

INSIDER

QUARTERLY INSIGHT ON OXFORDSHIRE'S SCIENCE & TECH SECTORS

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INSIDER STATS:

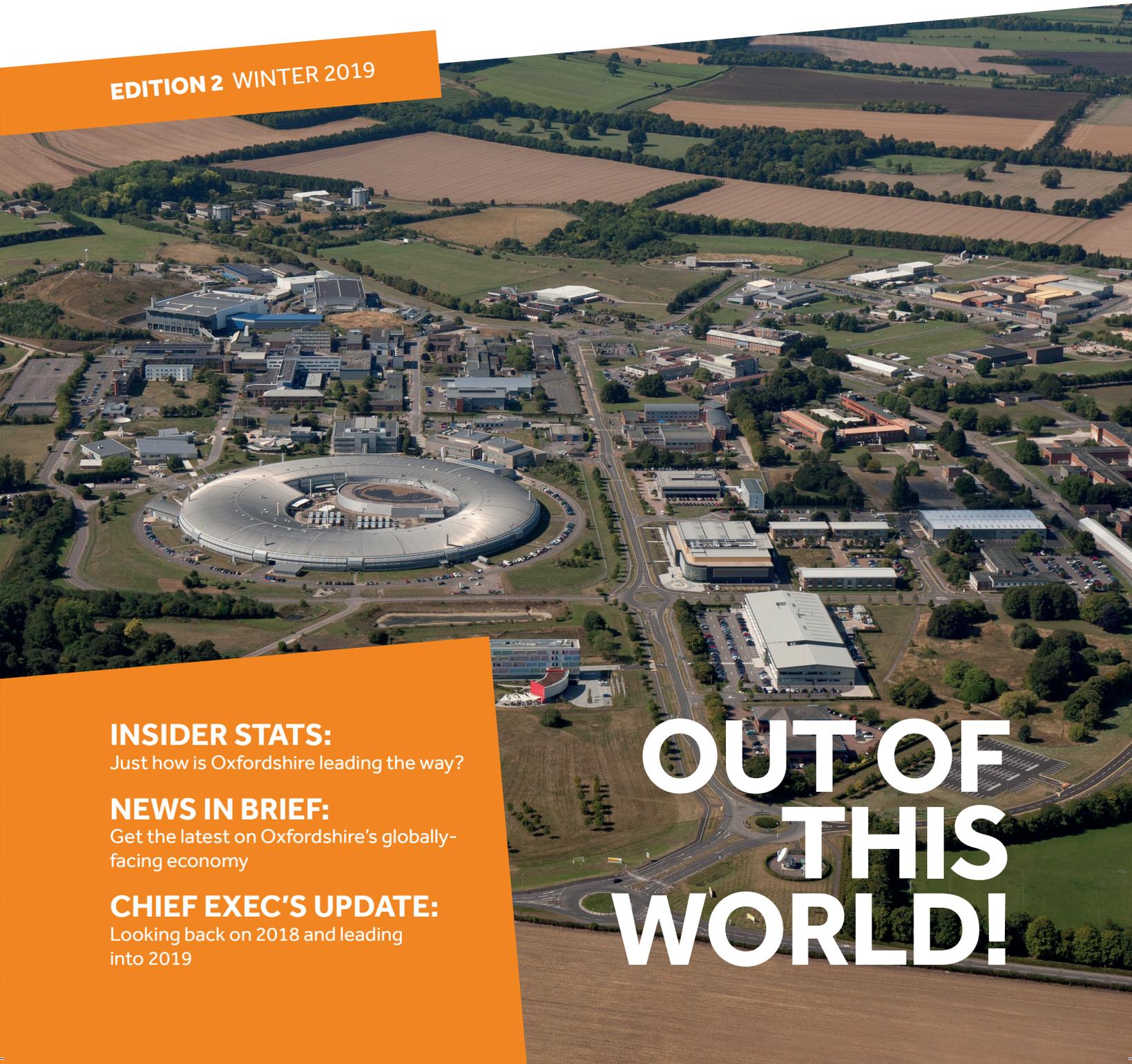
Just how is Oxfordshire leading the way?

NEWS IN BRIEF:

Get the latest on Oxfordshire's globally-facing economy

CHIEF EXEC'S UPDATE:

Looking back on 2018 and leading into 2019



OUT OF THIS WORLD!

OXFORDSHIRE BUSINESS SHOWCASE

OXFORD
SPACE
SYSTEMS

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 (cover photo), 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.



Pictured: Jeremy Long - Chair, OxLEP

TAKING OXFORDSHIRE'S GLOBAL OPPORTUNITIES TO WESTMINSTER

A look back on our second House of Commons economic briefing





The Westminster Briefings have directly-led to follow-up discussions with investors, government departments and foreign embassies.

Oxfordshire Local Enterprise Partnership (OxLEP) staged its second House of Commons economic briefing on Tuesday 15 January, focused on space-led data applications and hosted by Wantage MP Ed Vaizey, on behalf of all Oxfordshire MPs.

This series of briefings sees OxLEP 'taking the Oxfordshire economy' to a national stage, highlighting how the four transformative technologies identified in the county's 2017 Science and Innovation Audit, alongside

Oxfordshire's world-class research and development capabilities, could bring major global opportunities boosting the UK economy.

Many of Oxfordshire's internationally-competitive space assets were highlighted, including keynote discussions led by Mike Lawton, CEO and Founder of Oxford Space Systems, and Tom Page, Head of Public Affairs for Culham Science Centre-based Reaction Engines.

This exclusive event was attended by more than 60 people, including investors, foreign embassy representatives and companies working in space and satellite technologies.

OxLEP's next House of Commons breakfast briefing will take place on 19 March, with a focus on digital health. A briefing on technologies underpinning quantum computing is set for May this year with both events taking place at Westminster.

“The key message we will continue to take to Westminster is that Oxfordshire is 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. We also have a track record of nurturing genuine innovation and taking it to a world-stage – in particular, through the space sector, given that we are home to the number one concentration of science research facilities in Western Europe.

“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.”

Nigel Tipple, Chief Executive of OxLEP

“This revolution in the space industry and the unlocking of the ability to do business on orbit is coming from a range of military and civilian sources. The official space agencies will typically tell you it takes 7 to 10 years to get a new material and product concept into space. However, in response to the demand we're getting from clients in the US, Europe and Asia, we have developed proprietary high strain composites and membranes that underpin a range of products, plus achieved a sector record of getting a new product concept on orbit in under 30 months. That pace of development will only accelerate further.”

Mike Lawton, CEO of Oxford Space Systems

“One of the things that has kept me sane over the past two and a half years is the privilege of representing Harwell and the extraordinary space sector that I have seen grow up around me.

“The UK Government has played a key role in attracting the European Space Agency here and setting up the Satellite Applications Catapult, and also investing over many years in the high grade science facilities in the area, such as the Diamond Light Synchrotron.”

The Rt Hon Ed Vaizey MP

“Culham Science Centre offers us a secure site with good facilities and plenty of scientific expertise on tap. It offers credibility to potential investors and partners, and good links to the supply chain and other clusters, especially Harwell.”

Tom Page, Head of Public Affairs for Reaction Engines



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 ANNEIESE DODDS MP.

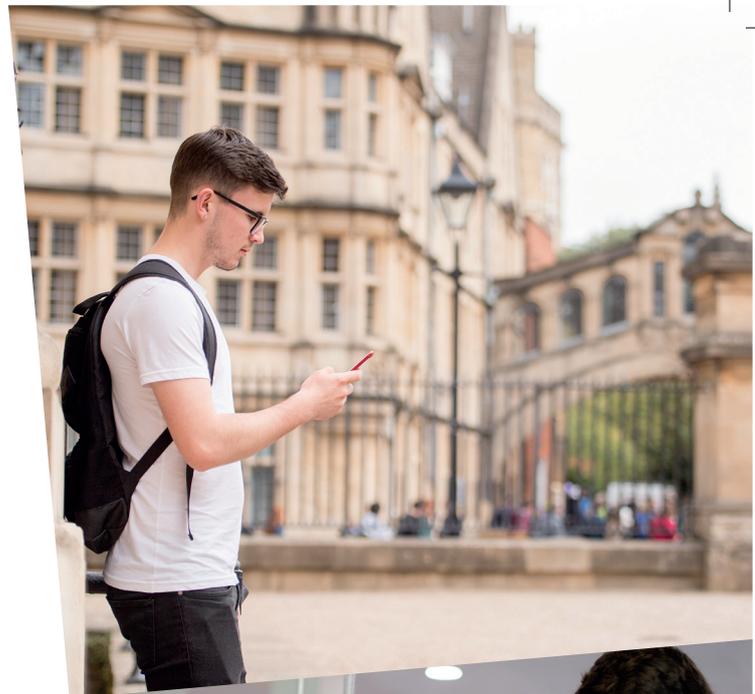
To register interest for future briefings please email info@teamtala.com

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

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.

For further information about investment opportunities please contact
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European Union
European Regional
Development Fund



HM Government



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