

Contact  
**Andreas Falk**  
 Networkmanager BioNanoNet  
**Sonja Hartl**  
 Scientific Assistant  
 Elisabethstraße 9–11, 8010 Graz  
 office@bionanonet.at  
 www.bionanonet.at

# NANOFORCE

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

A. FALK<sup>1</sup>, S. HARTL<sup>1</sup>, F. SINNER<sup>1,2</sup>

<sup>1</sup> BioNanoNet Forschungsgesellschaft mbH, Graz, Austria

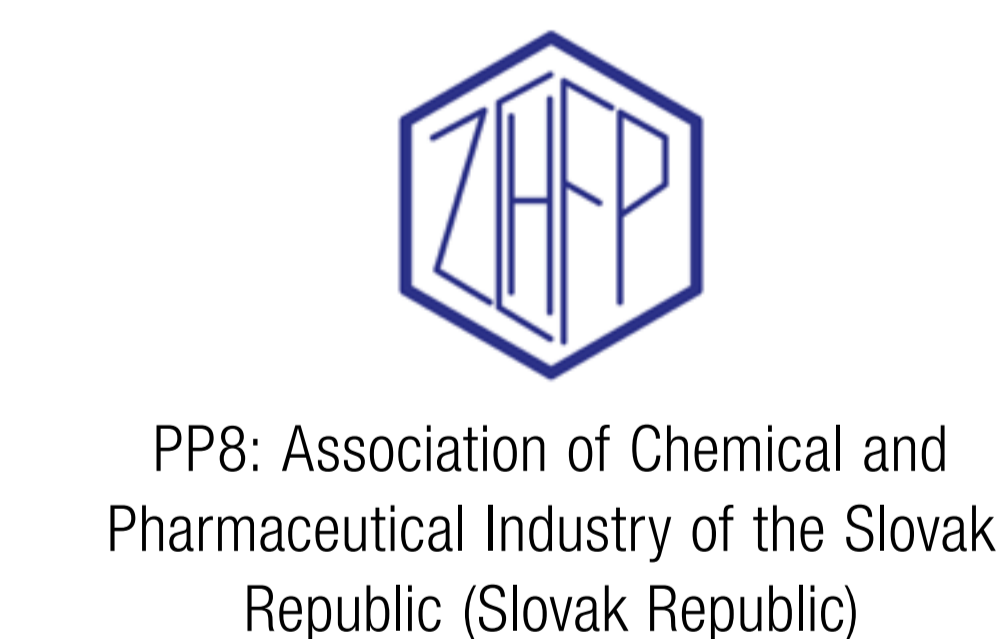
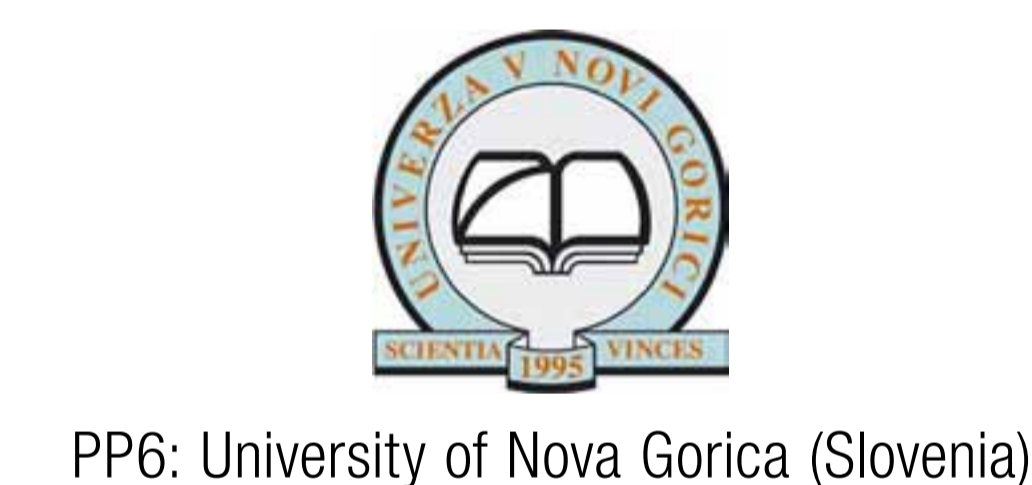
<sup>2</sup> Institute for Biomedicine and Health Sciences, JOANNEUM RESEARCH, Graz, Austria

### General Information

Participating countries: AT, CZ, DE, IT, PL, SI, SK; Total Budget: 2.368.900,00 €; Duration: 30 months; Kick-off: 1st May, 2011



### Participating Organisations



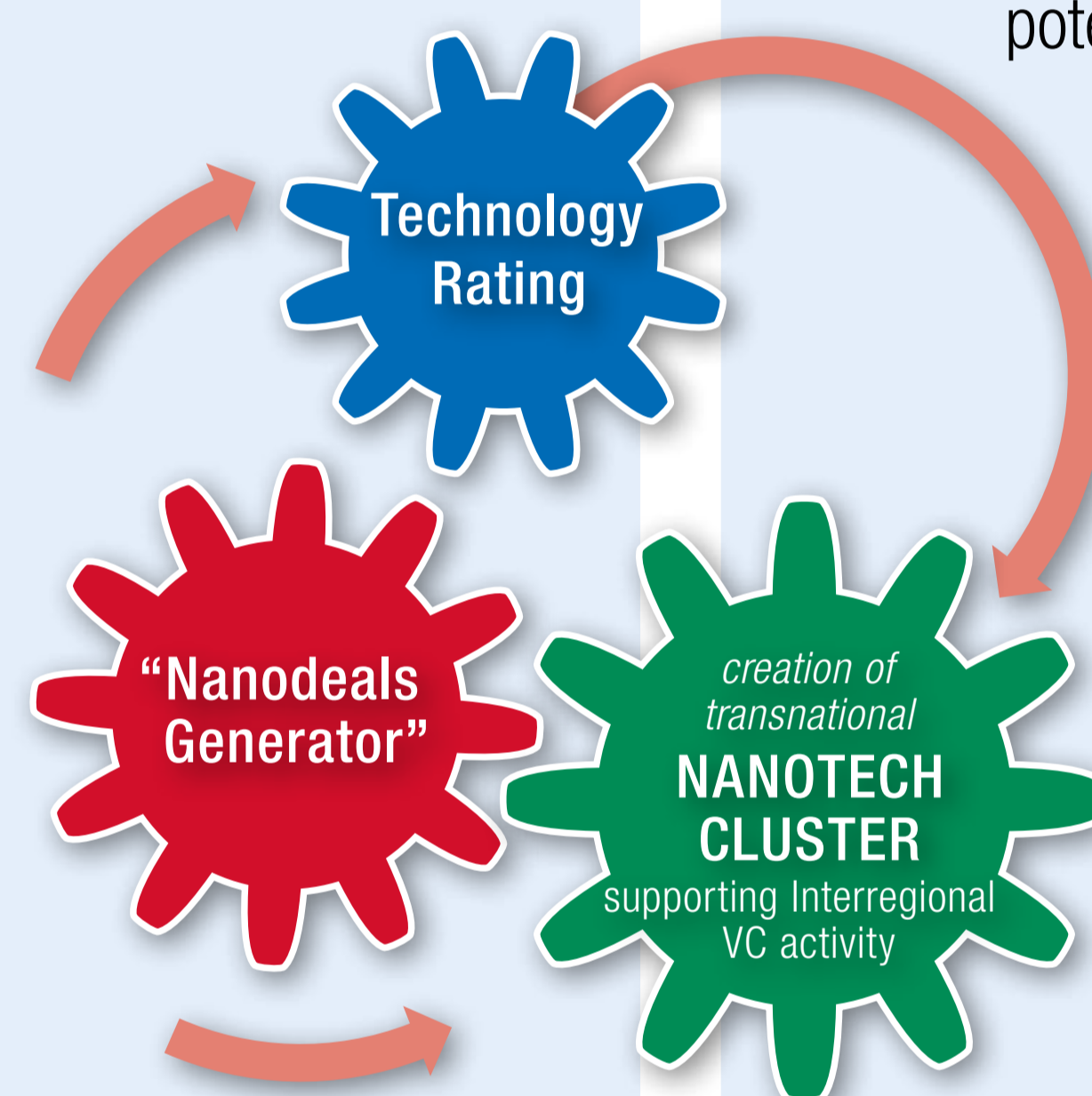
### Background

Nanosciences 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-water, security, broad range of materials etc.) and has the potential to **enhance quality of life and environmental protection**, and **boost industrial competitiveness**.

The knowledge in the field of nanosciences and the industrial application has been gradually increasing over the last 10 to 20 years in Europe. As result there is the **necessity of a larger international cooperation and research coordination** to overcome disciplinary boundaries, to fill the gap between more and less experienced regions and to turn investments in R&D in industrial innovations.

### Objectives

- Foster 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 Regulation).
- 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.

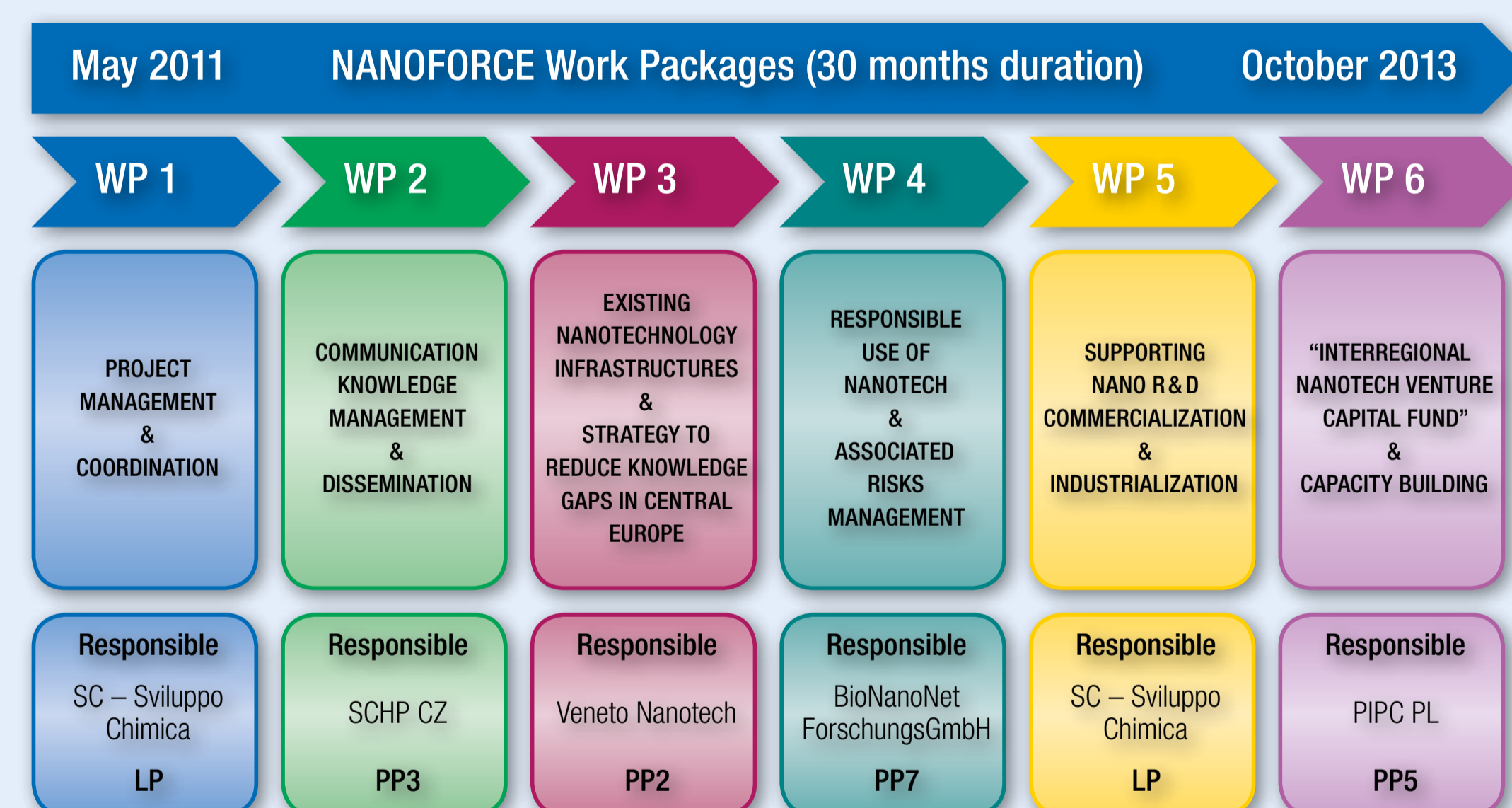
### Methods

- **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 legislations 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 **nano-deal generator platform** will be established to create potential deals between R&D and industry and to **create trans-national 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

### Workpackages



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



EUROPEAN UNION  
 EUROPEAN REGIONAL  
 DEVELOPMENT FUND



## EURO nanotox

EURO-NanoTox is an open platform for all Austrian scientific and industry partners in the field of nanotoxicology coordinated by BioNanoNet. EURO-NanoTox is interested in strategic cooperation with nanotoxicology-centers on a European and international level. This should lead to the establishment of an European and world-wide nanotoxicology-network.

### The European Center for Nanotoxicology (EURO-NanoTox)

#### EURO-NanoTox offers

- The development, establishment and implementation of standardized *in vitro* and *in vivo* toxicological methods for nano-structured materials and literature screening.
- Development and structuring of the field of nanotoxicology in Austria.
- Provision to industry of an expertise-folder of methods for the *in vitro* and *in vivo* measurement of the toxicological potential of nano-structured materials and the carrying out and interpretation of these tests.
- Provision of an information point for researchers and industry in function as Austrian hub for international contacts.
- The development of national and international research projects on nanotoxicology.
- Participation in and organization of comparative studies including ring studies.

#### ONLINE-Journal "EURO-NanoTox-Letters"

The main aim of EURO-NanoTox-Letters is to increase the knowledge in the field of nanotoxicology and to help to pave the way from the present case-to-case to a holistic approach.

www.EURO-NanoTox-Letters.com