

Graphene and Quantum Technologies team up at the Mobile World Congress 2019

The Graphene and Quantum Flagships exhibit technologies and present the initiatives at the world's largest telecommunication event.

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From Feb 25-28 of 2019, the global telecommunication community descended on Barcelona for the Mobile World Congress (MWC19) to witness the latest in mobile technology. As part of the congress's attraction, in the NEXTech Hall, attendees were able to visit the Graphene Pavilion of the Graphene Flagship to see graphene-based technologies exhibiting for the 4th consecutive year, as well as the Quantum Flagship stand to learn more about the official presentation of this recently launched initiative.

In MWC 2016, the Graphene Flagship debuted with the Graphene Pavilion, curated by ICFO. In the subsequent four years, ICFO has played a central role in the organisation of this space

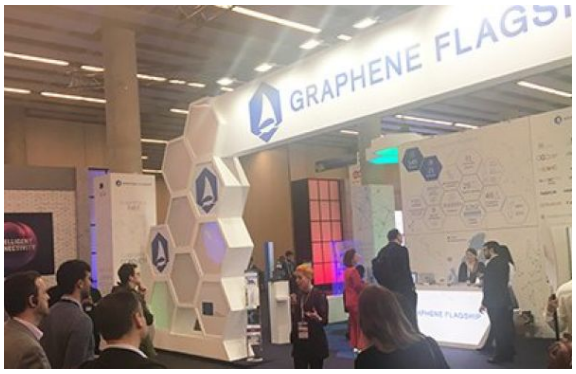
ensuring that hundreds of thousands of visitors enjoy the opportunity to learn about and interact with the most disruptive graphene-based technologies developed in Europe. At MWC2019, the pavilion demonstrated how graphene enables a whole new connectivity approach, from the single connected device to a network of embedded processors, sensors and communication hardware that constitute the Internet of Things' ecosystem.

ICFO technologies and prototypes displayed in the 2019 graphene pavilion included:

A graphene-based flexible, transparent and disposable UV sensor that can monitor the level of exposure to sunlight. It connects to a mobile device and alerts the customer when s/he has reached an extreme limit of sun exposure. Using the same base technology, ICFO's fitness band aims to measure heart rate, hydration, breathing rate, among other parameters. Two other light-based graphene technologies, which include the world's smallest single pixel spectrometer and a graphene-enabled hyperspectral image sensor, both with broadband capabilities, beyond those obtained with the use of costly and bulky photodetection systems.

In addition to the graphene pavilion, the Quantum Flagship also had a space within the NEXTech Hall. Coordinated by ICFO, the space devoted to quantum technologies aimed to give visitors a glimpse at how quantum technologies seek to radically improve the telecommunications arena. ICFO spin-off Quside, a partner in the Quantum Flagship, presented a prototype of a quantum random number generator chip.

With a duration of 10 years and a budget of at least EUR 1 billion each, FET Flagships are the among the most ambitious research projects funded by the European Commission. The Graphene and Quantum flagships have the common goal of taking and transferring the discoveries and research from the lab to the market into commercial applications that will help create the next generation of disruptive technologies, searching to position Europe as a worldwide knowledge-based industrial and technological leader in both innovative fields.



Graphene Pavilion



mwc19