



North East Leadership Board

Tuesday 15th September 2015 at 2.00 pm

Meeting to be held in a Committee Room, Civic Centre, Newcastle upon Tyne, NE1 8QH

www.northeastca.gov.uk

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To All Members

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**Annual Report & Accounts
for the Financial Year ended
31 March 2015**

Introduction

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Welcome to the first annual report of the North East Combined Authority.

The authority was established in April 2014 in order to enable more effective collaboration on the key regeneration and transport issues which cut across council boundaries.

Work on a number of projects is already underway – most notably the development of our devolution proposals – and we can already see a number of successes and achievements.

Across the area we've seen significant inward investment, leading to the creation of thousands of new jobs, and we've also made important steps forward in relation to transport improvements.

In addition we're spearheading a number of projects aimed at helping people into jobs and apprenticeships through improved training and better transport.

There is an increasingly positive picture for the North East economy, with growth in employment and productivity being reported, and evidence of opportunities for further improvements.

We're working closely with the North East Local Enterprise Partnership and the wider business community to deliver the Strategic Economic Plan for our area and capitalise on these opportunities.

By far our biggest opportunity is the chance to secure a devolution deal which will drive economic growth and help to establish the North East as the Northern Powerhouse's export region.

We're continuing to develop our proposals and will be speaking with local business, residents and other stakeholders, as well as with Government, as we move forward.

Councillor Simon Henig
Chair – North East Combined Authority



Background

What is the North East Combined Authority?

The North East Combined Authority (neca) was established in April 2014 as a new legal body that brings together the seven councils which serve County Durham, Gateshead, Newcastle, North Tyneside, Northumberland, South Tyneside and Sunderland.

Together we were successful in putting together a powerful case for a single, politically accountable body for our area, which could access devolved powers to stimulate economic growth, job creation, skills development and improved transport links.

The benefit of having devolved funding, powers and responsibilities from central Government will enable us to make decisions based on local knowledge that will maximise the area's opportunities and potential.

Our ambition is to create the best possible conditions for growth in jobs, investment and living standards, making the North East an excellent location for business and enabling residents to develop high-level skills so they can benefit long into the future.



What is the structure of the North East Combined Authority?

We have a strategic decision making body – the North East Leadership Board – along with committees overseeing transport, overview and scrutiny and governance matters.

Together they are responsible for delivering the main functions of the combined authority and for overseeing the way in which these functions are carried out and the way in which decisions are made.

North East Leadership Board

The North East Leadership Board has eight members – the six leaders and the elected mayor from the seven local councils and the chair of the North East Local Enterprise Partnership

The board operates within a framework of collective decision-making and responsibility and its aims are to achieve a number of key improvements across the area, including:

- The exercise of statutory functions in relation to transport;
- The effectiveness and efficiency of transport infrastructure and public transport; and
- The exercise of statutory functions and general powers relating to economic development and growth and economic conditions.

Membership of the North East Combined Authority Leadership Board 2014/2015



Cllr Simon Henig
Leader of Durham
County Council and
Chair of the North
East Leadership
Board



Cllr Mick Henry
Leader of
Gateshead Council
and Vice Chair of
the North East
Leadership Board



Cllr Nick Forbes
Leader of
Newcastle City
Council and
Thematic lead for
Transport



Paul Woolston
Chair of the North
East Local Enterprise
Partnership



**Mayor Norma
Redfearn**
Mayor of North
Tyneside Council
and Vice Chair of
the North East
Leadership Board



Cllr Grant Davey
Leader of
Northumberland
County Council and
Thematic lead for
Employability and
Inclusion



Cllr Iain Malcolm
Leader of South
Tyneside Council



Cllr Paul Watson
Leader of
Sunderland City
Council and
Thematic lead for
Economic
Development and
Regeneration

Transport North East Committee and Tyne and Wear Sub Committee

The Transport North East Committee is a joint committee of the combined authority and the seven councils that advise on and oversee the delivery of transport services across the area.

Over the last 12 months the committee has been involved in discussions over a number of key transport issues, including control of rail services in the area and improvements to bus services.

There are currently three organisations responsible for the delivery of transport services.

Durham County Council and Northumberland County Council manage delegated transport functions and delivery within their area and also advise on local transport priorities.

In the Tyne and Wear areas this responsibility is held by a sub-committee – made up of Nexus and the Tyne and Wear councils.

During the last 12 months the sub-committee has been actively involved in monitoring performance issues on the Metro system.

Economic Development and Regeneration Advisory Board

The Economic Development and Advisory Board is a joint committee of the combined authority and the seven councils, which advises the NECA Leadership Board on economic strategy, project pipelines and funding, future priorities, and monitors and oversees collaborative initiatives to promote inward investment.

The board is made up of councillors from the seven local authorities and representatives of the North East Local Enterprise Partnership, North East Chamber of Commerce, Confederation of British Industry, Federation of Small Businesses and Trade Union Congress.

Overview and Scrutiny Committee

The Overview and Scrutiny Committee is an essential part of local democracy, enhancing accountability and transparency in decision-making.

It enables local councillors, on behalf of those they represent, to scrutinise and challenge the decisions we make and also investigates matters of significant importance to residents within our area.

During our first year the committee has looked at overviews of each of our key priorities and has met with members of the North East Leadership Board and our partners.

It has also played a role in commenting on our annual budget and reviewing the grant funding available in our area.

The committee is currently looking at the accessibility and availability of transport in our area and at whether people face any problems which prevent them from getting to work, training, school or college.



Governance Committee

The Governance Committee plays a vital role in our governance arrangements and ensures a high standard of conduct among members.

It oversees our arrangements for managing risk and for reporting on financial and other performance areas.

It is made up of seven councillors from each local council and an independent chair and vice chair from the local community.

Working in Partnership

The North East Combined Authority works in close partnership with the North East Local Enterprise Partnership (NE LEP). The NE LEP brings together business leaders, universities and members of our North East Leadership Board.

It is the fourth largest local enterprise partnership in the country and covers the seven local authority areas which also make up neca.

It is responsible for promoting and developing economic growth in the area and we work together to ensure there is co-ordination across our range of activities.

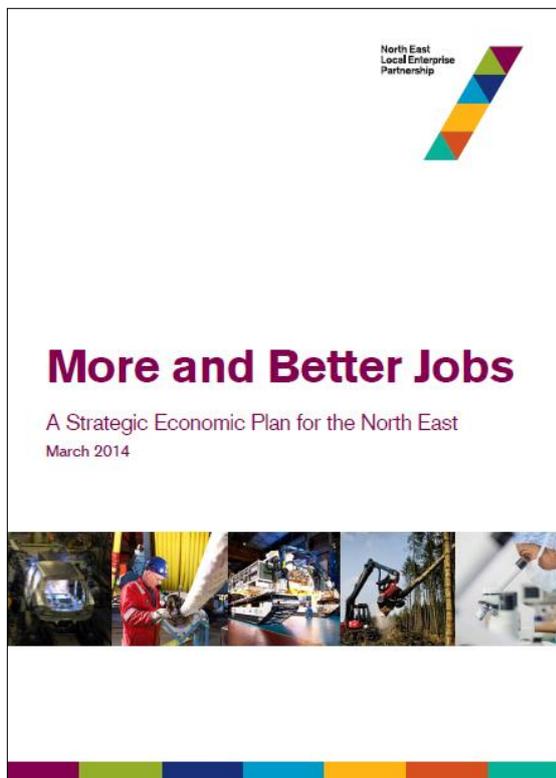


There are 18 board members from across the public and private sectors, including the council leaders and elected mayor from the seven local authorities in our area.

The chair of the local enterprise partnership is also a member of the North East Leadership Board.

We provide formal accountable body arrangements for the local enterprise partnership and support its work towards delivering the priorities set out in the Strategic Economic Plan.

This plan sets out our ambitious vision to strengthen our economy and provide more opportunities for businesses and communities to thrive. It provides a clear pathway for local decision-making and sets out our joint roles.



Economic development and regeneration

Encouraging investment into our area is crucial if we are to be successful in developing a prosperous economy and creating jobs – which are our key ambitions.

Our economic development and regeneration lead is Cllr Paul Watson, leader of Sunderland City Council.

During our first year we've been working with our partners, including the North East Local Enterprise Partnership and business leaders, to attract investors, support enterprise and promote our area as an ideal location to do business.

A lot of progress has been made and these are some of the main achievements and developments.

Business support

We're working with the North East Local Enterprise Partnership to look at how we can support business and enterprise through the North East Strategic Economic Plan.



As part of this work, Cllr Paul Watson, our lead member on economic development and regeneration, has joined the Business Support Board of the North East Local Enterprise Partnership.

The board oversees and co-ordinates activities including business growth mentoring and the development of the North East Growth Hub – a digital platform for business support and advice. It also helps businesses to access finance through schemes such as the North East Investment Fund.

Economic Development and Regeneration Advisory Board

We have now set up an advisory board to ensure our economic strategies and priorities reflect those of investors and businesses.

The board, chaired by Cllr Watson, will advise on economic strategy, project development and funding. It will also monitor and oversee joint initiatives aimed at promoting inward investment.

The inaugural meeting took place in July and considered proposals to develop the regional Inward Investment function, progress in developing a Regional Investment Plan and also how to appoint co-opted private sector members to the board to represent priority business sectors in our area.

We also intend to establish regular engagement with a wider network of business representatives to help enable effective decision making.

Regional Inward Investment Gateway

In partnership with the North East Local Enterprise Partnership, we secured funding to develop an initiative aimed at boosting inward investment to our area.

Building on the existing Investment Gateway we have set up an enhanced, proactive regional investment function during the last year.

This has enabled us to provide – via a Gateway Officer – a single point of contact for investment enquiries.

The Gateway Officer provides information, prepares propositions, hosts visits and acts as a link between potential investors and local councils.

Investment success

During 2014/15 councils reported a total of 97 investments across our area.

Of those investments, 60 were by foreign-owned companies and 37 were from UK-owned companies based outside of our area.

The investments were across a number of key sectors, including digital and ICT, automotive and advance manufacturing and life sciences and pharmaceutical.

It's particularly pleasing to note that these investments led to the creation of 6,064 new jobs for the area.

As we move forward our intention is to establish an inward investment team and step up proactive marketing and promotion of the opportunities our area can offer to business.

Over the next year we'll also be working on an inward investment strategy and the development of specific propositions for priority business sectors.

Regional Investment Plan

We're developing a plan that will help to support and co-ordinate investment into our area.

The plan will draw links between the needs of business, investment and growth priorities and the availability of development land.

It will give an outline of how all types of development are linked and related to one another – including economic development, housing, transport investment and the development of the area's towns and cities.



Employability and inclusion

One of our key ambitions is to create more and better jobs within our area.

We want to see families in the North East enjoying greater prosperity through increased employment and training opportunities.

Our employability and inclusion lead is Cllr Grant Davey, leader of Northumberland County Council.

During our first year we've been working on a number of strategies to tackle unemployment, the need to develop a more skilled workforce and the need to help more young people into jobs.

As part of this we've been working with the North East Local Enterprise Partnership to ensure that the area's workforce has the training and skills that local employers need.

These are some of the projects which we're working on to help boost employment, training and skills across our area.

Work Programme

We're looking at how people who are long-term unemployed in our area can best be supported through the Government's Work Programme.

This is in response to the Government's confirmation in January 2015 that it wants to see a more local approach being taken.



The Work Programme supports people over two years if they have been out of work for more than 39 weeks to help them find long-term employment.

We've set out our initial priorities, which focus on having more local influence and responsibilities over the support offered to people with multiple needs.

Using European funds, we're also developing a pilot project which will offer additional support to people who have yet to find a job after completing the Work Programme.

Mental Health Trailblazer

The first stage of a £2.2m project to help people with mental health problems back into work is about to get underway in the North East.

We were awarded funding through both the Growth Deal and the Government's Transformation Challenge Fund as part of an initiative to establish better integration of mental health and employment support.

The aim is to provide more effective support to help people dealing with mental health problems to find work.

In order to achieve this we're introducing a new system where a team of employment coaches will work alongside clinical therapists so that people receive co-ordinated support.

We expect to start operating the new service in the Autumn.

Apprenticeships

One of our main ambitions as part of the Strategic Economic Plan is to increase the number of apprenticeship opportunities in the North East.

To do this we're building on the existing North East Apprenticeship Hub to set up an Apprenticeship Growth Partnership.

This will help promote apprenticeships to employers and in schools in order to increase both opportunities and take-up.

The partnership will also focus on ensuring that young people are ready and prepared for work so that they are in a better position to enjoy the benefits of being an apprentice.

We've commissioned research to ensure that we understand current and future needs and opportunities in the

apprenticeship market so that we can meet the key priorities in this area.

Youth employment

The Generation NE programme aims to help more than 4,000 young people into employment by giving them tailored support from a team of dedicated employment advisors.

It also links companies which have vacancies and potential candidates and also offers young people facing specific issues or challenges the more intensive support they need.

The scheme began in June 2014 following a successful £4.5m Government funding bid to develop a programme to reduce youth unemployment and stem the number of young people needing to be referred to the Work Programme.

It covers Durham, Gateshead, Newcastle, North Tyneside and Northumberland and is already starting to see positive results.



Delivering in Partnership

We're continuing to work closely with the North East Local Enterprise Partnership to help ensure we have a strong workforce equipped with the skills, training and knowledge that local employers are looking for.

One of our main priorities will be to work together to ensure we can successfully deliver the European Social Fund Programme over the next five years.

Through the fund, a total investment of £550m is being made available for schemes, such as the Mental Health Trailblazer, to help generate and boost employment, inclusion and skills.

We hope to achieve the maximum benefit from this so that we can continue to support more people into long-term employment.



Transport

When the combined authority was established we took over responsibility for strategic transport across all seven local authority areas. The Tyne and Wear Integrated Transport Authority, which was responsible for strategic transport in Gateshead, Newcastle, North Tyneside, South Tyneside and Northumberland, was dissolved.

Our transport lead is Cllr Nick Forbes, Leader of Newcastle City Council.

Improving transport throughout our area and opening up national and international networks is at the heart of our plans for economic growth.

So we're particularly pleased that during our first year we've been successful in attracting funding for a range of schemes aimed at improving transport links across the area.

These are some of the areas where we're already seeing developments and improvements in transport across our region. Some are schemes that we have initiated and some are ones that we are supporting.

Major transport schemes

In July 2014 the North East received the third highest allocation of Local Growth Deal funding in the country. This included

a Government commitment to invest £38m in nine transport schemes due to happen between 2015 and 2021.

A further £79m has been provisionally allocated for another eight transport schemes which are expected to begin from 2016.

The funding will enable the delivery of a range of schemes, including road and junction improvements, enhancing transport interchanges, park and ride sites and better cycle links to key transport gateways.

We're continuing to work closely with the North East Local Enterprise Partnership to develop these schemes which will bring huge benefits to our area.

Rail North and Transport for the North

We've become a member of the Association of Local Transport Authorities, with Cllr Nick Forbes – our transport lead member – acting as our representative.

The association is working with the Department for Transport as part of the Rail North initiative to devolve decision-making on rail services across the North of England.

Our aim is for services in this region to be run by a separate North East Management Unit which would oversee the franchising and operation of rail services in our area.

Metro: All Change

Tyne and Wear's flagship Metro network has enjoyed a 6.33 per cent growth in passenger numbers in the year up to March 2015.

That growth is expected to continue as a result of the 'All Change' modernisation programme, which to date has seen 18 stations undergo refurbishment; the renewal of 25km of track and trackbeds, 31km of cable routes, 18 escalators and six lifts; and improvements to embankments and bridges throughout the network.

We're currently building the case for an essential new train fleet and possible network extensions as part of our continuing work to improve the service for passengers.

The Pop smart travel card is already being used by some passengers travelling by Metro, bus and ferry and we're planning to extend this over the coming months before it is launched in full later this year.



Road improvements

We've been successful in lobbying for a number of improvements to major roads and investment has already been secured to upgrade parts of the A1 and A19.

As part of the Road Investment Strategy, published in December 2014, a strategic study of the Northern Trans-Pennine corridor has been commissioned. This will explore the case for dualling the A69 and/or the A66, with the aim of creating a new strategic link across the Pennines and further helping the development of a 'Northern Powerhouse'.

Previous strategic studies in the North East – the A1 Western Bypass feasibility study and the A1North of Newcastle feasibility study – have led to significant investment in the region's strategic road infrastructure and we look forward to seeing the results of this new study. It will begin this year and is expected to be completed by 2016/17.

Highways Maintenance Challenge Fund

In March 2015 the Department for Transport agreed funding for two projects through its Local Highways Maintenance Challenge Fund.

We supported both successful bids which will enable major improvements to go ahead at the Haddricks Mill roundabout, in Newcastle, thanks to an award of £13,423,000 and a programme of 130 masonry arch refurbishments to bridges in Northumberland can take place following an award of £5,625,000.

The future of bus services

We're the first transport authority in the country to agree a Quality Contracts Scheme for bus services, which is expected to bring an estimated £272m in economic benefits.

The scheme, which has been submitted for independent evaluation, is aimed at increasing passenger numbers and supporting the whole regional economy by providing improved and more efficient services.

As part of the scheme we're planning to introduce a flat fare for everyone under 18 in order to make it easier for young people – wherever they live – to access education, training and jobs.

The findings of the independent evaluation are expected to be published by the end of October 2015.

Sustainable transport

Our Local Sustainable Transport Fund initiatives have worked successfully with businesses, employees and schools to encourage sustainable travel and develop more opportunities for people to travel by bike or on foot.

Additional funding from the Cycle City Ambition Fund will see investment in strategic cycling routes into Newcastle and Gateshead as well as links to the Metro network from nearby Travel to Work areas in Northumberland and North Tyneside.



Delivering innovation

We've worked in partnership with Nexus and Co-wheels to secure £260,000 from Carplus to expand the Co-wheels car club. It will mean an additional 20 cars, including at least eight electric vehicles.

We're also one of 12 authorities to be shortlisted following the submission of our Go Ultra Low City Scheme proposal to the Office for Low Emission Vehicles.

The scheme is a £35m fund aimed at increasing the uptake of ultra-low emission vehicles.

We've been invited to make a final submission for our bid in the autumn.

New Trans-Atlantic Flights

Working with the airport we've been able to secure arrangements for direct flights from Newcastle International Airport to New York hub Newark Liberty International Airport, which started in May 2015.



The attraction of a New York flight to Newcastle International Airport is a major coup for the region and establishes a connectivity to a major North American hub airport that has long been sought by the leisure and business communities.

The route operates five days a week and builds on the success of the airport in attracting new routes such as the Emirates flight to Dubai.

Introducing new routes such as these benefit the regions businesses, leisure passengers and the local economy and provide the infrastructure in the North East to support further expansion into new markets.

Transport Vision

We're developing a new Transport Plan for the North East (TPNE) which will bring together and co-ordinate all of the transport innovation, improvement and investment programmes taking place across our area.

The plan will aim to ensure that we have the right transport systems in place to enable us to deliver our ambitions for economic growth and prosperity.

It will be based on our Transport Vision document, which sets out our priorities for joined-up public transport networks, integrated ticketing systems and improved highways networks.

We will shortly be consulting on the vision document in order to get feedback on our priorities before we move forwards with the development of the new transport.

Looking ahead

Working alongside the North East Local Enterprise Partnership (NE LEP), our first year has seen us make good progress in the areas that will drive growth and job creation in the North East.

For the first time we have a single organisation with responsibility for strategic transport and are working together to deliver a range of transport schemes that will promote economic growth, reduce congestion, link people to jobs and encourage active, sustainable travel.

We have also put in place the initial measures that aim to improve opportunities for local people to find jobs and to access training opportunities and we are continuing to work with the business community to ensure that public investment is targeted to maximise business benefit.

Over the next 12 months we will build on our early progress and intend to seize the opportunities on offer through the Government's devolution agenda. We

want to secure a significant shift of power and responsibility from Government to the North East to ensure we meet our ambitions for local people and businesses. We consulted on our outline proposals in March and the views of residents, the business community and other key stakeholders were essential in shaping our initial submission to Government. As we move forward we will continue to engage with our communities and partners to keep them informed of progress and so that their views can be taken into account.

We will work closely with the Local Enterprise Partnership on the further development of our proposals for devolution and on refreshing the Strategic Economic Plan in this context.

Key areas of focus for the next year include developing our Regional Investment Plan to ensure a coherent and co-ordinated approach to investment in the North East, as well as developing our regional inward investment function and strategy. We will also consolidate the





early progress of the new Economic Development and Regeneration Advisory Board as an effective and representative advisory body to the NECA Leadership Board, underpinned by strong engagement with a broad network of business representatives.

On Employability and Inclusion, we need to continue to demonstrate to Government – through the effective delivery of key projects and an appetite for more local influence – that NECA has the capacity and capability to deliver better employability and inclusion outcomes through greater devolution. We will also continue to work with the Local Enterprise Partnership to secure the

effective delivery of the European Social Fund (ESF) Programme 2014-20.

Our first Transport Plan for the North East will be developed to bring together an exciting programme of transport investment and innovation, emphasising how transport can help to deliver neca's aspirations to promote economic growth, prosperity and well-being for all our residents.

We have a vital role in creating the conditions for economic growth and the investment that will support the creation of more and better jobs in the North East. Working with partners we have made important inroads over our first year - we want to use this momentum and the opportunities on offer now and in the future to move further and faster towards delivering our ambitions for economic growth and prosperity for the North East and its people.



Executive Summary

To be completed once draft is agreed.

Introduction

Urban areas and cities play a significant and growing role in driving economic growth across the globe. With the proportion of the World's population living in cities across the globe reaching a historic high and population and economic trends further emphasising the benefits of agglomeration, this is unlikely to change for the foreseeable future. Economic prosperity will continue to be driven through urban areas across the globe as recognised by a large number of recently published studies and books. However this brings challenges as well as opportunities. The concentration of people, vehicles, buildings and businesses require ever improving infrastructure and pose environmental and social challenges.

Established urban areas face particular issues and require different solutions to newer and more developing places. With infrastructure in place, resident populations and more limited scope for wholesale redesign, more nuanced and targeted approaches are often required to make better use of what is already of place. With long established urban settlement patterns, new challengers from across the globe and long-term impacts of austerity, Europe's cities face a set of formidable economic, environmental and social constraints. The importance of addressing these is recognised in the Europe 2020 agenda and the resulting urban tools and measures set out under the European Regional Development Fund, including Sustainable Urban Development.

The challenges faced are not however limited to Europe, lessons learned and new technologies and approaches developed through this tool will have much wider positive implications. Whilst some elements are emphasised in a European context, strain on transport, energy and utilities infrastructure, an ageing population and the impact of climate change are issues at a global level and solutions found in the North East of England will have practical benefits for many other areas. The need for innovative, tested solutions places a premium on living laboratories and demonstrator sites for a new form of urbanity.

By building on the existing strengths in research and development, business base, skills and public institutions, and enhancing wider local and national investment through demonstration of solutions,

not only will this investment support improvements in the urban environment globally but also support strong potential for jobs and business growth, supporting the move towards an innovative economy, based on the principles of open-innovation and demonstration of technologies around those areas highlighted as being sources of smart specialisation.

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Section 1 –Descriptor of the urban areas/functional economic geography targeted by the strategy

Introduction to the North East LEP area

Bounded by the North Sea and the rural areas of the Scottish borders, Cumbria and North Yorkshire, the North East LEP area is a distinct geography with a population of almost 2 million and a sizable economy worth £34bn each year. As is set out in the shared local evidence base and strategies, the North East Independent Economic Review and Strategic Economic Plan, the North East has performed strongly over the previous growth cycle. This has closed the gap on key metrics with the national average and better performing areas; however significant challenges remain. Making the most of these strengths and opportunities, and addressing our challenges have formed the core of the drive for more and better jobs set out in the North East Strategic Economic Plan and European Structural and Investment Funds Strategy.



The North East LEP area is a diverse but coherent economic area with strong social, business, travel to work and environmental linkages between communities across Northumberland, Tyne and Wear and County Durham. This represents a mixed geography including both significant urban areas reaching out from the rivers Tyne and Wear to cover the five Tyne and Wear local authorities alongside southern and south eastern Northumberland and northern County Durham and the rural areas of County Durham and Northumberland which include some of England's most rural locations. With a robust, shared evidence base in the North East Independent Economic Review, the North East is well placed to make informed choices on the integrated and aligned investments needed to achieve smart, sustainable and inclusive growth.

In response to the clear opportunities and major challenges set out in the Review an integrated Strategic Economic Plan established ambitious aspirations to reduce the gaps in private-sector employment, productivity, activity rates and close the employment gap ambitious framework to support economic growth. The response set out is formed around six themes:

1. Innovation, central to our ambition of better jobs and a more competitive business base, delivering medium term benefits as managers invest in new products, processes, markets and technologies supported by an ambitious open innovation system.
2. Business support and access to finance: the key driver for more jobs and a strong private sector, addressing market failures to support a stronger indigenous businesses, with better access to finance, and able to progress expansion plans in national and international markets.
3. Skills: providing a demand led system, reflecting the need of employers, including for high level skills in support of better jobs, with access to high quality training facilities for both general and specialist training.
4. Inclusion: central to ensuring no one is left behind, providing targeted and tailored support to neighbourhoods and groups facing major challenges in accessing training and employment opportunities which let everyone fully share in the benefits of a growing economy.
5. Economic assets and infrastructure: developing the places for business to invest and people to live, developing new opportunities with towns and cities, coast and country, and heritage assets.
6. Transport and digital connectivity: which serves and connects people and businesses, letting people move around for both work and leisure, and connecting the North East to the national and international economy.

Drawing on the shared evidence base, the North East LEP area European Structural and Investment Funds Strategy places these challenges and opportunities in the context of smart, sustainable and inclusive growth European framework to demonstrate the need and direction for aligned

investments totalling £478m¹ across innovation, SME growth, low carbon and sustainability, employability, inclusion and skills policy areas. This provides a further expression of a shared, integrated strategy for supporting economic growth in the area which meets business need, engaged with all communities and spreads opportunities and enhances the quality and sustainability of the local environment. This Sustainable Urban Development strategy therefore represents a small element of the overall integrated strategy investing 10% of the ERDF allocation representing £24.9m.

Defining an urban geography for Sustainable Urban Development

The North East LEP and North East Combined Authority cover the full seven local authority areas, with the North East Combined Authority to fulfil the functions of the 'urban authority' for Sustainable Urban Development. This includes a sizable and largely rural area. Using existing data sets on urban areas and in consultation with partners an urban geography has been developed which will form the focus of the Sustainable Urban Development tool. This builds on previous analysis of the Tyne and Wear City Region area encompassing the entirety of Gateshead, Newcastle, North Tyneside, South Tyneside and Sunderland local authorities and the southern portion of Northumberland as set out below. This represents the urban portion of Northumberland with the strongest links and connections to the Tyne and Wear areas due to travel to work and business supply chain linkages and provides alignment with wider policy and the assisted areas for regional aid.

Whilst part of the urban geography established draws in northern and parts of eastern County Durham (around Chester-le-Street, Consett, Durham City and Seaham), due to County Durham representing part of a transition region this would result in disproportionate administrative challenges for a very limited amount of resources. Ensuring appropriate alignment between activities through Sustainable Urban Development and activities undertaken outside the SUD area and across other funding opportunities is set out in Section 3. The Sustainable Urban Development proposal for the North East will therefore only operate in the 'more developed' category of region.

¹ Figure based on government provided 'planning' exchange rate in 2013 for North East LEP notional allocation and includes £6.7m of Youth Employment Initiative investment for County Durham.

The Sustainable Urban Development geography within the North East LEP area

The urban geography proposed for Sustainable Urban Development represents the key economic driver of the North East LEP area representing approximately 1.3m people (two-thirds of the LEP population) and at about £22bn², over two-thirds of the economic output in the LEP. Whilst only half of the total business count is located in the SUD geography, these provide a higher rate of employment with 60% of medium and 75% of large businesses located in this area not only more jobs (with 65% of the jobs growth between 2005 and 2015 occurring in Tyne and Wear) but also many of the 'better' jobs with average workplace pay being higher in Tyne and Wear (£487.20) than either of the more rural counties (£447.50 and £452.10 respectively). These trends reflect the different economic make-up of the urban area with a higher representation of financial, business and professional services.

The urban geography is not however homogenous, it is in itself diverse with larger economic centres around the cities of Newcastle and Sunderland, larger towns, including Gateshead, Washington, South Shields and North Shields, coastal communities along the North Sea from Sunderland through Tynemouth, Whitley Bay and into South East Northumberland including Blyth and Ashington, the market towns of Hexham and Morpeth with a range of urban and semi-urban locations between the larger centres. The North East LEP area is polycentric with a number of economic hubs providing different, complementary roles within the overall economy. Locations such as Sunderland, Washington, and the A19 corridor through North and South Tyneside into South East Northumberland represent a strong manufacturing and engineering economic base with varied communities. This includes larger towns as well as the larger and more diverse city centre of Sunderland which also include education and digital/software expertise. The largest concentration of economic activity remains in the NewcastleGateshead area which incorporates many of the key transport connections and largest concentration of financial, business and professional services in the North East amongst a diverse economic base.

These incorporate different types of area including large city centre developments and locations, edge and out of town developments and employment sites, including Enterprise Zone locations along the A19, banks of the River Tyne and Blyth linked by a network of roads, the Metro light rail system, relatively limited rail services and a comprehensive bus network. The urban area also includes major transport hubs such as the Ports of Tyne, Sunderland and Blyth, Newcastle International Airport and main stations at Newcastle (Central), Sunderland and Morpeth on the East Coast Mainline.

² Due to data availability output and other figures use Tyne and Wear figures as a proxy for the 'urban area'. This underplays the full impact of the entire 'urban geography' in the LEP economy but provides a sense of scale and impact.

As set out in the local economic strategies, these different locations play complementary roles with Sunderland possessing a strong industrial profile with a focus on manufacturing, the automotive sector, offshore and subsea technologies as well as software and a higher education. Newcastle and neighbouring areas represents a stronger service sector focus including creative and digital industries, science and health and business and professional services as well as engineering, manufacturing and offshore and subsea technologies.

Section 2 – Summary of the socio-economic context and identification of main problems, policy challenge and opportunities faced by the urban area.

Local partners have a strong understanding of the area, the opportunities and challenges. A shared evidence base in the North East Independent Economic Review and accompanying studies into smart specialisation, inclusive growth and sustainable growth support a common understanding of the socio-economic context. Drawing on these the North East Strategic Economic Plan and North East LEP area ESIF strategy set out an overarching evidence base and approach to the economic, environmental, climate, social and demographic challenges in the local area.

A growing, innovative and sustainable economy with a solid advanced manufacturing and engineering base

The economy of the North East LEP area has been growing, over 67,000 jobs were created between 1998 and 2008, increasing employment by 10%, whilst this trend faltered during the recession employment rates have continued to improve with a high of 1.2m people in employment and close to a record high employment rate at 69.3% in July 2015. This growth has been driven by new sectors and developments and resurgence in established industries. The increase in financial, professional and business services employment exceeded the seven other 'core city' local enterprise partnerships, including Manchester and Leeds and a similar strong pattern was present in creative and digital industries and tourism industries. These trends reflect strong growth in new sectors resulting in the North East emerging as one of the leading centres for digital games development and software including Sage, Leighton, Ubisoft and Eutechnyx among thousands of flourishing software technology, electronic gaming and creative businesses. Building on this is the growth a wide range of 'back office' technical functions and contact centres which has located in the North East.

In addition to these positive growth trends in new sectors and businesses the North East continues to be at the forefront of advanced manufacturing and engineering growth with strong export potential sectors around pharmaceuticals manufacture, energy/low carbon and environmental industries and world-class, highly productive engineering and manufacturing businesses providing strong foundations and strong links to areas of smart specialisation. This sector is changing, with increased focus on specialist areas and moves to advanced manufacturing and highly skilled

engineering. Employment in the sectors remains below its recent 2004 peak, despite some growth in recent years; however it is productive with a 48% increase between 2004 and 2011, one of the highest rates in the country. Local manufacturing has been transformed ranging from large scale industrial manufacturing, to lower volume, high value-added niche markets providing a clear opportunity to capitalise on global demand for high-quality manufactured goods.

Successful developments in new and innovative areas has also underpinned this growth building on research skills and capacities, in particular around healthcare and aging, growth in universities as drivers of growth and civic institutions and in low carbon technologies such as offshore wind, low/ultra-low carbon vehicles and energy generation and distribution systems. The North East is particularly well placed to make the most of the digital and offshore renewable energy catapults which have bases in the area with application of data particular research strength.

The potential for the North East to take a lead on key areas of innovation, building on strengths and a commitment to open innovation was highlighted in the North East LEP Smart Specialisation study. This highlighted four where the requirements for smart specialisation were already present and in which the North East has genuine advantage, based on a strong mixture of assets, skills and business capacity:

- **Passenger vehicle manufacturing:** an exemplar of significant foreign inward investment of strategic national importance with regional innovation potential through encouragement of the supply chain for this sector. In passenger vehicle manufacturing, the area is home to strategically important multinational corporations which offer the North East LEP and its partners opportunities to support the development and diversification of supply chains, and act as an animator to new and emerging technology and market opportunities e.g. electric vehicles and hydrogen fuel cells.
- **Subsea and offshore technology:** an exemplar of indigenous business growth building on national and local innovation assets and capabilities, and attracting new enterprise to the area. This is a uniquely strong sector with dynamic businesses capable of supporting collaborative research and development (R&D). We envisage the area being known as a subsea innovation hotbed. In subsea and offshore technology, the area is home to world leading companies in this niche and rapidly expanding sector and there is potential to strengthen the technology base, attract new firms, build export capacity and upgrade the supply chain.
- **Life sciences and health:** an exemplar of an area of economic activity with a very large GVA and employment footprint and major manufacturing capacity. Although local R&D

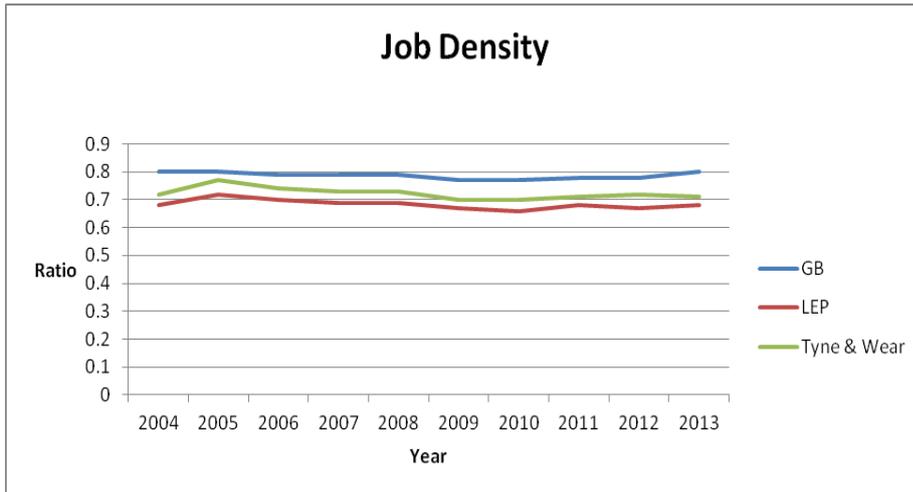
capabilities are limited, significant end user public services capacity and effective support can stimulate a vibrant innovation eco-system delivering both economic value and social outcomes. For life sciences and healthcare, the rationale for intervention is primarily based on sustaining and building on the area's position as a leading centre for pharmaceutical manufacturing and exports, while creating a supportive and embedded innovation ecosystem (skills, finance etc) to build capacity in the life science and healthcare SME base.

- **Creative, digital, software and technology based services:** an exemplar of a mixed area of economic activity with shared technology and skills bases positioning it as a UK 'delivery centre' and providing enabling technology capability to other business growth industries. For creative, digital, software and technology based services the rationale for intervention is to build on the presence of significant strengths in software, a strong cohort of young dynamic SMEs and global players.

In addition to these areas, a series of potential areas of smart specialisation were also identified which will increasingly be able to contribute to the economic performance of the area, including surface science, public sector innovation, energy generation, storage and distribution, ageing, microelectronics, future/smart cities and design. The North East is therefore at the forefront in a number of important areas which can respond innovatively to global challenges.

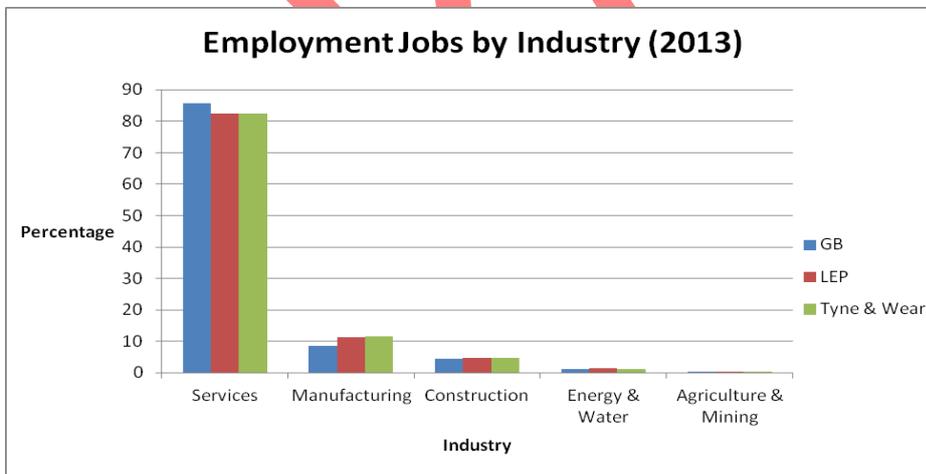
Improvements in productivity has also been high, growing faster than any other English region between 2009 and 2012; however this remains low in absolute terms and the labour market too reliant on public sector employment. Similarly the skills profile has shown positive trends to date with significant falls in the proportion of working age population with no qualifications and an increase in those at level 4. This however masks divergence at a local level and the overall relatively low skills profile in the area.

The urban areas play a central role in support economic growth in the LEP area with a strong presence of key growth sectors with consistently higher job density and wages in Tyne and Wear in comparison to the overall LEP average. This reflects the greater concentration of employment opportunities in the urban areas and different economic structure with more larger and knowledge intensive firms.



Given the high proportion of the economy represented by the urban areas it is unsurprising that there are clear similarities with the overall sector strengths and profile; however there are distinctions in those sectors present with a higher representation of financial, business and professional services, knowledge intensive activities, education and health as well as software, ICT and creative clusters. The LEP overall has a high level of energy and utilities employment; however as is expected due to space demands and access to natural resources, these are more prominent in the wider LEP economy than an urban centre.

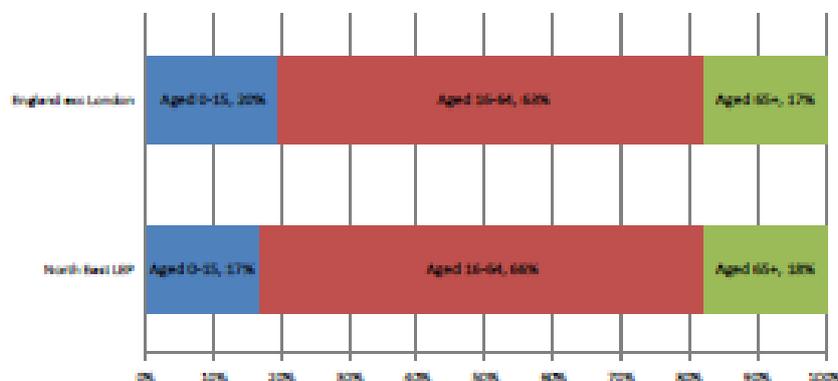
Employment Jobs by Industry 2013



A diverse society representing a varied and challenging demographic to demonstrate solutions

The North East has room to grow, whilst the population has been growing in recent years, this has not matched the rapid growth experienced in other parts of the UK. It was as recently as 2013 that the population returned to the level seen in the early 1980s prior to major economic restructuring. In common with other areas however the demographic is aging, with this increase in the over 60 population which will have an impact on public spending, infrastructure requirements and consumer markets. The urban area age profile is also aging, albeit from a lower level than the LEP average with some coastal communities in the urban area seeing particularly shifts to an older population.

Composition of population by broad age group



Whilst the overall trends in society have been positive, the North East continues to face significant challenges. Despite the recent high for employment and significant reductions in unemployment; too many people remain out of work or on low wages. In both the wider area and the urban locations amongst pockets of wealth and affluence, there remain areas of low economic activity and high unemployment resulting in overall levels consistently below the national average. At just over 12% of those counted as unemployed being long-term unemployed (compared to 7% nationally) there is a significant challenge around entrenched disadvantage in the labour market. This is reflected in earnings which whilst relatively equal in distribution by English standards, with no other region has a lower share of full-time employees earning 'low' and 'high' hourly rates (below 10th and above 90th percentiles of national distribution of hourly wages) are relatively low overall.

A similar picture is visible in health related areas. There is a much greater proportion of people not in employment due to long-term sickness in the LEP and particularly the urban area than nationally at 28.8%, although this reflects a long-term downward trend. Similarly life expectancy in the urban area

is particularly low when compared to the national figure with male life expectancy at birth of 77.54 and female life expectancy of 81.62 lower than the national figures of 79.1 and 83 respectively. The proportion of physically active adults is also low, representing almost 3 percentage points difference to the national average.

These overall trends also mask particular disadvantage which is visible in specific communities or areas. Within the North East there are areas of activity where performance is low for specific groups in the labour market, including in key growth sectors. In manufacturing only 17% of the workforce is female (23% in comparable local enterprise partnership areas); construction at 5% is at half the rate of similar areas. Nationally 28% of employment in the chemical, pharmaceutical and life sciences sectors is female, but in this area the equivalent figure is just 21%. Together these statistics demonstrate a need for further efforts to achieve more gender-balanced growth with a similar picture clear in relation to apprenticeships in areas such as software/ICT and manufacturing.

Youth unemployment is a significant problem across the area, with 39,500 16-24 year olds unemployed.² In terms of apprenticeships, there is a clear imbalance in relation to race, with people from black and minority ethnic communities making up just 2% of apprenticeships started in 2010/11, less than half the figure for the population as a whole (5%). There also remain significant disparities according to gender and outcomes.

Key performance indicators for the North East and England

Measure	North East	England
Employment	69.2%	72.9%

(Jan-March 2014, North East region)

Unemployment	10.1%	6.8%
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(Jan-March 2014, North East region)

Economic activity	77.1%	78.4%
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(Jan-March 2014, North East

region)

Economically inactive- long term sick	27.5%	20.9%
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(Jan-Dec 2013, North East LEP)

Self-employed (of employed)	10.2%	13.6%
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(Jan-Dec 2013, North East LEP)

Female employment	62.5%	66.4%
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(Jan-Dec 2013, North East LEP)

Ethnic minority employment	48.4%	59.5%
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(Jan-Dec 2013, North East LEP)

No qualifications	10.6%	9.1%
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(Jan-Dec 2013, North East LEP)

Out of work benefits

Job density	0.67
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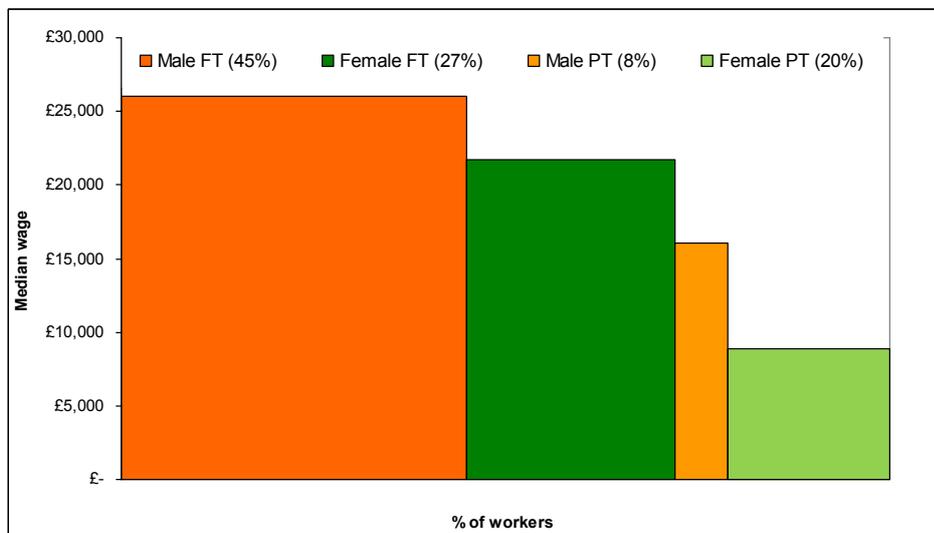
(2012, North East LEP)

Youth unemployment (16-24)	26.2% (39,500)	19.9%
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(Jan-Dec 2013, North East LEP)

ONS 2013 and 2014

Median wages by gender and full-time/part-time occupations (ONS)



Levels of deprivation in the area are comparatively high. The impacts of welfare reform and changes affecting child benefit and child tax credits could see a cumulative loss to the North East region (as a whole) of almost £1bn in 2014/15. Welfare reform will see disabled people experience the most significant losses of income due to changes in the Employment and Support Allowance. Despite significant improvements to close the gap, child poverty rates remain almost 5% higher than the national average in the urban area with approximately 130,000 children living in poverty with almost a quarter (24%) of people in the North East living in households below the poverty thresholds between 2007/8 and 2009/10.

Together, again despite improvements and pockets of significant wealth, deprivation remains a significant challenge. Over a third (35.6%) of the urban population live in the 20% most deprived areas of England compared to (31.7% of the North East LEP population). The English Index of Multiple Deprivation demonstrates considerable challenges in all of our local authorities (as represented in the diagram below).

English Index of Multiple Deprivation – North East LEP Area

	Average Score	Rank out of 326 local authority areas based on the average score across all of the indices of deprivation (rank 1 = most deprived)
Newcastle upon Tyne	29.74	40
Gateshead District	29.48	43
Sunderland District	29.46	44
South Tyneside District	28.35	52
Durham County	26.41	62
North Tyneside District	22.24	113
Northumberland	20.21	135

DRAFT

A representative test bed for climate mitigation with strong environmental resources

The North East and the urban areas face similar challenges to other areas in adapting to the impacts of climate change, with more extreme weather events, increased flooding, variations in temperature and transport, energy and other utility networks vulnerable to these challenges there is opportunity to put into practice the research and business strengths in the area to find solutions to these challenges. In recent years, the North East has developed significant and distinctive strengths in the low carbon environmental goods and services sector. The North East has had the fastest growth in employment in recycling of any region in England and Wales and the wider low carbon environmental good and services sector supports 38,800 jobs in 4,800 organisations. This strength is based on opportunities and assets including existing businesses, skills and institutional and research capabilities. These opportunities have attracted £727m in investment, bringing 2323 jobs between April 2011 and July 2012 alone. This represents the second highest level of job creation and the third highest level of investment in England.

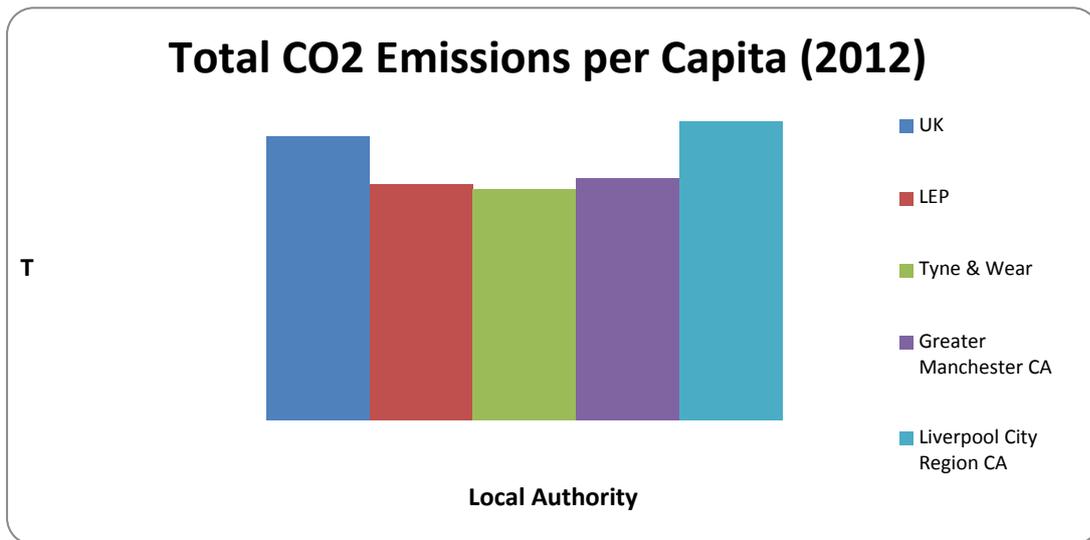
ClimateNorthEast identified major opportunities for further growth with potential to drive a 0.8% increase in GVA and 10,000 new jobs by 2020, building on the strong combination of businesses, research institution and appropriate skills, de-coupling the link between economic growth and carbon emissions and enhancing significant success to date to become Europe's premier location for low-carbon, sustainable, knowledge-based private sector led growth and jobs.

Based on sectors with growth in sales and employment, local capacity has been identified in alternative fuel (vehicle); recovery and recycling; alternative fuels; geothermal; building technologies and wind. This profile of strength is complemented by significant contributions from sectors including energy management, biomass, photovoltaic; and water supply and waste water management. Building technologies and alternative fuel (vehicle) were highlighted as being particularly relevant for the North East. In its entirety, the sector has grown significantly, increasing sales by 13.7% between 2007/8 and 2010/1 albeit with a more modest 2.7% increase in employment demonstrating a high level of productivity in the sector.

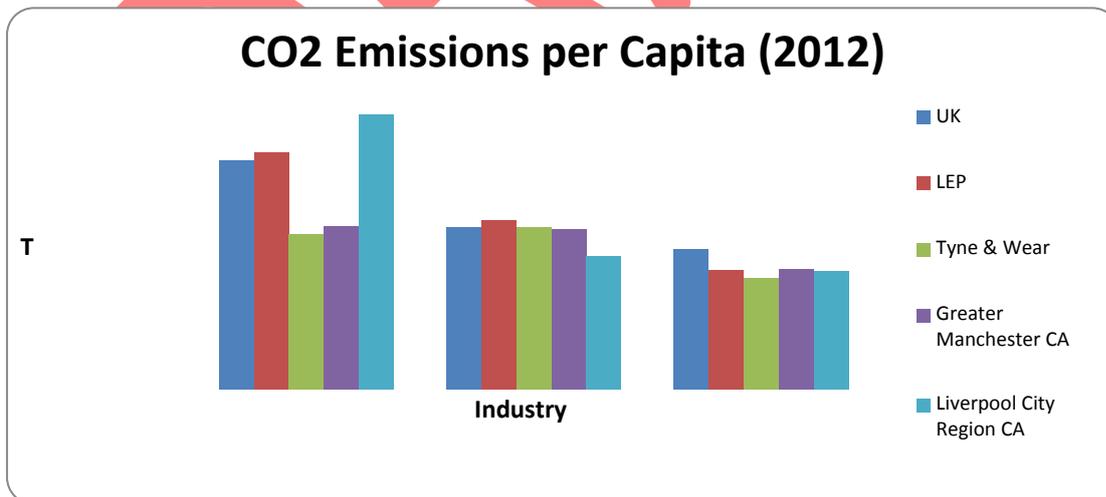
Whilst the shift to a low carbon economy brings benefits and opportunities to the local areas, a study by ClimateUK has identified a series of threats and opportunities presented by climate change in the North East. For example, the main threat to business activity is likely to be flooding associated with intense rainfall. It is estimated that in the absence of intervention, climate change will cost the North East £600m per annum by 2050.

The relatively high level of manufacturing and energy intensive businesses in the North East also place an increased imperative on reducing dependency on costly fuels. Industrial and commercial

emissions of carbon dioxide per resident in the North East of England are the highest in the country at over 5.5 tonnes- significantly higher than the next highest region (Yorkshire and Humber at 4 tonnes), although this is partially related to the process industry in Tees Valley which is particularly high CO2 emission per capita are considerably lower in the urban areas of the North East LEP. The importance of reducing carbon emissions in the North East has gained high-level political support with the North East of England the only region in Europe to achieve universal sign-up to the European Covenant of Mayors. This commits to reducing CO2 emissions by 22% from 2005 levels by 2020, reducing per capita emissions from their 2005 baseline of 7.4t CO2/per capita.



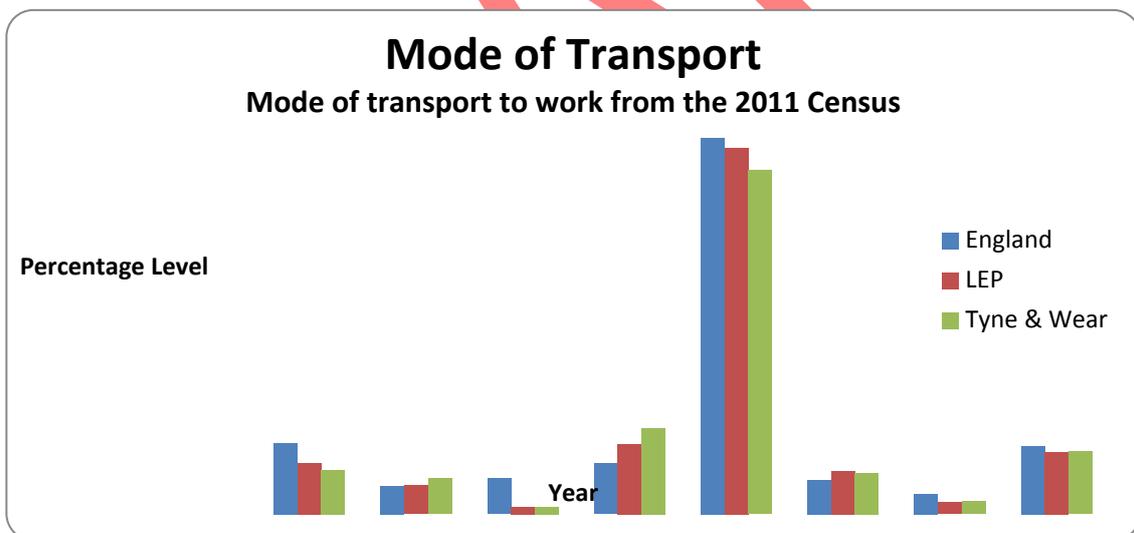
CO2 Emissions Per Capita (By Industry)



The wider LEP area has a higher rate of CO2 emission from industry than the English figure with those Tyne and Wear low, partially reflecting different economic basis. The picture is however reversed in relation to domestic emissions with the LEP and Tyne and Wear higher than the national figures and similar areas, reflecting both the increased energy use associated with rural areas and

the older and poorly insulated housing stock in the urban area. Transport figures are largely consistent with similar areas, although the relatively low car ownership and usage are likely to have contributed to slightly lower figures for Tyne and Wear.

Transportation and energy represent particularly large elements of CO2 emissions and contribute significantly to environmental damage. The urban area of the North East is well placed to address these challenges and test potential solutions, due to relatively low car ownership and usage (motor vehicles traffic at 898 vehicles miles per annum against a national figure of 1,751 and a strong basic public transport system with stable bus network (a 1% fall in commercial bus mileage across Tyne and Wear in the context of a national underlying trend of decline in vehicle miles) although with declining usage bus use common to most areas outside of London and major asset in the heavily used Tyne and Wear metro system providing 38m passenger journeys in 2014/5. Car use however is rising and is the main mode of transport across the LEP, this demonstrates a need to ensure better connectivity between hubs and improved linkages between urban and more rural locations as well as in urban locations. Journeys by foot and bike are both low by English levels suggesting the scope for more health travel choices is significant addressing not only sustainability and climate change challenges but also the need to improve health in the area.



The North East also contains significant resources which contribute to long-term sustainability. 45% of England's blanket upland peat bog is located in the area, storing 366 million tonnes of CO2 and contributing significantly to flood prevention. Such natural resources are currently under threat. Evidence from the Environment Agency suggests that less than 20% of the UK's peatland remains undamaged with significant erosion, modification or destruction occurring through extraction or conversion to other land uses. Even in protected sites less than half are classified as being in a favourable condition. Therefore whilst facing similar challenges to other areas across the country.

<p>STRENGTHS</p> <p>Urban transport network including bus, rail and Metro systems.</p> <p>Urban area relatively compact – provides coherence and opportunity for linked activities.</p> <p>Land availability, including key sites in the city centres with an affordable opportunity cost to development.</p> <p>Urban area a good size for testing, large enough to demonstrate impact, small enough to be cohesive.</p> <p>Significant research assets with four universities and major innovation and research institutions, including national catapults, smart grid lab and energy storage test bed.</p> <p>Reputation for excellence in key areas of research and for long-term regeneration success.</p> <p>Strong partnership working practices in place, representing the quadruple helix at operational level and coherent identity.</p> <p>Track record of trialling new approaches and roll-out linking to local capacities such as electric vehicles.</p> <p>Sector strengths in key areas including offshore and renewable, manufacturing and smart specialisation areas.</p> <p>Strong natural assets availability such as wood and water, relatively low natural resource pressure and good quality environmental services and assets such as water grid.</p> <p>High levels of FDI and strong trade performance</p>	<p>OPPORTUNITIES</p> <p>Scope to expand transport network.</p> <p>Unoccupied central sites available for development.</p> <p>Urban observatory and joint tools and understanding available including for transport and flood modelling.</p> <p>Potential for strong integrated governance through Combined Authority</p> <p>Agile workforce and positive population who can engage with demonstration sites and technologies.</p> <p>Urban area has space and capacity to grow, providing scope to capitalise on opportunities.</p> <p>Smart specialisation sectors central to an agreed regional plan (Strategic Economic Plan).</p> <p>Skills levels and employment are rising, but still room for improvement ensuring there is scope to grow and provide skills levels needed.</p> <p>Can make more out of existing assets such as natural resources, colleges and universities to better strengthen local links and links to economic growth – foundations for this are now in place.</p> <p>Potential for a range of energy generation sources including geothermal.</p> <p>Developing assets and demonstrators such as district heating, EV sites, low carbon building and retrofit which can be expanded on.</p>
<p>WEAKNESSES</p> <p>Key pinch points on transport network and overall costs of transport and disconnection reduce healthy and sustainable travel choices.</p> <p>Skills base still too narrow and career escalator too limited leads to loss of high skilled individuals</p>	<p>THREATS</p> <p>Reduced public funding available to trial and test the new approaches needed to support long-term cost reductions.</p> <p>Impact of Northern Powerhouse investment on M62 corridor.</p>

<p>University engagement not consistent across all universities and all parts of the universities.</p> <p>Changing geographic focus for activities due to policy changes causes uncertainty and lack of consistency.</p> <p>Ageing infrastructure will need investment to maintain current levels of provision.</p> <p>Lack of resources for delivery in key institutions.</p> <p>Relative distance to other large economic locations and limitations of east-west connections.</p> <p>Scale of challenges faced – with long-term and entrenched economic and social challenges, high levels of deprivation, unemployment and worklessness, lower level skills and opportunities, low levels of business start-up.</p> <p>Lack of long-term policy framework around climate change and energy.</p> <p>Old housing and building stock, much of which will remain and form basis for medium-term future.</p> <p>Lack of link up between transport modes and complexity/quality of buses in linking to work locations.</p>	<p>Long-lasting and large cuts to public sector funding in the North East may damage potential for investment.</p> <p>Scale and pace of change required to address the challenges may prove difficult to keep up with.</p> <p>Risks and uncertainty over European Union referendum.</p> <p>Permitted development rights and changes to legislative framework reduce opportunities for activities and</p> <p>Large proportion of contaminated sites and risks from underground mine workings.</p> <p>Major committed investment taking place distant to the area – HS2, Cross-rail etc, could reduce competitiveness and reduce available investment funds.</p> <p>Poor levels of graduate retention and underutilisation of graduate and business investment in R&D (although improving).</p> <p>Lack of network and hub provision risks further uncoordinated activities and duplication.</p>
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Section 3 – Strategy for Urban Development

Addressing global challenges and responding to local context

Urban areas are an essential element in driving growth, significant research, including recent work undertaken by Nesta and the RSA, highlights the key role of urban locations. More locally the Newcastle City Futures 2065 report has considered different scenarios for a part of the LEP geography highlighting the potential of the area in acting as living laboratory and demonstrator for smart city responses to the common challenges faced by urban areas across the globe. Whilst there the local context will always impact on the precise nature of implementation, the diverse nature of the North East LEP area, environmentally, economically and socially and its scale mean the urban area is an ideal location to test and trial approaches and new technologies.

Established cities face particular challenges in adapting to new technologies in a way that is different to newly established or rapidly growing cities as the majority of infrastructure and the built environment is in place and there is an existing and embedded population, this does not allow the large-scale, new infrastructure projects that can be easily put in place in a green field site. The challenge of remaining competitive and engaging with the populace is therefore compounded. These places however continue to face the same challenges around for infrastructure to support growth. A common issue across not just Europe but across advanced economies. This is particularly acute in UK cities which as the LSE Growth Commission notes, have experienced long term “inadequate investment in skills, infrastructure and innovation”³ leading to longstanding structural weakness and is identified as a key driver of the UK productivity gap with key comparator economies⁴. Within the UK context particular challenges are present around energy and transport with the Eddington Review highlighting a potential £22bn per annum cost from congestion and more than a fifth of the energy generation capacity to be decommissioned over the next decade at a time of rising demand.

The unbalanced nature of the UK economy further requires addressing, whilst urban areas continue to drive economic growth across the globe, in the UK a clear ‘fiscal gap’ is visible for many urban areas outside of London, there remains issues of embedded productivity which, if address would significantly contribute to the success of the UK in closing both the national productivity gap and improve economic performance in relation to comparator and competitor economies; however as the RSA notes in the recommendations of the City Growth Commission (October 2014) this will require enhanced connectivity and improved use of data which is rolled out in a systematic way to “enable cities to thrive as while systems” and which “allows for an effective and efficient system of cities” a smarter approach to cities is needed to address a wide range of issues ranging from climate

³ Pg1

⁴ Pg13

change, to increased welfare costs and need to deliver public services in new, more efficient ways as well as support genuinely sustainable economic growth.

As this suggests and is recognised in the European Union Europe 2020 Agenda and UK Government policy is the need for investment to not only drive a more competitive economy but also address issues of social inclusion and environmental sustainability. The UK remains a highly stratified society with a high Gini coefficient and greater inequality than many similar countries. The OECD (February 2015) found that the average income of the 10% richest in the UK is 10 times that of the poorest 10% which is higher than the OECD average of 9.5 and key comparator economies (France and Germany, both 7) and the Gini coefficient is significantly above the OECD average and represents an worsening of the picture since 2000. High costs of transportation with DfT figures showing costs for bus and rail having risen by more than cost of living consistently for a number of years (DfT Transport Statistics for Great Britain, 2013) and energy (alongside housing, food and other 'basic goods') have been identified as driving poverty with over 2.28 million households in fuel poverty and with those facing fuel hardship experiencing increased hardship (DECC Fuel Poverty Strategy 2015 pg 32). Energy, and carbon intensive transport therefore represent an important nexus in inclusion and sustainability but other social factors also need to be considered such as an aging population and health inequality which are both further linked to these opportunities.

A smart city/place approach to this represents the strongest opportunity to achieve this; however this is not without its challenges. Despite providing a clear opportunity to support more efficient flows and better target services to mitigate the challenges of urban economies and living, smart cities are not without critics and challenges. As noted in the report, over the last two decades of development the smart cities movement has too often "emphasis[ed] expensive hardware rather than cheaper solutions ... too often showcase[ed] technologically interesting ideas rather than responding to citizen's real needs and too often m[ade] over-inflated promised that couldn't be supported by hard evidence"⁵

The North East is well placed to be a demonstrator of joined up, technically advanced, environmentally sustainable and social inclusion solutions to key challenges. The urban area faces common challenges with other urban areas with issues around aging transport and energy infrastructure, changing demands and the need to address climate change. This requires investment to ensure networks and systems are resilient, meet current and future needs and reduce carbon emissions. The response however cannot be detached from individuals. If solutions are to be practically rolled out then they need to engage with the population, a technological solution will not address the issues if it is not used properly. Similarly to ensure that ageing, health and deprivation issues are also addressed in the investments to make more aligned choices. Due to the diverse places in the urban geography and the range of deprivation levels solutions for our urban area need to reflect this making the area a strong test bed for diverse areas.

⁵ NestaPg8

Building on local assets and opportunities

As Section 2 demonstrates the urban area of the North East LEP represents a useful and applicable test bed and faces common challenges which are present across the globe; however it is also well placed to develop the solutions building on a strong asset base relating to energy, low carbon industries, passenger vehicles and health related to the areas of smart specialisation.

The North East LEP area includes four highly rated universities with key areas of expertise and high research ratings relating to innovation, design, energy and engineering and data.

- Advanced materials and nano-technology (Durham, 16th)
- Automotive (Newcastle, 18th position)
- Big Data (Newcastle, 7th)
- Energy Storage (Newcastle, 7th and Durham, 9th)
- Life Sciences (Newcastle, 14th)
- Oil & Gas (Durham 11th, Newcastle, 7th)
- Offshore wind (Durham 3rd, Northumbria 19th)
- Regenerative Medicine (Newcastle, 18th)
- Satellites (Durham 2nd)

Further to this academic expertise, the North East universities play a role in the civic and commercial life of the area linking through institutions and others assets to develop practical solutions based on the academic research. In this the North East, and particularly the urban area, benefits from the presence of key innovative and low carbon assets present.

- Offshore Renewable Energy Catapult, in Blyth – integrated, open-access testing and research facilities
- The North East Business Innovation Centre in Sunderland - support and incubator services for businesses
- The North East Technology Park in Sedgefield – physical and virtual technology hub. Location for key innovation businesses, CPI and the Satellite Applications Centre
- The Centre for Ageing and Vitality at Newcastle University - cross-sectoral innovation on health and well-being.
- Automotive and Manufacturing Advanced Practice Institute - facility based solutions for businesses
- Software City in Sunderland - growth in software, digital technology and media. Hub for Digital Catapult network
- Durham University/P&G led Innovation & Growth Centre – multi-disciplinary centre.
- The Neptune Centre for Subsea Technology in North Tyneside – supporting sub-sea cluster development.

- Extension of the Northern Design Centre led by Northumbria University and Gateshead Council.
- Newcastle Science Central - a major opportunity to bring open innovation culture and practice to the urban core of the region in Newcastle City Centre.
- Electric vehicle innovation through Zero Carbon Futures and Gateshead College, working with a range of other partners.

Due to these assets and strengths, as recognised in the relevant smart specialisation areas (health aging, passenger vehicle manufacture, software and advanced engineering) as well as potential around data and energy systems the North East is therefore well placed to develop solutions to these challenges. The North East has the skills and expertise to develop solutions and being big-enough to demonstrate at scale, but small enough to be manageable and including a varied economic geography in a compact area of urban, semi-rural, upland and coastal locations as well as the links to a wider rural geography with areas of concentrated wealth and poverty. This potential is raised in the recent Newcastle City Future report. The scale, location and potential combine to place the North East as a strong location for investments at demonstration and roll-out stage, for the area to be living laboratory and demonstrator site for innovation solutions to key national and global challenges matching both local opportunities and global innovation challenges.

Complementing the wider ESIF and other activities

This Sustainable Urban Development Strategy is an intrinsic part of delivering the North East LEP European Structural and Investment Funds Strategy and as such contributes to both the local strategy and the national Operational Programme that provides a national framework for European funds. This includes a focus on enabling new products and business process to be brought forward, bringing together research institutions, public bodies and business to address key challenges and build on the smart specialisation and supporting area strengths under Innovation. It also matches the five themes for Low Carbon growth and responding to climate change. These also respond to the national Operational Programme under the Priority Axes 1, 4 and 5 as set out in the following table.

The approach to SUD set out in this strategy adds value to these by bringing together a package of activities in an aligned and coordinated manner. This SUD strategy responds to the particular challenges faced in the North East LEP area which have been identified as having applicability for UK and European cities, namely the infrastructure gap around transport, energy and the related need to address these using technological approach. This requires a human-centred approach and one which addresses the gaps in provision and ties these together rather than representing a further level of duplicatory activities.

The proposals set out below for Sustainable Urban Development complement those being taken forward in the wider ESIF strategy. Investments enhancing the innovation infrastructure, through incubators and networks are proposed through the innovation strand, alongside support for wider smart specialisation areas and open innovation which will contribute to achieving overall innovation aims; similarly the low carbon investments will cover 5 areas around low carbon sector innovation and supply chain development, energy, smart places, sustainable places and skills. These elements are complemented with investments to supply SME growth and competitiveness, employability, inclusion and skills across the full strategy.

Wider investments through Local Growth Fund, Horizon2020 and potential for other European funds and investments undertaken through the low carbon-focused Enterprise Zone sites all complement these investments alongside successful attraction of national investment through InnovateUK. Through the Growth Deal negotiations significant investments are being made in innovation supporting infrastructure including low carbon energy and life sciences:

- Centre for Innovation in Formulation: (£7.4 million)
- Low Carbon Energy Centre, Newcastle Science City: (£2.8 million)
- Newcastle Life Sciences Incubation Hub (£5.6 million)
- NETPark Infrastructure Phase 3 (£6.8 million)
- Sunderland Enterprise and Innovation Hub (£3.5 million)
- National Centre for Health Care Photonics: (£10 million)

Investment from a wide range of sources are being made to build on the data capacity of the area including:

- Dynamo – a growing, vibrant and diverse digital and technology network including Sage, Accenture, Ubisoft and an extensive network of innovative SME's
- NETV Digital Catapult Expert Centre – collaborative vehicle including the two NE LEP's, the Digital Economy Catapult, the 5 NE Universities co-ordinated by Sunderland Software City. to identify sources of existing and currently under-utilised sources of data and deliver commercially or socially viable open innovation
- Key University digital and data capability in areas including data management, cloud computing, software, cad/cam. Includes Cloud Computing Centre and
- Secure Big Data storage at Cobalt Business Park
- Digital sites, facilities and incubators including Hoult's Yard, the Ouseburn, Think Digital, Campus North, Software City

This approach also enable significant local and national match funding to be accessed; in addition to the successful bids already set out above partners are currently working on, and are part way through the application process for projects which could form a strong source of match funding and demonstrate strong alignment with national priorities and investments.

Proposals for Sustainable Urban Development

Sustainable Urban Development in the North East will therefore support investment to place the North East at the forefront of the development and demonstration of innovative, data-led solutions to key urban challenges faced across the globe. In particular these will address the challenges of energy and transport networks in the context of climate change and an ageing population.

Addressing the key challenge of many 'smart city' solutions to date across the globe, this will be person-focused in delivery to ensure that communities and individuals are engaged in the technology and that the challenges of established urban areas are incorporated.

Building on the wider ESIF and other investments undertaken to develop an open innovation ecosystem in the North East, roll out small-scale renewable energy generation and support the development of resilient distribution systems.

This will also reflect that fact that a key challenge lies around the capacity to support and embed these, projects will be encourage which address the short-fall in network capacity working with the innovation supernetwork being taken forward through an existing ERDF call.

Sustainable Urban Development will therefore be focused on three key, interlinked areas of activity:

- **Energy systems and networks.** Activities which enhance integrated energy systems and networks such as the use of data and smart grid systems to reduce carbon emissions through demonstration of systems approach to retro-fit of key demonstrator sites and serve to reduce fuel poverty and/or improve business energy resilience.
- **Sustainable transport.** Activities which provide investment in information systems and related physical infrastructure to support transport more sustainable and healthy transport options building on walk and cycle routes and links to key bus, metro and train routes. Activities which support improvements to traffic flows and more efficient and effective management of flows.
- **Health and aging.** Use of data driven systems to demonstrate and embed improved opportunities to longer-healthy lives building on the work of the Centre for Aging and Vitality. Technologies which support all ages and encourage healthy choices, participation and independent living.

The approach taken to Sustainable Urban Development in the North East LEP is based on the advantage from joined-up investments and demonstration of practical aligned solutions. Activities

will be supported which contribute to more than one of the pillars above, particularly those enabled by data and ICT solutions. New technologies provide significant scope for new approaches and solutions which need practical demonstration to move towards full implementation. These technologies are not however an ends unto themselves but support the pillars set out above.

Sustainable Energy Systems and Networks

Energy use represents a significant contribution to carbon emissions and is a reported challenge for both domestic properties and commercial usage across the globe. With older building stock, high-demand industries and high levels of fuel poverty there is mismatch between supply and demand and ageing infrastructure ensures this remains vulnerable to climate change impacts and extreme weather undermines business resilience.

Building on the strengths in low carbon energy generation and established research and innovative energy and heating networks, Sustainable Urban Development will support a small number of demonstrator projects for integrated energy network solutions. This will address challenges in different types of property and location to reduce energy demand and use reducing energy poverty and improve resilience to climate change.

These investments will include connection two and systems involving existing domestic and commercial premises to demonstrate possible solutions in retro-fitting properties in addition to investments in new properties.

Modal shift to support sustainable transport choices and improve transport flows

As with energy systems, transport networks are fundamental to economic prosperity and inclusion but also represent a global challenge in the face of the need reduce carbon emissions and address congestion which reduce opportunities for economic growth.

To enhance the sustainability of transport options in the urban area and encourage more healthy travel options Sustainable Urban Development will invest in schemes which use data to improve road transport flows (which represent that majority of transport options) and considering better management of flows across 24 hours incorporating new options for freight management through improvements to urban traffic management systems.

Through these areas investment will also support the availability of travel information to support modal shift, reducing carbon emissions by encouraging use of public transport network and encouraging the use of healthier options such as walking and cycling which are low in the North East.

In addition to this investment in data and information systems and availability, hard investments in linked physical infrastructure such as cycle paths, storage and walking routes are required to improve linkages into key sustainable transport hubs including in the urban area building on the Tyne and Wear Metro, major bus interchanges and the larger stations on the East Coast mainline, Sunderland and the Tyne Valley line to Hexham.

Health and ageing

With an ageing population prosperity will require infrastructure and process to be more accessible across all age groups. This will also support longer-term independent living reducing pressure on public services and increasing the contribution to the economy.

Through Sustainable Urban Development investment building on the expertise of the Centre for Ageing and Vitality and strong health services across the urban area will support demonstration and trialing of innovative and data-led solutions which improve the accessibility of services and infrastructure across all age groups and supports all individuals to make healthier travel choices and through reducing energy and fuel poverty improve health outcomes and work readiness.

Projects to be undertaken under these investments should demonstrate support to improve health, reduce poverty and incorporate green and blue infrastructure improvements which service to mitigate the impact of climate change through flooding or heat islands and improve biodiversity

To ensure that these activities are embedded and engage population an aligned ESF employability, skills and inclusion call will be launched to enable projects to apply for funding to build the related skills base and enhance capacity within individuals and communities recognising the challenges around poverty and access to smart phones and the internet, impact of aging and the importance of understanding how to use systems to maximise their impact.

Approach

The approach taken to Sustainable Urban Development is fundamental to its success. This means that all activities to be supported under each of the three pillars set out above must reflect the principles set out below:

- **Integrated** – actions will be supported where they contribute to more than one of the pillars. The advantage of Sustainable Urban Development is this alignment and demonstration of solutions is most effective and most challenging at the intersections between transport, health and sustainability.

- **Partnership-based** – the approach to addressing the challenges will require contributions from a range of partners and organisations who can bring individual specialism, skills and experience. The ‘quadruple helix’ approach, bringing together public institutions, universities, the voluntary and community sector and business, is the best basis for addressing these issues.
- **Innovative**– a systematic and data based approach will underpin the actives using new technologies, processes and approaches to address the key challenges and share the findings for wider application.

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Action areas	Activity	Priority Axis	Investment Priority	Indicative Investment	Outputs	Results
Sustainable energy systems and networks.	<p>Investment in integrated energy systems demonstration site(s) to support carbon reduction.</p> <p>This will include premises in more deprived locations to ensure fuel poverty reduction is achieved.</p> <p>Includes capacity building to use the systems.</p>	PA4	<p>4c Supporting energy efficient, smart energy management and renewable energy use in public infrastructure, including in public business and the housing sector.</p> <p>4b: Promoting energy efficiency and renewable energy use in enterprises</p>	£10m £7m 4c/£3m 4b split)	<p>Estimated GHG reductions (tonnes of CO2 eq)</p> <p>No of households with improved energy consumption</p> <p>Public buildings output</p> <p>Number of enterprises receiving support.</p>	Index of domestic energy consumption per household
Improved travel choices	<p>Investment to support healthier and more sustainable travel choices.</p> <p>Improved information and data systems to support modal shift and accompanying demonstrator investment in cycle and walking infrastructure to link to</p>	PA4	4e Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaption measures.	£8m	Estimated GHG reductions	Reduction in carbon emissions in areas with low carbon strategies.

	<p>key employment sites and transport hubs.</p> <p>Investment for low carbon vehicles infrastructure.</p> <p>Investment in the traffic management systems and approaches to support smoother and smarter traffic flows to reduce carbon emissions for road transport and schemes to manage loads and address freight flow.</p>					
<p>Healthy, longer, independent lives.</p>	<p>Investment in demonstrator project for responding to an aging population to enable independent and healthy living.</p>	<p>PA1</p>	<p>1b Promoting business investment in R&I, developing links and promoting investment in product and service development, technology transfers, social innovation etc. (1.3)</p>	<p>£5m</p>	<p>Number of enterprises receiving support.</p> <p>Number of enterprises cooperating with research entities.</p> <p>Number of enterprises supported to introduce new</p>	<p>Research and development tax credits (by value or by number) 1.2</p> <p>Value of services provided to SMEs by HEIs or Number of contracts or interactions with SMEs 1.3</p>

					to the market products.	
					Public or commercial buildings built or renovated.	
Smart technologies for people and communities.	Aligned call(s) for ESF projects which address the skills and capacity shortfalls related to embedding opportunities, enhancing capacity and capabilities and support economic opportunities.	ESF call	9i Active Inclusion 1.4.1 To support people with multiple and complex barriers to participation to address these underlying issues and to move closer to or into the labour market 1.4.3 To engage marginalised individuals and support them to re-engage with education, training or in employment.	est £2m	Participants (unemployed, inactive, over 50, from ethnic minorities, with disabilities)	Participants in education or training, participants in employment 6 months after leaving.
Ensuring bio diverse and sustainable infrastructure investments	Ensuring capital and infrastructure investments supported through SUD respond to and support the need for flood mitigation and biodiversity improvements through green and blue infrastructure.	PA5	5b Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems (flooding)	£3m	Surface of habitats supported to attain better conservations status Businesses and properties with reduced flood risk	Number of non-residential properties better protected from flood and coastal risk.

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