Speech: Driving the future of the car industry

Ladies and gentlemen,

I'm very sorry that the Business Secretary cannot be with us here today (15 May 2019) but he has sadly had to attend to urgent business.

However, as it's still early I thought I'd ease you into today's conference with a story from his fine constituency of Tunbridge Wells.

Early one morning in 1895, a Peugeot was winding its way through the roads near Tunbridge Wells. Like me, the driver was a local politician.

David Salomons – the town's mayor – was on his way to England's first-ever motor show, which he had organised.

But unlike me, I can assure you, Salomons was travelling at 3 times the legal speed limit. Pushing his Peugeot 'vis-à-vis' to a heady 12 miles per hour, with only his status as mayor protecting him from prosecution.

Salomons' 'Horseless Carriage Exhibition' was the culmination of weeks of work. Organising the event, he was contacted by charlatans promising everything from perpetual motion machines to power which would cost nothing.

But he also received scores of letters from ordinary people excited about how the motor car could change their lives. From doctors, who could replace their horses, coachman and stalls with a single automobile that they could start in minutes; to traders who could drive to the station themselves, catch an earlier train and spend more time doing business.

The public reaction to the exhibition was astounding, with thousands descending upon Tunbridge Wells to see just 5 vehicles in action.

'The Autocar' called the event "the dawn of a new era in vehicular propulsion."

And today, we are all back in 1895, at the beginning of another 'new era' which will transform how we live our lives.

Like Salomons, we need to be visionaries, perceiving this change before it happens. But we also need to take action, by investing in the new technologies which will power and control the vehicles of tomorrow.

In his early 20s, Salomons built his own electric tricycle, abandoning the project as he couldn't get the battery to recharge. I can't help but wonder what he would make of the innovations represented in the room today.

In the audience this morning is Ralf Speth, the CEO of Jaguar Land-Rover. The Jaguar I-pace – an electric car designed and engineered in the UK, was voted

not just European Car of Year but World Car of the Year.

Or take CrowdCharge, whose CEO Mike Potter is here today. A company connecting electric vehicles to create a UK-wide mega battery by storing energy when renewables are at peak production; and providing energy to the grid during peak demand.

But this is just the beginning.

By 2040, demand for UK-produced batteries is expected to be 50 times what it is today. Is there any other industry on earth which could see demand explode at such a rate?

Yet to turn new demand into new jobs we need to be able to mass produce these batteries. And for that we need a Gigafactory.

My message to all of you is that the UK is the perfect place to set up shop.

The major breakthrough which made rechargeable lithium-ion batteries possible was made at Oxford University.

We are home both to Europe's most productive automotive workforce and Europe's best-selling electric vehicle, the Nissan Leaf, which is made in Sunderland.

And just last month, a report by the Advanced Propulsion Centre recognised that initiatives like the Faraday Battery Challenge and UK Battery Industrialisation Centre have de-risked a range of R&D projects.

Today, I'm delighted to announce 25 million pounds to back prototypes for zero emission vehicles, by supporting early stage projects like a quick-charging electric motorbike, drawing on the expertise of Williams Advanced Engineering.

But we also need to scale-up these new technologies.

The Advanced Propulsion Centre is already helping so many companies here today bring electric technologies to market.

From Jaguar Land-Rover adapting their engine production facilities to make Electric Drive Units; to Ford producing a Plug-In Hybrid Electric version of their Transit Custom van.

And today, I can also announce a further 25 million pounds for the next round of Advanced Propulsion Centre projects, to further accelerate the shift to low carbon vehicles.

Of course, in the coming years the vehicles on our roads will not just be clean but connected too.

While I know there are doubters, personally I am optimistic. In 2017 I was on the Bill Committee for the Electric and Autonomous Vehicles Act. I have seen how the theoretical concepts we were discussing then are now already becoming

a reality.

Yesterday, you heard from Oxbotica's Graeme Smith. Last November, the Business Secretary became the first person outside the Oxbotica team to try a self-driving vehicle on the UK's streets.

While some, I'm sure, would love the idea of Cabinet ministers acting as 'crash-test-dummies' for new technology, you'll be glad to hear he emerged unscathed!

Later this year, backed by our Industrial Strategy, Oxbotica will be leading an end-to-end journey from London to Oxford, which will be at least as complex as anything attempted anywhere else in the world.

And as we move towards full automation, the prize on offer is astounding.

By removing collisions caused by human error, self-driving vehicles could save well over a million lives worldwide, every single year, as well as opening up travel to the disabled, the elderly or those simply too young to drive.

Yet to enjoy these benefits, we will need to know, beyond doubt, that these vehicles are safe and secure. This, itself, is an opportunity.

With the motor car, it was America that created the safety system the world still uses today.

The first crash-test was conducted by General Motors, windscreen wipers were invented by a woman from Alabama, and turning indicators were invented by a Hollywood Actress.

Rear-view mirrors were first used by a driver in the inaugural Indy 500 race, which he went on to win.

This time, however, things can be different.

We want to create the world's first safety and security assurance process for self-driving vehicles right here in the UK.

Alongside the right legislation, this would allow us to reduce the responsibilities currently placed on a safety driver, and – in time – remove the need for one altogether.

No nation in the world has done this yet but, within a few years, we believe that the UK could have a robust safety and security assurance process in place.

Toyota has said that to make self-driving vehicles safe, you would need to test them for around 9 billion miles. That's the equivalent of driving around the world 350,000 times.

As that would be impossible on actual roads, we'll need new approaches to testing these vehicles including through virtual simulations, and a key

aspect of this assurance process will be cyber security, an area where the UK excels.

So I’m delighted to announce that next month, we will launch a competition to develop a state-of-the-art cyber testing facility here in the UK.

This secure facility will allow researchers, start-ups and big manufacturers to push their vehicles’ software to the very limits of what it can handle.

They will subject self-driving vehicles to a range of cyber-attacks on test-tracks and in virtual environments, ensuring that vehicles’ communication with 5G networks, smart traffic lights and other self-driving vehicles remains completely secure.

The facility will give the UK a head-start in an automotive cyber security market which – globally – will soon be worth tens of billions of pounds.

It will ensure that years from now, the first passengers can get in these vehicles confident in the knowledge that they are safe.

Ladies and gentlemen.

Like David Salomons, we need the vision to see beyond what exists right now, to what could exist in 10, 20 or 30 years’ time.

From the opportunity for the UK to lead the world in producing electric batteries; to the potential of self-driving vehicles to save millions of lives worldwide.

But we also need the courage to act. And put in place the foundations on which this future will be built.

Ultimately, that will mean different sectors, companies and countries uniting around a common goal and creating the future we all want to see.

Thank you.