

# Digital Sector Action Plan

June 2018



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# 1. Foreword

## Introduction from Lynsey Robinson, Acting Tees Valley Sector Champion

- 1.1 The Tees Valley digital sector is truly a creation of the region, largely home grown and with many of our founding entrepreneurs starting businesses straight from full time education. Such technology led growth, is both the envy of other sectors in Tees Valley and also a source of potential opportunity.
- 1.2 Tees Valley leads the way in a number of sectors, such as Artificial Intelligence, Virtual Reality and use of Big Data (in particular the Internet of Things) which have significant applications for a number of our other priority sectors, in particular chemicals and advanced manufacturing. The application of such locally sourced technology will not only enhance the productivity of these priority sectors but because many of them are foreign owned, could provide an international showcase of what Tees Valley digital companies can deliver.
- 1.3 The sector has significant ambition and although we have the potential to have the next northern unicorn<sup>1</sup>, there is presently a lack of critical mass in the sector to enter large supply chains and avail of national research funding. In addition, because of the fast growth and technology orientation of so many local companies, there is often a skills deficit in core functions like HR, marketing and finance. Therefore my challenge to the sector is to not only encourage more collaborative working, but to build team capacity in those companies with the most significant growth potential.
- 1.4 This report identifies a wider number of actions, but my immediate priorities include:
  - **Growth of the sector**
    - Growing companies of scale through the provision of specialist in-company support (particularly developing leadership and preparing teams for growth);
    - Support for new digital start-ups and spinouts from traditional sectors providing new technology based services;
  - **Collaboration:**
    - By encouraging greater collaboration between companies, so they can invest in innovation and gain access to more sophisticated supply chains, particularly within the Tees Valley based chemicals and advanced manufacturing sectors;
  - **Infrastructure:**
    - Provision of 'fit for purpose managed accommodation' which is flexible and affordable, but above all facilitates networking and collaborative working;
  - **Recognition**
    - Raise the profile and understanding of the tech sector in Tees Valley to support growth of businesses and attraction of talent and new opportunities; and
    - To become a leading pilot area for the application of digital tech.

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<sup>1</sup> a unicorn refers to any tech startup company that reaches a 1 billion dollar market value

## 2. Introduction

- 2.1 The following report provides a high level summary of the scope and scale of opportunity for the digital sector in Tees Valley, as well as a preliminary list of indicative activities.
- 2.2 The report is based on the following consultation exercise and desk based research from Regeneris Consulting, including:
- Survey: December 2016: 550 businesses (across all sectors engaged);
  - Consultative interviews with sector champions and businesses; and
  - 4 Focus Group sessions with businesses and stakeholders.
- 2.3 The choice and definition of sector for this report emerges from the findings of the Refreshed Tees Valley Strategic Economic Plan (SEP): The Industrial Strategy for Tees Valley 2016-2026, which identified the digital sector as a key priority.
- 2.4 The digital sector action plan in common with the other six priority sector action plans<sup>2</sup> will be updated annually through consultation with our key local partners.

### Sector definition

- 2.5 Digital businesses around the world are driving a technological and economic revolution, which is transforming the way in which we live, work and play. The UK is currently one of the world's leading digital economies, recognised for its cultural institutions, creative industries, improving infrastructure environment as well as its increasingly digitised public and private sector service delivery.
- 2.6 The refreshed Strategic Economic Plan (SEP) provides the following definition:
- **Digital:** a growing specialism for the Tees Valley, driven by the Digital City partnership and which emphasises the local importance of:
    - **Animation and media-based services**, with access to high quality skills; and
    - **Software and technology solutions**, including shutdown, process management simulation software and energy sector financial modelling.
- 2.7 A detailed sectoral definition is contained in Appendix A

### Strategic Economic Plan (SEP) Target

- 2.8 The sector currently employs circa 5,000 people full time in the Tees Valley with a GVA per head of £57,000 equating to £285million of output (3% of the Tees Valley economy). The SEP has a target of creating an additional 2,000 digital jobs and increasing GVA per hour by 30%.

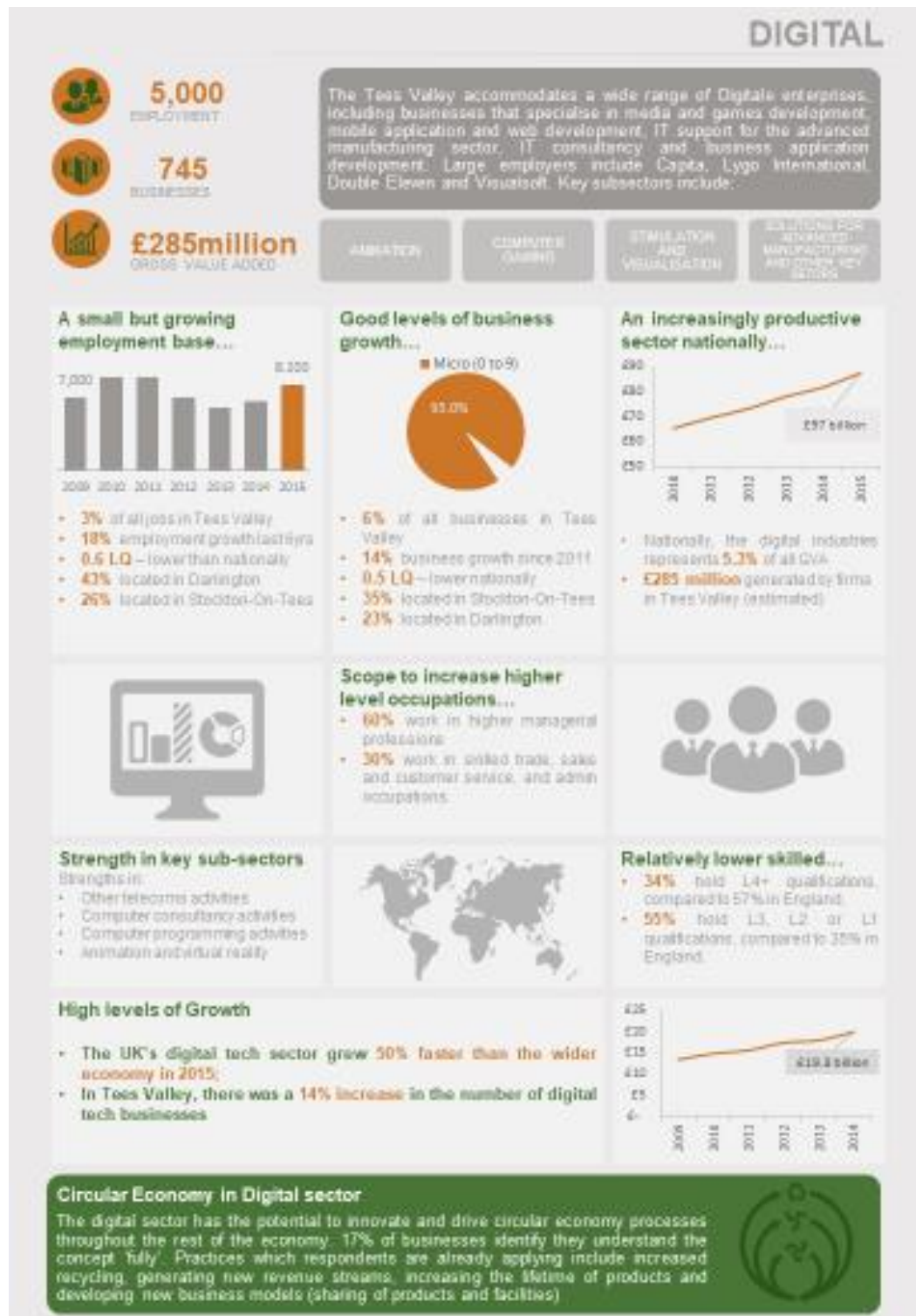
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<sup>2</sup> Advanced manufacturing, process, chemicals and energy, logistics, health and biologics, culture and leisure and business and professional services,

## Statistical Overview

- 2.9 Figure 2.1 provides a summary of information on the digital and creative sector. This has been developed by analysing secondary data, primary research (business survey, consultations and focus groups) and relevant literature:

Figure 2.1 Summary Data: Digital Sector



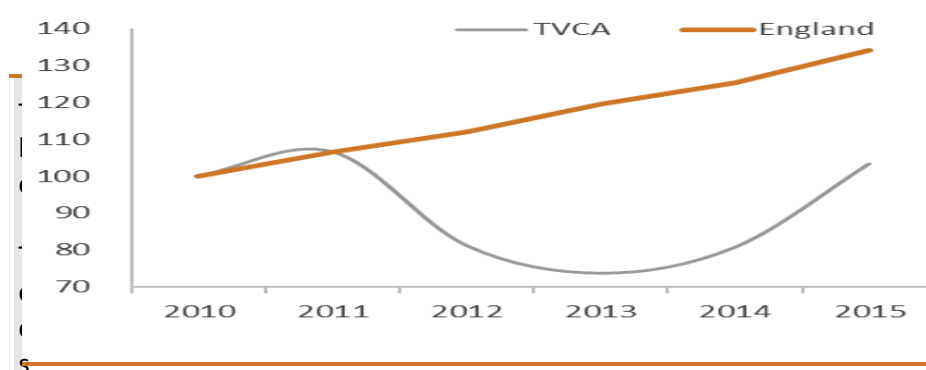
Source: Regeneris/Tech Nation Report

## 3. How does the Sector Compare?

### Historical Comparison

- 3.1 The digital and creative sector contributed over £97 billion GVA to the UK economy<sup>3</sup> in 2015, accounting for around 10% of the whole economy. Using assumptions made by the ONS Digital Sector Economic Estimates, it is assumed that the digital sector in the Tees Valley area produces £285million GVA per annum or circa 3% of total output. This is equivalent to £57,00 GVA per FTE, compared to the regional average of £46,800.
- 3.2 There has been significant turbulence in the Tees Valley digital economy over the last five years, with a 24% fall in GVA between 2010 and 2013, although performance has recently recovered. The sector largely operates within the confines of the North Eastern economy and does little cross-sectoral selling. Any down turn in the regional market is felt disproportionately within the Tees Valley digital and creative sector.

Figure 3.1 GVA Performance for Tees Valley against national performance



Source: DCMS Digital Sector Economic Estimated

Valley Business Survey found that digital and creative businesses in the Tees Valley area have experienced good performance over the last 12 months, with 48% improved performance compared to 43% across all sectors. Some of the reasons for improved performance include: the introduction of new products or services, expanding into new markets, having a formal plan or strategy for growth and investment in new technology or premises. Also over 92% of firms stated that they expect to grow over the short to medium term.

There are still a number of challenges for digital and creative businesses in the Tees Valley area, including reduced customer confidence following the Brexit vote and access to new markets or supply chains (over 52% of companies export and of that 70% export to the rest of the European Union). The sector continues to compete more on price than quality.

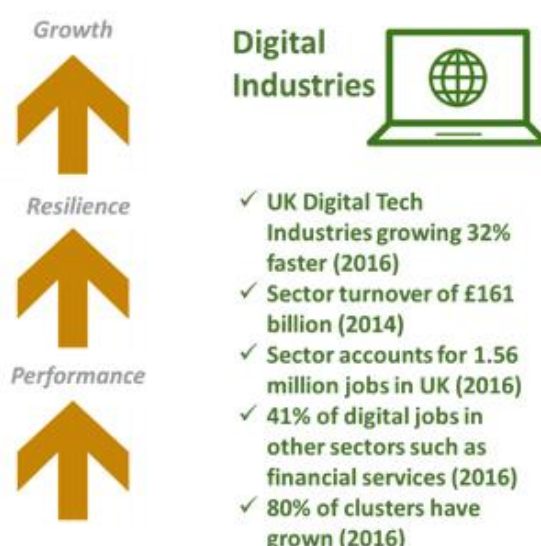
<sup>3</sup> Business Structure Database (2015)



## International Comparison

- 3.3 The World Economic Forum's Networked Readiness Index is a key indicator as to how well an economy is using information and communications technologies to boost competitiveness and well-being. The United Kingdom is currently ranked eighth in the world, with strong performance in the political, regulatory and business environment, individual usage and economic and social impact usage. Areas where the UK has weaker performance is on business usage of the internet, skills and affordability (UK is ranked 53<sup>rd</sup> on this indicator). More needs to be done to improve the UK's competitive advantage in this regard.
- 3.4 The creative and digital sector has continued to make a growing contribution to international economies, including the UK and proven to be resistant to global recession and austerity. There are a variety of bodies and organisations that continue to drive the sector forward. The following headline indicators help to demonstrate the scale and economic importance of the sector nationally (Figure 3.2).

Figure 3.2 Digital Sector UK Value



Source: CIC, Tech City, Regeneris, 2016

- 3.5 In recent years the digital sector in Tees Valley has proved somewhat more vulnerable and less agile than Figure 3.2 suggests. Productivity performance dipped markedly after 2010, and has only recently begun to recover. This coincided with the volatile employment trends noted earlier. The sector remains underrepresented in the Tees Valley area, and employment growth has been sporadic across sub-sectors. This suggests an activity whose resilience has been tested by recent events, but which is marked by potential rather than actual achievement.

**The digital sector employs 4% of the Tees Valley workforce, but has a fast growing business base (14% increase 2011-2015) which now accounts for 7% of Tees Valley companies.**



- 3.6 Although the number of employees declined between 2010 and 2014, there was a net increase of 18% or around 1,250 employees between 2009 and 2015. This is due to significant increases in employment (1,550) between 2014 and 2015. By comparison, over the same period the number of employees in the sector grew by 14% in the NPH and 19% in England. Overall, employment in the sector has grown relatively well since 2009, in keeping with the national performance, with a compound annual growth rate of 2.4%. This compares to a 1.9% growth rate in the NPH and 2.5% in England.

The volatile employment growth performance is reflected in the Tees Valley Business Survey, with 46% of digital and creative businesses recruiting new staff in the last 12 months compared to 56% across all sectors. However companies face **significant constraints in the recruitment and retention of skilled staff, particularly in relation to R&D and customer service.**

- 3.7 Growth is largely indigenous, with little historical evidence of foreign direct investment into the region. According to the ONS, there are currently 745 digital enterprises in the Tees Valley area, representing 3% and 0.4% of the digital business base in the NPH and England respectively. The number of businesses has steadily expanded over the years. The business base has grown by 14% since 2011 with the majority of this growth occurring between 2012 and 2015. Between 2011 and 2016, the compound annual growth rate of digital businesses in Tees Valley was 3.7% compared to 3.8% in the NPH and 4.4% in England.
- 3.8 95% of digital businesses have fewer than 10 employees, while around 4% of digital businesses have between 10 and 249 employees and nearly half these businesses were incorporated within the 5 years while 25% of businesses were incorporated over 10 years ago.

Although the business base is expanding, the overall proportion of jobs is not being maintained, with more local companies chasing fewer business opportunities. Although average business size is still higher than the national average, there is a need to **focus on those companies which have the greatest potential for growth**, as these tend to be both “**jobs rich and more productive**”.

- 3.9 At a local level, it is evident that digital activity is a notable strength in Darlington, which has a higher concentration of activity in the sector compared to nationally (location quotient = 1.3). Stockton on Tees has the most



businesses in the sector, although Middlesbrough has seen the largest increase over the five year period at 48% and now totals 142 followed by Stockton on Tees at 33% over the same period.

Table 3.1 Employment and Businesses in the Digital and Creative Sector

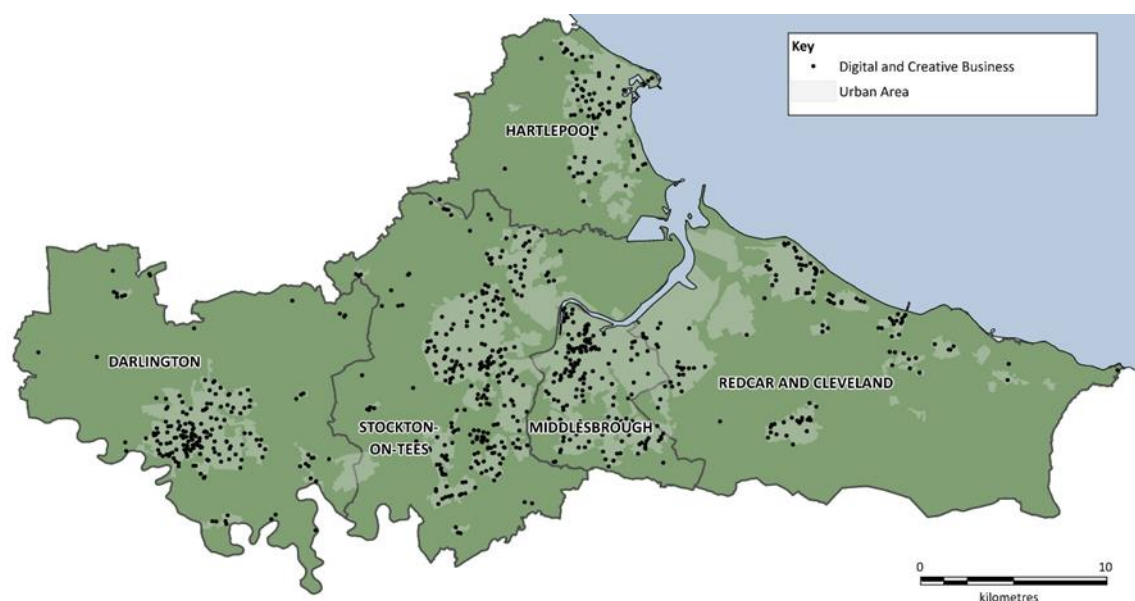
	Employment (2015)				Businesses (2016)	
	No.	Change 2010-15	LQ*	% of Tees Valley	No.	Change 2011-16
Darlington	2,134	0%	1.3	43%	168	+33%
Hartlepool	244	28%	0.2	4%	81	+24%
Middlesbrough	1,037	-5%	0.5	21%	142	+48%
Redcar & Cleveland	305	116%	0.2	6%	96	+19%
Stockton on Tees	1,280	88%	0.5	26%	258	+29%
<b>Tees Valley</b>	<b>5,000</b>	<b>-7%</b>	<b>0.6</b>	<b>100%</b>	<b>745</b>	<b>31%</b>

Source: BRES (2015), UK Business Count (2016)

Note: \* - LQ (Location Quotient) shows how concentrated activity in the sector is in an area compared to nationally. A location quotient above 1 shows that activity is more specialised in an area than nationally.

3.10 The figure below illustrates the location of all companies across the Tees Valley:

Figure 3.3 Location of Digital Businesses



Source: FAME Database

3.11 A more granular look at the digital sector can provide an indication of sub-sector strengths in the Tees Valley area. In terms of employment, the top 3 sectors in 2015, accounting for 63% of all digital employees, are shown in the table below:

Table 3.2 Employment in top 3 digital sub-sectors, 2015

Sub-sector	Number of employees	% of total	Change 2009 to 2015	Location Quotient
Computer consultancy activities	1,950	39%	+75%	1.0
Computer programming activities	700	9%	+327%	0.8
Other information technology and computer service activities	500	6%	+43%	0.7

<b>Total</b>	<b>3,150</b>	<b>63%</b>	<b>66%</b>	
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Source: ONS, 2016

Note: the location quotient compares the concentration of employees in the sub-sector in the TVCA area, relative to the concentration of employees in the sub-sector in England.

- 3.12 The top three sub-sectors have had significant growth in employers, both above the 14% growth rate for the sector in Tees Valley and (for two of them) the 44% growth rate across the UK. Although all three are either at or below the regions location quotient, such growth rates indicate a region with significant growth potential.

### **The digital sector is optimistic about growth and future job prospects...**

- 3.13 Digital businesses are among the most optimistic about their future performance, with 92% of respondents expecting to experience growth in turnover in the short to medium term. This is higher than across other sectors of the economy (89%). The primary reasons for expected growth in the digital sector in the short to medium term are stronger marketing, expanding into new markets, introducing new products or services and an improvement in the demand in markets.
- 3.14 Digital and creative businesses in the Tees Valley area are also the most optimistic about productivity growth over the short to medium term, with 83% of respondents planning to make improvements, a higher proportion than the sector-wide level (77%).

The key barriers that were identified by Tees Valley digital and creative businesses are access to new markets or supply chains (42% of businesses), the availability of skills (31%), access to finance (29%) and the lack of a business-friendly environment (25%). This compares to the 2017 Tech Nation report which highlighted the following growth challenges: 57% cited limited access to highly skilled workers, 48% cited limited digital infrastructure, 45% cited limited investment opportunities and 41% cited low levels of awareness of a local digital industry.

## 4. Asset Base and Ecosystem

4.1 The table below identifies the major innovation, learning and other assets within the TVCA area:

Asset	Sector-Specific Offer
<b>Education and Skills</b>	
Teesside University	Offers a wide range of courses in the sector including computer animation and visual effects, computer games, computing and web, performing arts and music and art and design. Qualifications are available at foundation, undergraduate and postgraduate level.
Apprenticeship Hub	A one-stop shop advertising apprenticeship opportunities in the area.
Careers Hub	Offers resources and guidance to show the wide range of progression routes and career opportunities available within Tees Valley
Tees Valley Skills Event	An annual event targeted at 13 to 18 year olds, exhibiting Tees Valley employers, universities, and learning and training providers. The event aims to highlight routes to employment, education, apprenticeships and training and to showcase the digital and creative sector as well as other target industries.
<b>Sites and Facilities</b>	
Boho Zone, Middlesbrough	Digital, creative and business hub offering high quality space for digital media, digital technologies and creative businesses.
Digital House, Fusion Hive, Stockton	A 36,000 sq ft facility offers flexible working spaces for around 60 small and medium sized enterprises in the digital and scientific sectors.
<b>Support and Business Networks</b>	
Digital City	Provides start-up grants (including Launchpad Fuel £10,000 grant to graduate entrepreneurs), an investment programme and an innovation programme (business support) to businesses in the digital sector. Recognised as an exemplar initiative, which is building on Teesside University's expertise in the sector.
North East Digital Catapult Support	Its main purpose is to enable start-ups and scale-ups to work with large organisations, by educating traditionally non-digital companies on the value of emerging technologies. The team successfully run one of the Digital Catapult Immersive Labs and is ready to launch an Emerging Technology Centre (PROTO) in Summer 2018.
Tees Valley Business Compass	Provide relocation grants, support and advice on financing.
Tees Valley Apprenticeship Support for Employers	There are two separate and distinct offers of grant which employers can apply for provided that their apprentice is following a recognised Apprenticeship Standard or Framework and all other eligibility criteria are met. Grant A: A grant of £2,500 per apprentice for small to medium businesses (249 or less employees) from Tees Valley Combined Authority's identified priority sectors who employ an apprentice aged 19+, working towards a Tees Valley Combined Authority recognised priority sector specific qualification from the Apprenticeship Standards or Frameworks (up to a maximum of three apprentices per year), or Grant B: An initial grant of £500 per apprentice for small businesses (49 or less employees) who employ an apprentice aged 19-24. In order to encourage high quality and sustainable employment for the apprentice an additional £500 will be paid if the apprentice continues to be in employment more than 13 months after the date of starting their apprenticeship (up to a maximum of three apprentices per year).
Tees Valley Catalyst Fund	Businesses can apply for short-term finance to fund performance investments from £100,000 to £2million. Finance is available for anything up to 24 months.
Animex	The UK's largest festival of animation and computer games, hosted annually and attracts companies such as Pixar and Dreamworks.
Showcase Digital Conference	An annual conference organised between Google's Digital Garage, The Chartered Institute of Public Relations and Teesside University.

SSI Taskforce Funding	Secured £80 million of government funding in response to the closure of the steelworks in Redcar. A number of new funds have been designed to support companies and individuals affected by the closure, plus a grant scheme available for other Tees Valley companies who can demonstrate local growth and expansion opportunities.
Northern Powerhouse Investment Fund	NPIF provides commercial finance through three types of product funds: Microfinance, Debt Finance and Equity Finance. These funds provide funding options are designed to plug common gaps in the provision of finance, giving your business access to the funding it needs to help it grow.
<b>Other Enabling Infrastructure</b>	
Durham Tees Valley Airport	Currently has passenger routes to Amsterdam Schiphol (KLM) and Aberdeen (Eastern). Developments planned for the future.
Rail	Passenger and freight connections going South to London and North to Glasgow and Edinburgh.
Roads	A1(M) and A19 provide a link to the North and South while the A66 provides a link to the West.
Broadband	93% of the Tees Valley region can access a superfast broadband network with ambitions to exceed 98% coverage by the end of 2019.

Source: Regeneris Consulting, Desk based analysis, 2016

## 5. Trends and Policy Context

Table 5.1 Summary Pestle Analysis: Digital and Creative Sector

Issue	Impact on Sector
<b>Political:</b>	
<ul style="list-style-type: none"> <li>• Devolution</li> <li>• Relationship with Northern Powerhouse</li> <li>• Industrial Strategy and possibility of national sector deal</li> <li>• UK Government policy commitment to digital as a sector and enabling technology</li> </ul>	<ul style="list-style-type: none"> <li>• Possibility to unlock contracts for public service delivery channel shift</li> <li>• Scope for investment in infrastructure and new facilities to help business grow</li> <li>• Opportunities for a sector deal, either for the digital sector itself, or industrial digitisation for priority sectors such as chemicals, logistics and/or advanced manufacturing.</li> </ul>
<b>Economic</b>	
<ul style="list-style-type: none"> <li>• BREXIT</li> <li>• Immigration framework</li> <li>• Exchange rate</li> </ul>	<ul style="list-style-type: none"> <li>• Uncertainty among clients could delay investment decisions and make it harder for digital businesses to export to Europe. However, the sector has stronger ties to North America and other Anglophone areas, which may offset some of the impact of Brexit.</li> <li>• Changes to immigration framework may impact on the sector's ability to recruit talented people readily from Europe, but could lead to enhanced recruitment from other tech hot spots such as India, China and Anglophone countries</li> </ul>
<b>Social/Cultural</b>	
<ul style="list-style-type: none"> <li>• Changing patterns of work and leisure</li> <li>• Digitisation of social and cultural life</li> </ul>	<ul style="list-style-type: none"> <li>• Growing leisure time economy and rise of digital tools is creating a growing market for the digital and creative sector, particularly in relation to use of big data for consumer trends and animation/virtual reality for customer experience</li> </ul>
<b>Technological</b>	
<ul style="list-style-type: none"> <li>• Automation, digitisation, data and communications are all driven by new technological developments.</li> </ul>	<ul style="list-style-type: none"> <li>• The increasingly pervasive role of digital in all aspect of the economy and on-going waves of innovations will continue to create new opportunities for growth, in particular opportunities arising from the use of big data and the internet of things.</li> </ul>
<b>Legislative</b>	
<ul style="list-style-type: none"> <li>• Cyber security and data protection</li> </ul>	<ul style="list-style-type: none"> <li>• The growing focus on security presents both risks and opportunities to the digital sector.</li> <li>• There is presently a low level of awareness of cybersecurity issues across a range of sectors and particularly SMEs.</li> <li>• Cybersecurity also provides an opportunity to access companies who</li> </ul>

	may be reticent to engage in economic development.
Environmental	
<ul style="list-style-type: none"> <li>• Decarbonisation</li> <li>• Roll of full fibre</li> </ul>	<ul style="list-style-type: none"> <li>• Digital has the potential to reduce the carbon footprint and enhance the productivity of significant chunks of the economy</li> <li>• The internet of things/5G roll out will necessitate extensive investment in physical infrastructure, in particular full fibre cabling and links to 5G masts.</li> </ul>



## 6. Summary SWOT Analysis



**Confidence** – Strong regional capability servicing the Tees Valley . Business base is confident of future growth

**People & Ed** – Strong local recruitment, particularly amongst university graduates

**Innovation** – Good ‘soft ‘ generic innovation support,

**Property** – Good availability of publicly owned sites and new developments.

**Property** – Two recognised hubs which provide a focus for cluster development

**Growth** – Few opportunities for company buy outs and inward investment

**People and Education** – Stiff competition for the retention/attraction of senior staff

**Innovation** – Little evidence of knowledge transfer between sectors and demand for such activity

**Place** – Limited recognition of Tees Valley Digital Proposition

**Property** – Lack of grow on space for the sector

**Finance** – Little access to ‘growth capital’ and specialist financial advice



**Growth** - Significant opportunities for industry 4.0 (industrial digitisation)

**People & Ed.**– Close ties to University, provide opportunity for bespoke training opportunities

**Innovation** – Making best use of regional innovation ecosystem and emerging opportunities in relation to collaborative working

**Property** – Creation of new spaces to create ‘digital enterprise parks’ to encourage cross sectoral collaboration

**Growth** –Too much focus on price sensitive activities, which can be quickly outsourced to more competitive regions

**People and Ed** – High churn of staff and little experience of cross sectoral selling

**Innovation** – failure to engage with ‘globally competitive sectors’

**Property** – Low churn and rental costs leads to viability gaps which prevent future developments

**Infrastructure** –Continued lack of strong air routes to core markets and need for future proof broadband provision



# 7. Indicative Actions

## Emerging Proposition

- 7.1 The sector is constantly evolving, particularly in relation to digital industries and technology-driven sectors. Digital technology and processes are continuing to impact on all aspects of enterprise and life, through convergence, disrupting business practices, transforming relationships with customers and creating new ways to harness the power of big/open data.
- 7.2 The concept of the 4<sup>th</sup> Industrial Revolution ('Industry 4.0' or '4IR') is gathering pace as a driver of change, introducing new technologies and techniques that will change products, processes and supply chains in the manufacturing sector. These changes can create value across the local manufacturing ecosystem (digitisation and servitisation), resulting in increased sales and growth in market share. New technologies will support:

- Smarter supply chains (greater coordination, real time information sharing, better tracking of assets and inventory and integrated planning and production)
- Smarter production (use of data analytics, new production techniques and technologies such as autonomous robots, multi-purpose production lines and augmented reality) to improve yield and speed up production and allow business models such as mass customisation to be pursued
- Smarter products (rapid innovation and a faster time to market is enabled by data collected from products, remote diagnostics and remote/predictive maintenance)

Source: EEF, 2016, The 4<sup>th</sup> Industrial Revolution – A Primer for Manufacturers

- 7.3 There has been little evidence of cross sectoral knowledge transfer, particularly to the globally competitive but locally based, chemicals, process and energy sector. There is an emerging opportunity for Tees Valley to become a test bed for industrial digitisation through the use large scale pilot programmes of disruptor technologies, based on digital enterprise parks. One emerging theme is the retrofitting of sensors using 5G Technology and subsequent analysis using big data solutions, with the Wilton Park potentially being a nationally recognised digital enterprise park.
- 7.4 However, for knowledge transfer between sectors to work, much of the emphasis has to be placed on developing the technical awareness of the non tech sectors. There must be more support for supply chain initiatives and partnering across sectors.
- 7.5 Although the sector is growing, it lacks visibility, there is a need for enhanced cluster work to develop critical mass. The sector has specified physical co-location as a key enabler, with the preferred accommodation type being high specification, serviced offices in town centre locations and using the 'Boho/ Fusion Hive Approach'.

Nature of Opportunity/Need	Actions	Timeframe for delivery	Delivery Mechanism
Need to enhance the scale/growth ambition of local digital companies	<ul style="list-style-type: none"> <li>• Development of Tees Tech Entrepreneurs' Club, to encourage early stage business growth</li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary scoping work being undertaken</li> <li>• Proposition</li> </ul>	<ul style="list-style-type: none"> <li>• Digital City/Sector Led Initiative</li> <li>• Digital City and Local</li> </ul>

Nature of Opportunity/Need	Actions	Timeframe for delivery	Delivery Mechanism
	<ul style="list-style-type: none"> <li>Creation of a Tees Valley Digital Investment Proposition to attract Foreign Direct Investment;</li> <li>Focused Strategic Account Management to develop scalable companies within the sector;</li> </ul>	<ul style="list-style-type: none"> <li>document being developed and scoping exercise regarding implementation model</li> <li>Ongoing account management work</li> <li>Preliminary scoping work on scalable companies initiative</li> </ul>	<ul style="list-style-type: none"> <li>Authorities</li> <li>Delivered by Local Authorities</li> <li>Digital City/Sector Led Initiative</li> </ul>
Addressing the opportunity for enhanced servitisation and digitisation by ensuring knowledge transfer	<ul style="list-style-type: none"> <li>Development of digital needs survey to assess digital economy maturity index (across all sectors)</li> <li>Development of Cyber Resilience Vouchers, particularly related to e-commerce and implementation of ICT systems for business improvement efficiencies</li> <li>Development of collaborative networks to encourage cross sectoral knowledge transfer</li> <li>Development of digital enterprise zone (pilot area for industrial digitisation)</li> </ul>	<ul style="list-style-type: none"> <li>Part of annual Tees Valley Business Survey</li> <li>Preliminary scoping work being undertaken</li> <li>Outline business case developed</li> </ul> <p>Emerging findings from Chemicals Science and Innovation Audit will inform anticipated EoI for 5G Test bed Pilot Programme</p>	<ul style="list-style-type: none"> <li>Combined Authority delivered.</li> <li>Possible delivery by Digital City/Sector Led Initiative</li> <li>Possible delivery by catapult/sector led initiative</li> <li>Combined Authority led</li> </ul>
Ongoing job vacancies and skills mismatch	<ul style="list-style-type: none"> <li>Career inspiration programme for job seekers.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing work</li> </ul>	<ul style="list-style-type: none"> <li>Skills Advisory Boards</li> </ul>
Many job applicants lack basic (often interpersonal) skills	<ul style="list-style-type: none"> <li>Skills diagnostic for business compass</li> <li>In-work training programmes (management and leadership)</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary scoping work being undertaken to inform ToR for next ERDF programme</li> </ul>	<ul style="list-style-type: none"> <li>Business Compass</li> </ul>

Nature of Opportunity/Need	Actions	Timeframe for delivery	Delivery Mechanism
Addressing funding constraints for high tech businesses (Long lead in times and concerns over commercial potential)	<ul style="list-style-type: none"> <li>Creation of a passive capital programme and additional (sector specific) investor readiness programmes</li> </ul>	<ul style="list-style-type: none"> <li>Business case being developed</li> </ul>	<ul style="list-style-type: none"> <li>Combined Authority delivered.</li> </ul>
Need to diversify supply chains and export markets	<ul style="list-style-type: none"> <li>Foreign Markets Programme- additional wraparound export support</li> <li>Tees Valley/Mayoral Trade Ambassadors Programme</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary scoping work being undertaken</li> </ul>	<ul style="list-style-type: none"> <li>Digital City/Sector Led initiative</li> </ul>
Ensuring that there is 'fit for purpose' business accommodation	<ul style="list-style-type: none"> <li>Updated Sites and premises study</li> <li>Continued investment in roll out of Boho Complex/ Fusion Hive Incubation Centre</li> </ul>	<ul style="list-style-type: none"> <li>Medium term</li> </ul>	<ul style="list-style-type: none"> <li>Sector led</li> </ul>
Need for enhanced broadband speed and coverage	<ul style="list-style-type: none"> <li>Roll out of full fibre network approach and possible 5G Testbed programme</li> </ul>	<ul style="list-style-type: none"> <li>Eol to be submitted summer 2018</li> </ul>	<ul style="list-style-type: none"> <li>Joint Local Authority Bid</li> </ul>

Regeneris Consulting / TVCA

## 8. Appendix A: Sectoral Definition

Table A.1 Digital and Creative Sector Classification	
Sector	SIC code
Reproduction of recorded media	1820
Manufacture of computers and peripheral equipment	2620
Manufacture of communication equipment	2630
Other publishing activities	5819
Publishing of computer games	5821
Other software publishing	5829
Motion picture, video and television programme production activities	5911
Motion picture, video and television programme post-production activities	5912
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Source: Tees Valley Unlimited, 2014