

NAPOLYNET - Setting up research intensive clusters across the EU on characterization of polymer nanostructures

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NaPolyNet is a 36-month project involving 16 partners from 10 European countries. The objectives are: 1. to network at regional, national and international level with experts on the characterization of polymer nanostructured materials in the field of packaging, textiles and membranes, bridging the gap between scientific and engineering approaches for the improved understanding of the structure-performance correlation in polymer devices; 2. to facilitate transnational access to important and unique equipment and to train young scientists and SMEs technologists; 3. to harmonize the work necessary for new standards in the field of characterization of polymer nanostructures for packaging, textiles and membranes. *NaPolyNet* will also focus on latest findings for managing the safety implications of polymer nanostructure along the life-cycle of those products. The activities are grouped into 7 work-packages (WP): After setting up the procedures for managing the project (WP1), the team will map the competences in the different fields of characterization of polymer nanostructures and will set up an European Open Laboratory (EOL) open to outside the consortium partners (WP2) incorporating the best and novel characterization methodologies and expertises. The EOL will be the base of the demonstration activities planned in WP3 and for the activities reported in WP4 that aims at making soon available experimental and theoretical strategies and routines in developing stage at the EOL location. This will allow average trained users of equipment for thermal, structural, morphological, mechanical characterization to produce reliable data on nanostructured materials and correctly interpret them. An International Workshop is planned on processing-structure-dynamics and properties of polymer nanostructures (WP5) in order to further support development and design of intrinsically safe nanomaterials. WP6 is completely dedicated to harmonize the work for preparation of new standards for polymeric nanomaterials characterization. WP7 aims at disseminating, knowledge-transfer and reporting with the purpose of giving the project a significant impact beyond the consortium participants and contributing to overcome barriers to the industrial application of polymer nanostructured materials especially in SMEs.

Coordinator

CONSIGLIO NAZIONALE DELLE RICERCHE (Italy)

Other participants

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UNIVERSITAET ROSTOCK (Germany)

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UNIVERSITY OF SURREY (United Kingdom)

INOTEX SPOL SRO (Czech Republic)

NATIONAL TECHNICAL UNIVERSITY OF ATHENS (Greece)

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