

Removing risk to unleash the full potential of nanomaterials

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The EU NANOREG project is developing the next generation of reliable and comparable experimental data on the environmental, health and safety aspects of nanomaterials. NANOREG, which began in March 2013, has already successfully established the basic conditions for its R&D work and will now move on to deliver on its key objectives.

Nanomaterials are chemical substances or materials that are manufactured at an incredibly small scale (down to 10 000 times smaller than the diameter of a human hair). Experts believe they have the potential to contribute significantly to Europe's industrial competitiveness, and are already used in hundreds of products ranging from batteries and paint to anti-bacterial clothing and medical equipment.

In order to fully capitalise on this potential market however, the safety of nanomaterials must be beyond reproach. This means dispelling any scientific uncertainty about their effects on either humans or the environment. As these nanomaterials are often unique and have never been on the market before, assessments must be done on a case-by-case basis using globally recognised and approved methods.

NANOREG, which will receive a total of EUR 10 million in EU funding, aims to support organisations involved in the standardisation and regulation of nanomaterials by developing a practical assessment toolbox. This toolbox will contain relevant instruments to aid risk assessment, toxicity testing and exposure measurements.

The project also aims to establish closer collaboration between authorities, industry and researchers in order to develop new efficient and practically applicable risk management approaches. To this end, the toolbox is being developed in close cooperation with organisations including the European Chemicals Agency (ECHA), the European Committee for Standardisation (CEN) and the International Organisation for Standardisation (ISO).

Regular meetings have also been set up with policy makers in partner countries, along with global standardisation institutions in countries like the US, Canada, Australia, Japan and Russia. It is hoped that the project's cross-border interdisciplinary approach will significantly contribute to removing risk from the use of nanomaterials in industrial and consumer products.

The project began by analysing existing knowledge and combining this with a study of the needs of regulatory authorities. This enabled the team to identify any knowledge gaps. Three key gaps were discovered: characteristics that influence the risk of nanomaterials in the environment and humans; standardised methods to determine these

characteristics; and nano-specific [risk assessment](#) strategies and approaches. From these three main gaps, sixteen regulatory needs were generated, which will help inform the contents of the toolbox.

The long term objective of NANOREG is to ensure that the innovative and economic potential of nanomaterials is not put at risk simply because [health](#) and safety issues have not been fully addressed. The development of more efficient risk management approaches will also ensure that the time it takes to market new [nanomaterials](#) is as short as possible.

More information: For further information please visit NANOREG: www.nanoreg.eu/

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