

**first graphene**

Australia's leading graphene company

## ASX Announcement

9 May 2108

# Extending Graphene Applications into the Maritime Services Industry

### Highlights

- Expanding range of graphene-based products to include the maritime industry products
- Memorandum of Understanding between the Company and Engage Marine is the basis for further research and development of commercial applications
- The companies will work collaboratively with an initial focus on coatings and other products for the marine industry
- It is anticipated that work undertaken pursuant to the MoU will lead to detailed commercial agreements in due course

Advanced materials company, First Graphene Limited ("**FGR**" or "**the Company**") (ASX: FGR) is pleased to advise it has entered into a Memorandum of Understanding with **Engage Marine** for the development of graphene enhanced coatings and ropes for the marine industry.

### Background

Now that FGR has commissioned its Henderson Commercial Graphene Facility, it has been actively involved with interfacing with a number of industries that could benefit from the addition of graphene to existing product ranges. It is this co-operation with industry which will lead to a more rapid development of evergreen sales contracts. The taking of graphene applications from the universities and research-based organisations into industry is the next necessary step in the commercialisation of graphene.

Research work has shown graphene can provide significant benefits to the maritime industry in a number of applications. The most obvious application is in anti-fouling paints and coatings, which promise benefits from improved performance and longer life between reapplications; every five years instead of the three-year standard now prevalent.

In recognition of its pioneering work in the manufacturing and preparation of graphene applications, FGR is pleased to report an encouraging approach from a maritime industry participant to work with this industry to design and customise graphene-based products.

### First Graphene Limited

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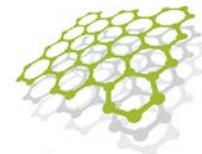
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### ASX Code

FGR  
FGROC



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## The Project

First Graphene Limited is pleased to advise it has entered into a Memorandum of Understanding with Engage Marine for the development of graphene enhanced coatings and ropes for the marine industry.

The terms of the MOU cover collaboration on graphene enhanced anti-fouling as an additive to existing coatings or a new formulation; coatings with fire retardant and noise reduction properties for ship bulkhead doors and engine rooms that can be sprayed on; and graphene enhanced polypropylene ropes.

The Company and Engage Marine will work to commercialise the project outcomes with other global marine organisations.



**Preparation and painting of hulls is a recurring expense which could be mitigated by a longer life and superior product**

Managing Director, Craig McGuckin said *"Engage Marine represents another industry partner with whom FGR will be developing an exciting range of products utilising FGR's range of high quality graphene."*

Mark Malone, Chief Executive Officer at Engage Marine said *"Engage Marine are excited to form this relationship with First Graphene to explore opportunities in the maritime sector. Both companies see significant potential benefits in utilising the unique properties of graphene to improve the operational efficiency and environmental impact of several marine applications including hull paint and ropes."*

### *About First Graphene Ltd (ASX: FGR)*

*First Graphene produces high quality graphene from high grade Sri Lankan vein graphite.*

*First Graphene seeks to develop graphene production methods and acquire graphene related intellectual property which can provide further revenue related opportunities.*

### *About Engage Marine*

*Engage Marine is an Australian port operations provider delivering specialised marine services to a variety of industries. Headquartered in Perth, Western Australia, Engage Marine also has operational bases throughout Australia including the Pilbara, Whyalla, and Melbourne.*

*Engage Marine operates under an innovative joint venture business model, which provides greater flexibility and cost efficiencies for clients and industry. We are committed to leading change in the way marine solutions are delivered.*

### **Leading Change:**

- *Those that operate the business, own the business*
- *Integrated marine solutions*
- *Collaborative innovation*
- *Community & local focus*

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