

Chester Burt

Grafoid Inc., 945 Princess St., Kingston, Ontario, Canada

cburt@grafoid.com

The Road to Commercialization and Lessons Learned

At the turn of the twentieth century, there were well over 200 automobile producers in the U.S. After 1901, the number of firms fell sharply and within 10 years most of the leading automobile brands were produced by Detroit-area companies, with the industry evolving to be an oligopoly dominated by three famous firms.

Could a similar phenomenon happen in the graphene sector?

The natural flake graphite market has changed dramatically in the last 5 years from a dig-and-sell commodity business to a value-added product business and, driven by national and international factors, the industry is being shaped by two colliding forces: climate change and the graphene revolution.

Globally, national governments are committing to stringent emission targets and implementing policies to foster and propel new material advancements. Traditional mining industries, weakened by the global commodity downturn, are searching for ways to revive their businesses, while new material enterprises, such as value-added graphite and graphene start-ups, are looking to leverage these game-changing opportunities.

Today, over 100 graphene producers now dot the global map, all striving to produce affordable graphene and stronger, lighter, smaller and faster applications derived from this miracle material. Time will tell if the development of the graphene sector mirrors the historical development of other industrial sectors and key questions are being asked among potential investors, partners and customers.

Who will the winners be among these companies and what factors will drive their success?

Whatever the outcome, the impact has been significant and the long-term implications will dramatically change the critical material sectors. As more and more countries ratify the Paris Accord and mandate domestic policy, the faster industry will adopt change.

Grafoid is poised to take advantage of this change. As a graphene research, development and licensing company, it has positioned itself for commercial alliances in graphene application development. Based on an investment in a patented one-step process to produce an affordable suite of graphene products, the company develops applications with joint venture partners at Grafoid's Global Technology Centre (GGTC), in Kingston, Canada.

As an early entrant in the graphene space, Grafoid's lessons learned over the past 7 years point to two keys for success: 'credibility' and 'collaboration'. It holds, the "2Cs" will determine not only the scale of overall development and the adoption and pace of graphene's acceptance, but the firms that mature into industry leaders.

No one company can do it alone and collective credibility will shape perceptions. Commercialization of graphene will only successfully happen when we work together in collaboration, fitting all the necessary pieces together – the science, material and innovation – and matching it with financial resources and industry's products and ideas. This requires cooperation, education and outreach on our part.