

NANOFORCE

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

WP 4 - RESPONSIBLE USE OF NANOTECH & ASSOCIATED RISKS MANAGEMENT

S. Hartl¹, A. Falk¹, F. Sinner^{1,2}

¹ BioNanoNet Forschungsgesellschaft mbH, Graz, Austria

² JOANNEUM RESEARCH- HEALTH, Graz, Austria

Contact: sonja.hartl@bionanonet.at Tel.: +43 (0)664 602 876 2132

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



„dziękujemy za zaproszenie“

the **BioNano**Net-Team:

**Gabriele Katz,
Patricia Junk,
Sonja Hartl,
Birgit Krassnitzer,
Simone Jagersbacher-Uhl,
Frank Sinner,
Andreas Falk**



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

focus areas:

- 1) nanotoxicology – EURO-NanoTox, NANOFORCE
- 2) nanomedicine – EHS, nano-health
- 3) sensor technologies – Medical Sensor Solutions
- 4) regulatory expertise, communication and management
– NANoREG, SPIDIMAN

offers scientific expertise and ...

- regulatory aspects of nanotechnology
- coordination, management, communication and dissemination activities

EURO-NANOTOX – Austrian hub in Nanotox



- Consolidation of knowledge
- Standardization of nanotox. Methods and strategies
- Critically review of results

EURO-NanoTox was founded and serves as Austrian *national hub* to:

- pool nanotoxic expertise in Austria
- standardize nanotoxic methods in Austria

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

EURO-NANOTOX - Activities

nano
FORCE

EURO
nanotox
European Center for Nanotoxicology

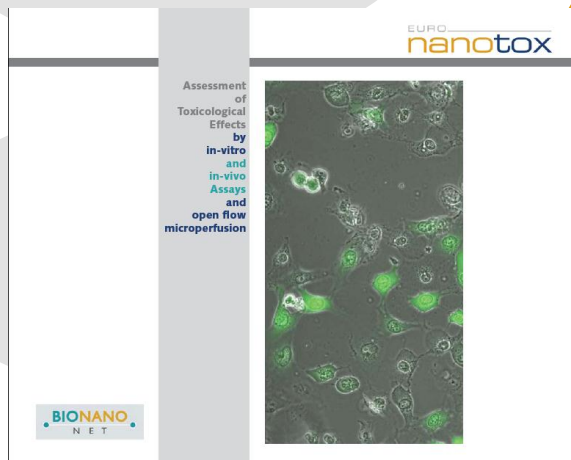
international
cooperation in
research projects

ONLINE-Journal
www.euro-nanotox-letters.com

provision of **centralized**
nanotoxicology scientific
information with emphasis on
human toxicology

helping to establish
international standards

comparative studies and
interlaboratory tests



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

Online-Journal EURO-**NANOTOX**-LETTERS



Aim / Scope

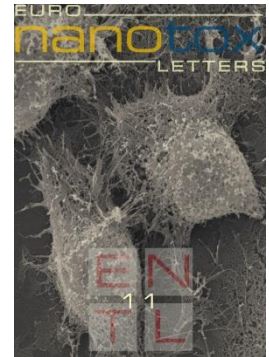
- interactions of nanoparticles in the physiological context
- nanomedicine / nanotoxicology

Facts

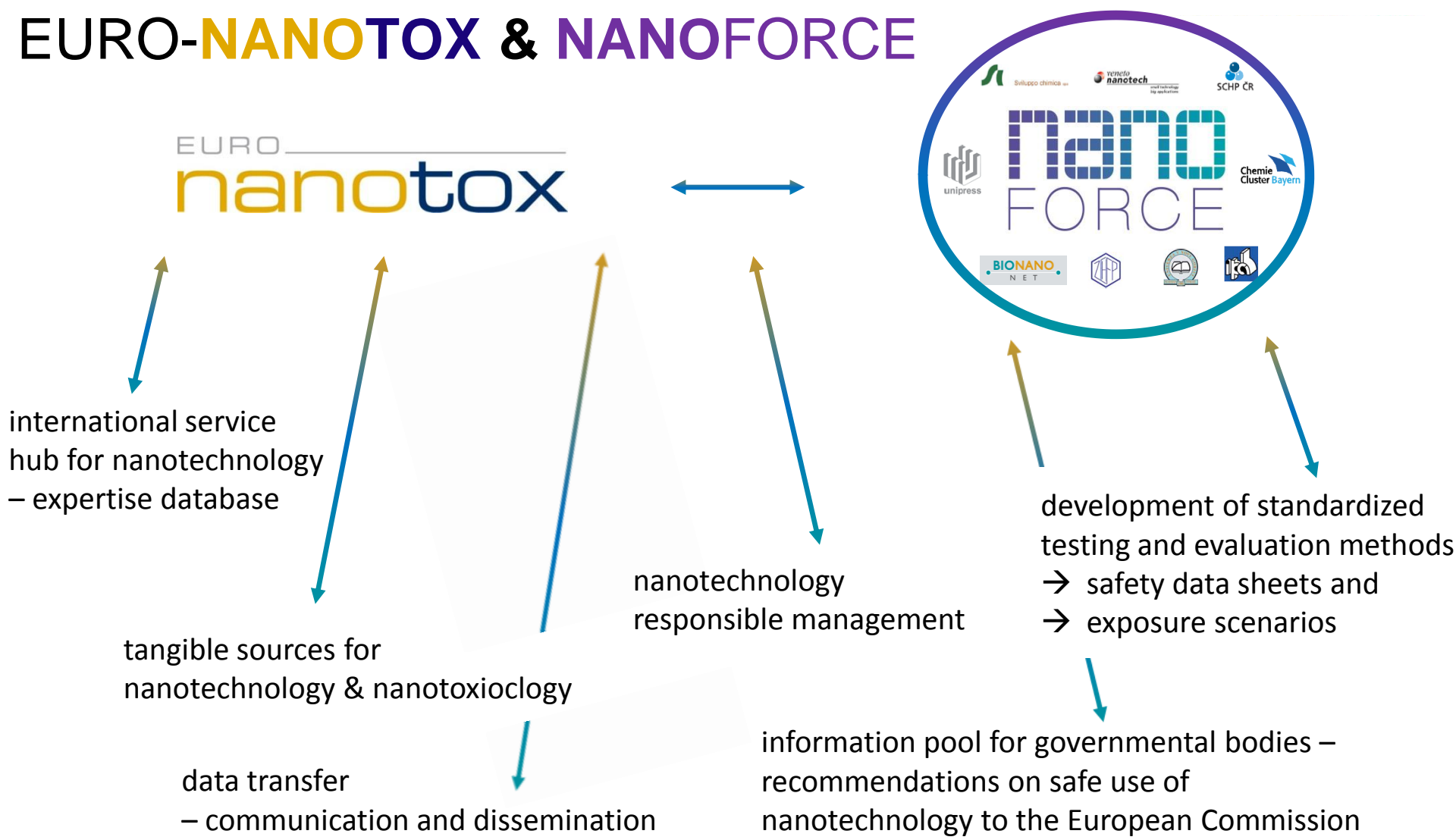
- online-journal = electronic only
- free of charge
- open access
- peer-reviewed

Homepage www.euro-nanotox-letters.com

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



EURO-NANOTOX & NANOFORCE

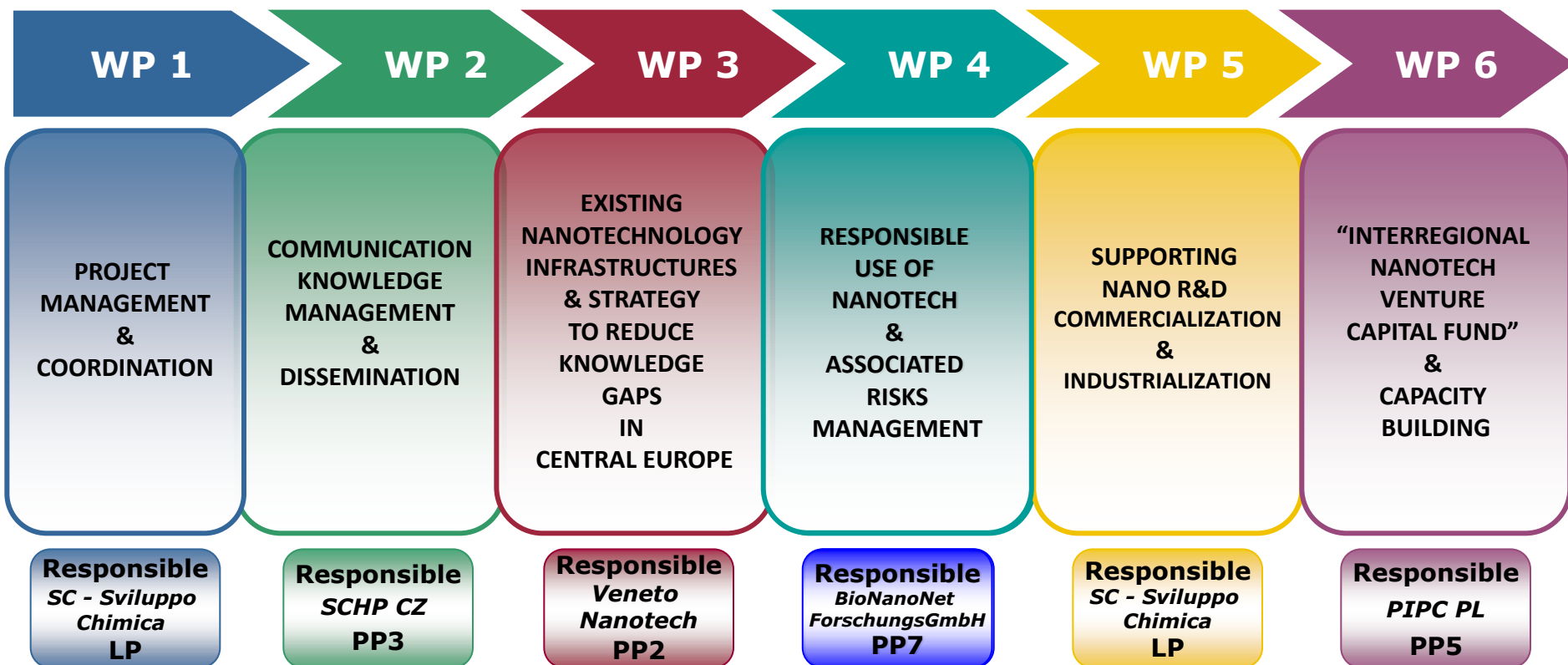


This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF.

Activities



May 2011 NANOFORCE Work Packages (30 months duration) October 2013



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



Objectives

- provide tangible and empiric tested information for nanotech applications
- review on existing safety procedures and related legislations
- specific toxicological analysis for nanosubstances
- safety data sheets and specific exposure scenarios

"NANOFORCE"
Nanotechnology for Chemical Enterprise
-how to link scientific knowledge to the
business in the Central Europe space



STATE OF THE ART –

Report On Existing Safety Procedures
and Nanotech Related Legislation

Transnational Guideline on Nanotech responsible Management

REACH



- REACH in 2012
 - complementing the existing directives - top priority of the EU
 - April 2012 update of guidance on information requirements and chemical safety assessment – registration of nanomaterials
- Source: <http://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment>
- important issues to address:
 - registration for imported and manufactured nanomaterials <1 tonne
 - ensure correct market placement of nanoproducts
 - nanomaterials as independent "new" substances – evaluation of chemical safety reports and exposure assessment
 - data process: Long term vs. short term studies on behaviour of nanomaterials

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

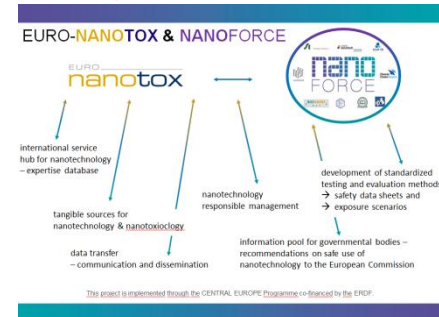
Conclusion – WP4

- actual framework of regulations currently applied in CE
- analysis of three nanomaterials and related safety data sheets and exposure scenarios drafted

- nano TiO₂
- nano ZnO
- nano Ag



product example - nano Ag



- data transfer and exchange: joint working tables with national authorities for workers safety
- book of recommendations for the European Commission

YOUR KEY TO THE AUSTRIAN RESEARCH COMMUNITY
THANK YOU!

picture © piCHEM

www.bionanonet.at



Contact: sonja.hartl@bionanonet.at
Tel.: +43 (0) 664 602 876 2132



Join us on facebook: www.facebook.com/bionanonet

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