



MEDIA RELEASE

FOR IMMEDIATE RELEASE

NMB Enables Industrial Deployment of Homegrown Graphene-Enhanced Concrete Technology for Digital Economy Infrastructure

Kuala Lumpur, 28 April 2026 – NMB (NanoMalaysia Berhad), a company limited by guarantee under the Ministry of Science, Technology and Innovation (MOSTI), announced the successful industrial deployment of a Malaysian-developed green technology by IDC Global Holdings Sdn Bhd (IDC), marking a significant milestone in advancing nanotechnology from pilot-stage innovation to real-world applications.

The deployment represents a key achievement for IDC, which has successfully commercialised and implemented its graphene-enhanced concrete (GEC) admixture within the construction and infrastructure sector. Supported by NMB and technology collaborators, the technology is now being applied to enhance the strength, durability, and lifecycle performance of infrastructure materials. The technology has been implemented in projects such as Princeton Digital Group's (PDG) data centre facility in Sedenak, Johor. As a partner under the National Graphene Action Plan (NGAP), IDC is also the first local SME to successfully commercialise the indigenous GEC admixture intellectual property into overseas markets, including Singapore, marking a significant milestone for Malaysia's graphene industry.

As the ecosystem investor and builder, NMB played a central role in facilitating this transition by coordinating research and development efforts, supporting pilot production, and bridging collaboration between academia and industry. The success of the GEC admixture, with assistance from UPM as technology collaborator, underscores the effectiveness of Malaysia's innovation ecosystem in accelerating the commercialisation of high-impact, sustainable technologies.

NMB's Chief Executive Officer, Dr Rezal Khairi Ahmad, said: "The successful deployment of this green technology by IDC highlights the importance of cross-domain collaboration in accelerating innovation commercialisation. By bringing together expertise from academia, industry, and government-linked entities, the project exemplifies how NMB's innovation ecosystem powered by our unique Venture Builder investment model can deliver high-impact solutions aligned with national priorities in sustainability and economic development in the infrastructure sector. This technology blends water proofing, enhanced strength and carbon sequestration properties in a single solution"

Developed under the NGAP programme in the 11th Malaysia Plan (RMK11), the GEC admixture progressed from laboratory research and pilot-scale validation to full industrial implementation. This transition underscores Malaysia's growing capability to translate advanced research into scalable, market-ready solutions that address real industry needs.

As part of the future by design approach adopted by NMB, this deployment creates industrial off-take opportunity for an adjacent investment in the localization of graphene production from domestic biomass source.

The construction and infrastructure sector remains critical to national development, underpinning economic growth, public safety, and urbanisation. The use of the GEC admixture in cement applications for data centre developments in Johor has also contributed to Malaysia's economic growth, including through high-value construction



activities that support GDP growth. The successful application of the GEC admixture is expected to drive greater adoption among local developers, particularly in Malaysia's growing data centre segment. Innovations such as the GEC admixture support the industry's shift towards more resilient, efficient, and sustainable building materials.

Moving forward, interested parties are encouraged to collaborate with NMB to support the commercialisation and adoption of advanced nanotechnology solutions, strengthening Malaysia's position as a regional hub for high-value innovation and sustainable industrial development.

-ENDS-

For media enquiries: corporateaffairs@nanomalaysia.com.my