

# FOOD MICRO SYSTEMS

## INTERNATIONAL ROADMAPPING WORKSHOP MICRO TECHNOLOGIES FOR THE DAIRY INDUSTRY

Towards a Roadmap for Micro Technologies and Smart Sensors to help the Dairy Industry to improve food quality, reduce cost, and strengthen consumer confidence.

January 18<sup>th</sup>, 2013, Wageningen, The Netherlands

[www.foodmicrosystems.eu](http://www.foodmicrosystems.eu) // The FoodMicroSystems project is supported by the European Union (FP7/2007-2013) under grant agreement n° 287634.

Coordinator ACTIA



## CONTACTS

### LOCAL ORGANISER

**Dr. Frans Kampers**  
**Yvonne Blom**  
Wageningen UR  
Wageningen/The Netherlands  
Tel.: +31 317 487279  
[yvonne.blom@wur.nl](mailto:yvonne.blom@wur.nl)

### INTERNATIONAL CONTACT

**Patric Salomon**  
4M2C/enablingMNT  
Berlin/Germany  
Tel.: +49 30 24357870  
[patric@enablingmnt.com](mailto:patric@enablingmnt.com)

## Microsystems for the Food Industry, trends and applications

FoodMicroSystems is a project supported by the EU that started in September 2011. Its objective is to stimulate the application of microsystems and smart miniaturized systems in the food sector by aligning opportunities offered by suppliers and developers/users of microsystems for food/beverage quality and safety with the demands of the food sector. In the food industry, micro technologies can be used for sensors and diagnostic systems that will detect and quantify a wide range of parameters, including chemical residues and micro-organisms. If necessary also sample preparation and multiplication (micro-organisms) modules can be included. Micro and nanotechnologies can also help to innovate and improve processes in the food industry, resulting in new opportunities for the industry, improved product specifications or increased sustainability of the sector. Micro technologies will significantly contribute to the economic benefit of European food industry by providing small and cost-efficient sensors, filters and other structures. In this way, it will contribute to the overall food quality, reduce cost, and strengthen consumer confidence.

## Roadmapping Workshop “Micro technologies for the Dairy Industry”

This workshop is a follow-up to the two workshops already organised by the FoodMicroSystems project (7 Jun 2012 Wageningen, 25 Sep 2012 Paris) and will specifically discuss opportunities & challenges and drivers & barriers for the use of micro technologies and smart systems in the dairy industry. The workshop aims at a roadmap that will help the dairy industry and the technology companies to focus their research on joint goals, ensuring that technology push and dairy pull align. The roadmap can serve as a coordination mechanism for the near future, ensuring that demands of the dairy sector are met by technological developments and will help future innovations in the sector. By participating in the workshop you can direct the roadmap to goals that are of interest to your company and you will be able to join a collaboration that really can benefit your competitiveness.

## Tentative topics for parallel workshops / break-out sessions

4-6 out of these topics will be selected, depending on the interest and qualification of participants; please select your favourites during on-line registration:

- 1 From cow to raw milk (measuring quality, contamination)
- 2 Measurements during the dairy processing (on-line, in-line, off-line)
- 3 Quality control (analysis of final dairy product)
- 4 Specific sensors/analysis for liquid dairy products (e.g. yoghurt, milk)
- 5 Specific sensors/analysis for creamy to solid dairy products (e.g. cheese, butter, cream)
- 6 Cleaning of processing equipment (when to clean, cleaning efficiency, contamination by detergents)
- 7 Packaging / transport / tracking
- 8 Quality check throughout retailing sector / consumer
- 9 Process innovations, e.g. micro sieves for pasteurisation / sterilisation / fractionation
- 10 New / innovative processing steps that require completely new (micro) technologies

## PROGRAMM

09:00

Registration,  
Coffee and Networking

09:30

Overview on the FoodMicroSystems Project, Funding Opportunities, and Objectives of this Roadmapping Workshop Patric Salomon, 4M2C/enablingMNT, Germany

09:50

Round the table introduction of all participants and their background

10:30

Microsystems in Dairy Processing, Results from initial workshops (7 Jun 2012 Wageningen, 25 Nov 2012 Paris)  
Frans Kampers, Wageningen University, The Netherlands  
Patric Salomon, 4M2C/enablingMNT, Germany

11:00

Coffee Break and Networking

11:30

THREE PARALLEL WORKSHOPS  
BREAK-OUT SESSIONS

Micro technologies for the Dairy Processing Industry (see list of topics)

12:30

Lunch Break and Networking

13:30

Summary and discussion of results from 1<sup>st</sup> set of parallel workshops

14:00

THREE PARALLEL WORKSHOPS  
BREAK-OUT SESSIONS

Micro technologies for the Dairy Processing Industry (see list of topics)

15:00

Coffee Break and Networking

15:30

Summary and discussion of results from 2<sup>nd</sup> set of parallel workshops

16:00

Overall summary and conclusions from this Roadmapping Workshop, follow-up activities, and recommendations for the European Commission

16:30

End of Workshop

REGISTRATION

Participation for the workshop is free of charge, however, space is limited. Please register through our website [www.foodmicrosystems.eu](http://www.foodmicrosystems.eu)

In case you have any questions, please contact **Yvonne Blom**, Wageningen UR (local organiser) or **Patric Salomon**, 4M2C/enablingMNT (international contact).

## VENUE

Wageningen  
The Netherlands

### SUGGESTED HOTEL

will be proposed with confirmation of your registration