Puzzle of graphene commercialization

Seongjun ParkLuis Brey Samsung (korea). s3.park@samsung.com

Graphene is known for its extraordinary properties and many potential applications have been proposed since its isolation in 2004. Also, many scientists and engineers have suggested that graphene may impact our everyday lives in near future. However, over ten years have passed and we haven' t seen any Graphene based major products, yet. Some sceptics have begun to mention that commercialization of graphene-based products may be just a dream. We believe this is due to the misunderstanding of the processes involved with the commercialization.

The process of commercialization can be compared to solving a jigsaw puzzle. When the pieces are put together one by one they start forming a picture, but most pieces need to be in place for a recognizable image to emerge. Those pieces include not only material properties but also some engineering properties, such as, uniformity, stability, reproducibility, and compatibility with current processes. In addition, we need to take into consideration of economical aspects.

In this talk, we will cover some of issues and directions for commercialization of Graphene and will give some examples that we' ve been worked on.

References