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Standardization in research and innovation projects

Success story: **new technologies**

SCAFFOLD:

Innovative strategies, methods and tools for occupational risks management of manufactured nanomaterials (MNM)s in the construction industry is a 3 year FP7 project (May 2012 – April 2015) aiming to provide practical, robust, easy-to-use and cost effective solutions for the European construction industry, regarding the prevention of occupational exposure to MNMs.

www.scaffold.eu-vri.eu

THE PROJECT

The use of Manufactured Nanomaterials (MNM)s and nanocomposites in the construction industry and related infrastructure industries is an increasing reality, mostly in cement or concrete products, coatings or insulation materials and to a lesser extent in road-pavement products, flame retardant materials or textiles.

A majority of workers and their employers in the construction sector (~75%) are not aware that they work with nano-products. Detailed information about the product composition and their possible nano-specific health and safety issues is generally lacking and the information available for the raw material manufacturer is often lost while stepping down the user chain. As a consequence, it is very difficult for average construction companies to conduct a proper risk assessment and organize a safe workplace for its employees.

The SCAFFOLD research aims at providing practical, robust, easy-to-use and cost effective solutions for the European construction industry, regarding the prevention of occupational exposure to MNMs.

STANDARDS: A SOLUTION FOR MARKET UPTAKE

Standardization is a highly relevant issue in construction, covering around 3,000 work items on product standards and test methods (CEN).

A large part of the construction sector consists of SMEs. These SMEs have little resources for developing or identifying best practices, especially in the field of occupational health and safety (OHS). Standards are key to bring best practices to them, whether they are adopted through the OHS responsible or through an external OHS consultant.



The standardization process will bring valuable external review of our key output.



HOW WILL THE STANDARDIZATION WORK BE DEVELOPED?

The project has requested the status of "Liaison Organization" with CEN/TC 352 'Nanotechnologies', enabling it to participate in the Technical Committee. The risk management system developed by the project will be input into a pre-standardization process (leading to a CEN Technical Report or a CEN Workshop Agreement). Further identification and preparation of new standardization projects (New Work Item Proposals – NWIPs) will take place using the nanoSTAIR (<http://www.nanostair.eu-vri.eu/>) procedure and network (semantic analysis of project documents, review by a pool of experts, clustering of initiatives so as to gather the critical mass necessary for the actual launching of a new standardization project).

IMMEDIATE BENEFITS

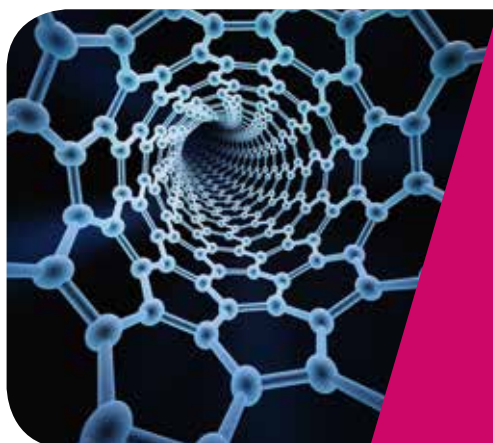
The pre-standard development process will bring valuable insight from experts external to the project. They will contribute to confirm and optimize the methodology and protocols developed in SCAFFOLD.

LONG-TERM EXPECTED IMPACT

Manufactured nanomaterials and nanocomposites are being considered for various uses in the construction industry, not only for enhancing material properties and functions but also in the context of energy conservation. Their use in construction materials is likely to increase.

The outputs of the (pre-)standardization projects are expected to allow a sustainable improvement of practice regarding the prevention of occupational exposure to Manufactured Nanomaterials in the European construction industry.

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Standardization will be a key argument to support the wide implementation of the SCAFFOLD risk management system among SMEs active in the construction sector.

Dr. Jesus López de Ipiña, Tecnalia, SCAFFOLD coordinator.

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Every project is different. The CEN-CENELEC Research Helpdesk can provide you with advice on how to include standardization in your project. Please feel free to contact us!

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