# **Mail** Online

## Chancellor's £22m boost for Britain's wonder stuff: Osborne announces investment to capitalise on graphene

- · The carbon-based material is one of the thinnest, lightest, strongest and conductive
- · It is tougher than diamond but stretches like rubber
- · The Chancellor hopes it can be used in mobile phone touch screens and super-light aircraft

**PUBLISHED:** 22:38, 26 December 2012 | **UPDATED:** 08:05, 27 December 2012

The Chancellor is to set aside £22million to help the UK profit from a super-strong material developed in British labs.

George Osborne will today announce the capital investment to enable industry to capitalise upon the Nobel Prize-winning substance of graphene.

The carbon-based material is one of the thinnest, lightest, strongest and conductive materials known to man.



The Chancellor tours laboratories used to research graphene during a visit to the University of Manchester. He will today announce a £22m investment in the material

Mr Osborne hopes the material, which is tougher than diamond yet stretches like rubber, can be used in mobile phone touch screens and super-light

The super material was developed by Manchester University, and won the 2010 Nobel Prize in Physics - marking it out as one of the world's most groundbreaking scientific achievements.

A sheet of graphene is just a single layer of carbon atoms, locked together in a strongly-bonded honeycomb pattern.

It is so thin you would need to stack three million on top of each other to get a pile one millimetre thick.

Despite this, it is 200 times stronger than steel and several times tougher than diamond.

Graphene's versatility potentially supports an unparalleled number of industrial and everyday applications, including in electronics, energy generation and telecommunications



London's Imperial College will receive over £4.5million to investigate aerospace applications of graphene, working with a number of industrial partners including Airbus

The money will be shared out by The Engineering and Physical Sciences Research Council.

Cambridge University has been awarded over £12million for research into graphene flexible electronics and optoelectronics, which could include things like touch screens and other display devices.

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The other successful projects are based at Durham University, the University of Manchester, the University of Exeter and Royal Holloway.

The universities will be working with industrial partners who are global leaders in their fields and include Nokia, BAE Systems, Procter & Gamble, Qinetiq, Rolls-Royce, Dyson, Sharp and Philips Research. Together they will receive a further £12million.

Mr Osborne said: 'The Government moved quickly and decisively to make sure this Nobel Prize-winning technology invented here in the UK, was also developed here.

'It's exactly what our commitment to science and a proactive industrial strategy is all about - and we've beat off strong global competition. Now I am glad to announce investment that will help take it from the British laboratory to the British factory floor.

'This shows that even in tough times we are investing in science which is vital to helping the UK get ahead in the global race.'

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£200 Million (200,000,000) for nanotechnology, but £2 Billion (2,000,000,000) the government want to spend on snooping on emails, telephone calls what websites we look at, which would end up being more realistically £9 Billion like the abandoned ID cards, 12 to 20 billion on a failed IT system for NHS etc...................... this the way they spend tax payers money and what will we see back, NOTHING as they will flog it to multinational firms, the 1% rich elite make even more money while we can work for minimum wage or for free (WORKFARCE unemplopyment experience)!

- Georgette Orwell , UK, 27/12/2012 11:30

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It is a great substance but I fear the years of anti business Socialism may blunt the commercial advantage we could have from this. The inventors of yesteryear had a future but as is seen from the stupid anti business and anti UK comments printed here what hope - the inventors were Russian! - how smart, well they did not do it in Russia.

- <u>Dutchnick</u>, Leiden.NL, 27/12/2012 11:21

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Graphene is a game changer, it ought not even be public knowledge. Don't let this one get away!!

- Tony , Up North, United Kingdom, 27/12/2012 10:44

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This £22 million should be used to match other EU countries and reduce the duty payable on diesel fuel. Then with cheaper transport leading to lower delivery costs. all round the country could begin to prosper again.

- Taxpayer, England remembered, United Kingdom, 27/12/2012 10:31

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Never thought I'd say this but at last Osbourne has got something right! We must support this kind of innovation!

- David , Gateshead, 27/12/2012 10:31

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Well, if they go and publish their research findings as usual, don't be surprised if the Japs are first to the market place - they've done it before and will do it again!

- Watafarce , Sunken\_city, 27/12/2012 10:28

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And i read earlier he's pledged half a million to tackle gun crime, some how I think his priorities are mixed up

-  $\underline{\text{Adam}}$  , Liverpool, United Kingdom, 27/12/2012 10:20

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I notice they wouldn't let the clutz in to the clean room. Best place for him "on the outside outside looking in"

- No axe to grind , Swindon, 27/12/2012 10:18

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We have sold off all our engineering so we may as well give away our technologies now.

- grate britain, stanfree, 27/12/2012 10:09

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too little, too late

- paul , Manchester, 27/12/2012 10:05

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