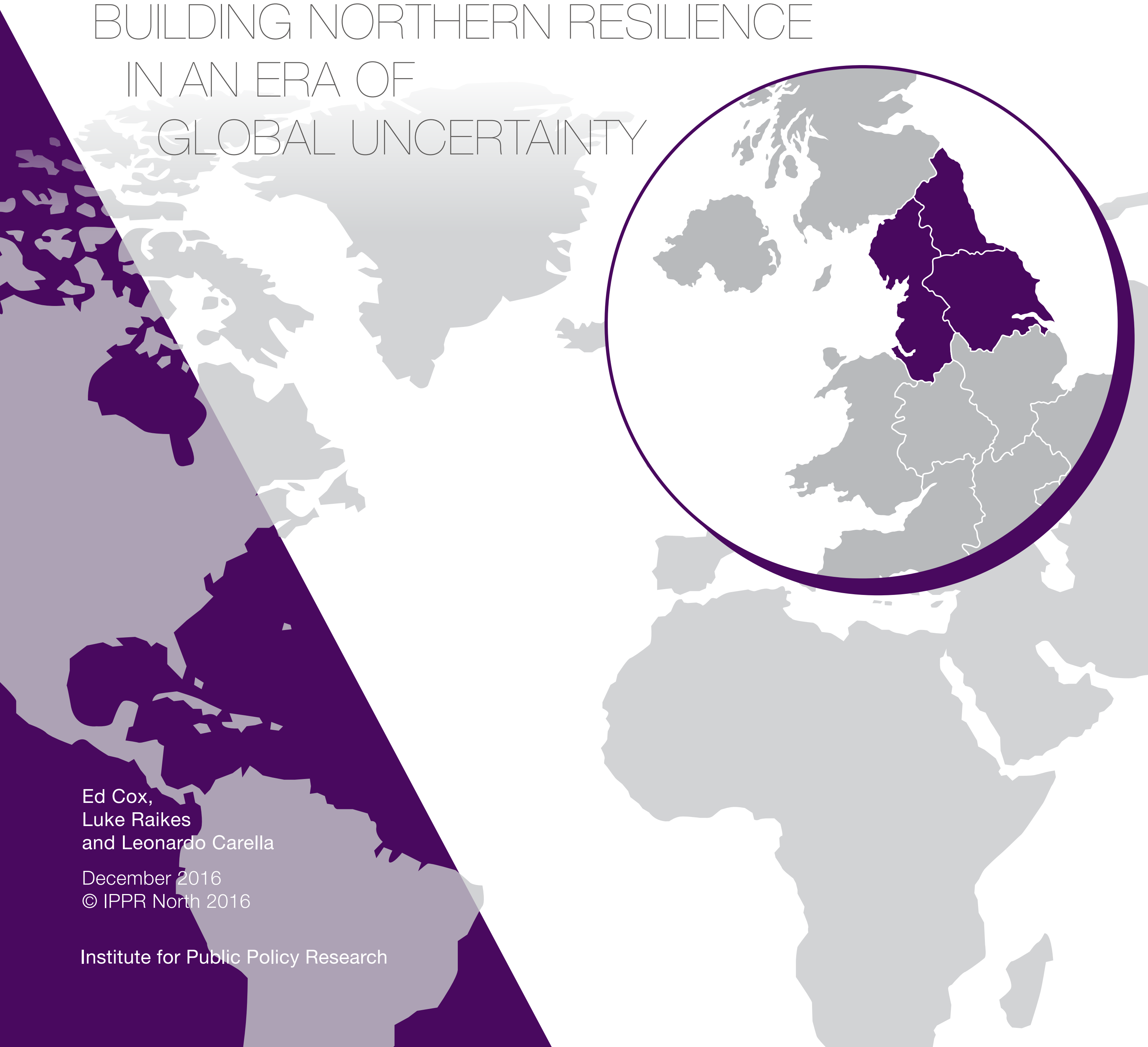
IPPR NORTH

REPORT

THE STATE OF THE NORTH 2016

BUILDING NORTHERN RESILIENCE IN AN ERA OF GLOBAL UNCERTAINTY



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ABOUT IPPR NORTH

IPPR North is IPPR's dedicated thinktank for the North of England. With its head office in Manchester and representatives in Newcastle, IPPR North's research, together with our stimulating and varied events programme, seeks to produce innovative policy ideas for fair, democratic and sustainable communities across the North of England.

IPPR's purpose is to conduct and promote research into, and the education of the public in, the economic, social and political sciences, science and technology, the voluntary sector and social enterprise, public services, and industry and commerce.

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SUMMARY

Last year's *State of the North* report was full of confident projections of northern powerhouse potential. In substantive terms, little has changed: this year the northern economy has passed the £300 billion mark, jobs growth has motored on, and northern regions topped this year's EY Attractiveness Survey for foreign investment.

However, dark clouds are gathering on the horizon following the events of the past six months that have engendered more than a wobble – uncertainty now pervades the northern mood. Regardless of current quarter on quarter national GDP growth, the decision to leave the EU will have a profound effect on the northern economy. Whether in terms of trade, access to skilled labour or EU funding programmes, the implications of Brexit on the North will be profound. There will be upsides of course but for the time being business is cautious and concerned.

The political fallout from the Brexit vote has also been severe. The champions for the northern powerhouse in the national government – former chancellor George Osborne and financial secretary Jim O'Neill – have both departed the main stage. Meanwhile, devolution deals appear to have stalled, and the focus on regional rebalancing has now been subsumed into a wider initiative to develop an industrial strategy.

All this, however, presents new opportunities. While Osborne's approach was always too partial, piecemeal and parochial, Greg Clark's ambition to create a 'place-based industrial strategy' led by the powerful new Department for Business, Energy and Industrial Strategy has the potential to ignite a new era of economic activism around some of the North's major economic strengths.

Such developments are timely. Following on from IPPR North's *Blueprint for a Great North Plan* in January 2016, which set out a framework for a modern industrial strategy, Transport for the North unveiled in June the results of the Northern Powerhouse Independent Economic Review. The review identified four 'primary economic capabilities' where the North has been shown to have world-class assets and a further three 'enabling capabilities' that will underpin this potential.

Add to this the excellent progress being made in building powerhouse capacity in relation to transport infrastructure, finance, trade and investment; the northern powerhouse strategy and northern powerhouse schools strategy published alongside the chancellor's autumn statement; and there should be cause for cautious optimism. Instead though, wider events mean that business confidence is weak and once again, the prospects of inclusive growth in the North are looking as distant as ever.

Our *State of the North 2016* report focuses on three key issues that will build business confidence in an era of increasing uncertainty.

SECURING A UNITED NORTHERN VOICE AT THE BREXIT NEGOTIATING TABLE

The North has distinct economic assets and interests that present both opportunities and threats as the UK prepares to leave the European Union. However, the fledgling and patchy development of combined authorities, metro mayors and devolution deals in the North means that the region is not well placed to formulate a coherent response to Brexit. It will therefore struggle to match the response of the devolved administrations for Northern Ireland, Scotland or Wales, or of the mayor of London or other well-established lobbying groups.

Recommendation 1: IPPR North calls for the formation of a Northern Brexit Negotiating Committee to determine the type of Brexit that would best suit the North, to speak with one voice in the negotiations, and to build direct relationships with regions and nations within and beyond the EU in order to develop and enhance its particular trade interests.

ESTABLISHING CLEAR PRINCIPLES FOR A PLACE-BASED INDUSTRIAL STRATEGY

The government's industrial strategy represents an opportunity not only to address the implications of Brexit but also to take a more proactive approach to many of the structural challenges facing the UK economy, not least regional rebalancing. There are numerous 'types' of industrial strategy with varying degrees of intervention. IPPR has set out four clear 'objectives' that any new approach must address including the need to develop a strong spatial dimension to enable all parts of the country to contribute to its prosperity, but IPPR North believes that industrial strategy must adopt three 'place-based principles'.

- *Regional differentiation:* Develop a more sophisticated understanding of what drives growth in different types of region rather than the hitherto insufficient account of growth focused on urban agglomeration.
- *Co-ordinated investment:* Drive up public investment in infrastructure, research and development and other economic assets to match private sector investment and act as a catalyst for business innovation and smart specialisation.
- *Devolution:* Develop and enhance its approach to devolution both to regional and local tiers of government with a much greater emphasis on fiscal powers to enable subnational bodies to direct investment on local economic opportunities.

Recommendation 2: IPPR North calls upon government to adopt a place-based approach to industrial strategy with the three core principles of regional differentiation, coordinated investment and devolution as its foundation.

FOCUSING ON LOCAL ECONOMIC RESILIENCE ALONGSIDE GROWTH AND DEVOLUTION

The large majority of our *State of the North 2016* report focuses on the importance of building local economic resilience. As with industrial strategy, there is a rich literature on how local economies resist and recover from economic shocks. Building on the work of Martin and Sunley (2014), IPPR North has developed a resilience framework consisting of four factors, each with a set of key indicators, and has used these to profile each of the 11 local enterprise partnership (LEP) areas across the North of England.

Our analysis finds that the North's resilience is as varied as its geography, but we have been able to group the North's LEP areas into the following categories.

1. **Resilient or prosperous:** areas that are relatively well prepared, with a diverse economy and strong labour market
2. **Dynamic but vulnerable:** areas where there is a diverse or diversifying economic base, but have some structural flaws, especially compared to similar city-regions in the EU
3. **Dependent or vulnerable:** areas that are reliant on a single industry or small group of industries, and have significant structural issues to overcome.

Recommendation 3: IPPR North recommends conducting LEP resilience audits. The North's LEPs, working closely with relevant local and combined authorities, should each conduct a resilience audit that sets out in detail the threats to their economy in the wake of Brexit. This audit should then be used to inform a strategic response, and a set of asks from the government that are tailored to acting on this strategy as part of a new round of devolution deals with each LEP area.

1.
CONTEXT
BREXIT AND INDUSTRIAL STRATEGY

The UK economy is set for a period of significant disruption. The EU referendum result pitched the nation into economic uncertainty, with Brexit itself looming just two years from April 2017. A new government has come to power, affording a prominent role to industrial strategy and inclusive growth. Meanwhile the northern powerhouse is now under new ownership with different ministers and new mayors soon to be elected in its major cities. These are significant changes, which will have a different effect on different parts of the North. Chapter 1 explores this changing context and argues that a principled, place-based industrial strategy could build a North that is more resilient to economic turbulence.

1.1 THE UK AND THE EUROPEAN UNION

The nature of Brexit is subject to a range of political influences and decisions that are as yet unknown. The referendum vote signalled that the UK will leave the EU, but the terms of departure remain uncertain: parliament and various interest groups will seek to shape the settlement to their interests. The final deal will also be subject to the increasingly volatile politics of the EU itself and within some of its major constituent nations – France and Germany especially – which multiplies this uncertainty further. As a result some of the fundamental policies that underpin the UK economy are under threat, especially: trade policy, with the EU and other countries; migration policy with EU states; and foreign direct investment from within and outside the EU.

Uncertain politics makes for an uncertain economic outlook. Up until now the impact of the Brexit vote has been mixed: the first release of GDP since the referendum indicated only a marginal slip (post-referendum quarterly growth was 0.5 per cent, compared to 0.7 per cent before); but the value of the pound has collapsed dramatically – the effective exchange rate (weighted for trade flows) has slipped to the lowest level on record (Hunter et al 2016). In this uncertain time, any forecast is to be treated with caution, but some of the major organisations that analyse the British economy have downgraded their forecasts for 2017 (see IMF 2016, OECD 2016). Moreover, the background economic conditions pre-Brexit were themselves far from healthy: economic growth has been low in the UK since the recession, while structural labour market issues and inequality persist.

Earlier this year, IPPR North published a report exploring these issues from the perspective of the north of England (Dickinson and Cox 2016). The report identified eight interrelated issues where the North is likely to have specific concerns on account of its distinctive economic mix. These concerns are specific to particular economic sectors that predominate in the North and where the region has particular economic strengths, such as advanced manufacturing, energy, health innovation and the digital economy. Related to each of these economic strengths are the following concerns:

- the North has a higher proportion of international trade with the EU than many other parts of the UK
- sector-specific skills and labour market issues
- engagement with pan-European innovation systems and access to particular streams of research funding
- particular regulations and issues around public procurement, state aid and assisted areas
- regional and subregional economic development funds.

The impact of the EU on UK GDP is far larger than that of other countries. For example, it is around three times that of the US (3.4 per cent) and four times that of the combined 'BRIC' emerging economies (2.3 per cent) (Springford et al 2016). This is because EU 'value chains' have strong multiplier effects throughout the economy, with manufacturing goods and service sector trade closely interrelated. Given that the EU-UK demand multiplier value is 2.4, it is estimated that a 1.6 per cent reduction in UK exports to the EU – equivalent to 0.2 per cent of UK GDP – leads to a reduction in UK GDP of 0.5 per cent – equal to our net EU budget contribution (ibid).

These figures are, however, aggregated at the UK level. Critically, dependence on EU trade is far greater in the regions outside London. Academic research shows that most UK regions outside London are anything from 50 to 100 per cent more dependent upon EU trade than London, and that they have become more dependent on EU trade since 2000, while London has become less dependent (McCann 2016). As a consequence, the impact of any reduction in EU trade will be significantly greater in the north of England and the Midlands than elsewhere. Ironically, it is those areas that voted in favour of Brexit where both local labour income and local productivity is likely to be most adversely affected.

It is therefore essential that the North ensures that it has the tools it needs in order to both exploit the opportunities that Brexit offers, and mitigate the risks that it will pose.

The fledgling and patchy development of combined authorities, metro mayors and devolution deals in the North means that the region is not well placed to formulate a coherent response to Brexit that will match those of the devolved administrations for Northern Ireland, Scotland and Wales, or that of the mayor of London or other well-established lobbying groups. Furthermore, it is quite impossible for central government to deal meaningfully with the demands of over 30 upper-tier local authorities, and 11 local enterprise partnership areas, in the North one by one.

Recommendation 1: A Northern Brexit Negotiating Committee should be established to determine the type of Brexit that best suits the North, to speak with one voice in the negotiations, and to build direct relationships with regions and nations within and beyond the EU in order to develop and enhance its particular trade interests.

1.2 PLACE-BASED INDUSTRIAL STRATEGY AND INCLUSIVE GROWTH

In part as a response to the implications of Brexit and the underlying sense of urgency for rebalancing the economy, the new government has set out its intention to develop and implement a 'place based' industrial strategy to drive growth 'up and down the country' (Clarke 2016, May 2016). The formation of a new department for Business, Energy and Industrial Strategy (BEIS) is poised to intervene strategically in the economy, something which hasn't been done so overtly for many years. There is also a powerful economy and industrial strategy cabinet committee – chaired by the prime minister – geared towards this end. This approach will bring the UK into line with similar countries, such as Germany and France, who have a long history of being more interventionist in relation to regional economic development. Articulating her view on the government's new industrial strategy, the prime minister recently stated that:

> '*We will identify the sectors of the economy… that are of strategic importance to our economy, and do everything we can to encourage, develop and support them. And we will identify the places that have the potential to contribute to economic growth and become the homes to millions of new jobs. That means inspiring an economic and cultural revival in all of our great regional cities.*'
> May 2016

IPPR has already set out four clear objectives for a new national industrial strategy (Colebrook 2016). One of these objectives is the need to develop a strong spatial dimension to facilitate a more even spread of economic activity across the country. Building on this, it is crucial that the *geography* of industry is embedded in this new industrial strategy. Doing so should bring together five strands of policy:

- **Sectoral strategy.** This focuses on enabling specific sectors to grow, for example by investing in specific technologies, or subsidising businesses directly, often without factoring in geographical considerations.
- **Regional strategy.** This is concerned with the geography of economic growth, and is often simplified as a desire to 'rebalance the economy'. This tends to focus non-sector specific or 'horizontal' interventions at the regional level – such as transport investment, skills and innovation.
- **Smart specialisation.** There is a further concept which sits at the juncture of these strategies: 'smart specialisation', which aims to understand and drive innovation. This concept originates within industrial theory, but more recently has been transposed onto regional economics (McCann and Ortega-Argilés 2011).
- **Devolution.** Regional structures have now been replaced by far looser local enterprise partnerships across England, and far more focused combined authorities in some major cities. The lessons from Europe indicate that regional governments are very well placed to drive industrial strategy, and McCann (2016) concludes – from a comprehensive analysis of the UK economy – that institutional change and spatial rebalancing must go hand-in-hand.

- **Inclusive growth.** For many years policymakers have made the mistake of overprioritising GDP growth as a policy objective. There has been some surprise that GDP growth hasn't improved living standards for many. This in turn has led to an academic and often abstract debate about how policy should go beyond GDP, or how economic growth can be made more 'inclusive' (Stiglitz et al 2009, RSA 2016, Lupton et al 2016). It has been clear for some time that, alongside GDP (or GVA), policymakers should prioritise employment, wages, progression and the inclusion of disadvantaged groups.

Building on these five strands of policy, this *State of the North* report argues that any place-based industrial strategy should rest upon three principles that relate to the 'place' element of industrial strategy.

Principle 1: Regional differentiation. There is a need for a more sophisticated understanding of what drives growth in different types of region (OECD 2012, NEFC 2012). The role of cities is vital, but the agglomeration hypothesis is overplayed – a UK city with double the population of another comparable UK city will only be 1.6 per cent more productive – far less than in many similar countries (Ahrend et al 2015). Policy should instead draw on modern understandings of regional economics that, while accounting for the importance of cities, prioritise the wider region in both their analysis and the policy prognosis that results (McCann 2016).

Many smaller towns and cities make a significant contribution both individually and through their interactions with the bigger cities. Furthermore, in the North important prime capabilities – advanced manufacturing and energy sectors for example – are largely based outside cities, though they often rely on them for their supply chain and labour pool (Cox and Longlands 2016, NIER 2016). In order to account for this, place-based industrial strategy must allow for sufficient regional differentiation in terms of the sectors it chooses to prioritise, the investments it chooses to make, and the tools and powers it chooses to devolve.

Principle 2: Coordinated investment. Building on principle 1, interactions need to happen between businesses within prime sectors; and between them and their supply chains, enabling capabilities and underpinning assets – especially the universities (McCann and Ortega-Argilés 2011, NIER 2016). Infrastructure – including transport, broadband and facilities (such as lab space) – can enable the ecosystem that businesses need to develop organically; R&D investment generates overspills within places; and transport infrastructure can broaden the labour force that a diverse business cluster has access to. There needs to be a significant increase in public investment in infrastructure, research and development and other economic assets to match private sector investment and act as a catalyst for business innovation and smart specialisation. Such investment needs to be coordinated both in terms of a sectoral and geographical approach but also between public and private partners.

Principle 3: Devolution. In order to achieve principles 1 and 2 most effectively, central government needs to devolve further powers and collaborate with regional and local government. Regional government in Europe has proven highly capable of implementing industrial strategy. In the UK – especially the North – local government is both well informed about local economic capabilities, and in many areas is developing the institutions to take on a much greater level of responsibility in this regard. To date, however, devolution deals have been too partial and piecemeal and there needs to be a more radical consideration of the potential for greater fiscal devolution and powers held at a more strategic 'mezzanine' tier – such as the North.

Recommendation 2: IPPR North calls upon government to adopt a place-based approach to industrial strategy with the three core principles of regional differentiation, coordinated investment and devolution as its foundation.

1.3 NORTH FIRST: NORTHERN POTENTIAL AS AN EXEMPLAR FOR INDUSTRIAL STRATEGY AND INCLUSIVE GROWTH

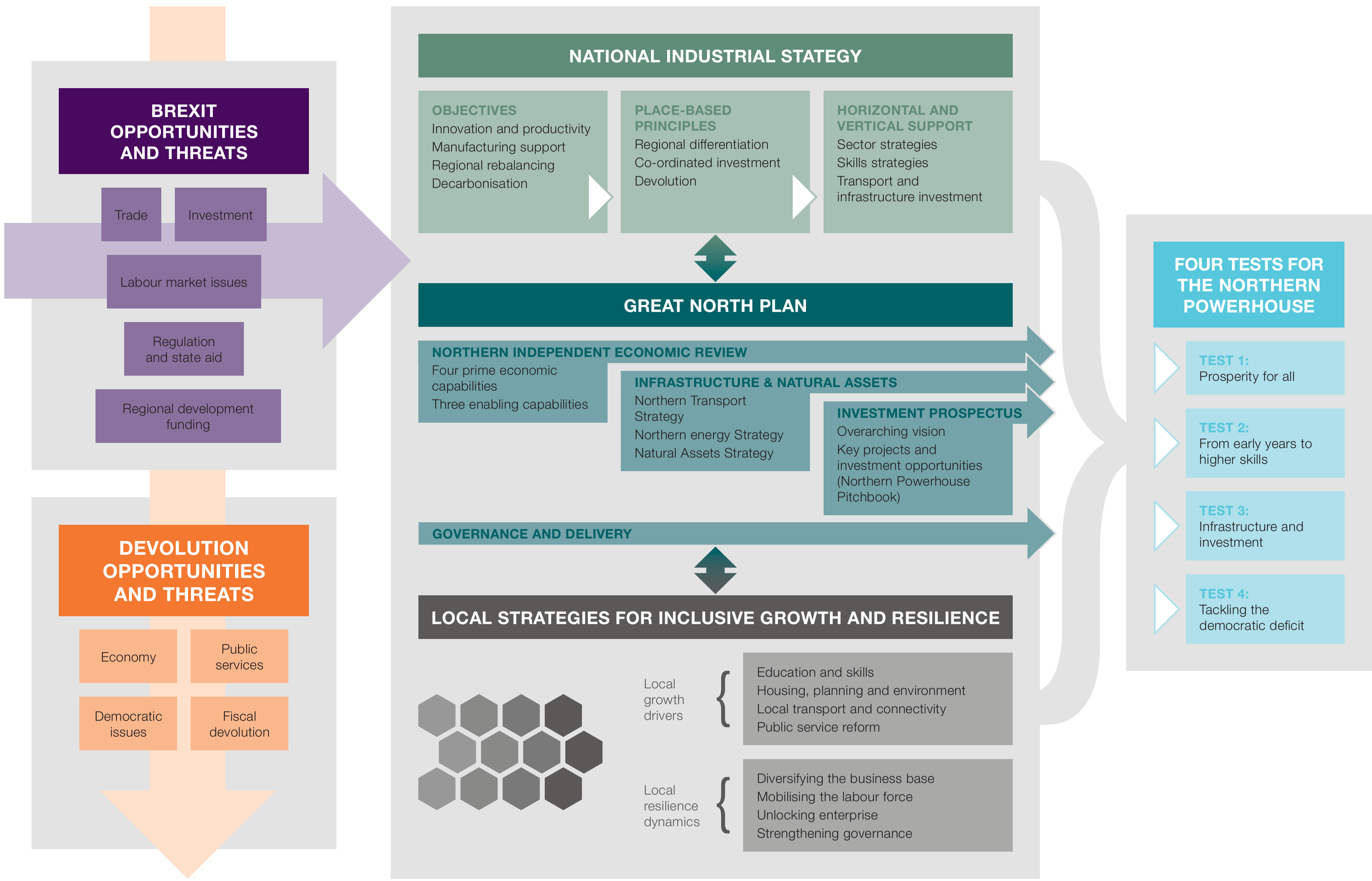
The North could be an exemplar region for place-based industrial strategy and inclusive growth. There are significant foundations on which to build, and demonstrable benefit from taking such an approach.

- **There are a number of assets that – with the right investment – could enable the North to thrive.** The northern powerhouse agenda may lack definition, but it does speak to the North's economic potential: it is home to 15 million people; it contributes £304 billion to UK economic growth; and it ties together 5 major cities, 8 major ports and 29 universities (Cox and Raikes 2015).
- **There are institutions taking form which could take it forward.** The northern powerhouse has started to take shape: Transport for the North is soon to gain statutory status, and in May 2017 new metro mayors will be elected across a wide swathe of the North.
- **The prime and enabling capabilities of the North are well recognised, and understood by local stakeholders.** Crucially, the North has already set out the prime capabilities that such an industrial strategy can harness, and the enabling capabilities that can support these. Transport for the North recently undertook the Northern Powerhouse Independent Economic Review (NIER), in which it analysed the concentration of sectors and listed the assets within the North. From this, the NIER set out the North's prime capabilities: advanced manufacturing, health innovation, energy and digital; and its enabling capabilities: financial and professional services, higher education and logistics (NIER 2016).

The North is also well placed to deliver *inclusive* economic growth. The combined authorities – with or without mayors – are able to bring together public service reform and economic policy within a place in a new and crucial way: for example by commissioning the work and health programme in a way which aligns with demand-side activity (Raikes and Davies 2016). Some northern cities are already setting out their strategies for inclusive growth, and even aligning this with industrial strategy objectives: Greater Manchester is already seeking to use its skills powers to prioritise sectors which offer entry-level jobs to be taken up by those who are the focus of public service reform (GMCA et al 2014).

However, any broad, place-based industrial strategy – let alone one focused on inclusive growth – will only succeed if it is founded upon strong and resilient local economies. The focus of this year's *State of the North* report will therefore now shift to the importance of local economic resilience, followed by a series of resilience profiles assessing the economic strengths and weaknesses of the North's 11 local enterprise partnership areas.

ELEMENTS OF AN INDUSTRIAL STRATEGY FOR THE NORTH



2. UNDERSTANDING ECONOMIC RESILIENCE

The ability to adapt to any economic turbulence ahead will vary from area to area. Chapter 2 introduces the concept of economic resilience: it first sets out how this concept can be defined, before looking at different ways in which it can be measured, and then setting out our methodology for this project.

2.1 DEFINING RESILIENCE

Defining resilience is a complex but important task. For obvious reasons, the subject has received much attention – the financial crash clearly had an impact on policymakers and academics. However, for perhaps less obvious reasons, the field has been of increasing prominence since the turn of the century – driven largely by the long-term decline of industry in developed countries (Christopherson et al 2010).

For many, the concept remains somewhat 'fuzzy' (ibid, Pendall et al 2009). Many definitions require some kind of 'normal' to be defined, so that an economy's ability to remain in this state can be derived: resisting or absorbing a shock in employment or output; recovering quickly to such a shock; or maintaining core system performance (Martin et al 2013).

Resilience clearly isn't simply a matter of how sharply an area or industry contracts or recovers. While useful context, these definitions fail to account for fundamental transformation as a response either to shock, or to long-term structural changes (Christopherson et al 2010). In response some have expanded the scope of resilience to be more conceptual and so incorporate diversity, modularity, social capital, innovation, overlap, tight feedback loops and ecosystem services; pushed a little further, resilience is seen by some as 'dynamic adaptation' (Lewis and Conaty 2012, Greenham et al 2013).

2.2 MEASURING RESILIENCE

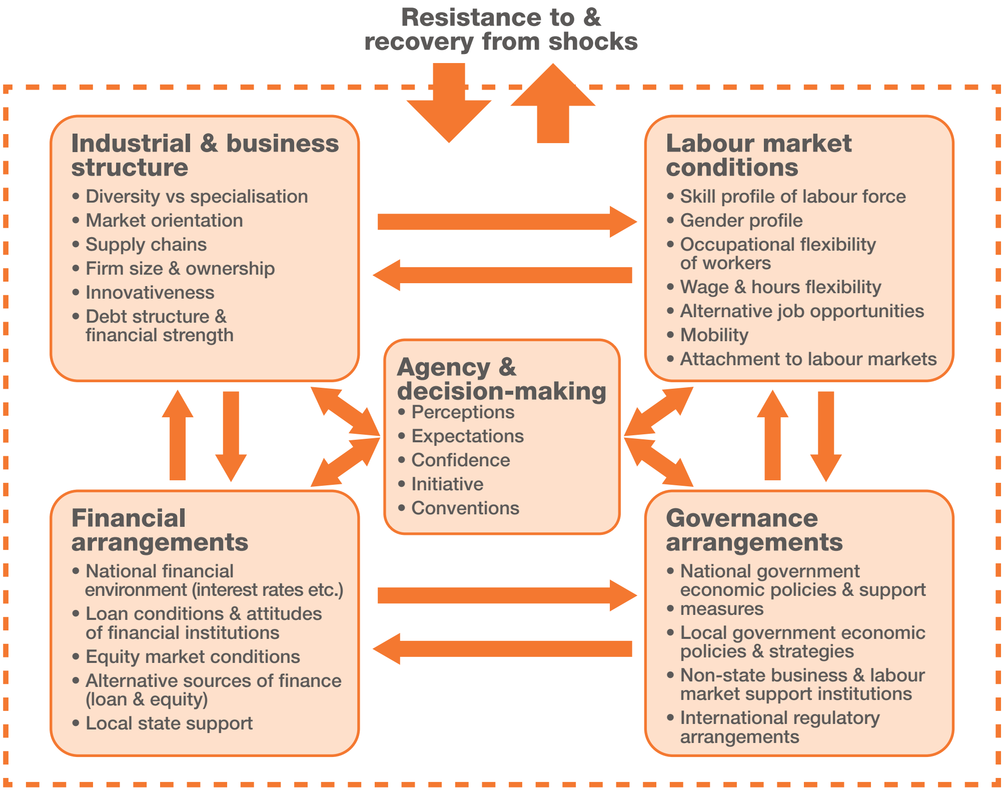
The focus of this report is on how well prepared areas are for the years of uncertainty ahead. While the concept of resilience is itself the subject of debate, there is some consensus that a number of factors will help an economy to survive and adapt to changes. Martin and Sunley (2014) set out a framework that we will develop, illustrated in figure 2.1.

Others have given more tangible form to this framework, and some have sought to aggregate a number of measures into a single index. The OECD makes use of a number of social and environmental indicators to inform its work on city resilience – in the economy domain, it is diversity, dynamism, innovation and employment and skills which are the priority (Saya 2016). Local and regional governments in the UK have used a range of common indicators as proxies for these: Advantage West Midlands used workforce skills, employment rates and business turnover (AWM 2010); Ekosgen used a similar set of indicators when they analysed the resilience of Sheffield city-region (Ekosgen 2009). Some organisations have sought to incorporate environmental and social considerations into their measurements (Greenham et al 2013) – however, given the focus of this report on post-Brexit economic resilience, we do not take these into our own analysis.

FIGURE 2.1

Resilience can be determined by the interaction of four economic subsystems

Determinants of regional economic resilience



Source: Martin and Sunley 2014

2.3 OUR METHODOLOGY

We draw on the above research, but adapt it to the current situation: that is, with the North and the nation on the brink of Brexit. In the case studies in chapters 4–6 we have attempted to summarise each of the 11 northern LEP areas from a resilience perspective, using both data analysis and qualitative judgement where appropriate. The picture will inevitably be incomplete, and not all of the above determinants of resilience can be measured: some factors are determined nationally, and are therefore irrelevant for local comparisons (national economic policies for example); others are not measured locally (such as debt structure and financial strength) even though it would be helpful if they were. Some indicators require proxies (we used business registration rate as a measure of entrepreneurship); and others are qualitative judgements made on the best evidence available (those related to governance especially). It is important to note that some of these indicators could be interpreted differently: for example, having a large output from tradables is often seen as strength, but here we regard it with more caution because trade is under threat from Brexit.

Bearing in mind these different considerations we have developed the following 20 indicators that relate to economic resilience:

Business base

- Sector diversity – measured in absolute terms by the Herfindahl-Hirschman index
- knowledge-intensive business services employment
- high-tech employment
- output from tradable goods
- location quotients
- shift share analysis.

Labour force

- Qualification level of working-age residents
- local graduate retention
- commuting rates
- job density
- unemployment rate
- employment rate.

Entrepreneurialism

- Business registration rate
- business three-year survival rate
- self-employment
- high-growth SMEs
- SME investment in R&D.

Governance

- Assessment of progress on devolution
- local spending on planning and development per capita
- growth deal per capita.

Using these indicators we have built up a 'resilience profile' for each of the 11 local enterprise partnership areas across the North. However, each of these profiles begins by setting the LEP in an international context. Even without Brexit it would be vital to compare northern subregions with those in Europe – it is often these areas with which they are competing for investment and trade, rather than just neighbouring regions in the UK. We have done this by taking a typology developed by Aumayr (2007), and adapting this to northern LEP geographies using a methodology developed by de Beer et al (2014).

The detail of this typology is included in the annex of this report but in broad terms the 11 northern LEPs are categorised by:

- their metropolitan status
- whether they are rural or urban
- whether they are central or peripheral
- the proportion of employment in industry
- the relative productivity of their industry
- the relative productivity of their services sector
- the prevalence of tourism
- the prevalence of agrarian activities.

Based on this, the North's subregions fall into three broad categories.

1. **Metropolitan areas:** this includes Greater Manchester, Leeds city-region, and Sheffield city-region, which compare with a range of European cities, including major capitals such as Brussels Capital Region, and Ile de France
2. **Urban areas:** this includes Cheshire and Warrington, Tees Valley, Liverpool city-region and North Eastern and Lancashire – some of which are conventionally regarded as quite rural, but have an economy concentrated in their small cities, and are significantly less rural than many European areas. These compare to areas such as Nord Pas de Calais and Darmstadt.
3. **Rural areas**: this includes Cumbria, York, North Yorkshire and East Riding, and the Humber. These compare to areas like Basilicata, La Rioja and Munster.

3. ANALYSIS

LOCAL ECONOMIC RESILIENCE ACROSS THE NORTH OF ENGLAND

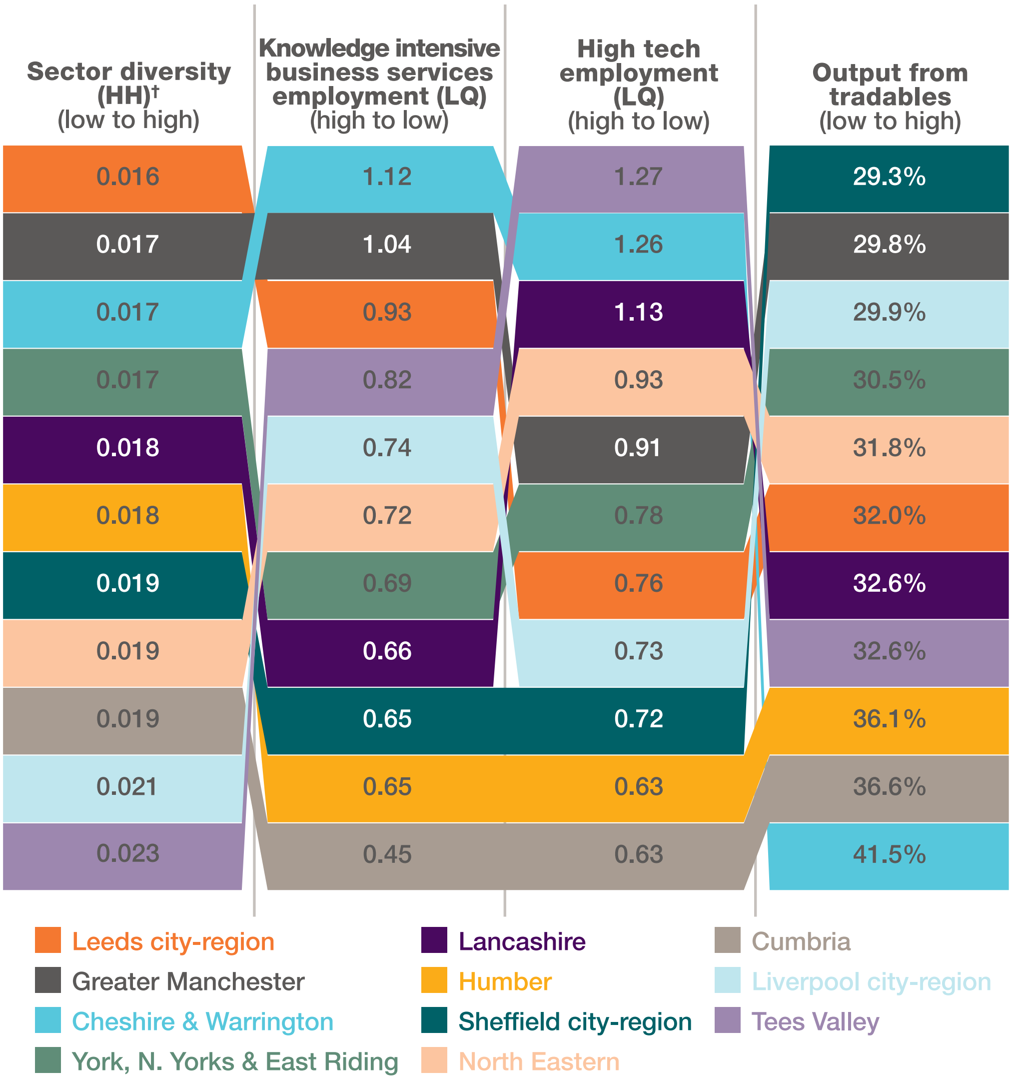
3.1 FINDINGS

The North's resilience is as varied as its geography. The indicators are summarised in figures 3.1 to 3.4, and taken collectively present a picture – albeit partial – of the relative resilience of northern LEPs. However, measuring resilience is not an exact science – nor is it purely a quantitative task, requiring qualitative assessment and judgement. Based on this analysis we grouped the North's LEPs into the following three categories.

1. **Resilient or prosperous:** areas that are relatively well prepared, with a diverse economy and strong labour market – Cheshire and Warrington, and York North Yorkshire and East Riding fall into this category. These will require an approach that boosts innovation in their thriving sectors to world-class status, and transport connectivity that enables neighbouring regions to benefit from their growth.
2. **Dynamic but vulnerable:** Greater Manchester, Leeds city-region, Lancashire, North Eastern and Liverpool city-region have a diverse or diversifying economic base, but have some structural flaws, especially compared to similar city-regions in the EU – primarily in their labour market, but also in their connectivity with one another. These will require an approach that accelerates this transformation by connecting these major cities with one another so that innovation spillovers are maximised and further focus on education and skills.
3. **Dependent or vulnerable:** the Humber, Tees Valley, Sheffield city-region and Cumbria are all areas that have not yet diversified, are reliant on a single industry or small group of industries, and still have significant structural issues to overcome. These urgently need support to avoid the risk of yet further decline, and in many cases there is mutual benefit in connecting these areas to their more prosperous neighbours.

FIGURE 3.1

Business base

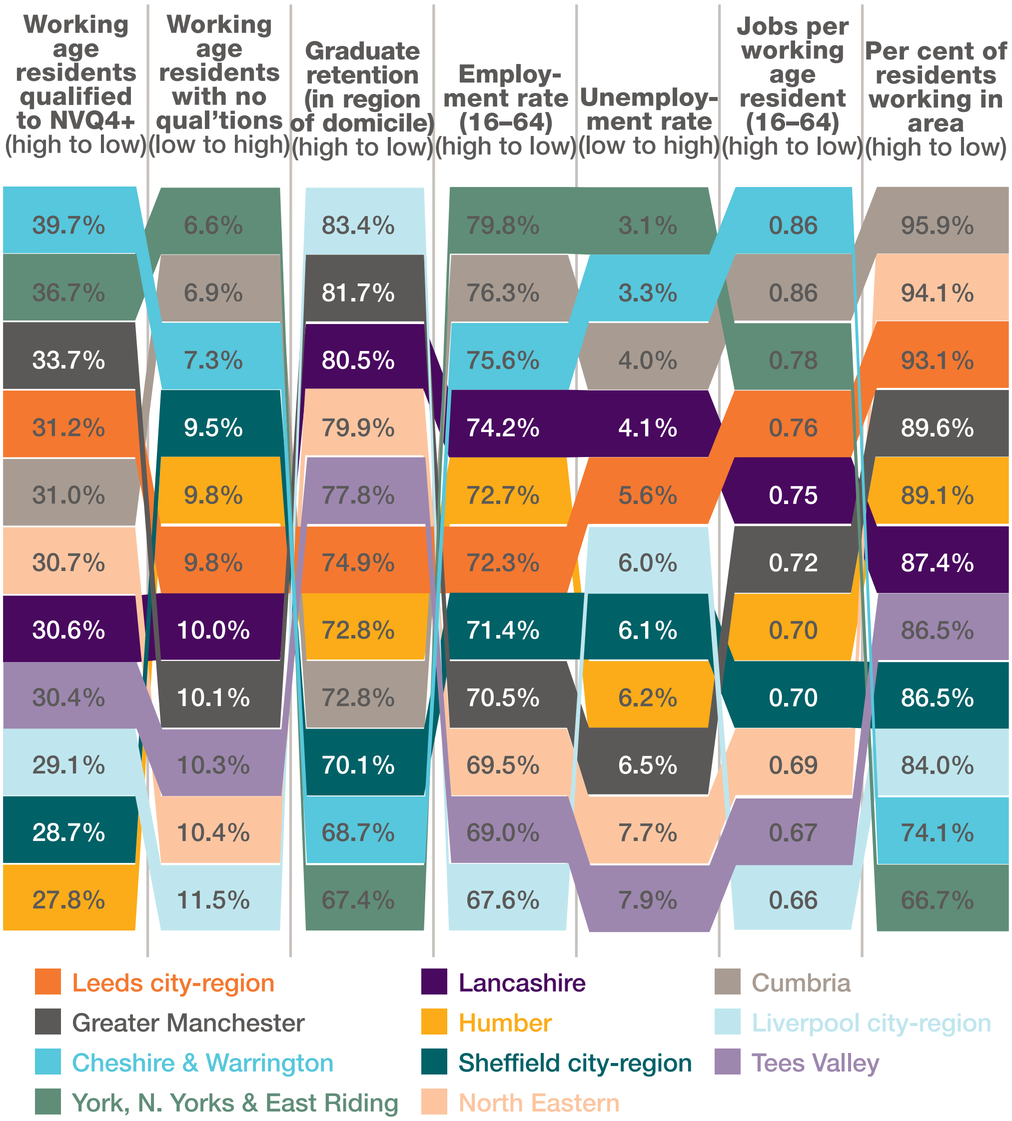


† Sector diversity is measured using the Herfindahl-Hirschman (HH) index

Sources: BIS 2015; DCLG 2016; HEFCE 2015a, 2015b; ONS 2013, 2016a, 2016b, 2016c, 2016d, 2016e; DCLG et al 2014.

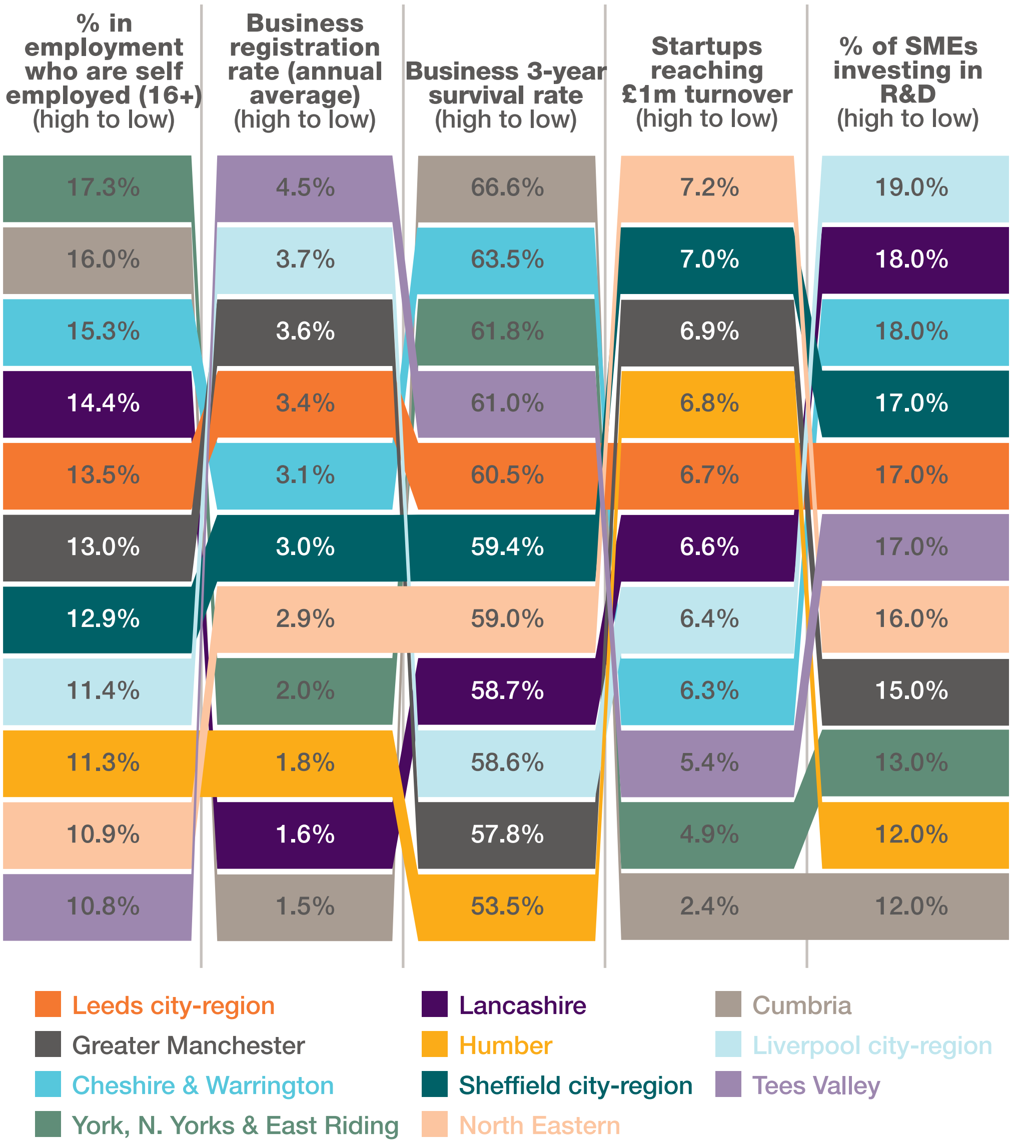
FIGURE 3.2

Labour force



Sources: BIS 2015; DCLG 2016; HEFCE 2015a, 2015b; ONS 2013, 2016a, 2016b, 2016c, 2016d, 2016e; DCLG et al 2014.

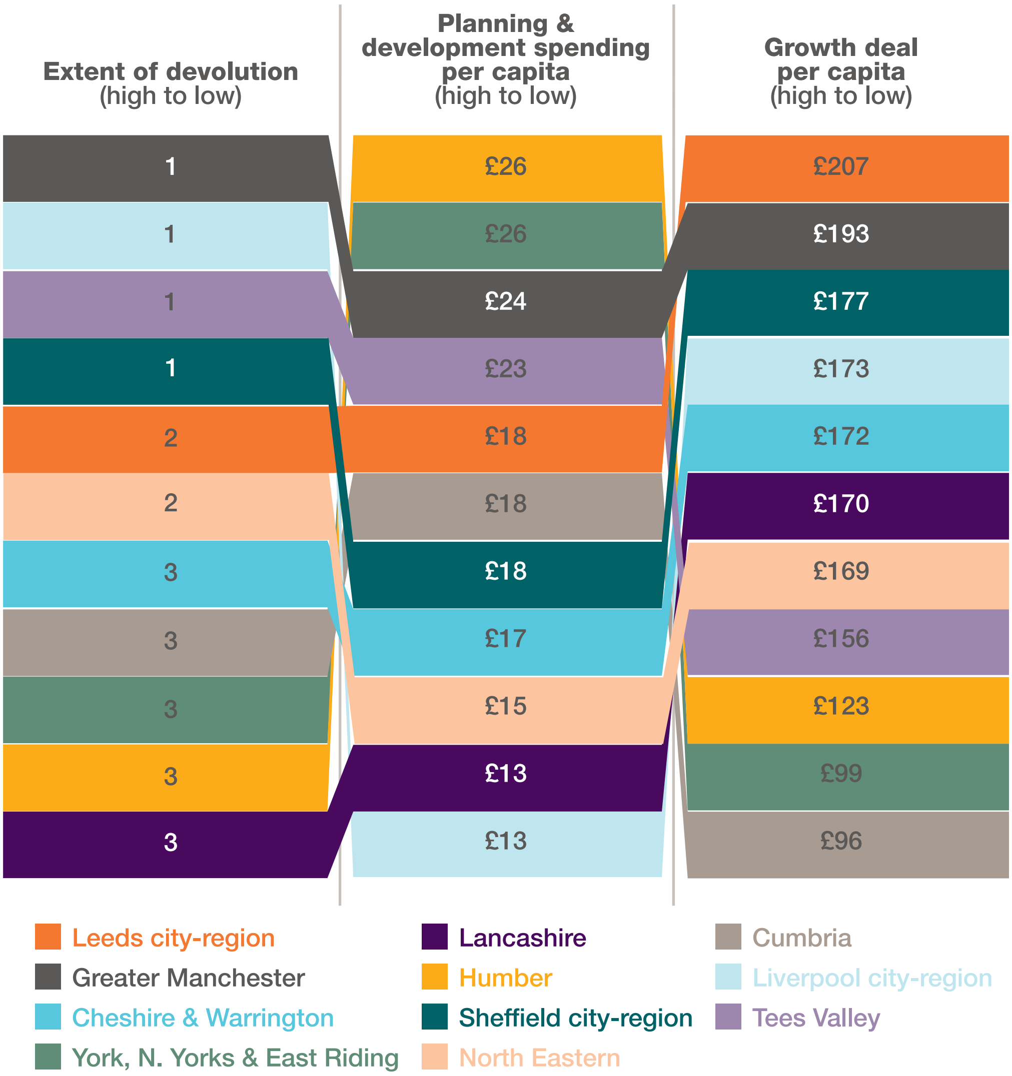
FIGURE 3.3
Entrepreneurialism



Sources: BIS 2015; DCLG 2016; HEFCE 2015a, 2015b; ONS 2013, 2016a, 2016b, 2016c, 2016d, 2016e; DCLG et al 2014.

FIGURE 3.4

Governance



Sources: BIS 2015; DCLG 2016; HEFCE 2015a, 2015b; ONS 2013, 2016a, 2016b, 2016c, 2016d, 2016e; DCLG et al 2014.

3.2 PRIORITIES

The government's place-based industrial strategy must build resilient local economies across the North. It cannot just subsidise large employers already here to persuade them to stay, it must aim to diversify the North's economy, and resolve some of the fundamental challenges that persist – in the supply of skills, transport connectivity, and the lack of innovation.

In order to take forward this approach, the third main recommendation for this year's *State of the North* report is driven from the bottom-up.

Recommendation 3: The North's LEPs, working closely with relevant local and combined authorities, should each conduct a resilience audit that sets out in detail the threats to their economy in the wake of Brexit. This audit should then be used to inform a strategic response,

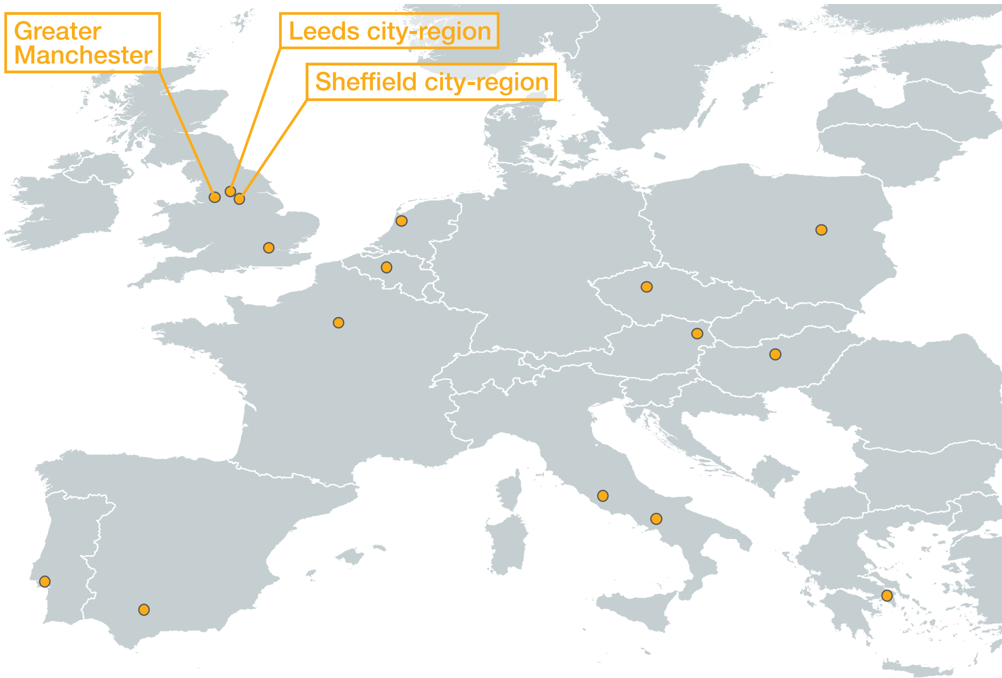
and a set of asks from the government that are tailored to acting on this strategy as part of a new round of devolution deals with each LEP area that mesh LEP priorities with those of the industrial strategy being developed by central government.

The remainder of this year's *State of the North* report assesses each of the LEPs in turn. First we turn to the core cities of the North: Greater Manchester, Leeds city-region, Liverpool city-region, the North East and Sheffield. We then analyse the (often polycentric) urban areas that are often adjacent to these core cities: Cheshire and Warrington, Tees Valley and Lancashire. Finally, we assess the more rural and peripheral areas of the North: Cumbria, the Humber and York, and North Yorkshire and East Riding.

4.
RESILIENCE PROFILES: METROPOLITAN AREAS[1]

FIGURE 4.1

Metropolitan, non-industrial areas in the north of England compared to similar areas in the EU



Metropolitan, non-industrial ares with relatively high services productivity

Source: authors' typology based on Aumayr 2007, adapted to LEPs with a methodology based on de Beer et al 2014. See annex for methodology and names of comparator regions.

4.1 GREATER MANCHESTER

Overview

Greater Manchester is the second largest metropolitan hub in the North. Its scale is significant: it has a population of 2.8 million a GVA of £56 billion (larger than that of Wales). The city's horizons have always reached beyond UK borders, but compared to similar regions in Europe it is only middle ranking: it has a population the size of Lisbon's; an economy the size of Prague's; productivity levels that compare to Berlin; and a rate of unemployment similar to Rotterdam and Warsaw. It is highly dynamic and

1 All data presented in the area profiles included in this chapter is from the following sources: BIS 2015; DCLG 2016; HEFCE 2015a, 2015b; ONS 2013, 2016a, 2016b, 2016c, 2016d, 2016e; DCLG et al 2014.

able to adapt, but its labour force leaves it more vulnerable than it should be to any future difficulties.

Business base

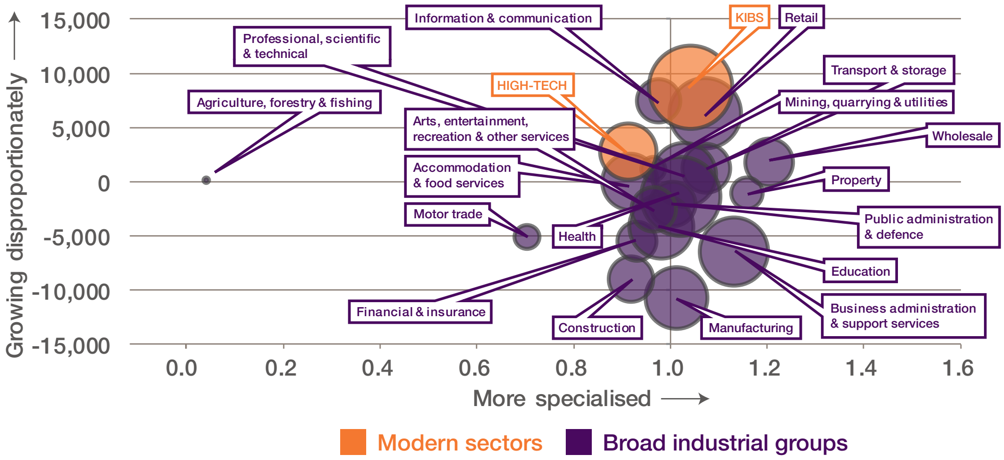
Greater Manchester has a diverse and modern economy.

- **Diversity is high, with thriving modern and trading sectors.** It has the second-lowest specialisation index of northern LEPs, its high-tech sector is the largest of the core cities (6.9 per cent), and knowledge-intensive business services employment is second highest only to Cheshire and Warrington in the North (at 14.7 per cent) – both these sectors are growing faster than wider trends; however, tradable sectors account for a low 29.8 per cent of output.

FIGURE 4.2

Greater Manchester: The economy is diverse with disproportionate growth in both knowledge-intensive business services and high-tech manufacturing

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

There is a large pool of talent to draw on, but low resident qualifications mean many are excluded.

- **There is a large labour pool, but qualification rates are low.** Retention of residents who have graduated is high (81.7 per cent) and 15,000 more graduates move in each year than leave – and yet only a third (33.7 per cent) of residents have degree-level qualifications,[2] and 10.1 per cent have no qualifications at all.
- **Job creation fails to keep up with population growth**. Despite its vibrant economic base, there are only 71.5 jobs for every 100 working-age residents; although 22,000 more people commute into the city than leave for work and 89.6 per cent of residents work there.

2 All references to 'degree-level qualifications' mean NVQ level 4 or above.

- **Economic inclusion is low**. The unemployment rate is quite high, at 6.5 per cent, although the proportion of JSA claimants claiming for more than six months is slightly below average, at 45 per cent; and the employment rate is below average, at 70.5 per cent.

Entrepreneurialism

The economy is dynamic and innovative.

- **There is high rate of businesses churning in the economy**. Business registration was a healthy 3.6 per cent a year, but only 57.8 per cent survived three years, and self-employment is below average (13 per cent).
- **Businesses tend to reach high growth rates**. 6.9 per cent of startups managed to achieve a turnover of over £1 million after three years (among the highest of English LEP areas), although SME investment in R&D was relatively low (15 per cent).

Governance

The city-region is an exemplar for devolution and governance in the UK.

- **City-region institutions are strong, well established and cohesive.** Decades of city-wide collaboration crystallised with the country's first combined authority in 2011 and a mayor will be elected in 2017.
- **The results of good governance are being recognised.** Not only did the city-region secure £533 million (£193 per capita), but it is exercising some control over £6 billion of health and social care spending; planning and development spending is also high, at £24 per capita.

4.2 LEEDS CITY-REGION

Overview

Leeds city-region sits at the core of the northern powerhouse. With 3 million people and £63 billion economic output, it is the largest LEP area outside London. Like many UK cities, it deindustrialised long ago, however, unlike these cities it suffers from low productivity – behind Greater Manchester and Sheffield who share its service-oriented economy, and also behind Birmingham and Glasgow city-regions. Among similar city-regions it has more in common with Athens than with other mid-ranking continental cities such as Prague or Vienna. It is one of the dynamic but vulnerable parts of the North: with a diverse economy, but a labour force that needs to adapt.

Business base

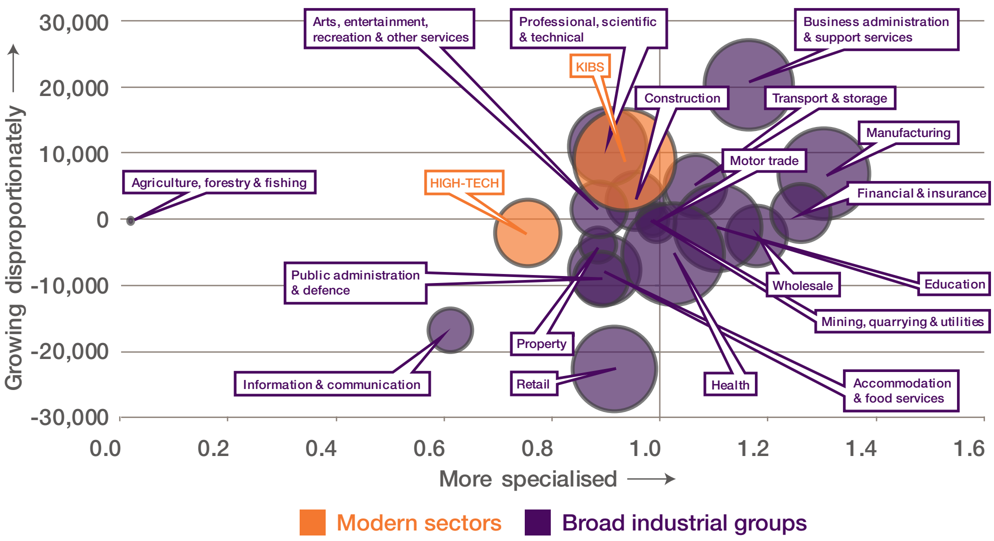
The city-region has a diverse and modern metropolitan economy.

- **The economy is diverse and service-oriented.** It has the most diverse economy in the North, with a relatively low share of public sector employment (18.5 per cent), it has a larger manufacturing base than other northern cities (10.5 per cent), and high-tech employment is 5.8 per cent (although falling disproportionately), and knowledge intensive business services employment is high compared to northern areas – below the national concentration (13.2 per cent), but catching up. Despite a small advanced manufacturing sector, the area has an above average share of GVA from tradables (32 per cent), due to its service sector.

FIGURE 4.3

Leeds city-region: There are a range of specialisms in this diverse economy, and modern sectors are growing

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

Leeds city-region has a more self-contained labour market.

- **Despite its strong higher education sector, the skills of the overall workforce are low.** Residents who graduate tend not to stay in Leeds as much as in other major cities (74.9 per cent), and only a relatively small number of students flow in (1,300); only 31.2 per cent possess degree-level qualifications and 9.8 per cent possess no qualifications at all.
- **The labour market is self-contained.** Job density is about average at 75.7 jobs for every 100 residents, but the LEP covers a large area containing many towns and cities – as a result 93.1 per cent of residents work within the LEP area, and only marginally more (860) come in than leave.
- **However, economic inclusion is average.** Unemployment is slightly higher than average (5.6 per cent), and the employment rate is slightly poorer than nationally (72.3 per cent), but the long-term JSA claimant proportion is slightly lower (44.3 per cent).

Entrepreneurialism

New businesses tend to be healthy and dynamic.

- **The area appears to be quite entrepreneurial**. Self-employment is 13.5 per cent, business registration is 3.4 per cent, and 60.5 per cent of businesses survive their first three years (these compare very well with other northern city-regions).
- **Businesses tend to be quite innovative and many reach high turnover rates**. 17 per cent invest in R&D, while 6.7 per cent reach £1 million turnover in three years.

Governance

Leeds city-region's LEP has been successful in drawing down money from central government, but its lack of governance reform has held back devolution.

- **Progress on devolution has been held back over geography and forms of governance.** There is a combined authority, but unlike Greater Manchester its geography doesn't match with that of the LEP or the historic West Yorkshire county. There has been a devolution deal but devolution has so far been curtailed as local stakeholders fail to agree on whether to have a mayor or the geography over which they might exercise new powers.
- **But this hasn't held it back from receiving government funding.** The LEP has been highly successful in attracting funds from central government, securing £628 million (£207 per resident) – the most generous of any growth deal – but it is middle ranking for spending on planning and development per capita, at £18 per resident.

4.3 SHEFFIELD CITY-REGION

Overview

Sheffield city-region's economy falls between two stools: it has both the service-intensive economy of the major metropolitan areas and the high-tech economy of the urban areas but it fails to specialise in either of these. It has higher GVA per capita than neighbouring Leeds CR, but in other respects has more in common with the urban areas that are still struggling to transition from post-industrial to modern, prosperous regions. Its economy is vulnerable to the turbulence to come.

Business base

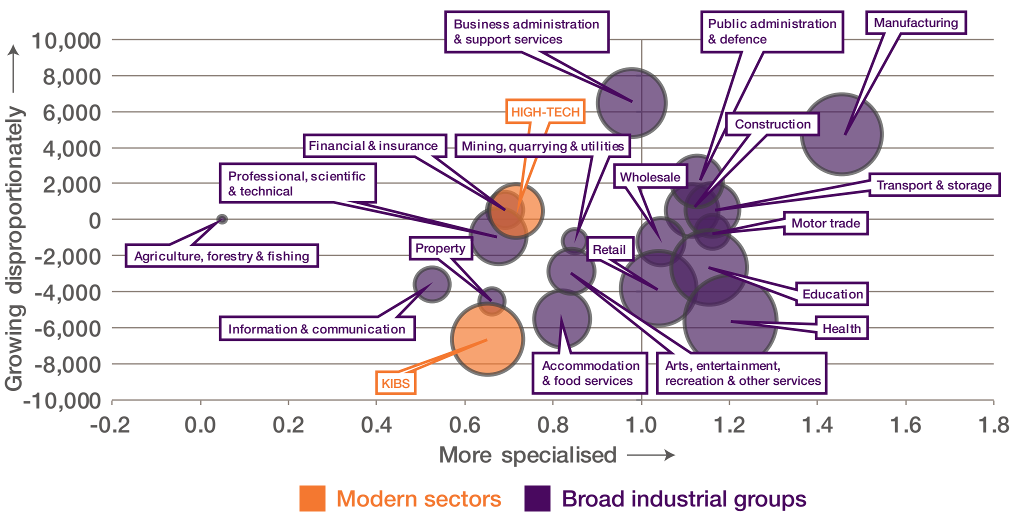
The business base lacks diversity and is still in transition from its industrial past.

- **It is lacking in diversity or modern sectors**. Sector diversity is lower than the other major cities and it retains a relatively large proportion of employment in manufacturing, which makes up 11.9 per cent of employment, and although only 5.5 per cent of employment is in high-tech this is increasing ahead of wider trends; knowledge-intensive business services employment is relatively low (9.2 per cent) and in relative decline, while the public sector makes up a high 21.5 per cent. The city does not export very much: at 29.3 per cent its tradable share of output is the lowest in the North.

FIGURE 4.4

Sheffield city-region: Employment isn't diverse, nor is it diversifying quickly

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

The city has major labour market challenges.

- **Qualification levels are poor – though not as bad as the North's other metropolitan areas.** Only a small proportion are degree-level qualified (28.7 per cent), while 9.5 per cent hold no qualifications at all; graduate retention is poor (70.1 per cent) and 15,000 more graduates leave each year than move in.
- **Part of the problem is lack of jobs.** There are only 69.6 jobs per 100 residents, only 86.5 per cent of residents work in the city-region (second lowest of the North's major cities), and 14,800 more people leave than come into the region to work.
- **And too many don't work at all.** Unemployment remains relatively high at 6.1 per cent, as does the proportion of long-term JSA claimants (47.8 per cent) and the employment rate is low at 71.4 per cent.

Entrepreneurialism

Entrepreneurialism is about average, but a fair number of firms thrive.

- **There is a high rate of startups but a relatively high number fail**. New business registration is a relatively high 3 per cent, but the three-year survival rate is a relatively low 59.4 per cent; the area has below average self-employment (12.9 per cent).
- **Innovation appears quite high and a good proportion do very well**. 17 per cent of SMEs invested in R&D, and a relatively high proportion of startups reached £1 million turnover in these three years – 7 per cent (higher than Greater Manchester or Leeds city-region).

Governance

Governance is well established though must keep pace with other northern cities.

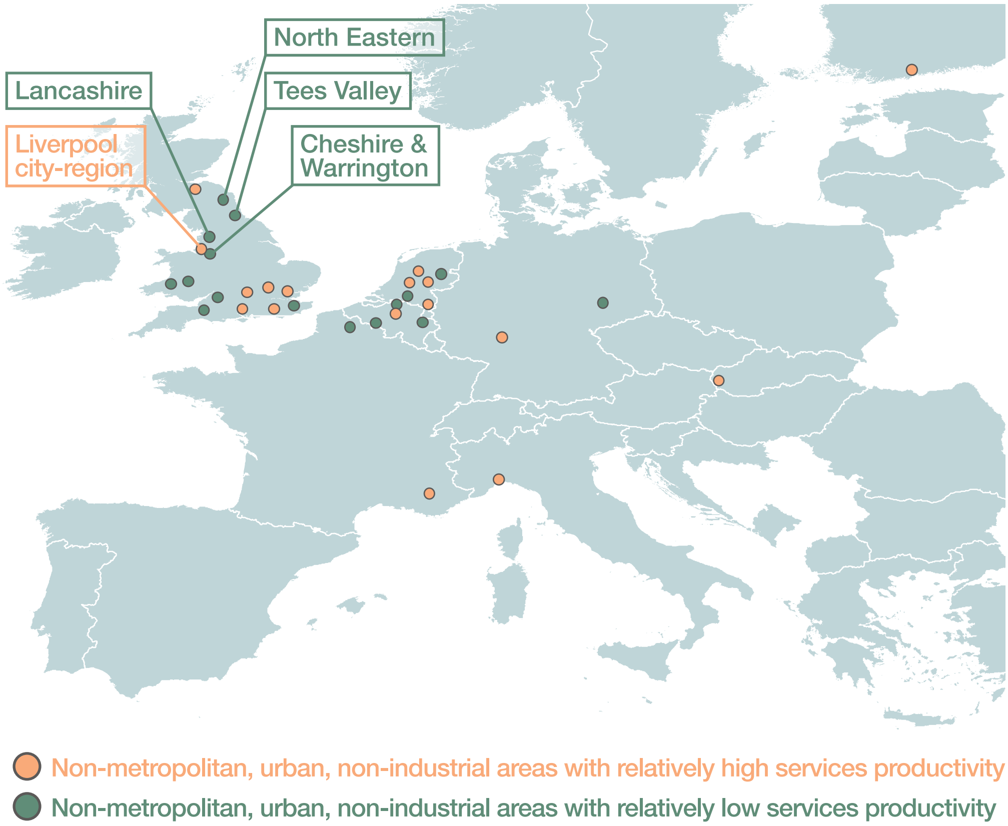
- **Governance is relatively strong**. The area has established a combined authority, and will elect a mayor in 2017, but there are challenges concerning its overlap with the D2N2 local enterprise partnership[3] – stretching across into the East Midlands region – and its devolution deal is less expansive than elsewhere.
- **A growth deal will help the city-region invest.** The LEP was able to secure £177 per capita in its recent growth deal – the third-highest funding per capita in the North – and at £18 per capita, it is middle ranking in its spend on planning and development.

3 Derby, Derbyshire, Nottingham and Nottinghamshire LEP.

5. RESILIENCE PROFILES: URBAN AREAS[4]

FIGURE 5.1

Urban non-industrial areas in the north of England compared to similar areas in the EU



Source: authors' typology based on Aumayr 2007, adapted to LEPs with a methodology based on de Beer et al 2014. See annex for methodology and names of comparator regions.

5.1 LIVERPOOL CITY-REGION

Overview

Liverpool city-region has a deindustrialised economy, with low levels of employment in industrial activities, and productivity rate in the service sector that's relatively high. For this reason it reflects a cluster of highly tertiarised urban centres including four Dutch regions as well as some prosperous shires in the south of England but, despite some economic and geographical similarities, Liverpool city-region lacks

4 All data presented in the area profiles included in this chapter is from the following sources: BIS 2015; DCLG 2016; HEFCE 2015a, 2015b; ONS 2013, 2016a, 2016b, 2016c, 2016d, 2016e; DCLG et al 2014.

their prosperity – in GVA per capita terms it ranks last of these – and within the North it sits alongside areas such as Tees Valley and the North East.

Business base

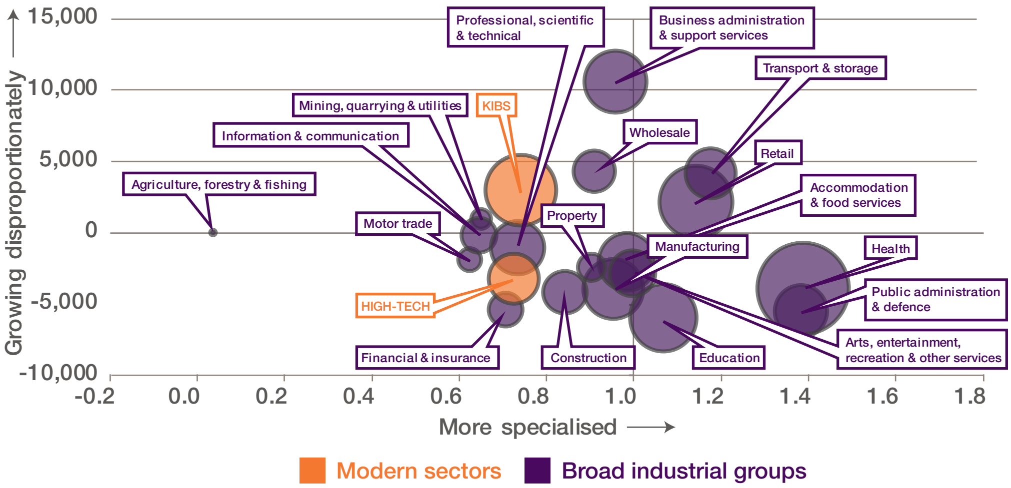
Niche specialisms have broken through in an otherwise lagging economy.

- **The city-region lacks sector diversity and depends on the public sector.** It has the lowest diversity of the northern cities, with high public sector employment (22.8 per cent), and low employment in manufacturing (7.7 per cent) and high-tech (5.5 per cent) and knowledge-intensive business services (10.5 per cent). Compared to wider trends, high-tech employment is falling but, encouragingly, knowledge-intensive business services employment is rising at a faster rate. Tradables account for 29.9 per cent of the regional production – below UK and Northern average, reflecting both its deindustrialisation and a service sector that is on the rise.

FIGURE 5.2

Liverpool city-region: There is little specialism and few sectors are high growth, although there are signs of increasing modernisation

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

The city-region has significant labour market challenges.

- **Despite strong universities, resident qualification levels are poor**. Retention of resident graduates is very high (83.4 per cent), but the city fails to attract enough from elsewhere, meaning 6,700 more leave than come in; only 29.1 per cent of residents hold the equivalent of a degree and 11.5 per cent of residents have no qualifications at all.
- **There simply aren't enough jobs to provide work for residents or attract people from elsewhere**. Despite being a city, there are only 65.6 jobs for every 100 residents – the lowest job density in the North – and only 84 per cent of residents work in the area, with 100,000 residents leaving the area to work, and only 69,000 commuting in.

- **A large proportion of residents are excluded from the labour market.** Unemployment is high, at 6 per cent, but long-term unemployment is a high 52.6 per cent and the employment rate is the lowest in the North, at 67.6 per cent.

Entrepreneurialism

There is no lack of entrepreneurial spirit, but few businesses survive or grow quickly.

- **There is a high rate of business registration but a significant proportion fail.** The business startup rate is a healthy 3.7 per cent (as high as 11 per cent in 2015), but self-employment is low (11.4 per cent), and the three-year survival rate was 58.6 per cent – lower than most other northern city-regions.
- **Businesses tend to be highly innovative, but in general don't reach high rates of turnover**. SME R&D activity was the highest in the North (19 per cent), but only 6.4 per cent of startups achieved a turnover of £1 million after three years.

Governance

Governance is stronger than in many areas, and the area has been quite successful at winning funds from the government.

- **Devolution is well under way.** The city-region has a cohesive policy geography: the LEP and combined authority are well aligned with historic Merseyside boundaries; its devolution deal secured a range of powers; and a mayor will be elected in 2017.
- **Funding has been won – but not as much as in other northern cities**. Liverpool city-region secured £264 million in government funding through its growth deal (£173 per resident) – in absolute and relative terms this is well above the LEP average but below Leeds, Manchester and Sheffield city-region – and at £13 per capita, spending on planning and development is the lowest in the North.

5.2 NORTH EASTERN

Overview

The North Eastern LEP area has undergone major changes to its business base but continues to lag behind other parts of the north on a range of economic indicators – although recent trends are more encouraging. The region has much in common with 'post-industrial success stories' – predominantly in the UK (Lancashire, Cheshire and Warrington, and Tees Valley in the North) and in the Benelux region. These tend to have an industrial sector that is highly productive relative to the rest of the economy, but is relatively low in employment. Compared to these areas, though, the North Eastern LEP area performs below average in terms of GDP per capita. It is a dynamic but vulnerable area that has historically suffered because of lower skills in its labour force.

Business base

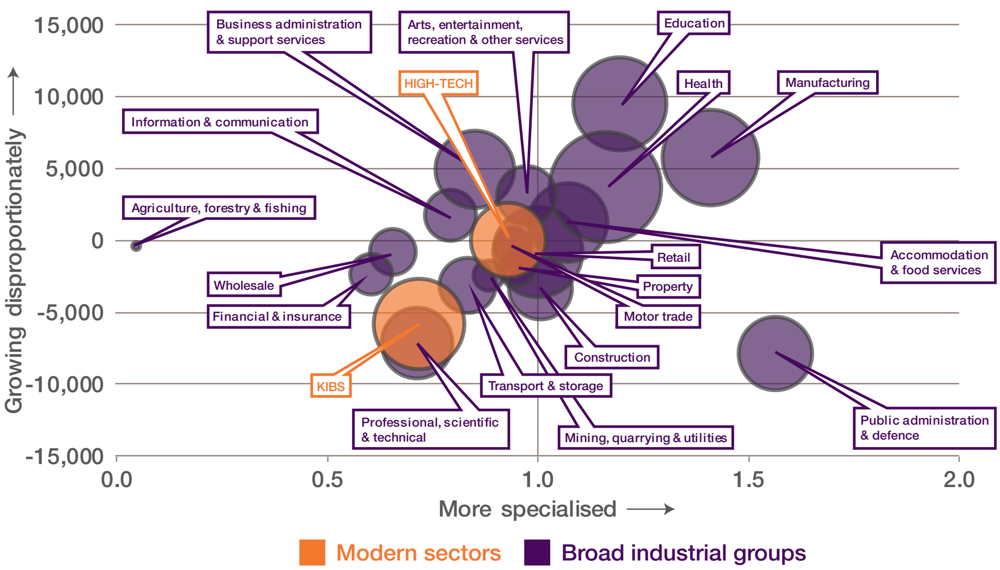
Low sector diversity risks hindering prosperity.

- **The area's economy isn't particularly diverse and growth is relatively slow in modern sectors.** It is less diverse than LEP areas which include a core city, with a relatively high proportion of employment in the public sector (21.8 per cent), and it has a high proportion of manufacturing (11.5 per cent) and high-tech (6.9 per cent). However, its knowledge-intensive business services are underrepresented (10.1 per cent) and increasing in employment far slower than nationally. Tradables account for 31.8 per cent of the regional output – broadly in line with UK figures.

FIGURE 5.3

North Eastern: Diversity is low and modern sectors are falling behind

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

The city-region has significant labour market challenges.

- **Residents' qualification levels are low**. A high proportion of residents who graduate stay in the city (79.9 per cent) than leave each year; however, the proportion of degree-level qualified residents is 30.7 per cent, while 10.4 per cent hold no qualifications at all. However, these figures relate to the whole of the North East population, and the region's younger residents are relatively well qualified: qualification rates in Newcastle compare very favourably to other core cities, and there is a particularly high rate of vocational qualification in the LEP area.
- **There aren't enough jobs to go round**. Job density is low (69.2 per 100 residents), and while a high proportion of residents work in the area (94.1 per cent): more than 49,000 residents commute outward – compared to 34,000 inward commuters.
- **Economic inclusion is still has some distance to travel.** Despite impressive jobs growth in recent years the employment rate is low (69.5 per cent), and there are high rates of unemployment (7.7 per cent), although the long-term JSA claimant proportion is about average (45.5 per cent).

Entrepreneurialism

Business could be more dynamic, but a large number of startups are very successful.

- **Entrepreneurship is below average.** Self-employment was among the lowest in the North (10.9 per cent) and business registration and survival were just below average (2.9 per cent, and 59 per cent respectively.
- **Innovation is low but growth rates are high.** SME investment in R&D was 16 per cent, but 7.2 per cent of startups reached £1 million turnover in three years – the highest rate in the North.

Governance

Despite previous successes, governance is running into difficulties.

- **Devolution showed initial progress but has recently encountered setbacks.** The North East Combined Authority (NECA) aligned with the LEP and was set for a mayor – however, after internal differences devolution is now on hold and there are plans afoot for three of these local authorities to go it alone – Newcastle, Northumberland and North Tyneside.
- Its ability to spend on the local economy is more limited than in other northern cities. **The LEP has been relatively successful in securing funding from government. It secured the fifth-largest growth deal funding in the country (£330 million), but at £169 per resident this amounts to less than other major northern cities; spend on planning and development is low, at £15 per capita.**

5.3 CHESHIRE AND WARRINGTON

Overview

Cheshire and Warrington is the most productive economy in the North and compares well with similar regions in Europe. Its GVA per capita is far higher than most similar areas, and of these it comes third to Noord-Brabant and Antwerp in the whole EU. It is a polycentric economy, revolving around a number of thriving towns and the city of Chester. Its location – between Greater Manchester (with its airport) and Liverpool city-region (with its port), and on the border with Wales – means it is strategically placed to engage in the international value chain. It is a resilient and prosperous area.

Business base

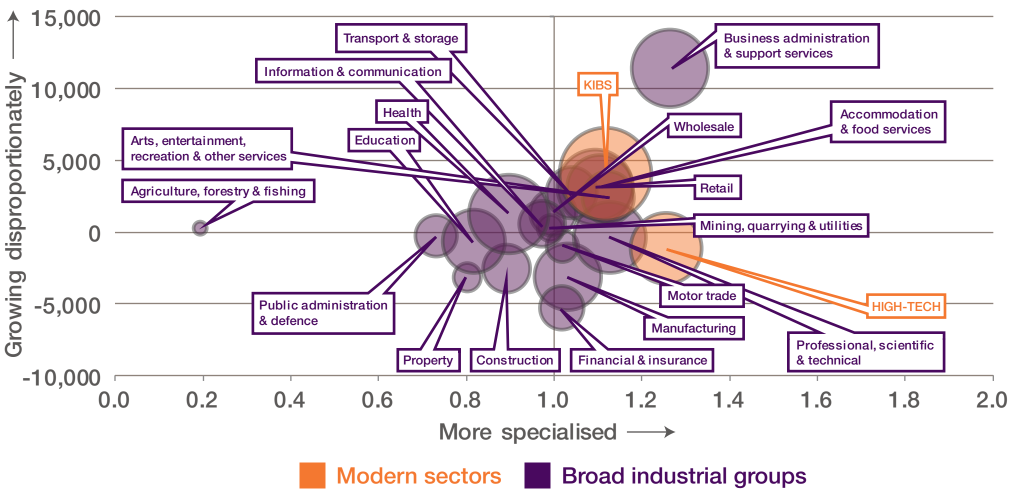
A diverse business base underpins its economic resilience.

- **There is a high degree of diversity and dynamism.** It has the third-lowest specialisation index in the North, a large share of employment in high-tech (9.5 per cent – but in relative decline), knowledge-intensive business services (15.8 per cent – and rising ahead of broader trends) and low employment in the public sector (14.8 per cent) and manufacturing (8.5 per cent). Tradable goods account for 41.5 per cent of the regional output – the highest figure in the North and second highest in England but could leave it vulnerable to turbulence ahead.

FIGURE 5.4

Cheshire and Warrington: Employment is diverse and growing strongly, with specialisms across several modern sectors

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

A skilled labour force lies behind these cutting-edge industries and knowledge-intensive businesses.

- **Residents are highly qualified, but many new graduates tend to leave.** 39.7 per cent are degree-level qualified, but there is an annual net flow of graduates out of the area of 12,000.
- **Its labour market is an excellent provider of jobs.** It has the highest job density in the North (85.6 jobs for every 100 working-age residents) and while a low proportion of residents work within the area (74.1 per cent) it provides employment for almost as many people from outside the area as Greater Manchester does (138,000).
- **Economic inclusion is high.** Unemployment is a low 3.3 per cent, relatively few JSA claimants have been claiming long-term (41.2 per cent), and the employment rate is a high 75.6 per cent.

Entrepreneurialism

Its economy is dynamic – especially for a non-metropolitan area.

- **Startup and survival rates are higher than similar areas.** Self-employment is quite high (15.3 per cent), and it has a healthy business registration rate of 3.1 per cent a year and businesses tend to survive longer than in similar areas – 63.5 per cent of new businesses survive three years.
- **Businesses do tend to be innovative, but don't tend to reach high growth rates – in line with similar areas**. A high proportion of SMEs invested in R&D (18 per cent), but only 6.3 per cent of startups had a turnover of over £1 million after three years.

Governance

Governance is lagging behind other parts of the North, although the region has been successful in attracting growth deal funding.

- **Governance isn't as advanced as other areas.** Unlike other parts of the North, there is no combined authority or potential for a mayor– largely as a result of the area sitting between two cities but not being one.
- **The area has been successful in attracting growth deal funding**. In the latest growth deal, the area secured £172 per resident – the fourth-highest figure among LEPs without extensive devolved powers – but per capita spending on planning and development is the lowest in the North (£17) and could undermine future growth potential.

5.4 TEES VALLEY

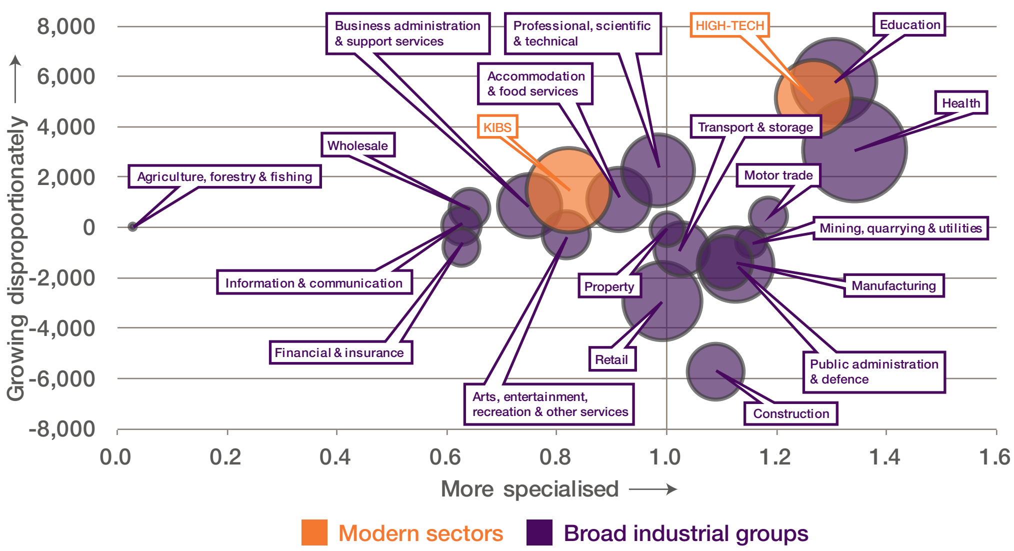
Overview

Tees Valley is in the middle of a challenging transition. Like Cheshire and Warrington, and Lancashire, it is a post-industrial urban area, but unlike these areas it still has further distance to travel. It has lower productivity compared to its peers in the North (Cheshire and Warrington and Cumbria) and Europe(places such as Liege and Leipzig). Like these areas it has a high proportion of employment in industry; however, this industry has lower levels of productivity and is vulnerable to the turbulence to come.

Business base

FIGURE 5.5

Tees Valley: The public sector dominates and is growing disproportionately, but so are the high-tech and knowledge-intensive business services sectors
Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

This sector-mix lacks diversity, although this is changing.

- **It is the least diverse economy in the North, but high-tech is a particular strength**. It has the highest specialisation index in the North, with high public sector employment (22.9 per cent), and low employment in knowledge-intensive business services (11.6 per cent). However, while manufacturing employment isn't particularly high (9.3 per cent), a very high share of employment is in high-tech (9.6 per cent), and both high-tech and knowledge-intensive business services are growing ahead of wider trends. Tradables make up one-third of the economy (32.6 per cent).

Labour force

There are deep-seated problems in the labour market.

- **Qualification levels are low.** Residents' qualification levels are low, with 30.4 per cent degree-level qualified and 10.3 per cent of the working-age population having no qualifications. The relatively small number of people who graduate in the region tend to leave – there is a retention rate of 77.8 per cent and (a net outflow of 12,500).
- **The area fails to provide jobs for residents.** There are only 66.9 jobs per 100 working age residents, 86.5 per cent of residents work in the area (middle-ranking amongst northern LEPs) and 3,000 more leave to work than commute.
- **Many are excluded from the economy.** The employment rate is a low 69 per cent, and unemployment is a high 7.9 per cent, although the proportion claiming JSA for six months is below average (43.2 per cent).

Entrepreneurialism

The business base is surprisingly dynamic.

- **There is a strong entrepreneurial economy**. Self-employment is the lowest in the North (10.8 per cent), but the business registration rate was highest in the North – at 4.5 per cent this was second only to London in England – and the three-year survival rate was 61 per cent (better than average).
- **However, these don't tend to be high growth or innovative firms**. 17 per cent invested in R&D, but only 5.4 per cent of startups make it to the £1 million turnover mark.

Governance

Good governance hasn't yet been rewarded with funding.

- **Tees Valley has stronger governance than its neighbours, but is behind the North's major cities.** The area has a combined authority, and will elect a mayor in 2017. However, its devolution deal lacks the skills and public service reform elements seen in some other deals.
- **And direct funding hasn't been forthcoming from government.** The LEP only secured £156 per capita – this is less than most northern LEPs – however, spend on planning and development is quite high, at £23 per resident.

5.5 LANCASHIRE

Overview

Lancashire's impressive manufacturing reinvention has yet to pull the whole region out of long-term decline, but it is making progress. Its location and its connectivity are crucial assets – it is strategically positioned adjacent to both Greater Manchester and Liverpool city-regions. This has historically underpinned its manufacturing tradition, and has retained a relatively strong industrial base, but this is now a high productivity, not high employment, sector. In this, it is similar to post-industrial urban areas, found predominantly in the UK and in the Benelux region. However, compared to these, Lancashire fares worse than average for GDP per capita (due to poor service sector productivity). It is one of the most dynamic but vulnerable parts of the North.

Business base

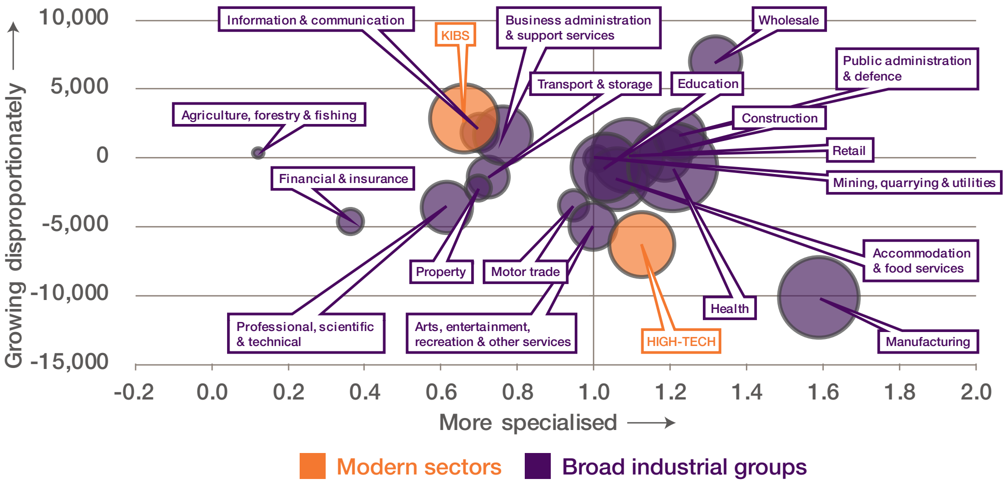
The area lacks sector diversity but shows the beginnings of progress.

- **The economy isn't very diverse, but some of the sectors that dominate are modern.** It is middle ranking within the North for economic diversification, due to both the dominance of manufacturing (20.4 per cent), and high-tech makes up a relatively large share of employment (8.6 per cent), but it also has a large share of employment in low-value service activities – knowledge-intensive business services account for only 9.3 per cent of employment, although this is growing disproportionately, as high-tech employment falls. Tradable goods account for 32.6 per cent of the regional economy.

FIGURE 5.6

Lancashire: Employment in the larger sectors isn't growing, but knowledge-intensive business services are on the increase

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

Resident qualifications are poor, but the labour market functions well by connecting with its neighbouring cities.

- **Lancashire's skills base threatens to undermine progress**. Only 30.6 per cent of residents have degree-level qualifications, and 10 per cent have no qualification at all. Residents who graduate do tend to stay in the area (80.5 per cent doing so) with a net inflow of 4,900.
- **Job creation isn't high enough to provide jobs for all residents**. There are 75.5 jobs for every 100 working-age residents, and while 87.4 per cent of residents work in the area, there's a net outflow of 12,000 commuters.
- **These linkages appear to be working well for residents.** Unemployment is below the national rate, at 4.1 per cent, although a higher than average share has been claiming JSA longer than six months (46.9 per cent), while the employment rate is 74.2 – higher than nationally.

Entrepreneurialism

Businesses don't tend to be very dynamic or entrepreneurial.

- **The business base isn't particularly dynamic**. There is a low rate of business registration (1.6 per cent), but quite a high rate of three-year survival (58.7 per cent).
- **Businesses invest in R&D but not many reach high growth rates**. R&D investment is high among SMEs (18 per cent) but only 6.6 per cent of startups reach a £1 million turnover in three years.

Governance

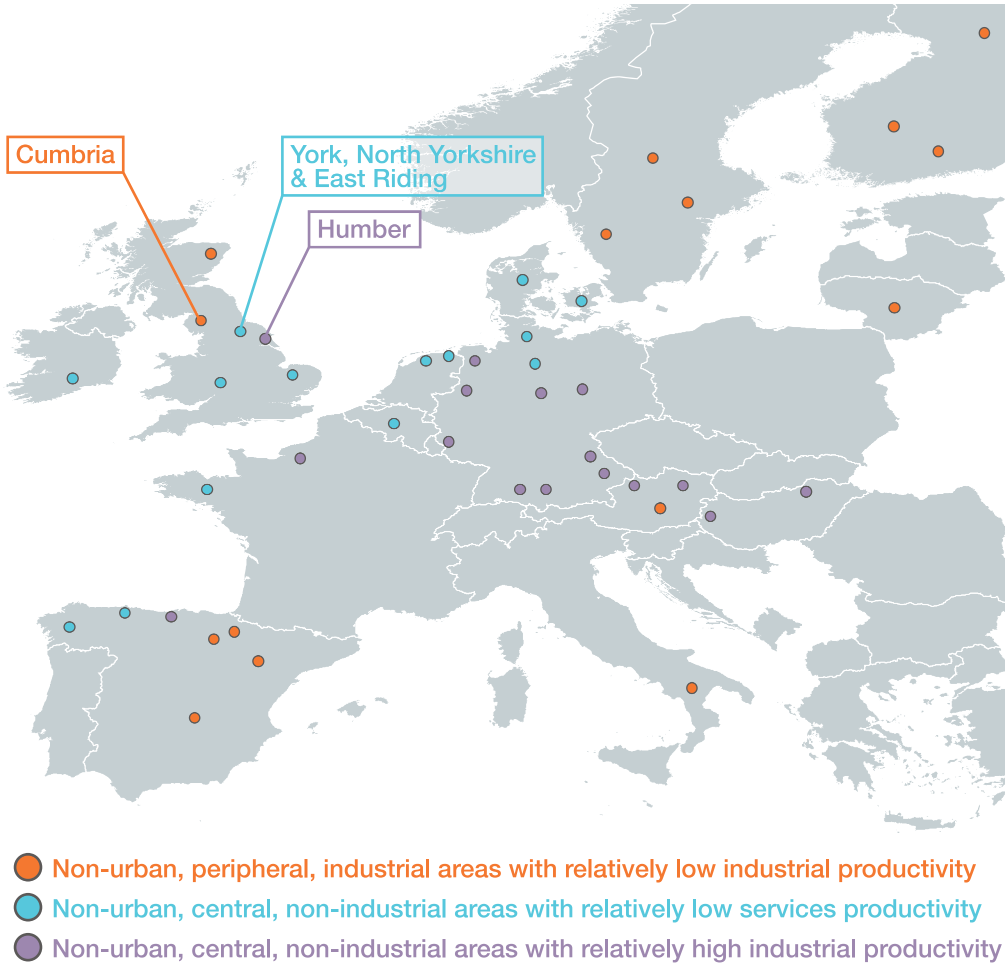
There is historic collaboration across the area, but devolution hasn't yet taken off.

- **The LEP benefits somewhat from its rough alignment with an upper-tier authority.** There are some other shared-service arrangements involving generally two or three local authorities, but there is no combined authority or devolution deal proposed.
- **This may have held back government funding to an extent**. Lancashire LEP secured £251 million in government funding through its growth deal (£170 per resident) – higher than average and the fifth-highest among LEPs without combined authorities – but at £13 per resident, spending per capita on planning and development is one of the lowest in the North.

6. RESILIENCE PROFILES: RURAL AREAS[5]

FIGURE 6.1

Non-urban areas in the north of England compared to similar areas in the EU



Source: authors' typology based on Aumayr 2007, adapted to LEPs with a methodology based on de Beer et al 2014. See annex for methodology and names of comparator regions.

5 All data presented in the area profiles included in this chapter is from the following sources: BIS 2015; DCLG 2016; HEFCE 2015a, 2015b; ONS 2013, 2016a, 2016b, 2016c, 2016d, 2016e; DCLG et al 2014.

6.1 CUMBRIA

Overview

The Cumbrian economy combines the rural with the industrial. Its large territory belies a small economy, but this economy has pockets of highly productive industrial employment in what is otherwise a sparse and rural area. It is most similar to north-eastern Scotland within the UK, and to parts of rural Spain and Scandinavia in Europe. However, it is among the less prosperous of these areas: GVA per capita is below their average,[6] and it ranks 13th of 17 regions that fit this typology. Cumbria's role is nonetheless vital: its prime sectors – nuclear and defence – are of strategic national importance, while the Lake District is a natural asset which helps to underpin the North's attractiveness (NIER 2016). Its economy is, however, more vulnerable to the turbulence to come.

Business base

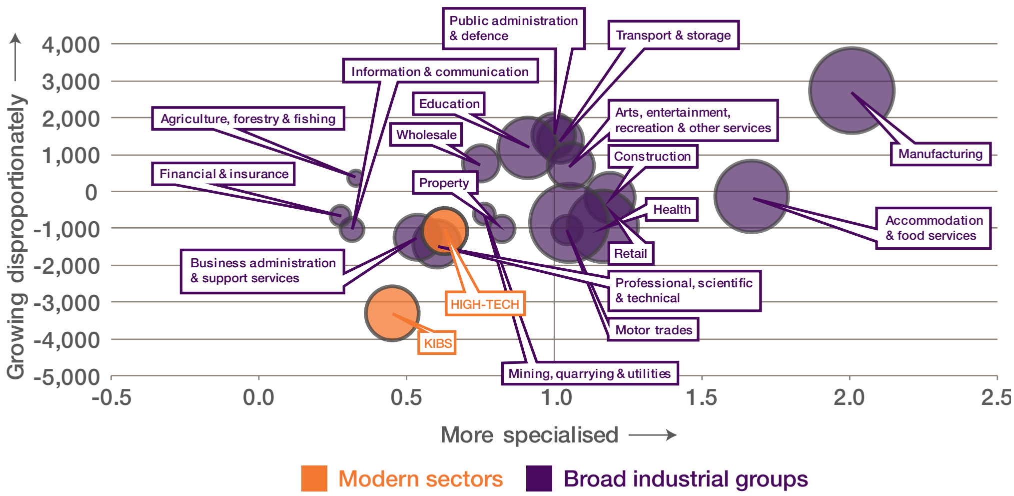
The economy is not diverse, and modern sectors are lacking.

- **It relies on public sector employment and low-productivity manufacturing.** It has a relatively high specialisation index, and a high proportion of employment in the public sector (23.1 per cent) and manufacturing (16.7 per cent), but low employment in both high-tech (4.8 per cent). Tradable sectors account for a healthy 36.6 per cent of the regional output, but this leaves the area quite vulnerable to any trade challenges in the years ahead.

FIGURE 6.2

Cumbria: Employment is strong and growing in manufacturing, but it lacks diversity and modern sectors are falling behind

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

6 Median

Labour force

The labour force is relatively self-sufficient and medium skilled.

- **Residents tend to be medium- to low-skilled.** There are relatively fewer workers with degree-level qualifications (31 per cent), but also fewer with no qualifications at all (6.9 per cent); retaining residents who have graduated is a major problem – there is a net outflow of 22,000 new graduates a year and 72.8 per cent of residents who graduate stay in the area.
- **It is quite self-sufficient and provides jobs for residents elsewhere.** 95.9 per cent of residents in employment work in the region and there is a net inflow of 17,000 people to work, and a healthy 85.5 jobs per 100 working-age residents.
- **Economic inclusion is above average.** The unemployment rate is a relatively low 4 per cent, and employment is a relatively high 76.3 per cent; however, a large proportion of JSA claimants have been claiming longer than six months (57.5 per cent).

Entrepreneurialism

The economy lacks entrepreneurialism, but most businesses that start survive.

- **Business registration is low but survival is high**. The business registration rate was only 1.5 per cent, but 66.6 per cent of firms survived three years (the highest figure in the UK), and self-employment is also high, at 16 per cent.
- **Investment in R&D is very low, and few of these firms reach high turnover quickly.** Cumbrian SMEs don't tend to invest in R&D (12 per cent – joint lowest in the North) and their startups are unlikely to have a turnover of over £1 million after three years (only 2.3 per cent).

Governance

Devolution hasn't yet taken hold in Cumbria.

- **There is no combined authority yet.** Cumbria has so far failed to establish a combined authority or sign a major devolution deal with government, though being a two-tier county this is perhaps more understandable and doesn't necessarily imply poor governance – discussions are ongoing.
- **The LEP failed to win much growth deal funding.** The local enterprise partnership managed to secure only £47.7 million (£96 per capita) – this is the lowest level of funding received in England both in absolute and in relative terms – and little is spent on planning and development (only £18 per capita).

6.2 HUMBER

Overview

The Humber's once-prosperous economy is still adapting to globalisation. The region was once a powerhouse of industries that are now in decline: whether large-scale heavy industry and production of textiles, or fishing and agriculture. The Humber is one of many regions with such a history and composition – areas like the non-urban industrial heartlands such as the German Länder of Saxony and Bavaria – but even compared to these its GVA per capita is poor. Its economy is vulnerable to the turbulence to come.

Business base

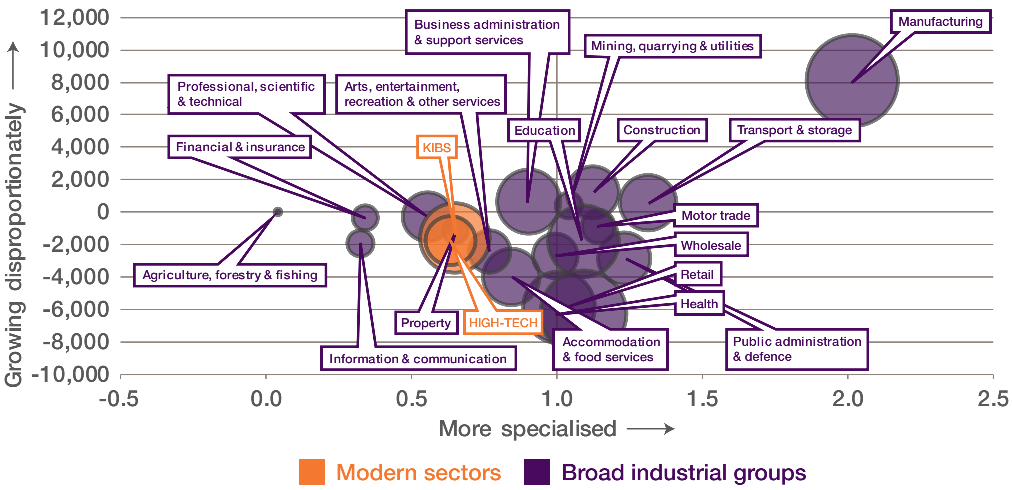
The Humber relies on a handful of sectors, but its economy is positioned to trade strongly.

- **The economic base lacks diversity and the manufacturing base needs further modernisation.** It has one of the North's less diverse economies, and while it has high manufacturing employment (16.4 per cent) only 4.8 per cent of employment is in high-tech, and only 9.2 per cent is in knowledge-intensive business services – both are declining at a rate that's disproportionate. Tradables account for a healthy 36.1 per cent of the Humber's GVA – but this, of course, leaves it more exposed to any turbulence ahead.

FIGURE 6.3

Humber: Manufacturing dominates and is growing, but few other sectors thrive and modern sectors are struggling

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

The Humber's labour market has major challenges.

- **Resident qualification rates are low.** It has the lowest share of highly qualified residents in the North: just 27.8 per cent possess degree-level qualifications, and 9.8 per cent of its residents have no qualification at all; graduate retention is a low 72.8 per cent.

- **The economy has fewer jobs.** There are only 70 jobs for every 100 working-age residents, with 89.1 per cent of residents working in the area, and a net outflow of 14,000 commuters.
- **This leaves many looking for work for a long time, or giving up.** Unemployment is above average (6.2 per cent) and employment is below (72.7 per cent), and quite a high proportion of JSA claimants have been looking for work for more than six months (47 per cent).

Entrepreneurialism

The economy could be more dynamic but startups can be successful.

- **Businesses don't tend to start or do well in this area.** Self-employment is low at 11.3 per cent, and the business registration rate was only 1.8 per cent, with only 53.5 per cent of businesses surviving three years after their creation.
- **Businesses aren't innovative and but quite a high proportion reach high rates of turnover.** Only 12 per cent invested in R&D (joint lowest in the North with Cumbria) but 6.8 per cent of startups reach a turnover of £1 million in three years.

Governance

Poor governance adds to the area's difficulties, but it is planning for the future.

- **No devolution has taken place in the Humber**. The geography of devolution has been hotly contested in Yorkshire and within the LEP area itself, and this has held the Humber back – this is complicated further by the fact that the LEP area includes two local authorities that are part of the Greater Lincolnshire Combined Authority (GLCA)
- **However, the LEP has attracted a reasonable amount of funding.** The LEP secured £114 million of funding from the government (£123 per resident), broadly in line with the average of English LEPs (albeit low in the North); however, the area spends £26 per capita on planning and development – the highest in the North.

6.3 YORK, NORTH YORKSHIRE AND EAST RIDING

Overview

York, North Yorkshire and East Riding (YNYER) is a rural and relatively prosperous area within the North. It is one of few northern areas that is neither urban nor industrial – it has a great deal in common with southern and eastern LEPs in the UK, and places such as Galicia, Bretagne and Friesland in the rest of the EU. York is its only city, and its population is otherwise dispersed among a number of small towns. While it is a prosperous and productive area in its own right, it has important connections with the rest of the North – and especially Leeds city-region. It is a resilient and prosperous area.

Business base

The economic base is both diverse and balanced between several sectors – but lacking any particular specialism.

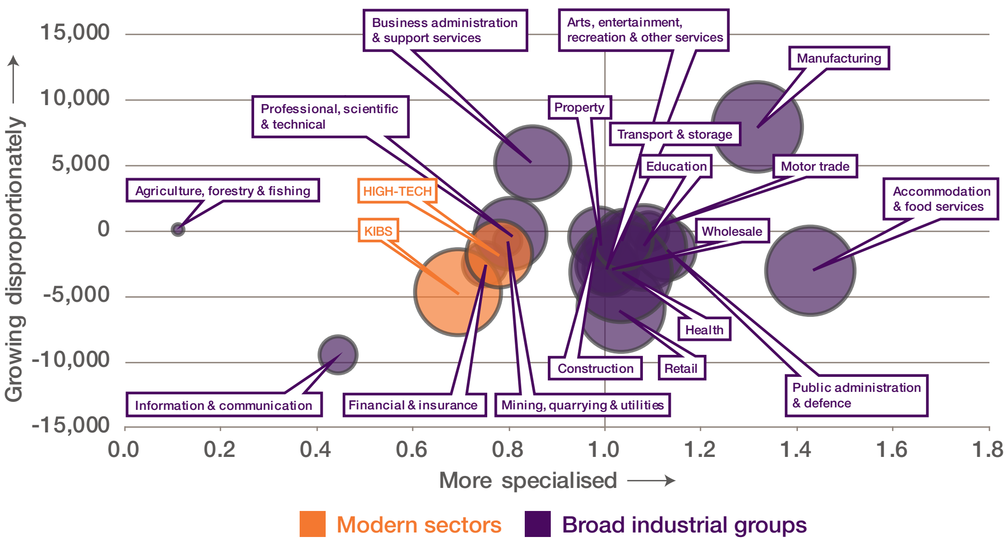
- **The economic base is diverse and isn't dominated by any particular sector**. It has a specialisation index that is second only to Cheshire and Warrington of the non-metropolitan areas, and isn't dominated by either public sector employment (18.4 per cent) or manufacturing (10.8 per cent); both the knowledge-intensive business services and high-tech sectors are smaller than average (9.8 per cent and 5.8 per cent respectively) and both are shrinking in relative terms.

This is not an area geared strongly towards trading. The area does not have a strong base in tradables (30.5 per cent), and lacks either the tradable services or the manufacturing base of many post-industrial towns elsewhere.

FIGURE 6.4

York, North Yorkshire and East Riding: Employment is distributed among a number of sectors, and growth in moderns sectors is low

Location quotient (x axis), regional share (y axis) and total employment (size)



Source: Office for National Statistics, 'Business Register and Employment Survey 2015' (ONS 2016e)

Labour force

A healthy labour market underpins this prosperity.

- **The population is highly qualified**. It lacks the mass of students found elsewhere, has low graduate retention (67.4 per cent) and 14,000 more graduates leave than come in. However, 36.7 per cent have degree-level qualifications and only 6.6 per cent have no qualifications.
- **Job density is average, but many residents commute to nearby city-regions.** There are 78.1 jobs per 100 working-age residents, but a third of residents work outside the area (the highest of any northern LEP) and with 56,000 more people commuting out than commute in.
- **These linkages work well for residents.** The unemployment rate is low (3.1 per cent), the long-term JSA claimant proportion is the lowest in the North (39.8 per cent) and the employment rate is very high (79.8 per cent).

Entrepreneurialism

New businesses survive well, but aren't particularly innovative or profitable.

- Few businesses start but a large proportion survive. A high 17.3 per cent of workers are self-employed (among the highest rate in the country), and survival rates are high (61.8 per cent), although registration is low, at just 2 per cent.
- These businesses don't grow fast or show much sign of innovation. Only 13 per cent invested in R&D and only 4.9 per cent make £1 million turnover after three years.

Governance

Governance and funding let the area down.

- **Governance is a major challenge**. There is no combined authority, it overlaps with two other LEPs – Leeds city-region and the Humber – and issues over Yorkshire's future devolution and governance remain unresolved.
- **The area has missed out on vital funding.** It only received £98.8 per capita in its growth deal – the second lowest in the North – but is among the highest spenders on planning and development in the North, at £26 per capita.

REFERENCES

Advantage West Midlands [AWM] (2010) *Community Economic Resilience Index*. http://www.ied.co.uk/images/uploads/Community_Economic_Resilience_Index_tcm9-33264.pdf

Ahrend R, Farchy E, Kaplanis I and Lembcke AC (2015) 'What Makes Cities More Productive? Agglomeration Economies and the Role of Urban Governance: Evidence from 5 OECD Countries', SERC discussion paper 178. http://www.spatialeconomics.ac.uk/textonly/SERC/publications/download/sercdp0178.pdf

Aumayr C M (2007) 'European Region Types in EU-25', *The European Journal of Comparative Economics* 4(2): 109–147. http://eaces.liuc.it/18242979200702/182429792007040202.pdf

Christopherson S, Michie J and Tyler P (2010) 'Regional Resilience: Theoretical and Empirical Perspectives', *Cambridge Journal of Regions, Economy and Society* 3: 3–10. http://cjres.oxfordjournals.org/content/3/1/3.full

Clarke G (2016) 'New ministerial team to develop industrial strategy', speech, 1 August 2016. https://www.gov.uk/government/speeches/new-ministerial-team-to-develop-industrial-strategy

Colebrook C (2016) *An industrial strategy that works for the UK: Framework and principles*, IPPR. http://www.ippr.org/publications/an-industrial-strategy-that-works-for-the-uk-framework-and-principles

Cox E and Longlands S (2016) *City systems: the role of small and medium-sized towns and cities in growing the northern powerhouse*, IPPR. http://www.ippr.org/publications/city-systems

Cox E and Raikes L (2015) *Rhetoric to reality: A business agenda for the northern powerhouse*, IPPR. http://www.ippr.org/publications/rhetoric-to-reality-a-business-agenda-for-the-northern-powerhouse

de Beer J, van der Gaag N, and van der Erf R (2014) *New classification of urban and rural NUTS 2 regions in Europe*. https://www.nidi.nl/shared/content/output/papers/nidi-wp-2014-03.pdf

Department for Business, Innovation and Skills [BIS] (2015) 'Mapping local comparative advantages in innovation: the data (23 indicators, part 1 of 2)', data. https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths

Department for Communities and Local Government [DCLG] (2016) 'Revenue account budget 2016-17', data. https://www.gov.uk/government/collections/local-authority-revenue-expenditure-and-financing

Department for Communities and Local Government [DCLG], Department for Transport, Deputy Prime Minister's Office, Cabinet Office and Department for Business, Innovation and Skills (2014) *Local Growth Deals.* https://www.gov.uk/government/collections/local-growth-deals

Dickinson S and Cox E (2016) *Brexit North: Securing a united voice at the negotiating table*, IPPR North*.* http://www.ippr.org/publications/brexit-north

Ekosgen (2009) *Index of Economic Resilience Sheffield City Region Report*. http://sheffieldcityregion.org.uk/wp-content/themes/lepress/Downloads/Index%20of%20Economic%20Resilience%20Report.pdf

Greater Manchester Combined Authority [GMCA], Greater Manchester LEP and the Association of Greater Manchester Authorities (2014) 'Greater Manchester growth and reform plan annex: skills investment capital plan'. https://www.lepnetwork.net/modules/downloads/download.php?file_name=89

Greenham T, Cox E and Ryan-Collins J (2013) *Mapping Economic Resilience*, Friends Provident Foundation. http://www.friendsprovidentfoundation.org/wp-content/uploads/2013/12/nef-Mapping-Economic-Resilience-1-report.pdf

Higher Education Funding Council for England [HEFCE] (2015a) 'Student mobility', data, based on the HESA Student Record and the Data Service Individualised Learner Record (2008-09 to 2013-14 inclusive). http://www.hefce.ac.uk/analysis/maps/student/

Higher Education Funding Council for England [HEFCE] (2015b) *Collaboration between SMEs and universities*. http://www.hefce.ac.uk/analysis/maps/smes/

Hunter M, Hughes J and Lockett H (2016) 'Pound hits record trade-weighted low', *Financial Times*, https://www.ft.com/content/de43f64c-9040-11e6-8df8-d3778b55a923

International Monetary Fund [IMF] (2016) *World economic outlook (WEO): Subdued Demand: Symptoms and Remedies.* http://www.imf.org/external/pubs/ft/weo/2016/02/index.htm

IPPR North and the Northern Economic Futures Commission [NEFC] (2012) *Northern prosperity is national prosperity: A strategy for revitalising the UK economy*. http://www.ippr.org/publications/northern-prosperity-is-national-prosperity-a-strategy-for-revitalising-the-uk-economy

Lewis M and Conaty P (2012) *The Resilience Imperative: Cooperative Transitions to a Steady-state Economy,* New Society Publishers. http://www.lewes-eco-nomics.org/wp-content/uploads/2013/02/RI-nef-review-cw-final.pdf

Lupton R, Rafferty A and Hughes C (2016) *Inclusive Growth Opportunities and Challenges for Greater Manchester*. http://www.cities.manchester.ac.uk/igau/

Martin R, Sunley P, Gardiner B and Tyler P (2013) 'Resilience and Local Economic Growth Paths', presentation for the Cambridge Local Economic Growth Conference 2013, 11–12 July 2013. http://www.cpes.org.uk/dev/wp-content/uploads/2013/08/7-martin-Cambridge-LEG-Conference-2013-REV.pdf

Martin R and Sunley P (2014) *On the Notion of Regional Economic Resilience: Conceptualisation and Explanation*. http://www.geog.cam.ac.uk/research/projects/cger/Onthenotion.pdf

May T (2016) 'Theresa May's conference speech in full', *Telegraph*, 5 October 2016. http://www.telegraph.co.uk/news/2016/10/05/theresa-mays-conference-speech-in-full/

McCann P, and Ortega-Argilés R (2011) 'Smart Specialisation, Regional Growth and Applications to EU Cohesion Policy', Economic Geography working paper 2011, Faculty Of Spatial Sciences, University Of Groningen. https://danube-inco.net/object/document/1517/attach/s3_mccann_ortega.pdf

McCann P (2016) *The UK Regional–National Economic Problem: Geography, Globalisation and Governance*, Routledge

Northern Powerhouse Independent Economic Review [NIER] (2016) *Workstream 3: Competitive Advantage and Sector Strengths – Final Report*. Transport for the North. http://www.transportforthenorth.com/pdfs/NP/Overview-NP-Independent-Economic-Review.pdf

Organisation for Economic Co-operation and Development [OECD] (2012) *Promoting Growth in All Regions*. http://www.oecd.org/site/govrdpc/50138839.pdf

Office for National Statistics [ONS] (2013') Commuting patterns from the Annual Population Survey, Great Britain, 2010 and 2011)', dataset. http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-300966

Office for National Statistics [ONS] (2016a) 'GVA for Local Enterprise Partnerships', dataset. https://www.ons.gov.uk/economy/grossvalueaddedgva/articles/gvaforlocalenterprisepartnerships/1997to2014/relateddata

Office for National Statistics [ONS] (2016b) 'Annual Population Survey'. http://www.nomisweb.co.uk/

Office for National Statistics [ONS] (2016c) 'UK Business Counts – Enterprises', accessed via Nomis. http://www.nomisweb.co.uk/

Office for National Statistics [ONS] (2016d) 'Business Demography', data. http://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/bulletins/businessdemography/2014/relateddata

Office for National Statistics [ONS] (2016e) 'Business Register and Employment Survey 2015', accessed via Nomis. http://www.nomisweb.co.uk/

Organisation for Economic Co-operation and Development (2016) *Global growth warning: Weak trade, financial distortions.* http://www.oecd.org/eco/outlook/OECD-Interim-Economic-Outlook-September-2016-handout.pdf

Pendall R, Foster KA, and Cowell M (2009) 'Resilience and regions: building understanding of the metaphor', *Cambridge Journal of Regions, Economy and Society*, 3: 71–84. http://cjres.oxfordjournals.org/content/early/2009/12/08/cjres.rsp028.abstract?ijkey=86be85ef995f8eab71bd2af213ad46f12a5ba678&keytype2=tf_ipsecsha

Prime Minister's Office, 10 Downing Street, the Rt Hon Theresa May MP and Department for Business, Energy and Industrial Strategy [May et al 2016] 'PM statement on Nissan Sunderland plant announcement', 27 October 2016. https://www.gov.uk/government/news/pm-statement-on-nissan-sunderland-plant-announcement

Raikes L and Davies B (2016) *Welfare earnback: An invest-to-save approach to designing the new work and health programme*, IPPR. http://www.ippr.org/publications/welfare-earnback

Royal Society for the encouragement of Arts, Manufactures and Commerce [RSA] (2016) *Inclusive growth commission*, website. https://www.thersa.org/action-and-research/rsa-projects/public-services-and-communities-folder/inclusive-growth-commission

Saya S (2016) *The OECD 'resilient cities' project Preliminary findings.* http://www.oecd.org/gov/regional-policy/resilient-cities-framework.pdf

Springford J, Tilford S, Odendahl C and McCann P (2016) *The economic consequences of leaving the EU: The final report of the CER commission on Brexit 2016*, Centre for European Reform. https://www.cer.org.uk/publications/archive/report/2016/economic-consequences-leaving-eu-final-report-cer-commission-brexit

Stiglitz J, Sen A and Fitoussi J-P (2009) *Report of the Commission on the Measurement of Economic performance and Social Progress.* https://sustainabledevelopment.un.org/content/documents/5769Beyond%20GDP%20Indicators%20to%20what%20end_rev.pdf

ANNEX

The authors adapted and modified a typology developed by Aumayr (2007), also using the methodology of de Beer et al (2014) to adapt this to LEP and NUTS 2 areas. The following criteria were used to break European regions into 18 typologies.

1. **Metropolitan status:** includes in its entirety a larger urban zone of more than 1.5 million people, or is the principal region covered by the larger urban zone (data on metro area population: Eurostat 2014).
2. **Urban/non-urban:** a region is classified as predominantly urban (PU) if it has more than 40 per cent of the population living in constituent NUTS3 regions that are classified as PU by Eurostat, and less than 33 per cent of the population living in NUTS3 regions that are classified as predominantly rural (PR) by Eurostat. A region is classified as PR if it has more than 33 per cent of the population living in NUTS3 regions that are classified as PR by Eurostat, and less than 40 per cent living in regions classified as PU by Eurostat. All others are classified as intermediate (IN), whether they have *both* more than 40 per cent living in PU and less than 33 per cent living in PR, or they have *neither*. In line with the typology developed by Aumayr (2007), there is a distinction in the typology framework between urban (PR) and non-urban (PR and IN). The NUTS3-to-NUTS2 conversion follows the methodology developed by de Beer et al (2014).
3. **Central/peripheral:** a region is classified as peripheral if it is either:
   - entirely insular, or
   - has a population density of less than 84.88 inhabitants per km^2 (bottom third).
4. **Industrial employment:** a region with more than 15.32 per cent (median value) of employment in industry is classified as industrial.
5. **Relative sectorial productivity for industry (HIP/LIP):** the index is calculated as the ratio between the share of GVA in industry and the share of employment in industry. A high industrial productivity region has a relative sectorial productivity index above 1.289 (median value).
6. **Relative sectorial productivity for services (HSP/LSP):** this index is calculated as the ratio between the share of GVA in services and the share of employment in services. A high service productivity region has relative sectorial productivity index above 0.986 (median value).
7. **Tourist economy:** regions are classified as tourist economies if they have more than 20 tourist beds per 1,000 inhabitants.
8. **Agrarian economy:** regions are classified as agrarian if they have more than 10 per cent of their employment in agriculture.

There are far more categories than are necessary for the North's 11 LEPs, but they are all listed below, with examples from among those LEPs where there is one or more.

1. Metropolitan, industrial, high industrial productivity
2. Metropolitan, industrial, low industrial productivity
3. Metropolitan, non-industrial, high services productivity (Greater Manchester, Leeds city-region, Sheffield city-region)
4. Metropolitan, non-industrial, low services productivity
5. Non-metropolitan, urban, industrial, high industrial productivity
6. Non-metropolitan, urban, industrial, low industrial productivity
7. Non-metropolitan, urban, non-industrial, high services productivity (Liverpool city-region)
8. Non-metropolitan, urban, non-industrial, low services productivity (Lancashire, Cheshire and Warrington, North Eastern, Tees Valley)
9. Non-urban, agrarian
10. Non-urban, tourist
11. Non-urban, peripheral, industrial, high industrial productivity (Cumbria)
12. Non-urban, peripheral, industrial low industrial productivity
13. Non-urban, peripheral, non-industrial, high services productivity[7]
14. Non-urban, peripheral, non-industrial, low services productivity
15. Non-urban, central, industrial, high industrial productivity (Humber)
16. Non-urban, central, industrial low industrial productivity
17. Non-urban, central, non-industrial, high services productivity
18. Non-urban, central, non-industrial, low services productivity (York, North Yorkshire and East Riding).

7 Three urban peripheral regions (Malta, Sicily and Madeira) have also been included, as their insularity makes them more comparable to peripheral non-urban than to non-peripheral urban regions.

Comparator regions shown in figure 4.1

Metropolitan, non-industrial areas with relatively high services productivity
Andalucía
Área Metropolitana de Lisboa
Attiki
Campania
Greater Manchester
Île de France
Közép-Magyarország
Lazio
Leeds City Region
London
Mazowieckie
Noord-Holland
Praha
Région de Bruxelles-Capitale
Sheffield City Region
Wien

Comparator regions shown in figure 5.1

Non-metropolitan, urban, non-industrial areas relatively high services productivity
Bedfordshire and Hertfordshire
Berkshire, Buckinghamshire and Oxfordshire
Bratislavský kraj
Darmstadt
Eastern Scotland
Essex
Flevoland
Gelderland
Hampshire and Isle of Wight
Helsinki-Uusimaa
Liguria
Limburg (NL)
Liverpool City Region
Prov. Vlaams-Brabant
Provence-Alpes-Côte d'Azur
Surrey, East and West Sussex
Utrecht
Non-metropolitan, urban, non-industrial areas with relatively low services productivity
Cheshire and Warrington
Dorset and Somerset
East Wales
Gloucestershire, Wiltshire and Bristol/Bath area
Kent
Lancashire
Leipzig
Noord-Brabant
Nord - Pas-de-Calais
North Eastern
Overijssel
Prov. Antwerpen
Prov. Hainaut
Prov. Liège
Tees Valley
West Wales and The Valleys

Comparator regions shown in figure 6.1

Non-urban, peripheral, industrial areas with relatively low industrial productivity
Aragón
Basilicata
Castilla-la Mancha
Comunidad Foral de Navarra
Cumbria
Dytiki Makedonia
Etelä-Suomi
La Rioja
Länsi-Suomi
Lietuva
Norra Mellansverige
North Eastern Scotland
Östra Mellansverige
Pohjois- ja Itä-Suomi
Steiermark
Sterea Ellada
Västsverige
Non-urban, central, non-industrial areas with relatively low services productivity
Bretagne
East Anglia
Friesland (NL)
Galicia
Groningen
Herefordshire, Worcestershire and Warwickshire
Lüneburg
Midtjylland
Principado de Asturias
Prov. Brabant Wallon
Schleswig-Holstein
Sjælland
Southern and Eastern
York, North Yorkshire and East Riding
Non-urban, central, non-industrial areas with relatively high industrial productivity
Braunschweig
Cantabria
Észak-Magyarország
Haute-Normandie
Humber
Münster
Niederbayern
Niederösterreich
Nyugat-Dunántúl
Oberösterreich
Oberpfalz
Sachsen-Anhalt
Schwaben
Trier
Tübingen
Weser-Ems