

## Joint Research Centre (JRC)

# How does the JRC support EU Policy on Food Safety and Quality?



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*Belgrade, Serbia - 29 June 2009*

**IRMM - Institute for Reference Materials and Measurements**

*Geel - Belgium*

<http://irmm.jrc.ec.europa.eu/>

<http://www.jrc.ec.europa.eu/>

- I: Introduction**
- II: Areas of Activity**
- III: Perspectives**

- **Member States gave food safety *mandate* to EU because**
  - Food crosses borders
  - Safe food is a basic human right
- **The EU takes a *science based* approach**
- **The *JRC*'s contribution**
  - Scientific excellence combined with independence of national and commercial interests

- **Analytical method development, validation**
- **Proficiency testing of laboratories**
- **Creating and maintaining databases**
- **Reference materials**
- **Act as Community Reference Laboratories (CRLs)**
- **Workshops, training activities, dissemination of results**
- **International standardisation**
- **Strategic and guidance documents**
- **Frequent customer/stakeholder contact**
- **Underpinning and exploratory research**

- **Consumers**
- **Sister DGs in Commission**
- **EFSA**
- **Official control authorities**
- **Standardisation bodies**
- **Scientific community**
- **Industry**

- **Free movement of goods**
- **Scientifically based decision making**
- **Customer oriented activities**
- **Subsidiarity**
- **Transparency – *and Confidentiality!***
- **Harmonisation**
- **Safe food is a basic human right**
- **Objectiveness**
- **Stakeholder involvement**
- **Service to the European Community**

⇒ **JRC MISSION:**

⇒ ***To provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policy***

## Which JRC Institutes work on Food Safety and Quality?

- Institute for Reference Materials and Measurements (Geel, BE)
- **Institute for Consumer Health and Protection (Ispra, IT)**
- **Institute for Prospective Science and Technology (Seville, ES)**

- Community Reference Laboratories (CRLs) **support activities** of the European Commission in **policy areas** carrying a risk to citizens and consumers and requiring strict control measures.
- A CRL is a designated **analytical laboratory** which works closely with National Reference Laboratories (NRLs) in the Member States.
- The creation of Community Reference Laboratories (CRL's) should contribute to a high quality and **uniformity** of test results throughout the EU, in particular in those areas where a need for precise analytical and diagnostic results exists (regulatory limits).
- **In practice**, CRLs carry out validation, exchanges, evaluations, proficiency tests etc related to designated products and/or methods.
- **Legal basis**: Regulations (EC) No 882/2004 and 776/2006

## JRC has been appointed CRL for

- **Mycotoxins**
- **Polycyclic Aromatic Hydrocarbons**
- **Heavy Metals**
- **Feed Additives**
- **Food Contact Materials**
- **GMO**

**Natural toxins**

**Process contaminants**

**Allergens**

**Sustainable agriculture & authenticity**

**Melamine**

**BSE/TSE**

**Chocolate**

**GMO's**

..... *but dynamic => flexibility*

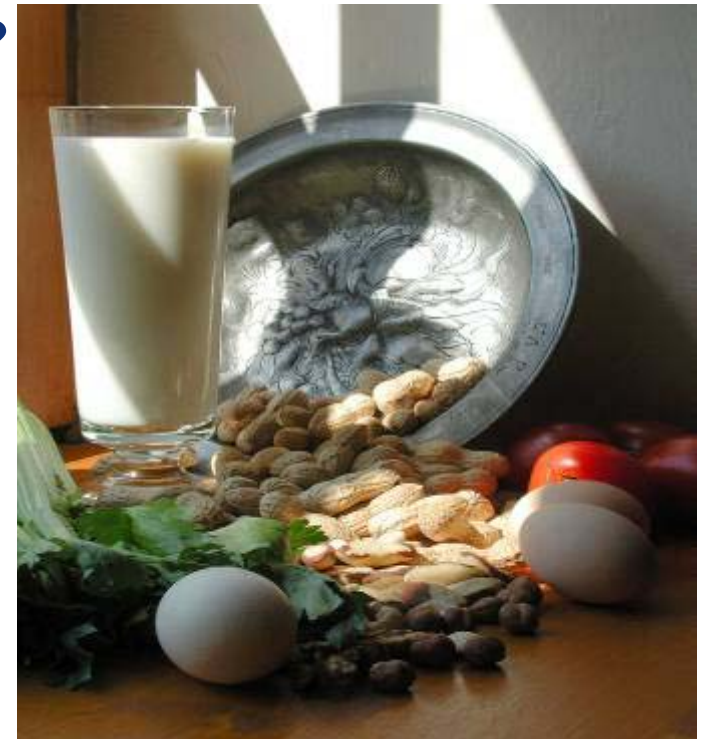


## The Issue

- Large - and growing! - number of people affected

## The Questions to clarify

- What are the target analytes ?
- Does analytical detectability correlate with allergic reactions?
- Does the labelling of foods match their contents?



## The Issue

- The recent crisis in China with milk powder

## The Question to clarify

- Can we analyse the presence of melamine in a reliable way in EU?
- The JRC has organised a Proficiency Test .

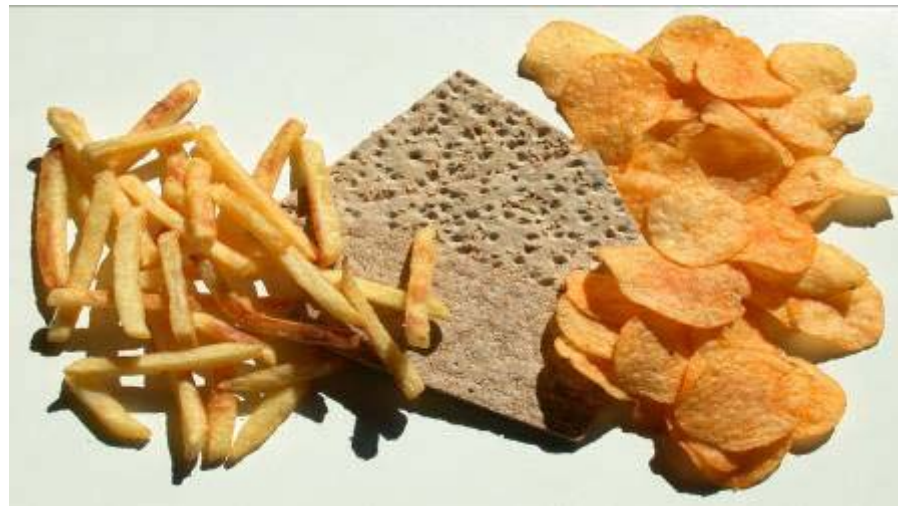
## The Issue

- Various (emerging) food scares, e.g. acrylamide, PAHs, mineral oil in sunflower oil

## The Questions to clarify

- Are we looking at the right substances?
- Are the substances stable?
- What should the maximum residue levels be?
- Are established levels being exceeded?

## Community Reference Laboratory for PAHs



## The Issues

- No analytical methods to distinguish between **organic** and conventional food
- Geographical origin** not easily verifiable
- => But **risk of fraud** : Need to keep the consumer confidence by verifying authenticity



## The Question to clarify

- Can we distinguish analytically between food of different origin?



## The Issue

- 5% presence of foreign fats in chocolate permitted
- Difficult to enforce

## The question to clarify

- Can we detect if 5% limit is exceeded?



## The Issue

-Commonly occurring toxins (RASFF)

## The Questions to clarify

- Can we enforce EU legislation?
- What should the maximum residue levels be?
- Are established levels being exceeded?
- Harmonised approach

## Community Reference Laboratory



## Harmonised, validated methodology across EU allows

- MEMBER STATE AUTHORITIES to decide if a product fulfils safety and quality requirements
- DG SANCO and DG AGRI to establish max. limits when drafting legislation
- EFSA to evaluate intake of contaminants and additives
- INDUSTRY and FOOD AUTHORITIES to save money – because enough to measure *once*
- Easier communication between SCIENTISTS

***And, in turn, facilitates higher consumer trust because reliable, agreed results => more clarity ☺***

- Food and feed *matrices* are extremely complex – and interfere with analysis!
- The number of *compounds* to be measured in food and feed is high – and growing
- The number of *products* to be controlled is even higher!
- *Urgency* of demands (if food crisis)

## III: Possibilities for Collaboration

- **National Detached Experts**
- **Post-doc's, Ph.D's:**
  - We seek 70 grantholders in 2009
- **Training:** <http://irmm.jrc.ec.europa.eu/html/training/index.htm> **and**  
<http://irmm.jrc.ec.europa.eu/html/training/trainmic/index.htm>
- **Job opportunities:**  
[http://irmm.jrc.ec.europa.eu/html/job\\_opportunities/index.htm](http://irmm.jrc.ec.europa.eu/html/job_opportunities/index.htm)

## Scientific publications:

<http://irmm.jrc.ec.europa.eu/html/publications/index.htm>

## Newsletters:

<http://irmm.jrc.ec.europa.eu/html/publications/subscription/index.htm>

**Events:** <http://irmm.jrc.ec.europa.eu/html/events/index.htm>

## **Collaborative trials (Proficiency testing, Inter-laboratory validation studies):**

[http://irmm.jrc.ec.europa.eu/html/interlaboratory\\_comparisons/index.htm](http://irmm.jrc.ec.europa.eu/html/interlaboratory_comparisons/index.htm)

## **Reference Materials:**

[http://irmm.jrc.ec.europa.eu/html/reference\\_materials\\_catalogue/user\\_support/index.htm](http://irmm.jrc.ec.europa.eu/html/reference_materials_catalogue/user_support/index.htm)

## **Metrology support programme:**

[http://irmm.jrc.ec.europa.eu/html/enlargement/Metrology\\_support\\_programme.htm](http://irmm.jrc.ec.europa.eu/html/enlargement/Metrology_support_programme.htm)

## **Call for Collaborators for stability studies and certification projects:**

[http://irmm.jrc.ec.europa.eu/html/calls/call\\_for\\_collaborators/index.htm](http://irmm.jrc.ec.europa.eu/html/calls/call_for_collaborators/index.htm)

## **Joint participation in FP 7 projects**

- **Harmonised, reliable analytical methodology in the area of food safety and quality is the *foundation* upon which risk assessment and law enforcement is built.**
- **The tasks that still remain to be carried out are extensive, and transgress national borders => so let's collaborate**

