Applications for Graphene films: market trends

Jesus de la Fuente, GRAPHENEA

During the past two years, advances in Graphene CVD synthesis and transfer have opened new research and industrial applications to the landscape. Outstanding properties of Graphene films, homogeneity, industrial-scalability and reproducibility are the main drivers for the development of new Graphene films based devices.

Most applications to date have been focused in the Energy Storage applications mainly in batteries and ultracapacitors. Using Graphene films to enhanced electrodes has yield in an exceptional performance improvement for these devices. Graphene enhanced Solar cells are also an intensive research topic. The other group of leading applications is related to Electronics and Semiconductors mainly in the High Frequency Electronics applications. In some cases, proof of concepts and prototypes has been developed. Transparent conductors, Biosensors and Advanced Composites complete the list of leading innovations using Graphene films.

In order to evolve to the next step to develop early stage technology products some key success factors have to be considered. The key success factors to move forward in the development of the Graphene films industry will be presented and discussed.