Digital Innovation & Efficiency Committee

Report title:	Digital Economy and Growth
Date of meeting:	11 July 2018
Responsible Chief Officers	Simon George - Executive Director, Finance and Commercial Services
	Tom McCabe - Executive Director, Community and Environmental Services
Strategic Impact: The ICT and digital creative sector is recognised both nationally and regionally for its importance in delivering innovation and economic growth. This paper introduces the Norwich technology sector within the wider context of the national picture.	

Executive summary

Nationally and locally, the ICT and digital creative sector is important for Economic growth delivered through innovation and productivity.

Nationally, Artificial Intelligence (AI) and big data analysis underpins the government's Industrial Strategy. Regionally the New Anglia Local Enterprise Partnership (NALEP) regard the digital sector as one of three sectors crucial for delivering growth across all sectors.

Whilst the sector has potential to provide strong employment growth and productivity increases, shrewd and focussed knowledge transfer could support productivity gains across all industrial sectors.

Recommendations:

1. **To note the Economic Development Service areas of activity in relation to economic growth and support for the ICT digital creative sector**
2. **To approve direction of travel of future activity**

1.   The National Picture

1.1.   The UK's technology sector is important. 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.
- Digital tech companies' turnover grew by 4.5% between 2016 and 2017, whilst UK GDP grew by 1.8%.
- Tech employment is rising at five times the rate of the rest of the economy.
- Workers in 'digital tech' are more productive (by around £10,000 per year) than those in the economy as a whole.

British digital tech companies raised £5.8 billion in venture capital investment during 2017, almost double that of the year previous.

1.2.   Terms such as "Industry 4.0" have become familiar (the next phase of the digitisation of the manufacturing sector); driven by computational ability to crunch and analyse big data: artificial intelligence: human-machine interactions and advanced robotics.

1.3.   Sectors remain important as a basis for obtaining funding from national government. The Industrial Strategy's funding interventions are based around sectoral interventions. Sector Deals are the BEIS chosen mechanism for funding interventions. Likewise, the Department of International Trade uses sector propositions to market UK PLC overseas.

2.   The Regional Picture

2.1.   The Norfolk and Suffolk Economic Strategy (NSES) was published in autumn 2017 – a collaboration between business, 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.

2.2.   It 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.
- help high growth businesses improve 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

2.3. Delivery will be measured by 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. The Norwich Tech Economy

3.1. Norwich is identified as one of the five fastest growing cities in the UK, and performs strongly on a range of economic indicators, including productivity and share of knowledge-based jobs (Centre for Cities, 2016).

- In May 2017 CBRE included Norwich in its list of the top 25 creative locations outside London.
- In August 2017 the Digital Catapult ranked Norwich 19th overall out of 36 UK cities in the UK Tech Innovation Index.
- The city is ranked as the best place in the East of England and one of the best in the UK outside London to grow a business in (Start-Up Cities Index, 2016).
- In 2011 Norwich was ranked 15th in the UK in terms of global connectivity (UK Cities in Globalisation, 2011).

3.2. The 'digital sector' is notoriously difficult to define. Traditional SIC codes (Standard Industrial Classification) are updated infrequently. As Tech Nation reports, there is a SIC for hunting, but not one for animation.

3.3. By Tech Nation definitions, there are around 1,750 digital sector jobs and 280 businesses in Norwich, accounting for perhaps 2% of all employment and 6% of total business stock. The NSES evidence base suggests 7,500 jobs within the digital sector, and 13,411 tech jobs across all industries in Norwich.

3.4. Norwich City Council have recently completed a review of the Norwich digital economy. With thanks to Norwich City Council, we note some of their general findings here.

3.5. In the five years from 2010-2015 digital employment grew by around 40% and the stock of digital business by around 30% - substantially faster than the growth in the Norwich economy overall, (although broadly in line with the national average).

3.6. Micro businesses account for 91% of the sector. This reflects the national picture and the fact that most businesses are relatively new.

3.7. The Norwich study identified approximately 100 businesses in the city active in digital innovation, with sub sector specialisms including publishing of computer games, web portals and other ICT and computer service activities.

3.8.   The NALEP evidence base lists Norwich digital strengths in telecoms, cyber security, quantum technology, Internet of Things and user experience design.

3.9.   There is anecdotal evidence of a lack of grow on space for businesses wishing to scale from micro to small, and a need for flexible space to allow for growth for time limited project work.

3.10.   Alongside this, additional business support services appear to be required to nurture the growing business community. Access to local venture capital is an issue for the community.

3.11.   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.

4.   Our Support for the digital sector

4.1.   Norfolk County Council interacts with and supports the digital sector in a number of ways, and previous and current reports to DIEC will have covered some of the crucial work delivered by IMT.

4.2.   The Council's Economic Development and Strategy team support the digital sector as part of our work with the New Anglia Local Enterprise Partnership (NALEP), through:

- Support for the development of the Norfolk and Suffolk Economic Strategy and the evidence base underpinning it
- Development support for Sector Delivery and Sector Skills plans
- Facilitating the creation of Tech East Limited as a lobbying forum for the ICT and digital creative sector in Norfolk and Suffolk.
- Influence of Tech East deliverables for the Norfolk digital economy, including engagement in developing and implementing a digital skills plan: and in cross sector discussions to enable knowledge transfer events to be developed and delivered over the next 12 months.
- Support for the Creative Industries Group (whose community form part of the wider digital economy in Norwich), and committing resource to developing

4.3.   Current supporting activities include

- Working with IMT to deliver and support the Internet of Things as per the "Internet of Things and Associated Networks", another paper delivered to today's committee.
- Supporting the annual "Sync the City" hackathon, which has encouraged student enterprise, business mentoring and, in 2017, provided the impetus for the creation of Senlab, a Fintech company. With Norfolk Chamber of Commerce and LEP we're designing a short business survey into broadband access and availability to inform plans to encourage increased take up by the business community.
- Given the difficulty in defining the Tech sector the Council is working with TechEast Ltd and a local company to part sponsor and shape a local digital directory to better inform future public and private sector analysis

4.4   We're investigating how public sector can facilitate the drawdown of national funding schemes for the benefit of our local tech community

- GovTech challenges are currently being investigated – public sector "problems" offered up for technological solutions, and national funding available to support rapid prototyping of potential solutions.
- We're developing support local businesses to bid for national funds. In the East of England we bid to Innovate UK, for example, less often and for lower amounts of money than elsewhere in the country.
- The economic development team will commission a short study into incubator and accelerator operating models elsewhere in the UK to determine best practice and supply business case evidence towards any public sector accelerator support intervention in Norwich.

4.5.   Skills remain a crucial area for all sectors, including ICT / digital sector. The EDS skills teams are working with business, educational and community partners to

- support apprenticeships, and schools work placements
- create new mechanisms for skills based training: the International Aviation Academy and Lintott Institute provide examples of our collaborative working to bring new forms of skills based training to the Norfolk landscape
- Developing with partners' plans for an Institute of Productivity.

4.6.   The tech sector itself have strong community members who are pressing forward independently (but seeking public sector funding support where possible) to deliver new pilot projects

- Step into Tech has been created by Claire Riseborough and is providing useful out of school clubs for young people. The Economic Development team introduced Step Into Tech to IMT who have been able to provide valuable resources to the venture.
- Digital East Anglia has launched in 2017 and is arranging meet ups to encourage new coding skills, and specifically to encourage more women into coding

5.   Future activity

5.1.   This last year has brought closer working relationships between Economic Development and IMT teams. Joint working has added value to our individual efforts to develop the business community - and improved opportunities for public-private interventions.

5.2.   It is proposed that the Economic Development Team:

- Work with IMT to better understand departmental challenges
- Explore opportunities in our digital sector relationships so we can creatively promote opportunities to our local business community
- Provide resource to support the drawdown of national funding for private sector interventions in support of NCC delivery
- Actively promote and encourage knowledge transfer between the digital and other sectors

- Support business to business mentoring to enable greater success in targeting of Innovate UK and other grants by the private sector locally.
- Deliver discrete feasibility studies to support gap analysis and potential public sector funding opportunities.

5.3. We seek member endorsement for the planned activity.

6. Financial Implications

6.1. Officer time, to develop, implement and organise events. Should bids be developed, we may require expert bid writing resource.

7. Background

Tech Nation (https://technation.io/insights/report-2018/)

The Tech Nation 2018 Report is one of an annual series of reports that captures the strength, depth and breadth of digital tech activity in the UK. The first Tech Nation report was published in 2015 to help develop an understanding of the digital tech landscape in the UK. The 2018 Report continues to map the evolution of the UK tech sector.

New Anglia Local Enterprise Partnership https://newanglia.co.uk/

New Anglia Local Enterprise Partnership works with businesses and local authority partners to drive growth and enterprise in Norfolk and Suffolk. We achieve this by securing public and private investment and delivering a range of programmes and initiatives with partners to improve infrastructure, skills and business support.

Industry 4.0 https://en.wikipedia.org/wiki/Industry_4.0

Industry 4.0 is a name for the current trend of automation and data exchange in manufacturing technologies. It includes cyber-physical systems, the Internet of things, cloud computing and cognitive computing. Industry 4.0 is commonly referred to as the fourth industrial revolution.

Industrial Strategy
https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future

The Industrial Strategy white paper sets out a long-term plan to boost the productivity and earning power of people throughout the UK.

Industrial Strategy Sector Deals
https://www.gov.uk/government/publications/industrial-strategy-sector-deals/introduction-to-sector-deals

Norfolk and Suffolk Economic Strategy https://newanglia.co.uk/our-economic-strategy/

The Economic Strategy for Norfolk and Suffolk outlines ambitious plans for future growth across Norfolk and Suffolk. Bringing together public and private sector partners, it focuses on the actions we need to take in the coming years to help secure long term success.

CBRE https://www.cbre.co.uk/

CBRE Group, Inc. is the world's largest commercial real estate services and investment firm. In 2017 they published "Creative Regions: top 25 regional creative locations in the UK".

UK Tech Innovation Index: https://theodi.org/article/where-are-the-uks-most-active-tech-innovation-cities/

The UK's most active innovation communities by industry sector, in an online interactive map.

Start-Up Cities Index, 2016: https://startups.co.uk/the-uks-top-25-cities-to-start-a-business/

Start-up Cities Index has identified and examined the most important factors new businesses need to consider when selecting the right location to start or grow a business. Using official data on everything from business survival rates, house prices, and commercial rent prices the city by city statistics are created, to provide a detailed picture of exactly what each city has, or hasn't, got to offer start-up entrepreneurs and, therefore, which city is the best place to start a business in 2017.

UK Cities in Globalisation 2011:
http://www.lboro.ac.uk/gawc/rb/rb357.html

Global Urban Analysis provides an insight into the contemporary world economy through a focus on cities. It is based upon a large-scale customised data collection on how leading businesses use cities across the world.

Tech East Ltd: https://techeast.com/

TechEast Ltd is a not for profit limited company, set up in 2016, and funded initially by Norfolk and Suffolk local authorities and the Local Enterprise Partnership, in order to promote the ICT and digital creative sector within Norfolk and Suffolk. A membership organisation, the company advocates and provides thought leadership for the sector to national government; connects technologists across sectors and supports its membership.

Sync the City: http://syncthecity.com/

Developed into an annual 54 hours "start-up" event. Budding entrepreneurs are linked with experienced business mentors and technology expertise and invited to pitch ideas for new start-ups – and then spend 54 hours working in teams to deliver project ideas. A 2017 UEA student has since gained over £500k plus investment for his start up Senlab following engagement in the event.

Step into Tech: http://stepintotech.org/
A not for profit organisation that aims to provide services for free by recruiting volunteers and delivering tech and coding clubs for children.

Digital East Anglia: https://www.meetup.com/digital-east/
Started as a meet up group of developers and designers, now aiming to deliver both beginner friendly and hardcore technical coding content. In particular the facilitator wishes to encourage women into computing.

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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