

Agri-food legislation in EU countries

FOOD

Safety, Fair Trade Practices, Manufacturing and FCMs

FEED

Safety, fair trade practices, health protection, consumer interests and information

ANIMAL HEALTH

Animal health requirements

ANIMAL WELFARE

Provisions on animal welfare

PDO, PGI, TSG

Use and labelling of protected designations of origin, protected geographical indications, traditional specialities guaranteed

GMO

Deliberate release into the environment of GMOs for the purpose of food and feed production

ANIMAL BY-PRODUCTS AND DERIVATIVES

Prevention and reduction of health risks for humans and animals

PHYTOSANITARY PRODUCTS

Prescription for placing on the market and use, sustainable use of pesticides

PLANT HEALTH

Protection measures against plant pests

ORGANIC PRODUCTION

Organic production and labelling of organic products

Legal basis

Article 43 (agriculture and fisheries), Article 114 (internal market), Article 168(4) (public health) and Article 169 (consumer protection) of the **Treaty on the Functioning of the European Union**.

General legislation

The **Reg. EU/178/2002** framework regulation lays down the general principles and requirements of EU food and feed legislation, taking into account the "precautionary principle" (2.5.1). This regulation defines an approach to **risk assessment**, lays down general provisions on the **traceability** of food and feed and introduces the **Rapid Alert System for Food and Feed (RASFF)**, which allows Member States and the Commission to **rapidly exchange information** and coordinate their response to health threats posed by food or feed.

Food hygiene

Hygiene Package, was adopted, which covers the hygiene of foodstuffs (Regulation EC/852/2004) and lays down specific hygiene rules for food of animal origin (Regulation EU/853/2004). In addition, the Hygiene Package established a Community framework for official controls on products of animal origin intended for human consumption, which has now been replaced by Regulation EU/2017/625. **The package assigns responsibility for food hygiene directly to the various operators in the food chain through a system of self-regulation, using the method of Hazard Analysis and Critical Control Points, monitored by official controls.** Regulation EC/178/2002 on the general principles of EU food law introduced traceability rules, meaning that if a food poses a health risk, businesses must immediately withdraw it from the market, inform consumers and alert the competent authority.

Food contamination

It can occur **naturally or be the result of cultivation practices or production processes**. **Residues** in food can also come from food-producing animals that have been treated with veterinary medicines or exposed to pesticides or biocides. In order to protect public health, **Regulation EU/2023/915** sets maximum levels of contaminants, such as nitrates, heavy metals and dioxins, in food of animal and plant origin, and sets maximum residue limits. Food containing unacceptable levels of contaminants cannot be placed on the market in the EU.

ANNEX I

Maximum levels for certain contaminants in food ⁽¹⁾

1	Mycotoxins				
1.1	Aflatoxins	Maximum level (µg/kg)			Remarks
		B ₁	Sum of B ₁ , B ₂ , G ₁ and G ₂	M ₁	
					For the sum of aflatoxins, maximum levels refer to lower bound concentrations, which are calculated on the assumption that all the values below the limit of quantification are zero.
1.1.1	Dried fruits to be subjected to sorting or other physical treatment before placing on the market for the final consumer or use as an ingredient in food except products listed in 1.1.3	5,0	10,0	-	
1.1.2	Dried fruits used as only ingredient or processed products from dried fruits, placed on the market for the final consumer or use as an ingredient in food except products listed in 1.1.3	2,0	4,0	-	In the case of food consisting of dried fruits used as only ingredient or in the case of processed products consisting at least of 80 % from the dried fruits concerned, the maximum levels as established for the corresponding dried fruits apply also to those products. In other cases, Article 3(1) and (2) apply.
1.1.3	Dried figs	6,0	10,0	-	In the case of food consisting of dried figs used as only ingredient or in the case of processed products consisting at least of 80 % from dried figs, the maximum levels as established for dried figs apply also to those products. In other cases, Article 3(1) and (2) apply.
1.1.4	Groundnuts (peanuts) and other oilseeds, to be subjected to sorting or other physical treatment before placing on the market for the final consumer or use as an ingredient in food	8,0	15,0	-	Except groundnuts (peanuts) and other oilseeds for crushing for refined vegetable oil production. If groundnuts (peanuts) and other oilseeds with inedible shell are analysed, it is assumed, when calculating the aflatoxin content, that all the contamination is on the edible part.

Food complying with the maximum levels set out in Annex I shall not be mixed with food which exceeds these maximum levels.

List of contaminants considered in the Annex I of the Reg. EU/2023/915

Mycotoxins

- Aflatoxins
- Ochratoxin A
- Patulin
- Deoxynivalenol
- Zearalenone
- Fumonisin
- Citrinin
- Ergot sclerotia and ergot alkaloids

Plant toxins

- Erucic acid
- Tropane alkaloids
- Hydrocyanic acid, including hydrocyanic acid bound in cyanogenic glycosides
- Pyrrolizidine alkaloids
- Opium alkaloids
- Delta-9-tetrahydrocannabinol (Δ 9-THC) equivalents

Metals and other elements

- Lead
- Cadmium
- Mercury
- Arsenic
- Tin (inorganic)

Halogenated persistent organic pollutants

- Dioxins and PCBs
- Perfluoroalkyl substances

Processing contaminants

- Polycyclic aromatic hydrocarbons (PAHs)
- 3-monochloropropane-1,2-diol (3-MCPD)
- Glycidyl fatty acid esters, expressed as glycidol

Other contaminants

- Nitrates
- Melamine
- Perchlorate

Food labelling

Reg. EU/1169/2011 is the legal framework for food labelling aims to ensure that consumers have access to clear, understandable and reliable information on the content and composition of products, in order to protect their health and interests. The main novelty of the new regulation is the obligation for producers to indicate the presence of **allergens** in unpackaged foods, for example in restaurants and canteens.

The labelling, presentation or advertising of foods must not **mislead** consumers. Reg. EC/1924/2006 introduced clear rules on authorised **nutrition** and **health claims** (e.g. 'low fat'). These claims must be based on scientific evidence and can be found in the EU public register of health claims.

Substances added to foods

Food **additives**, food **enzymes** or food **flavourings** – also known as 'food improvers' – are substances that are **intentionally** added to foods to perform certain technological functions such as **colouring**, **sweetening** or **preservatives**. There are rules governing the authorisation procedure, conditions of use and labelling of these substances. According to EU legislation, food **additives** must be **authorised** before they can be used in foods. Once approved, these substances and the conditions under which they can be used are added to the Union list of authorised food **additives** (**Regulation EU/1129/2011**), which amends the list in Annex II to the General Regulation on food **additives** (**Regulation EC/1333/2008**).

The same applies to food **supplements**, such as **vitamins** and **minerals**, which may be added to food products in order to enrich them or to increase a particular nutritional aspect, provided that they appear in the specific lists of permitted substances and their authorised sources (**Regulation EC/1925/2006**).

Novel foods

Novel foods, i.e. those that were not widely consumed in the EU **before May 1997** (e.g. alternative proteins, food supplements, etc.), must undergo a **safety assessment before being marketed** in the EU. Since 2018, a revised regulation Reg. UE/2015/2283 aims to facilitate access to novel foods, while maintaining a high level of food safety. This regulation introduces a simplified and centralised online authorisation procedure at EU level for novel foods and traditional foods from third countries (considered novel foods in the EU). Before these foods are authorised by the Commission, **EFSA carries out a central scientific assessment of their safety**, defining their **conditions of use, food designation and labelling requirements**. All authorised novel foods will appear on a **positive list**.

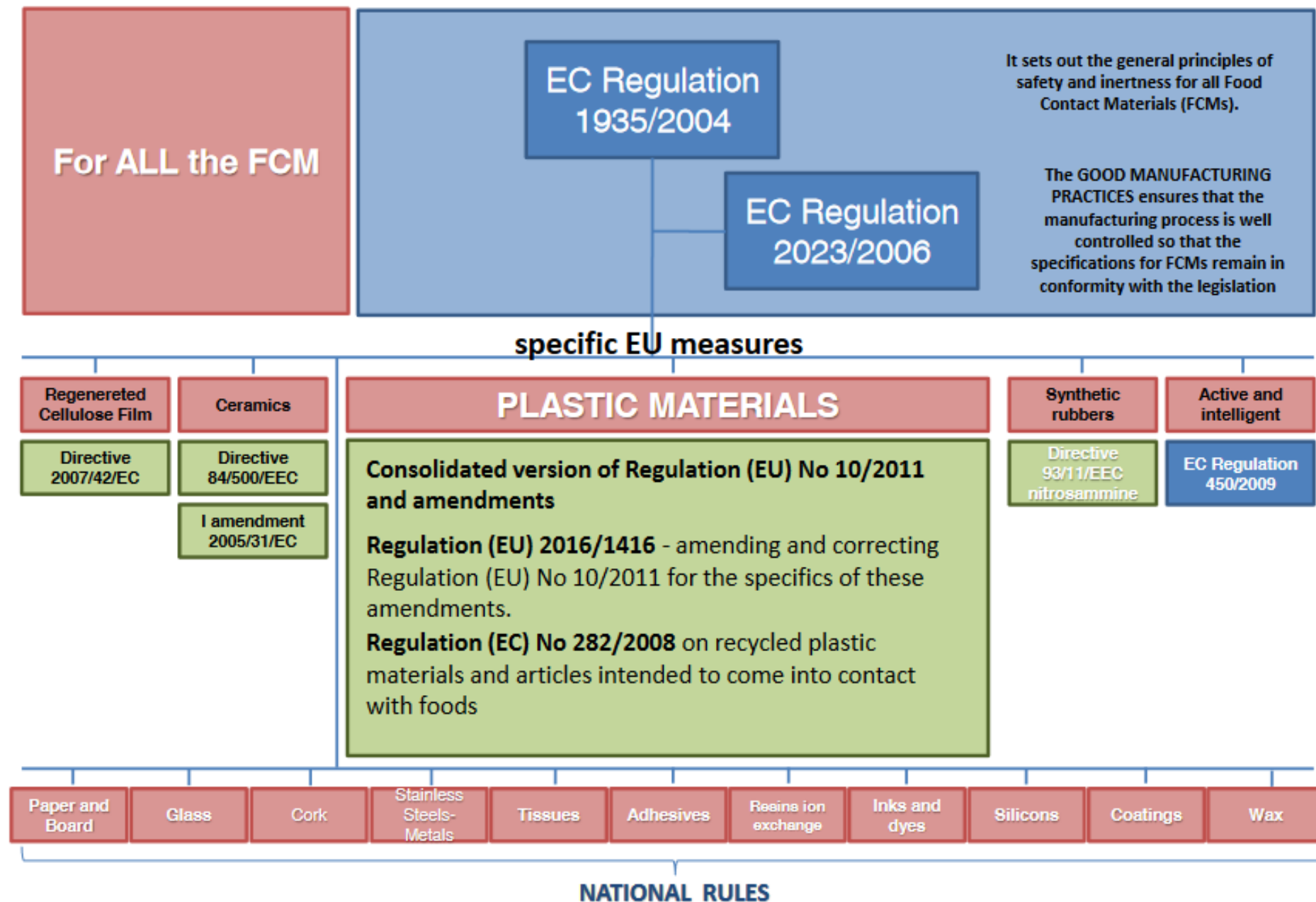
REGULATION EC/1935/2004

Materials and articles intended to come into contact with food

This ***Framework Regulation***, also called Food Contact Materials (FCMs), covers materials and articles that are:

- **Intended to come into contact with food**
- **Already in contact with food**
- **Reasonably expected to come into contact with food**

Prior to 2004, requirements for FCMs in Europe varied significantly from country to country, with each government having its own local rules and regulations. The European Commission recognised that a new single piece of legislation was required to standardise the regulation of FCMs and in 2004, EC1935/2004 regulation was established and for this reason it was referred to as the ***Framework Regulation***.



REGULATION EC/1935/2004

Materials and articles intended to come into contact with food

There are **two main requirements** for FCM and articles as laid down in Article 3 of Regulation EC/1935/2004.

1. Materials and articles, including active and intelligent materials and articles, shall be manufactured in compliance with **good manufacturing practice** so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could:
 - **transfer** their constituents to food in quantities that could endanger human health
 - bring about an **unacceptable change** in the **composition** of the food (e.g. taste or odour)
 - bring about a deterioration of its **organoleptic characteristics** (acting on, or involving the use of, the sense organs).
2. The **labelling, advertising** and **presentation** of a FCM or article should not mislead the consumers

REGULATION EC/1935/2004

Materials and articles intended to come into contact with food

It applies to 17 groups of materials that come into contact with food during its **production, processing, storage, preparation or serving**

There are numerous applications for food contact materials, from food **packaging** to **manufacturing machinery, conveyor belts** to consumer **kitchen goods**

REGULATION EC/1935/2004

Materials and articles intended to come into contact with food

Each person consumes approximately 1.9 kg of food per day. For the population as a whole, that's a staggering 5.2×10^{12} kilos annually. But, on its way from farm to fork, food comes into contact with a myriad of materials, each of which could present a potential source of contamination. Reducing the risk of contamination is critical to ensuring food safety.

Food safety is vital and should be a priority as safety incidents have cost companies many millions of Euros. For example, in 2016 Mars recalled **20 million chocolate bars** across 55 countries at an eye-watering cost of €12 million after a consumer found a **piece of plastic** in just one of its products! The plastic was **traced back** to a factory in the south of The Netherlands, where it was found to have come from a **protective cover** used in the manufacturing process.

The Guardian

Sport Culture Lifestyle

Australia Middle East Africa Inequality Global development

This article is more than 8 years old

Mars recalls chocolate bars in 55 countries after plastic found in product

Britain, France, the Netherlands and Germany are affected by recall after customer finds piece of red plastic in Snickers bar



German Mars products with a best before date from 19 June 2016 to 8 January 2017 are

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ANNEX I

List of groups of materials and articles which may be covered by specific measures

1. Active and intelligent materials and articles
2. Adhesives
3. Ceramics
4. Cork
5. Rubbers
6. Glass
7. Ion-exchange resins
8. Metals and alloys
9. Paper and board
10. Plastics
11. Printing inks
12. Regenerated cellulose
13. Silicones
14. Textiles
15. Varnishes and coatings
16. Waxes
17. Wood

On contact with food, each of these materials has the potential to alter the food and effect its quality. Depending on their composition and properties, materials may behave differently at various temperatures or on contact with certain foods and transfer their constituents to the food in a process known as *migration of substances*. For example, acidic foods can corrode metals and the resulting chemical elements might transfer into the food, posing a risk if ingested

REGULATION EC/1935/2004

Materials and articles intended to come into contact with food

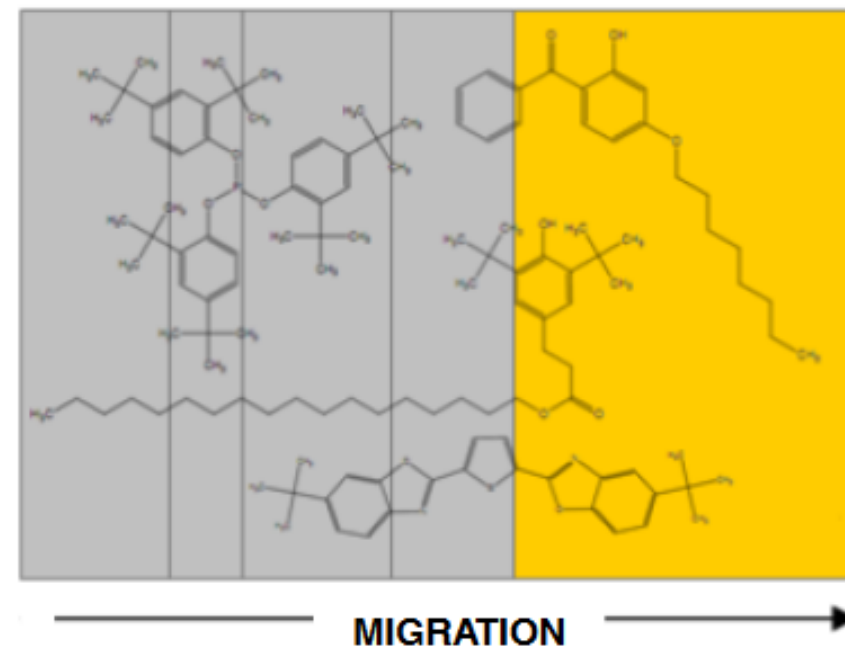
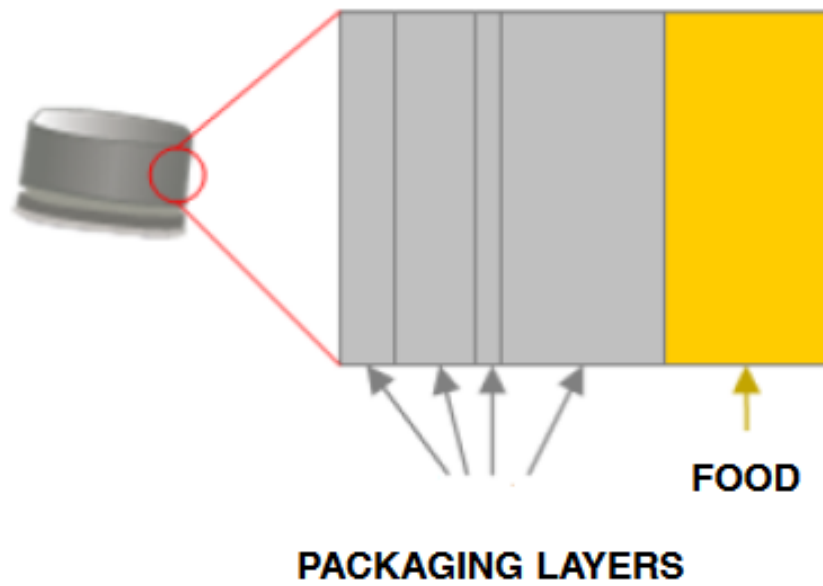
Specific EU measures can also be adopted with more detailed provisions for the 17 food contact materials and articles (FCMs) listed in Annex I.

Regulation EC/2023/2006 defines **good manufacturing practices** for materials and articles intended to come into contact with food.

REGULATION EC/1935/2004

Materials and articles intended to come into contact with food

To avoid the risk of contamination, Reg. EC/1935/2004 stipulates that the **transfer** of substances from the **material to the food** must remain within particular tolerances and there are set **migration limits**.



(Limbo S., 2017)

List of food simulants

Food simulant	Abbreviation
Ethanol 10 % (v/v)	Food simulant A
Acetic acid 3 % (w/v)	Food simulant B
Ethanol 20 % (v/v)	Food simulant C
Ethanol 50 % (v/v)	Food simulant D1
Any vegetable oil containing less than 1 % unsaponifiable matter	Food simulant D2
poly(2,6-diphenyl-p-phenylene oxide), particle size 60-80 mesh, pore size 200 nm	Food simulant E'

REG.EU/2016/1416

amending and correcting Reg. EU/10/2011 on **plastic materials** and articles intended to come into contact with food

Food simulants A, B and C are assigned for foods that have a hydrophilic character and are able to extract hydrophilic substances

Food simulant B shall be used for those foods which have a pH below 4.5.

Food simulant C shall be used for alcoholic foods with an alcohol content of up to 20% and those foods which contain a relevant amount of organic ingredients that render the food more lipophilic.

Food simulants D1 and D2 are assigned for foods that have a lipophilic character and are able to extract lipophilic substances.

Food simulant D1 shall be used for alcoholic foods with an alcohol content of above 20% and for oil in water emulsions.

Food simulant D2 shall be used for foods which contain free fats at the surface.

(Limbo S., 2017)

Rapid Alert System for Food and Feed (RASFF)

What is the

Rapid Alert System for Food and Feed

The RASFF (Rapid Alert System for Food and Feed) system has been established to provide an effective tool to exchange the information regarding the measures taken in response to the **identification** of a **risk** associated with **food** or **feed** to all the competent authorities responsible for their control in different countries.

What is the

Rapid Alert System for Food and Feed

This exchange of information helps Member States to act more rapidly and in a coordinated way in case of **threats** to **health** caused by this kind of products.

What is the

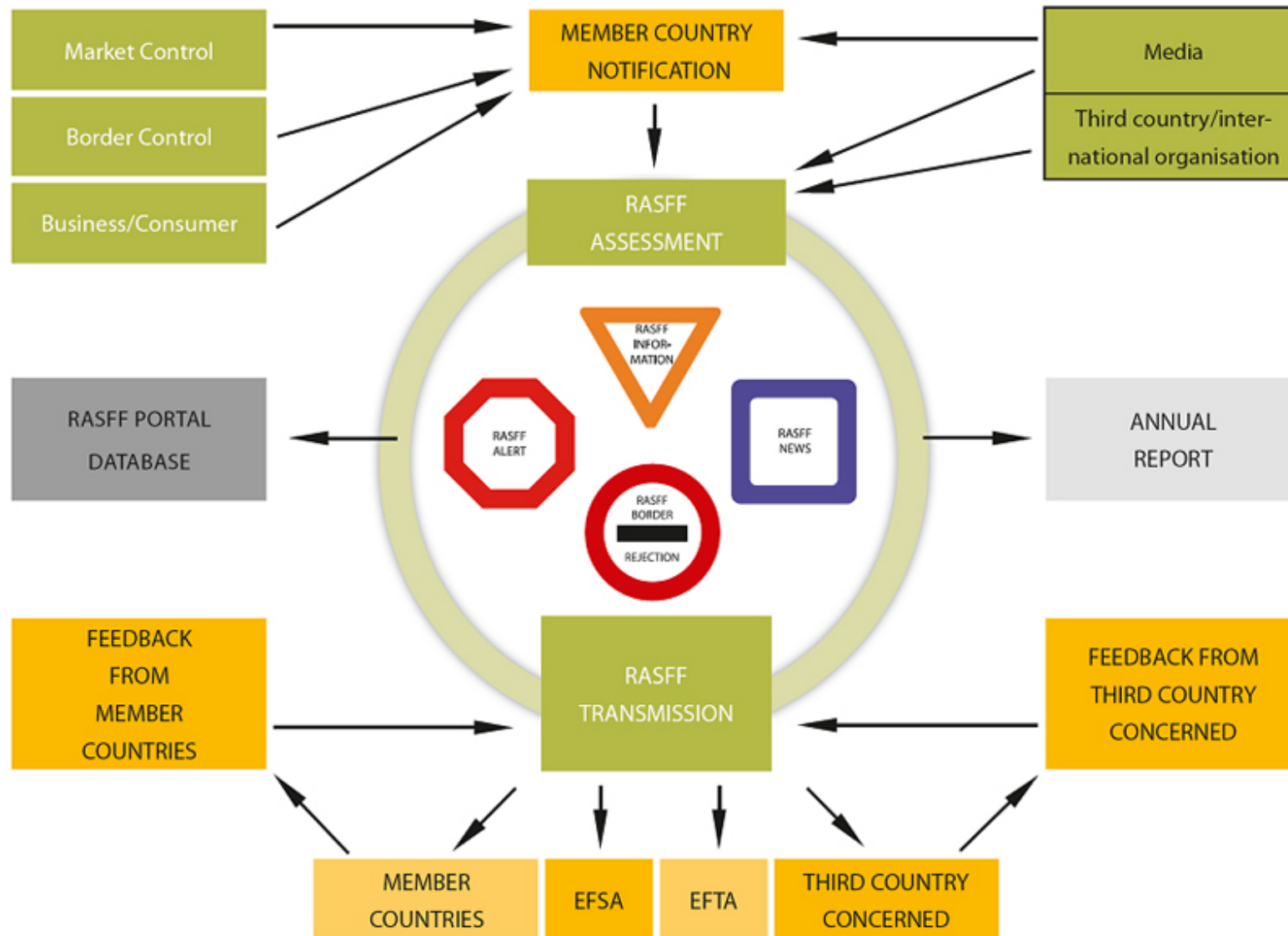
Rapid Alert System for Food and Feed

This legal system is based on Regulation EC/178/2002, which sets out the general principles and requirements of food law, establishing the European Food Safety Authority (EFSA) and laying down procedures in matters of food safety.

Articles 50, 51 and 52, in particular, are defining scope, purpose and procedures of RASFF.

How are RASFF notifications made?

RASFF information flow



How does it work

The network manager is the Commission

The RASFF notifications

There are two types of RASFF notifications:

- **notifications regarding the market**
- **rejections at the border**

A member of the network sends a notification to the market when a risk is detected in food, in a material or an object intended for contact with food or feed already placed on the market.

A rejection at the frontier instead is notified when a product has been refused to entry into the European Union.

The RASFF notifications

The notifications regarding the market can be of two types:

- **alarm (alert) notifications**
- **information notifications**

First of all: correct food product identification



The RASFF notifications

Alert notifications are sent when a food or feed presenting a serious risk to health are on the market and when rapid action is needed. The RASFF member that identifies the problem and take their first steps (such as withdrawal of the product) triggers the alarm. The goal of communication is to enable each member of the network in a position to check whether the product at issue is present in its own market, and to adopt any necessary measures.



The RASFF notifications

Information notifications are sent when a risk has been identified on food and feed placed on own market, but to the other members of the network is not required quick action.

This situation occurs when the product has not already reached their market, or it is no more present, or the nature of the risk is such that it does not require quick action.



The RASFF notifications

The **border rejections** concern food and feed products that have been checked and rejected at the external borders of the EU due to the detection of a risk to health.

Notifications are sent to all border *check points* with the aim to reinforce controls and to ensure that the product previously rejected can not be addressed in the EU through another access point.



The RASFF notifications

All reports on the safety of food and feed have not been notified as alarm notifications or information, but nonetheless considered interesting by the viewpoint of the control authorities, shall be forwarded to members of the network under "**News**".



Criteria for notification by risk

Prohibited substances or ingredients

Unauthorised substances or ingredients

Exceeding of legal limits

Unauthorised establishment for food of animal origin

Unauthorised novel food / GM food

Physical risk (foreign bodies)

Incorrect labelling implying health risk

Other risk based on risk assessment

Table 1: Top 10 count of recurrent RASFF notifications

HAZARD	PRODUCT CATEGORY	ORIGIN	NOTIFICATIONS
Pesticide residues	Fruits and vegetables	Türkiye	168
Salmonella	Poultry and poultry products	Poland	153
Migration	Food contact materials	China	92
Aflatoxins	Nuts, nut products and seeds	United States	85
Pesticide residues	Fruits and vegetables	Egypt	84
Pesticide residues	Herbs and spices	India	51
Pesticide residues	Cereals and bakery products	India	48
Salmonella	Nuts, nut products and seeds	Nigeria	38
Vibrio	Crustaceans and crustacean products	Ecuador	36
Pesticide residues	Cereals and bakery products	Pakistan	34



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RASFF Window

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Start Date – End Date



Countries

Any

Type

Any

Status

Any

Product

Any

Risk

Any

Reference

Subject

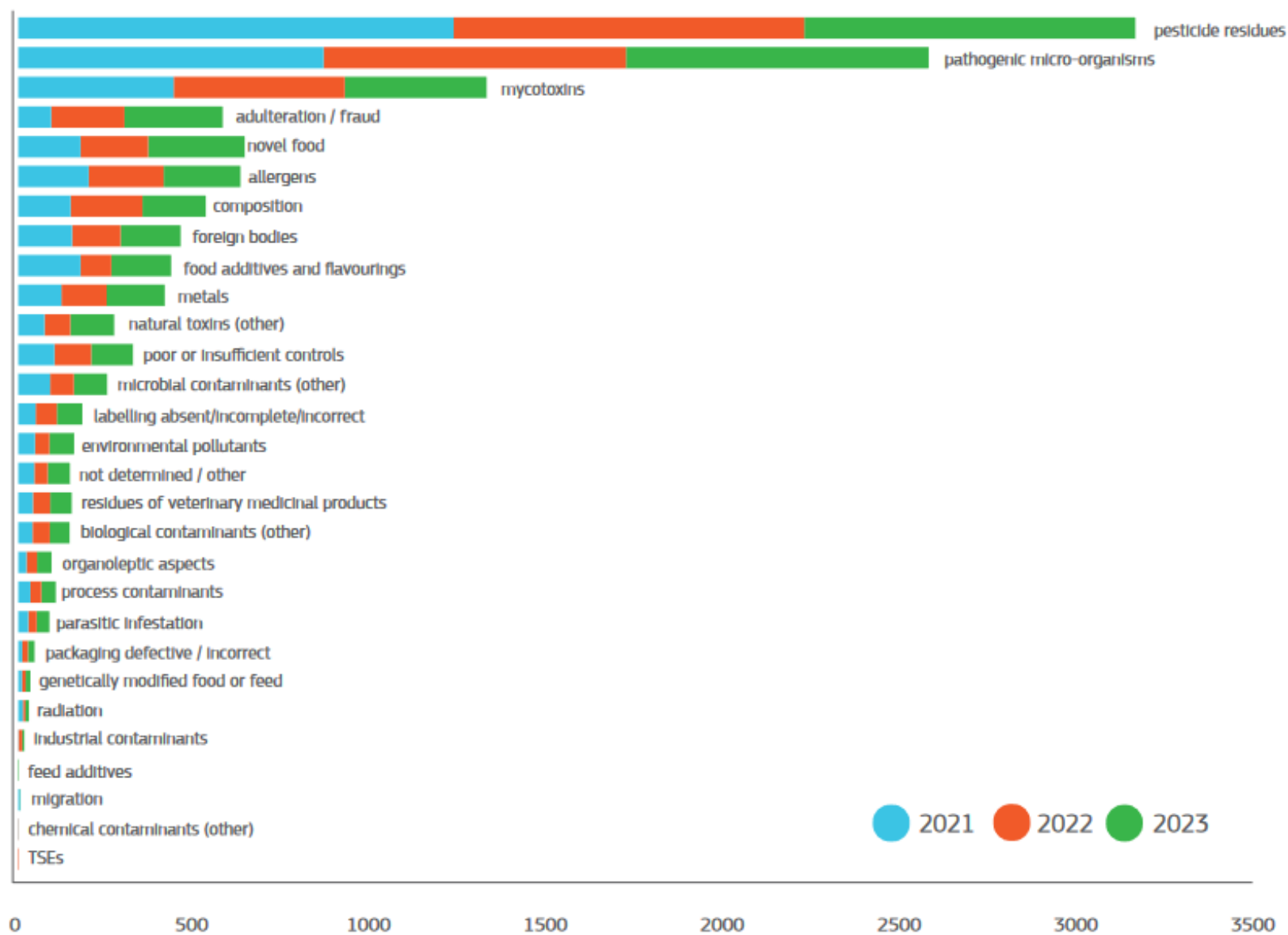
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e.g. caffeine food supplement

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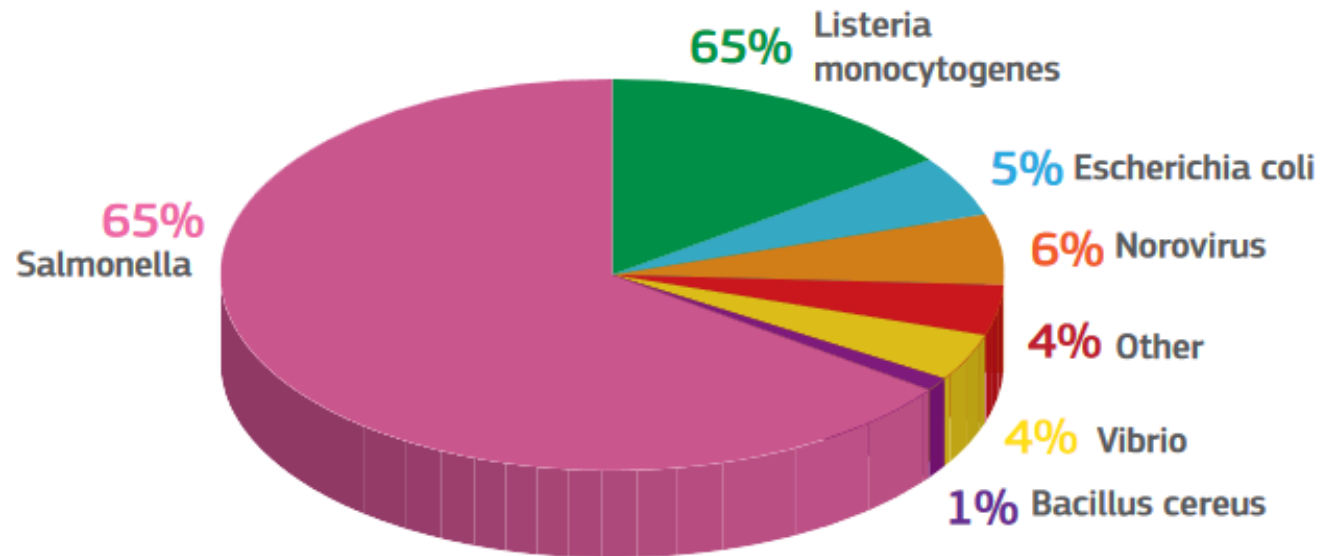
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Figure 5: RASFF notifications by food hazard categories 2021-2023



Following the same trend as in 2022, *Salmonella* was the most frequent pathogenic microorganism (582 notifications; **Figure 7**), followed by *Listeria monocytogenes* (131), *Escherichia coli* (50) and noroviruses (50), all primarily detected in products of animal origin. Notably, 153 *Salmonella* notifications concerned poultry meat and poultry meat products from Poland. This issue is further discussed in section 3.5.2 of the report.

Figure 7: RASFF notifications on pathogenic microorganisms in food



3.1.8. Food contact material

193 notifications were received concerning food contact materials, 36% of these related to the migration of substances like primary aromatic amines (40 notifications), formaldehyde (16) and lead (15). Most products (124) originated from China. Lastly, the top notifying member countries were France (37), Italy (31) and Ireland (21). Table 2 shows the most reported migrating compounds on specific contact materials.

Table 2. Food contact materials and top substances reported

FOOD CONTACT MATERIAL	COMPOUNDS MIGRATING
nylon	primary aromatic amines
melamine	formaldehyde, melamine
silicone	volatile organic constituents
lids of jars, cardboard	plasticizers, lead
ceramics, decorated glass	zinc, arsenic, aluminium, cadmium, lead
metal	lead, chromium

