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Osborne stumps up £20m of your cash for wiggly wonder stuff graphene 'We're backing a winner'

By Anna Leach • Get more from this author

Posted in Government, 27th December 2012 13:16 GMT

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The Chancellor will allocate up to £21.5m for research into the wonder material graphene, he confirmed today. The cash will be distributed to Cambridge scientists investigating wearable computers, and Imperial College researchers hoping to incorporate the super-strong, super-conductive, super-light material into aeroplanes.

Speaking on Radio 4's Today programme, George Osborne said that the government was "actively backing a winner".

£12m of the £21.5m will be drawn from the £50m investment in the wonder-material that was made in 2011 and nearly £10m will come from the Engineering and Physical Sciences Research Council (EPSRC). Cambridge got the lion's share of the cash with a £12m award for research into graphene's use in flexible electronics and opto-electronics. Menawhile London's Imperial College will receive over £4.5m to investigate aerospace applications of graphene. Other research that will receive funding includes projects based at Durham University, the University of Manchester, the University of Exeter and Royal Holloway.

The Research Council's previous grants to graphene-related projects are listed here. A handful of the new projects start in early 2013 and include work to make wearable computers out of graphene, batteries and entire devices created solely in graphene.

Cambridge Professor AC Ferrari explains the qualities of the wonder material in his funded project to explore flexible electronics and optoelectronics that will start in January 2013:

Graphene has many record properties. It is transparent like (or better than) plastic, but conducts heat and electricity better than any metal, it is an elastic thin film, behaves as an impermeable membrane, and it is chemically inert and stable. Thus it is ideal for the production of next generation transparent conductors.

Super thin and flexible electronic components and devices could be created from graphene, he says, opening the door to foldable computers:

Graphene can withstand dramatic mechanical deformation, for instance it can be folded without breaking. Foldable devices can be imagined, together with a wealth of new form factors, with innovative concepts of integration and distribution.

The challenge comes in building graphene and engineering forms of it that can be easily produced and incorporated in devices.

Osborne said the UK had beaten off competition from Singapore and America to keep core graphene research and scientists in the UK since graphene was discovered in Manchester by two Russian scientists in 2005. ®

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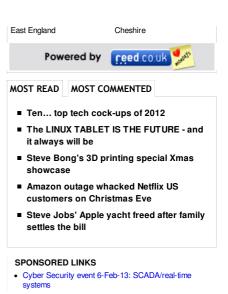
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