

# INSIDER

QUARTERLY INSIGHT ON OXFORDSHIRE'S SCIENCE & TECH SECTORS

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OXFORD  
SPACE  
SYSTEMS

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# OUT OF THIS WORLD!



## HOW OXFORDSHIRE'S SPACE SECTOR IS PROVING TO BE 'OUT OF THIS WORLD'

With a vision of 'a world empowered by actionable information from space' and a mission to 'deliver effective satellite-based solutions for global challenges' – the Harwell Campus-based Open Cosmos ticks many of the boxes underlining Oxfordshire's global space credentials, as highlighted in autumn 2017's science and innovation audit.

Part of a space cluster that employs 950 people working across 89 academic, private and public space-related organisations at Harwell Campus (pictured), Open Cosmos is without doubt one of its stand-out players and has made quite the impact since launching in July 2015, whilst its co-founder and current CEO was at the prestigious Entrepreneur First incubator programme.

Rafael Jordá Siquier led the Open Cosmos team to deliver its first satellite mission within eight months and continues to support a growing team of coders, engineers and business professionals to 'democratise' access to space.

Open Cosmos are a fine example of how emerging science and technology-driven companies continue to flourish within Oxfordshire and in particular, those representing the space sector.

Findings from the Oxfordshire Transformative Technologies Alliance's science and innovation report said that the county – and, in-turn, the UK – can become a 'global leader' through the space-led data applications sector, as well as digital health, connected

and autonomous vehicles and technologies underpinning quantum computing.

If fully-utilised, the audit suggested the technologies could be worth in the region of £180 billion to the UK economy by 2030 – around six per cent of the global economy in these technologies. The UK space industry's target is an ambitious 10% of the global space market by 2030 – this in itself could be worth £40bn and see 100,000 jobs created for the UK.

What is particularly impressive is Open Cosmos' desire to open-up the space market to smaller companies looking to make their way in the sector.

Currently, to send a satellite into orbit could cost millions, however, in October last year, working in partnership with the European Space Agency (ESA), Open Cosmos launched 'Call to Orbit' – a competition supporting a range of organisations to put their technologies and service-oriented applications into orbit.

Through the project, they are offering missions that start from £500,000 and can

be delivered in under 12 months – this after signing a \$2 million 'Pioneer' contract with the ESA.

'Call to Orbit' winners are set to be awarded access to Open Cosmos' 'orbit readiness' programme for free, allowing projects to go from concept to 'orbit readiness' in just three months. It's hoped a variety of space applications and technologies will take advantage of the opportunity, from those working on remote sensing projects, through to telecommunication and navigation-based projects.

Open Cosmos believes 'Call To Orbit' will ultimately reduce the amount of time and money needed to get a satellite-based business off the ground, particularly companies developing new technologies or validating the commercial potential of a new application.

Already a key player at Harwell Campus – undoubtedly Open Cosmos is a name to watch on a global scale, as Oxfordshire's space cluster continues to build a name for itself right across the world.



## TAKING OXFORDSHIRE'S GLOBAL OPPORTUNITIES TO WESTMINSTER

A look back on our first House of Commons economic briefing



**Oxfordshire is 'very much open for business' was the strong message we took to Central London on 11 September, as we staged our first-ever House of Commons economic briefing event.**



**September's event has directly led to follow-up discussions with investors, government departments and foreign embassies.**

The first of four economic briefings lined-up over the coming months saw OxLEP 'take the Oxfordshire economy' to a national stage.

Hosted by North Oxfordshire MP – Victoria Prentis – on behalf of all Oxfordshire MPs, the briefing was led by Professor Paul Newman of the University of Oxford, leader of the Oxford Robotics Institute and founder of its spin-out, Oxbotica – a pioneering autonomous vehicle developer based at Culham Science Centre.

The economic briefings will see ground-breaking Oxfordshire-based speakers

discuss the four transformative technologies highlighted in 2017's Science and Innovation Audit for the county.

Oxbotica has promised trials of their autonomous vehicles on the M40 between Oxford and London during 2019.

Around 65 guests attended the exclusive event, including investors, foreign embassy representatives and companies working in AI and autonomous vehicle technologies.

Each briefing will highlight a transformative technology and how it could bring major global opportunities to Oxfordshire.

The county's Science and Innovation Audit has suggested that Autonomous Vehicles, Space and Satellites, Quantum Computing and Digital Health has the potential to add £180billion GVA growth to the UK economy by 2030.

And, with world-class research and development capabilities that benefits both the regional and national economy, OxLEP emphasised that Oxfordshire is a key driver of 'UK PLC'.





Nigel Tipple – chief executive of OxLEP – said: "The key message we took to our first House of Commons briefing was that we are very much open for business.

"With a GVA of £23 billion per annum, we are one of only three net County contributors to the Exchequer and – being home to two of the UK's 13 'unicorn' (\$1 billion) tech businesses in Oxford Nanopore and the Milton Park-based Immunocore – we have a track record of nurturing genuine innovation and taking it to a world-stage.

"Oxfordshire is recognised globally as a place that can support innovation-led growth, greater productivity and major 'place potential' as we move towards an ever-increasing internationally-focussed economy."



**FOLLOWING THE 15 JANUARY HOUSE OF COMMONS BRIEFING ON SPACE-LED DATA APPLICATIONS, THE NEXT BREAKFAST EVENT IS SCHEDULED FOR 19 MARCH WITH A FOCUS ON DIGITAL HEALTH – IT WILL BE HOSTED BY ANNELIESE DODDS MP.**

To register interest for future briefings please email [info@teamtala.com](mailto:info@teamtala.com)

# INSIDER STATS

Just how is Oxfordshire leading the way? As we moved towards an increasingly 'global-facing' economy, our genuine world-class assets take-on even greater significance.

**WHAT DO WE CURRENTLY OFFER AS AN ECONOMY:**

- £23bn GVA per year, one of just three net County contributors to the exchequer
- 3.9% GVA growth in nominal terms year-on-year since 2016
- 51% of working age population educated to degree level or above
- 2.6% unemployment rate in working age population
- Home to the number one 2018 Times Higher Education's globally-ranked university
- £600m: The largest fund for university spin outs in Europe via Oxford Sciences Innovation
- Track record of growing businesses with market values of over \$1bn
- The number one concentration of science research facilities in Western Europe
- 950 people working across 89 academic, private and public space-related organisations at Harwell Campus
- A visitor economy worth £2.17 billion, welcoming 30 million visitors each year



## NEWS IN BRIEF

To receive regular news updates from OxLEP, please email [robert.panting@oxfordshirelep.com](mailto:robert.panting@oxfordshirelep.com)

**HARWELL CAMPUS SPACE CLUSTER GROWS CREATING 150 JOBS**

Harwell Campus announced in December that the Harwell Space Cluster grew by 19% over the last 12 months. A total of 150 new posts have been filled as the Cluster has grown from 80 organisations in December 2017 to 89 in December last month.

**CHILTERN RAILWAYS MARKS THIRD ANNIVERSARY OF BICESTER TO OXFORD PARKWAY LINE**

In October, Chiltern Railways announced that seven million journeys have been made on the new line with 2.5 million passengers travelling through Oxford Parkway. Bicester Village station also seen 4.5 million passengers make journeys through the station during the same timeframe.

**OXLEP HEADS TO LONDON TO PROMOTE INVESTMENT OPPORTUNITIES ACROSS 'ARC'**

In October, OxLEP took part in a major two-day investment and property event – MIPIMUK – promoting investment opportunities across the emerging Oxford-Cambridge Arc.

**A UK FIRST: UTC OXFORDSHIRE OPENS FIRST CRYOGENICS LABORATORY**

The Didcot-based UTC Oxfordshire officially opened a state-of-the-art cryogenics laboratory in October, in what's believed to be a first for a UK school. It is set to be used by students to enhance their employer-led projects and science curriculum.

**CONNECTED AND AUTONOMOUS VEHICLES SET TO 'REVOLUTIONISE THE WAY PEOPLE AND GOODS MOVE'**

In November, the Business and Energy Secretary Greg Clark visited the Culham Science Centre-based Oxbotica to announce the UK government has committed £25m towards three autonomous vehicle projects, bringing the introduction of self-driving cars to Britain's roads ever closer.

**UNIVERSITY OF OXFORD SECURES £17.5 MILLION TO LEAD NATIONAL AI HEALTHCARE PROGRAMMES**

Innovate UK have committed to investing more than £17.5 million in the University of Oxford to develop artificial intelligence (AI) healthcare applications to benefit patients.

**OXFORDSHIRE EXCEEDS TARGET FOR VISITOR SPEND**

A report commissioned by Experience Oxfordshire showed in November a significant increase in visitor spend in 2017. The study said the county had an impressive increase in spend of 6% taking the value of the visitor economy to £2.17 billion, exceeding the target of 5% growth year-on-year.

# CHIEF EXECUTIVE'S UPDATE

With 2018 now wrapped-up, it's time to look back over an exciting last 12 months, as well as what we could expect from 2019.

At OxLEP, our vision positions Oxfordshire as: 'a vibrant, sustainable, inclusive, world-leading economy – driven by innovation, enterprise and research excellence'. I think it's safe to say throughout the past year, countless successes have reiterated the contribution the county has made towards 'UK PLC', as well as our ongoing potential.

In February, a report released by Arcadis revealed Oxford as the second-best city in the UK for 'growth potential', highlighting the significance of the city's economy and the 'high-calibre' proposition it offers to businesses and investors.

February was also the month in which the Housing and Growth Deal was approved by the Oxfordshire Growth Board, effectively rubberstamping £215million of Government funding over a five-year period.

Last year also saw our Local Industrial Strategy (LIS) begin to take shape. Our LIS responds to the challenge set by Government's own national Industrial Strategy – and focuses on the county's key science and innovation strengths.

Alongside the development of this vital strategy, we continued to work with partners – including other LEPs, local authorities and the private sector – to explore opportunities emerging from the Oxford-Cambridge Arc.

The National Infrastructure Commission reported that if fully-utilised, the Arc could be a major driver behind the UK economy and boost productivity through our knowledge-intensive cluster, competitive both nationally and globally.

It perhaps came as no surprise in July when we announced that Oxfordshire remains one of the 'most attractive locations anywhere in the UK' for international investment.

We revealed that – according to Department for International Trade statistics – 1,300 new jobs were created during 2017/2018 thanks to Foreign Direct Investment, a 122% lift on 2016/2017 figures, with the county's emerging retail sector, including Westgate Oxford and Bicester Village, behind much of the rise.

Throughout 2018, we continued to give Oxfordshire's four transformative technologies,

namely; digital health, space-led data applications, technologies underpinning quantum computing and connected and autonomous vehicles, the national profile it warrants.

In September, we took the latter technology to Westminster for our first-ever House of Commons economic briefing, hosted by Victoria Prentis MP. There, an audience made-up of key national and international stakeholders saw at first-hand the scale of first-class research and development taking place in Oxfordshire – including a key note speech from Paul Newman of Oxbotica.

If fully-utilised, the county's Science and Innovation Audit suggested the four technologies could be worth in the region of £180billion to the UK economy by 2030 – around six per cent of the global economy in these technologies.

Throughout 2018, we also maintained our dedication to help start-up, growing and innovative businesses to flourish, as well as remaining committed to facilitating links between business and education.

We've seen several key government-funded infrastructure projects take shape too.

The City Deal-funded Harwell Link Road officially opened back in March, the Local Growth Fund-backed Agritech Innovation Skills Centre is nearing completion, whilst a major test facility for connected and autonomous vehicles – supported by £2m-worth of Local Growth Fund support – is being built at Culham Science Centre.

Of course – going into 2019, one subject that will continue to be at the forefront of everybody's minds will be Brexit.

As discussions with the European Union continue, many will be nervous and unsure as to what will happen next. However, one message we aim to get across is whatever 'type' of Brexit is eventually agreed; Oxfordshire's economy is agile and high-performing – one of just three counties in the UK offering a net contribution to the exchequer, with a GVA of £23bn a year.

Our business community can rise to the potential challenges – in particular, our SMEs.

The latest Office for National Statistics figures for Oxfordshire showed that almost half (49.3 per cent) of the 2,790 new businesses launched during 2011 were still in operation in 2016 – this compared to a



national average of 44.1 per cent. This, alongside the creation of 43,000 new jobs between 2011/12 and 2015/16, many of which are generated by small businesses.

It is this 'entrepreneurial attitude' coupled with our 'asset-rich' economy that enables Oxfordshire to be recognised as world-leaders in many key sectors.

Our research and development strengths are genuinely world-class, so it's unlikely to be of any surprise that we boast the number one-ranked Times Higher Education World University for a third year running. The University of Oxford.

Will they make it a fourth year in a row in 2019?

It's not just higher education that's key in Oxfordshire. Ensuring business and education work closely together is also hugely important too, promoting the benefits of apprenticeships and creating meaningful work experience placements for young people.

This month (22 January) will see our 10th Careers Fest take place, helping to facilitate those conversations between dozens of businesses and almost 2,000 young people. We will also showcase the county's top apprentices and those running excellent training programmes at the Oxfordshire Apprenticeship Awards in April.

We will continue to take 'Oxfordshire to Westminster' with further House of Commons economic briefings scheduled for mid-January, March and the summer. We will also engage our SMEs through our popular Q&A debates – the next of which takes place on 19 February, entitled 'Brexit and the Oxfordshire Economy'.

One thing we can count on as we head into the new year is that 2019 will present Oxfordshire with many major opportunities on local, national and international scales – and these need to be capitalised on.

I wish you all a successful 2019.

**Nigel Tipple**  
Chief Executive

**If you would like to take a closer look at what is going on in Oxfordshire, please contact our Executive Assistant Sadie Patamia and we can arrange a visit. Email: [sadie.patamia@oxfordshirelep.com](mailto:sadie.patamia@oxfordshirelep.com).**

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