

TEES VALLEY SECTOR ACTION PLANS

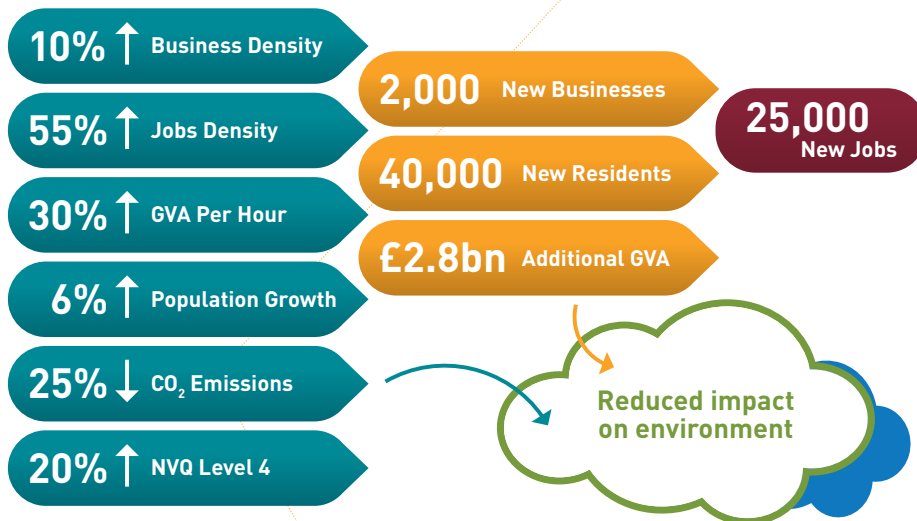
Executive Summary

December 2017



1.0 Introduction and Methodology

The refreshed Strategic Economic Plan: The Industrial Strategy for the Tees Valley (SEP) established an ambition for Tees Valley to become a high value, low carbon, diverse and inclusive economy and in so doing, to achieve the following targets by 2026:



To enable delivery against these targets the refreshed SEP called for “Detailed sector action plans be prepared to identify specific activities that are needed to remove barriers and realise opportunities for the growth and sustainability of the 25,000 jobs target.”

This report provides a summary of the action planning process and outcomes for the following 7 priority sectors and 1 cross cutting theme identified in the refreshed SEP:

- Advanced Manufacturing;
- Culture & Leisure;
- Digital & Creative;
- Health & Biologics;
- Logistics;
- Process, Chemicals & Energy;
- Professional & Business Services; and
- The Circular Economy (Cross-cutting theme).

Methodology

The action plans are the result of the following process of analysis, consultation and verification:

- Survey: December 2016: 550 businesses engaged, 430 completions;
- Consultation with sector champions & businesses;
- 8 Focus Group sessions with businesses and stakeholders;
- Sharing of documents and plans through web-platform; and
- Cross referenced to the following emerging strategies:
 - How to Create Great Jobs: Towards a Regional Industrial Strategy for Tees Valley, Trade Union Congress (2017); and
 - Industrial Strategy: Building a Britain fit for the Future: Department for Business, Energy and Industrial Strategy(2017)

Structure of Report

This report provides an overview of the key issues and opportunities raised in the consultation exercise and confirms emerging themes which have informed the indicative activities in each of the 7 Sector Action Plans and 1 Cross-cutting Action Plan.

Finally, it provides a number of growth scenarios in terms of jobs and productivity (Gross Value Added) which may inform subsequent prioritisation of investment, by sector and theme in the Tees Valley over the next three years. The report has the following sections:

- 2.0 Maximising Opportunities, Mitigating Weaknesses;
- 3.0 Addressing low: growth ambition, productivity and jobs gap;
- 4.0 Changing Perceptions of Tees Valley and its Economic Role;
- 5.0 Maximising Impact;
- 6.0 Long List of Proposed Interventions;
- 7.0 Growth Scenarios;
- 8.0 Short List of Interventions



2.0 Maximising Opportunities, Mitigating Weaknesses

A summary of the SWOT analysis is shown below:

Strengths

- Globally competitive in sectors such as Process, Chemicals & Energy and Advanced Manufacturing;
- Strong regional capability in enabling sectors: logistics, digital and creative and business and professional services;
- Strong local supply chains and tie into a few but large scale exporters across all sectors;
- Strong and supportive local governance with excellent engagement with business; and
- International connectedness through air and sea.

Weakness

- Limited recognition of Tees Valley Brand: Stronger ownership / management of the Tees Valley brand;
- Branch Plant Syndrome: Overseas control of business and investment decisions;
- Market failure of commercial and residential property markets;
- Skills: Attracting and retaining technical and managerial talent; and
- Business Density: Too few companies and lack of growth appetite amongst indigenous SMEs.

Opportunities

- Emerging strengths in infant industries for the Tees Valley such as Biologics and Culture and Leisure;
- Industry 4.0 (e.g. industrial digitisation) and the creation of new markets/supply chains through servitisation (creating a service out of manufacturing products and processes);
- Untapped potential of Local Institutions- in particular making best use of the regional innovation ecosystem;
- Circular economy: Strong asset and skills base: Opportunities within local supply chains and in the attraction of inward investment;
- Devolution: Tees Valley centric solutions; and
- Need to ensure local alignment with emerging national sector deals.

Threats

- High costs of doing business: High preponderance of energy and raw material intensive businesses;
- Over-dependence on too few exporters/supply chains, need to diversify;
- Grant dependency: Need to develop further links both within and beyond region to wider investor community;
- Reliance on ageing social and physical infrastructure: need for sectoral rebalancing; and
- Ageing workforce: Need to address replacement gaps, particularly amongst older/higher skilled individuals.

Stakeholder and business engagement identified the following:

Sector Specific Findings:

Each of the following sectors aligns with the sectoral definitions used in the refreshed SEP:

- **Advanced Manufacturing:** The sector has been an early adopter of 'servitisation', with the most significant productivity gains being made within the export of engineering services. This aspect of the sector will be greatly enhanced through improved air and broadband connectivity. In the wider sector, there is a need for support in two areas: New product development, specifically materials and supply chain diversification;
- **Biologics sector:** Although small, the sector is characterised by a range of companies offering complementary (not competing) products. The sector would significantly benefit from closer collaboration, particularly in relation to common procurement and regulatory due diligence;
- **Culture and Leisure:** In terms of number of companies and total employment, the sector is amongst the largest in Tees Valley and although there are a comparatively high number of visitors to the region, GVA per job remains low mainly due to low visitor spend. However, the sector has not yet fully availed of key aspects of innovation and wider business support (in particular digitisation);
- **Digital and Creative:** There is significant growth potential within the digital sector, principally in relation to being an enabler for the other priority sectors across the Tees Valley. A key priority must be for supply chain support. The sector also specified physical co-location, with preferred accommodation being high specification serviced offices in city centre locations;
- **Logistics:** Growth within the sector continues to be dominated by investment in 'key assets', such as the port, roads, rail and airport. However, there continues to be little 'added value around key assets' (in particular manufacturing activity) with Humberside providing a useful benchmark for good partnership working and the attraction of higher levels of foreign direct investment;
- **Process, chemicals and energy:** Considered by respondents across all sectors to be the lynchpin of the Tees Valley economy, national visibility of the sector continues to be a priority. The sector continues to be mainly 'price sensitive' and not research intensive due to its branch plant status. Principal opportunities relate to: 'reshoring' and enhancing ties with the wider UK innovation ecosystem;
- **Professional and Business Services:** Tier 1 and Tier 2 Legal and Accountancy firms have largely withdrawn from the region due to a lack of market depth. Many of the remaining business base face constraints related to progression planning; and
- **Circular Economy:** There is presently a lack of understanding of the application of this concept by businesses across all sectors. There is a need for public sector leadership to demonstrate the validity of the approach.

Concerns over sector designations: In particular:

- Process, chemicals and Energy: A more accurate reflection of the sector would stress the relationship to the following sub-sectors: Engineering services, Advanced Manufacturing, Professional and Business Services and Logistics;
- Digital and Creative: There should be a tighter focus on digital companies, with creative industries augmenting the Culture and Leisure sector;
- Culture and Leisure: Sectoral feedback identified that there were a variety of aims for this sector including: Social Inclusion, Attraction and Retention of Talent and Economic Growth. Economic growth focused on tourism opportunities should be the focus of any sectoral definition;
- Health and Biologics: There should be a tighter focus on biologics and life sciences, with health (social) care possibly being a separate sub sector of its own (although it shares common characteristics with other sectors such as retail and leisure); and
- Construction: There is a need for consideration of the labour market implications of this vital 'jobs rich' enabling sector.

Significant variation in the degree of economic intelligence and insight between the seven reports.

In general the sector action plans for the more established sectors (such as Process, Chemicals and Energy, Advanced Manufacturing and Logistics) were viewed as being more comprehensive, however there continues to be significant gaps in understanding in a number of emerging sectors, in particular:

- Digital and Creative;
- Culture and Leisure; and
- Health and Biologics.

However, feedback from partners and business champions was that the sector action plans provided a useful framework for analysis and that they should be considered a live document for routine update.

Thematic Findings:

- Education, Employment and Skills were noted as the most significant constraint facing businesses. In particular, there was a need to correctly diagnose emerging skills and employment gaps and putting in place mitigating in-company support aimed at existing employees;
- Promotion of place (and culture) was recognised as playing a key role in the attraction and retention of talent. There continues to be a perceived shortfall in the provision of appropriate (high specification) accommodation and R&D facilities and an associated lack of development funding. Connectivity and in particular future proofed broadband (full fibre network) was seen as being vital for continuing competitiveness (through digitisation); and
- Innovation per se, was not seen as a key driver of growth, however a number of common issues related to it were seen as key priorities:
 - Post Brexit and SSI there is a need to diversify markets/supply chains and enhance productivity through the development of new products and processes;
 - A lack of critical mass locally and therefore a need for enhanced collaboration in the development of new products and processes supported through a wider range of flexible funding sources;
 - A need to build on existing local competencies by attracting additional inward investment (building on existing profit centres); and
 - Unlike other regions, Tees Valley has too few fast growth companies, which are both jobs rich and have higher productivity.

In response to the SWOT and the detailed feedback from businesses, there are a number of emerging themes which have influenced the subsequent design of individual action plans, including:

Addressing low: growth ambition, productivity and jobs growth:

- Ensuring increased digitisation and servitisation (creating new follow on services from manufacturing techniques);
- Utilising the circular economy; and
- Promoting inclusion.

Changing perceptions of Tees Valley and its economic role, by:

- Increasing exports and range of markets we export to and diversifying supply chains;
- Addressing the 'branch plant' issue and encouraging greater collaboration across the innovation ecosystem;
- Creating not only a business environment but a people environment; and
- Creating working arrangements across a range of new geographies.

Maximising Impact, by:

- More strategic projects (fewer but larger);
- Prioritising by sector, in terms of jobs versus Gross Value Add (Output);
- Prioritising by scale of enterprise;
- Moving companies along the financial ecosystem; and
- Tie into national initiatives (sector deals)

Growth Scenarios, including:

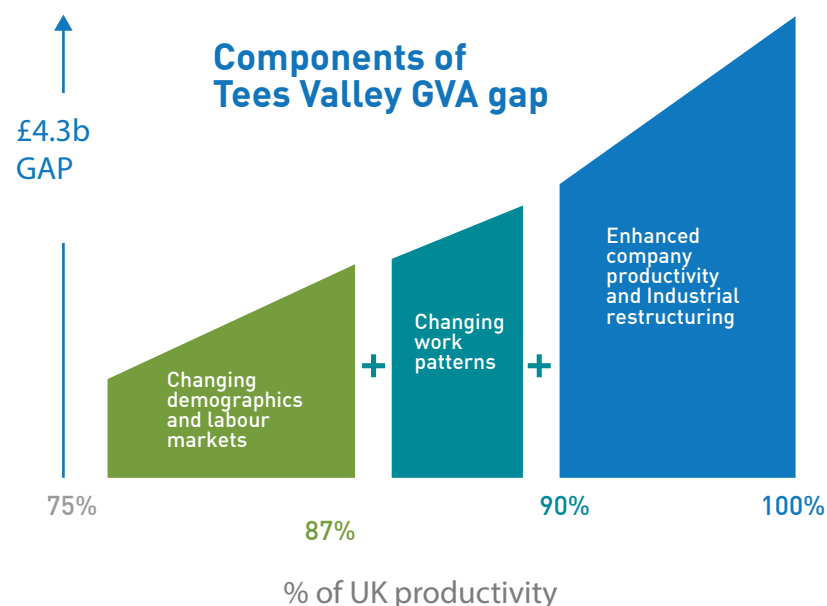
- High Jobs Growth/Low GVA Scenario;
- Low Jobs Growth/High GVA Scenario;
- Balanced Growth Scenario; and
- Rebalanced Economy Approach.



3.0 Addressing low: growth ambition, productivity and jobs gap

There are three significant issues affecting Tees Valley's productivity:

The chart below illustrates the components of the Tees Valley GVA gap with the rest of the UK:



Changing Demographic and Labour Markets

Encouraging inclusive growth by increasing the number of economically active working age residents, with a particular reference in creating opportunities for the long term unemployed and economically inactive:

- Low Employment rate: 293,100 Tees Valley residents were employed in 2016. This equates to an employment rate of 68.9%, considerably below the UK's 73.9%;

- Low Level of Educational Attainment: Tees Valley residents are less well qualified than in many other parts of the country. In terms of Level 4+ qualifications in 2016, the area needs an additional 26,700 residents qualified to that level to match the UK rate; and
- Replacement Jobs: There is a need for 116,000 replacement jobs over the next 10 years across a wide range of sectors and skillsets due to the impact of an ageing workforce. Without urgent action there is a real threat that posts will need to be filled by people from outside the region and that more junior staff will not be able to progress within their existing company/ sector.

Indicative activities aimed at enhancing inclusive growth and lifetime opportunities include:

- Career inspiration programmes;
- Signposting and re-skilling;
- Workforce development (replacement jobs);
- Management/Leadership training;
- Enhanced use of social clauses for large scale regeneration programmes;
- Incentivising employers to recruit 'hard to reach groups'; and
- Targeting investment in job rich sectors (particularly healthcare, business services and logistics).

Our approach is to create sustainable jobs for people and businesses:

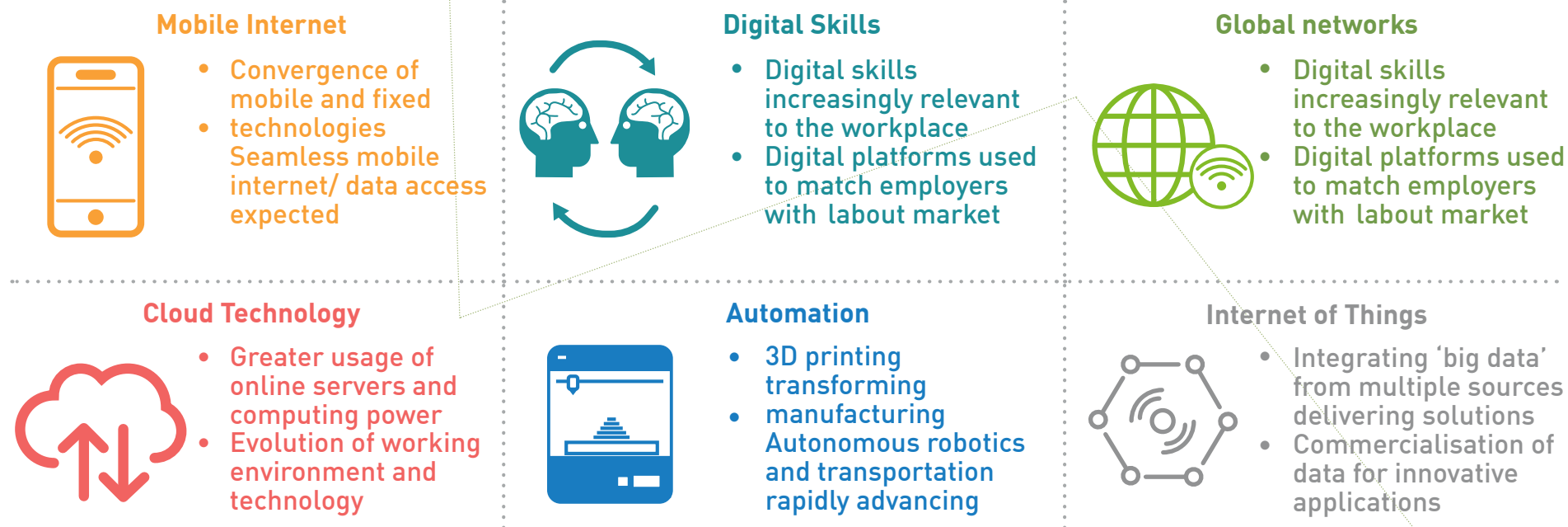
- Highly productive workers, enhancing the competitiveness of our business base; and
- Well remunerated jobs which meet the needs and aspirations of workers.

Changing work patterns and enhanced company productivity

Although we talk about rebalancing the economy through sectoral prioritisation later in the document, in this section we demonstrate how the refreshed SEP and sector actions aim to address low growth ambition in firms and hence low productivity.

Companies don't undertake innovation for its own sake, it is either a means to mitigate the high costs of doing business/ a particular constraint or in response to an emerging opportunity such as a new export market or supply chain initiative. It is essential to demonstrate the economic validity of new technologies to the local business base. Consequently, there will be an enhanced emphasis on the following 3 factors which can reduce the costs of doing business and increase profit margin:

- **Digitisation:** Digital technology and processes are continuing to impact on all aspects of enterprise and life, through systems convergence, disrupting business practices, transforming relationships with customers and creating new ways to harness the power of 'big data'. Potential applications include:



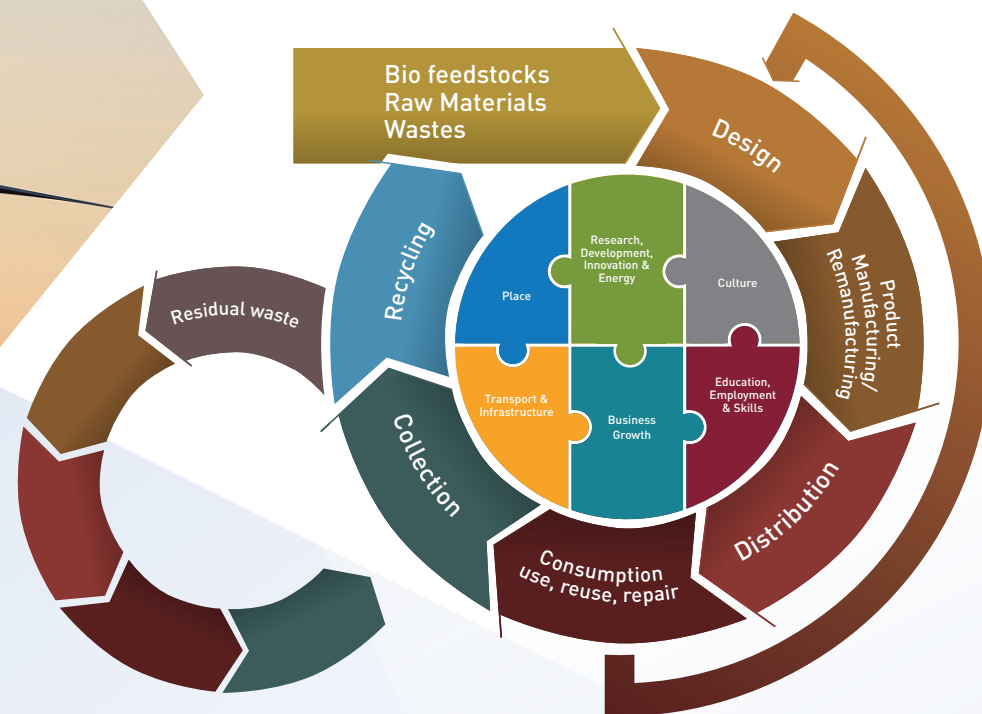
- With over 970 companies and a combined GVA of £380million, Tees Valley has indigenous strength in the digital media sector. There is an opportunity, through knowledge transfer and collaboration with the local digital media sector to improve productivity and international competitiveness through enhanced digitisation of products and processes across all priority sectors.

Circular Economy: The Circular Economy seeks to promote a shift away from the traditional linear economic model that emphasises 'take', 'make' and 'dispose' and its associated reliance on large quantities of cheap, easily accessible materials and energy, to a situation, where businesses can reduce wastage and reliance on importing raw materials and energy through product/process re-design and re-using inputs:

Although the most significant impact of the Circular Economy to the Tees Valley would be on industrial Symbiosis within the chemicals and processing sector, quick wins could be demonstrated in the following sectors:

- **Hospitality:** Low alcohol beer from leftover bread rolls;
- **Professional Services:** Secure IT recycling and refurbishment as well as WEEE recycling; and
- **Biologics:** Producing a superior next generation biofuel (and other high value sustainable products) from the by-products of biological industries.

“An ideal location to pilot and demonstrate the benefits and opportunities of the circular economy. With one of Europe’s largest integrated industrial complexes... targeted investment could help maintain the future of existing industries and to develop new economic opportunities.”
Lord Heseltine’s 2016 Review



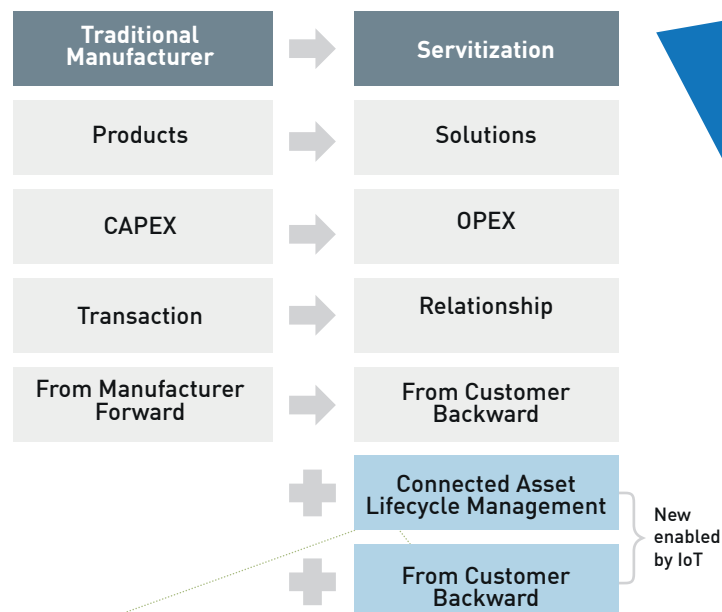
3.0 Addressing low: growth ambition, productivity and jobs

- **Servitisation:** Servitisation can be considered as a shift from selling products to selling an integrated combination of products and services that deliver value in use. When carried out in combination with digitisation and circular economy approaches, it too can enhance productivity and international competitiveness.

- Tees Valley leads the way in terms of manufacturing servitisation with around 14,000 jobs, 5.2% of total employees or 2.3 times the number of employees working in the sector compared to England as a whole. However there is an opportunity to further augment the service offering across all of the priority sectors.

Although the technology and approaches supporting digitisation, servitisation and the circular economy are largely proven, there remains a degree of uncertainty as to their economic validity amongst the business base. It will be necessary to demonstrate their application to business through **use of collaborative networks** (private, public and higher education sectors) and **innovation funds**.

By undertaking these activities, we will contribute to addressing the £4.3bn gap in regional output.



4.0 Changing Perceptions of Tees Valley & its Economic Role

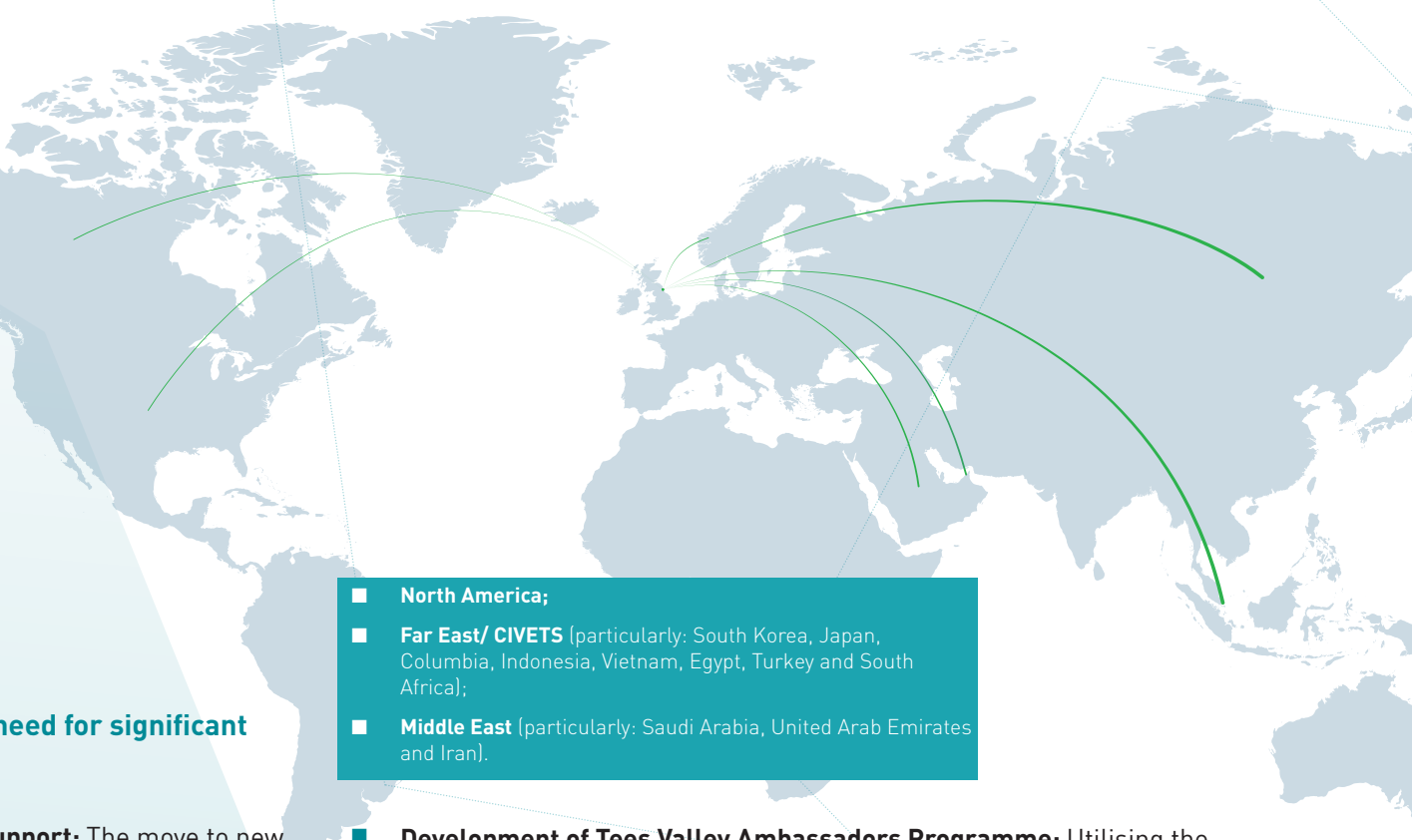
The consultation exercise to inform the sector action plans, identified the need to enhance the visibility of the Tees Valley and its component industrial base, both to Government and to potential investors/business partners.

A key action is therefore to change perceptions of Tees Valley and its economic role by:

- **Increasing exports and range of markets exported to and diversifying supply chains:** Although the North East as a whole has a strong tradition of export activity, this is dominated by a few but large internationally owned companies. There is also a strong dependency by local producers of intermediary goods on the supply to the local market. This was made evident with the recent closure of SSI and the highly localised and concentrated nature of its supply chain. Finally, the BREXIT debate has highlighted the over-dependence (62% of total goods exports) of the North East and Tees Valley in particular, on exporting to European markets.

To address this trade imbalance there will be a need for significant support, including:

- **Trade Visits and additional wraparound export support:** The move to new markets, particularly in emerging markets in more distant parts of the globe will require significant amendments to the types of support offered to companies. Unlike doing business in Europe, opportunities in many emerging markets, require more time to establish relationships and trust and compounded by distance, means the cost of trade and trade visits is more expensive. Consequently there is a need for additional wraparound export support to understand new markets and trading relationships;
- **Development of Tees Valley Ambassadors Programme:** Utilising the diaspora of professional and technical staff (originally from Tees Valley and now in leading positions across the globe) to highlight emerging opportunities and work with local leaders to promote the region;
- **Investor Readiness Programme:** Principally aimed at encouraging business expansion amongst indigenous firms and the attraction of new investment into the region.

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- **North America;**
 - **Far East/ CIVETS** (particularly: South Korea, Japan, Columbia, Indonesia, Vietnam, Egypt, Turkey and South Africa);
 - **Middle East** (particularly: Saudi Arabia, United Arab Emirates and Iran).

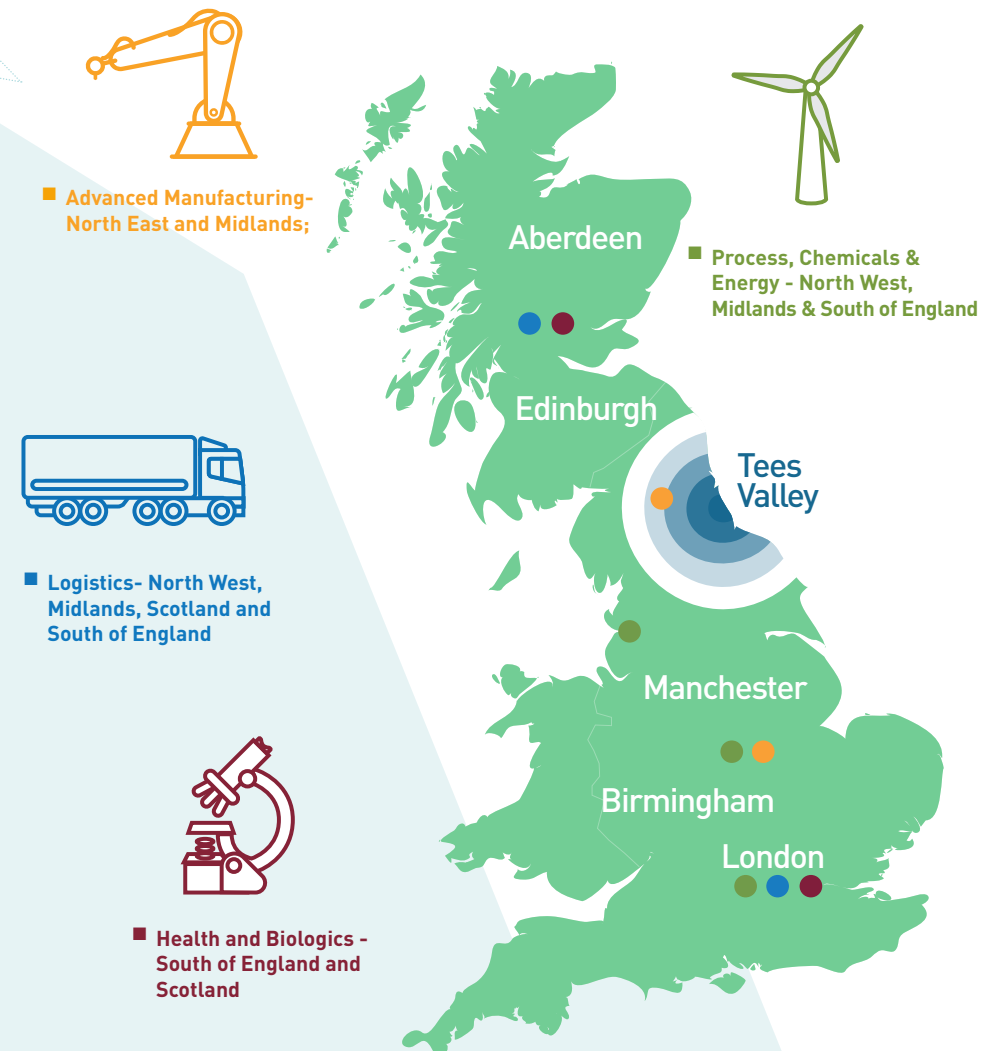
- **Creating not only a business environment but a people environment:** Many Tees Valley businesses report difficulties in attracting and retaining staff. Survey and consultation evidence has identified the principal constraints as being two-fold: perceived lack of quantum of subsequent job opportunities and an absence of cultural, sporting and entertainment activities across the region:

- We will aim to develop job opportunities by continuing to support business start ups and those companies with significant growth potential;
- We will enhance the people environment through concerted investment in infrastructure including:
- More visitor attractions and the development of a private sector led culture/tourism offering; and
- Development of town centres where people can work, live and play; a '24 hour economy'.

- **Addressing the 'branch plant' issue and encouraging greater collaboration across the innovation ecosystem:** Although circa 98% of enterprises are indigenously owned micro and SMEs, exports as previously noted are principally delivered by a few but large internationally owned companies, particularly in the process, chemicals and advanced manufacturing sectors. Although beneficial to the local economy, they are merely branch plants, there is a need to further anchor them in the region. The principal methods for anchoring these companies will be: encouraging tighter linkages with the regional innovation ecosystem and through Trade Visits and Strategic Account Management, the attraction and retention of new /higher added functions from overseas owned companies; and

- **Creating working arrangements across a range of new geographies:** Tees Valley is no longer solely a component part of the North East, it now operates in new economic and political geographies: part of the Northern Powerhouse, one of six Combined Authorities and according to the emerging Industrial Strategy, as an international cluster for sectors such as chemicals, advanced manufacturing and producer of intermediate goods

for the automotive sector. Working across such geographies, necessitates clearer messaging of strategic intent, alliance building and prioritisation of resources. It will therefore be necessary to have a coordinated role between the new Mayor, Combined Authority and sectoral champions to ensure a consistent message to local businesses and the wider supply chain.



5.0 Maximising Impact

The previous sections have identified new interventions to address existing/emerging opportunities and constraints. However the sector action plans also call for maximising impact by enhanced prioritisation. The move from programme support to a Single Pot approach provides such an opportunity, including:

- **More strategic projects (fewer but larger) and moving companies along the financial ecosystem:** The refreshed SEP calls for an enhanced leverage rate (£8:1 as opposed to £6.5:1). This will only be achieved by moving away from providing grants/gap funding to small projects and onto providing investment (loans/equity) to larger/more strategic projects. Although there may still be occasions, when grants will be needed (most extreme market failures), the investment principle going forward is maximising economic and financial returns to the region.
- **Prioritising by scale of enterprise and by sector:** Although most of our investment will continue to be focused on supporting micro, small and medium sized enterprises (as collectively these account for circa 98% of companies across the Tees Valley) two emerging opportunities have led to greater attention being paid to supporting medium/large enterprises including:
 - **Changing state aid guideline for Tees Valley:** Although governed by European guidelines and subject to change in any Brexit agreement, Tees Valley (and wider NUTS 2 area of County Durham) is now classified as a Less Developed Region- this means that the rate of intervention to micro and SMEs has increased and also that assistance can now be provided to large companies; and
 - **Emerging research on scalable companies:** These tend to be larger companies, who if supported are both jobs rich (produce more jobs) and more productive (GVA per job is significantly higher).
- **Indicative activities include:** Development of a scalable companies initiative, providing additional wrap-around support of business compass interventions primarily to medium and large scale companies. However, it is essential that Tees Valley has the evidence base and strategic and operational flexibility to tie into emerging national initiatives such as sector deals.



6.0 Long List of Proposed Interventions

The following table identifies the emerging business need and associated mitigating activities:

Business told us...	Indicative Activity	Description	New/ Existing/ Improved	Sectors	Delivery Mechanism*
Education, Employment and Skills					
Ongoing job vacancies; and Skills mismatch	Career Inspiration Programme	This action seeks to align residents career aspirations with future growth prospects . Interventions may include: <ul style="list-style-type: none"> Ongoing dialogue with employers/representative bodies in priority sectors; Sector specific skills events; Fact sheets/blogs; and Focused internships/ study visits/Job placements. 	Improved	All	1/2/3
Need for technical/ specialist retraining for changing market conditions	Developing Centres of Excellence (potential Institute of Technology)	This provision will be demand-led including bespoke training, CPD and 'bite sized' provision and formal training and is focused on embedding specialist skills. It will be linked to the Open Access initiative, which is orientated towards knowledge transfer/innovation between HE/FE sector and SMEs.	New	All	3/4
Many job applicants lack basic (often interpersonal) skills	Jobs Readiness Programme	Labour market intermediary interventions which provide an informed understanding of employer needs linked to the key sectors. Work with DWP and third sector to develop information, advice and guidance on pathways to the key sectors. Coordination of existing programmes: YEI, and Building Better Opportunities.	Improved	All	2/3
Need for greater clarity regarding use of apprenticeships	Signposting apprenticeship opportunities and promoting progression	<ul style="list-style-type: none"> Increasing use of Apprenticeship Ambassadors (promotion and engagement with firms); Roll-out of replacement to Apprenticeship Grant for Employers; Supporting enhanced uptake of Apprenticeship levy (workshops and 1-1s); Promoting progression to high level apprenticeships (workshops and 1-1s) 	Improved	All	2/3/4

* Delivery mechanisms: 1: CA funded and delivered, 2: CA funded and commissioned, 3: CA funded and delivered by third party, 4: CA influencing role only

Business told us...	Indicative Activity	Description	New/ Existing/ Improved	Sectors	Delivery Mechanism
Education, Employment and Skills					
Workforce with: <ul style="list-style-type: none"> • Low(er) productivity; • Low growth ambition; • Limited progression planning; • Skills mismatch. 	Addressing the workforce challenge	<ul style="list-style-type: none"> • Retaining talent; • Attracting talent; • Middle management training; and • Progression programme. • Indicative activities could include: <ul style="list-style-type: none"> • Development of skills diagnostic (possibly augmenting Business Compass diagnostic); • Training workshops (Deliver up to date information on people related issues • (Inter-personal) Skills growth programme: Unlock the potential of staff by improving key skills such as team working and problem solving; and • Sign-posting to Centres of Excellence Programme. 	Improved	All	1/2/3
Transport and Infrastructure					
<ul style="list-style-type: none"> • Need for enhanced (internationally competitive) broadband speed and coverage 	Smart Region (Full Fibre Network)	<p>The aim of the initiative is twofold:</p> <ul style="list-style-type: none"> • To provide globally competitive broadband; and • To create an 'integrated learning region' which is able to utilise publicly available data to develop policy interventions, utilising the critical mass of Tees Valley. <p>Based on the Chattanooga Approach this will be a combination of infrastructural development and the subsequent use of big data. Key actions will include:</p> <ul style="list-style-type: none"> • Scoping exercise to identify best mechanism for the roll-out of business orientated Full Fibre Network; • Development of business case to identify public/ private funding opportunities; and • Enablement of all key business premises; <p>By-products will include:</p> <ul style="list-style-type: none"> • Development of a data lab approach/open innovation events to develop policy decisions; and • Development of digitisation support initiatives. 	New	All	2

Business told us...	Indicative Activity	Description	New/ Existing/ Improved	Sectors	Delivery Mechanism
Culture					
<ul style="list-style-type: none"> • Need to create a good living environment to attract and retain people • Seen as an infant industry, need to develop a Tees Valley culture offer 	City of Culture Strategy and Implementation	Support for the development of a City Culture Strategy and subsequent Action Plan, including: <ul style="list-style-type: none"> • Cultural Mapping and Capacity Review; • Understanding of identity; • Capacity building (support the existing cultural assets); • Audience development; and • Facilitation in the development of major visitor attractions. 	Improved	Culture & Leisure	2, 3 & 4
<ul style="list-style-type: none"> • Need to develop the leadership capacity of the sector 	Establish a destination Management Function	A visitor destination plan refresh is underway which will determine the destination management function. It will coordinate tourism and investment activities and build wider links and joint offer with adjacent regions	Improved	Culture & Leisure	1, 2, 3 & 4
<ul style="list-style-type: none"> • Need to enhance the physical offering of the sector 	Feasibility Study and roll out of cultural capital fund for accommodation and exhibition and event space	2 stage: Preliminary feasibility study/action plan and identification of culture priorities for incorporation into capital investment plan	Improved	Culture & Leisure	2, 3 & 4

Business told us...	Indicative Activity	Description	New/ Existing/ Improved	Sectors	Delivery Mechanism
Place					
<ul style="list-style-type: none"> Concerns over the fitness for purpose of wider physical infrastructure 	Resilience Study and Action Plan	Study investigating the continued fitness of purpose of the wider physical infrastructure across the Tees Valley, leading to the development of an Action Plan	New	All	3
<ul style="list-style-type: none"> Perceptions that there is a mismatch between land and property demand (Grade A office accommodation) and existing supply 	Sites and premises review	<p>Review (assessment of fitness of purpose) of existing and planned sites and premises and the opportunities for either:</p> <ul style="list-style-type: none"> repurposing/reuse of premises/land (particularly town centres and existing business parks); New build. <p>Also investigation into new funding mechanisms Subsequent development of land and property action plan</p>	New	All	2 & 3
<ul style="list-style-type: none"> Use our main gateways as a focus of adding value 	Gateways development plan	Utilise Mayoral Development Corporation model to develop sector specific place interventions for the attraction of FDI to the region, including: Logistics Hub and Low Carbon Aeronautical Fuel Hub to support aeronautical opportunities	New	Logistics, Adv Man Energy	1, 2, 3, 4

Business told us...	Indicative Activity	Description	New/ Existing/ Improved	Sectors	Delivery Mechanism
Research, development, innovation and energy					
<ul style="list-style-type: none"> Need for accessible and affordable testing facilities 	Open access testing facilities	Preliminary mapping and engagement of all cutting edge equipment and training provision across Centres of Excellence, FE and HE facilities. Branding exercise and links to Innovate Tees Valley and Business Compass (potential tie in to Innovation Vouchers for product testing /feasibility).	New	All	2, 3
<ul style="list-style-type: none"> Need for cheap and large scale demonstration space 	Provision of land in support of demonstration projects	Utilising vacant sites (preferably with closed grids) direct financial support/provision of space for a range of demonstration projects (i.e. applied research facilities used to illustrate the commercial viability of circular economy solutions to local and national businesses	New	Circular economy	2, 3
<ul style="list-style-type: none"> High costs of investing in innovation; and Lack of experience of innovation No mechanism for providing innovative answers to common problems 	Innovation (collaborative) networks (Mayoral) Innovation Challenge Funds	Funding will be provided to support investment in collaborative innovation (principally related to circular economy, digitisation or servitisation solutions) as a result of: <ul style="list-style-type: none"> Responses to Mayoral Challenges: Usually arising from Open Data Events or specific challenges set by the Mayor and key advisors); Sector specific challenges: Usually arising from individual businesses and community/voluntary sector bodies in response to an identified constraint. 	New	All	2, 3

Business told us...	Indicative Activity	Description	New/ Existing/ Improved	Sectors	Delivery Mechanism
Research, development, innovation and energy					
<ul style="list-style-type: none"> Insufficient information about funding opportunities 	Brokering access to innovation funding	Brokerage support to businesses to facilitate access to finance and take up of R&D activity. Coordinate (through facilitated workshops) the innovation support offer to simplify pathways to opportunities such as the Industrial Strategy Challenge Fund, Higher Education Innovation Funding, Small Business Research Funds, Knowledge Transfer Partnerships, Research Partnerships Investment Fund and Northern Powerhouse Investment Fund	New	All	4
<ul style="list-style-type: none"> Loss of national investment into Tees Valley 	Utilise sector deals	Utilising Science and Innovation Audits, as well as emerging industry groupings, identify and support (through facilitation) a number of sector deals	New	Chemicals Adv Man, Off Shore Bio-econ Biologics	4
<ul style="list-style-type: none"> Need for patient capital to invest in high risk/slow payoff initiatives 	Investing in innovative projects	Develop a patient capital fund to invest in high risk/long term projects, including: <ul style="list-style-type: none"> Provision of R&D facilities; Equity support for scalable companies (which do not meet the risk profile of Northern Powerhouse Investment Fund; and Corporate accelerator model: <ul style="list-style-type: none"> Preliminary scoping work with research intensive firms; Development of programme of support including: <ul style="list-style-type: none"> Boot-camps to encourage collaboration in product/process design Intellectual Property support; and Equity advice/commercialisation. 	New	Chemicals Adv Man Circular economy Biologics	2

Business told us...	Indicative Activity	Description	New/ Existing/ Improved	Sectors	Delivery Mechanism
Business Growth					
<ul style="list-style-type: none"> Problems of translating appetite for growth into deliverable actions. 	Scalable Companies Programme:	<ul style="list-style-type: none"> Following standard Business Compass diagnostic, an interim manager/non exec director may be placed with an identified company (Specialist Account Managed Companies (Scalable Companies) or Early Stage Growth (Potential Scalable Companies); to develop the growth ambition of the firm and the following types of support may be offered: <ul style="list-style-type: none"> Investor Readiness; Specialist Export Support; Specialist Manufacturing Support (digitisation, servitisation and or circular economy solutions); and Supply Chain Diversification. 	New	All	2, 3
<ul style="list-style-type: none"> Need to diversify markets (both export and FDI) 	Foreign Markets programme (FDI and Exporting) Wrap around export support Tees Valley /Mayoral Trade Ambassadors Programme	<ul style="list-style-type: none"> Augmenting the standard DIT Passport to export initiative, the programme will provide the following suite of support: <ul style="list-style-type: none"> A 'Trade' Knowledge Transfer Partnership, utilising an academic/specialist in the target market and a 'local graduate with language skills' to develop an export strategy for target market and subsequent implementation of action plan; Additional in-market visits to target markets; and Inward bound sectoral marketing events. <p>Enhanced FDI and investment support to Catapult(s); Mayoral/Tees Valley sectoral visits to target markets for both trade and Foreign Direct Investment: Utilising Tees Valley overseas workers in senior positions in target markets and sectors to act as ambassadors for the region and identify emerging opportunities. Indicative activities:</p> <ul style="list-style-type: none"> CRM system updated; Preliminary training; Awareness raising; and Networking events (domestic and in target markets).leading to FDI enquiries 	New	All	2, 3, 4

Business told us...	Indicative Activity	Description	New/ Existing/ Improved	Sectors	Delivery Mechanism
Business Growth					
<ul style="list-style-type: none"> Lack of knowledge as to how to use circular economy to deliver enhanced productivity 	<p>Coordinated voice for the Circular Economy</p> <p>Demonstrator of best practice</p>	<ul style="list-style-type: none"> Circular Economy Working Group/Collaborative Network to be set up will at the regional level to bring together both public and private sector stakeholders to oversee the growth of the sector with the vision of developing Tees Valley as the recognised leader in the deployment of the Circular Economy and as a vibrant hub for the growth of circular economy related businesses; and TVCA to become Governmental member of the CE 100 Group in order to gain access to international best practice (Circular Economy Training Toolkit) and the opportunity to engage in collaborative initiatives to advanced circular economy solutions. 	New	Circular Economy	1
	Providing circular economy solutions to large scale public sector procurement projects	<ul style="list-style-type: none"> Liaison with major public/private bodies regarding emerging large scale procurement opportunities and potential for utilising circular economy solutions (including reuse of materials from large scale closures); and Utilise challenge funds to develop innovative circular economy solutions to procurement opportunities identified by the Circular Economy Working Group. The aim should be to facilitate emergent supply chains for large scale procurement opportunities. 	New	Circular Economy	1,4

7.0 Growth Scenarios

The refreshed SEP has a target to deliver 25,000 new jobs over the next decade (2016-26). This section identifies those jobs that are directly attributable to support delivered under the Combined Authority's existing Investment Plan.

The following table identifies potential investment by activity type in the first iteration of the Investment Plan for the period 2016-21 and through use of cost per job and GVA per job metrics, provides an overall assessment of job and GVA impact:

	Investment*	Jobs Impact	GVA Impact
	£m .	Jobs	£m
Business growth ¹	115	4,600	202
R, D & I ¹	59	2,360	104
Education and Skills ²	112	3,000	132
Culture ³	11	367	16
Transport ⁴	115	Nil	
Enabling Infrastructure ⁵	41	1,367	60
Total⁶	453	11,693	515

* Sourced from investment Plan Outline Budget

1. BIS (2016) 'The Impact of Public Support for Innovation on Firm Outcomes suggests a cost of £5,000 per job created, which is well below other estimates of additionality – see What Works Centre for Local Growth (June 2016 'Business Advice'. £20k has been used as a conservative measure of potential impact, after allowing for 20% overhead costs
2. 30,000 funded interventions, 1:10 conversion rate (Source TVCA)
3. £30k cost per job based Homes and Communities Agency Cost Per Job Guidance (2015)
4. Assume no net impact.
5. £30k cost per job based HCA Cost Per Job Guidance (2015)
6. We have excluded the following cost heading: Project Development, Flexible Delivery and Evaluation, amounting to £11m as do not directly relate to delivery.

The following table provides a wider assessment (including wider multiplier effect on employment) of attributable jobs growth:

	Initial	Direct	Indirect	Induced	Total
Business growth ¹	4,600	1,060	320	740	6,720
R, D & I ¹	2,360	540	170	380	3,450
Education and Skills ²	3,000	690	210	480	4,380
Culture ³	367	80	30	60	537
Enabling Infrastructure ⁵	1,367	310	100	220	1,997
Total⁶	11,693	2,680	830	1,880	17,084

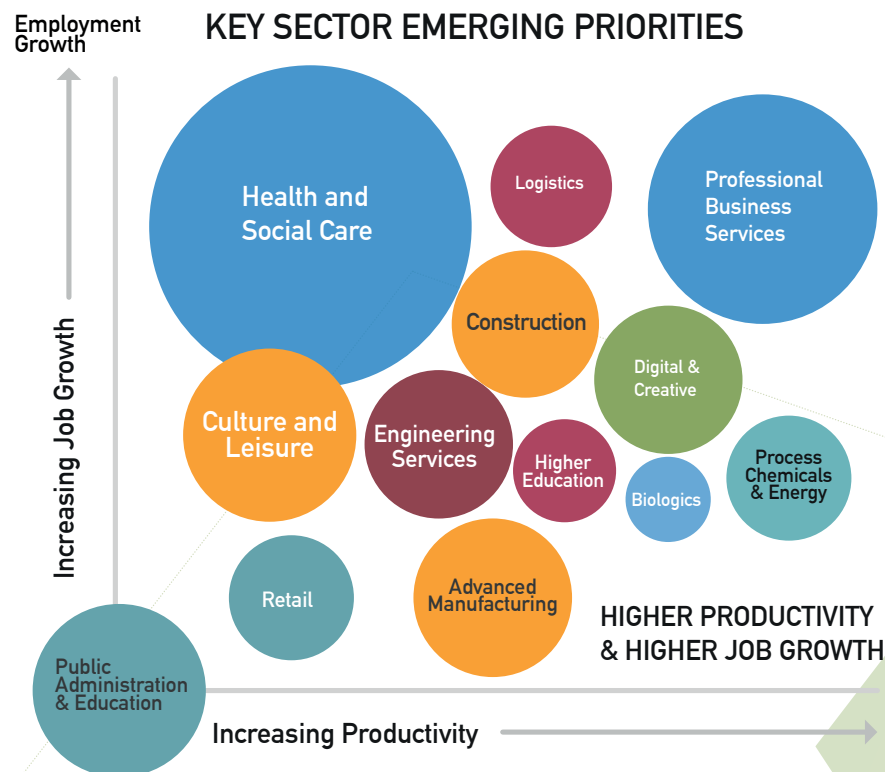
Sectoral Difference: The table below illustrates the significant variance in GVA if there were to be enhanced sectoral prioritisation:

	SEP GVA/ Job	Initial	Direct	Indirect	Induced	Total GVA
Process & Energy	125,000	125,000	35,000	11,300	46,300	217,500
Business & Professional	88,800	88,800	20,440	5,300	17,800	132,300
Advanced Manufacturing	90,000	90,000	18,900	4,500	18,900	133,200
Logistics	40,000	40,000	9,200	2,800	6,800	58,400
Digital & Creative	40,000	40,000	8,000	2,000	7,600	58,000
Culture & Leisure	32,500	32,500	4,200	1,000	2,900	40,600
Health & Biologics	90,000	90,000	9,000	1,800	10,800	111,600

Given the variance in GVA per type of intervention and by sector, there is an opportunity to maximise impact through prioritisation.

The following figure uses two variables to prioritise activities across key sectors:

- Increasing Job Growth (Jobs Rich); and
- Increasing productivity (Increase in output/GVA)



Four possible growth scenarios have been identified which consider the trade-off between increasing jobs growth and productivity, including:

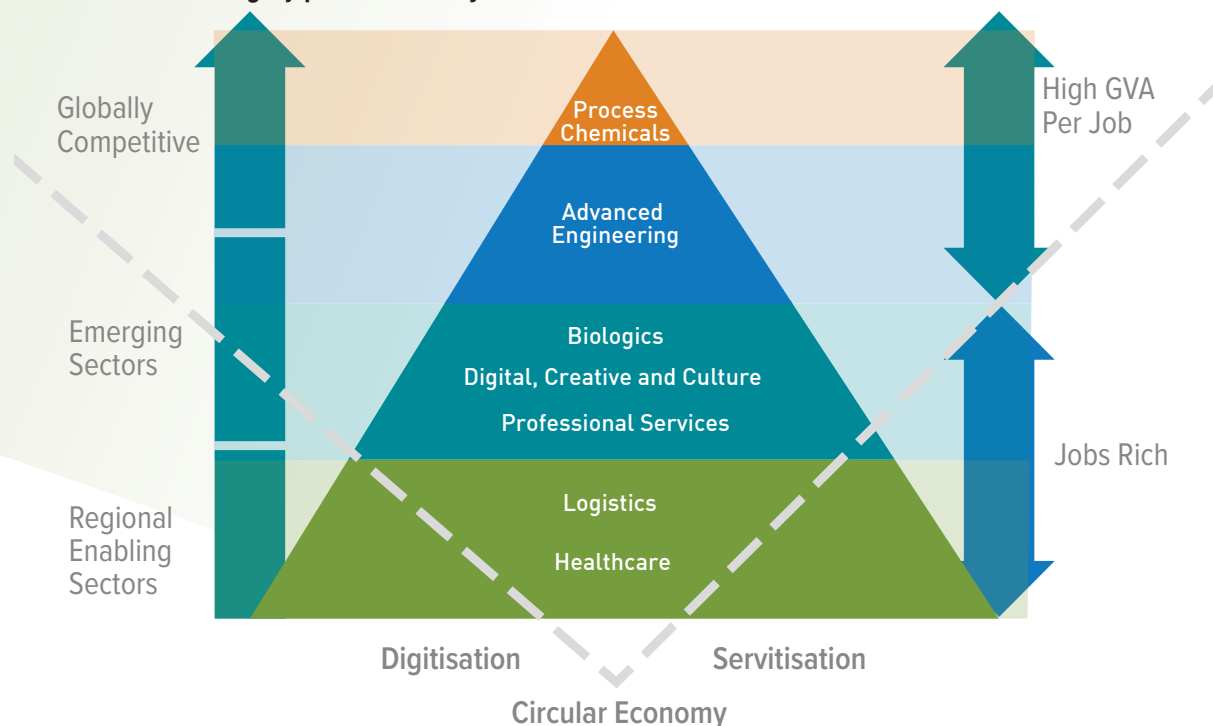
- **Balanced Growth Scenario:** This is the status quo option, with no sectoral prioritisation. Jobs range 12,500 direct jobs;
- **High Jobs Growth/Low GVA Scenario:** This would focus on the provision of entry level jobs mainly within health and social care, culture and leisure, retail, construction and logistics sectors. Indicative activities will primarily relate to skills/employability support and mainly related to larger employers. Principal risks relate to overexposure to cyclical downturns and issue of deadweight of support to larger companies. Jobs Range: 12,000-18,000 direct jobs*;
- **Low Jobs Growth/High GVA Scenario:** This would mainly focus on the provision of high GVA jobs, mainly in emerging sectors: such as Biologics, Advanced Manufacturing, Process, Chemicals & Energy, Digital & Creative and Engineering Services. Indicative activities will relate to supply chain/export support and innovation interventions, principally to SMEs. Principal risks relate to high costs per job and an over-reliance on a small business base. Jobs Range: 6,000-12,000 direct jobs**;
- **Rebalanced Economy Scenario:** This would have targeted interventions at two sets of sectors: Jobs Rich: Principally Health and Social Care & Professional and Business Services, principally utilising skills/employability support interventions and Output growth/rebalancing: aimed at engineering services, process chemicals& energy, biologics and engineering services. Indicative activities will relate to supply chain/export support and innovation interventions principally to SMEs. Jobs Range: 9,000-15,000 direct jobs*** and all do something risks apply.

The Rebalanced Economy Scenario is the preferred option as it addresses the following three criteria:

- Encourages jobs growth;
- Enhances output and addresses the productivity challenge; and
- Encourages sustainability (rebalancing), by further anchoring the region's remaining globally competitive sectors and developing infant industries such as biologics.



The following chart illustrates the rebalanced economy scenario, identifying both the relationship between sectors and whether they are either highly productive or jobs rich:



The following table illustrates the impact on job numbers of the Rebalanced Economy Scenario:

	Status Quo	Rebalanced Economy Scenario	
		Lower Scenario	Upper Scenario
Low Carbon/process, chemical and energy	1,000	750	1,250
Advanced Manufacturing	750	562	937
Other Manufacturing	-2,000	-1,500	-2,500
Construction	1,500	1,125	1,875
Professional and Business Services	3,500	2,625	4,375
Logistics	1,500	1,125	1,875
Digital	1,500	1,125	1,875
Higher Education	500	375	625
Health and Social Care	1,750	1,313	2,188
Services	1,000	750	1,250
Culture and Leisure	1,500	1,125	1,875
Total	12,500	9,375	15,625

It should be noted that the jobs figures quoted in the scenarios are only for new jobs and are entirely additional to the 116,000 projected replacement jobs that it is envisaged will be principally sourced from unemployed residents and existing junior staff.

8.0 Short List of Interventions

Identified Need	Intervention	Status	Timeframe	Total Cost	Public Sector Contribution	Private Sector Contribution	Impact
Need to address emerging employment and skills gaps within companies	Workforce Development Programme	New Programme	5 year programme	£1.125m	£0.56m (Apprentice Levy + ERDF bid)	£0.56m	1,125 jobs
Need to strengthen local clusters through enhanced collaboration (particularly in support of innovation)	Collaborative Networks	New Programme	5 year programme	£2.0m	£1.7m* (TVCA)	£0.3m	5 high potential start ups 100 jobs*
Post BREXIT and post SSI, need to diversify supply chains and export markets	Diversifying Markets	Enhanced Programme	5 year programme	£2.5m	£1.25m (ERDF bid)	£1.25m	500 jobs
Need to strengthen local clusters through the attraction of more inward investment (reshoring activities)	Inward Investment Programme	Pilot Project	1 year pilot	£0.12m	£0.12 m (TVCA development fund)		1 inward investment 50 jobs*
Too few high growth firms, need to focus on potentially scalable companies	Scalable Companies Initiative	New Programme	5 year programme	£0.45m	£0.25 million (Growth Hub bid)	£0.25m	150 jobs*
Need for enhanced connectivity to facilitate roll out of digitisation	Full Fibre Network	New Programme	5 year programme	£15m	£0.15m (TVCA development fund)	£14.85m	20 construction jobs
Need for additional financial support for more speculative/ longer term investments.	Patient Capital Programme	Enhanced Programme	5 year programme	£10m	£10m (ERDF Legacy fund)		1,800 jobs
Need for technical/ specialist retraining for changing market conditions	Developing Centres of Excellence (potential Institute of Technology)	Enhanced Programme	5 year programme	TBC	TBC	TBC	TBC
Total				£31.2m	£14.0m (*£1.97m TVCA)	£17.21m	3,745 jobs (inc 300 high value jobs)

Cavendish House, Teesdale Business Park, Stockton-on-Tees, Tees Valley, TS17 6QY
T: 01642 524400 | E: info@teesvalley-ca.gov.uk

www.teesvalley-ca.gov.uk