

# Measurement Quality in Analytical Chemistry: With a Focus on Food

**Uppsala 17-18 September 2009**

The aim of this NMKL<sub>(1)</sub>/TrainMiC<sub>(2)</sub> workshop is to give you working in laboratories performing chemical measurements on food, a rehearsal of the main issues but also new perspective of measurement quality requirements in ISO 17025 – traceability, method validation, measurement uncertainty and quality control.

Another important aim is to harmonize the way we work with quality and to support laboratories to improve quality system to be effective, based on competence and accepted by all personnel.

## Target group

Analytical chemists, technical assessors, laboratory and quality managers in laboratories working with analysis of food.

We invite participants from the Nordic countries as well as any other country to participate. The presentations will be in English.

## Speakers

Bertil Magnusson, SP, Sweden – national TrainMiC team leader, industrial analytical chemist with focus on measurement quality and Swedish representative in metrology organisations as CCQM, Eurachem and Euromet.

Joakim Engman, National Food Administration, Sweden – analytical chemist working with Food control of heavy metals. Works with validation of methods and standardisation of methods within the NMKL and CEN.

## Evaluation of your own method regarding validation and measurement uncertainty

After this workshop you will have the opportunity to send one of your methods for an evaluation of the speakers. They will provide you with tips and comments on improvements or just verify your good work.

## NMKL/TrainMiC Programme 17-18 September 2009

<b>Wednesday</b>	<b>16 September 2009</b>
Evening	Arrival
<b>Thursday</b>	<b>17 September 2009</b>
09:00	Registration and coffee
09:30	Introduction and presentation of participants (B. Magnusson)
09:45	Presentation of the NMKL (J. Engman)
10:00	Basic statistics and terminology in analytical chemistry (B. Magnusson)
11:00	Presentation of example, Pesticide residues © TrainMiC (J. Engman) Exercise Traceability of Measurement Results (B. Magnusson)
12:00	Lunch
13:00	Single laboratory Validation of measurement procedures © TrainMiC (J. Engman) Exercise – Recovery and bias estimation (B. Magnusson)
15:00	Coffee
15:20-17:00	Uncertainty of measurement - Principles and the Nordtest approach (B. Magnusson) Exercise (B. Magnusson)
19:00	Dinner
<b>Friday</b>	<b>18 September 2009</b>
08:30	Internal Quality Control – QC © TrainMiC (B. Magnusson) Exercise – Evaluation over time (B. Magnusson)
09:30	Inter-Laboratory Comparisons (ILC) © TrainMiC (J. Engman)
10:30	Coffee
11:00	Selection and Use of Reference Materials © TrainMiC (B. Magnusson)
12:00	Lunch
13:00	Exercise, Pesticide residues, completion © TrainMiC (J. Engman)
14:20	Learning evaluation (B. Magnusson)
14:40	Solution to the learning evaluation and coffee
15:00	Finish of the event

This NMKL/TrainMiC is organized by *National Food administration and SP Technical Research Institute of Sweden* in cooperation with the NMKL and IRMM.

### General Information

**Location**, National Food Administration (Livsmedelsverket, [www.slv.se](http://www.slv.se)), Hamnesplanaden 5, Uppsala, Sweden.

**Fee** 6 000 SEK excl. VAT. including documentation, coffee, lunch and dinner. Excl. hotel room.

**Registration** by SP homepage [www.sp.se/conf](http://www.sp.se/conf) (mätteknik, kemisk mätteknik), or to Johan Seger, [johan.seger@sp.se](mailto:johan.seger@sp.se) phone: + 46 (0)10 – 516 52 67 **before 26 June**.

**Course content** Joakim Engman, joakim.engman@slv.se, phone : +46 (0)18 17 56 81

**Hotel room** – You make your own room reservation by mail to [uplandia@scandichotels.com](mailto:uplandia@scandichotels.com) **before 10 august**. We have reserved rooms 16-18 September for 971 SEK/night (incl VAT) at Hotel Scandic Uplandia. The booking code is **LIV160909**.

Other suitable hotels are:

*Clarion Hotel Gillet*, [www.clarionhotelgillet.se/english.aspx](http://www.clarionhotelgillet.se/english.aspx)

*Best Western Hotel Svava*, [www.hotelsvava.com](http://www.hotelsvava.com)

*First Hotel Linné*, [www.firsthotels.com/en/Our-hotels/Sweden/Uppsala/First-Hotel-Linne](http://www.firsthotels.com/en/Our-hotels/Sweden/Uppsala/First-Hotel-Linne)

### <sup>1</sup>Nordic Committee on Food Analysis ( [www.nmkl.org](http://www.nmkl.org) )

Is a Nordic organization founded as early as 1947, and consists of food analysts - microbiologists, chemists and sensory analysts - from Denmark, Finland, Iceland, Norway and Sweden. The committee's primary objective is to select, validate, approve and publish methods for the analysis of foods. Performance characteristics are initially assessed in collaborative studies, arranged by NMKL or other cooperating international organizations. In recent years, the establishment of procedures and guidelines regarding quality assurance has been added to on NMKLs working programme.

### <sup>2</sup>TrainMiC ( [www.trainmic.org](http://www.trainmic.org) )

Training in metrology in chemistry (TrainMiC) is a European Commission funded training platform to foster advanced professional training on generic issues related to the measurement science in chemical measurements. This training is intended both for laboratory practitioners as well as for the 'end-users' of measurements e.g. regulatory, inspection or accreditation bodies.

TrainMiC is a pan-European training platform set up by IRMM, Institute for Reference Materials and Measurements, Belgium for experts from all types of organisations. Via the TrainMiC platform, a set of training modules has been constructed that provides understanding in basic measurement matters, which apply to measurements across different sectors such as food, environmental or clinical analysis. The training courses are organised by the local partners, such as national metrology institutes, universities or accreditation bodies, in collaboration with IRMM.

