

STRATEGIC LINES OF RENAC, NETWORK FOR APPLICATION OF NANOTECHNOLOGIES IN MATERIALS AND PRODUCTS FOR CONSTRUCTION AND THE HABITAT















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RENAC is the Spanish network for application of nanotechnology in construction and habitat products. It has been established as a scientific and technological platform that primarily intends to overcome fragmentation of costly research effort by integration and generation of a knowledge base for the construction sector to meet EU objectives (sustainable development, social cohesion). The final objective is to facilitate industrial exploitation and improve the competitive position and employment prospects of the construction and habitat sectors.

RENAC has 24 members, among them 8 technology institutes that belong to REDIT: AIDICO, ITC-AICE, AIDIMA, AIMPLAS, AIDO, AIMME, ITE, and AITEX, and 16 related prestigious research groups that work with nanotechnologies and belong to universities from the Community of Valencia: Jaime I University, University of Valencia, Technical University of Valencia and University of Alicante. The multidisciplinary expertise comes from the integration of Technological Institutes groups dealing with research in different traditional materials (wood, plastic, concrete, ceramic, stone, metal) with University research groups with a recognised excellence in nanoscience fields such as interface science, nanoparticles, photovoltaic nanomaterials, nanocomposites, mesoporous materials, chemical sensors, and polymer science.

The Research Centres and the Industries have the greater opportunities to consolidate their capital in Industrial Property in the emergent stage of the development of a new technology. This will allow them to bring to the market innovating products and to avoid the dependency of external technology.

RENAC has been organized into 14 different working groups for research as well as the detection of industrial opportunities.

 AIDIMA INSTITUTO TECNOLÓGICO MATERIA CERÁMICA Y VIDRIO	Fire resistant polymers	Photocatalytic coatings	 ITC Instituto de Tecnología Cerámica
 ITC Instituto de Tecnología Cerámica	Nanocomposites for high shear resistance.	Photovoltaic materials.	 NTC
 ITC Instituto de Tecnología Cerámica	Nanostructured coatings: ceramic/metalceramic	Nanocomposites for natural stone treatments	 AIDICO INSTITUTO TECNOLÓGICO DE LA CONSTRUCCIÓN
 AIDIMA INSTITUTO TECNOLÓGICO MATERIA CERÁMICA Y VIDRIO	Nanoencapsulation for Control liberation	Surface functionalization.	 ICMUV Universidad de Valencia Instituto de Cerámica y Vidrio
 GRUPO DE DISEÑO Y DESARROLLO DE SENSORES UPV	Chemical sensors	Multifunctional pigments	 AIDICO INSTITUTO TECNOLÓGICO DE LA CONSTRUCCIÓN
 AIDICO INSTITUTO TECNOLÓGICO DE LA CONSTRUCCIÓN	Intelligent polymers.	Nanomaterials for Portland cement based materials.	 AIDICO INSTITUTO TECNOLÓGICO DE LA CONSTRUCCIÓN
 AIMPLAS INSTITUTO TECNOLÓGICO DEL PLÁSTICO Y PRODUCTOS	Conductive polymers.	Nanostructure characterization.	 ITM

References:

[1] MJ Lopez-Tendero, L. E. Dominguez, J M Lloris, M Cruz, C Silvestre1, V Sanz, A Moreno RENAC: Network for the nanotechnology application in materials and products for construction and habitat. EuroNanoForum 2007 Nanotechnology in Industrial Applications. European and International Forum on Nanotechnology Düsseldorf (Germany), 19-21 June 2007 EUR 22833 PROCEEDINGS, 235-238.