



Board of Funders

Brussels, 22nd March 2019

Graphene Flagship

State of play

Wide Hogenhout

Flagship Unit

DG Connect, European Commission

Preparing for Core3

- Getting ready for proposal for “core3” – core project from April 2020 – March 2023
- Spearhead call:
 - 46 proposals received
 - Likely to see 23 new partners coming in in 2020
- Additional spearhead call for health and safety aspects of all other spearheads
- Further call for expression of interest to find new (industrial) expertise in 11 areas – open call for new partners
- ~20 partners leaving after core2 (which happens automatically if they have no further task in core3)

A spearhead project (SHP) is an ambitious, well-defined application-oriented subproject of the Graphene Flagship

They are selected through a competitive process

Preparing for Core3 – selected spearheads

Short name	Coordinator	Field
GRAPHIL	Medica sPa (IT)	Water purification
G+Board	Centro Recherche Fiat SCPA (IT)	Automotive
CircuitBreakers	ABB (SE)	Energy
METROGRAPH	Alcatel-Lucent Italia S.P.A. (IT)	Photonics
GRAPES	Oxford Photovoltaics Limited (UK)	Solar cells
AEROGraft	Lufthansa Technik AG (DE)	Aviation
GBIRCAM	Emberion Oyj (FI)	Optoelectronics
AUTOVISION	Fundacio Institut de Ciencies Fotoniques (ES)	Optoelectronics
GreenBAT	BMW AG (DE)	Automotive
GICE	Airbus Operations SL (ES)	Aviation
To be determined	To be determined	Health and safety

Women in Graphene – career day



- Career Development Event
11-12 February 2019
National Graphene Institute,
Manchester
- Timed to coincide with
international day of women in
STEM
- Mentoring programme
- 73 people from 11 countries



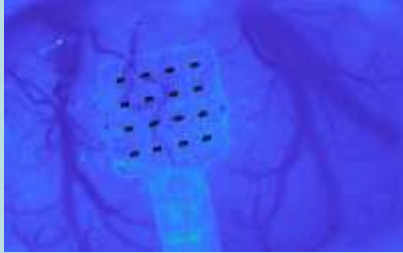
28 March 2019

Jess Wade addressed the issue of inspiring female role models in the sciences. In an attempt to counter the deficit in Wikipedia articles on female researchers, she set herself to publish female scientists' and engineers' biographies daily for more than a year.

Adventures
Imaging Atoms
Prof. Sarah Haigh



From the Graphene News Section

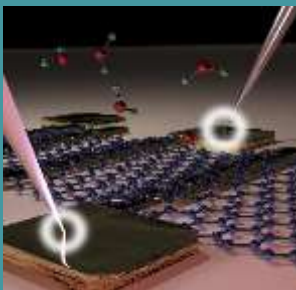


Graphene can hear your brain whisper

newly developed graphene-based implant can record electrical activity in the brain at extremely low frequencies and over large areas, unlocking the wealth of information found below 0.1 Hz.

Graphene Flagship start-up Bedimensional receives €18 million private investment

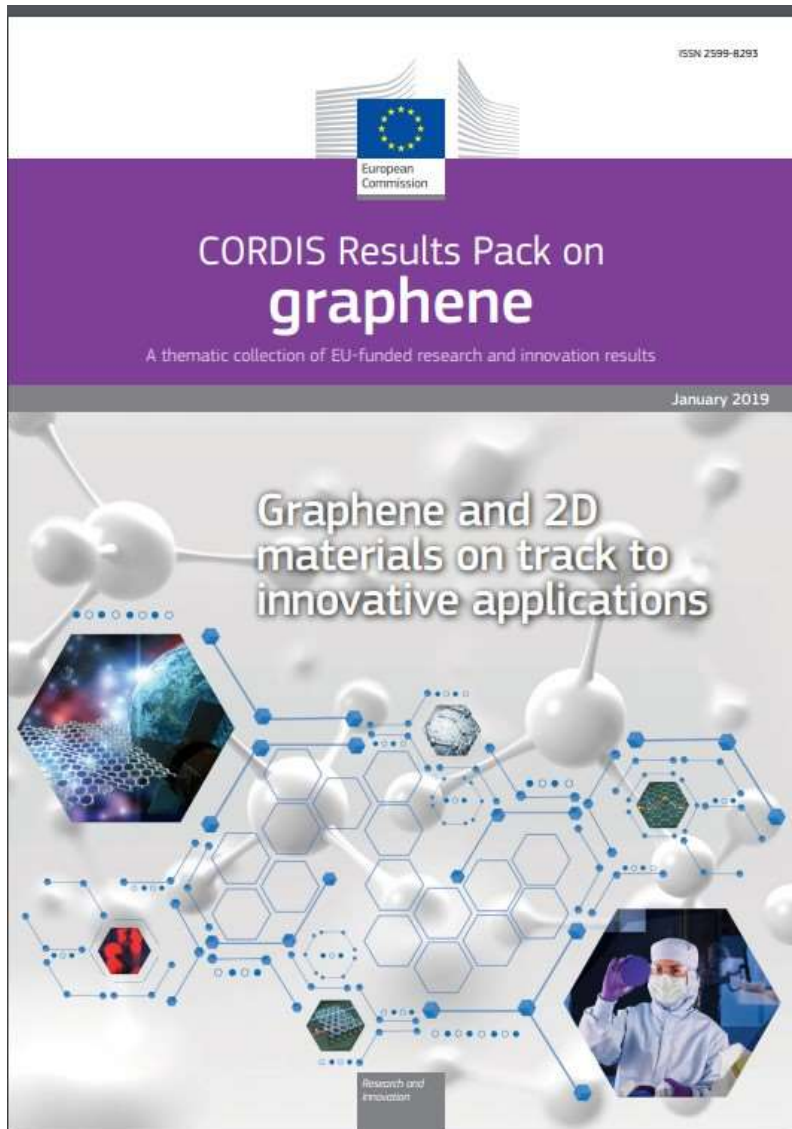
The Italian 'Pellan Group,' specialised in groundbreaking technical materials, will boost the growth of Bedimensional investing €18 million to promote their main goal – discover new applications of graphene and related materials in consumer products.



Waterproof contacts for graphene electronic circuits

Swedish scientists working at Graphene Flagship Associate Member KTH Royal Institute of Technology in the CO₂-DETECT FLAG-ERA project, have found that when graphene is contacted to the metal of electronic circuits, the contact resistance is not affected by moisture.

CORDIS Results Pack on Graphene



various articles about graphene research results in and outside Graphene Flagship

Available in
EN/FR/DE/IT/ES/PL





GRAPHENE FLAGSHIP

Mass production

- Spray deposition
- Graphene inks

Phone of the future:

- Earphones with graphene membrane
- Touch sensor
- Hyperspectral image sensor
- batteries
- Flexible WiFi receiver
- 5G modulators



Wearables:

- UV exposure sensor patch
- Fitness patch (heart rate, hydration, O2 saturation, breathing rate, temp)
- Pressure sensing insole
- Touch sensitive T-shirt

home:

- Electronic key
- Cement (heating, conductive layers, pollution treatment)
- Solar power
- Supercapacitors
- Loudspeakers
- Air sniffer, gas detector, presence detector

Mobile World Congress 2019

Quantum



Calendar of Events



03 – 04 Apr '19	General Assembly, Strasbourg
Mid May '19	EU-US workshop
10-14 June '19	EC Review
~July '19	EC Evaluation of Core3 (phase 2020-2023)
01 - 06 Jul '19	Lindau Nobel Laureates Meeting, Lindau
23 – 27 Sep '19	Graphene Week 2019, Helsinki (& EU-Australia Workshop)
Summer 2019	Invitation Experimental Pilot Line proposal
Fall 2019	Core3 grant preparation
Late 2019	Deadline experimental Pilot Line proposal
April 2019	Start of Core3
October 2019	Start of Experimental Pilot Line