

15th Anniversary High Value Manufacturing & 4th New Materials & Graphene Conference 2017 2-3 November 2017 www.cir-strategy.com/events

# The University Of Manchester Graphene@Manchester James Baker

15th Anniversary HVM 2017 & 4th Graphene New Materials Conference

2-3 November 2017 Cambridge, UK



### GRAPHENE@MANCHESTER



#### MANCHESTER The University of Manchester NATIONAL GRAPHENE INSTITUTE (NGI)

The NGI focus is on academic led research (TRL 1-5) into graphene and related 2-D materials in partnership and collaboration with Industry: "Explorative Research"



Demonstration of:

- New concepts/new applications/ fundamental studies
- Graphene potential by producing
   new concept products and processes

Development of:

- Low cost and scalable manufacturing methods for high quality graphene
- Process stabilisation, achieving reproducible quality, high manufacturing yields
- Standardisation, Characterisation, Quality Certification and Health and Safety



### GRAPHENE ENGINEERING INNOVATION CENTRE (GEIC)

The GEIC focus is on industry led technology development (TRL 3-6) in graphene and related 2-D materials in collaboration with academia: "Exploitative Research"



 Pilot production and process scaleup of graphene and related

2D materials and its measurement and characterisation

- Application development in:
  Structures and composites, Energy
  battery and super-capacitors,
  Solution formulation, inks &
  coatings, Electronics, Sensors and
  Membranes.
  - "*Make & break*" prototype development and integration facility

## ROUTE TO COMMERCIALISATION



MANCHESTER

The University of Manchester

**Concept Development** – focus is on a) increasing the technology development TRL – manufacturing scale up, characterisation and measurement, b) experiment with the art of the possible future applications and concepts and c) provide inputs to Concept Development.





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