



UNIVERSITÀ DEGLI STUDI DI TORINO

# FOOD SAFETY AND FOOD SECURITY

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# The component of the Food Safety System in Europe

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The European Commission aims to assure a high level of **food safety** and **animal & plant health** within the EU through coherent <u>Farm to Fork</u> measures and adequate monitoring, while ensuring an effective internal market.

The **implementation** of this **integrated Food Safety policy in the EU** involves various actions, namely:

- to assure effective control systems and evaluate compliance with EU standards in the food safety and quality, animal health, animal welfare, animal nutrition and plant health sectors within the EU and in non-EU countries in relation to their exports to the EU;
- to manage **international relations** with non-EU countries and international organisations concerning food safety, animal health, animal welfare, animal nutrition and plant health;
- to manage relations with the European Food Safety Authority (EFSA) and ensure sciencebased risk management.

**EU food safety policy** and action is concentrated in 3 main areas of protection: •<u>Food</u>:

•hygiene: food businesses, from farms to forks, must comply with EU food law, including those importing food to the EU.

•Contaminants and residues: keeps contaminants away from food and animal feed. Maximum acceptable limits apply to domestic and imported food and feed products.
•Animal health: sanitary controls and measures for pets, farmed animals and wildlife monitor and manage diseases, and trace the movement of all farm animals.
•Plant health: detection and eradication of pests at an early stage prevents spreading and ensures healthy seeds.

https://ec.europa.eu/food/overview\_en



Every European citizen has the right to know how the food he eats is produced, processed, packaged, labelled and sold.

The central goal of the European Commission's Food Safety policy is to ensure a high level of protection of human health regarding the food industry — Europe's largest manufacturing and employment sector.

The Commission's guiding principle, primarily set out in its White Paper on Food Safety, is to apply an integrated approach from farm to fork covering all sectors of the food chain.



The objective of the Animal Health policy is to raise the health status and improve the conditions of the animals in the EU, in particular food-producing animals, whilst permitting intra-Community trade and imports of animals and animal products in accordance with the appropriate health standards and international obligations.

The general aim of the Animal Welfare policy is to ensure that animals don't need to endure avoidable pain or suffering and obliges the owner/keeper of animals to respect minimum welfare requirements.

The EU zootechnical legislation aims at the promotion of free trade in breeding animals and their genetic material considering the sustainability of breeding programs and preservation of genetic resources.



PLANTS

The European Commission takes actively part in the setting of international phytosanitary and quality standards for plants and plant products.

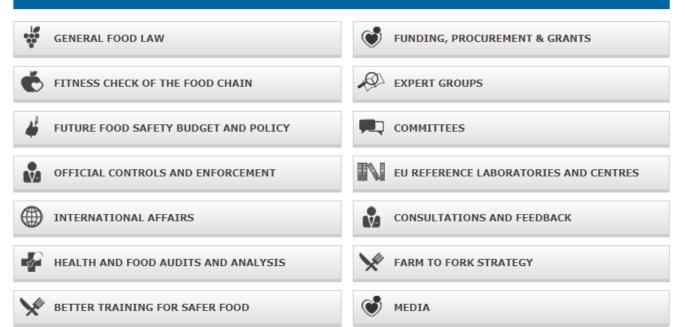
EU legislation has, over the years, provided for the harmonised protection of our 'green resources'. Issues like pesticides, plant variety rights or Genetically Modified Organisms are some of the topics you will find in this section.



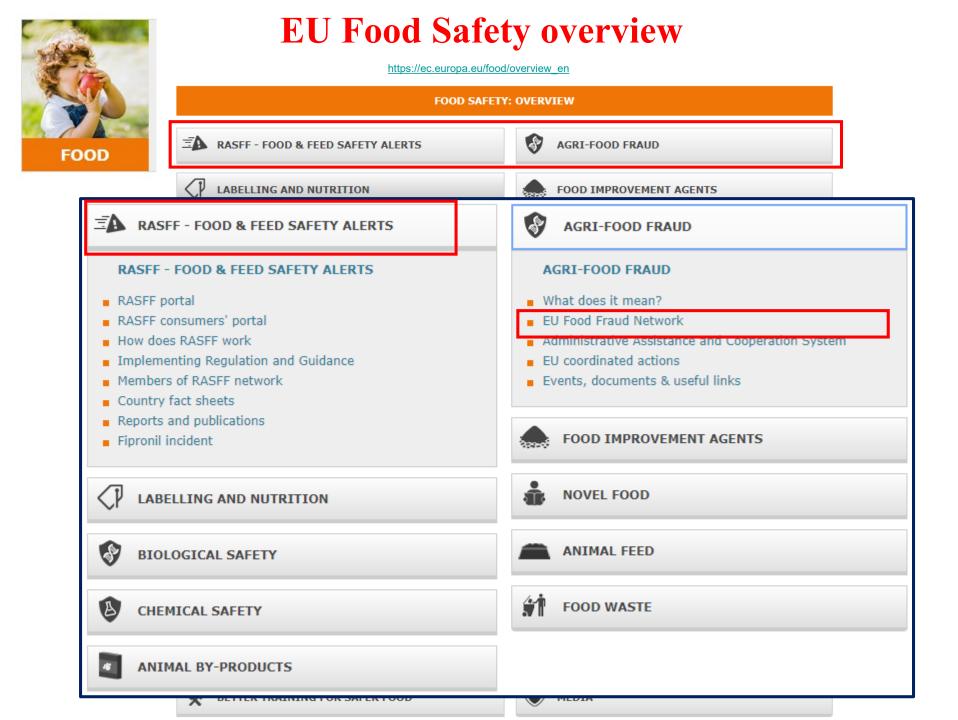
https://ec.europa.eu/food/overview\_en



#### HORIZONTAL TOPICS RELATED TO FOOD SAFETY



6





https://ec.europa.eu/food/overview\_en

#### FOOD SAFETY: OVERVIEW **W**. 2 ANIMAL DISEASES ANIMAL HEALTH Ÿ TRACES ANIMAL WELFARE LIVE ANIMALS 0 **IDENTIFICATION** ANIMALS PRODUCTS $\mathbf{e}$ ZOOTECHNICS SEMEN, OVA & EMBRYOS VETERINARY BORDER CONTROL MOVEMENT OF PETS

#### HORIZONTAL TOPICS RELATED TO FOOD SAFETY



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		ANIMAL WELFARE
	LIVE ANIMALS	
	FOOD SAFE	TY: OVERVIEW
	L HEALTH	ANIMAL DISEASES
TRACE!	5	ANIMAL WELFARE
TRACES	S TRACES work	ANIMAL WELFARE     IDENTIFICATION
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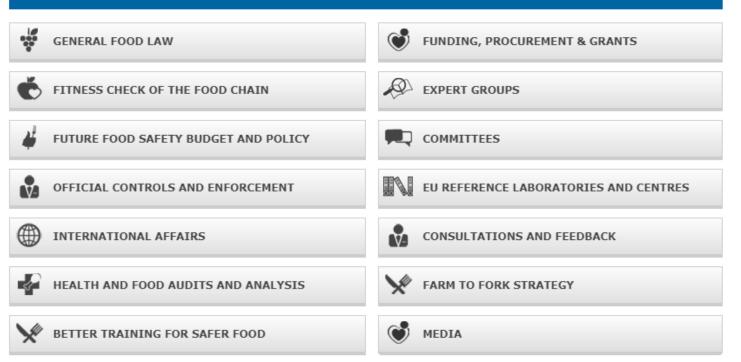
# **EU Food Safety overview**

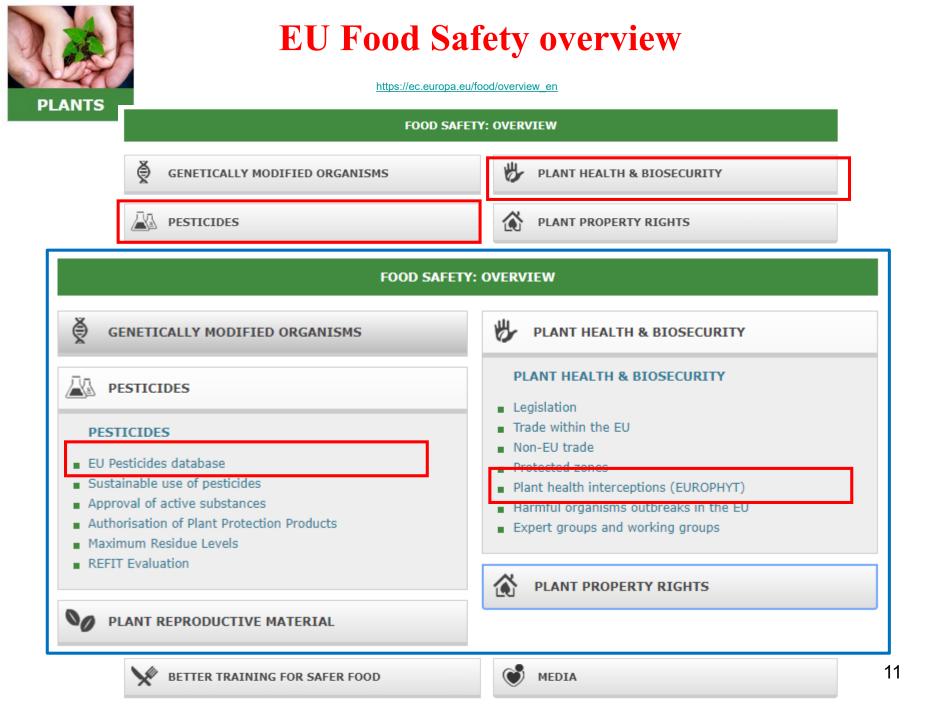
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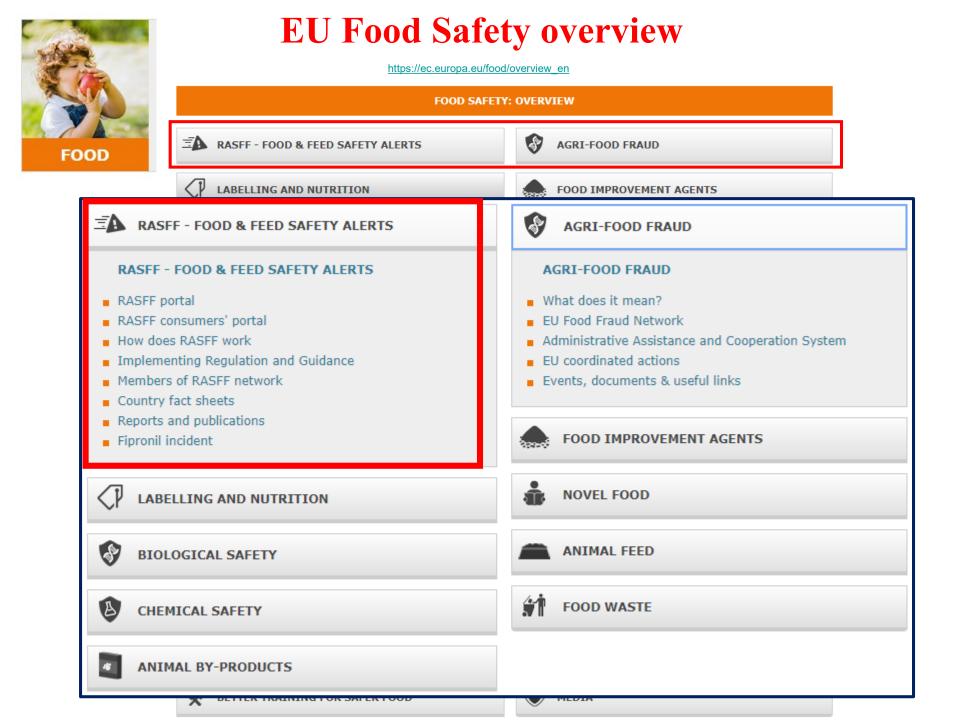
# FOOD SAFETY: OVERVIEW GENETICALLY MODIFIED ORGANISMS Image: Plant Health & Biosecurity Pesticides Image: Plant Property Rights

PLANT REPRODUCTIVE MATERIAL

#### HORIZONTAL TOPICS RELATED TO FOOD SAFETY









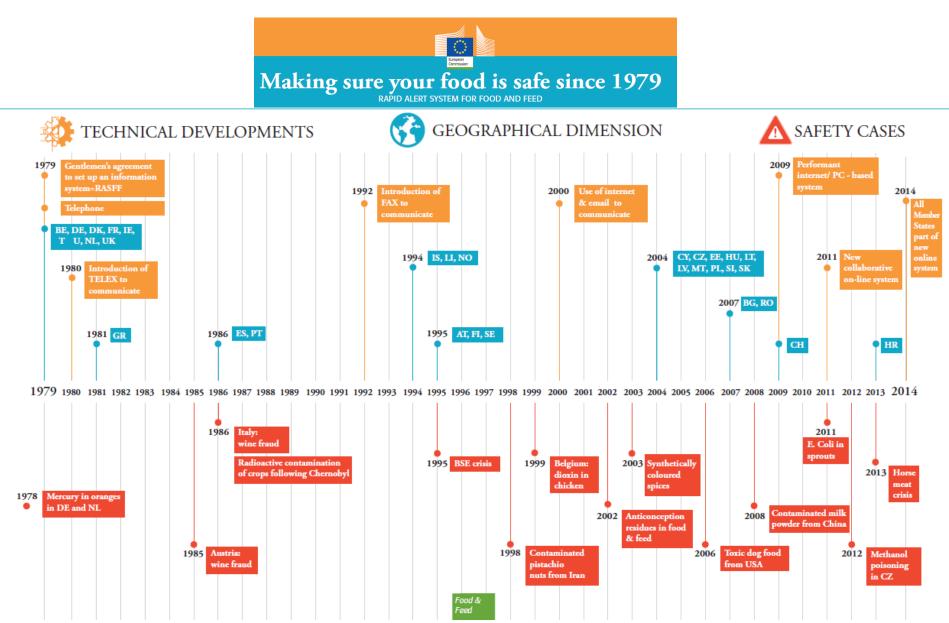
RASFF was put in place to **provide food and feed control authorities with an effective tool to exchange information about measures taken responding to serious risks detected in relation to food or feed**. This exchange of information helps EU countries to act more rapidly and in a coordinated manner in response to a health threat caused by food or feed. More in-depth analysis of RASFF performance is available in <u>annual reports</u>.

The legal basis of the RASFF is <u>Regulation EC/178/2002</u> laying down the general principles and requirements of food law.

In Articles 50, 51 and 52 scope and procedures of the RASFF are defined

ASFF

Rapid Alert System for Food and Feed





- all EU Member States

- EEA (European Economic Area) countries (Norway, Liechtenstein and Iceland) and the EFTA (European Free Trade Association) Secretariat coordinating the input from the EEA countries

- the European Food Safety Authority (EFSA) and
- the European Commission as manager of the system.

- following an agreement that came into force on 1 January 2009, Switzerland is a partial member of the system as far as border rejections of product of animal origin are concerned.



RASFF members <u>contact point</u> that is responsible for sending RASFF notifications to the Commission.

Before that happens, a lot of work has already been done:

- 1. Food or feed control on the market or at the border.
- 2. Product is found non-compliant and needs to be reported inside the national system.
- 3. The authority decides if the issue falls under the scope of the RASFF and reports it to the national RASFF contact point.
- 4. The national contact point verifies and completes the RASFF notification where necessary and forwards it to the European Commission.
- 5. Templates are used to collect all information on the RASFF notification form.

Italian contact point: Ministero della salute

### The European Commission:

- $\checkmark$  is responsible for managing the system,
- ✓ is providing knowledge and a technological platform to facilitate transmission and handling of the RASFF notifications.
- ✓ receives all notifications from members of the network and performs the following checks on them, prior to making them available to all members of the network:
  - a completeness check
  - legislative requirements
  - verification if the subject of the notification falls within the scope of the RASFF
  - translation into English of the information on the notification form
  - classification of the notification
  - members of the network flagged for action
  - recurrences of similar problems relating to the same professional operator and/or hazard/country of origin.

The Commission must inform a non-member of RASFF (third countries) if a product subject to a notification has been exported to that country or when a product originating from that country has been the subject of a notification. In this way, the country can take corrective measures where needed and appropriate.



### **Types of RASFF notifications**



Alert : a serious health risk is on the market and when rapid action is required. The RASFF member that identifies the problem and takes the relevant actions (e.g. withdrawal of the product) triggers the alert. The goal is to give all RASFF members the information to confirm whether the product in question is on their market, so that they can also take the necessary measures.



**Information:** a risk has been identified, but the other members **do not have to take rapid action**. because

1) the product has not reached their market; or

- 2) is no longer present on their market or
- 3) because the nature of the risk does not require rapid action.

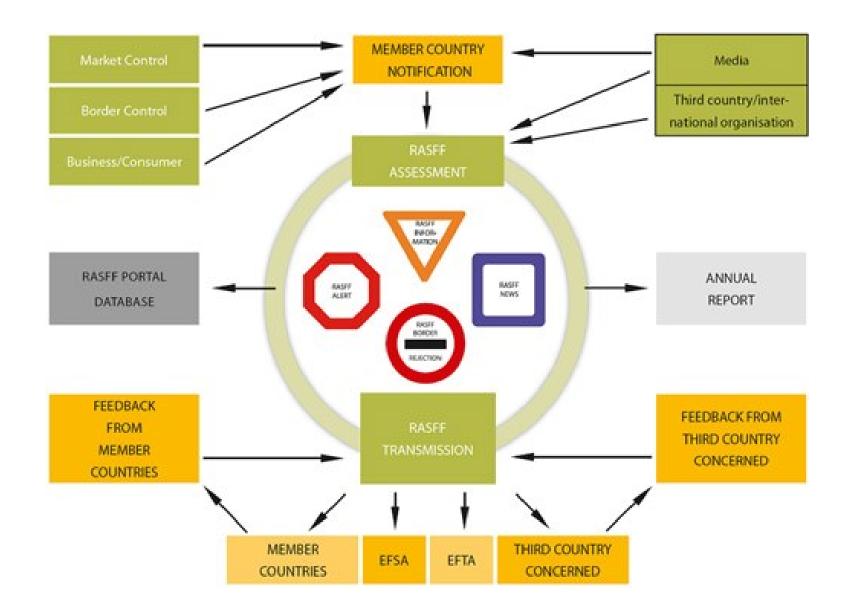


Border rejections : consignments that have been tested and rejected at the external borders of the EU (and the European Economic Area – EEA) when a health risk has been found. The notifications are sent to all EEA border posts in order to reinforce controls and to ensure that the rejected product does not re-enter the EU through another border post.



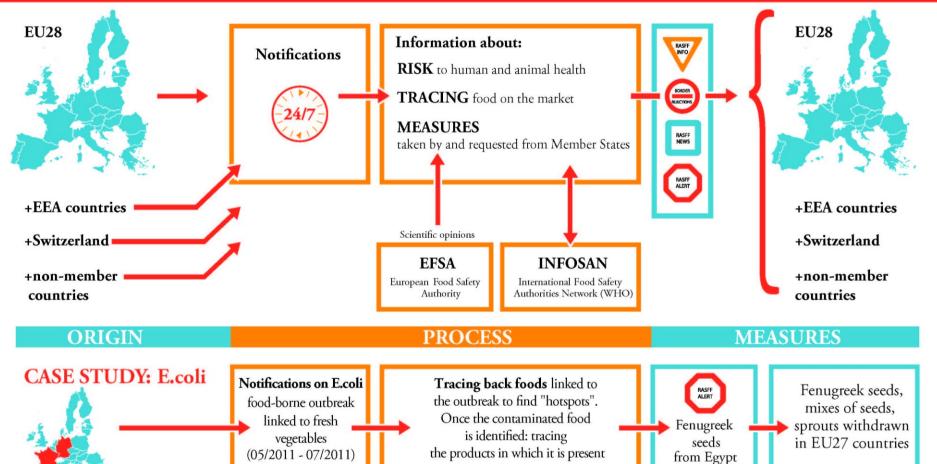
**News**: Any information related to the safety which has not been communicated as an alert or an information notification, but which is judged interesting for the control authorities, is transmitted to the members under the heading News.





### Rapid Alert System for Food and Feed Rapid Alert System for Food and Feed RASFF





Food &

### **Rapid Alert System for Food and Feed** Rapid Alert System for Food and Feed RASFF

SFF

Notifications list Consult 02/09/2020									
FirstPrevious 100Notifications 1 to 100 of 60915Next 100Last									
	Classification	Date of case	Reference	Notifying country	Subject	Product Category	Туре	Risk decision	
1.	information for follow-up	01/09/2020	2020.3511	Portugal	food supplement from Switzerland, via Spain infested with moulds	dietetic foods, food supplements, fortified foods	food	undecided	Detail
2.	alert	01/09/2020	2020.3521	Germany	Salmonella (present /125g) in dried calf gullets from Poland	feed materials	feed	serious	Detail
3.	alert	01/09/2020	2020.3522	France	Salmonella (presence /25g) in chilled salad made of rice, vegetables, eggs and tuna	other food product / mixed	food	serious	Detai
4.	alert	01/09/2020	2020.3520	Germany	plastic fragments in milk chocolate from Switzerland	cocoa and cocoa preparations, coffee and tea	food	serious	Detai
5.	information for attention	01/09/2020	2020.3516	France	Listeria monocytogenes (22000 CFU/g) in chilled pork confit from France	meat and meat products (other than poultry)	food	serious	Detail
6.	information for attention	01/09/2020	2020.3513	Poland	Salmonella enterica ser. Enteritidis (in 1 out of 5 samples /25g) in chilled chicken thigh from Poland	poultry meat and poultry meat products	food	serious	Detail
7.	alert	01/09/2020	2020.3512	Belgium	glass fragments in pickled gherkins in glass jars from Turkey, via Germany	fruits and vegetables	food	serious	Detai



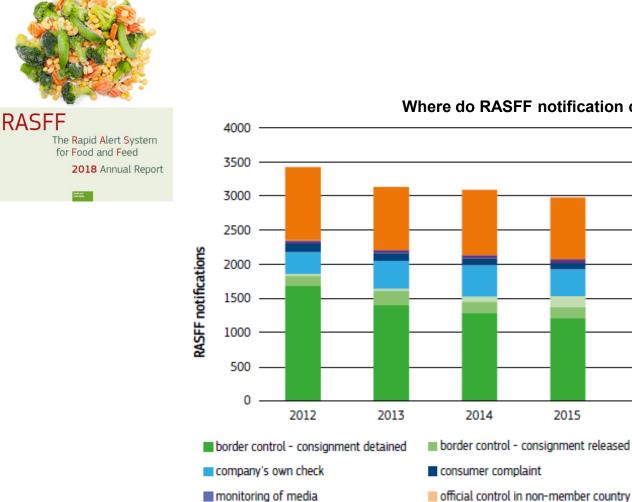
RASFF - Rapid Alert System for Food and Feed





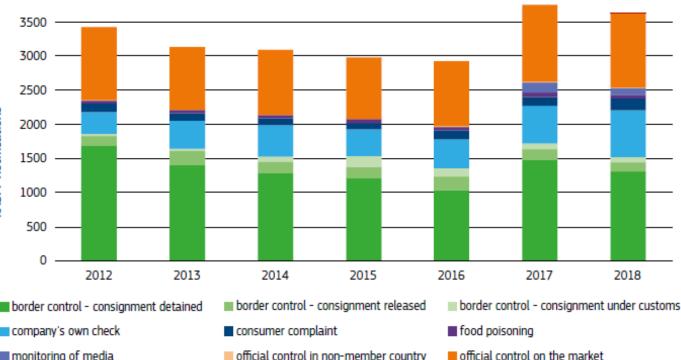


### **Annual Report**



request/information through AAC

#### Where do RASFF notification come from?

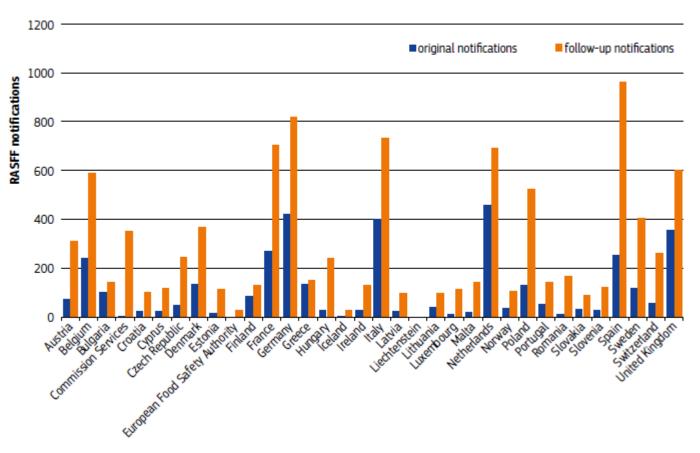




### **Annual Report**

### **RASFF notifications by notifying country in 2018**

#### Original and follow-up notifications by notifying country in 2018



RASFF The Rapid Alert System for Food and Feed

2018 Annual Report



**Annual Report** 



Top 10 number of notifications by notifying country

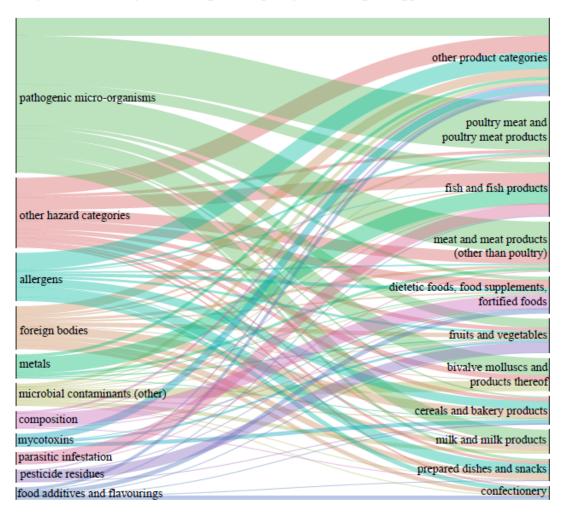
#### Number of notifications counted for each combination of hazard/product category/notifying country.

hazard	product category	notifying country	notifications
aflatoxins	nuts, nut products and seeds	Netherlands	126
aflatoxins	nuts, nut products and seeds	Germany	65
aflatoxins	nuts, nut products and seeds	Spain	51
2,4-dinitrophenol (DNP)	dietetic foods, food supplements, fortified foods	United Kingdom	41
Salmonella	poultry meat and poultry meat products	Netherlands	40
aflatoxins	nuts, nut products and seeds	Italy	40
mercury	fish and fish products	Italy	34
Salmonella	nuts, nut products and seeds	Greece	34
aflatoxins	nuts, nut products and seeds	United Kingdom	32
parasitic Infestation with Anisakis	fish and fish products	Italy	30



### **Annual Report**

2018 top 10 hazard and product categories on food products originating from member countries





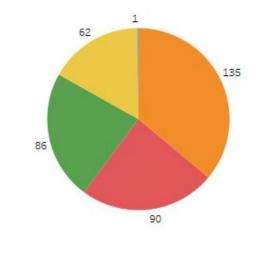
The Rapid Alert System for Food and Feed

2018 Annual Report



### Annual Report by Member State Italy

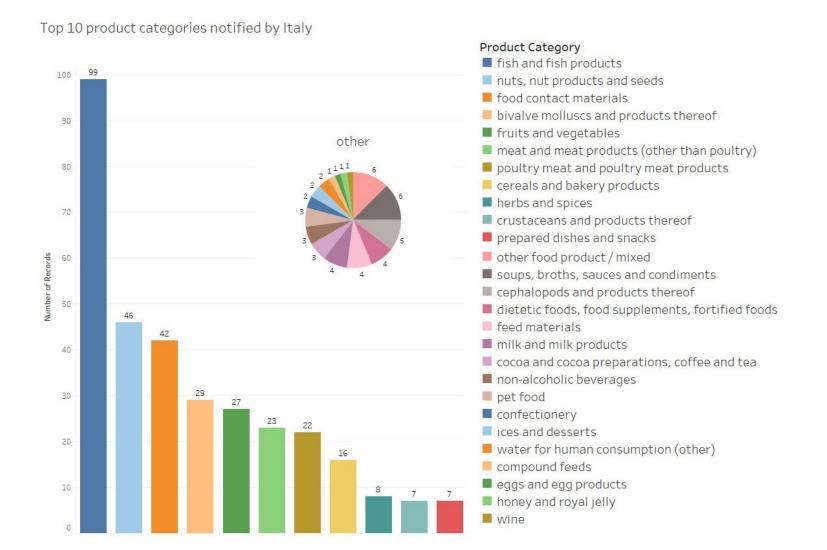
Classification of notifications by Italy







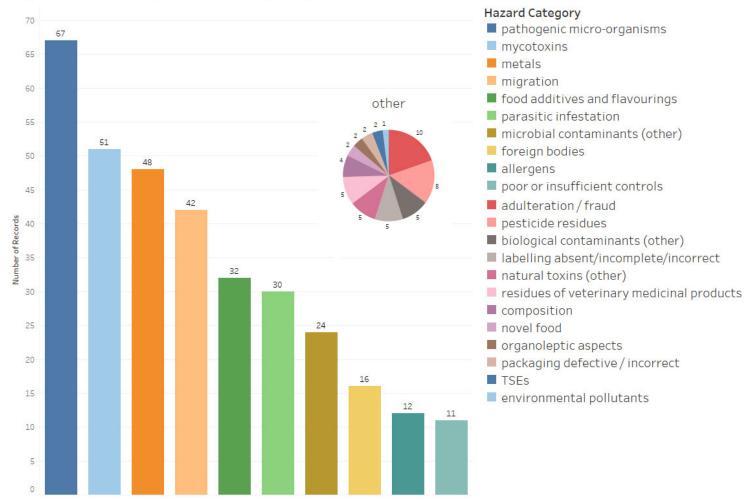
### Annual Report by Member State Italy





### Annual Report by Member State Italy

Top 10 hazard categories notified by Italy



## **Food Fraud**

The complex nature of our globalized agri-food supply chain and the economic motivation to provide cheaper food products increase the possibility of **FRAUD**.

Some examples:

**<u>1981</u>**: Scandals such as the "rapeseed oil" fraud intended for industrial use affected about 20.000 people and led between 370 to 835 fatalities in Spain,

1999: dioxin in Belgium

**2008:** milk adulterated with melamine in China resulting in more than 50.000 sick babies and six fatalities

<u>2012-2014</u>: methanol poisoning from the sale of illegal spirits causing around 59 casualties in

Czechia and Poland

2013: horse meat in beef products

<u>2017</u>: fipronil in eggs

## **Food Fraud**

### What is a fraud

Food fraud is about intentional actions taken by businesses or individuals for the purpose of deceiving purchasers and gaining an undue advantage therefrom, in violation of the EU agri-food chain legislation. These intentional infringements may also constitute a risk to human, animal or plant health, or to animal welfare or to the environment as regards GMOs and plant protection products.

Eg. Seed oil sold as olive oil

### **Operative criteria**

1. Violation of EU law codified in the EU agri-food chain legislation.

2. **Intention** can be verified through a number of factors which lead to said that certain noncompliances are intentional

E.g., replacement of a high quality ingredient with a lower quality one, in big quantities.

3. Economic gain the non-compliance must bring some form of economic advantage.

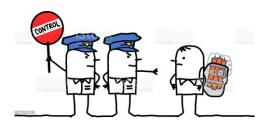
4. **Deception of Customers** is the last criteria and allows completing the circle. It entails some form of deception such as altered colouring or altered labels which mystify the true quality (or, in worse cases even the nature). Moreover, often the deceptive element may also come in the form of a public health risk, due to the fact that some real properties of the product are hidden (i.e. in the case of undeclared allergens).

# Food Fraud

The complex nature of our globalized agri-food supply chain and the economic motivation to provide cheaper food products increase the possibility of **FRAUD**.



are losing credibility



Companies

are losing money



Estimated as ~30 billion/year



### Consumers

are losing trust in food.



This creates a major paradox: "EU food is safer than ever, yet consumer's trust is low".

### **The European Food Fraud Network**

the European Parliament's 2013 resolution called on the Commission "to give food fraud the full attention it warrants and to take all necessary steps to make the prevention and combating of food fraud an integral part of EU policy" and "to make the prevention and combating food fraud an integral part of an EU policy".

### **The European Food Fraud Network**



# **The European Food Fraud Network**

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the Member States and the Commission agreed on a first set of concrete measures to reinforce the <u>EU's</u> <u>action against food fraud</u>.

- Creation of the Assistance and Cooperation system (<u>AAC</u>) in 2015
- improved interaction between the <u>RASFF</u> and the <u>AAC</u> with full integration by the end of 2020
- ➤ the creation of single contact points for both systems.

The EU re-shaped its agri-food chain official control policies and developed them further with a view to both enhancing citizen's trust and increasing overall efficiency.

### The European Food Fraud Network Assistance and Cooperation System (AAC)

The AAC is an <u>IT system developed and managed by the European Commission</u>. An EU country can contact the competent authorities of another EU country and share information in a secure manner, which can lead to administrative actions, administrative sanctions or judicial proceedings. This exchange of information is an essential element for effective cross border investigation and for strategic assessment of the threat of fraud.

# $\downarrow$

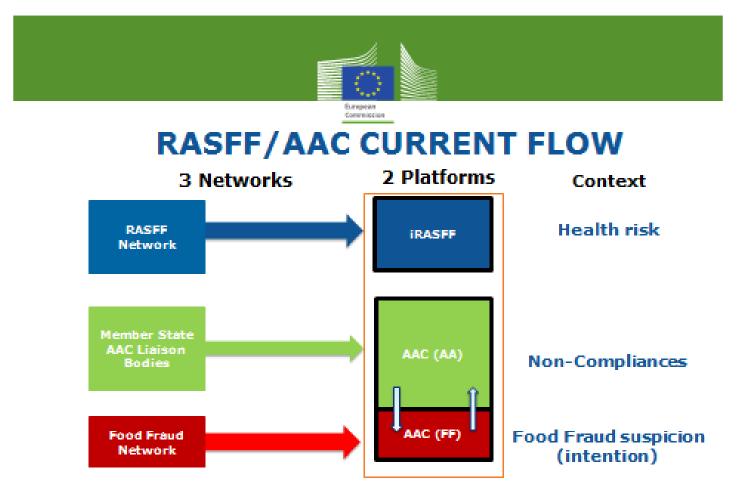
The AAC is split into two instances:

1- dealing with **non-compliances classified as fraudulent activities** along the agri-food chain (AAC-FF)

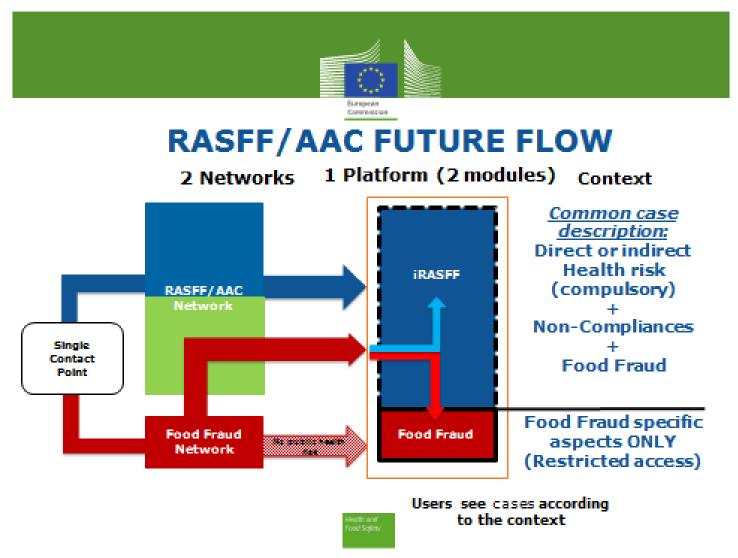
2- dealing with <u>any other non-compliance (AAC-AA</u>).

### **The European Food Fraud Network**

### **AAC and RASFF**



#### **AAC and RASFF**

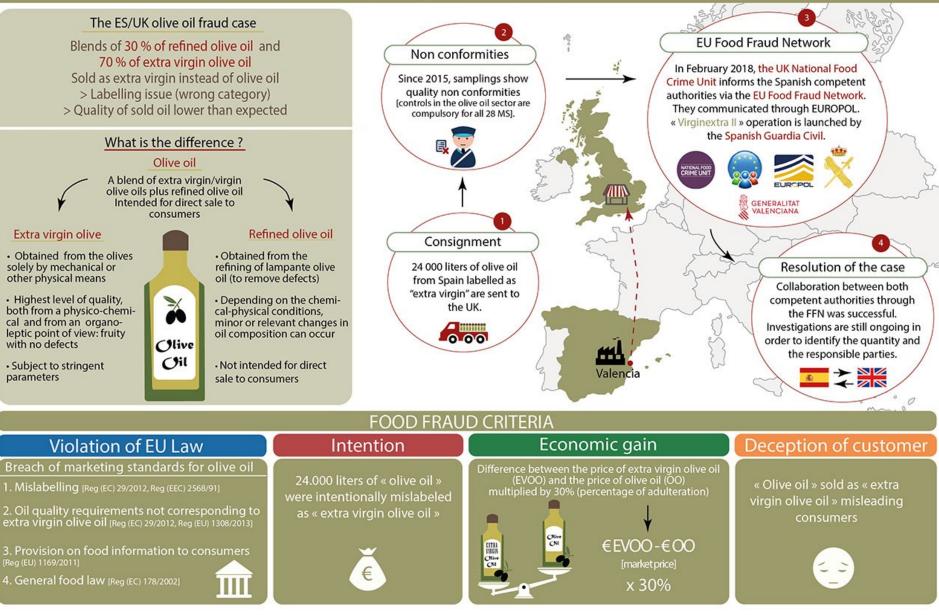


Fully integrated by the end of 2020





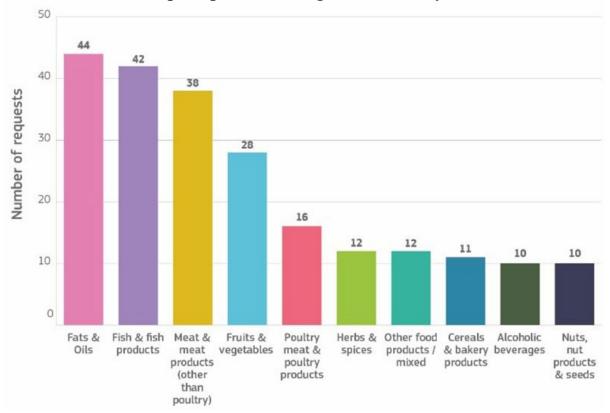




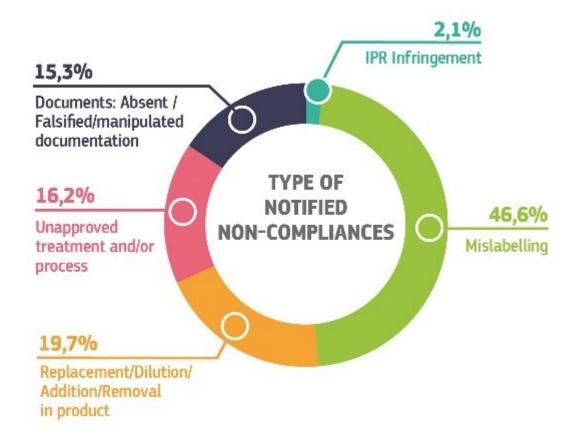
Food Fraud requests created in the AAC system per year



The top 10 product categories in the system in 2019



Type of notified non-compliances in the system in 2019





### **Traces** <u>TRAde Control and Expert System</u>



1997

2019

outbreak of classic swine fever in Europe

Resolution from the European Parliament (A5-396/2000) inviting the EC to improve the **traceability** of animal

Commission Decision 2003/24/EC was adopted to allow for the development of a new computer system integrating the functions of the ANIMO and SHIFT systems into a single architecture, subsequently called "<u>Traces</u>" by Commission Decision 2003/623/EC.

2004 Commission Decision 2004/292/EC made the system gradually compulsory for the Member States of the European Union as of 1st January 2005.

2005 <u>Traces</u> compulsory

the Commission developed a new version of TRACES, called **TRACES-NT** (TRACES New Technologies), enabling the entire process of production of documents to be performed electronically as of that date.

The Commission adopted on 30 September 2019 the IMSOC Regulation - Implementing Regulation 2019/1715 - with the objective to lay down the rules for the functioning of the IMSOC (Information Management System for Official Controls) and its system components (TRACES, iRASFF, ADIS, EUROPHYT).



### Traces

TRACES is the European Commission's multilingual online platform for sanitary and phytosanitary certification required for the **importation** of

- animals,
- animal products,
- food and feed of non-animal origin
- plants

into the European Union, and the intra-EU trade and EU exports of animals and certain animal products.

Its main objective is to streamline the certification process and all linked entry procedures and to offer a fully digitised and paperless workflow

TRACES covers DG SANTE's policy areas in relation to public health, animal health and plant health:



## Traces

#### TRACES facilitates:

- the exchange of data, information and documents between all involved trading parties and control authorities.
- to **trace back and forth** all the movements of animals, animal products, food and feed of non-animal origin and plants
- enhances **cooperation and coordination** between the competent authorities of EU countries and non-EU countries, but also between the traders themselves and their competent authorities. When a decision is taken on a consignment, the involved parties are notified and have access to the relevant documents.

- **simplifies and speeds** up the administrative procedures.
- contributes to the **reduction** of the **impact of disease outbreaks**
- allows for a **quick response** to counter certain serious risks along the agri-food chain.
- quick detection of fake certificates and therefore contributes to the enhancement of trust and better collaboration.

The **statistical tool** allows the extraction of valuable data in relation to imports into the EU, exports from the EU and intra-Union trade.



### Traces

TRACES is an efficient tool to ensure:

- **Traceability** (monitoring movements of consignments, both within the EU and from non-EU countries);
- Information exchange (enabling trade partners and competent authorities to easily exchange information on the movements of their consignments and by significantly speeding up administrative procedures);
- **Risk management** (reacting rapidly to health threats by tracing the movements of consignments and facilitating the risk management of rejected consignments).







European Commission



Is a **notification and rapid alert system** dealing with interceptions for plant health reasons of consignments of plants and plant products imported into the EU or being traded within the EU itself. EUROPHYT is established and run by the Directorate General for Health and Food Safety of the European Commission.

The main features of the EUROPHYT Network are:

•Notification of interceptions: Plant health authorities of the EU Member States and Switzerland enter data about interceptions they have made of non-compliant consignments into EUROPHYT electronically, via a direct web-link.

•A Rapid Alert System: EUROPHYT immediately notifies the plant health authorities of Member States and Switzerland of each interception. In the case of interceptions of imports from non-EU countries, the plant health authority of the exporting country also receives immediate notification in the form of an e-mail.

•Database and information system: All notifications are stored in a structured database. Members of the EUROPHYT network have full access to the data, making it possible to analyse trends and produce statistics.

•Reports: Standard weekly, monthly and annual reports are produced for different users.

# EU Food Safety overview Information Management System for Official Controls <u>« IMSOC</u> »

1. <u>Implement electronically</u> most of the provisions of the new *OCR* (Official Controls Regulation (EU) <u>2017/625</u>)

2. <u>Exchange</u> between Member States & Commission of all data-documents needed to perform Official Controls (Certification and eccertification)

3. <u>Implement Administrative Assistance and Cooperation</u> and unify the systems in relation to risk to human health, plant health, animal health and welfare

<u>Provide tools</u> to collect and manage the reports on official controls provided by Member
 States to the Commission

5. <u>Streamline communication to/from non-EU Countries and international organisations</u>

### **EU Food Safety overview**

# What is IMSOC?

	Keywords			CONSOLIDATION-EFFICIENCY		
	Name: Information Management System for Official Controls					
				It's a concept to allow our EU systems to exchange information and share features (and with MS systems)		
Will it add further burden to our activities?			our NO	It will be designed to make your life easier		
Will it replace the current system (traces/europhyt/irasff/aac)				NO/YES	It will connect them and extend functionalities (some systems will be absorbed)	
What is its purpose? Toward a better collective controls efficiency						

## EU Food Safety overview Information Management System for Official Controls <u>« IMSOC</u> »

## **IMSOC** system components



## EU Food Safety overview Information Management System for Official Controls <u>« IMSOC</u> »

