**NEWSLETTER** January 2018



# Newsletter







# January 2018

sudoenanodesk.europeanprojects.net

## Advanced Web Based Tools to promote the application of Nanotechnology and Safe Use of Nanomaterials in the plastic Industry

### **Background Information**

The use of engineered nanomaterials, commonly called 'nanofillers', in the plastic industry is growing continuously due to the increasing number of applications in the market, promoting the achievement of many interesting and crucial properties such as strength and stiffness, barrier to oxygen and moisture, resistance to food component attack or flexibility, among others

Along with the benefits, weaknesses still remain nowadays related to the application of nanomaterials, including limited knowledge on the type of nanomaterials that match with relevant properties, lack of regulation, and scarce information on the human environmental impacts of polymer based nanocomposites.

### About NanoDESK

NanoDESK is a three year Interreg SUDOE project that runs from June 2016 to May 2019, being focused on promotion of the nanotechnology to support development of new added value plastic materials.

The NanoDESK project aims to contribute to strength the European plastic sector in the near future by developing innovative tools to promote the application of nanotechnology and safe nanomaterials.

project is being conducted by a consortium of seven organizations, including by the Packaging, Transport and Logistics Research Center (ITENE), the international Iberian nanotechnology laboratory (INL), the laboratory for fundamental research in materials science (CEMES), the company ProtoQSAR, the Rovira i Virgili University (URV), the valencian institute of occupational safety and health (INVASSAT) and the University of Porto (FCUP).

### IN THIS ISSUE



### Outcomes / Progress

Check the outcomes of the project in this newsletter.

A suite of tools to promote the safe use of engineered nanomaterials in the polymer nanocomposite industry are being developed under the project. Have a look into the newsletter to read about our latest developments.



### Dissemination / Networking

The second stakeholder's day was organized in Braga (Portugal) last October 2017. Presentations available in the project web site.

First semester workshops to be held in Bilbao (Spain) and Toulouse (France). Join us;;

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# **Progress**

The members of the project have been working on the design and development of a suite of tools to guide the industry on the selection of nanofillers and the evaluation of the potential risk of relevant nanofillers on human health and the environment.

So far, the following activities have been completed:

- Development of a computerized decision support system (DSS) to guide the industry on the selection of nanofillers considering market trends, toxicological properties and applications.
- Delivery of the first draft on the observatory on the safety and applications on nanofillers in the plastics industry.
- Development of the first version of the data mining tool to support stakeholder on the compilation of data on the application and properties of relevant nanofilles
- Development of the first version of the data mining tool to support stakeholder on the compilation of data on the application and properties of nanofillers.



- Experimental studies to generate robust data on the physicochemical and toxicological properties of relevant nanofillers.
- Organization of the first and second workshop of the project in Valencia (Spain) and Braga (Portugal)

#### **COMING SOON**

A new tool to support the evaluation of the exposure to nano-objects, aggregates and agglomerates (NOAA) expected in April 2018

This new tool is being developed by ITENE, including refined algorithms to generate data on the levels of exposure under common operative conditions



The observatory on the on the safety and applications on nanofillers in the plastics industry is one of the key outcomes of the project.

The Observatory is a web tool aimed at the analysis, dissemination, use and exploitation of information of strategical value for the decision-making of companies and institutions.

# NanoDESK Observatory

The goal of the portal is to promote technical viability and safe use of nanotechnology in the plastic sector, taking advantage of the results of the NanoDesk project and contributing directly to their dissemination.

A first version of the observatory is available by clicking in:

http://observatory.sudoenanodesk.european projects.net/

Enter the NanoDesk Observatory and discover the world of the nanostructured plastic materials and their possible applications, be aware of new tendencies reading the latest news and learn how to safely handle nanopolymers.

A new version will be delivered by April 2018, including new functionalities, highlighting a technological surveillance plugging.

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### DISSEMINATION



### Valencia (Spain)

INVASSAT organized the first workshop of the project in 2017, where the members of the project had the opportunity of present the activities to be conducted.



## Braga (Portugal)

The second workshop of the project was organized at the facilities of INL in Braga (Portugal), having the opportunity of presenting the progress of the project to the Portuguese audience.

### **FAST FACTS**

60

Up to 60 persons attended the dissemination events organized so far.

4

Up to 4 new workshops are scheduled in 2018



The project will be presented next March 14,

# NanoSpain Workshop

2018 at Bilbao Exhibition Centre in Bilbao (Spain) under the framework of Industrial Forum organized during the 4th edition of the largest European Event in Nanoscience & Nanotechnology, ImagineNano.

The tentative agenda of the event includes:

Overall view of the SUDOE NanoDESK Project (10 min)

Carlos Fito. Project Coordinator. ITENE -

Applications of Nanotechnology in the plastic sector. (20 min)

Invited company to be defined

Nanotechnology and safety in the plastic sector (30 min)

Carlos Fito. Project Coordinator. ITENE

NanoDESK observatory on the safety of polymer based nanocomposites (20 min)

Arantxa Ballesteros. ITENE.

NanoDESK Platform: new tools to support risk assessment and risk management (20 min)

Carlos Fito. Project Coordinator. ITENE

Round Table and networking with attendees (20 min)

Chair: Carlos Fito. Project Coordinator. ITENE

New workshops will be announced soon in the project website. The upcoming events are:

### 3rd NanoDESK Workshop

When: May 2018 Where: CEMES facilities. 29 Rue Jeanne Marvig, 31055 Toulouse, France

Organizer: Dr. Virginie Serin



### 4th NanoDESK workshop

When: October 2018

Where: FCUP facilities. Rua do Campo Alegre 1021/1055, 4169-007 Porto, Portugal

Organizer: Dr. Riccardo Concu



#### FOR MORE INFORMATION

Please contact our dissemination manager Esteban Santamaria

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# Coming soon



## NanoDESK Platform

The NanoDESK platform is the main outcome of the project, being the point of entry to the set of tools to be developed to support the risk assessment of nanfillers for decision making



## **Road Maps**

The NanoDESK Road map will be delivered by July 2018, including a detailed description of the future trends on safety issues and application of nanotechnology in the plastic sector

# Consortium





# Follow us

Your inputs are of prime importance to support us in the development of the project. We kindly invite you to participate in the project activities by sharing with us your experience using the tools already accessible.

Do not hesitate to contact us to know how your company can benefit form the project activities, as well as how you can be an active part of the project.



## Contac point:

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Six Monthly