Business and Property Committee

Report title:	Opportunities for the Digital Economy
Date of meeting:	3 July 2018
Responsible Chief Officer	Executive Director of Community and Environmental Executive Services

Strategic Impact:

The Information and Communications Technology Sector is identified in the Norfolk and Suffolk Economic Strategy as one of the key business sectors that drives the county's economy. Much of our support for the sector is channelled through the TechEast, which the County Council helped establish, and this report provides background information, ahead of a presentation to members by TechEast Ltd Chief Operating Officer (COO), Tim Robinson.

Executive Summary

Building on the interest in the digital creative sector expressed by members at the last committee (arising from the broad overview presented of the work of the Economic Development service), this paper provides a brief introduction to tech sector initiatives on a national and regional level. It also provides an opportunity to hear about the key findings of the recently published Tech Nation 2018 report.

The paper introduces Tech East Ltd, a company wholly owned by the Suffolk Chamber of Commerce, but whose start-up has been funded by Norfolk and Suffolk local authorities alongside the LEP, in order to:

- strengthen and promote the tech sector across the two counties,
- drive knowledge sharing across sectors; stimulating innovation, R&D and skills development
- provide a strong voice to UK government, investors and the media, and thereby to grow the region's economy.

Tim Robinson, COO (Chief Operating Officer) of Tech East Ltd , will give a presentation to members on:

- The way in which this recently established sector lobby organisation has developed over its first year or so of activity, its short and medium terms delivery plans, and longer term commitment galvanise and support productivity and innovation across the wider Norfolk economy.
- The headline findings of the 2018 Tech Nation report, and their implications for the sector in Norwich, and the county.

Recommendations:

Members are asked to:

i)   Note the report and associated presentation

ii)   Identify any areas for further discussion and review, if necessary.

1   Background – the national picture

1.1   The UK's tech sector is important. On a national scale, the May 2018 Tech Nation report, states that:
- The UK's digital tech sector grew 2.6 times quicker than the rest of the economy between 2016 and 2017, with the industry now being worth nearly £184 billion.
- The digital tech companies' turnover grew by 4.5% between 2016 and 2017, whilst UK GDP grew by 1.8%.
- Tech employment is booming, rising at five times the rate of the rest of the economy.
- 2017 was a great year for funding. British digital tech companies raised £5.8 billion in venture capital investment during the year, almost double that of the year previous.

2.   Recent national trends

2.1   Terms such as **Industry 4.0** have become familiar (the next phase of the digitisation of the manufacturing sector), driven by four 'disruptions':

- the rise in data volumes, computational power and connectivity
- the emergence of analytics and business-intelligence capabilities;
- new forms of human-machine interaction such as touch interfaces and augmented-reality systems;
- improvements in transferring digital instructions to the physical world: consider advanced robotics, and 3-D printing.

2.2   Business analysts are suggesting that manufacturers should also consider potential new business models:

- platforms – in which products, services and information can be exchanged via predefined streams
- Pay-by-use and subscription-based services, turning machine from capex (capital expenditure) to opex (operational expenditure).
- License of intellectual property.
- Businesses that monetise (derive financial value from) data.

3.   Background – the regional picture

3.1   Our Norfolk and Suffolk Economic Strategy (NSES) was published in autumn 2017 as a shared endeavour between businesses, education providers, local authorities and the voluntary and community sector. It outlines ambitious plans for future growth and focusses on actions needed to deliver success.

3.2   The NSES promises to:

- improve digital connectivity, with a particular focus on super-fast broadband in rural areas and reliable mobile phone coverage for those travelling around the region
- prioritise digital and physical infrastructure projects to support businesses to develop
- set up new schemes to help high growth businesses and make it easier to access advice and funding for commercial innovation.
- Establish new centres of excellence to improve productivity and innovation
- Work across sectors to help businesses collaborate on increasing common requirements for technical know-how and access to new markets, and sharing technologies across sectors to encourage growth

3.3 NSES success will be measured by quantifying the following:

- Improved Gross Value Added: additional jobs: greater delivery of new housing; increased employment; increased productivity; increased numbers of new businesses started; increased median wages; increased numbers of local residents with an NVQ 3 or above.

3.4 It is notable that almost all of these measurements might expect to be positively enhanced by a healthy and growing ICT sector.

4. NSES recognition of the importance of the tech sector

4.1 The NSES has identified ICT, Tech and Digital Creative as key sectors for support. Norwich is noted for its fast-growing digital creative hub.

4.2 New Anglia LEP lists our strengths as telecoms, cyber security, quantum technology, Internet of Things and UX design.

4.3 Tech will help the LEP and its partners deliver on several of its ambitions:

- to be a place where high growth businesses with aspirations choose to be
- a high performing productive economy
- an internationally facing economy with high value exports
- an inclusive economy with a highly skilled workforce.

5. University Support

5.1 The complementary strengths of our two universities, UEA and Norwich University of the Arts (NUA) have been crucial to the strong development of our tech and digital creative sectors locally.

5.2 UEA's strong school of computing has long provided a source of graduates to the local business community, and in particular data scientists and software engineers. Additionally, Fiona Lettice has been a strong supporter of the tech sector – Fiona and John Fagan brought their nascent plans for a Sync the City hackathon to Norfolk County Council and encouraged us to join with them in

developing what has become a cornerstone event each year for combining business mentors and graduates in developing new product ideas.

5.3   UEA has also supported a range of local tech initiatives and Fiona Lettice sits on the TechEast Board, for example, and on the advisory board supporting the fledging TechVelocity.

5.4   NUA meanwhile, a small university by size comparison, has burst onto the academic scene and quickly won plaudits for some of the specialist gaming and creative courses they offer. NUA graduates include art and design, and UX – user experience specialists, along with games developers.

5.5   Sara Steed (NUA) chairs the Creative Industries Group (previously Digital Creative), which is the LEP sector group for the creative industries. It nevertheless has a strong overlap with TechEast as our ICT / tech sector group and there is strong cross-fertilisation between the groups. NUA likewise has been keen to build links to the local community, and has supported the development of the Norwich Gaming Festival, for example.

6.   Recent tech initiatives in Norfolk

6.1   We briefly list here recent initiatives developed by public sector, private sector, or jointly in Norfolk and Suffolk.

- **TechEast Ltd** is the most substantial intervention which we have supported within this sector in recent years. Incorporated as a company in February 2016, and in December 2016 it successfully won funding from the Norfolk Pooled Business Rates Scheme. Funding was ring-fenced over three years, matched by contributions from the Suffolk Business Rates Pool and from New Anglia LEP, to give the company time to establish itself: whilst delivering from day one, essential support to the tech sectors based in Ipswich and Norwich. Tim Robinson, COO, will give a detailed presentation to members on the 3rd July.

- **TechVelocity** is the East of England's first dedicated, not-for-profit, digital and tech accelerator. It brings together an ecosystem of mentors, investors and innovators to support and grow "explosively scalable" early stage businesses within the sector.

- **Within the private sector** local companies are embracing artificial intelligence and other creative technologies to drive innovation. Rainbird AI, for instance, is an award-winning cognitive reasoning platform that helps businesses to automate complex decisions. At the start of 2018, it won a place on the Upscale 3.0 development programme run by Tech Nation.

- **Other creative technology** companies in the region include Ubisend, Supapass, Nielsen Brandbank, Immersive VR, Axon Vibe, Prison Voicemail, and Train as One. Alongside them is a dynamic community of digital

marketing and PR agencies. These include Fountain, a Premier Google Partner Agency and 2017 winner of Google's Best Agency for Growing Businesses Online award.

- **Hot Source** is Norfolk's innovation forum and one of the longest established Meetup groups in the area. It has more than 1,100 members and over 3000 followers on twitter. It arranges quarterly events to explore the convergence of tech, design and creative thinking.

- **SyncNorwich** is the largest and most active Tech and Start-up community in the region, with over 1,500 members. Its flagship event is the annual Sync the City hackathon, which challenges attendees to build a start-up in 54 hours. George Davis, UEA student participated in November 2016, and by November 2017 had co-founded SenLab, a data analytics company who has since gained over £500,000 of investment.

- **Digital East Anglia** is one of the newest Meetup groups in the region. It focuses on IoT, AI, and 3rd party tools and services. It also hosts meetings of the Norfolk branch of The Things Network, a global community that uses LoRaWAN technology to build distributed IoT data networks.

- **LoRaWAN (Long Range Wide Area Network)**: Broadland, Norwich, Norfolk and South Norfolk Councils' are all supporting the development of a LoRaWAN network across greater Norwich, and we will also support the launch of this new technology during summer 2018.   A two day event to explore new business product development opportunities is likely to be scheduled in October 18, and we'll be aiming to interest both the business and schools communities.

- **The Creative Industries Group**, a LEP sector group, is actively seeking links between tech and the creative industries. Led by Norwich University of the Arts (NUA), various User Experience (UX) initiatives are being explored.

- **Incubators: Accelerators:** NUA are one of a number of agencies who support business start up groups, offering incubation and hot-desking (hatchery) space for their ex-students. Other operating models are offered by Liquid 11 at New Patricks Yard. Whitespace, the brainchild of Neil Garner has been operating out of St James Mill. Union House and St George's works are other options.

- **Norwich Digital Quarter**. Norwich City Council has commissioned research into how to enhance and expand the digital sector in central Norwich, with specific focus on creating a digital quarter. The County Council's Economic Development team intends to expand the research to better understand operating models for incubators and accelerators; exploring best practice digital entrepreneurship programmes elsewhere in the UK, so we can share

research and determine if there is a need for a public sector intervention to better enable the tech cluster to grow.

6.2   Many of the above initiatives are Norwich City-centric. Other tech developments elsewhere include:

- **Lintott Control Systems** has won a Queens Award for Innovation in 2018. The company provides an excellent illustration of the way knowledge transfer will benefit not only the tech sector itself, but also any other sector making use of new technologies.   The company has developed a ground-breaking Digital Delivery Suite, known as i-Catalyst®. The online design tool radically reduces the design phase from tends of days to hours. But the design technology is linked to other systems. Electrical schematics, bill of materials, user manuals can all be created from the core data automatically.

- **The Kings Lynn Innovation Centre**, officially opened in 2016, won design awards in 2017, and is home to Peter Lawrence, founder of Human Capital Department, which won Enterprise Nation's title of Britain's Top HR Adviser in March 2018.

6.3.   Tim Robinson, COO (Chief Operating Officer) of Tech East Ltd will expand on these, and other issues, with particular focus on the work of TechEast's current and future activity, and the implications of the 2018 Tech East report for the Norfolk tech sector.

Officer Contact

If you have any questions about matters contained in this paper or want to see copies of any assessments, eg equality impact assessment, please get in touch with:

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