UK2070 COMMISSION

UK2070 TEESSIDE TASK FORCE

Background Technical Report
to
The Report of Findings

November 2021

UK2070 Commission Teesside Task Force

The UK2070 Commission is an independent inquiry into city and regional inequalities in the UK. Chaired by Lord Kerslake, it has been set up to conduct a review of the policy and spatial issues related to the UK's long-term city and regional development.

The Teesside Taskforce was established by the UK2070 Commission to work with the Tees Valley Mayor and Combined Authority to support the long-standing aspirations for a major increase in the number and quality of job opportunities in the region, alongside enhancing the wellbeing of people who live in Teesside.

This *Background Technical Report* is in support of the *Report of Findings* and is based on evidence gathered by the UK2070 Task Force from its interviews, research and its Call for Evidence. This includes a face-to-face Panel session to test the evidence gathered and presented in a draft consultation version of this report.

The *Report of Findings* sets out recommendations for action that reinforce the current initiatives, and identifies immediate opportunities for action, for Mayor Houchen and Tees Valley Combined Authority. These recommendations are within the context of the 10-Point Plan set out in the UK2070 Commission's report '*Make No Little Plans*'.

As the *Report of Findings* demonstrates, the opportunities in Teesside are considerable but so also are the challenges. The current national and local focus on harnessing the opportunities is very welcome and has real potential. However, to fully succeed will require sustained local leadership and national support over a long period. Nothing less will '*move the dial'*.

The Task Force is conscious that the economic and social policy environment is subject to change, in particular because of the fallout from the Covid-19 Pandemic. The data and evidence in both these reports Have taken account of this uncertainty, and the UK2070 Report *'Go Big: Go Local'* which reviewed and updated its findings in the light of the economic shock and social impact of the pandemic.

The Task Force is grateful for all the support that it has received from across the Tees Valley – from the five local councils, public agencies, the business community, academia, voluntary groups and individuals. It wants to particularly thank the Mayor and his team, the Combined Authority, Teesside University, Middlesbrough College, the Local Enterprise Partnership and Dept. of Science & Innovation for the Republic of South Africa, for all their support and advice. In addition, the Task Force wants to recognise the support that it has received from Turner & Townsend and acknowledge the additional technical advice it has received from Dr. Ying Jin, the University of Cambridge, Professor Ian Wray and Dr. Francisco Rowe, the University of Liverpool and Professor Cecilia Wong, the University of Manchester.

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Section 1

Context for the UK2070 Teesside Task Force

Tees Valley

1. The Tees Valley is on the threshold of change, leading the UK's transition to a Green Economy and as an international gateway for the UK. It has vital assets and capabilities which have both national importance and global reach in the sectors of advanced manufacturing, energy, digital and health innovation, which are at the core of the Tees Valley economy.

2. Tees Valley has a long and proud industrial history. The world's first railway was invented here and led in chemicals and steel, with a major port facility. In the 1970s the area boomed but subsequent loss of local industries brought high levels of unemployment and deprivation.

3. Tees Valley is now, however, poised for a new economic future. It is uniquely well placed to take advantage of future wind generated electricity from the North Sea, to sequestrate carbon in abandoned North Sea oil wells, and to create new industries based on green energy including electric furnace steel production and hydrogen as a 'green substitute' for oil.

4. This report therefore brings together evidence in answer to the following matters:
    - The scale of change needed to transform Tees Valley's economic performance and social conditions (Section 2).
    - The Vision for the future of Tees Valley in terms of its national and regional and local inter-relationships (Section 3).
    - The implications of the UK2070 10-Point Plan in delivering the future Vision and for strengthening or extending the current programmes of action (Section 4).

The Policy Context of Tees Valley

5. The ambition for Tees Valley is to lead the UK's transition to a green economy, expand its international trading role. But the area must capture and spread the benefits of this growth, avoiding the risk of a dual economy. The new high-productivity jobs in the manufacturing and government sectors must regenerate the local economy and communities, and build a resilient post Covid recovery.

6. Public policy is shifting to support Tees Valley in these ambitions. Tees Valley is already recognised in the Government's decisions on the Treasury North at Darlington, the Tees Freeport, the National Investment Bank (Leeds), and new funding streams, including the steel fund, the levelling up fund, proposed shared prosperity fund and the Towns Fund. These combine with the established of Mayoral leadership of the combined authority and the major assets brought into public ownership

7. Teesside is expected to be a significant part of the North East economy, contributing 10% of the growth of the northern English regions, even though it only has 4% of the population base, over the next twenty years. The new national economic role for Tees Valley also has the potential to re-shape the communities in Tees Valley in terms of the patterns of work, quality of life and social mobility.

8. A central desire is to set the future foundations for the next generation. In this context the feedback from the Teesside University work with Focus Groups with young people and women living in Tees Valley is most telling. They consistently expressed the view that not enough would be done to affect the required change. They had a high level of concern about deepening inequality as a result of the Covid-19 pandemic and further disenchantment. However, they did not consider the problems of the Tees Valley region as being insurmountable and, more importantly, these problems must be '*considered as one rather than in isolation*'.

The Call for Evidence

9. The UK2070 Teesside[1] Task Force has undertaken a wide-ranging assessment of the strengths and opportunities for economic growth, for levelling up, and for a just transition to net-zero carbon in Tees Valley.

10. The evidence submitted to the Task Force related to the following matters:
    - The key economic, social, environmental and political challenges facing Tees Valley;
    - The main opportunities for the Tees Valley region;
    - The resource and institutional requirements for tackling the problems and releasing the opportunities;
    - What successful projects and initiatives have been developed in Tees Valley that might be replicated.

11. In view of the scale of the change in economic performance and social conditions that is required in the Tees Valley, this report seeks to identify:
    - Which interventions will provide the scale of change required to the economic and social conditions of Tees Valley?
    - Whether existing initiatives are of an appropriate scale and focus if they are to deliver the impact intended locally, regionally and nationally.

12. The analysis in the following sections is therefore divided between the overall vision for the future of Tees Valley (Section 3) and the more specific policy interventions that could be made (Section4). These draw on the evidence submitted to the Task Force from a wide range of sources and which are summarised in the following Annexes:
    - **Annex 1:** Key Metrics for the area set out in previous studies;
    - **Annex 2:** The SWOT analysis of the Tees Valley economy in the Combined Authority's 2020 Economic Assessment;
    - **Annex 3**: A UK-wide analysis by the University of Manchester for the Task Force which illustrates the great diversity of conditions across the Tees Valley;
    - **Annex 4**: The key issues raised in responses to the Call for Evidence[2];
    - **Annex 5:** An assessment of action already in hand in terms of the UK2070 10-Point Plan for transforming the wellbeing and prospects of communities.

13. In addition, insights into the long standing and changing nature of the problems have also been drawn from the nationwide study of neighbourhoods by Liverpool University for the Task Force. The Task Force has also been informed by extensive discussions and briefings with key bodies, including the Tees Valley Combined Authority (TVCA), Teesside University, the Local Enterprise Partnership, agencies, private sector bodies and consultants.

[1] The references to 'Teesside' in this report relate to the same area as Tees Valley Region

[2] The formal submissions are listed in Annex 4a; evidence was also gathered through additional consultations.

Section 2

The Scale of Change needed to Transform Tees Valley

Existing Conditions in Tees Valley

14. Table 1 sets out some key statistics for Tees Valley. These relate to the levelling up of economic performance and social conditions, and the inter-related goal of a just transition to a net zero-carbon economy.

15. Although there are no agreed national targets of change, the TVCA itself has identified key metrics in its economic assessment of economic output of Tees Valley in terms of levels of productivity and employment. These tie in with other assessments which suggest that the output of the local economy needs to increase significantly[3] to reach the UK average/capita GDP. This is also be related to reducing the high levels of economic inactivity, and significantly improving the levels of skills. It is estimated, for example, that 35,000 people to Degree/Level 4 qualifications are needed just to match the UK average,[4]

16. Account also needs to be taken of the impacts on Tees Valley of the COVID-19 pandemic. As highlighted in the responses, COVID-19 has brought serious and immediate economic challenges, but regional policy must not lose sight on the long-term aspirations for economic growth.

17. The sectors in Tees Valley that are likely to be impacted by economic scarring of the pandemic, are retail, arts and leisure services and in construction and manufacturing sectors. There is particular concern for the impact on levels of unemployment which are already too high. The pandemic has also highlighted the inequalities in Tees Valley and made the challenge of meeting them more acute and urgent, meaning that the existing economic growth strategy needs to be reinforced.

18. It should be noted that elsewhere in Europe countries which have also been through the pandemic are investing in new technology. For example, there have been plans for new or improved green steel plants now.

Table 1: Economic & Social Metrics (Source ONS: Nomis 2021)	Tees Valley as % of GB Average
Self Employed	72.0
NVQ4+	73.4
Managerial & Professional Jobs	76.1
Job Density	81.4
FT Students	82.0
Gross Weekly Pay	89.4
Hourly pay	89.9
In Employment	91.7
Hours worked	99.0
Unemployed Wanting a Job	111.1
Long Term Sick	114.6
Unemployed	156.4
Children in Workless Households	195.8

[3] The submission from the FEC to the Task Force has estimated that in order to turnaround the inequalities in the Teesside area, an increase in GDP per capita of approaching 50% will be required just to level up to the UK average.

[4] In terms of Degree/Level 4+ qualifications in 2018, the area needs an additional 34,800 residents qualified to that level to match the UK rate.

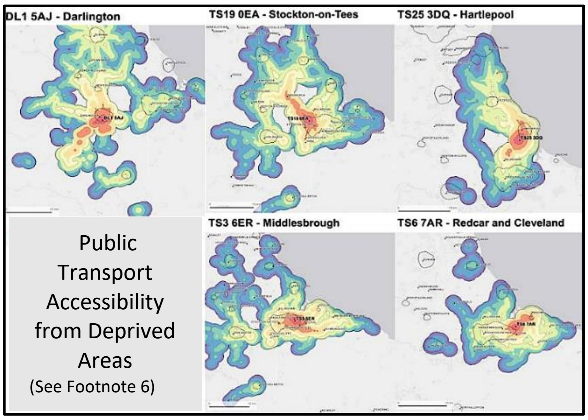
Outcome Measures

19. It is recognised that quantitative measures alone do not equate to the 'quality' of growth. The consistent factor underpinning the challenges facing Tees Valley are the low levels of employment. Table 2 therefore benchmarks the Tees Valley against the range of metrics identified in the UK2070 Commission report '*Go Big: Go Local'.* This highlighted five key targets which are key to the future of Tees Valley:
    - **A.** Increased Productivity
    - **B.** Access to Job Opportunities
    - **C.** Access to Universal Basic Services
    - **D.** Enhanced Social Mobility
    - **E.** Improved Environmental Standards

20. **Increased Productivity:** Currently, overall GVA/capita is low in Tees Valley. The implications, based on the TVCA's own economic review are that productivity, skills and employment rates would need to increase by 10% across the board, with a doubling of the rate of innovation. If this were achieved the area's contribution to the UK economy could increase by over 40% and bring over 30,000 people back into employment locally.

    Access to Job Opportunities: There is great variation in Tees Valley in the levels of access to job opportunities.[5] [6] [7] The priorities for increasing access to jobs in the Tees Valley and for maximising the efficiency and potential of the labour market, are that priority should be given to:

    - future-skilling the workforce to achieve the national average (this links to issues of social mobility discussed below);
    - improving access to the most poorly served areas (see diagram); and
    - implementing by 2045 a high-quality reliable net-zero carbon transit system for Tees Valley.



Public Transport Accessibility from Deprived Areas
(See Footnote 6)

21. **Access to Basic Services:** Tees Valley has a relatively good level of access local services.[8] However, areas of concern have been raised about skills, school performance and crime, all of which impact on the economy. For example, there is concern that the high performance of primary schools is not carried through in the attainment levels of secondary schools. Pressures on basic services for the most vulnerable also continue to grow, for example, related to mental health, suicides, drugs, and levels of domestic abuse. Vulnerability is not a straightforward concept and has many constituent parts. This needs new approaches to service provision across a range of services from health, social work, transport services, planning and policing.

22. **Social Mobility:** The priority need is to improve social mobility for the most vulnerable communities especially Hartlepool and Middlesbrough, as has been highlighted by the Social Mobility Commission. The issues in Tees Valley are primarily linked to lack of wealth, low wages and youth unemployment, which relate to job opportunities and productivity levels and the educational outcomes especially for poorer children.

23. **Environmental Conditions:** There is a contrast between the beautiful setting of the Tees Valley and its coastal location, and everyday living environments. Further work is required to establish the best approach to setting basic standards of provision, in identifying priority areas for restoring impoverished environments, in particular the greening of urban areas and in considering short term action, given the timescale over which the former industrial environments will be uplifted by development.

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[5] The area is understood to have low levels of PT use for its level of car ownership and 'wealth'; refer Ed Ferrari & Karl Dalgleish: 2019

[6] Source: Crisp et al. (2018) *Tackling transport-related barriers to employment in low-income neighbourhoods*. York: JRF: Yellow areas are over 30-minute journeys; Green and blue areas are over 75 minutes.

[7] Levels of productivity also relate to the multiplier effect associated with businesses which in the case for example of new steel technology could be as high as 1:8 gearing

[8] This is based upon the fact that the it scores relatively well on access to services compared with its score on others measures of deprivation in the Index of deprivation

Table 2	Benchmarks of Levelling up Economic Performance and Social Conditions	Metrics		Shift Required
		National	Tees Valley	
Existing Conditions	Productivity (GVA/hour 2018 ONS/TVCA)	£35.0	£31.8	Economic Conditions
	Job Density (Jobs: Working Age Population: ONS)	0.86	0.73	
	Household Wealth (GDHI per head 2018 ONS)	£21.1K	£16.6K	
	Job Opportunities in Major Towns (Centre for Cities)	62nd out of 63		
	Good Work Index (2021)	(Average 91st out of 115)		
	Housing Costs (Affordability price to earnings ONS)	7.7:1	5.0:1	
	Children in Workless Households[9]: ONS	9.6%	18.8%	Social Conditions
	Child Poverty (Proportion in Low Income Families ONS)	16%	37%	
	Educational Attainment (Level 3 Nat. average TVCA on FSM)[10]	60%	29%	
	Social Mobility (National Ranking Social Mobility Commission)	180th out 320		
	Social Fabric (Average Rank UKOnward)	331st out of 380		
	Living Environment (IMD/ONS LEP areas)	37th out of 38		Environmental Conditions
	Healthy Life Expectancy (For females: ONS)	63.9	59.7	
	Carbon Footprint (CO2/Cap 2018 ONS)	5.2	10.4	
	Accessible Job Opportunities (intraurban Car v PT –NIC)	3.1	9.2	
Need for standard or outcome targets	Productivity – (GVA/Cap ONS)	£28.5K	£20.4K	+40%
	Inclusion (Deprived Areas Connection to Jobs JRF)	22%	65%	+200%
	Access to Services (IMD subdomain ONS)	36th out 38		sustain
	Access to Higher Education (Outstanding Schools – Ofsted)	17%	19%	+10%
	Environmental Standards	tbc		?

[9] Only includes those households that have at least one person aged 16 to 64:
[10] This is the gap between those on FSM attaining Level 3 compared with the overall average for the UK

Section 3

The Future Vision for Tees Valley

Existing Policy Commitments in Tees Valley

24. Although there is no overall comprehensive plan for the levelling up the UK, there is an emerging set of national policies which have a direct bearing on the agenda for Teesside. These include:
    - Boosting UK manufacturing, increasing exports and reducing the trade deficit;
    - Increased infrastructure investment, especially in transport and connectivity;
    - Enhancing public funding for research and development;
    - Deregulation (e.g. special economic zones and relaxation of planning);
    - Devolution and decentralisation, including regional dispersal of civil service jobs, albeit with retaining control and high-level positions in Whitehall; and
    - A shift in the geographical focus of national policy beyond the major 'cities'.

25. There is also a wide range of action being pursued by all parties in Tees Valley itself which seek to transform the region's national economic role and its living conditions. The Task Force has therefore been provided with an audit by the Combined Authority of initiatives already being undertaken, or being put in hand, related to the ten streams of action set out in the UK2070 10-Point Plan. This provisional list is included in the **Annex 5** to this report. Many of these are being pursued in partnership (see Box A).

26. This range of work by the Combined Authority and other stakeholders align well with the key principles of the UK2070 10-Point Plan – *thinking at scale* and *strategic local delivery*. They therefore give a great foundation to translating the national policy of levelling up into local outcomes for the current and next generation.

27. The Task Force has been able to draw out some key implications for reinforcing the overall vision for action in the Tees Valley in terms of reinforcing the national role of Tees Valley and enhancing the perception of Tees Valley as a place in which to live and invest.

28. The Task Force is also aware that the 2021 CSR has included some significant commitments that will benefit invest in Tees Valley. They have not all been able to be fully reflected in this report. This includes, for example, £310million over the next five years to be spent across all modes of travel, including rail, road, bus and cycling. The CSR however is considered to have reinforced the messages in this report.

Box A
Examples of Current Partnership Programmes

Hydrogen Projects and Programmes
- The Tees Valley Hydrogen Innovation Project (TVHIP)
- The Gas Distribution Networks
- Hydrogen Transport Centre
- Logan Energy publicly accessible hydrogen refuelling stations in Tees Valley

Biomanufacturing
- National Horizon Centre
- Darlington Central Park Biopharma hub
- National Biologics Manufacturing Centre
- Fuji Diosynth
- Knowledge Transfer Partnership with industry

Training Projects and Programmes
- Teesside University and Colleges Partnership
- High Tide Foundation:
- Tees Valley Logistics Academy:
- North East School of Shipping
- Waste-to-Energy projects
- NzN Skills Alliance

Environmental Programmes and Projects
- Great Place - Greater Tees.
- Middlesbrough Environment City (MEC)
- Tees Valley Nature Partnership
- Festivals – Festival of Thrift4 and the emerging Festival UK 2022 R&D

Teesworks

The UK's largest industrial zone of 4500 acres on banks of the River Tees including:

1. an industrial cluster focused on modern manufacturing combined with renewable activity and the clean energy sector and low carbon circular economy
2. immediate connectivity to Teesport, the North Sea, Europe and beyond to global markets
3. GE Renewable Energy – wind turbine blade manufacturing factory creating 750 jobs and a further 1,500 in the supply chain
4. the Teesworks site is located at the centre of the Teesside Freeport, the UK's largest freeport
5. Teesworks Skills Academy - operating as a one-stop-shop, the academy will link investors, contractors, end users, employment hubs, skills providers, jobseekers and apprentices to create a world-class workforce for the future

Source: TVCA: September 2021

Wilton Centre and International

Wilton Centre

- Premier science park adjacent to Wilton International and sits in the heart of the North East of England Process Industry Cluster (NEPIC)
- Flexible laboratories and scale-up facilities for the chemical process industries
- One of Europe's largest R&D facilities and houses a number of leading global and regional businesses in the chemical, manufacturing, material, and life science industries

Wilton International

- 2,000-acre, multi-occupancy manufacturing site
- Home to one of the UK's leading process manufacturing clusters
- Major business established at Wilton International include SABIC, Ensus, Alpek Polyester UK, Huntsman, Sembcorp Energy UK, Biffa Polymers, Nippon Gases and Anglo Woodsmith Mine

Source: TVCA: September 2021

The Role of Teesside University

The University has an explicit strategy Teesside 2025 – Ambition Delivered Today based on:

- Over £275m invested in Middlesbrough town-centre campus
- 18,677 students and 316 undergraduate courses
- 98.8% state school entrants; 26.2% low participation neighbourhoods
- 24 Higher and Degree Apprenticeships for 21/22
- Teesside University College Partnership: Working with FE partners to provide access to high-quality education and training across Tees Valley
- Strategic growth initiatives: DigitalCity; National Horizons Centre; Net Zero Industry Innovation Centre; University Enterprise Zone; Grow Tees Valley
- Strong business mission: Skills, enterprise, knowledge exchange, talent recruitment
- Economic impact: £125m GVA per annum; 2,885 FTE jobs supported p/a; £1.2bn combined human capital impact (2020)

These ambitions are linked to those for further education and the development of the Boho Zone as the digital and creative hub of the Tees Valley and to make Middlesbrough #TheDigitalCity UK

Source: TVCA: September 2021

Role of Biosciences in Tees Valley

Bioscience enterprises contribute over £390m (GVA) to the Tees Valley economy and employ more than 6,000 people, in particular through the National Biologics Manufacturing Centre and the National Horizons Centre:

National Biologics Manufacturing Centre

- £38m investment, state of the art 5000 m^2 facility; 12 laboratories
- Dedicated to boosting the UK's manufacturing capability in biologics
- Provides the facilities and extensive expertise to bridge the gap between academia and business, helping to turn great ideas into commercial reality

National Horizons Centre

- The £22.3m centre of excellence for the biosciences and healthcare sector opened in 2019
- Brings together industry, academia, talent and world-class facilities to create real-world impact

Source: TVCA: September 2021

The National Role of Tees Valley

30. The Government's ambition is to create the UK's first net-zero industrial cluster by 2040 in Tees Valley, positioning it as the UK's hydrogen capital. This has the potential to contribute to UK balance of payments by exports of green hydrogen to support other countries in meeting their net-zero emissions targets and import substitution through 'green steel'.

31. This industrial cluster would embrace a nationally-recognised research and development centre for hydrogen in Tees Valley, leading on carbon capture, utilisation and storage (CCUS) and clean growth technologies (e.g. in steel production), and utilising the potential of future access to North Sea wind power. These are directly related to the considerations of the APPGs on Hydrogen and Net Zero Economy with whom the Task Force will be liaising.

32. Similarly, Tees Valley has a key role as an expanding international gateway for the UK's new global trading arrangements. The Teesside Freeport however must be part of a much wider approach than just developing port-related industry, processing and logistics, and become a truly multi-modal multi-site offer generating deep, long-term growth for the regional economy. These questions will be a focus for the continuing work of the Task Force.

33. There is an ambition to create up to an additional 25,000 jobs by 2025 in Tees Valley[11]. The Freeport proposals it is estimated will attract up to 16,000 new jobs to the area. Proposals for a new steel plant have also been estimated as creating 6000 new jobs in Tees Valley. Although concerns have been raised about risk of over-estimating job growth, clear milestones and targets linked to a strategic vision and other policies (e.g. housing and transport) would allow action to be focused and coordinated.

34. The national ambitions for Tees Valley need to be sustained by a consistent programme of investment from the private sector and government. Long-term planned investment in land assembly, remediation and infrastructure. requires commitments beyond electoral cycles and the current deal-based system. Tees Valley provides the potential to develop a new model for a longer-term 'contract' between national and local government, building on the 'gainshare' approach to providing greater long-term framework for borrowing and budgeting.

Growing Inter-Regional Relationships

35. The changing national role of Tees Valley will also change the relationships between Tees Valley and its immediate and wider regional settings. To date, Tees Valley has been relatively self-contained[12]. This is reflected in the labour and housing markets, education provision and the levels of co-production in research and development. Economic and social changes are redefining these relationships. Industrial change and greater personal mobility are widening the areas over which people are searching for jobs and homes, and looking for high order social, cultural and recreational activities.

36. Change will also arise from the development of new economic clusters, e.g. hydrogen and energy. The importance of 'collaboration' to an area's innovation performance has been demonstrated in the recent Cambridge Econometrics report which highlighted the potential for higher levels of collaboration. This raises the question as to what action can be taken to widen research and business networks. The potential to build networks around the central theme of decarbonising the Tees Valley is illustrated in **Annex 6**.

37. In their submissions to the Task Force, the North of Tyne Combined Authority (NTCA) and others have also highlighted its common industrial heritage with the TVCA. NTCA also suffers from problems associated with unemployment, relatively low-wage economy and low skills. Both areas will however benefit from the continued importance of high-value manufacturing employment. It is recognised that not all issues are suited to collaboration across the northern regions, but there could be real benefit in further collaborations, for example, in research expertise and industrial capacity across the range of new energy sources (nuclear, wind and tidal). Therefore, there are lessons that might be shared and opportunities for wider regional collaboration for Tees Valley.

[11] This relates to the LEP target 2015-25.

[12] It is dependent on Newcastle for some higher order cultural and social services

Local identities and interdependencies

38. Tees Valley has an established identity whilst its five towns have their own distinctive character, role and history – for example, Darlington's rail connectivity, Hartlepool's port, Middlesbrough's waterfront, Redcar's links to the national park and Stockton's business space. To date, the five communities have been relatively self-contained, in terms of work, housing and day to day activities.[13] Although therefore Tees Valley has a population base of nearly three quarters of a million people in five urban centres, its largest centre does not offer the same range of goods and services as places of a similar size with one dominant centre[14].

39. These economic and social patterns however are changing and the towns within Tees Valley are becoming less self-contained.[15] This trend will be reinforced if new employment opportunities are to be accessed by all, creating new patterns in the labour market. The Metro Mayor and the Combined Authority are already committed to minimising any adverse impacts that may arise from these changes. Although policy interventions are still being developed, it should include, for example, prioritising of new transit links to areas of most need, the marketing of new jobs to local people and enhancing skills development programmes.

40. Economic growth needs a strong place-based strategy drawing on the individual strengths of each community, in particular, having a strong network of vibrant and attractive town centres. There is however some evidence that town centres in the Tees Valley are under pressure.[16] This is a significant issue given their role and requires priority to be given to investing in existing town centres. Further and continuing investment is needed to enhance and restructure the quality of their environments and their offer in terms of goods and services, reducing their dependency on other places for cultural, educational and social services.

The Tees Valley Narrative

41. Regenerating Tees Valley is also about transforming the perception of the area as a place in which to live, visit and, most importantly, invest. In principle the Tees Valley has set the context for new green hydrogen and steel plants, Treasury north, the Freeport which should trigger associated social improvements. The need is not only to have sustained programmes that will deliver this but also a clear messaging around it that shift the Tees Valley image from carbon-based industry to its future as green space, high environmental quality and green energy, whilst celebrating its heritage.

42. Investment in greenspace and cultural assets is important to image building, in addition to improving local environments and delivering new jobs in the short-term. Alongside environmental re-imaging, imaginative ideas are needed on re branding Tees Valley including the potential for an iconic project.

43. The value of such action is demonstrated by UK and international experience. This has ranged from defining its sense of place (e.g. Europe's Green Capital, Hamburg), a culture of being ready for change (Glasgow's Miles Better), linkage to a recognised prestige institution (e.g. Tate Liverpool), or through icons (e.g. Guggenheim, Bilbao).

44. Where such marketing is built around genuinely transformational action (and goes beyond marketing itself) it transforms the narrative in terms of external perception and local pride. This could be linked to engaging the 'Teesside diaspora' in this task – former residents of Tees Valley who have an established national and international profile.

45. The need for a fresh Teesside narrative is already recognised in the draft Local Industrial Strategy[17] and the current campaign of *Talking-up Tees Valley*. These are however general in nature and do not have focus. In contrast, a recent culture and arts programme show that cultural, creative and heritage assets can have tangible benefits for identity and a positive sense of place and support the ambition of many young people to stay in the region to develop their creative careers. A stronger image, narrative and international branding could be adopted for promoting the future for growth and renewal of Tees Valley in terms of its sense of place, culture, linkages or iconic image.

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[13] For example, the local plans are based on separate housing market areas
[14] For example, Leicester compared with Middlesbrough.
[15] For example, between 2012 and 2019 the proportion of households who moved to stay in Tees Valley that dropped from 52% to 32%
[16] For example, the findings of the Javelin Group's Venue Score 2017 – although more analysis is needed to establish the extent of change in the vitality and viability of the centres

[17] LIS *""the development and effective promotion of a strong sense of place is also critical – through raising Tees Valley's profile and enhancing perceptions of the quality of life offer available – in shaping our ability to attract and retain the workforce and inward investment needed to drive future growth".*

Focus Groups & Panel Sessions

46. The Task Force has received a wide range of contributions to its Call for Evidence which has been reflected in the material set out in this report. In order to test ideas and reach out to wider groups the Task Force also sounded out views from focus groups and a face-to-face Panel session.

Focus Groups

47. Teesside University supported the work of the *UK 2070 Task Force* with a series of 'UK 2070 Focus Groups' that brought together:
    - Those who work within early-years and Special Education Needs;
    - Girls and young women; and
    - HE students and graduates.

    The focus groups provided in-depth information on the lived experiences of these groups of people and their immediate networks to form a picture and understanding of the concerns and aspirations of young people in Tees Valley.

48. The majority of the participants felt optimistic about the future for Tees Valley. Recent positive announcements have lifted the mood in the region but the Covid-19 pandemic has shone a light on issues and brought a renewed commitment to tackle these. However, the majority of contributors were concerned that not enough would be done to affect the required change. There was a high level of concern about deepening inequality as a result of the pandemic and further disenchantment.

49. All agreed that transformational change is urgently needed in Tees Valley. Key areas were identified[18] which it was emphasised in combination create an environment of inequality that urgently needs to be addressed in terms of education, the socio-economic environment, infrastructure and job opportunities.

50. **Education** was seen as a means to accessing opportunities and raising aspirations. As one participant stated "*If we invest in people, people will invest in their area*". However, the concern is that there are still high levels of disengagement across the Tees Valley. And the need for positive relationships and support networks outside of school. Therefore, investment in education needs to be prioritised across the age spectrum including adults, including pathways that broaden opportunities for young people, and support mechanisms to provide advice.

51. The **socio-economic environment** caused major concerns about
    - Housing affordability, poor conditions and the scale of homelessness in the Tees Valley; and
    - Crime, in particular the prevalence of drugs and gangs, was also a major concern across all of the focus groups. Many of the participants, especially the younger people talked about feeling unsafe;

52. In combination the issues, it was considered, generate a sense of hopelessness, lack of aspiration and poor quality of life. Improving the overall environment in the region (including air quality), and establishing a richer, more diverse society (through sports, arts and culture) would improve quality of life and economic activity, and would attract more people to the region, ultimately improving health and wellbeing, as well as enhancing prospects and job opportunities.

53. **Community Infrastructure** and investment was highlighted as the main concern. Funding cutbacks were considered to have led to a crisis for children. Activities for young people and help for those in disadvantaged communities have been cut back or become obsolete, having a significant effect on mental health and also closed down avenues for individuals, especially young people, to seek support and engage in society more widely.

54. **Access to Job opportunities** was seen as a key issue. related to the pay gap between the North East and elsewhere in the country, and the lack of graduate opportunities. The importance of improving the area to attract increased investment and employers to the region, was recognised as being fundamental to broadening employment opportunities for people in the Tees Valley. This reinforced the view that better education was key to increasing demand for higher skilled employment.

55. The problems facing the Tees Valley region were not considered insurmountable but importantly, they must be considered as one rather than in isolation. Anchor institutions, including schools, colleges and the University are seen as pivotal and the region should galvanise the partnerships that have been strengthened throughout the pandemic to deliver change.

[18] A full report on the Focus Group will be published on the UK2070 website.

Panel Session

54. The UK2070 Commission's Teesside Taskforce, held a formal evidence session at Teesside University where it heard how areas including freeports, steel, hydrogen and the wider net zero agenda can provide a boost for the region.

55. Those at the forefront of levelling-up opportunity for the Tees Valley gave evidence at Teesside University. This provided the opportunity to test the emerging findings of the Task Force's Call for Evidence on how to help tackle regional inequality and provide additional opportunities for jobs and growth.

56. The Task Force had found that although there is a range of nationally important initiatives to revitalise Tees Valley, it would benefit from these being brought together and enhanced in a comprehensive region wide Clean Growth Spatial Strategy. The Panel sessions addressed questions about the scope of such a strategy, and how and by whom it should be prepared.

57. The Panel discussions also considered what further devolution was required If Levelling Up is to succeed, for example, in terms of the range of powers sufficient to deliver to deliver the Green Growth Strategy for the region and partnership, particularly in terms of the barriers to the creation of and access to jobs to the benefit of all communities.

58. There was general support for bringing the range of ambitions and initiatives together into a Spatial Strategy, prepared collectively led by Mayor. Such a plan in proving a coordinated framework was seen being needed to give confidence to sponsors and funders (e.g. government, Nic and private investors). This is important in the context of distinguishing between the role of Central Government (transactional) and Local Government (delivery).

59. Partnership and collaboration beyond the TVCA would add value to the local initiatives but not just dictated by proximity. Opportunities are there for collaboration with North Yorkshire but others are more critical alignments, for example with Wales or even internationally.

60. In terms of devolution, there was a need to make devolution '*genuine',* with less appetite for more powers (i.e. responsibilities), but a desire for example, for reducing the 'transaction costs' of integrating services high (e.g. on school funding) and increasing the flexibility in spending regimes.

61. The biggest barrier to real devolution was seen as a '*Lack of Trust'* that local government needs to enhance its capability to take on the responsibility.

62. This was seen as part of the wider 'skills gap' in terms of attracting and retaining, and supporting socially vulnerable students. International experience has shown the value of hands on facilitators to manage change and deliver better use of existing powers and resources (i.e. issue often not about resource level but how it is used and people need hands on support . mentoring). Examples were quoted of the use of external experts as necessary from overseas (RSA used Canada and Japan).

63. A range of issues were raised which bear on the perception of Tees Valley as a place in which to invest. On the one hand, for example, the Treasury campus has brought decision makers to the area and feeds aspirations around career opportunities. Similarly, the impact of the '*quality of offer'* to external stakeholders important has been demonstrated by the Horizons Centre. On the other hand, there is a need to transform perception of Tees Valley as a '*dirty place* or a *'left behind*[19]*'.* It is changing and its new image needs to be embedded as a principle.

64. This requires a change of narrative. Tees Valley is not as a post-industrial but one of clean green industries. It also requires highlighting *'what can Teesside do for the UK'*, especially
    - in building its resilience to global shocks and self-sufficiency for key goods (e.g. steel), energy and services and without which put at '*risk the UK sovereignty'* and '*keeping people safe*'; and
    - strengthening its export role of Teesside e.g. manufacturing (carbon capture technology), project management and design service; and
    - more entrepreneurial role for the University linking academics to innovation and spin out companies.

[19] Reference to recent shelter report on Prosperity and place-making and one by NEF

Implications for Tees Valley
A Region-wide Clean-growth Vision & Strategy

57. Tees Valley's new national economic roles in energy, steel, pharmaceuticals, the civil service and port operations have wider policy implications. The current overall employment targets for the area need to be reassessed against the scale of change that is required to fundamentally '*shift the dial'* in terms of rebalancing the economic geography of the UK in favour of Tees Valley. This, in particular, will impact on the demand for supporting resources and infrastructure, and the interdependence of the labour market across the five Teesside towns.

58. The emerging national roles for Tees Valley require integrated action to deliver the following:
    - Synergies between ambitions around zero-carbon, the hydrogen-hub and international trade, for example, in terms of production, processes and marketing;
    - Stronger regional relationships, particularly in terms of research and business networks, and political cooperation; and
    - Policies which capitalise on the local distinctiveness of the five Teesside towns, strengthening the network of centres in Tees Valley, and reducing their dependency of other areas for higher order services.

59. These ambitions require sustained and wide range action by all levels of government and all parts of society, business and civic over the forthcoming decades. It can already be seen that collectively, existing programmes of action are in effect creating a *Corridor of Growth*, but at present there is no framework which holds these together.

60. The Metro Mayor and Combined Authority have the unique capacity to facilitate this, and enable the wide range of national and local programmes of action to be coordinated. A shared vision is needed to hold together the multi-centred conurbation, connect communities to the new centres of employment and activity along the Tees corridor; link national networks to intra-urban transit systems; and creates linkage across the green-blue infrastructure of the region.

61. Experience in the UK and internationally[20] of areas that have successfully renewed themselves is that this level of coordinated action requires an explicit joint strategic vision. It is also being seen as key to the delivery of further growth in South East England in the Oxford-Cambridge Arc and Thames and for the Thames Estuary Growth Board.

62. A spatial strategy would illuminate the national role of Tees Valley and strengthen wider regional relationships and collaboration, whilst identifying the distinctive contributions of the five towns to their common future. A strategy is needed for Tees Valley, rooted spatially by being place-based, enables policies and programmes, to be held together on a sustained basis. It provides a vehicle for resolving cross boundary issues including the requirements of shared infrastructure networks – physical, social and environmental, and recognising the needs of areas outside the Teesside which form part of its labour market area.

63. To gain traction it should be supported by an agreed investment strategy and programmes. A shared vision would enable an integrated approach to Tees Valley's shared resources (for example, higher education, transport, renewable energy and major development sites), whilst reinforcing the individual local assets and priorities of all five towns.

64. The form and content of a strategic spatial framework can range from a non-statutory strategic action plan to a more a formal strategy. Whatever shape it takes it should be based around a long-term spatial theme (e.g. as a growth corridor), with medium term (seven to ten-year) investment programme and clear short-term (i.e. immediate) priorities for action. As recognised in the responses, without such strategic spatial planning, there is a serious risk that short-term incremental approaches will fail to achieve the desired coordinated and sustainable outcomes.

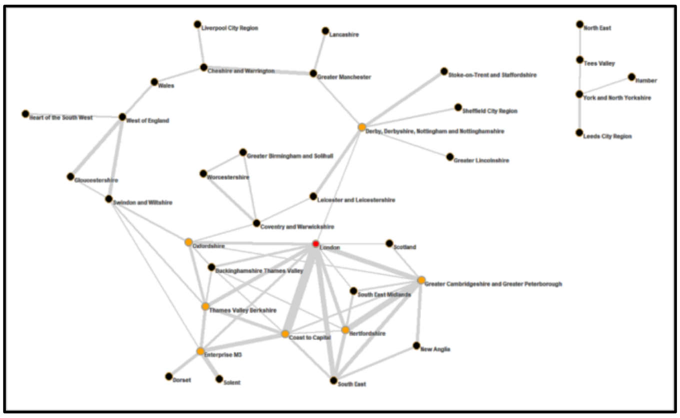

Diagram: Patent Co-Invention Networks Between LEP areas
Cambridge Econometrics: 2020

[20] For example, for Glasgow, Pittsburgh(USA) or Dortmund (Germany)

Section 4

Implications of the UK2070 10-Point Plan

The UK2070 10-Point Plan

65. The UK2070 Commission set out a 10-Point Plan to tackle inequalities in economic performance and social conditions across the UK. Table 3 below identifies the key questions in relation to each of these for Tees Valley. These are amplified in the following notes in terms of the potential options for strengthening existing programmes and policies.

Table 3: Implications of the UK2070 10-Point Plan

Action 1: A Just-Transition to a Net-zero Carbon Economy

What should be the scope of a Just Transition Strategy for Tees Valley especially in terms of prioritising new economic opportunities and mitigating the impacts of climate change on disadvantaged and marginalised communities?

Action 2: A Connectivity Revolution

What form of integrated zero-carbon transport strategy would strengthen the Tees Valley Strategic Transport Plan's goals of enhancing the levels of inter-regional connectivity for all its communities, and improve the linkages between jobs and services for the most disadvantaged communities?

Action 3: Global Centre of Excellence:

What action should be taken now to develop Tees Valley as a Global Centre of Excellence and create new collaborative alliances in order to accelerate the momentum of growth that is being created around Bioscience, Zero-carbon economy and Green-Steel?

Action 4: Strengthening the Foundations of the Local Economy

What policies are needed to promote the local foundational economy in the Tees Valley?

Action 5: Rethinking the Housing Crisis

What housing policies should be built into the economic strategy for Tees Valley in terms of the scale, affordability and quality of housing provision?

Action 6: Future Skilling to UK

What future skilling and sources of funding are needed to support the future economic of Tees Valley and respond to local needs?

Action 7: Harnessing Environmental and Cultural Assets

How can the collective actions of the Mayor, the local councils and partner bodies (public, private and voluntary) be harnessed into a longer-term integrated approach to capitalise on the undoubted environmental and cultural assets of the area?

Action 8: A Comprehensive Framework of Devolution

What further devolution of powers to the Mayor and new processes for local community engagement are needed to strengthen benefits of devolution?

Action 9: Levelling Up the Playing Field for Fairer Access to Funds

In addition to the lobbying for change in national funding regimes what local action is needed to promote a fairer level of access to funding for Tees Valley?

Action 10: Shaping the Future: A National Spatial Plan for England

What key proposals for Tees Valley should be embedded in central government's policies as national spatial development priorities?

Action 1
A Just-Transition to Net-zero Carbon in Tees Valley

66. A *Just Transition* to a net-zero carbon economy requires policies and programmes which target:
    - High-Carbon Regional Economies such as Tees Valley;
    - Prioritising new economic opportunities in areas like Tees Valley which are at the heart of the levelling up agenda; and
    - Mitigating the impacts of climate change on disadvantaged communities, such as tackling green fuel poverty.

67. Tees Valley is already leading the UK in promoting renewable and carbon-free energy through a range of programmes (e.g. Net Zero Teesside) and policies (e.g. the Hydrogen Hub & Green Steel) to tackle the carbon-intensive industrial base of the area, and promote 'green' industries. This will be particularly important to the steel industry where existing steel producers in the UK are going to have to transition from high carbon-based steel production. Analysis presented to the Task Force suggest that there is the potential to increase UK GDP by a new clean-steel making facility in Tees Valley.[21]

68. There however needs to be equal commitment to decarbonising domestic energy, combined with mitigation measures to ensure a 'just transition', such as tackling fuel poverty. The benefits of the transition to a green economy should be shared, particularly by those are most vulnerable from the loss of jobs or increased cost of energy.

69. This could include setting up a *Just Transition Fund*, as recommended in the UK2070 Commission report, facilitating employment opportunities in new sectors and offering re-skilling opportunities for those in transition, improving energy-efficient housing, investing to fight energy poverty and facilitating access to clean, affordable and secure energy. Working directly with communities also has the potential to target help to those most vulnerable, as demonstrated by the *Manchester Living Lab* project in improving the wellbeing of the residents.

70. **The preparation of a complementary *Just Transition Strategy* would strengthen the leading national role of Tees Valley to provide coherence to the range of projects that are in hand and address gaps.**

71. In view of the scale of change that will be required to deliver the net-zero agenda, it has become apparent that a major effort will be required for the policy to be understood, accepted and more importantly applied by all. This is now recognised by government which is supporting the Carbo-literacy programme that has been developed by the eponymous not-for-profit organisation.

72. **Local leadership in promoting this programme has been led by local universities, for example, Nottingham Trent University. Given the central goal for Tees Valley to be a national centre of excellence, it is recommended that the possibility of a Tees Valley Carbon Literacy or equivalent programme be investigated.**

[21] The plant would be electric arc furnace based coupled to a thin slab caster and combined hot strip mill to produce hot rolled coil, with a 3mtonnes/year capacity.

Action 2
A Connectivity Revolution in Tees Valley

73. The Metro Mayor and Combined Authority have already set out a 10-year strategy for transport based on meeting the demand for an extra 25,000 jobs and 2,800 new homes/year[22], with improved rail freight connections and stopping the decline in road-based transport journey times, whilst reducing the current dependency on private car trips. It seeks to address key components of what will form the basis of an integrated Tees Valley public transit networks through:
    - Better linkage nationally to the high-quality east Coast mainline and national motorway system through station upgrades and new Darlington link road;
    - Higher levels of mobility within the region between all urban centres; and
    - Extension of services into rural hinterlands through the Teesflex Service in partnership with Stagecoach.

74. The new economic opportunities being developed in the area will however change travel patterns, in particular, Teesworks, the Freeport, Treasury North, and the expansion of the University campus, as will the impact of Covid change in retailing and home-working. The Government has also highlighted the response to the pandemic has made it more urgent in making radical improvements to local public transport as normal life returns. Two areas of concern have however been raised in the consultation process.

75. Firstly, there is concern that Tees Valley is being marginalised in the national discussion about the priorities for investment in intercity services and improved freight services (e.g. from Stockton to Newcastle via Ferryhill). Although Darlington is on the national East Coast mainline and motorway networks, the benefits of its position will not be fully shared by the other communities in Tees Valley until the quality of links to it along the whole corridor of the Tees Valley to Darlington matches the level of service on the national corridors itself. This should be an integral part of the UK Strategic Transport Network identified in the Interim Report on Union Connectivity by Sir Peter Hendy.

76. The second concern relates to the quality of internal connectivity within Tees Valley itself for disadvantaged areas to centres of employment and high-order services (such as hospitals and further education opportunities). Whilst accessibility might be relatively good in national terms it needs to be enhanced to meet current gaps as well as meeting new demands. This needs to be addressed more explicitly in the development of an integrated zero-carbon transport strategy for Tees Valley.

77. The transport strategy therefore provides a basis for taking forward and scaling up action to:
    - Provide high-speed links along the whole corridor of growth as part of a new UK Strategic Transport Network; and
    - Improve intraurban access for all communities to all major employment centres, especially the disadvantaged in accessing the new areas of job opportunity.

78. **The delivery of such proposals would be greatly enhanced if they were set within the context of an integrated net-zero carbon transport strategy and to strengthen the Tees Valley Strategic Transport Plan's goals of enhancing the levels of inter-regional connectivity for all its communities, and improve the linkages between jobs and services for the most disadvantaged communities.**

79. In addition, Tees Valley has major development opportunities related to its international logistics and port related assets includes:
    - 2500 acres of vacant industrial land;
    - A deep-water port now designated as one of the UK's eight freeports;
    - One of the largest hydrogen production infrastructure projects in Europe;
    - Inherited steel, chemicals and power production much of which is still operating;
    - Road and rail linkages and a designated private wire network; and
    - Potential for easy connection to redundant gas wells in the North Sea with the potential for carbon capture utilisation and storage.

80. **Tees Valley should develop this potential for building 'industrial ecosystems' around its international connectivity which go beyond being a collection of individual projects, building a more integrated strategy for clean sustainable, creating the conditions for a just and fair transition to the net-zero carbon economy across a range of sectors.**

[22] As interpolated

Action 3
Tees Valley Global Centre of Excellence

81. The combination in Tees Valley of high-level economic decision makers with managers and engineers at the cutting edge of sustainable energy production presents a unique opportunity for creating the hub of a Global Centre Excellence. This means bringing together the academia, business, economics and engineering locally, whilst reaching out to a wider network of partners to create a new international centre for green energy and economics.

82. The creation of such new *Global Centres of Excellence* outside the Golden Triangle is needed to generate quality jobs, transforming the level of local opportunities and rebalance the UK's economic geography. The concept of 'centres of excellence' is for focused investment in (and commercialisation of) research to strengthen the UK's global competitiveness and innovation. It also relates to the need for the retention, growth and attraction of larger firms and spill out of small fast-growing firms. This would be key to transforming of the scale of growth, the perception of the area and in supporting business infrastructure, as Rolls Royce and Nissan have done in Derby and Sunderland respectively.

83. Tees Valley is well placed to become one of the UK's *Global Centres of Excellence*, growing existing clusters and developing new ones around biosciences, hydrogen and governmental anchor institutions, and green steel. This has already started in the field of biosciences with the Darlington Central Park and the National Horizon Centre. It is at a critical take-off stage, and the time may be right to plan the next phase, i.e. Central Park 2 to ensure a proper lead in time to maintaining the roll-out and momentum. Momentum is now being sought in the hydrogen economy, making Tees Valley the first UK Net Zero Cluster and join the international network of 'Hydrogen Valleys'.

84. The related opportunities in the growth of power production, developments in the chemical industry and the development of recycling as part of the circular economy around steel – all of which have the potential to be linked and mutually reinforcing (as Illustrated in Annex 6). In addition, the demand on utilities (for example, electrical and water supplies to the green hydrogen production plants) require co-ordination.

85. The link between business and universities is also key to this process. Teesside University is already working with other universities, as part of the ESRC NE doctoral training consortium (DTP) in renewable energy, as well as various collaborations with the universities in the North East, including Durham, Newcastle and Northumbria. There is also now the potential to build collaborative networks around the Treasury North and Teesside University, for example, creating an international institute for research on the economics and engineering of sustainable energy production.

86. These initiatives might also be reinforced by collaborations beyond those currently already in hand, for example with a leading UK universities and research institutes in Oxbridge and London, such as UCL. In the 2010s several provincial universities sought to establish a London campus: this proposal would be 'reverse engineered'.

87. Historically the North East region has experienced underfunding of the higher education sector, as highlighted in the 2020 NESTA Report. On a pro-rata basis this underfunding is equivalent to £80m annually for Tees Valley, with a potential to generate a 2:1 gearing on private funding. The government is committed to rectifying this imbalance and its proposed Shared Prosperity Fund, replacing European Regional Development Funds will be a key mechanism in delivering this change. It is therefore critical that Teesside is ready to respond, for example, by demonstrating the potential to scale up the National Horizon Centre.

88. The principle of creating a Global Centre of Excellence also ties in with the decision to set up the Advanced Research and Invention Agency (ARIA). The Task Force is liaising with the University to evaluate the impact of a level playing field of HE funding for its research, innovation and commercial roll out, and with the ARIA initiative. Such initiatives should also be supported by the development of wider business services.

89. **It is therefore considered that developing Tees Valley as a Global Centre of Excellence with related collaborative alliances (in academia and business) should be seen as a flagship project for Tees Valley in order to accelerate the momentum of growth that is being created around the Bioscience industrial base, Net-zero Carbon Economy and Green-Steel.**

Action 4
Strengthening Foundations of the Local Economy

90. Tees Valley's current Local Industrial Strategy focuses on the export-oriented components of the economy and wider business services. The regeneration of the local economy and communities however also depends upon the strength of other components which provide local goods and services, enrich the quality of life of all and provide basic universal services (often referred to as the *Foundational Economy*). For example, such matters as health, criminal justice or education, combining, form an opportunity to invest in the local economy and address some of the region's broad and persistent societal challenges and these generally provide over 40% of jobs locally. These jobs improve the quality of life of existing residents and worker, and also the social cohesion and quality of services and environment that helps to attract and retain key workers.

91. Growth and change in Tees Valley should be based on a **civic society** which engages all major players and anchor institutions with communities. For example, welcome as it is, the risk is that a Treasury North operation in Darlington and the new major industries could become isolated from the rest of the local economy, with local decision makers more linked to London and abroad (whether by 'zoom conferencing' or high-speed trains) and living outside Tees Valley. Further thought is therefore needed about the scope for recruiting locally, and for senior civil servants and managers to engage with local businesses, boards and committees. This could draw up the approaches used in the established Civic University model and Civic Agreement.

92. The UK2070 Commission's report *Make No Little Plans* identified three key actions to promote local economic foundations:

- *Embedding local foundational economies in local industrial strategies.* This especially relates to promoting and supporting small businesses. Currently, the draft Local Industrial Strategy only addresses this component of the economy indirectly. Experience elsewhere shows the benefit of targeted policies, for example, aimed at strengthening local economy and supporting small and medium sized firms.

- *Setting standards of service provision:* Currently, Tees Valley measures well on national standards[23] of the level of access to basic services. However, given its levels of deprivation and social challenges[24], it would be desirable to set a locally relevant standard of service provision (for example in skills provision); and

- *Flexible funding regimes and procurement policies* in meeting local priorities: The new gainshare funding arrangements now provide more local flexibility. This enables innovative collaborative action, for example for challenge funding, The Welsh Government or the 'Big Fund initiative is illustrative of such an approach.

93. **It is therefore recommended that the Local Industrial Strategy and Economic Assessments for Tees Valley should be more explicit in their consideration of the Foundational Economy, especially in terms of the needs of the SME sector, the standards of basic services serving all five communities and flexible funding regimes.**

[23] Based on the IMD Sub-domain index

[24] Refer Onward index of social fabric

Action 5
Rethinking the Housing Crisis

94. An adequate housing supply is critical to economic development. Responsibility for the planning housing provision however lies with the local councils and not the Metro Mayor, who is responsible for economic policy. The current upcoming review of local plans will provide an opportunity for a fresh look at the functioning of the housing market and the integration of economic and demographic assessments of housing needs in terms of overall numbers, affordability and housing renewal. In addition, housing policies impact on the zero-carbon targets (refer *Issue 1*) and transport priorities (refer *Issue 2*).

95. Currently, local plans make provision for around 2,300 additional homes annually, largely reflecting past trends rather than current economic ambitions[25]. These need to be reviewed quickly because of new government guidance and the economic changes and aspirations that have arisen in Tees Valley since they were produced. The local planning work that is in hand will need to establish new estimates of housing requirements that are aligned to the current economic strategy and the levelling up agenda of the Government.

96. Two aspects to the housing market raise policy issues. First, because the five separate housing markets used for local planning are becoming less self-contained, they need to be considered on a more integrated basis. Second, evidence submitted to the Task Force has also raised concern that a two-tier housing market, between poor inner urban older properties and other properties, in terms of value, condition and living environment, is reinforcing inequality and encourages movement out of Tees Valley to adjoining areas.

97. **The economic and industrial strategies for the Tees Valley could give more explicit consideration to the impact of housing policies on the efficiency of the local labour market and their implications for economic development in Tees Valley in terms of the scale, affordability and quality of housing provision.**

[25] This has been estimated as potentially requiring as much as 2800 houses/annual

Action 6
Future Skilling to Tees Valley

98. Tees Valley has been remarkably resilient to recent economic shocks - replacing some of these jobs with SME growth – although often those individuals who have been subjected to job losses have found themselves in lower paid, less skilled jobs than before. This contrasts with the needs of the new emerging industries such as carbon capture, green energy etc.

99. Consequently, there is a continued reduction in overall skilled jobs where almost half of all jobs available, do not require education above GCSE level whilst over one third now require a degree or higher. It is seen as a gradual move from the historic pyramid shaped employment structure to an hour glass shaped economy which provides few opportunities for local people to improve their job or career prospects through gradual promotion.

100. The Metro Mayor has responsibility for the Adult Education Budget to deliver adult skills provision. This helps the Metro Mayor to address the local skills gap to drive forward economic growth and makes sense because the TVCA area reflects the real labour market.

101. The Mayoral budget helps a move away from what is sometimes a fragmented and over-competitive approach to providing skills training. It allows strategic insight and market intelligence to be combined with local responsiveness, which will be particularly important if the area is to be successful in meeting the emerging needs, especially those large incoming employers. This includes responding to civil service jobs being relocated in Tees Valley. There is a need to take steps to ensure that jobs are taken up locally developing local skills in civil service leadership. The Tees Valley Combined Authority could play a leading role in education and training for future public and civil servants.

102. These powers are already being used to develop a more responsive, flexible skills system, for example by rationalising of the number of training providers. Tees Valley has also been recognised in the recent Commission on the College of the Future as a case study for strategic and collective local approaches to higher and further education. However, several areas which are critical to a strategic approach to the skills agenda lie outside the Metro Mayor's powers and those of the Colleges.

103. The lack of employment opportunities means that training programmes operate within an uncertain market. The linkage to industry is therefore key. Specific gaps are being identified in partnership, with the Business Advisory Boards. The value of tapping business experience through supervision, mentoring and demonstration, is also being developed. There are concerns that there is a mismatch between the demand for skills and training undertaken, because of the focus of Level-3 qualifications created by the current system of funding at the expense of local needs for a focus on Level-2 training outcomes.

104. Nationally set systems for training programmes are by definition not likely to be responsive to local needs. For example, skills training has moved away from traditional apprenticeship and NEET level education funding of 16–18-year-old students has not been prioritised. This is reflected in the fact that in the Tees Valley only 4000 apprenticeship placements existed in 2020 compared to over 10000 in 2016. Without creating more and better jobs issues will remain and too many young people leave our colleges overqualified and unable to secure local work in their chosen specialism.

105. The key requirement to avoid unemployment becoming intergenerational is to expand the number of job openings for young people This could be through a variety of mechanisms including work experience placements, internships, apprenticeship placements or kickstart job placements. This can best be addressed by further devolution to the Metro Mayor. This will enable local providers to tackle the fragmentation of responsibilities and complexity of funding streams and programmes.

106. **It is concluded that there is a need for greater flexibility, adaptability and sensitivity to local circumstances through:**
   - **Flexible Funding: a catalytic budget controlled independently by the TVCA could be used to lever change in attitudes and behaviour and support successful initiatives, especially in the 16-18 sector;**
   - **New Funding Sources: future skilling could be resourced as part of a Tees Valley Revitalisation Fund sourced through developer and industry contributions (see *Issue 8* later); and**
   - **Harnessing Business Input: aligning skills training with experience is an absolutely critical for Tees Valley to be attractive and responsive to employers as well as students.**

Action 7
Harnessing Environmental and Cultural Assets

107. A key concern raised in the responses to the Call for evidence by the Task Force is the need to address the need to enhance the public realm and town centres, and the quality of life for residents. It is considered that this should be addressed in a *Strategic Environmental Framework* which harnesses the potential of the environmental assets of the area, including the River Tees to link town and country, and the cultural experiences related to the area's past and future. Action could build on initiatives by the TVCA bringing people together to celebrate local heritage and identity. It would reach out to all communities in every borough and supporting the area's economic growth and regeneration. Part of such a programme of action should be auditing, recording and preservation of key parts of the rich industrial heritage. of the area before they are lost.

108. Such an approach would accord with government policy (reflected in the findings of the Tailored Review) that there needs to be a better balance in the funding and support of the UK's heritage and help resource our designated World Heritage Sites and comparable assets. The Stockton & Darlington Railway clearly justifies such an approach and as reflected in the current Heritage Action Zone Designation. The Tees Valley Devolution Deal's explicit commitment to culture as a unique opportunity for the national need for change to be led locally, harnessing the local collaborative partnerships reflected in the work of Tees Valley Nature Partnership and the Stockton & Darlington Trust and taking forward a Great Place Tees Valley programme.

109. Submission to the Task Force on *Culture and Arts in Tees Valley* also emphasised the opportunities for the cultural, arts and creative sector in the area, including a reservoir of local talent and the ambition of many young people to stay in the region to develop their creative careers. At the same time, challenges remain, particularly around participation, transport and accessibility. It stresses that culture-led regeneration evolves over time and require sustained investment. Far more could be done to harness the cultural and natural assets (as in Liverpool and Dundee).

110. The pandemic has highlighted the importance of the quality of the local environment in the health of communities. It has exposed inequalities in access to healthy urban environments and the value of public spaces. This has particular importance to the Tees Valley where its living environment is rated higher than most urban areas but it has high numbers in the population with less active lifestyles, poor mental health and weight issues[26]. Whilst the causality is complex, this adds weight to the value of enhancing the programmes for '*Greening Teesside*', which are already critical, for example, to flood risk management. Tees Valley has a particular opportunity to link the North Yorks Moors National Park into a green network into the heart of the urban communities integrating with the Tees and coastal resources. This could be the basis of the creation of the UK's first National Urban Parks, as integral to a more creative approach to the management of major urban areas.

111. **It is therefore concluded that a more integrated approach should be taken to harnessing the collective actions of the TVCA, local councils and partner bodies (public, private and voluntary) into a longer-term integrated approach to capitalise on the undoubted environmental and cultural assets of the area through a strategic environmental framework could deliver a package of action based on:**
   - **The recommended designation of National Heritage Areas linked to a UK World Heritage Fund, especially the Stockton & Darlington Railway;**
   - **The creation of a cultural flagship institution, for example, around the new Hydrogen technologies to link a Flagship cultural draw to the new economy of the area; and**
   - **Integrating the green and blue network of the Tees Valley urban communities more closely with the North Yorks Moors National Park and coastal resources.**

[26] https://www.communityfoundation.org.uk/wordpress/wp-content/uploads/2017/10/Vital-Issues-Vital-Issues-Tees-Valley-2017-Healthy-Living.pdf

Action 8
A Comprehensive Framework of Devolution

112. The Tees Valley Combined Authority (TVCA) has already seen devolution and could be a leading component of a devolution revolution in England. The TVCA Devolution Deal involves a £15m year, 30-year commitment of Government funding which in turn allows the Authority to borrow funds to unlock growth. On the strength of this, a York's 10-year Tees Valley Investment Plan has been prepared. The scale of this funding could be enhanced to incorporate a wider range of responsibilities and its use made more flexible.

113. Greater local leadership and entrepreneurship could also go beyond the framework within which it currently operates, as set out in TVCA's own reports to include more devolution to local councils. These aspirations might be tied to the range of additional actions emerging from the Task Force work, to strengthen the evidence for the benefits of further devolution.

114. The basic premise behind the UK2070 Commission's proposals is that devolution should be related to outcome targets and not simply to transferring power. Priorities for further devolution should therefore relate to a proposed agenda for action. At this stage the Task Force has not sought to evaluate the priorities for further devolution but will revisit this issue within its conclusions about the best framework of action for Tees Valley.

115. Within the current settlement, devolution is a means for decisions to work for everyone and ensuring that no part of Tees Valley is 'left-behind'. This applies not only in terms of policies (e.g. ensuring access to jobs) but also in terms of the processes by which decisions are taken. This involves processes being open to new stakeholders from the outset and integral throughout the policy-making processes.

116. As part of the evidence submitted to the Task Force, Teesside University has undertaken Focus Group work with a range of community interests. The Focus Groups brought together those who work within early-years and Special Education Needs education; girls and young women; and HE students and graduates. The aim of the focus group discussions was to provide in-depth information on the lived experiences of these groups of people and their immediate networks to form a picture and understanding of the concerns and aspirations of young people in Tees Valley.

117. The majority of the participants felt optimistic about the future for Tees Valley. The recent positive announcements have lifted the mood in the region but the Covid-19 pandemic has shone a light on issues and brought a renewed commitment to tackle these. However, the majority of contributors were concerned that not enough would be done to effect the required change. There was a high level of concern about deepening inequality as a result of the Covid-19 pandemic and further disenchantment.

118. The focus groups suggested that the problems of the Tees Valley region are not insurmountable but importantly, the problems must be considered as one rather than in isolation. A number of anchor institutions, including schools, colleges and the University have been pivotal over the past year and the region should galvanise the partnerships that have been strengthened throughout the pandemic to deliver change.

119. Many of the participants recognised the value of the UK2070 Commission and stressed the importance of policymakers listening to the lived experiences of people in the Tees Valley, visiting schools and communities and speaking to young people in these environments to understand not only challenges and priorities but the legacy of the region.

120. **The final recommendations by the Task Force on the need for further devolution of powers will be guided by the outcome of discussions about framework of action needed to deliver the agenda of the Mayor and Combined Authority. Whatever the findings, consideration should be given to developing new local strategic engagement processes which will strengthen their commitment to participatory devolution.**

Action 9
Levelling Up the Playing Field in Access to Funds

121. The current UK system for public funding disadvantages investment in Tees Valley and is reflected in levels of infrastructure and higher education research funding. For example, for example, Tees Valley should have an enhanced regional development fund (to £600m) and infrastructure spend (£500m) [27] to meet the scale of increase advocated by the UK2070 Commission.[28] Funding issues could be exacerbated in 2023 by the withdrawal from EU, for example, programmes for funding local training.

122. Better access to private and public financing will be critical to the success of the Tees Valley economic strategy. Investment in the region has in the past focused on heavy industries such chemicals and steel-making, and on natural resources, such as offshore oil & gas., Industry came under significant pressure when manufacturing was outsourced to low wage countries. Areas including healthcare and life sciences, digital/technology, renewables (including hydrogen), and professional services have all grown in recent years. It is therefore important to take account of the appetite and skills for entrepreneurial risk-taking and funding, for example, to get technologies and businesses up and running.

123. These issues are linked to national policy and procedures. This has been recognised in the changes to the Greenbook rules which have, in the past, favoured investment in more successful areas. The decision to establish Treasury North in Darlington should also be the start of a longer-term policy on Government spending. Other options for more flexible funding regimes could include: the funding of small firm initiatives and rationalising training regimes; the more intelligent use of public expenditure, for example, through procurement policies; or further decentralisation of the Civil Service.

124. During consultation it has also been highlighted the previous impact on Teesside provided several times before, including the Teesside Development Corporation (1987-98). These have helped develop opportunities in regeneration, office, tourism and recreational development of the time. They attracted business services to the area, previously and still deficient.

125. The UK2070 Teesside Task Force has initiated a potential research project on new approaches to leveraging private finance in partnership with Sheffield and Oxford Universities, with support from the Lincoln Institute (USA) [29]. In addition, consideration could be given as to whether income streams from the growth of new green process industries and net zero clusters, could help secure higher standards of welfare, education and living environments and thus improved social mobility. Amongst other things, this could include consideration of the potential for long-term revenue streams from the uplift in value in land holdings created by public sector investments, including the potential of an '*Tees Valley Trust Fund'* to complement mainstream funding.

126. **Consideration should be given to the potential for the TVCA and partners could establish a local Shared Prosperity Fund partnership to prepare an integrated investment seven-year programme; and undertake a review of mechanisms to maximise the public share of the uplift in land values from developments created by public sector investments, including the potential in the longer term creating a Tees Valley Trust Fund.**

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[27] These are initial estimates based on threefold increase of ERDF /ESF funding from just over £20m/year to £60m/year and increasing the transport budget by at least twofold from current £250m/10-year programme to £500m/10-year programme.

[28] These are initial estimates based on threefold increase of ERDF /ESF funding from just over £20m/year to £60m/year and increasing the transport budget by at least twofold from current £250m/10-year programme to £500m/10-year programme. All figures will need to be double checked)

[29] A potential research project on new approaches to leveraging private finance in partnership with Sheffield and Oxford Universities, with support from the Lincoln Institute (USA).

Action 10
Tees Valley: Shaping the National Spatial Plan for England

127. Decisions are being made nationally which affect Tees Valley. The inherited *de facto* ‘spatial strategy’ for England must not prevail in continuing to give undue priority to investment in London and the Wider South East. This applies to resource allocations across a range of issues, including infrastructure, research and development, culture and the arts and housing. There needs to be change.

128. There is some scepticism locally about the need for a national spatial plan for England, and a suggestion that change can be delivered by relying on the impact of preparing a local strategic framework as set out Section3. Although it is important that there is a local framework in place, experience elsewhere is that the this requires a clearly defined national framework of priorities to ensure local decisions are supported and not undermined. It should be seen as complementary and not mutually exclusive.

129. Without a long-term national framework, it is more than possible that the priority currently being given to places like Tees Valley might not survive changes of government. A clear national strategy would reduce the risk of ‘*policy swerves*.’ Decisions made centrally which are critical to the success of Tees Valley need to be identified and firmly embedded into long term national strategies, budgetary and policy processes.

130. **It is therefore considered important that the emerging priorities for the TVCA should be recognised as being of national significance in central government’s framework of national priorities. Several of the actions identified earlier in this report demonstrate this, for example:**
- **East-West Tees Valley connectivity as part of a Pan-UK Network;**
- **Designating Tees Valley as one of the UK’s global centres of excellence;**
- **The potential of Teesside University in global rankings; and**
- **The national importance of the Tees Valley’s cultural and natural heritage.**

Annexes

ANNEX 1: Headline Metrics for Tees Valley

• 674,300 Total population		2018
• 414,400 Working age (16-64) population		2018
• 302,900 Economically active population	aged 16-64	2019
• 106,700 Economically inactive population	aged 16-64	2019
• 281,100 Employment (employed residents)	aged 16-64	2019
• 283,300 Jobs (people employed)		2019
• 17,765. Number of businesses		2019
• 87.8% Micro-businesses (under 10 employees)		2019
• 0.5% of firms are large companies (250+ employees)		2019
• 24,800 Manufacturing Jobs		2018
• 23,100 Private Knowledge Service Jobs		2018
• 84,600 Public sector Jobs		2018
• 11,000 Other Service Jobs		2018
• 20,190 Claimant Count		2019
• 4,420 Youth Claimant Count		2019
• £16.2bn Economic output / Gross Domestic Product (GDP)		2018
• £31.8 per hour Productivity		2018
• £495 Average weekly workplace wages		2019
• £141,380 Average House Price		2019
• 5.9 Affordability Ratio		2019
• 30.6% Qualified to NVQ Level 4+ of residents aged 16-64[30]		2018
• 12% No formal qualification		2018
• 90.3% Properties with Ultra-fats Broadband		2019
• 10.2 CO2 emissions per capita (t)		2017

Sources: Tees Valley Economic Assessment (2019) & Core Cities Factsheet (2020)

[30] TTF 32 Wong quotes 36.5% as the rate in 2017

ANNEX 2: Tees Valley SWOT assessment

Strengths	Weaknesses
Labour: High levels of employment already concentrated in the Health & Social Care, the fastest growing sector in the UK.	**Labour:** High levels of economic inactivity and unemployment – closely correlated with relatively low levels of health and well-being.
Industrial Structure: Strong sub-sectors of Tees Valley's economy include Advanced Manufacturing sector and its rapidly expanding Digital sector.	**Industrial Structure:** The lowest business density rate in the country with a relatively small private sector, scaleup/high growth firms and a strong reliance on public sector jobs.
Business Performance: Well-represented in relatively high productivity sectors such as Clean Energy, Low Carbon & Hydrogen and Chemical & Process sector.	**Business Performance:** Lack of business churn with enterprise start-up rates constrained by lack of demand.
Skills: Above average Tees Valley performance across primary school level and above average participation in Higher Education.	**Skills:** The quality and performance of Secondary schools is below average, with pockets of under-achievement in both primary and secondary. High numbers of residents with no qualifications or without degree level skills
Business Costs: Staff costs and other business overheads such as office rental costs are amongst the most price competitive in the country.	**Business Costs:** Variable housing stock and relatively low house prices.
Connectivity: Supported by England's largest port in terms of outwards traffic tonnage with strong links to Northern Europe. Major East Coast rail hub at Darlington providing fast north-south connections across Great Britain. Excellent road connections including the A1(M) running through the area and relatively low levels of traffic congestion. Attractive and affordable towns, countryside and coast. Low cost of living and a healthy place to live.	**Demography**: A relatively aged population profile and a shrinking workforce aged 16-64, exacerbated by significant out-migration of younger residents together with low levels of in-migration generally.

Opportunities	Threats
Labour: Flexible labour force have the transferable skills, knowledge and experience across Digital, Health & Social Care and Clean Energy sectors. Available labour supply linked to the reduction of inequality. **Connectivity:** Capitalise on transport investment at Darlington, Middlesbrough, Hartlepool, Eaglescliffe and Billingham rail stations and a new Tees Crossing. Increase the role and impact of Teesside International Airport. **Industrial Structure:** Clean energy approach to industrial production supported by strong local innovation assets and a workforce with up-to-date technical expertise. Increase leisure and visitor market, including outdoor and cultural tourism. Create a Hydrogen Transport Hub. **Cost Advantage:** Continued promotion of the affordability of Tees Valley as a place to live, work and invest in. An extensive supply of affordable and easily accessible employment sites, including the single biggest development opportunity in the UK in Teesworks.	**Labour:** Increasing unemployment, especially on employment chances for young people Changing labour market highly likely to lead to substantial skills mismatches and growth constraints from skills shortages in the short-term. Reductions in income, consumption and investment confidence. arising from rates unemployment Appropriate bespoke training necessary to take up opportunities in new and emerging spheres of work, jobs and occupations. **Industrial Structure:** Over-reliance on a small number of high productivity sectors, often with a stagnant or declining employment base and, to date, relatively restricted new job opportunities. Adjustment period following EU Exit which could persist for many years, particularly affecting Tees Valley’s Chemical Process and Manufacturing sector. Need to embrace the rapidly increasing digitalisation across all sectors through the development of skills, on-site technology and remote working practices.

ANNEX 3: Key Spatial Patterns[31]

Industrial structure

- Despite the continuous decline in the manufacturing sector, Tees Valley remains one of the key manufacturing areas of the UK.
- Local authorities within the TVCA exhibit very different trajectories of economic specialization.
- Darlington has exhibited the strongest performance over its GVA per capita, information & communication employment and the presence of large businesses.
- Stockton-on-Tees has been the strongest in terms of manufacturing as well as professional, scientific & technical employment.
- The other three authorities have not performed well on the three sectors.

Labour market conditions

- The TVCA area has been performing weak on various labour market indicators when compared to the UK average, especially in terms of job density, unemployment, projected population growth, and NVQ Level 4+ qualification.
- Darlington stands out from the rest in terms of its job density and pay level, however, it performs weaker in terms of unemployment rate and economic activity rate. This is further compounded by the fact that it has a very low projected population growth rate and relatively low NVQ 4+ qualification level.
- Hartlepool has been consistently performing at the very poor level over different labour market indicators, especially in terms of unemployment, job density, NVQ 4+ qualification, pay, and projected population growth rate.
- After Hartlepool, Redcar & Cleveland has been performing at the lower level over most indicators especially with a projected negative population growth rate.
- Stockton-on-Tees has the highest projected population growth rate and the highest NVQ4+ qualification rate within TVCA; but performed less well on other labour market indicators.
- Middlesbrough tends to perform at the average TVCA levels on labour market indicators.

Economic productivity drivers

- Given that the North East has the lowest percentage of GDP spend on R&D expenditure, the situation in Tees Valley & Durham is even worse - only spent 0.85% of its GDP on R&D. The North East, on the whole, is not as attractive as other regions in securing business sector investment on R&D.
- The analysis also shows that North East has not been successful in securing government expenditure on both R&D and national infrastructure. Given that Tees Valley is within the region, the situation is very similar.
- With the closure of the Queen's campus by Durham University, the research capacity of Tees Valley is further weakened. This is further compounded by the lack of concentration of life science companies in the area.
- In terms of international transport, the 10-year rescue plan of the Teesside International Airport means that there will be further expansion of its passenger flows and the development of an airport business park for inward investment and new jobs. However, the plan may be over ambitious as the expansion means that there is a need to have a 10-fold increase in the passenger number to 1.4 million by 2022.
- Tees and Hartlepool port remains very important and is ranked the 9th most important international port of the UK. About three-quarters of its tonnage is for international trade.
- There is very good coverage of both superfast and ultrafast broadband in the Tees Valley, with Stockton-on-Tees has lower coverage in ultrafast broadband.

[31] **Source:** Economic structure & growth drivers: implications to Industry 4.0: Cecilia Wong & Wei Zheng: Spatial Policy & Analysis Lab, Manchester Urban Institute, University of Manchester: December 2020

ANNEX 4A
KEY ISSUES RAISED IN THE RESPONSES TO THE CALL FOR EVIDENCE

The key challenges facing the Tees Valley highlighted in the responses include

- The obstacles to a green recovery
- Low labour productivity is a major challenge for companies looking to invest in The Tees Valley and for it to compete on a UK and global stage;
- Slow population growth in recent years (0.3% in 2018), below national increases (0.6% in 2018) combined with significant out-migration of working age people;
- A relatively small private sector with a business density at less than two-thirds of the UK average.
- The limited appetite for risk and funding available to get technologies and businesses up and running.

The main opportunities for the Tees Valley area were seen as;

- Leading the Hydrogen and CC&S revolution, as part of capturing 75 million tonnes of CO2 per year, would provide £163 billion of economic benefits and 225,000 jobs, cumulatively, through to 2060
- Student retention in region, with the most recent figures reporting 72% of graduates choosing to stay in region
- Ensuring the quality and scale of Civil service jobs
- As an international trading hub

The resource and institutional requirements to tackle the problems and release the opportunities as;

- Being At risk unless the Government works to help these jobs transition.
- Requiring greater flexibility, and spatial expression
- Embedding *'Level up by linking up'*
- Removing unequal access to finance,
- Moving away from 'low skilled' labour, to one that inspires new generations of data specialists, digital engineers, logistics experts and asset managers

A range of successful projects and initiatives developed in The Tees Valley that might be replicated, as well as a range of regeneration case studies. These include

- Tees Valley Hydrogen Innovation Project
- TeesAMP – Centre Square –Boho / Digital City
- Grove Hill (13 Group), Ethical lettings Agency, Beyond Housing (Loftus, Redcar), Community Land Trust Middlesbrough
- The Michael Faraday Centre on Teesside has long been respected within the High Voltage Sector in the UK
- Creative Fuse Tees Valley – Launch of 'Bounce Back Funding Programme' (21R)
- Fujifilm Diosynth Technology, Billngham, - Project Meridian (30)
- Acquisition of Tees Airport – widen connectivity
- Middlesbrough Town's digital cluster 'Boho' (30)

Other examples from elsewhere were listed, within the UK and internationally which are referenced in the main body of the report as appropriate.

ANNEX 4B
SCHEDULE OF RESPONSES TO THE CALL FOR EVIDENCE

Academy of Urbanism	Kevin Murray
APPG Hydrogen	Nazza Ahmed
Atkins	Richard Coburn
Brendan Niven	Brendan Nevin
CBI	Jim Hubbard
CJRES	
Commission on the College of the Future	Lewis Cooper
Core Cities	Chris Murray
CPI Enterprises	Arun Hamish & Alfredo Ramos
CREDS	
Darlington Borough Council	
Deloitte	Ed Roddis
Farnborough Engineering Consultants Limited	Bob Freely
GFG ALLIANCE	James van der Graaf
Hartlepool Borough Council	
Joe Dancey / Chris Macdonald	
IPPR (N)	Dr Sarah Longlands
Middlesbrough Borough Council	Sam Gilmore
Middlesbrough Colleges Group	Zoe Lewis
National Horizon Centre	Jen Vanderhoven
NHSA	Hannah Davis
North of Tyne CA	Robert Hamilton
Northern Powerhouse Partnership	Henri Murison
Northumbria University	Professor Joyce Liddle & Dr John Shutt
PD Ports	Kirsten Donkin
Redcar & Cleveland Borough Council	Rebecca Wren
Republic of South Africa	Dr Rebecca Maserumule
RTPI	Richard Blyth
Sheffield Hallam University	Professor Ed Ferrari
Stephen Gill	Stephen Gill
Stockton on Tees Borough Council	Jas Lang
Sustain Future Steel Manufacturing Hub	Dr Stephen Spooner
Teesside University	Professors Gareth Addidle, Jen Vanderhoven and Natasha Va Dr Nick Gray,
Tees Valley Combined Authority	All the staff and in particular Dr Chris Beck, Geraldine Brown, John Hart, Keith Wilson and John Bryant
Tees Valley Local Enterprise Partnership	Paul Booth
Tees Valley Nature Partnership	Tim Crawshaw
Thirteen Group	Kathryn Whittle
Turner & Townsend	Ben Steele
Unitrove	Steven Lua
University of Durham	Professor Alan Townsend
University of Liverpool	Professor Ian Wray & Dr Francisco Rowe
University of Manchester	Professors Cecilia Wong & Bouzarovski
CURDS University of Newcastle	Professor Andy Pike & Dr Lewis Evans
Urbed	Dr Nicholas Falk

ANNEX 5
The Tees Valley Combined Authority's integration with the UK2070 Ten Point Programme of Action
(As of October 2021[32])

UK2070 Recommended Actions	TVCA Activities complementing this recommendation
ACTION 1 A Spatially Just Transition to Zero-Carbon Ensuring there is an explicit spatial dimension in the UK's plan to become zero carbon by 2050.	Our locally agreed Local Industrial Strategy set the Tees Valley the goal of becoming a global leader in Clean Energy, low carbon and hydrogen. Building upon our local assets, the Tees Valley stands ready to lead on the national path to Net Zero, in particular in: **Carbon Capture Utilisation and Storage** Establishment the UK's first Net Zero cluster by 2030, driven by the Net Zero Tees partnership of five leading energy companies. **Hydrogen**: Leading nationally on the development of hydrogen as a fuel source, including through the development of a Hydrogen Transport Centre to lead research, development and testing of new hydrogen transport technologies, including for cars, buses, trains, lorries, boats and planes **Offshore Wind**: The establishment of the TeesWorks site as a key national hub for the Offshore Wind sector. We are also currently seeking government support for the establishment in the Tees Valley of a Net Zero Innovation Centre, helping to attract internationally renowned researchers and technology developers in this field to the Tees Valley, and attempting to attract an Electric Arc Furnace to The Tees Valley, allowing new usable products to be created from scrap steel, significantly lowering Carbon Dioxide emissions.

[32] This assessment predates the Autumn 2021 CSR which includes a range of actions in support of the Tees Valley that have not been able to be reflected in this report.

ACTION 2 Delivering a Connectivity Revolution Creating a transformed public transport network between cities, within cities and beyond cities.	The Combined Authority is using the devolved resources already available to us, to work with government to secure a number of significant schemes to improve connectivity inside and outside the Tees Valley. Projects at various stages of business case development include: • A new Tees Crossing on the A19 • Junction improvements on the A66 • Corridor improvements on the A689 • A Darlington Link Road. • Darlington Rail Station upgrade • Middlesbrough Rail Station upgrade. We also work closely with pan-regional bodies such as Transport for the North to ensure these plans are appropriately co-ordinated with other regional plans. Building upon these critical infrastructure developments, the Combined Authority has developed Tees Valley Strategic Transport Plan 2020–2030, which sets out our further ambitions to deliver a world-class transport system in Tees Valley. Innovative projects in delivery include: Tees Flex, a new demand responsive bus service pilot to provide better access to jobs and key service centres for rural and more remote communities. The UK's first public eScooter hire programme. Wheels to Work, a scooter and eBike hiring programme supporting those struggling to access work or training. Developing five priority corridors for improved cycling and walking. Exploring the potential to use 5G technology to facilitate more intelligent movement of people and goods around the Tees Valley, in particular connected to Teesside International Airport and our port infrastructure. We are also developing a programme of interventions to make bus travel more attractive and to dissuade mass switching to cars by commuters following Covid-19. These could include improving the efficiency of bus movements on strategic corridors, enhancing the passenger experience through improved waiting facilities and real-time information and simplifying and improving the ticketing offer.

ACTION 3
Creating New Global Centres of Excellence Harnessing increased investment in research and development to create 'hub and spoke' networks of excellence across the country to complement London and the Wider South East.
	The Tees Valley is working to bring together regional companies, networks, innovation and research providers to cluster around key regional priorities, in order to create clusters with the critical size to enable the region to bid into national initiatives and attract investment.
	
	Our cluster development work is currently focused upon:
	• Clean Growth
	    o CCUS
	    o Clean Transport / Hydrogen
	• Offshore Engineering
	    o Offshore Wind
	    o Decommissioning
	• Bio-life sciences (Life Science Manufacturing)
	• Digital
	    o Industrial digitisation
	    o Advanced and modern logistics
	    o Smart public services.
	
	A **Establishment of a Centre for Frictionless Trade** is being promoted through the new Freeports programme. This partnership between HMRC, TVCA and private sector stakeholders would utilise industrial digitalisation and blockchain technology to accelerate the movement of goods to and from Global Britain, supporting the government's post-EU trade-led recovery. We have been making the case to government that this agenda would be more effectively pursued with a more place-based and devolved approach to innovation funding, due to the current systematic imbalance in UK funding and investment.
	
	A key priority for place-based policy needs to be increasing local business engagement with
	Innovation, Research and Development to increase productivity and local opportunity. Our proposals to enable this include:
	• Investment in a new Net Zero Innovation Centre which will provide the facilities, research and industry engagement to develop technologies, implement and export technologies, integrated within the World's first Net Zero Industrial Cluster. This research excellence, coupled with demonstration and deployment facilities, will support the levelling up of both economic and Innovation outputs.
	• Establishment of an Open Access PhD Innovation Centre in Tees Valley, focused on Hydrogen and Clean Growth, within our established Industrial Cluster. As part of a wider national approach, this can support the creation of new research clusters, putting UK businesses at the forefront of research, and embedding academic expertise within companies.
	• Recommending the Government introduce a Demonstration Fund to support businesses to bring technologies to market. This fund would support businesses to undertake capital intensive testing and verification of technologies before they are offered to investors and to the market.

ACTION 4 Strengthening the Foundations of Local Economies Empowering local leadership in towns and local communities to deliver increased local economic growth and wellbeing.	The five local authorities of the Tees Valley have come together with local business and stakeholders in a Combined Authority to create a vision of a revitalised local economy, with the infrastructural and skills investment we need to lead the nation in hydrogen technology, carbon capture utilisation and storage, offshore wind and industrial digitalisation – powering the nation whilst contributing towards the UK's net zero targets, while creating well-paid highly-skilled jobs for our residents. We believe that the Combined Authority model has proven to be an appropriate and effective vehicle with which to pursue this goal – so much so that we have made a case to government for local areas who have demonstrated robust governance arrangements and track record of effectively using devolved funding to address local needs - should be afforded the maximum level of local control, providing us with the flexibility and agility to maximise our local economic impact in future. Our Investment Plan includes an Indigenous growth Fund providing £50million to improve our town centres and drive growth within our five constituent local authorities, delivering projects that will have a local economic impact and improve the lives of Tees Valley residents, whilst also contributing to our regional offer. We are also lending project management support to the development of the Tees Valley's five Towns Deals, including sitting on each of the Towns Deal Boards to ensure that the fund is integrated with the work of the Combined Authority to maximise local impact.
ACTION 5 Rethinking the Housing Crisis Recognising housing as part of national infrastructure and ensuring that supply of new housing meets the needs of the economy.	Although housing powers allocated to the Tees Valley in our devolution deal are strictly limited, the Combined Authority previously established a Land Commission which identified 36 brownfield sites in public ownership across Tees Valley that suitable for housing development. We have also recently received a confirmed allocation of £19.3m for the Housing Brownfield Fund to deliver a minimum of 1000 housing units between by March 2025 and are working with local authority partners and constructors to deliver the first phase of new homes.

ACTION 6 Harnessing Cultural and Environmental Assets Increasing the focus of policy and funding of assets outside of London.	A vibrant cultural sector and diverse leisure and hospitality offer are critical to deliver economic growth in the Tees Valley and make it an attractive place to live, work, visit and invest. The TVCA agreed a £16m Culture Programme in November 2020, supporting world class series of cultural events and festivals, alongside £1m Culture Recovery Fund. The Combined Authority Investment Plan also contains a Culture Capital Programme aimed at maximising the region's arts, cultural, heritage, rural, maritime and natural assets Projects in delivery include: • Host region for Rugby League World Cup 2021. • Establishment of Enjoy Tees Valley, a region-wide tourism marketing programme Award of Heritage Action Zone status by Historic England for the Darlington and Stockton Railway. In 2025 it will be the 200th anniversary of the first passenger train which travelled from Stockton to Darlington We have also commissioned research into the Tees Valley's natural capital, allowing us to better assess the most effective use of the region's natural assets.

ACTION 7 Implementing a Comprehensive Framework for Inclusive Devolution Allow different places to step up through different levels of devolution according to local ambition, need and capacity.	We believe that the success of the first wave of Combined Authorities such as the Tees Valley support this recommendation. To date TVCA has: Secured ownership of 1420 acres of land at the former site of Redcar Steelworks, turning a symbol of regionally industrial decline into the UK's biggest development opportunity. Been named the UK's first ever hydrogen transport hub, taking a national lead on driving forward national plans to embrace hydrogen as an alternative fuel for buses, lorries, rail, maritime and even aviation. Funded the £40m purchase of Teesside International Airport and 819 acres of prime development land attached to the Airport. Completed construction on the National Horizons Centre in Darlington which will provide a centre for excellence led by Teesside University, specialising in training and education for the UK bioscience sector Fully implemented the DWP Innovation Pilot Routes to Work, engaging with more than 2,800 residents furthest away from the labour market with complex needs and supporting more than 488 into employment We have been making the case to government the next phase of devolution to regions such as ourselves involved a more place-based approach to investment which would better allow regions to fast-track major local opportunities to deliver economically and environmentally significant projects and take a more strategic and focused use of funding streams to maximise the potential of existing powers. For example: Flexible capital investments, as already implemented with the Transforming Cities Fund and Towns Fund, where autonomy is granted to regions to identify and fast-track the delivery of infrastructural investment and regeneration priorities. Use of multi-department place-based budgets, allowing local interventions to be built around the needs of the regions. Devolution of BEIS innovation funds, such as the Industrial Energy Transformation Fund to Combined Authority areas. Increased flexibility of apprenticeship funding, particularly with regards to unspent levy funds to support the growth of local skills. Maximum devolution of the planned Shared Prosperity Fund to drive regional development and deliver the government's levelling up agenda. A critical cross-cutting theme of our Local Industrial Strategy is Inclusive Growth - creating the necessary conditions to enable all Tees Valley residents to benefit from our future prosperity. Delivering inclusive growth will mean providing more good quality jobs with long-term prospects – jobs which can be accessed by local people.

ACTION 8 Future Skilling the United Kingdom Develop a national plan to raise attainment levels, especially in future skill needs for all areas to achieve the levels of the best performing places.	Under our devolution deal we have assumed responsibility for the Adult Education Budget, allowing us to: • Develop a more responsive, flexible skills system • targeting the training paths needed to better connect with business demand • Create a more dynamic education offer to learners and businesses • Work more closely with our strategic, economically significant training providers across the public, private and community sectors. We have also delivered: • An Apprenticeship Support grant. • A comprehensive schools careers programme involving 926 local businesses. • apprenticeships • 501 placements at over 100 businesses through the government's Kickstart scheme. • A Routes to Work pilot supporting almost 3000 of those most distant from the labour market into or closer to sustainable employment.

ACTION 9 Levelling-up the Playing Field: Fairer Access to Funds Triple the size of the Shared Prosperity Fund to £15bn per annum for 20 years with clear spatial priorities; and change the way major projects and local priorities are able to be funded and assessed.	We agree with the Commission that the successor programme to historic European Structural Funding is a unique opportunity to accelerate regional development and truly level up the United Kingdom. In conversations with government, we have consistently emphasised four messages with regards to the Shared Prosperity Fund: • **Devolution must be at its heart:** Local areas such as the Tees Valley - who have demonstrated robust governance arrangements and track record of effectively using devolved funding to address local needs - should be afforded the maximum level of local control, providing us with the flexibility and agility to maximise our local economic impact. • **Funds must be distributed on the basis of need**: The Tees Valley economy continues to lag national averages in relation to a number of key economic metrics, making the area vulnerable to further economic shocks, including impacts of Covid-19 and EU Exit. It is therefore critical that the allocation of UKSPF, and other government resources designed to reduce inequalities between regions, are allocated on the basis of genuine need, support levelling up and enable all regions to realise their full potential • **Funding settlements should be long-term:** The UKSPF should also operate over a similar programme timeframe to the current European Structural Investment Funds (i.e. seven years) in order to give the projects and programmes benefiting from them the best possible chance of success. • **The new Fund should reduce the previous administrative burden for applicants**. Economic development funding should be allocated on the basis of which regions have the greatest need, not which regions are the best at filling out forms. To this end we believe the most effective way to allocate the Shared Prosperity Fund is through an un-ringfenced multi-year allocated single pot of money, based around outcomes agreed between national and regional government.

ACTION 10 Shaping the Future: A National Spatial Plan for England Task the National Infrastructure Commission to create a national spatial plan for England and linking to those in Scotland, Wales and Northern Ireland, to guide investment and to support local and regional spatial plans.	We believe that such planning is done most effectively on a regional level, and that established Mayoral Combined Authorities such as the TVCA have provided an effective sub-national framework k to identify and connect regional economic strengths, identify cross-boundary policy priorities and establish an evidence base for long-term infrastructure investment. We believe that regional plans such as our Strategic Economic Plan, Investment Plan and Local Industrial Strategy are equivalent to the Tees Valley element of a National Spatial Plan, and that the government should prioritise providing the regions with the powers and resources to put these plans into action.

ANNEX 6: Examples of potential opportunities for Industrial Symbiosis and Clean Sustainable Growth: Paul Booth Chair of the Tees Valley LEP

Opportunities for the Hydrogen Economy

- Steel Making
- Depolymerisation / Chemical recycling of polymer through Hydrogenation and us of novel catalysts
- Development of fuel Cells
- CO2 +H2 leading to Greener aviation fuel
- CO2 to fertiliser and to green cement
- Many other processes will be developed on the back of CO2 as a raw material on the way to Zero Carbon
- H2can play a major role in removing the need to electrify the minor parts of the rail network saving huge infrastructure costs
- WRT Rail and Road … if the National Grid is upgraded using new cable technology together with significant improvements in Electrolyser Technology then H2 can transported as electrons and converted and stored source anywhere in the UK to allow

Growth of power production in the Tees Valley

- Hartlepool Nuclear Power with potential to convert all of the existing infrastructure to an SMR when the reactor reaches end of life
- Sembcorp has one gas station and two biomass stations with plans to build 1.8 GW of new gas power with Carbon Capture
- MGT have just commissioned 300MW biomass power station
- Tees Valley will build a new energy from waste plant at Redcar
- NET ZERO TEESSIDE will be a 3GW gas station with Carbon capture into the North Sea
- 400 MW of offshore wind production and growing
- Given that this power is Green /Blue and mostly within the private wire network makes the area a very attractive place for power intensive industries to invest
- Also, Base loading this power together with ongoing development of Electrolysers means that electrons can be stored as H2 as Tees' valley has a very large H2 infrastructure including storage cavities and the ability to develop more if needed
- This together with surplus H2 from the Chemical industry together with Steam Methane reforming or Catalytic reforming of methane with CO2 Storage will facilitate the creation of a Hydrogen economy on the Tees
- The conversion of the Rail and Road fleet to H2 and Battery power

The Chemical Industry

- Bio ethanol is produced on the Tees and Goes directly to the gasoline market
- This market will decline over the next 10 years as the Auto industry moves to electric vehicles
- However, if Bioethanol is dehydrated then the result id Bio ethylene
- Bio ethylene in turn can open up a dislocated supply chain that became broken during the financial crisis over ten years ago
- Bio Ethylene is the precursor for Bio Polymers. Bio Surfactants and Bio Ethoxylates which means that companies in the North West Like Unilever and Proctor and Gamble would have short efficient green supply chains for most of their household products

The Circular Economy: Opportunities for Steel

- The UK exports circa 9m the of scrap steel annually
- The UK imports about the same amount in finished goods annually
- Many of the rigs in the North Sea are at the end of life a d so the opportunity exists to recycle this scrap rather than export it
- Using Electric arc and electric arc mini mills The UK can apply new technologies to recycle considerable amounts of scrap into virgin steel and has the potential to become a green steel exporter
- If Both Steel and Aluminium are recycled then efficient Automotive manufacture is possible with the growth of very short supply chains
- Also, this would facilitate efficient onshoring of wind turbine manufacturing in the UK

The Circular Economy: Opportunities for recycling Electronic Goods including Batteries

- The world already has an accumulation of circa 55m tonnes of scrap electronic goods
- The emergence of battery technologies will only exacerbate this problem
- Rare Earth Elements are becoming increasingly rare and Expensive due in no small part down to China restricting the exportation of elements to lock in manufacturing on their mainland
- Both New and existing technologies will be developed further to fully recycle these components including full depolymerisation / Chemical recycling of the polymer content
- This will enable the UK to build a national repository for rare earth elements

The Circular Economy: The Chemical Sector

- Opportunity to stop Burning polymer in Few plants
- Further waste plants are already developing the capability to separate polymer form the Biomass in commercial and domestic waste streams
- As Explained the polymer can be mechanically or chemically recycled leaving the remainder to be incinerated or converted into chemical or fuel

VISION FOR DECARBONISING TEES VALLEY THROUGH SYSTEMS THINKING