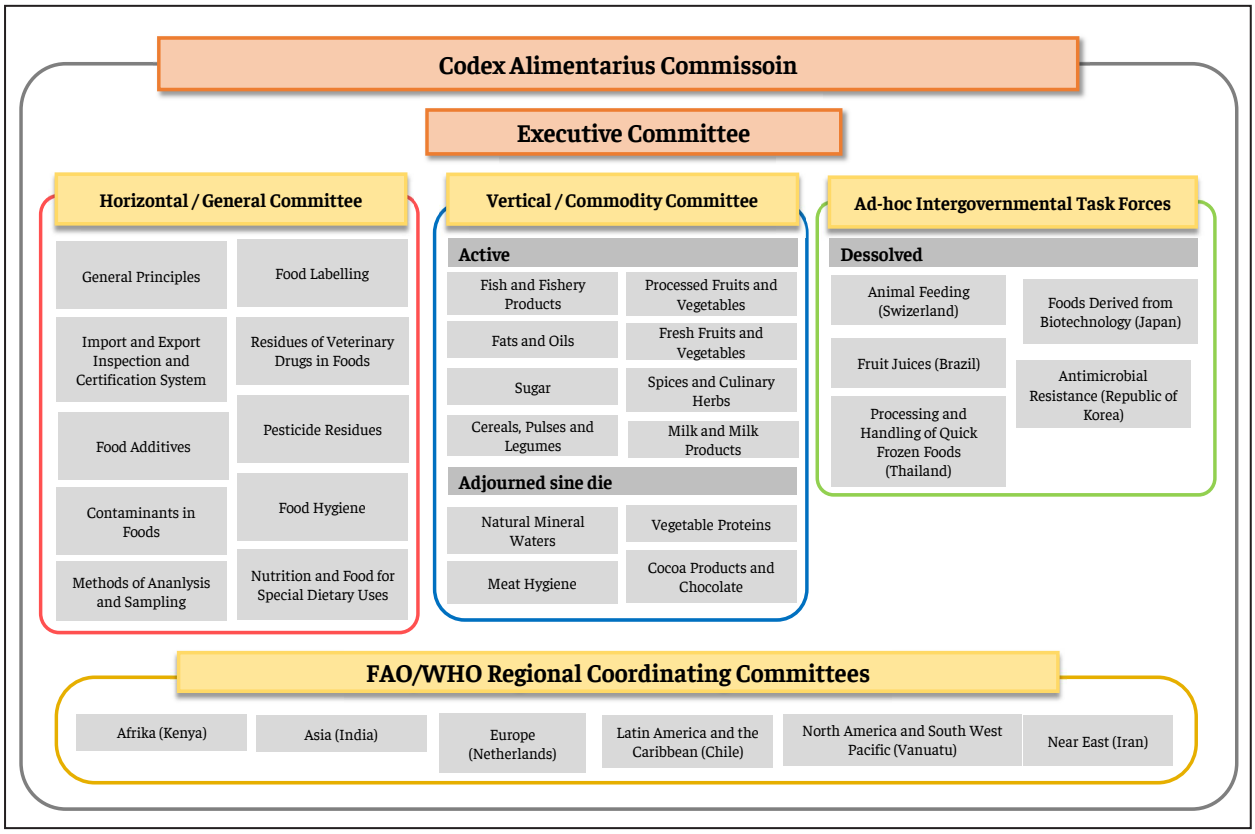

Figure 1. *Organizational structure of the Codex Alimentarius*
Source: Codex Alimentarius Commission Procedural Manual[4]

11.2.3 Working order of the Codex alimentarius

Given that the Codex principle is the pursuit of consensus, the development of documents is a lengthy and complicated process. In all cases, the goal is to create regulations that are acceptable to all regions of the world, Codex member countries and their scientific results, consumers, and producers.

The session, precisely described in the Rules of Procedure, starts with the competent professional committee. The specialist committee makes a proposal to the Executive Committee to start the work. After that, the following labour processes take place:

4. The Main Committee or the Executive Committee examines whether the proposal meets the Codex criteria and priorities and authorizes the work in case of a positive decision.
5. At the Expert Committee meeting, the experts of the member country applying for the task prepare the first draft of the document (proposed draft standard).
6. The Secretariat will send the first draft to all member countries and to the monitoring organization participating in the work of the given committee for their opinion.
7. The draft will be discussed at the meeting of the Expert Committee. This is where they decide on emerging comments, based on which the Secretariat modifies the first draft.
8. The Expert Committee submits the first draft to the Main Committee, who (if it complies with the Codex principles and rules) declares it as planned (draft standard) and authorizes further work.
9. The Secretariat will again send the draft to the member countries and monitoring organizations for comments. If the topic of the draft makes this necessary, the opinion of the relevant Codex General Committees (e.g. marking, analytics, hygiene, etc.) will also be sought.
10. Once again, the meeting of the Expert Committee discusses the opinions sent in writing as well as those that arose at the meeting, and thus concludes the discussion of the draft, and submits it to the Main Committee for approval.
11. The Main Committee decides on the draft. If adopted as a standard, the document becomes part of the Codex Alimentarius document system.[4]

In addition to the above, there is also an *accelerated procedure*, the prerequisites of which are the urgency of the document and a complete consensus on the text during the first draft.

The Order of Procedure allow the specialist committee to set up a *narrower working group* (consisting of a few member states most involved in the debate) to solve each problem of the document.

11.3 The most important elements of EU legal regulation

One of the important cornerstones of joint action in the European Union is the coordination of the rules and provisions of the various member states. We call this process legal harmonisation, which is primarily implemented through various so-called secondary legislation. Secondary legislation is decrees, directives, decisions, recommendations and opinions.

These laws are created and adopted by the various EU institutions, and depending on their type, they are binding on member states or even directly on EU citizens.

The European Union has thus created the foundations for the coherent operation of food safety with its diverse legal activities. This chapter reviews EU legislation related to food safety partly in order of importance and partly in chronological order.

11.3.1 The White Paper on Food Safety

The White Paper, as a type of document, originally means a publication in which the official position of an institution or organization is collected on a specifically defined topic. In EU parlance, White Paper are documents that focus on a certain, strategically important topic and collect the EU's related proposals and draft measures. Their goal is to start a debate.

The White Paper on food safety was published in 2000[5]. The main reason was that the European Commission named the highest level of food safety as a key area, realizing that with the implementation of the single market and the expansion of the Union, the supply chain becomes more complex than anything else. Accordingly, integration in this policy area needed a radically new approach. Effective regulatory environment, risk management and control system.

The White Paper considers the comprehensive and integrated approach, the approach from "producer to consumer" as a basic principle. An important starting point is the principle of clarifying responsibilities, the traceability of feed and food, transparency, risk analysis and precaution, and monitoring. The White Paper already states that an alert system, a food safety authority and a comprehensive food safety ordinance must be adopted.

The document emphasizes research, analysis and scientific cooperation and networks. In a separate chapter, it deals with the issue of control, consumer information and international cooperation. Develops a detailed 84-item action plan to improve food safety. It assigns goals and deadlines to each measure.

This chapter deals in more detail with the general food law regulation, the European Food Safety Authority and the alert system among the ideas of the White Paper.

11.3.2 178/2002/EC – i.e. the so-called general food law regulation

The official name of the regulation to be presented is Regulation 178/2002/EC of the European Parliament and of the Council (January 28, 2002) on the general principles and requirements of food law, establishing the European Food Safety Authority and establishing procedures for food safety. As its name suggests, its purpose is to provide comprehensive regulation to the area under review in response to the demands raised in the previously described White Paper. Its provisions cover food and feed regulations both at the level of the European Union and the member states. Its regulation covers all stages of the production, processing and distribution of the above, but does not apply to products intended for personal consumption (Article 178/2002/EC).

The decree precisely defines the concept of food: "it means any processed, partially processed or unprocessed substance or product intended for human consumption or expected to be consumed by humans." (178/2002/EC Article 2)

The general purpose of the regulation is to ensure a high level of protection of human life and consumer interests. Its basic principles are risk analysis, the precautionary principle and the protection of consumers' interests. According to the precautionary principle, where there is a suspicion that a food may be harmful to health, the European Union takes proportionate and rapid measures. for this, you need a sophisticated risk analysis system, the elements of which are risk assessment and risk management. In both cases, the European Food Safety Authority, to be described later, is assisted by the European Commission as an authentic expert body. As part of the protection of consumers' interests, the Union prevents consumers from falling victim to deceptive practices, food adulteration or other deceptive methods (178/2002/EC Article 5-8).

According to the legislation, unsafe food cannot be placed on the market. Unsafe means harmful to health or unfit for human consumption. In terms of safety, the fact that a food may only have harmful effects for a group of consumers must also be taken into account. The rules are almost exactly the same for feed: the feed is unsafe if it turns out that it is harmful to the health of people or animals or that food produced from animals kept for the purpose of food production is unsafe for human consumption. It is necessary to check and enforce the above rules throughout the entire food chain, therefore the order stipulates that the traceability of all material paths must be ensured at every stage of production, processing and distribution. The Union imposes obligations on food and feed industry entrepreneurs to ensure that their products fully comply with the prescribed requirements. If the entrepreneur believes that a food or feed does not fully meet the requirements, he must immediately inform the authorities and initiate the withdrawal of the product from the market. In addition, you have a full obligation to cooperate with the authorities.

The member states are responsible for enforcing food law and organizing inspections. Food is safe even if it comes from outside the EU, as food and feed imported into the EU for marketing must meet the require-

ments of food law or conditions recognized by the EU as equivalent to the provisions of EU legislation (178/2002/ Articles 11-21 EC).

The decree deals with crisis management and emergency situations in a separate chapter. It lists item by item which measures can be taken in the event of an emergency: suspending the placing on the market of the food or feed in question, defining special conditions applicable to them. They can do this both for products from within the EU and from third countries. In addition to immediate reactions, the regulation requires the European Commission and EFSA to prepare a general crisis management plan (178/2002/EC Articles 53 - 57).

The aforementioned decree also established the European Food Safety Authority (EFSA) and the European Union's Food and Feed Safety Alert System (RASFF). More about these institutions can be found in section 13.5. will be discussed in chapter.

11.3.3 Other legislation

As we have seen, Regulation 178/2002/EC only provides the general but very important framework for the legal regulation of food safety. At the time this chapter was prepared, the collection of EU legislation contained 3,688 different documents related to the topic.

Table 1. *EU documents adopted on the topic of food safety*

Legal act	**1819**
International agreement	314
Preparatory document	567
Parliamentary question	878
Judicial practice	78
EFTA document	8
Other	24
TOTAL	3688
ÖSSZESEN	**3688**

Source: own editing based on Eur-lex.europa.eu [URL 4]

The rules dealing with the topic of food safety are very diverse and it is clear from the table above that we are talking about thousands of rules, so it is advisable to present which topics are affected by the adopted documents.

The materials are grouped around three broad themes: food, animal health and plant health.

Foods

The general rules for foods apply to the distribution, information, authorization of various products and their importation into the Union. Sampling and testing methods for checking the levels of certain elements in food are defined. Countless laws deal with food labeling and nutrition labeling, separate rules apply to different food groups, such as fruits, quick-frozen foods, etc. The European Union also places great emphasis on the regulation of dietary supplements, natural mineral waters, and foods intended for specific groups (medical foods, formulas, etc.).

The so-called new foods form a separate category. There are accepted laws on nutrition and health claims as well as on food additives (e.g. additives, smoke flavors, enzymes, etc.). Part of the legislation deals with biological and another part with chemical safety.

These categories include, for example, food hygiene, food irradiation, pollutants, other substances in food, or regulations dealing with the hormone content of meat. When it comes to regulating food production, the Union deals with regulations on feed, such as also with feed hygiene, feed additives, medicated feed and genetically modified feed[URL 5].

Animal health

An important prerequisite for food safety is that the health and well-being of animals intended for human consumption are regulated in sufficient detail, thus minimizing the risk. Accordingly, the animal health rules deal with the following relevant topics: zoonosis, animal diseases (African horse sickness, swine fever, foot-and-mouth disease, bird flu, bluetongue disease, transmissible spongiform encephalopathy), the implementation of EU rules on the agri-food chain or the system of official controls. The European Union has also adopted an animal welfare regulation, the rules of which cover the breeding, transport and slaughter of animals.

Separate rules apply to both the trade and import of live animals and animal products. as part of this, rules on animal health border control were also created[URL 6].

Plant health

Three large groups of phytosanitary regulations can be linked to food safety. These:

- legislation on genetically modified organisms
- legislation on plant protection products
- regulations related to plant health and biological safety[URL 7].

To get to know the detailed rules, it is worth using the database of the European Union's legislation, which is up-to-date and provides detailed search conditions to guide us through the rules[URL 8].

11.4 The EU institutional system of food safety

Based on the ideas of the White Book on food safety, Regulation 178/2002/EC presented in the previous chapter established the European Food Safety Authority (EFSA) and also provided for the establishment of an alert system. These institutions are presented in the following subsections.

11.4.1 European Food Safety Authority (EFSA)

The European Food Safety Authority (EFSA) was established by the General Food Law Regulation. Its main task is to provide scientific advice and provide scientific professional assistance to European Union decision-makers in areas under EFSA's competence. In addition, it collects and provides information, collects and analyzes data. This enables the description and monitoring of risks affecting food and feed safety (Article 22 of 178/2002/EC). Its seat is located in Parma, Italy. Areas covered by EFSA:

- food and feed safety,
- nutrition,
- animal health and welfare,
- plant protection,
- plant health[URL 9].

It is clear from the decree that the Authority's task is of a scientific nature. Its credibility is also guaranteed by its mandatory independence. Its activities can be grouped around five major tasks:

1. scientific data collection and analysis,
2. preparation of scientific opinions,
3. information,
4. cooperation with other EU institutions and national authorities,
5. increasing confidence in the food safety system.

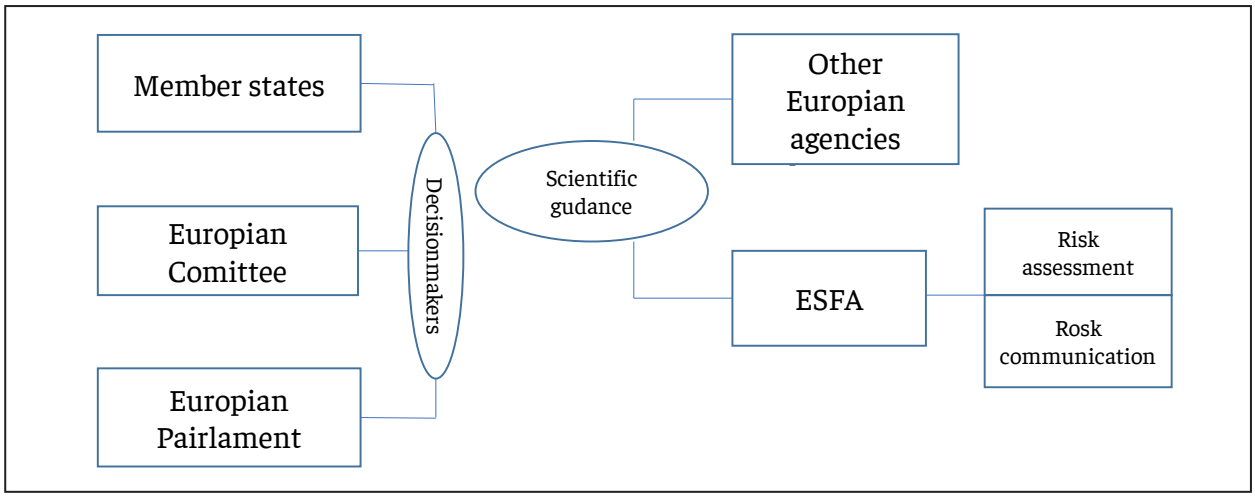

Figure 2. *The Authority's relationship with EU institutions and member states*
Source: Based on EFSA[6]

The main organs of the Authority are the Board of Directors, the Managing Director, the Advisory Forum, the Scientific Committee and other scientific bodies.

Board of Directors
The Board of Directors consists of 15 members, four of which come from consumer protection organizations or other advocacy organizations active in the food chain. The appointment of members is for four years, which can be extended once. As usual in the European Union, the mandate of the head of the unit is half of the mandate of the organization, i.e. the members elect a president from among themselves for two years, who can also be re-elected. The board can be convened by the president or at least one third of the members, decisions are made by majority vote. Its main tasks are to adopt the internal regulations, financial regulations and annual work program of the Authority. With all of this, the Board of Directors ensures that the Authority fulfills its mission and carries out its tasks according to the conditions set out in this regulation (Article 25/EC 178/2002).

Executive Director
The executive director embodies the entire authority in one person and acts as its representative. His tasks include ensuring the daily activities, proposing to the Board of Directors the work program and budget of the Authority, and implementing the decisions of the Board of Directors. It supports the work of organizational units, such as the Scientific Committee and scientific bodies. During the implementation of the budget, the executive director prepares the profit and loss statements, decides on personal matters and is responsible for maintaining relations with the European Parliament, the European Commission or even the Member States (Article 26 of 178/2002/EC).

Advisory Forum
As indicated in the name of the Consultant's forum, its main task is to provide advice to the Executive Director in the performance of his duties. This is mainly done during the preparation of the annual work program. Its members represent Member State institutions with a similar task to that of EFSA. Members of the Forum cannot be members of the Board of Directors. An important function of this unit is that, as a collection point of available information, it has a key role in the exchange of information related to risks (Article 27 of 178/2002/EC).

The Scientific Committee and scientific bodies
Both the Scientific Committee and the scientific bodies are the main custodians of the professional work, since each of them is responsible for preparing expert opinions. Scientific bodies consist of independent experts According to the general regulation, the following scientific bodies must be established:

- scientific body for food additives and flavorings, food processing aids and food contact materials;
- scientific body of additives, products and materials used in animal feed;
- scientific body for plant health, plant protection products and their residues;
- scientific body of genetically modified organisms;
- scientific body for dietary products, nutrition and allergies;
- scientific body of biological hazards;
- scientific body of pollutants entering the food chain;
- scientific body of animal health and animal protection.

The members of the Scientific Committee are the presidents of the above scientific bodies and six independent scientific experts who do not belong to the scientific bodies. The Commission has a president and two vice-presidents, who are elected from among their members. Their decisions are made by majority vote (Article 178/2002/EC, Article 28). Figure 3 illustrates the relationship between the individual bodies of EFSA:

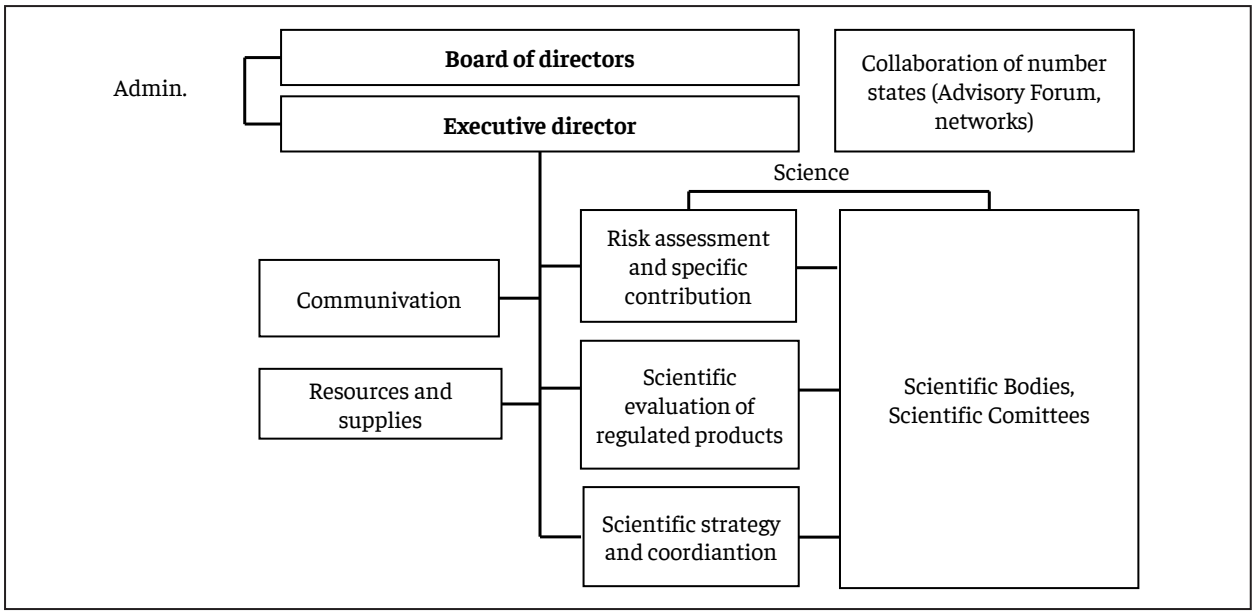

Figure 3. *The relationship of some of EFSA's bodies to each other*
Source: Based on EFSA[6]

The figure shows that the scope of administrative and scientific tasks within the Authority is clearly separated from each other. The membership of the scientific bodies and the Scientific Committee is renewed every three years.

As we saw when presenting the legislative environment, there is a clear demarcation of tasks in the European Union with regard to health and safety issues affecting people, animals and the environment. accordingly, EFSA works closely with other EU agencies by name:

- European Medicines Agency (EMA)
- European Chemicals Agency (ECHA)
- European Center for Disease Prevention and Control (ECDC)
- European Environmental Protection Agency (EEA)[URL 9].

11.4.2 The European Union's food and feed safety alert system (RASFF)

The establishment of the Rapid Alert System for Food and Feed (RASFF) operating in EU member states was also required by Regulation 178/2002/EC, although the system had been operating in a similar form since 1979[URL 10]. The cited decree only defines the framework, according to which the goal is to create a system that functions as a network and can signal in the event of a danger directly or indirectly affecting human health arising from food and feed. Within the RASFF, the alarm chain starts with the hazard detector. The

information is first sent to the European Commission, which immediately informs all members of the network. EFSA's task in this chain is to provide additional scientific or professional information so that the Member States can take appropriate risk management measures as soon as possible. Let's examine in more detail in which cases the system indicates:

- When Member States restrict the placing on the market of certain food or feed, withdraw it from the market or recall it in order to protect human health
- when the member state makes a recommendation or an agreement, the purpose of which is to prevent, limit, or subject to specific conditions the placing on the market and use of food and feed that pose a risk
- when a shipment is turned back by the competent authority at a border crossing point in the territory of the European Union due to a health risk (Article 50 of 178/2002/EC)

The detailed rules of operation are contained in Regulation 16/2011/EU, adopted in 2011, "on the establishment of enforcement measures for the food and feed safety alert system". Pursuant to the decree, the members of the RASFF are, in addition to the EU member states, the European Commission, the EFSA and any country, third country or international organization that has signed an agreement with the European Union. Currently, the non-EU members of the system are Liechtenstein, Norway and Switzerland.

Announcements can be classified into four groups according to their level of risk and urgency:

1. Alarms: highest risk, immediate action is required
2. Information: does not require immediate intervention from all Member States, as the risk only exists in the reporting country
3. Notifications about turning back at a border crossing point
4. Additional notifications: additional information received for previous alerts[URL 11].

RASFF creates a database of public notices, and the European Commission also prepares an annual report from them, which is available to everyone.

11.5 The *Farm to Fork Strategy* as a comprehensive approach

The European Green Deal sets out how to make Europe the first climate-neutral continent by 2050. One of the most important elements of this Agreement is the Producer-to-consumer strategy for a fair, healthy and environmentally friendly food system (hereinafter referred to as the Strategy), which comprehensively addresses the challenges of sustainable food systems, taking into account the inseparable relationship between healthy people, societies and the planet. The Strategy is an integral part of the EU Commission's efforts to achieve the sustainable development goals of the UN. According to the Commission's point of view, the transition to a sustainable food system will bring environmental, health and social benefits, as well as economic benefits. The focus of the Strategy is the implementation of a solid and resilient food system, which is functional in all circumstances and is capable of providing people with access to food of adequate quantity and quality.

Thanks to several decades of policy decisions aimed at this, as well as the efforts of farmers and participants in the product pathways, today the European food supply is safe and abundant in the world, and the food produced is nutritious and of high quality.

The goal of the Strategy is for European food to become a global standard of sustainability, to this end reward those actors (farmers and other actors in the food chain) who have already switched to sustainable practices and encourage others to follow the good example. This gives EU players a leg up on the global market.

The Farmland to Table Strategy aims to accelerate the transition to a sustainable food system that:

- has a neutral or positive impact on the environment;
- helps to neutralize climate change, but is able to adapt to its effects;
- helps improve biodiversity;

- implements food and nutrient security, improves the public health situation, by ensuring everyone has access to the right amount of safe, nutritious and sustainably produced food;
- ensure food affordability while generating fairer economic returns, promote the competitiveness of the European Union supply sector and promote fair trade.

According to the principle of the Strategy, all actors in the food chain must participate in achieving the sustainability of the food chain. Agricultural producers must transform their production methods as quickly as possible and take advantage of nature-based, technological and digital solutions to achieve better environmental and climate results, increase resilience against the effects of climate change, and reduce the use of input materials (e.g. pesticides, fertilizers) in order to reduce and optimize.

It encourages the development of new green business models, the circular bio-based economy, and the development of renewable energy production. According to the plans, the use of traditional plant protection agents will be reduced by 50% by 2030, while helping the spread of alternative solutions, prioritizing integrated plant protection.

Measures are taken to reduce air, soil and water pollution, which is one of the motors of climate change problems. To this end, it is necessary to reduce the excessive use of nitrogen and phosphorus in agriculture. A 50% reduction in nutrient loss can be achieved with a 20% reduction in fertilizer use, the necessary steps for this will be included in an integrated nutrient management action plan.

It is a problem that more than 10% of the EU's greenhouse gas emissions come from agriculture, and animal husbandry is responsible for nearly 70% of this. In addition, 68% of the agricultural land is used for animal husbandry, so alternative feed materials (e.g. insects, algae) come to the fore in order to reduce dependence on critical feed materials.

Animal welfare measures will be prioritized and innovations in this direction will be supported to combat plant health problems arising as a result of climate change.

A prominent part of the Strategy is the question of food security, since climate change and the reduction of biological diversity pose a direct and lasting threat to food security. Factors affecting the sustainability of food systems do not necessarily originate from the food supply chain itself, but can also be caused by political, economic, environmental or health crises.

Common European responses to these problems are necessary. In addition to this, the Strategy focuses on improving the food consumption structure and educating consumers on healthy and sustainable consumption. The aim is to make sustainable food available and at the right price on the European market, in order to reduce food waste and food fraud[7].

11.6 Case studies

In this subsection, we present some cases that prove the need for an EU regulatory system in the field of food safety.

BSE – spongiform encephalopathy

BSE, i.e. spongiform encephalopathy, is a latent destruction of the brain and central nervous system that always ends in death. It came to be known colloquially as "crazed cattle disease". Its human version is Creutzfeldt-Jakob disease. It has not yet been proven that the BSE pathogen can be transmitted from animal to animal, but during the British BSE crisis, a new version of Creutzfeldt-Jakob disease also appeared[8]. Cases have been detected in the UK since the 1980s, but panic broke out when the first case of BSE was documented in Germany.

In response to this, the EU introduced a ban on the use of feed containing animal protein in 2001, which drastically reduced the incidence of BSE. The European Commission has asked the European Food Safety Authority (EFSA) to continuously investigate the cases. EFSA experts made several proposals for maintaining and strengthening the EU monitoring and reporting system, as well as for evaluating newly available scientific data[9].

Bird flu

Avian influenza is a disease caused by the influenza virus that can live in the body of birds. Its most dangerous variant is HPAI (highly pathogenic avian influenza). It first appeared in Italy, now it occurs all over the world. So far, it has only spread from person to animal in a few cases, and its variant that spreads from person to person is not known. EFSA continuously monitors EU member states and prepares regular reports on reported HPAI cases. In the course of this, they investigate the species in which the disease occurred and whether genetic markers can be identified in the virus that would allow it to adapt to mammals[10].

Listeria contamination

In 2018, the ESFA warned about the dangers of frozen vegetables packed by a Hungarian company, which caused many illnesses and 9 deaths across Europe[11]. During packaging, Listeria monocytogenes entered the food. During the traceability of the food, the manufacturing company and the period when the affected quick-frozen vegetables were produced were also identified. The majority of signals to the RASFF system are directed to Listeria monocytogenes contamination after Slamonella contamination. ESFA experts examined the cases and made recommendations for safe food.

Aflatoxin

Aflatoxins are naturally occurring mycotoxins that are also dangerous to humans. Molds produce them. They are mainly found in cereals, but in Hungary in 2004 hot peppers contaminated with aflatoxin caused serious problems[URL 12]. At the request of the European Commission, EFSA prepared a risk assessment in 2020 regarding aflatoxin contamination of food. The authority concluded that the occurrence of aflatoxin should continue to be monitored in light of the potential increase due to climate change[12].

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