

# NANOFORCE newsletter

No. 1 / 2012

November

## LATEST NEWS

### *Mid Term results of the Central Europe Project NANOFORCE*

NANOFORCE is developing the network within 8 geographic areas (5 countries: Austria, Czech Republic, Poland, Slovakia, Slovenia; and 3 European regions: Bavaria, Lombardy and Veneto) to better integrate sciences, industries, venture capital, management and institutions towards new nanomaterials and new microsystems for the sustainable benefits of the present and future generations.

The 8 areas represent a GDP of more than € 3,000 bn and more than 150 million inhabitants, with more than 120,000 manufacturing companies operating in their territories. At national level, there are more than 200 Universities and Research Centres. Overall, in the 8 regions of NANOFORCE partners there are more than 140,000 researchers which are engaged in the frontiers of the knowledge.

NANOFORCE is creating a common platform within 20 scientific & industrial parks and incubators, a new tool named "NanoDeals Generator" to support the creation of academic spin offs and industrial start ups, enlarging the availability of financial resources offered by more than 20 seed & early stage venture capital funds already active in the 8 Areas.

Through a proactive web (see [www.nanoforceproject.eu](http://www.nanoforceproject.eu)) entrepreneurs, researchers, experts, managers, financiers, competent authorities officers can propose

their deals, offer their experiences, looking for young talents, search for public & private Partnerships (2 R&D Projects: on smart solutions for controlling the transport of dangerous goods; on how to recover rare earths from wastes of electronic and electric equipments are under evaluation).



Of course, responsible management of nanomaterials, such as any kind of new chemicals to be commercialized in the European Union, shall follow strictly controlled legislative procedures and people at work and consumers need to be kept informed on the risks. However the risks are linked to specific benefits for increasing health, the improvement of low carbon solutions and products for increasing socio-economic wealth. At present NANOFORCE is developing 3 exposure scenarios for 3 nanomaterials: titanium dioxide, zinc oxide and nanosilver.

This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF

A systematic flow of information and data is available through the web; moreover 5 workshops are planned between November 2012 and April 2013; a first webinar reserved to selected officers in November 2012 will be organized; 2nd workshops with the financial community to present the business plan on the launch of I.N.V.C.F. – Interregional Nano Venture Capital Fund, in Central Europe will be in Vienna (March 2013) and in Prague (June 2013).

**BioNanoNet – the NANOFORCE Project Partner, awarded with the Best Poster Award at Industrial Technologies 2012.**

BioNanoNet Forschungsgesellschaft mbH has been awarded with the Best Poster Award at Industrial Technologies 2012. Over 120 posters have been submitted with contributions in line with the main themes of the event, including nanotechnology, advanced materials and production research. The best poster has been selected by a public vote during Industrial Technologies 2012. The most votes received the poster “NANOFORCE – Nanotechnology

for Chemical Enterprises – how to link scientific knowledge to the business in the Central Europe”. Industrial Technologies 2012 highlights the opportunities in the fields of nano, advanced materials and new production technologies for growth and competitiveness. May it be the access to raw materials, factories of the future, sustainable solutions for energy and resource-efficient process industries or approaches to increase the quality of life for end customers, for instance in the field of mobility and energy-efficient buildings and discussing the future of micro nano manufacturing in Europe. More information can be found here: <http://industrialtechnologies2012.eu/poster-session>

**Nanotech Partnership Forum took place in Graz**

The 3rd Nanotech Technical Partnership Forum took place in Graz, Austria, on 18. – 19. October 2012. The objective of the meeting was to review the development of NANOFORCE project... Project implementation continues according to plan, information and knowledge gained during this meeting will be further utilized during the Project implementation.

**NANOFORCE**  
Nanotechnology for Chemical enterprises – how to link scientific knowledge to the business in the Central Europe

**Background**  
Nanoscience and nanotechnologies are new approaches to research and development that concern the study of phenomena and manipulation of materials at atomic, molecular and macromolecular scales. Nanotechnology currently underpins many practical applications (medical, ICT, energy production, food safety, security, food safety of materials etc.) and has the potential to enhance quality of life and environmental protection, and boost industrial competitiveness.

**Objectives**  

- Focus the innovative nanotechnology sector networks across Central Europe regions.
- Bring together public and private organizations (enterprises, research centers, venture capitalists and public institutions).
- Collaborative interdisciplinary researches on nanomaterials (in the frame of REACH regulations).
- Turn the most promising laboratory results into innovative industrial applications.

**Outputs/Goals**  

- Nanoscience, research & development continuously improve the environmental, health and safety knowledge and performance of our technologies, processes and products over their life cycles in order to avoid harm to people and the environment.
- NANOFORCE aims at increasing the industrial participation into the nanotechnology research projects and finding opportunities for their market implementation.
- NANOFORCE identifies new nanomaterials and thus creates a potential for attractive investment opportunities.
- NANOFORCE allows to discover new promising technologies and implements them.
- NANOFORCE provides a tool for assessing properties of products containing nanomaterials.

**Methods**  

- Framework analysis to outline the current situation of the nanotechnology sector and gather information about the innovative level and gained experience in nanotechnology of chemical companies and governance authorities.
- Identification of potential needs and gaps in legislation and risk assessment and collection of data to establish baseline reports for specific target groups.
- Lab analysis and exposure scenario establishment on 3 major nanomaterials.
- State-of-the-art of regulations in the field of nanotechnology to identify needs and gaps and give possible recommendations for the European Commission.
- Information dissemination will take place during project workshops for target groups in the nanotechnology sector to outline the project objectives and results.
- A new-kind generator platform will be established to create potential deals between R&D and industry and to create transnational joint ventures in the nanotechnology sector.

**Target Groups**  

- National Authorities (e.g. Health and Environmental dept. of Public Administration), including Industrial and Chemical Associations
- European Commission, along with the European Parliament and the Economic and Social Committee
- Researchers
- Venture Capitalists
- Companies operating in nanotechnology sector

**Results**  

- State of the Art Report on existing safety procedures and nanotechnology related legislation in the Central Europe region.
- Are there special national nanotechnology issues in your country? (Bar chart showing 73% for DE, 65% for PL, 77% for SK, 46% for AT, 67% for SI, 63% for CZ)
- Do you think of nanomaterials as an opportunity for your business? (Bar chart showing 46% for DE, 42% for PL, 42% for SK, 42% for AT, 42% for SI, 42% for CZ)
- Survey on the development and size of the nanotechnology sector in Central Europe with focus on security and financing.
- Financial Situation – Central Europe (Bar chart showing 27.1% for Public funds, 28.1% for Private funds, 24.1% for Venture Capital, 21.1% for Government, 22.1% for Banks, 22.1% for Other)

**Workpackages**  

WP1	WP2	WP3	WP4	WP5	WP6
Project Management	Framework Analysis	Lab Analysis	Regulatory Analysis	Information Dissemination	Generator Platform

**Next Steps**  

- Start Up-Phase: Characterization of three nanomaterials including toxicity, genotoxicity and ecotoxicity and identification of novel nanomaterials to create new potential for attractive investment opportunities.
- Guidelines for the responsible use/production of nanomaterials for SMEs.

**PROJECT HIGHLIGHTS**

**Work package 2 – Communication, knowledge management and dissemination**

The main outputs of the NANOFORCE project's Work Package 2 were completed.

We speak about the corporate identity rules, the NANOFORCE communication strategy, international & local NANOFORCE project's brochures and the NANOFORCE project web. We constantly work on ensuring that the project is promoted and project's output and results are widely published and disseminated. The projects brochures are available for download here: <http://www.nanoforceproject.eu/who-we-are/nanoforce>

**Work package 3 – Existing nanotechnology infrastructures and strategy to reduce knowledge gaps in Central Europe**

The aim of this work package is to outline the current

This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF





situation of the nanotechnology in chemical industry in the CE space

In this preliminary phase of the project, it is foreseen to realize a framework analysis carried out by all Project Partners concerning the innovation level and matured experience in the nanotechnology sector of the chemical companies and governance authorities at national and regional level in order to outline the current situation of the nanotechnology in chemical industry in the Central Europe space. The CE framework review will be completed with a deepen revision on funding opportunities for nanotech start-ups and innovative chemical enterprises offering and/or testing nano solutions, available at regional, national and European level in order to deliver a full and exhaustive profiling of the represented area. Collected data will be uploaded in a database available on the project website and will constitute a base for the upcoming activities.

***Work package 4 – How to foster the responsible use of nanotech and manage associated risks***

**One of the main outputs of WP 4 is a state of the art report on existing safety procedures and nanotech related legislation**

One of the main objectives of NANOFORCE aims at improving the environmental, health and safety knowledge and develop a state-of-the-art report on regulations in the field of nanotechnology to identify needs and gaps and give possible recommendations for the European Commission. Furthermore NANOFORCE wants to foster the collaborative and interdisciplinary research

on nanomaterials (in the frame of REACH regulation) and to turn the most promising laboratory results into innovative industrial applications. Therefore the first action of the NANOFORCE project was the development of questionnaires for producers, downstream users, researchers and financiers with the goal to collect information about the nanotechnology sector in the Central Europe region concerning development, financial status, and international cooperation within joint ventures, safety and nanotoxicology. The results achieved are presented in regional related reports on nanotechnology business as well as a state of the art report on existing safety procedures and nanotech related legislation. The State of the Art Report on Existing Safety Procedures and Nanotech related Legislation has been completed by the end of September. More information about safety procedures and legislation can be found here: <http://www.nanoforceproject.eu/regulations-safety-benefits>

## PROJECT PARTNERS' INTRODUCTION

The 30 months long NANOFORCE project has started in May 2011. The project is performed in 8 regions of the Central Europe belonging to 7 Countries. It is developed by 9 project partners, national & regional chemistry associations and R&D Centers of the Central Europe area. The project is being founded within European Territorial Cooperation Objective CENTRAL EUROPE Program, Application round 3. Today, we would like to introduce you the following project partners:

### SC Sviluppo Chimica spa

SC Sviluppo Chimica S.p.A. is a service company fully owned by Federchimica, the Italian Federation of Chemical Industry, and pursues the strengthening of the sector providing a broad range of professional expertise aimed at improving its overall competitiveness and foster territory development while cooperating with public institutions and their agencies promoting investment attraction. SC provides professional advice on funding research and development, deploy innovation, management consulting, training, logistics, product and plant

This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF





---

safety, environment and finance, both public (grants) and private (Venture and Development Capital Funds). <http://www.federchimica.it/OurPartners/SCSviluppoChimica.aspx>

### **Veneto Nanotech S.C.p.A.**

The Cluster for Nanotechnologies was created in the Veneto Region in 2002, exploiting the technical and scientific skills available in the local Academia and production network. Its successful implementation in this region was enhanced by the numerous real application opportunities and the nation's highest number of per capita businesses, which translates into a high concentration of industries potentially interested in applying nanotechnology. Veneto Nanotech was created with the aim to foster transferability of nanotechnology research products to innovative and high tech companies, and to support the development of startups in the focus sector. Veneto Nanotech is also active in the formation of young and talented researchers, in the organization of dissemination activities and courses for entrepreneurs and companies' staff in order to demonstrate the potential applications of nanotech. Veneto Nanotech is involved in several national and European working groups and funded projects, focused on advancing the knowledge base and management of risk assessment of nanotechnology and also coordinates the activities of the HiTech Cluster of Nanotechnology applied to materials. <http://www.venetonanotech.it/en/>

### **Association of the Czech Chemical Industry**

Association of Chemical Industry of the Czech Republic was founded in 1992 as a voluntary association of manufacturing, commercial, designing, research and advisory organizations with relations to chemical, pharmaceutical, petrochemical, and rubber and plastics industries. The association supports business interests of member companies in the Czech Republic, involvement of the Czech chemical industry in European and world economic systems, representing its companies in discussions and negotiations with authorities and handing over all available economic, legislative and technical information to its member companies. Association

deals with employment, social, wages and occupational safety issues. Also participates in collective bargaining with trade unions and in discussions with government authorities. The Association of Chemical Industry of the Czech Republic is a member of the Conseil Européen des Fédérations de l'Industrie Chimique and European Employers Chemical Group (ECEG). <http://www.schp.cz/en>

## **UPCOMING NANO EVENTS**

### **Germany**

Dialogforum Nano is dealing with consumers' safety and nanotechnology organized on the initiative of BASF SE at the Landesvertretung des Saarlandes. The Address: In den Ministergärten 4, 10117 Berlin. Date: 22th of November 2012 (16:00 pm – 19.15 pm). [http://www.dialogbasis.de/fileadmin/content\\_images/Home/Einladung-Nano-BASF-WEB.pdf](http://www.dialogbasis.de/fileadmin/content_images/Home/Einladung-Nano-BASF-WEB.pdf)

### **Switzerland**

Conference on micro and nanotechnologies in materials and processes for the European polymer industry. To be held at the College of Engineering and Architecture. Date: 22nd of November, Fribourg, Switzerland. [www.reseau-plasturgie.ch/en/homemiconano](http://www.reseau-plasturgie.ch/en/homemiconano)

### **Czech Republic**

QNano Conference 2013 "Quality in nanosafety assessment – driving best practice and innovation". The 2nd QNano conference aims to facilitate best practice and innovation in nanosafety assessment by providing a focal point for the European and international research communities; showcasing some of the best scientific advances, both experimental and computational, in the field internationally; and promoting the need for detailed characterisation of nanomaterials under the exposure conditions and in situ during and after exposure to living systems, including via provision of Transnational Access to some of Europe's leading nanomaterials characterisation facilities. Date: 27th February – 1st March 2013, Prague, Czech Republic. <http://www.qnano-ri.eu/conference/welcome.html>

---

This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF

