

Final Outreach Event

“Classification of nanomaterials according to the EU definition”

19-20 September 2017

The European FP7 **NanoDefine** project is organizing on 19-20 September 2017 the Final Outreach Event at “Hotel Leopold” in Brussels, Belgium. We will present and discuss the results we have achieved during 4 years of intensive research and development work (2013-2017) with relevant stakeholders and wider community, and their practical implications and impact. We will demonstrate the newly developed particle-size related measurement tools and their practical suitability and applicability to classify materials, formulations and products according to the EC recommendation on the definition of a nanomaterial (2011/696/EU).

NanoDefine has tested, developed and validated key particle-sizing methods, techniques, instruments and software, and established a 2-tiered measurement approach based on these tools. The 2-tiered approach consist of cost-effective and rapid screening methods (tier 1) and more in-depth confirmatory methods (tier 2) for more complex materials, such as products. As a major outcome, the “NanoDefiner” eTool was developed to guide end-users to reliably group materials and determine whether a material or product is or contains nano, or not.

We would like to invite you to this 1,5-days workshop to meet our experts, share experiences, learn from each other and find answers to the following questions:

- How to match the analytical challenge caused by the EU Nano-Definition?
- How to handle the wide diversity and complexity of commercially relevant products and materials that have to be classified according to this definition?
- How to meet the need of industry for quick and unambiguous measurement tools?

The meeting will be organized in 1,5 days: On Day 1 (19 September 2017), representative from the EU Commission will introduce into the topic and highlight latest news on the EU Nano-definition, and project experts will present key results and discuss the main outcome achieved with the audience in the light of their potential to support the practical implementation of the EU definition. On Day 2 (20 September 2017), the practical applicability of key tools and techniques developed by NanoDefine will be showcased.

REGISTER and SAVE THE DATE! (if not done yet)

Registration is free of charge and can be done by sending an email to events@nanodefine.eu. As places are limited, registration will be accepted according to “first come, first served”. More information is available at: www.nanodefine.eu.

WORKSHOP VENUE: “Leopold” Hotel in Brussels (Rue du Luxembourg 35, 1050 Bruxelles) (<http://www.hotel-leopold.be>).

THE PRELIMINARY PROGRAM

Day 1: 19 September

09:00 Registration with coffee/tea

OPENING AND INTRODUCTION SESSION

- 09:30-09:40 Opening
Hans Marvin, RIKILT
- 09:40-10:00 NanoDefine – objectives, concepts, results and impact
Hans Marvin, RIKILT
- 10:00-10:30 Development related to the EU Nano-definition
Andrej KOBE, European Commission

Coffee break

SESSION 1: PRESENTATIONS

- 11:00-11:30 Advanced methods for nanomaterial characterization
Dan Hodoroaba, BAM
- 11:30-12:10 The NanoDefiner decision flow scheme, e-Tool and Manual for material classification
Hubert Rauscher and Agnieszka Mech, JRC

Poster lunch

SESSION 2: PRESENTATIONS

- 13:30-13:50 Sampling and sample preparation is critical
Katrin Löschner, Denmark Technical University
- 13:50-14:10 Screening methods - scope and limitations
Michael Stintz, Technical University of Dresden
- 14:10-14:30 Confirmatory methods – scope and limitations
Frank von der Kammer, University of Vienna

Coffee break

SESSION 3: PANEL DISCUSSION

- 15:00-16:00 **Strength, limitations and perspectives of the developed NanoDefine tools**
Chair: Hans Marvin, RIKILT and Rudolf Reuther, NOMI
(input: WP leaders)

Day 2: 20 September

SESSION 4: PRESENTATIONS

- 09:00-09:10 Opening
Hans Marvin, RIKILT
- 09:10-09:30 New reference materials and standards – challenges of validation methods for nanoparticles
Robert Köber, JRC-IRMM and Philipp Müller, BASF
- 09:30-09:50 Role of the VSSA in the NanoDefine decision flow scheme
Hubert Rauscher, JRC
- 09:50-10:30 'People behind the experiments' in NanoDefine
'Nanoparticles in toothpaste' **Manuel Correia (DTU)**,
'Single particle inductively coupled plasma mass spectrometry (spICPMS)' **Anna Undas (RIKILT)**,
'Application of screening methods for characterization of nanomaterials' **Frank Babick (TUD)**
- 10:30 Closing
Hans Marvin, RIKILT

Coffee break

SESSION 5: DEMONSTRATIONS

- 11:00-11:30 Demonstration of the e-Tool
Christoph Friedrich, FHDO
- 11:30-12:00 Case studies to explore the applicability of developed tools to industrial substances
Philipp Mueller or Wendel Wohleben, BASF
- 12:00-13:00 Demonstration of developed NanoDefine methodologies and materials
(parallel sessions)

The e-Tool in practice: hands-on exercises

Christoph Friedrich (FHDO), Hubert Rauscher (JRC) and Agnieszka Mech (JRC)

☑ Confirmatory methods:

Electronic Microscope detection (auto EM toolbox, particle sizer): introduction and demonstration (video) (30 minutes) **Ralf Kaegi, EAWAG**

miniTEM: online demonstration (30 minutes) **Martin Ryner, Vironova**

Field flow fractionation and multi-element detection (FFF-MED) - methodology and its transferability to other instruments (presentation) (30 minutes) **Frank von der Kammer, University of Vienna**

☑ Screening methods:

This project has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No 604347



Electrospray deposition: introduction and demonstration
Sylvia Lopez, RAMEM

Particle tracking analysis (PTA): introduction and demonstration (video clip)
Patrick Hole, Malvern

13:00 Closing

Lunch