



Greek & Italian SMEs and RTOs in Constructive Research Project for Zero Energy Buildings

The interactive dynamics of the Enterprise Europe Network Sector Groups are the basis of many successful synergies. The collaboration between the Federation of Industries of



Greece (SYNDESMOS VIOMICHANION ELLADOS - SBE) which leads the Sector Group (SG) "Construction" and the CENTRO DI RICERCHE EUROPEO DI

TECNOLOGIE DESIGN E MATERIALI (CETMA) in Italy, a new member of the SG, is an excellent example of how SG "Construction" members combined their efforts to facilitate the collaboration among their clients from this important eco-system in order to develop new opportunities of innovation activities.

The building sector is responsible for 40% of energy consumption and 36% of CO₂ emissions in the EU. As nearly zero-emission building (nZEB) becomes the new standard, the role of building materials and smart envelope systems is becoming more and more important.

The research project entitled "Exploit4InnoMat" comes under the HORIZON-CL4-2022-RESILIENCE-01 Call and more specifically under the topic "Climate Neutral and Circular Innovative Materials Technologies Open Innovation Test Beds (IA)". It will provide an open innovation test-bed for innovative materials for the building sector, with a total EU contribution amounting to €11.340.890,38.

The project consortium is co-ordinated by a Greek ICT company specialised in providing digital transformation solutions to various industries and is made up of 24 partners from 12 EU countries and 2 associated participants from non-EU European countries, including a multidisciplinary engineering firm from Italy and 4 partners from Greece (1 University and 3 SMEs).

"Exploit4InnoMat" will make available a high-end open innovation test-bed network for building envelopes including roofs and facades, enabling the replication of prototypes in different buildings, taking into consideration the trade-offs between the three sustainability pillars (economic viability, environmental protection, and social equity), as well as the lifecycle stages and their impacts.



In order to achieve the sector's target of low-cost, flexible, on-demand material-based solutions, a wide range of expertise was brought to the "Exploit4InnoMat" project covering fields such as open innovation test-beds for nano-enabled

cement, non-cement premixes and ceramics, advanced coatings and glazing solutions loaded with aerogel, fibers, Phase Change Materials (PCMs) and other nanomaterials providing multifunctional properties, pilot lines for nanodispersion, 3D printing and robotic spraying systems. A network of four real-scale living laboratories for nZEB technologies evaluation will also be set up in order to facilitate a practical tool for developing market-ready technological solutions. Additionally, a semi-automated tool combining Building Information Modeling (BIM) analysis, fast-track modelling and simulation, will be designed to utilize building blocks (structural, solar thermal and Building Integrated Photovoltaics - BIPV) in order to create a harmonized and aesthetically-pleasing urban environment.

Through all the stages, from project concept to proposal approval and project development, the SG Construction members assist their clients to find and collaborate with the most expert partners and showcases the key results of the project among the stakeholders of the sector.

#SGConstruction
#HorizonEurope
#Sustainability

