

NANOFORCE- Nanotechnology for Chemical Enterprises – how to link scientific knowledge to the business in the Central Europe

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Introduction: The 30 months long NANOFORCE project, which is performed in 8 regions of Central Europe belonging to 7 Countries, is developed by national & regional chemistry associations and R&D Centers of the Central Europe area. 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. 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's 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. The BioNanoNet Forschungsgesellschaft mbH is an Austrian network which combines a wide range of expertise in numerous disciplines of medical and pharmaceutical research in nanomedicine and nanotoxicology and acts as work package leader in the NANOFORCE project. As coordinator of the European Center for Nanotoxicology (EURO-NanoTox), an Austrian example of a European hub in nanotoxicology, the BioNanoNet has the clear aim of driving innovative interdisciplinary research. In order to ensure the sustainable economic success of nanotechnology it is essential that the potential dangers of Nanomaterials for human health can be assessed in a transparent manner. EURO-NanoTox provides a panel of standardized *in vitro* and *in vivo* toxicity tests that enables researchers in both academia and industry to gain an early insight into the potential toxicity of the materials being developed. Early warnings of potential toxicity will facilitate early product optimization (with respect to toxicity) and will thus help to avoid expensive late product developmental failures.

Focus: The general objective of NANOFORCE is to foster the innovative nanotechnology-sector networks across Central Europe regions by bringing together public and private organizations (enterprises, research centers, venture capitalists and public institutions) to carry out collaborative and interdisciplinary researches on nanomaterials (in the frame of REACH Regulation) and to turn the most promising laboratory results into innovative industrial applications.

Within this contribution the main objectives of the NANOFORCE project will be presented as well as first results. Furthermore the BioNanoNet will present its work and the EURO-NanoTox as well as the ONLINE-Journal "EURO-NanoTox-Letters".

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