

# A Full Pavilion Dedicated to Graphene at the 2016 GSMA Mobile World Congress

ICFO Prof. Frank Koppens' relationship with the GSMA and his leadership role in the Graphene Flagship have shaped the Graphene Pavilion at Mobile World Congress, an extraordinary meeting of science, industry and the next generation of mobile technology.

Under the theme 'Mobile is Everything', the 2016 GSMA Mobile World Congress will bring together more than 95,000 participants from across the mobile industry and adjacent industry sectors, with more than 2,100 companies expected to showcase new trends and emerging technologies. *This year in a new GRAPHENE PAVILION, research centers, along with start-ups and enterprises working on graphene-related topics will have a place of prominence in the most important industry event of the mobile sector, sharing knowledge and expertise in a field that promises to revolutionize mobile technology.* 

"At Mobile World Congress, we're focused on showcasing cutting-edge technologies and solutions and graphene is certainly a technology that will have a significant impact on our industry in the years to come," said John Hoffman, CEO, GSMA Ltd. "We're pleased to be working with ICFO, under Professor Koppens' leadership, to bring the promise of graphene to Mobile World Congress attendees, demonstrating the nearly endless use cases for this technology."

The new Graphene Pavilion, a collaborative effort between ICFO- The Institute of Photonic Sciences and the Graphene Flagship (GF) with the support of the GSMA, will showcase the latest advances in graphene research as well as graphene-related innovations that are already available in the market. The content available in this  $135m^2$  Graphene Pavilion (Hall 8) will deal with the transformation of display technology (for flexible screens); sensors, eTextile and conductive ink (for wearables, Internet-of-Things, Smart Cities, eHealth); energy transmission and storage technology (supercapacitors); and data communications (photodetectors and receivers, flexible antennas).

ICREA Professor at ICFO and leader of the Optoelectronics Work package of the GF, **Frank Koppens** is providing the direction for the development of this new pavilion. He is young, energetic and already decorated with the Huygens Prize (NL) as well as the National Prize for Young Talent (ES / Catalonia), among others, for his achievements. He is well known in the community for his ground-breaking research, with an almost monthly publication rate in the highest impact journals, which has positioned him as a leader in this field and a scientist to watch when it comes to innovations in graphene. In collaboration with ICFO's Knowledge and Technology Transfer division, which carries out the institute's mission to translate the most promising advances in the laboratory into emerging real-life applications, his research group has an admirable track record in the creation of prototypes and patents which are being converted



into new business opportunities and collaborations with industries and investors in the ICT sector. Several of these will be on display in the Graphene Pavilion.

As a renowned graphene expert, Koppens is acting as the lynchpin between GSMA, the GF and industry for the pavilion. His central role in the graphene-focused activities of this year's Mobile World Congress is also bringing attention to Barcelona which is becoming increasingly well known as a region for the creation and support of graphene-related innovation.

In addition to his leading role in the Graphene Pavilion, Professor Koppens will also be the scientific chair of a track session taking place in the Mobile World Congress conference on Thursday, 25<sup>th</sup> February. Additionally, Nobel Prize-winning Professor Kostya Novoselov, who first discovered the wonder material, will deliver a presentation as part of the conference's "Innovation" keynote taking place on Thursday morning.

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**ICFO-** The Institute of Photonic Sciences is a centre of research excellence devoted to the science and technologies of light with a triple mission: to conduct frontier research, train the next generation of scientists, and provide knowledge and technology transfer. Today, it is one of the top research centres worldwide in its category as measured by international rankings.

Research at ICFO targets the forefront of science and technology based on light with programs directed at applications in Health, Renewable Energies, Information Technologies, Security and Industrial processes, among others. The institute hosts over 300 professionals based in a dedicated building situated in the Mediterranean Technology Park in the metropolitan area of Barcelona.

ICFO participates in a large number of projects and international networks of excellence and is host to the NEST program which is financed by Fundación Privada Cellex Barcelona. Groundbreaking research in graphene is being carried out at ICFO and through key collaborative research partnerships such as the FET Graphene Flagship. Prof Frank Koppens is the leader of the Optoelectonics work package within Flagship program. <u>www.graphene.icfo.eu</u>

**The Graphene Flagship:** a €1 billion research program of the European Commission aimed to bridge the academic and industrial world in the search of addressing big scientific and technological challenges concerning graphene and how its future accomplishments will impact on society.



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