INSIDER
QUARTERLY INSIGHT ON OXFORDSHIRE’S SCIENCE & TECH SECTORS

DIGITAL HEALTH: THE DREAMING SPIRES DREAMS BIG TO TRANSFORM HEALTHCARE

EDITION 3  SPRING 2019

INSIDER STATS:
Can Oxfordshire lead the way for the UK, post-Brexit?

NEWS IN BRIEF:
PM backs LEPs, investment secures further Harwell development and ‘automotive resort’ set for Oxfordshire

CHIEF EXEC’S UPDATE:
Why collaboration is key for us all
Imagine a healthcare system that’s driven by state-of-the-art artificial intelligence and big data, fully-utilised to predict with pinpoint accuracy – and immediacy – a patient’s diagnosis, followed by a programme of tailored treatment.

Is this complete ‘pie in the sky’ or a genuine reality? And if it is a reality, are we decades away from seeing this medical revolution – or will we be waiting a matter of years?

What is for certain is that digital technologies have the capability to transform healthcare as we know it – whether that is in terms of prevention, diagnosis, intervention or ongoing monitoring.

Oxfordshire’s strengths in digital health will play a significant role in driving forward change in healthcare as we know it and with that comes opportunities for the UK as we move towards a more globally-facing economy.

Digital health, together with the three other transformative technologies that were identified in the Oxfordshire Transformative Technologies Alliance’s 2017 Science and Innovation Audit (SIA) – namely connected and autonomous vehicles, space-led data and quantum computing – has the collective ability to generate in the region of £180Bn to the UK economy by 2030.

This is around six per cent of the global economy in these four technologies.

Thanks to the development of digital health apps and supporting analytics, the UK’s digital health market can expect significant growth, according to the SIA.

Globally-significant digital health companies, including Sensyne Health are benefiting from a cluster of businesses and academics that has – and continues to – attract developers, clinicians, entrepreneurs, engineers and designers.

And of course, the University of Oxford boasts some of the most-decorated health researchers anywhere in the world.

In January – evidence of this collaborative working saw Sensyne Health and the University of Oxford’s Big Data Institute announce their plans to establish a world-leading research alliance using data science and clinical AI for the patient-centred management and treatment of chronic disease.

The partnership sees the creation of unique new datasets – in addition to those already available for analysis through Sensyne Health – and will build on its existing capability in clinical artificial intelligence.

Both organisations hope to develop and evaluate the use of clinical artificial intelligence and digital technology to understand the complexities of chronic disease.

As well as being a sector that can genuinely bring about change that can positively affect people’s health and wellbeing, the SIA has identified a sector that has genuine growth potential.

When the SIA was published two years ago, the UK digital health market was projected to grow to £2.9bn by 2018.

The SIA believes that Oxfordshire – through its ability to utilise an end-to-end patient pathway and test-bed system – can speed-up digital health innovation and rollout, better evidencing health benefits.

It says that through these advances, nationally the digital health sector could see the creation of around 300,000 new jobs (53,000 in Oxfordshire) by 2030 and potentially bring about up to £1.8bn per year in savings to the NHS.

So – should, and perhaps more accurately when, this seismic shift in healthcare happens, Oxfordshire will undoubtedly be at the centre of it.
OUT OF THIS WORLD!

A look back on our second House of Commons economic briefing, focussing on Oxfordshire’s strengths in space and satellites.
Dozens of national and international representatives joined OxLEP for its second House of Commons economic briefing on 15 January, which highlighted Oxfordshire’s key strengths in space and satellites and discussed how the county could drive forward the sector for the UK economy.

Hosted by Wantage MP Ed Vaizey, the event was part of a series of briefings that sees OxLEP ‘taking the Oxfordshire economy’ to a national stage, highlighting how four transformative technologies – as identified in the county’s 2017 Science and Innovation Audit – coupled with the county’s world-class research and development capabilities, could bring major global opportunities to the UK, boosting the national economy in the process.

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

The 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 briefing will take place on 19 March, with a focus on digital health – a further briefing on technologies underpinning quantum computing is set for 21 May.

The key message we will continue to take to Westminster is that Oxfordshire is very much open for business. With a GVA of £23Bn 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 is coming from a range of military and civilian sources.

The official space agencies will typically tell you it takes seven to 10 years to get 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 in 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 (Campus) 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 19 MARCH HOUSE OF COMMONS BRIEFING ON DIGITAL HEALTH, THE NEXT BREAKFAST EVENT IS SCHEDULED FOR 21 MAY WITH A FOCUS ON QUANTUM COMPUTING – IT WILL BE HOSTED BY LAYLA MORAN MP.

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

INSIDER HAS THE LATEST ECONOMIC STATISTICS FOR THE COUNTY:

- £23bn GVA per year, one of just three net County contributors to the exchequer
- A significant player in the Oxford-Cambridge Arc, which contributes over £107bn GVA per year, with potential to do more
- Around 50,000 new jobs have been created in Oxfordshire between 2011/12 and 2016/17
- 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
- The number one concentration of science research facilities in Western Europe
- The UK five-year survival rate for businesses born in 2011 and still active in 2016 was 44.1%, Oxfordshire averaged 49.3%
- £180bn global potential for the UK economy through the four transformative technologies identified in our Science and Innovation Audit

NEWS IN BRIEF

BUSINESS LEADERS DISCUSS UK INDUSTRIAL STRATEGY WITH LORD HENLEY AT OXLEP ROUNDTABLE

Key figures from across Oxfordshire joined a high-profile member of the House of Lords on 1 February for a business roundtable discussion.

Lord Henley – the Parliamentary Under Secretary of State for the Department of Business, Energy and Industrial Strategy – met with around a dozen business leaders at the event, held at Milton Park Innovation Centre, near Didcot.

He visited the Milton Park-based Immunocore, one of the world’s leading biotechnology companies, followed by a trip to Oxford BioMedica.

PRIME MINISTER PRAISES ‘UNIQUE INSIGHT AND EXPERIENCE’ OF LEPS

The Prime Minister Theresa May met with business leaders from England’s Local Enterprise Partnerships on 31 January to discuss the Local Industrial Strategy progress and understand how LEPS are tackling the grand challenges and five foundations of the Government’s Industrial Strategy.

OxLEP Chair Jeremy Long was in attendance and discussed the Oxfordshire Local Industrial Strategy which aims to place the county at the forefront of a future globally-facing UK economy, positioning Oxfordshire as one of the top-three global innovation ‘ecosystems’, highlighting the county’s world-leading science and technology capabilities.

OXFORD UNIVERSITY SIGNS UNIVERSAL FLU VACCINE DEVELOPMENT DEAL WITH US START-UP BWV

Development of a vaccine candidate with potential to save millions worldwide will be accelerated in a commercialisation deal with Blue Water Vaccines.

Oxford University – through its innovation arm Oxford University Innovation (OUI) – has entered into an option agreement for a universal influenza vaccine with US-based start-up Blue Water Vaccines (BWV), which is raising $15m to support development of the flu shot.

A POST-BREXIT ECONOMY: OXFORDSHIRE BUSINESSES REMAIN ‘UNCLEAR’ ON WHAT EU WITHDRAWAL WILL BRING

Just weeks ahead of the UK’s scheduled European Union withdrawal, members of one of Oxfordshire’s best-known business networking groups appeared unclear as to what Brexit might mean to them.

A survey – jointly-led by the Oxfordshire Local Enterprise Partnership (OxLEP) and B4’s ‘Oxfordshire Voice’ – saw members of B4 respond to a series of Brexit-related statements.

Of those surveyed, just 13 per cent of respondents felt that their business would be better-off as a direct consequence of the UK’s EU withdrawal, with over two-thirds (71 per cent) disagreeing, saying that the move would not benefit their business.

BICESTER HERITAGE TO BECOME ‘AUTOMOTIVE RESORT’

Bicester Heritage has revealed plans for an ambitious motoring resort that it aims to make one of the UK’s top tourist attractions.

Proposed to be constructed on 444 acres of land – which the existing Bicester Heritage site currently makes-up just five per cent of – ‘Bicester Motion’ is set to offer leisure, culture and tourism experiences including plans for hotel rooms, conference halls, private car storage, lodging for visitors and driving attractions.

To receive regular news updates from OxLEP, please email robert.panting@oxfordshirelep.com

INSIDER STATS

With the UK now just weeks away from its scheduled withdrawal from the European Union, global economic strengths and assets have arguably never been more important to the UK economy.

So, what can Oxfordshire bring to an internationally-facing UK economy?

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It is undeniable that Oxfordshire presents significant potential for the UK economy, particularly in the context of a post-Brexit economy – but to maximise this potential, collaborative working across all stakeholders, is absolutely essential.

Assets such as the University of Oxford and its world-class research programmes, Harwell Campus, Culham Science Centre and a thriving automotive sector not only have worldwide reach but are already internationally-established too.

And they are set to become even more vital – not just for Oxfordshire, but ‘UK PLC’ – as we move towards a more ‘globally-facing’ economy.

In addition to these significant international assets, we are world-leaders in the transformative technologies of; digital health, space-led data applications, connected and autonomous vehicles and technologies underpinning quantum computing.

A science and innovation audit – authored by the Oxfordshire Transformative Technologies Alliance in the autumn of 2017 – suggested that, if fully-utilised, these four technologies alone could potentially add £180bn GVA growth to the UK economy by 2030.

It’s a story that we feel needs to be told as regularly as possible to both national and international audiences.

As a Local Enterprise Partnership, we have already ‘taken the Oxfordshire economy’ to Westminster on two occasions over the past six months, highlighting both the capabilities and opportunities these technologies have to offer.

The Oxford-Cambridge Arc also offers a once-in-a-generation opportunity to the UK economy through leveraging ALL the economic strengths across that region.

Collaborative working between Local Enterprise Partnerships, universities and local authorities has allowed us to more effectively highlight the potential from this emerging economic region, which currently contributes around £107bn GVA each year, with potential to do more.

Success can be accelerated if we position the Arc’s potential clearly in the minds of global investors – but again, this can only be done effectively by bringing everyone together, including our key businesses, government, local authorities and academia.

Collaborative working across all areas of our work needs to be met by ambition too.

Oxfordshire’s Local Industrial Strategy directly responds to the UK Industrial Strategy – launched by the Government in November 2017 – which aims to increase growth and productivity across the country and create more prosperous communities.

Our Local Industrial Strategy is ambitious and positions Oxfordshire as one of the top-three global innovation ecosystems, highlighting our world-leading science and technology cluster. It provides a business-led framework, detailing how we can realise our full-potential, raising productivity and supporting greater commercialisation of our unique innovation assets.

Working in collaboration with key partners, we want our Local Industrial Strategy to be a pioneer for the UK and our emerging transformative technologies and sectors.

Only through collaboration will our asset-rich, vibrant economy be able to deliver on these many opportunities, not just for Oxfordshire but for the wider UK economy too.

Nigel Tipple
Chief Executive