



1st CEFSEER Workshop:

"Regional perspectives in food safety"

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Food safety as a global challenge



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Food quality and safety have become **focal topics** that concern every citizen in the European Union (EU) and worldwide.

Food quality could not be separated from **food safety** as they are interdependent.





**Food quality and safety are not important only
for the consumer protection,
but also for the food industry, which stands to
gain and maintain consumer confidence.**





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Food safety is currently one of the **most important challenges** confronting consumers, producers, and distributors.

It is also an issue that is in the centre of interest of scientists and experts because it has great **health, economic, and legal consequences.**

Dioxin food crisis in Belgium. [Anal C...

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Anal Chem. 1999 Aug 1;71(15):541A-543A.

Dioxin food crisis in Belgium.

Erickson BE.

PMID: 10450146 [PubMed - indexed for MEDLINE]

+ MeSH Terms, Substances

+ LinkOut - more resources

Related citations

The Belgian PCB/dioxin incident: analysis of the food chain contamination and [Environ Res. 2002]

Surprising findings following a Belgian food contamination wit [Environ Health Perspect. 2001]

[Food contamination by PCBs/dioxins in Belgium: analysis of an : [Bull Mem Acad R Med Belg. 2000]

Review Contamination of free-range chicken eggs with dioxins and d [Mol Nutr Food Res. 2008]

Review The Belgian PCB/dioxin incident: a critical review of health risks e [Int J Toxicol. 2002]

HEADLINES > PUBLIC CONCERNS

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Melamine crisis makes manufacturers extra-cautious over safety

By Jess Halliday, 13-Oct-2008

Related topics: Public Concerns

The fall-out from the melamine crisis in China is prompting manufacturers to be super careful about sourcing safe ingredients, say industry sources – not just dairy and not just those coming from China.

Since the problem of milk contaminated with the industrial chemical melamine to boost the apparent protein content came to light, incidents of melamine-containing foods have swept the globe. Major manufacturers using milk powder, including Cadbury and Unilever have withdrawn some products from sale.

Four infants in China are reported to have died as a result of consuming

Frequent dramatic food emergencies focus the attention on food safety in order to manage the risks for human health that could occur in any point of the food chain.



- **Food, in general, reflects the environmental conditions under which is produced, handled, used.**





- **Increased environmental pollution, rapid expansion in international trade of food and in tourism sector have resulted in increased risk of higher intake of food chemical contaminants through diet and detrimental health effects.**





Thus, safety of food cannot be dealt with as just a physical problem but rather as a multi-dimensional one, affected by politics, economics and social influences.





The industrialised trading regions, like the European Union has a responsibility for encouraging and enabling improved food safety by contributing state-of-art knowledge and standards.





**To ensure that such information is
harmonised, communication and
collaboration among food safety research
scientists are essential!**





It must be also an object of joint research efforts in order to confront diverse issues within the area.

The EU food safety requirements were devised with the aim of having similar standards across the Community, a harmonisation meant to reduce internal trade barriers.





**Contrary to the most developed countries,
less developed ones share a
common problem in the food sector that is
little or no regulations in place regarding the
EU food safety requirements, ...**



... which could be attributed to delayed national implementing measures, and one of the main reasons for such situation is also lack of resources capable to follow stringent EU regulations, since ...



... the implementation of integrated, **farm-to-fork** **food safety systems** to meet today's stringent requirements for consumer protection and trade in food commodities requires a well developed analytical capacity for contaminants and residues.



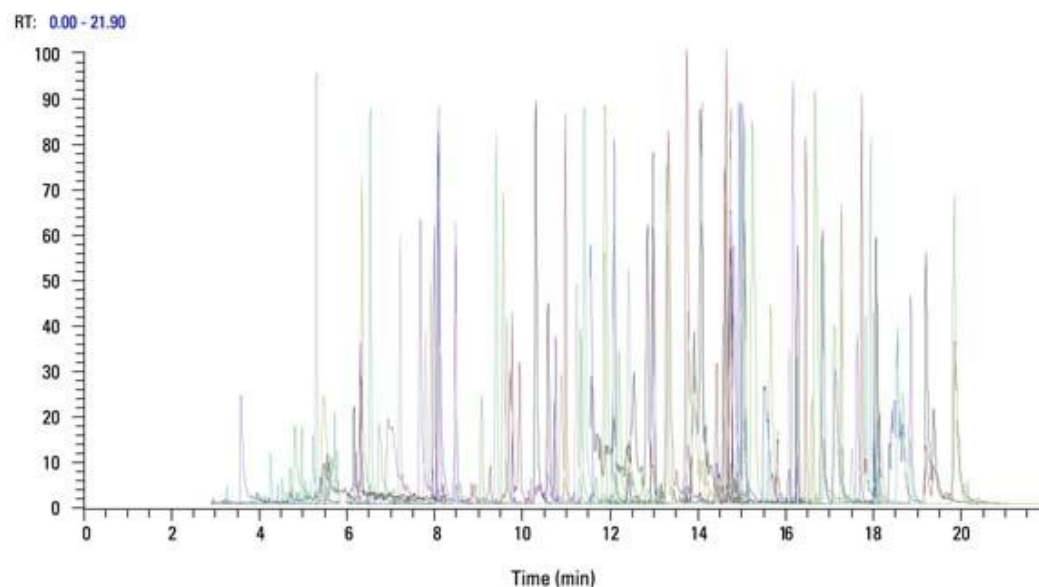


- Food analysts require **analytical methods** to detect and identify the nature and concentration of chemicals in all components of foodstuffs from the raw materials to the end products.





- These analyses are challenging due to the complexity of the matrix compounds in food extracts, which often interfere with detection of target compounds and elements.





It could be said that the use and development of new analytical techniques in food science runs parallel with the increased consumer concern what is in their food and the safety of food they eat.





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Direct interest in various aspects of food analysis, its standardization and harmonization, food safety and authenticity could be also seen in many projects funded under FP6 and FP7 programme;

The screenshot displays the CORDIS (Community Research Information System) website. At the top, the European Commission logo and the CORDIS name are visible. The navigation bar includes links for Home, News, Funding, Results, Themes, Go local, Look it up, Interact, and Help. The main header indicates the current path: European Commission > CORDIS > FP7 > Find project. A search bar is present with the text 'Search all CORDIS' and a 'Search' button. Below the header, the 'Seventh Framework Programme (FP7)' is highlighted. A sidebar on the left lists various links related to FP7, such as 'FP7 Home', 'FP7 newsroom', 'Understand FP7', 'Participate in FP7', 'Find a call', 'Register your organisation', and 'Preparation and Submission'. The main content area shows the results of a search for 'Find a project'. It states '1 projects were found.' and lists the first project: '1. PERFOOD'. The project title is 'PERFluorinated Organics in Our Diet' and the research area is 'KBBE-2008-2-1-01 Measures aimed at promoting healthy eating habits, KBBE-2008-2-4-01'.



...in some of them the CEFSER supporting partners, **Institute of Chemical Technology** from Prague, and **Vrije University** from Amsterdam, have been also included:



PERFOOD (227525, 2009-2012)

CONFIDENCE (211326, 2008-2012),



TRACE (6942, 2005-2009),

BioCop (6988, 2005-2010),

HEATOX (506820, 2003-2007),



Unfortunately, **developing countries** or those with **economies in transition** are frequently **at least one step behind the latest development.**

For instance, the relevant educational curricula in these regions have not been adapted to recent advances in food analysis.





**Moreover, lack of capital investments
in the analytical equipment reduces
possibilities to be competitive in the
research as well to perform monitoring
in compliance with the stringent EU
regulations on the food safety.**





Assuring safety in the European food supply,
which is today of particular importance and
one of the major preoccupation of civil society,
urges for consolidation of all our capacities
and capabilities relevant for food quality and
safety research.





EC recognized the existence of the **transitional gaps** that have occurred in the enlarged European Union and opens the **REGPOT calls** within **FP7-CAPACITIES** programme.

Research potential of Convergence Regions

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Calls for proposals

Call Identifier ▲ ▼	Call Title ▲ ▼	Publication Date ▲ ▼	Deadline ▲ ▼
FP7-REGPOT-2010-5	Research Potential in the Western Balkan Countries	2009-07-30	2009-10-15
FP7-REGPOT-2010-1	Unlocking and developing the Research Potential of research entities established in the EU's Convergence Regions and Outermost regions	2009-07-30	2009-12-17
FP7-REGPOT-2009-2	International Cooperation	2008-10-24	2009-02-13
FP7-REGPOT-2009-1	Unlocking and developing the Research Potential of research entities established in the EU's Convergence Regions and Outermost regions	2008-10-24	2009-02-13
FP7-REGPOT-2008-2	Providing evaluation facilities for research entities in the EU's convergence regions and outermost regions	2007-11-30	2008-03-14
	Unlocking and developing the Research		



These REGPOT calls offer an opportunity to
the less developed regions to significantly
upgrade the resources,
stimulating the realization of the full research
potentials of the enlarged European Union and
enabling them **successful engagement in the**
main research streams.



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“CEF SER” is the **FP7-REGPOT-2008-1** project dedicated to the reinforcement of research potential of the Laboratory for Chemical Contaminants in Food and the Environment at the Faculty of Technology, Novi Sad, towards the establishment of a unique Western Balkan Country (WBC) Centre of Excellence in Food Safety and Emerging Risks (CEF SER) with infrastructure and activities on food safety and emerging pollutants integrated with advanced and well experienced institutions from EU.





Through postulated general objectives such as:

- **capital investments in a highly sophisticated analytical instrument,**
- **upgrading of the existing equipments,**
- **reinforcement of the human resources (hiring, mobility, etc), and**
- **networking with advanced EU institutions,...**



**CEFSER integrates the Faculty of Technology
within the European Research Area,
contributing to upgrading of the regional
capacities towards the general harmonization
of R&D within the food safety research.**





After the capital investments through the CEFSER project, we are ready to tackle new analytical challenges in food safety area, some of them are:

- **screening of multicomponent mixture of mycotoxins and pesticides by high resolution MS,**
- **analysis of perfluorinated compounds belonging to the emerging contaminants,**
- **development of the advanced method (UHPLC-APPI-MS/MS) for analysis of PAHs in sub-ppb levels**
- **analysis of thermo induced contaminants like acryl amide**



- **All these issues are new and have never been investigated in Serbia or even wider in the WBC region.**
- **Hence, direct impact of the CEFSER project could be seen in upgrading of the national and regional research capabilities.**



**With new data and knowledge gathered,
it could further contribute to:**

- **the international recognition of the
national and regional science, and also**
- **to influence the harmonization of the
methods and regulations over the region**



Our capacities have been recognized and since the beginning of the CEFSER project:

- **one IPA project and two bilateral projects** have been contracted,
- the CEFSER team has been involved in **two FP7-KBBE proposals**,
- there have been **several proposals for the joint research**.





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Only through **increased level of**
collaboration and research synergies
across the enlarged EU,

including Candidate and Associated countries



it is possible to

bridge the gap

in knowledge and experience in food science

with the final contribution to a

more competitive and safer European food

supply.



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Thank you for your attention!