

Standardization in research and innovation projects

Success story: **new technologies**

nanoSTAIR:

The FP7 support action nanoSTAIR - Establishing a process and a platform to support standardization for nanotechnologies implementing the STAIR ⁽¹⁾ approach - has built a sustainable process and platform in the field of nanotechnologies to support the transfer of knowledge from research to standards. Running from September 2012 to February 2014, it was operated by a consortium gathering national and European research institutes and standardization bodies. The nanoSTAIR process and platform continue to be operational even if the project has ended.

¹ STAIR ("STAndardization, Innovation and Research") is a working group of the CEN and CENELEC Technical Boards, seeking to better link the standardization and research/innovation communities; under the STAIR approach, the standardization potential of project outcomes should be considered throughout a project's lifetime.

www.nanostair.eu-vri.eu



THE PROJECT

In the field of nanotechnologies, different barriers currently limit the transfer of knowledge from research to standardization and thus the proper exploitation of research outcomes. Among these barriers are the lack of resources for standardization after the R&D phase, as well as some difficulties to enter into the standardization process. On the other hand, researchers are eager to share their methods and have them recognized as standards.

The nanoSTAIR project set-up a mechanism to identify the opportunities for standardization in the results of research projects, based on the semantic analysis of research papers and on expert review. For selected results, nanoSTAIR pools together resources and consortia sharing similar standardization opportunities and provides assistance for selecting the appropriate standardization committee (CEN or ISO Technical Committees and Working Groups) and initiating new standardization work items. 13 research documents have gone through this semantic analysis ("nanoSTAIR check"), and 2 research results have been selected which have been successfully transferred into standardization.

STANDARDS: A SOLUTION FOR MARKET UPTAKE

Standardization is one of the most adequate solutions to quickly capitalize and disseminate knowledge and have it implemented in the industry, in particular by SMEs. It contributes to sustainable competitiveness through "reference documents" describing the best practices in an industry sector. Thus, standardization is particularly important in the field of nanotechnologies where knowledge and products make rapid progress. In this field especially, the efficient transfer from research to standardization is essential.

 A first result of our efforts to bring two topics to standardization was the clustering of about 10 teams for each topic. The standardization process enables synergies and collaborative work at international level. 

HOW IS THE STANDARDIZATION WORK DEVELOPED?

The nanoSTAIR approach identifies and prepares New Standardization Work Item Proposals (NWIPs) through a semantic analysis of research project documents, identifying the Technical Committees (TCs) that may be most relevant to host the standardization work. Following this, a review by a pool of experts takes place, confirming or modifying the relevance of a NWIP and the choice of the TC. In a final step, initiatives are clustered so as to gather the critical mass necessary for the actual start of the new standardization project.

This approach was developed in close collaboration with several European standardization bodies.

IMMEDIATE BENEFITS

The definition of barriers to standardization and of the potential for standardization in research projects has contributed to raise awareness within these projects on the value of sharing their protocols with the scientific and technical community. The concrete work on possible NWIPs has brought international experts (with no or little common activity until then) to work together on specific topics important for industry.

LONG-TERM EXPECTED IMPACT

Thanks to the procedures developed during the project, the identification and preparation of New Standardization Work Items Proposals (NWIPs) is expected to improve practices regarding the assessment and prevention of risks related to Manufactured NanoMaterials.



With the platform set up by the nanoSTAIR project, we contribute to the transfer of best practices in the field of nanosafety, capitalizing research results into standards accessible to anybody.

Olivier Salvi, nanoSTAIR 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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