

High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications



EsSENce COST Action has been officially launched!

The European Cooperation in Science and Technology (COST) is a funding organization for the creation of research networks, called COST Actions. These networks offer an open space for collaboration among scientists across and beyond Europe and thereby give impetus to research advancements and innovation. Every year, more than 45 000 researchers are involved in COST networking activities, regardless of their career stage, country of origin or areas of interest. The goal of EsSENce is to develop a scientific & technological innovation hub at European and International level, focusing on advanced composite materials reinforced with carbon-based nanomaterials for sensing applications.

The demand for advanced composites reinforced through the addition of carbon-based materials and nanomaterials is steadily increasing during the last five years, and it is estimated to be continuously rising by at least 10% per year until 2025. Most of the forecasts about NMs agree on a market growth in the next years, with overall CAGR values between 12–25% while the nanocomposites market size is expected to exhibit a CAGR of 24. 2% over 2019-2025.

In this framework, EsSENce will promote interdisciplinary work streams for an efficient exchange of knowledge, and contribute to human resources training in new technologies for high-performance nanocomposite materials with sensing capabilities. Furthermore, it will favor the mobility of researchers (Training Schools, Short Term Scientific Missions, Workshops, periodic seminars, etc.), and liaise between networks and international bodies and associations, such as the European Materials Modelling Council, the Carbon Fibers and Advanced High-Performance Cluster or conferences on relevant topics.

The Action Chair, Costas Charitidis (R-NanoLab, Greece), the Action Vice Chair, Chiara Pernechele (Dallara Automobili, Italy) as well as all 93 MC members and substitutes from 33 countries, encourage you to join the Action!



Chair: Costas A. Charitidis, Director of R-NanoLab

GRANT HOLDER INSTITUTION: NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA), GREECE