



MILANO 2015  
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Consiglio Nazionale delle Ricerche



## Workshop

# FOOD METROLOGY Approaches and Tools for Measuring Food Quality

9<sup>th</sup> October 2015

*Consiglio Nazionale delle Ricerche*

*Via Corti, 12 - Milano*

### RATIONALE AND OBJECTIVES

Food Metrology is an emerging area of scientific, industrial and social interest, which addresses the challenge of traceable measurements of food constituents and contaminants in food matrices, by developing standardized procedures and suitable reference materials to insure full traceability of values to SI Units. The available methods and tools include: high-quality reference standards, validated methods, robust sampling practices, proven calibration approaches, reference materials in natural matrix, speciation chemistry, assessment of measurement uncertainty, establishment of traceability links and proficiency testing.

The workshop, organized by CNR – Consiglio Nazionale delle Ricerche and INRiM – Istituto Nazionale di Ricerca Metrologica, is part of a series of discussions that the EU Scientific Steering Committee for Expo 2015 is following during the course of the six months of the Expo. The results of the conference will feed into a process, by the end of which there will be widely consulted recommendations to provide to decision makers on future priorities for research, development and innovation in the food and agricultural sector.

The main objectives of the workshop are: to provide the scientific community and groups of interest with the state of the art of existing metrology approaches for food quality assessment, to present food analysis areas where metrological approaches need to be incorporated, in order to enhance the reliability of the measurement process, and to stimulate discussion about the needs and the development areas in food metrology.

## VENUE OF THE WORKSHOP

The Workshop will be held at the Sala Convegni, CNR Research Area MI1, Via Alfonso Corti 12, Milano.

Participation in the workshop is free, but registration is appreciated.

For registration, please go to: <https://www.expo.cnr.it/en/node/189>.



Follow the event on Twitter: <https://twitter.com/foodmetrology>

## ORGANIZING COMMITTEE

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Andrea M. Rossi  
INRiM, Italy  
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## PROGRAM

### 8:30 Registration

9:00 Welcome Address

**Massimo Inguscio**, President of INRiM, Italy

**Francesco Loreto**, Head of CNR-DISBA, Italy

9:10 Keynote Lecture 1

*Current and future challenges in food analysis to ensure safe and authentic products on the market*

**Franz Ulberth**, EU-JRC IRMM, Belgium

9:35 Keynote Lecture 2

*The need of reliable data for risk assessment purposes*

**Eniko Varga**, EFSA, Italy

10:00 Keynote Lecture 3

*The Food Metrology program at the Italian Metrology Institute*

**Andrea M. Rossi**, INRiM, Italy

### 10:30 Coffee break

#### Session 1

***Development of standards and metrological methods for food analysis***

Chair: **Franz Ulberth**, EU-JRC IRMM, Belgium

11:00 *Reference methods and materials to support food safety: From elemental to size-based speciation*

**Heidi Goenaga - Infante**, LCG, UK

11:20 *Elemental analysis in food and raw materials by neutron activation at INRiM*

**Luigi Bergamaschi**, INRiM, Italy

11:40 *International Proficiency Testing as a tool to evaluate the state-of-art of LC-MS methods for multi-mycotoxin measurements*

**Michelangelo Pascale**, ISPA CNR, Italy

12:00 *Metrological approaches in official controls for veterinary drug residues determination in food*

**Daniela Marchis**, IZS, Italy

### 12:30 Lunch

Chair: **Laura Cavallarin**, ISPA CNR, Italy

13:30 Keynote Lecture 4

*Metrology for Innovation and Sustainability of the agro-food system*

**Giovanna Zappa**, ENEA, Italy

14:00 Keynote Lecture 5

*The contribution of IMEKOFOODS to strengthen the link between Metrology and Food Actors*

**Isabel Castanheira**, IMEKO Technical Committee 23 “Metrology in Food and Nutrition”, INSA, Portugal

## **Session 2**

### ***Metrology for Food Quality and Safety***

Chair: **Andrea M. Rossi**, INRiM, Italy

14:30 *MS based methods as a valuable multi target screening tool for monitoring allergens contamination in food products*

**Maria G. Giuffrida, Linda Monaci**, CNR ISPA, Italy

14:50 *Metrology applied to the survey of pharmaceutical residues in water for a better protection of consumers*

**Sophie Lardy-Fontan**, LNE, France

15:10 *Metrological approaches to assess the migration of contaminants from packaging into food*

**Jesús Salafranca**, EINA – UNIZAR, Spain

15:30 *Titanium dioxide nano-particles in foods: high throughput screening of toxic effects on gastrointestinal tract*

**Paolo Bigini**, Istituto Mario Negri, Italy

15:50 **Round table**

*Future perspectives and new areas of development in food metrology*

Coordinator: **Franz Ulberth**, EU-JRC IRMM, Belgium