## Graphene Electronics at Scale & What Comes Next

Simon Thomas Paragraf, UK

s.thomas@paragraf.com

Founded in 2015, Paragraf is pioneering the development and commercial adoption of graphene-based electronic devices using industry-standard semiconductor processes. With lines of magnetic sensors and GFETs already in production, and other advanced semiconductor devices in development, Paragraf's proprietary graphene growth process unlocks the full potential of this remarkable material. The company operates three facilities — two in Cambridgeshire, UK, and one in San Diego, US,. Paragraf now has a growing footprint throughout the US, Europe, the Middle East and Asia, driven by the company's ability to integrate, seamlessly with existing semiconductor infrastructure.

In this talk we will discuss the progress of graphene electronics manufacturing, how products became available in the market and the essential requirement for integration into the existing semiconductor ecosystem to be successful at scale.

Graphene is just the start of what is possible with this new class of materials, however, to be relevant it is essential to embrace academic discovery but imperative to develop accepted, understood manufacturing mechanisms. Finally, we will discuss how the graphene world can finally overcome the skepticism that has developed over the past 20 years, due to overpromised and undelivered potential, through true partnership and aligned strategies to penetrate the semiconductor ecosystem in a positive and beneficial way.