

## Nanofutures is part of the recently started NanoDiode project



### NanoDiode - Developing Innovative Outreach and Dialogue on responsible nanotechnologies in EU civil society

#### Concept and objectives

Stakeholder engagement and dialogue are essential to the responsible development of nanotechnologies in Europe. The European FP7 project NanoDiode, launched in July 2013 for a period of three years, establishes an innovative, coordinated programme for outreach and dialogue throughout Europe to support the effective governance of nanotechnologies. The project integrates vital engagement activities along the innovation value chain: at the level of research policy, research & development (R&D), and the diffusion of nanotechnology innovations in society. Importantly, it combines 'upstream' public engagement (by way of dialogues that integrate societal needs, ideas and expectations into the policy debate) with 'midstream' engagement (by organising innovation workshops at the level of the R&D practices that are at the heart of the research and innovation enterprise) and 'downstream' strategies for communication, outreach, education and training.

The consortium brings together a strong network of partners from various backgrounds and extending across Europe (representing technological and social research, industry, policy, civil society, education and media). Many partners bring their experience as coordinators or participants in earlier European nanoprojects within the NMP and Science in Society programme. This will allow the project to look back and identify best practices based on existing experience and make use of existing products and tools that have proven to be successful - and developing new, innovative models and tools for outreach and dialogue when necessary. The project will also look ahead towards Horizon 2020 and operationalise the concept of Responsible Research and Innovation. As Horizon 2020 unfolds, the project's findings will feed into nanotechnology policy debates, R&D, outreach and dialogue activities on nanotechnologies.

The project's objectives are to:

- Develop new strategies for outreach and dialogue along the nanotechnology value chain,
- based on a thorough analysis of current European information and communication needs for outreach and dialogue on nanotechnologies;
- using the results of previous experiences and European projects on these issues.
- INSPIRE: Organise engagement and dialogue at the 'upstream' level of research policy
- Determine European citizens' views on priorities for nanotechnology innovation by way of surveys and interviews to create a comprehensive database of attitudes, relevant societal and ethical issues, ideas and inspirations for policy makers, researchers and producers;

- Organize school kids' and students' competitions on innovative ideas for nanotechnology products of the future;
- Hold a series of multi-stakeholder dialogues to determine how nanotechnologies can address important societal and ethical challenges and identifying desired fields of innovation.
- CREATE: Enable processes of co-creation during research and innovation
- To develop and carry out '3rd generation deliberative processes', bringing together researchers, civil society organisations (CSOs), industrial partners and policy makers to discuss and select concrete fields of application for nanotechnology innovations;
- To establish 'User Committees' for specific, near-application research projects creating innovation with nanotechnologies: groups of potential 'users' (industrial customers as well as consumers) will identify and discuss key challenges for the coming products, desired properties and technical features with the aim to steer the research towards social values and user needs;
- To enable an innovative process of 'Supporting responsible research', a Brussels based workshop will be organised bringing together researchers and industrial partners with risk assessors and regulators to discuss sensible ways forward and appropriate risk governance approaches (including risk assessment and concern assessment) for the identified fields of innovation. Participants from R&D will discuss the concept of 'Safety by Design' for materials relevant for their innovation.
- EDUCATE: Professionalise nanotechnology education and training
- To develop a robust education strategy and action plan, selecting best practices on the basis of previous European experience with nanotechnology education;
- To carry out a series of education activities focusing on secondary education, following up on the best practices identified;
- To establish a multidisciplinary 'community of practice' by bringing together experts and trade unionists and to create a "living" workers-oriented capacity building module for health and safety governance of nanotechnologies at the workplace.
- ENGAGE: Establish a coherent programme for outreach and communication on nanotechnology
- To develop and assess innovative outreach and communication activities for nanotechnologies;
- To implement and test these activities, including a series of Guerilla stores and video clips on nanotechnologies;
- To disseminate the findings and results of NanoDiode by way of the project website, branding, public relations and social media initiatives.
- Assess the impact of the project's activities and provide policy feedback
- Assess the project's impact and provide policy feedback, specifically with respect to the concept of responsible research and Innovation and with a view to Horizon 2020.