i-NANOTOOL LIFE+ - Development of an interactive tool for the implementation of environmental legislation in Nanoparticle manufacturers

LIFE12 ENV/ES/000326

Contact details:

Contact person: Natividad Alcón
Tel: 34961318051
Fax: 34961318007
Email: otri@aido.es

Project description:

Background

The development of nanomaterials - defined as having at least one dimension of 100 nanometres or less – is an area of science and industry expected to yield numerous technological advances. More than 1 500 European businesses are now involved in the production of substances at nanoscale and nanomaterials are providing a proliferation of new products in textiles and coatings in particular.

However, the unique properties of engineered nanomaterials (ENMs) also create potential health risks. Nano-particles are released into the environment both intentionally and unintentionally throughout the ENM lifecycle (production, use and disposal). This is believed to create risks of bioaccumulation in soil and water or excessive absorption through the skin, with consequent negative effects on environmental and human health. There is already increasing evidence of ecotoxicological effects on key species and communities, including the inhibition of seed germination and root growth, and oxidative stress in algae.

Relevant regulations, including REACH, are having to be updated regularly to keep up with the technical advances in nanotechnology. This creates challenges for legislators. However, it also creates problems for companies involved in nanotechnologies, many of whom are small and medium-sized enterprises (SMEs). They have to continually increase and renew their knowledge in relation to the environmental consequences of their work and the evolving legislation, including the administrative procedures that they must fulfil.

Objectives

The objective of the i-NANOTOOL LIFE+ project is to contribute to the efficient implementation of environmental policy and legislation by companies involved in the production of nanomaterials, especially SMEs. It aims to help these companies access the most up-to-date information on the potential environmental impact of their activity and the current legislative requirements.

The project will establish a complete and thorough compilation of current environmental regulations related to nanomaterials at European and national levels, in each country participating in the project - Spain, Portugal, Romania and Finland. It will also develop methodologies and tests to assess the environmental impact of nanomaterial and their production processes.

To ensure nanomaterial producers can access the information they need, the project intends to develop an interactive platform. This will provide the latest information on the environmental impact of nanomaterials, related legislation and appropriate environmental management. It will also provide an environmental self-diagnosis e-tool for nanotechnology companies. The project hopes to extend the e-Tool throughout the EU.

Ultimately, the project aims to enable companies manufacturing nanomaterials to successfully implement the most appropriate management techniques and meet the requirements of European and national environmental legislation. As well as reducing the environmental risks associated with nanotechnology, the project also seeks to contribute to the updating of environmental policy and legislation around nanotechnology.

Expected results: The project expects to achieve the following results:
- A complete compilation of current European environmental regulations related to nanomaterials;
- A complete compilation of current national environmental regulations in each country participating in the project - Spain, Portugal, Romania and Finland;
- Tests and methodologies to assess the environmental impact of nanomaterials and their production processes;
- An innovative e-tool for assessing the environmental status of nanomaterial manufacturers and identifying appropriate management measures;
- Awareness of the project and its outputs by 50% of nanomaterial manufacturers in Europe;
- Use of the e-tool by 6% of the nanomaterial manufacturers in Europe and 50% of those in the participating countries; and
- A reduction in the environmental impact of ENM manufacturing.

Results

Environmental issues addressed:

Themes

Risk management - Industrial risks - Hazardous substances
Risk management - Risk assessment and monitoring
Risk management - Human health protection

Keywords

monitoring system, risk assessment, environmental law

Natura 2000 sites

Not applicable

[Top](#)

Beneficiaries:

Coordinator	Asociación Industrial de Óptica, Color e Imagen
Type of organisation	Research institution
Description	AIDO-Technological Institute of Optics, Colour and Imaging is a private, non-profit association promoting research and technological development in its sector. It collaborates in many R&D projects developing technological solutions, for example, in nanotechnology, graphic arts and paints.
Partners	Cámara Oficial de Comercio, Industria y Navegación de Valencia, Spain Centro de Nanotecnologia e Materiais Técnicos, Funcionais e Inteligentes, Portugal Institutul National de Cercetare-Dezvoltare pentru Microtehnologie, Romania Technology Centre Ketek Ltd, Finland

[Top](#)

Administrative data:

Project reference	LIFE12 ENV/ES/000326
Duration	01-JUL-2013 to 31-DEC -2015

Total budget	1,101,236.00 €
EU contribution	540,616.00 €
Project location	Galicia(España) Asturias(España) Cantabria(España) País Vasco(España) Navarra(España) Rioja(España) Aragón(España) Madrid(España) Castilla-León(España) Castilla-La Mancha(España) Extremadura(España) Cataluña(España) Comunidad Valenciana(España) Baleares(España) Andalucía(España) Murcia(España) Ceuta y Melilla(España) Canarias(España) Uusimaa(Finland Suomi) Varsinais-Suomi(Finland Suomi) Satakunta(Finland Suomi) Häme(Finland Suomi) Pirkanmaa(Finland Suomi) Päijät-Häme(Finland Suomi) Kymenlaakso(Finland Suomi) Etelä-Karjala(Finland Suomi) Etelä-Savo(Finland Suomi) Pohjois-Savo(Finland Suomi) Pohjois-Karjala(Finland Suomi) Kainuu(Finland Suomi) Keski-Suomi(Finland Suomi) Etelä-Pohjanmaa(Finland Suomi) Vaasan rannikkoseutu(Finland Suomi) Keski-Pohjanmaa(Finland Suomi) Pohjois-Pohjanmaa(Finland Suomi) Lappi(Finland Suomi) Ahvenanmaa/Åland(Finland Suomi) Baltic Sea Suomi (SF)(Finland Suomi) Piemonte(Italia) Valle d'Aosta(Italia) Liguria(Italia) Lombardia(Italia) Trentino-Alto Adige(Italia) Veneto(Italia) Friuli-Venezia Giulia(Italia) Emilia-Romagna(Italia) Toscana(Italia) Umbria(Italia) Marche(Italia) Lazio(Italia) Campania(Italia) Abruzzo(Italia) Molise(Italia) Puglia(Italia) Basilicata(Italia) Calabria(Italia) Sicilia(Italia) Sardegna(Italia) Norte(Portugal) Centro(Portugal) Lisboa e vale do Tejo(Portugal) Alentejo(Portugal) Algarve(Portugal) Açores(Portugal) Madeira(Portugal) Associated Romania(Romania) Nord-Vest(Romania) Centru(Romania) Nord-Est(Romania) Sud-Est(Romania) Sud-Muntenia(Romania) Bucureşti-Ilfov(Romania) Sud-Vest Oltenia(Romania) Vest(Romania)

Read more:

Leaflet	Title: "4 Proyecto LIFE, i-NANOTool: Desarrollo de una herramienta interactiva para la implementación de la legislación ambiental en productores de nanopartículas" (650 KB) Editor: INANOTOOL No of pages: 3
Leaflet	Title: "i-NANOTool LIFE Projekti: Development of an interactive tool for the implementation of environmental legislation for nanoparticles manufacturers" (650 KB) Editor: INANOTOOL No of pages: 2
Leaflet	Title: "i-NANOTool Projeto LIFE: Desenvolvimento de uma ferramenta interativa para implementação de legislação ambiental em produtores de nanopartículas" (590 KB) Editor: INANOTOOL No of pages: 2
Leaflet	Title: "i-NANOTool LIFE Project: Development of an interactive tool for the implementation of environmental legislation for nanoparticles manufacturers" (595 KB) Editor: INANOTOOL No of pages: 2
Leaflet	Title: Project's leaflet (5.86 MB) Author: Nicolás Copérnico (ed.) Editor: INANOTOOL No of pages: 2
Leaflet	Title: Project's leaflet (5.78 MB) Author: Nicolás Copérnico (ed.) Editor: INANOTOOL No of pages: 2
Leaflet	Title: Project's brochure (5.79 MB) Editor: INANOTOOL No of pages: 2
Leaflet	Title: Project's leaflet (5.77 MB) Author: Nicolás Copérnico (ed.) Editor: INANOTOOL No of pages: 2
Leaflet	Title: Project's leaflet (5.78 MB) Editor: INANOTOOL No of pages: 2
Project web site	Project's website
Video link	"INANOTool - an interactive platform (e-tool) for environmental self diagnosis addressed to nanoparticles manufacturers in European countries"