Beyond the Breakthrough: Why Graphene Still Hasn't Scaled - and What We're Going to Do About It

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Graphene has been called the material of the future for over a decade, yet most industries are still waiting for it to deliver at scale. Billions have been invested, patents have been filed, and proof-of-concept projects have been completed, but widespread adoption remains out of reach. Why?

This paper explores the real-world barriers holding graphene back - not technical, but commercial, regulatory, and behavioural. Drawing on project experience across the UK, Europe, and the Middle East, it highlights the practical friction points: inconsistent specifications, long qualification cycles, low awareness among end users, and a fragmented supply chain.

The core argument is this: we do not have a material problem, we have a market problem. Solving it requires coordinated action across the ecosystem.

This paper proposes a set of collective steps to unlock adoption, including:

- Shifting focus from lab performance to scalable value
- Moving from academic validation to pilot-to-scale proof
- Aligning investors on realistic expectations and timelines
- Forming regional adoption partnerships across sectors

Graphene's benefits are proven. The challenge now is execution. If we want to see graphene make a meaningful impact on the energy transition and industrial decarbonisation, we need to stop waiting for the perfect moment and start working together to create one.