

## **The Foundation for Science and Technology debate on Cities and Science**

3<sup>rd</sup> June, 2009

**Boris Johnson**

**Mayor of London**

SPEECH – Science & Technology Event Wednesday 3<sup>rd</sup> June - Final Version

Good afternoon ladies and gents.

We meet this afternoon in quite extraordinary political circumstances with the Home Secretary gone by breakfast, the Communities Secretary gone by lunchtime, and Westminster enveloped in a miasma of guilt with a level of pollution rising off the House of Commons of a kind we have not seen since the great stink of 1858, when the whole place had to be evacuated. And who sorted it out? Whose ingenuity allowed our democracy to function again? It wasn't a politician. It was one of the greatest engineers of the Victorian Age, Joseph Bazalgette, whose magnificent sewers still carry the effluent of London along the embankment. And it is not just because I am Mayor of London that I am proud to say that at the root of every great scientific breakthrough of the modern era you will find a London scientist.

Electricity [induction of current] – Faraday, born in Southwark, died at Hampton Court; computers are all descended from the invention of Alan Turing, born in Maida Vale, and the theory of evolution itself – the single most influential scientific teaching in the world in the last 200 years was first propounded in Bromley; and when Darwin looked around Bromley – the intense beauty, physical grace and intelligence of the inhabitants of Bromley, who voted Conservative in such overwhelming numbers last May – you can see why he suddenly tumbled to the idea of natural selection and survival of the fittest. And it is when you consider the historic dominance of this city in scientific and technological endeavour, when you think how penicillin was discovered on Praed Street and how Brunel built Paddington Station, it breaks your heart to see how little value schools seem to attach to the study of Science.

Last year in the borough of Islington, no school entered any pupils for a separate science GCSE. Last year in Southwark, the birthplace of Faraday, only 13 pupils did Physics A Level, and only 3.5% of those who did GCSEs in 2006 were entered for Physics A-Level two years later. And with figures

like that it is no wonder that if this government goes ahead – as I believe they should – with a programme to build nuclear power stations, we – the country of Cockcroft & Walton and Rutherford & Thomson – will almost certainly have to recruit from France or Korea. With so little interest in schools it is no wonder that we have seen a 26% decline in engineering and technical graduates in the last few years, the closure of 80 science and engineering departments at universities and colleges at a time of massive expansion in higher education. And if we want to cure this malaise then we must do several things. We must stop the absurd pretence that all subjects are academically equal, and that an A in Media Studies is as meritorious as an A in Physics; indeed, we should consider funding premium for the crunchy subjects, especially sciences. We need to get the message across that a science graduate will earn, on average 30 per cent more than a humanities graduate; and we should be demonstrating the huge opportunities for those who are skilled in science and technology to help transform our city and improve the lives of Londoners.

We are making investments now in London on a scale not seen for 50 years, and whoever is in power it is absolutely vital that those investments go ahead. Next year the Underground will be 150 years old, and for the first time in its history we will be putting air conditioning on the tube. We will be doing the sub-surface lines = Metropolitan, District, Circle, but you still risk an armpit sniffing hell on the deep lines, and when people notice the difference there will be overwhelming passenger pressure for a miniaturised air conditioning system that can fit on the deep tunnels too.

We will be going ahead with Crossrail, the biggest infrastructure project in Europe, adding 10% to London's rail capacity, generating 13,000 jobs and necessitating the creation of a tunnelling academy. Take that together with the Thames Tideway tunnel, a gigantic Cloaca Maxima and the Olympics. These engineering projects, will deliver jobs and growth now. This will enable us to boast that we are the new Victorians and to say to our sons and daughters for the first time in a generation that they have a future as engineers. But I want to go further, and yes, I want London to lead the world in the development of the low-carbon economy, and we are kick-starting a £100 million programme on averting climate change – not just because we want to save the planet, but also because we want to save people money on their fuel bills and create jobs. The low-carbon economy is one of the few sectors showing growth in spite of the downturn and we estimate that there are ten to fifteen thousand jobs and three to four billion pounds of turnover that could be added to London's economy,

with hard-headed practical programmes such as retrofitting – that is lagging. Britain may be lagging in science but we will never be lagging in lagging. We have started on 42 GLA buildings, and we estimate that we will be saving £1mn a year in fuel and other costs meaning a payback after only 8 years; and that is the kind of model that we want to spread across Whitehall. And I want London to be the electric capital of Europe with 100,000 electric vehicles on the streets by 2020.

- 25,000 charging posts by 2015

- 1000 GLA vehicles to go electric by 2015.

I have a very simple vision for London- a cleaner, greener, safer city, with happy pelotons of cyclists scudding through streets dappled with sunlight passing through the canopy of leaves of some of the thousands of trees we plant and our wonderful urban realm projects that do away with the railings, And a bike lane scheme and electric cars and over the brow of the hill, by 2011, there will be a new prototype bus for London; and it won't just have the hop-on-hop-off feature that was. It will be lighter, greener, cleaner and it will help to solve our emissions problems and the insanity of using diesel.

We need scientists. We need British scientists to solve these problems and as a technological optimist

I believe the opportunities are huge.

I will always be open to your suggestions and I will encourage you by any means that is open to the Mayor of London

Thank you