

N°1

November 2016



Nanosafety Platform building - CEA Grenoble

Summary

- PNS Website launch
- Nanosmile
- Focus on Conference Nanosafe 2016
- Agenda

The platform delivers effective responses to manufacturers' nanosafety needs and is a leader in advancing the public debate on nanomaterials.

Nanosmile

The educational Nanosmile website initiated in the frame of the European project Nanosafe 2, aims at contributing to the understanding of risks related to nanomaterials. Nanosmile is hosted by the CEA (The French Alternative Energies and Atomic Energy Commission) and supported by the FP7 European iNTeg-Risk project and the SERENADE labex (Safer Ecodesign Research and Education applied to Nanomaterial Development).

This website proposes a learning platform including publications, videos, cartoons, animations, etc. for the public at large, engineers and researchers and even children with a continuous update. **A new version is available since September 2016.** It provides knowledge about the physics of nanoparticles, the risk assessment and management, the potential impacts on health and on the environment, the life cycle of nanomaterials, etc. The website is available in both French and English languages.

Contact : nanosmile-instn@cea.fr

Edito

We are very pleased to launch this PNS newsletter in which you will have the possibility to consult news about the PNS activities, projects, research results, interviews, etc.

Throughout its four annual editions, we hope this newsletter will become a useful and essential tool for you and your contacts.

If you have any suggestions or comments, do not hesitate to tell us by sending an email pns@cea.fr

Enjoy the reading of this first issue !

Gaëlle Charlier, editor in chief

EpiNano project & PNS

PNS EHS engineers are partners of EpiNano, the French surveillance program for workers potentially exposed to engineered nanomaterials.

The development of the EpiNano surveillance program is conducted by the French Institute for Public Health Surveillance Health (InVS) at a joint request of the French ministries of health and of Labour. EpiNano aims at surveying mid- and long-term health effects possibly related with occupational exposure to either carbon nanotubes or titanium dioxide (TiO₂) nanoparticles, aggregates and agglomerates of workers employed in the nanotechnology-related industrial or research and development facilities in France.

The method and the tool (the Onsite technical logbook) presented in this paper were developed by the French institute for public health surveillance (InVS), the French institute for occupational health and safety (INRS), the atomic energy commission (CEA), the French institute for industrial safety and environmental protection (INERIS), and the University of Bordeaux, as part of the partnership entitled ExpoNano Quintet. This tool makes it possible to collect all of the information necessary to identify and characterize workstations that might cause occupational exposure to carbon nanotubes or TiO₂ nanoparticles, aggregates, and agglomerates.

Guseva Canu et al. - French Institute for Health Surveillance (InVS)*, Journal of Physics: Conference Series 617 (2015) 012036 - *the new name of InVS is SPF (Santé Publique France) since mid-2016

Contact : *Cécile Ducros - cecile.ducros@cea.fr*

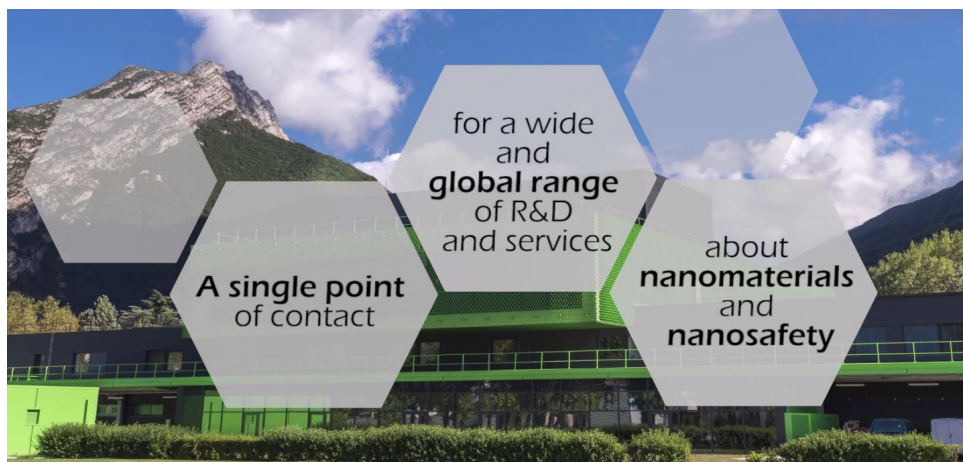
PNS Communication tools

Summer is the perfect season to prepare and develop new projects, as the volume of business is less important. That's why the communication department of the PNS took advantage of the summer season to finalize two new corporate communication tools:

-The French version of its website (the English version is under construction): www.platform-nanosafety.com. You will find all the information concerning nanomaterials in general (definition / regulation / application examples, etc.), an agenda of events dedicated to the nano field and also a presentation of the PNS and its offer for private and public companies. The objective is clearly that this website becomes the reference in that field of research.

-An institutional video which aim is to introduce, in less than 3 minutes, both R&D and services activities proposed by the PNS. The French version of this video will be available on the first page of the new PNS website and will be translated into English very soon.

Contact : *Gaëlle Charlier - gaëlle.charlier@cea.fr*





Grenoble - La Bastille

Conference Nanosafe, 7-10 November, 2016

Following the successful outcome of the four past international conferences on Safe production and Use of Nanomaterials (Nanosafe 2008, 2010, 2012 and 2014), the Platform NanoSafety organized again in Minatec, Grenoble, the fifth edition (7-10 November) with some of the most famous specialists in the field.

This year, the subtitle of the conference has been slightly changed to “**Health and Safety Issues Related to Nanomaterials**” in order to welcome inboard two new topics: **Urban Nanoparticles** and some aspects of **Nanomedicine**.

A COMPLETE AND DIVERSIFIED PROGRAMME

In addition to these new topics, attendees had found the usual issues addressed in previous Nanosafe conferences such as Detection and Characterization, Expology, Release from Nano-enabled Products, Safer by Design Nanomaterials and Process, Risk Management, Nanoproducts to waste, Toxicology, Environmental Interactions, Regulation and Standardization and Nano Responsible Development.

Furthermore, three 3 round tables had been organized in order to promote friendly discussions between attendees:

- **Nano-Responsible Development**
- **Urban Particles Mitigation: What is Reasonably Possible?**

- **Nanomedicine: Benefice/Risk.**

Every two years, this conference represents the opportunity to exchange about Nanosafety issues with other researchers from all over the world.

NANOSAFE 2016, KEY NUMBERS

Abstracts submitted: 270 (vs 250 in 2014)

Oral presentations: 170 (vs 160 in 2014)

Posters: 91 (vs 90 in 2014)

Number of registered people: 350

This fifth edition had been a great success and the Local Organizing Committee want to acknowledge all the attendees for their presence and the quality of their presentations (you can consult all the presentations on the conference website by the end of November).



Contact & information: nanosafe2016@cea.fr - www.nanosafe.org

Delphine Boutry, CEA correspondent of GUIDEnano project

GUIDEnano project's main objective is to develop a web-based guidance Tool that helps the nano-enabled product developers and users to design and apply the most appropriate risk assessment and mitigation strategies for the safety assessment of these products. The tool guides the user through the entire life cycle of the nano-enabled product to provide the most precise insight that can be reached today on the potential risks entailed by nano-enabled products.



WHAT IS THE PNS ROLE IN THIS PROJECT?

Delphine BOUTRY: CEA is involved in a work package whose the main objective is to develop a strategy to identify and predict release of NM throughout the life cycle of NM-enabled products; a strategy that will be implemented in the GUIDEnano tool. Several experiments are investigated on NMs provided by industrial partners, in order to quantify and characterize the NPs released. Based on obtained results, a safer by design approach is developed on ENMs in order to eliminate or reduce NPs release.

In this project, we investigate the climatic and mechanical ageing of antislip tiles (SiO_2 NPs), of photocatalytic tiles (TiO_2 NPs), of antifouling paints (ZnO NPs) and nanocellulose for food packaging. The incineration behavior of different formulations of polypropylene/ TiO_2 NPs and polyamide/MWCNT composites for automotive sector are also investigated.

Contact: Delphine Boutry - delphine.boutry@cea.fr

GUIDEnano, a project funded from the European Union's 7th Framework Programme (FP7/2007-2013) under the grant agreement n° 604387.

CONTACT

CEA Tech - The Nanosafety Platform (PNS)

17 rue des martyrs - 38054 Grenoble Cedex 9

www.nanosafety-platform.com / pns@cea.fr



6th Annual Meeting in Nanometrology

Thursday 1st, December, 2016

Paris - Bercy, France

OMNT's Annual Seminar

Tuesday 31th, January, 2017

Paris, France

www.omnt.fr

PNS News is edited by CEA Tech/PNS.

Director of publication: Philippe Bourguignon

Editor in chief: Gaille Charlier

Photo credit: Pierre Jayet / No Comment