blueprint for a GREAT NORTH PLAN

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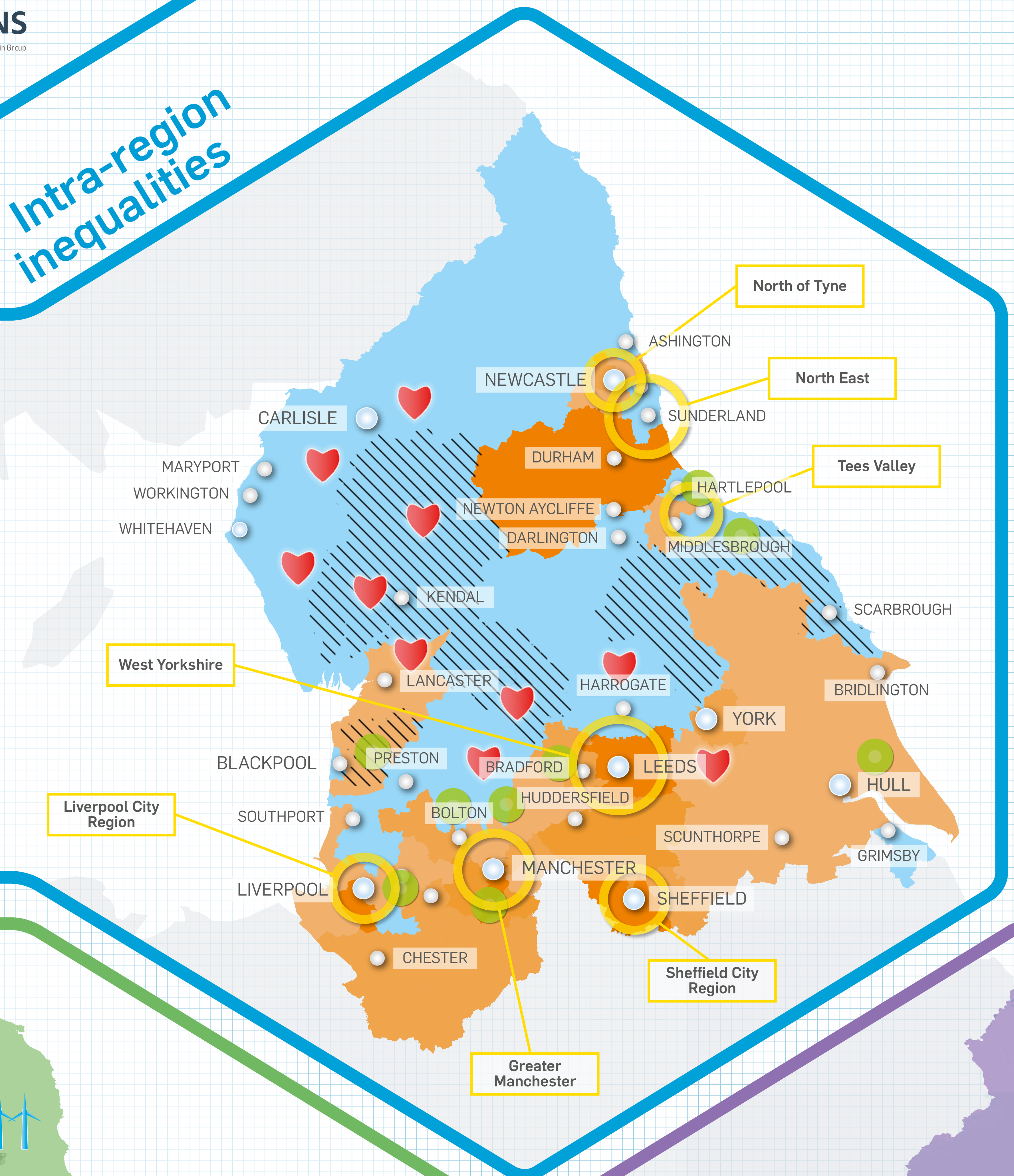
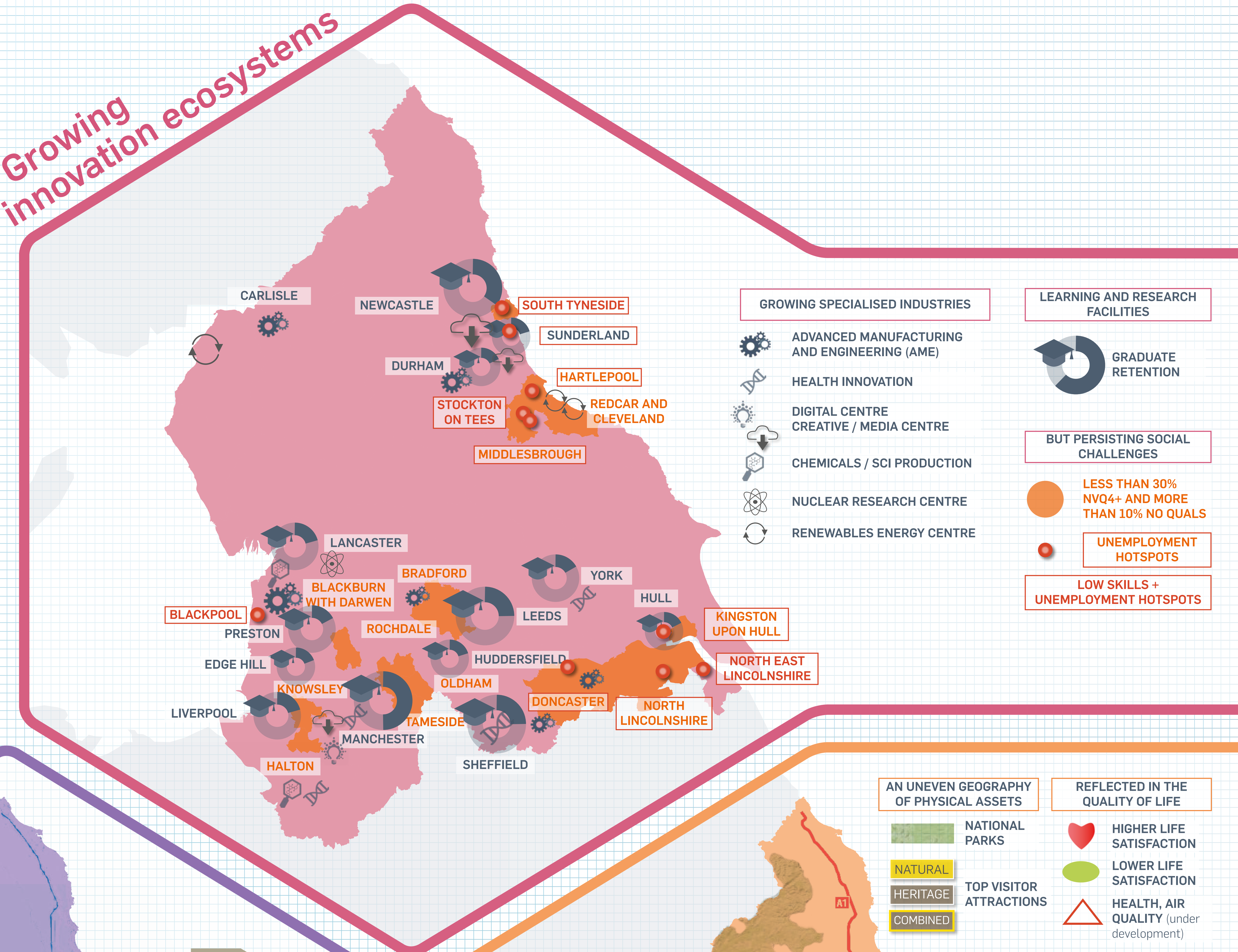
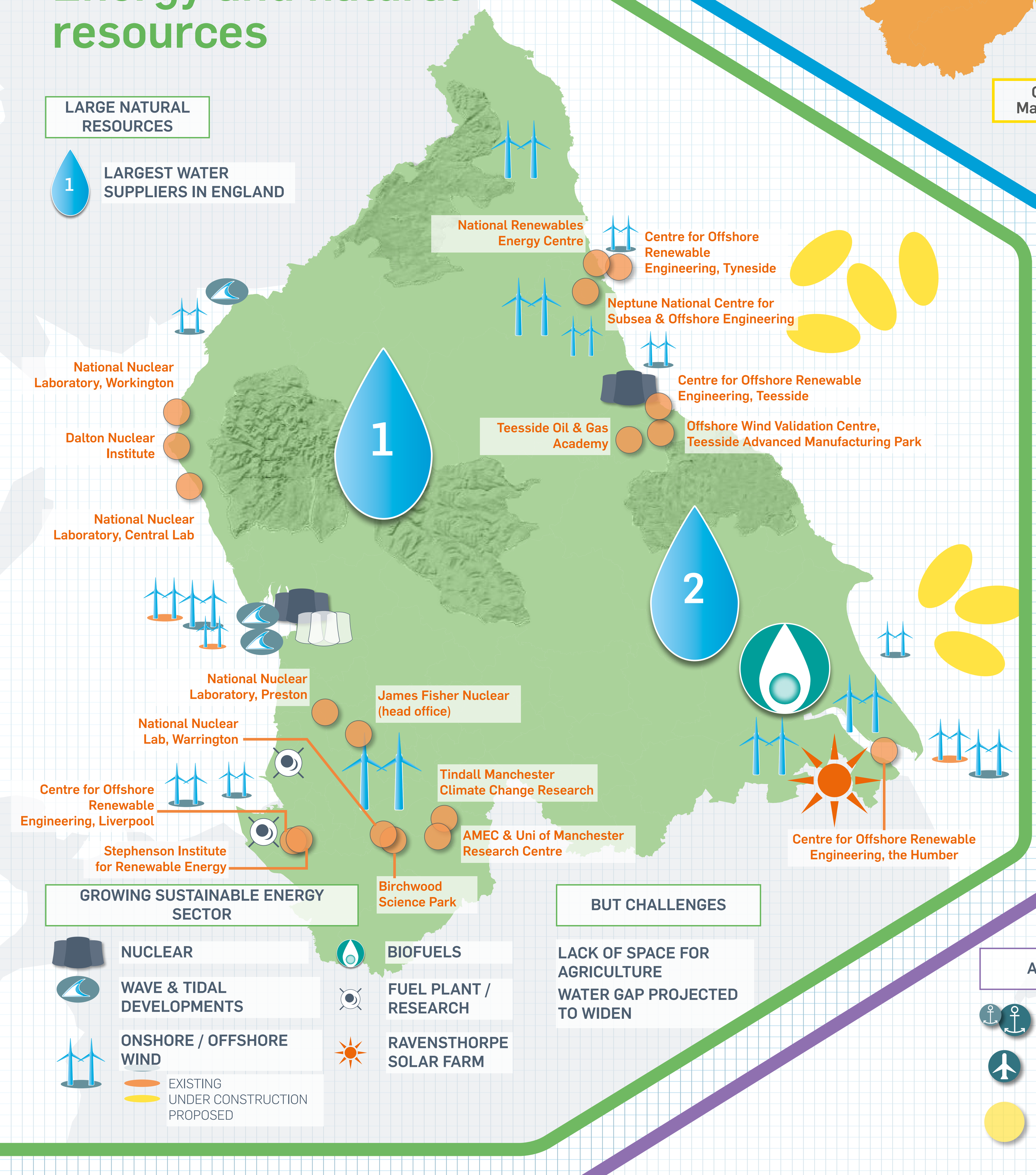
Intra-region inequalities



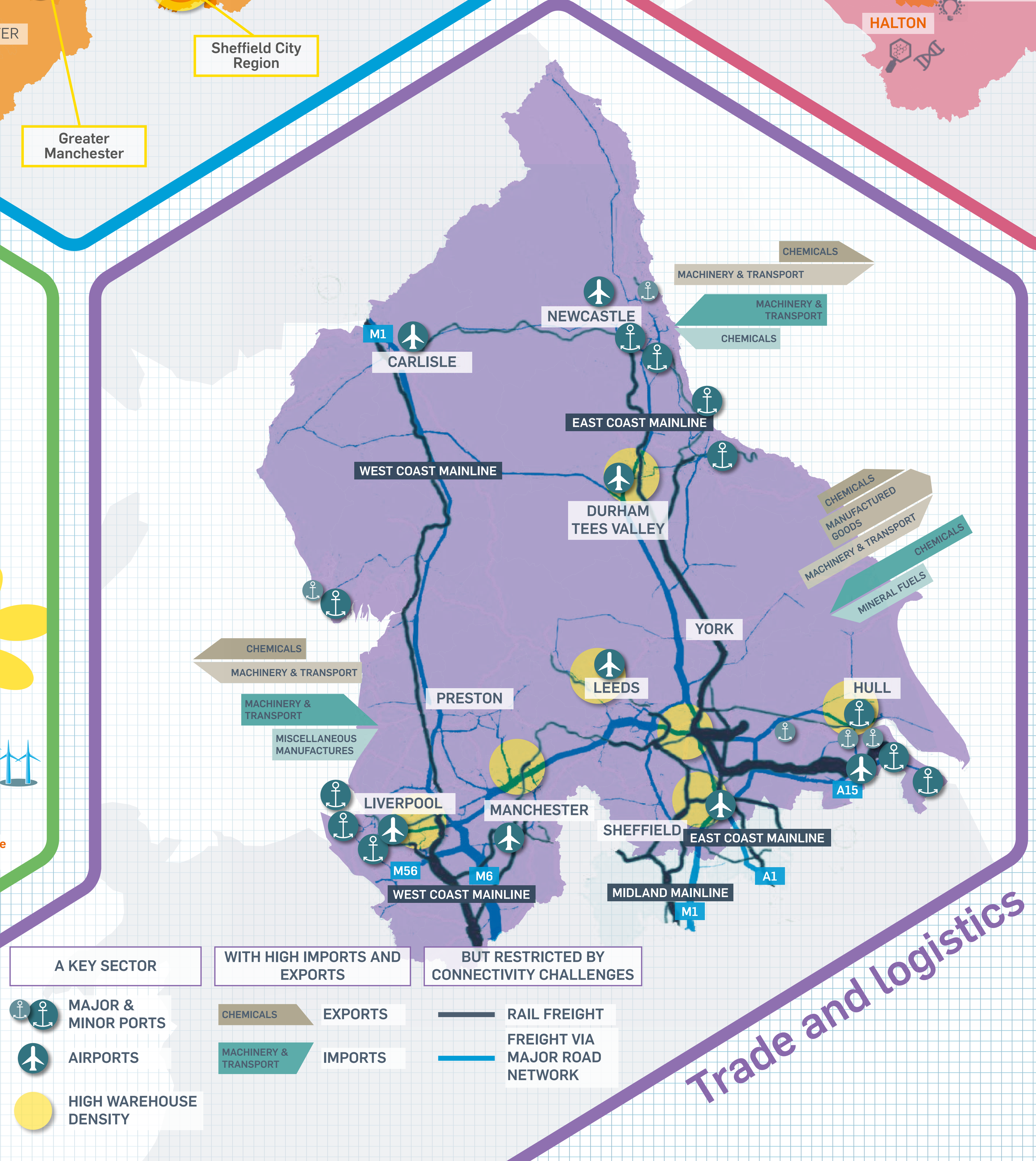
Growing innovation ecosystems



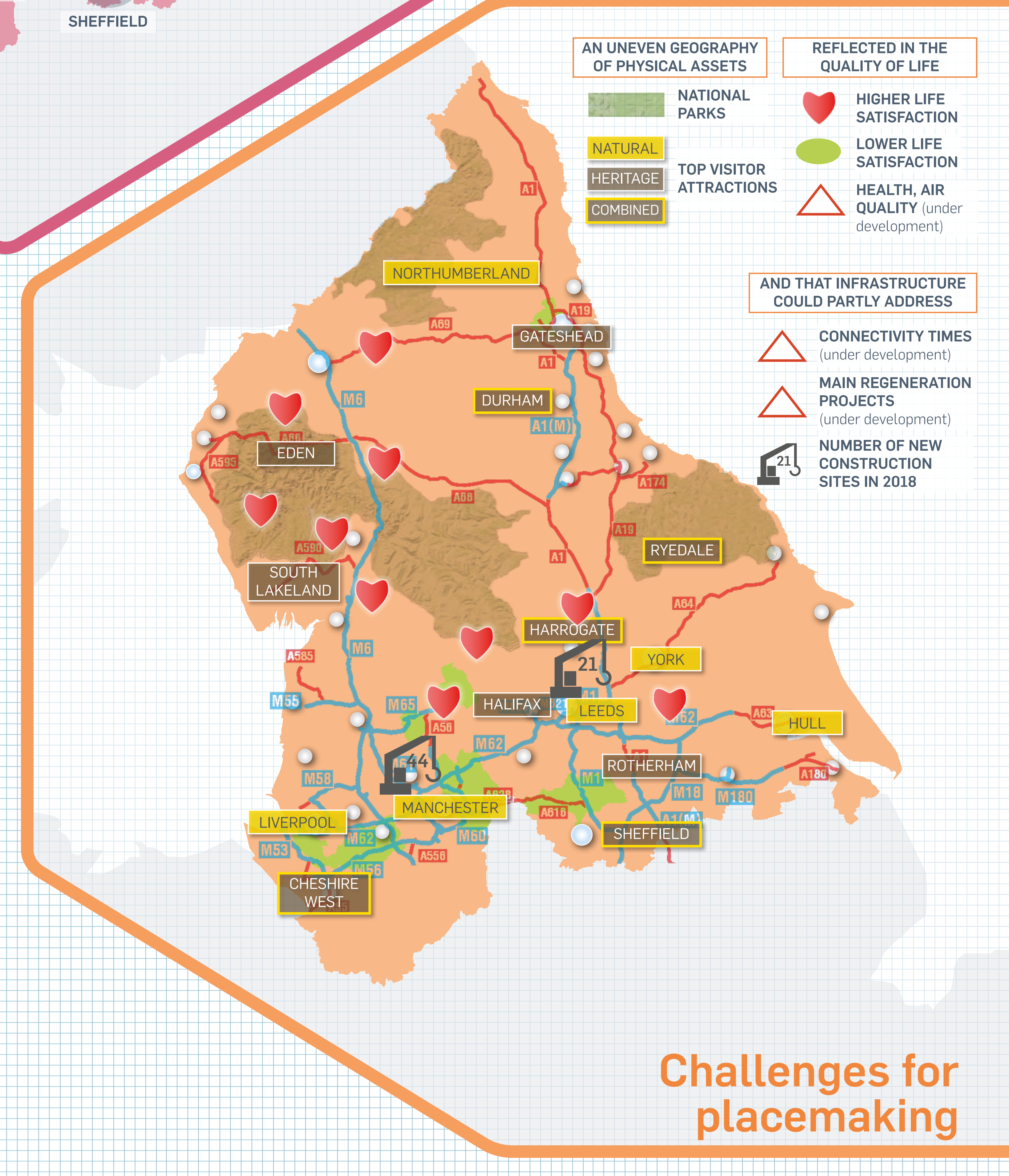
Energy and natural resources



Trade and logistics



Challenges for placemaking



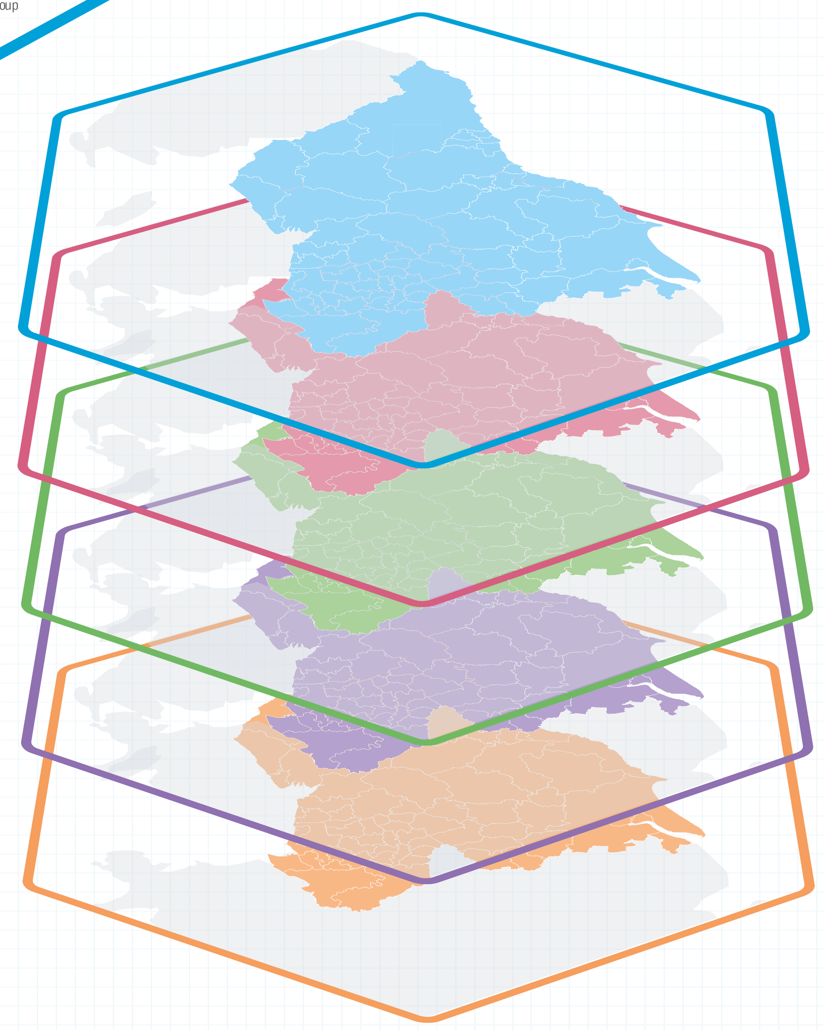
blueprint for a GREAT NORTH PLAN

ATKINS

Member of the SNC-Lavalin Group

One Powerhouse:

A spatial blueprint for the north



'A vision for Britain. Planned.'

IPPR NORTH

RSA 21st century enlightenment

ONE POWERHOUSE

A vision for Britain. Planned.

The One Powerhouse Consortium, supported by The Sir Hugh and Lady Ruby Sykes Charitable Trust, believes that a substantial part of the problem of regional inequality in the UK can be solved not just by money, but by the transformative potential of spatial planning.

Spatial planning is the 'where' of decisions. It looks at a defined geographical area and makes an assessment of everything contained in that area – towns, cities, housing, schools, universities, roads, rails, airports, offices, factories, hospitals, energy sources, museums, parks and leisure activities - and makes a plan to develop those assets for the benefit of the people who live in that region, now and for the future.

It is well understood that countries and regions around the world have used spatial planning to focus political will, economic activity and social reform to great effect. Notable examples include Germany's Rhine/Ruhr, Holland's Randstad and New York City's Regional Plan Association.

The Value of Place and Scale

The clear 'gap' in terms of economic planning in the UK, therefore, is at the level of the English regions. Any spatial strategy needs to bring together the best local industrial strategies and plans within a wider regional strategy framework. The foundations of how this can be achieved are already present. The regions of England are already agglomerating: The Northern Powerhouse, The Midlands Engine, The Great South West and The Wider South East all exist as functional identities.

Our ambition is, in short, to work with these regional networks to prepare a series of draft spatial plans that will better enable decision-making and prioritization of investment across the country and thus help the UK as a whole develop over the long term – creating opportunity for all, jobs for all and prosperity for all.

We are also delighted to be supported on the technical side by some of Britain's most respected planning consultancies: Atkins in the North, Barton Willmore in the Midlands and The South West and Aecom in the South East.

Together, we hope to show how well thought out, long term spatial planning can start as words and diagrams on a page and end up changing lives for the better - wherever in the UK those lives are lived.

Atkins, a member of the SNC-Lavalin Group, is one of the world's most respected design, engineering and project management consultancies.

Together with our clients, we are committed to delivering, sustainable outcomes for our clients that help to enrich people's lives. To achieve this we're always striving to find better ways to get things done; whether it's addressing rapid urbanisation against the backdrop of ever increasing pressures on resources, or the accelerated connectivity of people and places fuelled by technology and big data. Our Engineering, Design and Project Management business employs over 1,500 experts in 6 offices in the North of England; and so that's why we're part of the One Powerhouse project.

Intra region inequalities

Demographic patterns reveal large inequalities within the North – while some are inherent to the geographical situation of the region, other reflect shortages of hard and soft investment infrastructure.

Situation

The North of England (North East, North West, Yorkshire and the Humber) represents a large and heterogeneous area, larger in size than Belgium (38,177km2) and more populated than half EU28 countries (15.3 million inhabitants in 2017). The North is not a homogeneous area, and it shows persistent social and economic disparities. Population growth projections show three different situations:

- Consolidating urban areas – where population is expected to grow significantly. Leeds and Manchester will see the largest absolute growth between 2019 and 2030, with more than 40,000 new residents. In relative terms, Chorley, Salford and Manchester will see the highest growth – between 7 and 8%. In addition, most of those urban centres are increasingly strengthening their position as key political actors.
- Aging rural areas – where population is projected to decline. In addition, these areas also tend to be aging: in 2030 eight local authorities will have more than 6 old-age residents (aged 65+) for each 10 working-age residents, and another eight authorities will have one old-age resident for each 2 working-age residents. The flip side is that residents in these areas tend to report some of the highest levels of satisfaction across the North.
- Areas with particularly salient social challenges. Several urban areas, geographically excluded from the main economic centres, are also seeing demographic decline. This is the case of Blackpool, Blackburn, Redcar and Burnley. Other cities like Middlesbrough are projected to see almost no population growth. And as shown on the map, these tend to be areas with the highest levels of deprivation. However, some apparently "well-connected" places also suffer from high deprivation – in fact Manchester, Liverpool and Knowsley are estimated to have the highest number of residents living in deprived neighbourhoods.

Challenges and needs

With such an unbalanced economic geography, challenges and needs to bring forward will be considerably different across the North. Growing urban areas will need to plan strategically to support population growth and make best use of land. Tackling poverty within those areas is likely to come from investment in skills and lifelong learning education, but also by improving local transport to make sure that residents can access jobs within their cities. The institutional consolidation around newly-elected metro mayors could help support those targets, providing that they continue to strengthen their leadership among authorities, and secure more devolved revenues and powers from Central government. In addition, approximately 50% of the North's population does not, as yet, have any form of devolved governance so this would need to be addressed in the future. For many urban areas, the challenges will be even more difficult to overcome – while appropriate education policies will naturally be needed to support people out of poverty, capitalising on regional transport initiatives such as Northern Powerhouse Rail (NPR) will be essential to link new job opportunities to people.

For rural areas, a key challenge will be the provision of social care services in a context of unprecedented cuts in local government finance (- 50% between 2009/10 and 2015/16), along with the inability of those areas to significantly increase their revenues from council tax and business rates to cover the cuts. Some of those questions are explored on map 5 – Challenges for placemaking

Direction and key questions for the next phase

* How can the planning system help to deliver more inclusive development within growing cities?
* What kind of development approach should be taken to support areas with lower levels of economic development?
* What will be the infrastructure needs of those different types of areas?

Further references, as mapped:

* Nomis, Population projection, 2019
* ONS, Index of Multiple Deprivation, 2015
* ONS, Life satisfaction Index, 2014-15

Growing innovation ecosystems

The North has growing ecosystems of innovation and specialist production, with constraints and opportunities for both.

The situation

The North's physical base of specialist production is expanding. The region's 'prime capabilities' (as identified in the NPIER), of advanced manufacturing, health innovation, digital, and energy are the drivers of this growth. For example, there is significant employment in bio-pharmaceutical (12% of UK employment in the NW) and Medi-tech (Yorkshire & Humber as 19% of UK employment) . GMCA is also establishing the UK's first Energy Transition Region to stimulate innovation in low-carbon power and heat technologies.

The North's rich base of higher education plays a key enabling role in these ecosystems (alongside professional services and logistics). The North has over 30 universities and a student population of over 500,000, whilst Manchester is the second destination of UK graduates after London. Furthermore, the UUK report indicates that universities generate nearly £100 billion a year for the UK economy, support nearly a million jobs and contribute £21.5 billion to the nation's annual Gross Domestic Product.

Challenges and needs

Growing innovation and specialist production provides the region with distinct opportunities, but the success of these may be constrained in the future by the supply of skilled labour, and how this is distributed across the North. For example, education attainment rates are mixed and there are large disparities within the North.

The North's universities also have mixed graduate retention rates . Beyond Manchester, with a half of its students working and studying here 6 months after graduating, and Newcastle, retention is below a third for the North's larger universities with some below 20%. Graduate retention is nuanced, where Greater Manchester and Liverpool City Region perform strongly in employing graduates from their region but who studied elsewhere. An opportunity for Northern cities is to attract and retain graduates, supporting productivity. Good placemaking policies, as explained on Map 5 – Challenges for placemaking, can support this.

To remain competitive in these core capabilities, a spatial plan for the North needs to highlight the constraints on growth in terms of labour market supply and demand, and how to connect high-value centres of employment with the right calibre of labour from adjacent centres of population. Spatial planning should also embed principles of inclusion so that rather than growing disparities between innovative and low skill areas, all communities can benefit from theses growing specialisations.

Direction and key questions for the next phase

The One Powerhouse plan will explore how spatial planning can support the growth of these ecosystems, and more specifically:

- The interaction between the private sector, higher education, research and innovation hubs – and what the enablers and barriers are to innovation-led opportunities in the North.
- The direction and role of future investment around these specialisations, and whether there are gaps or barriers to further development.
- The role and opportunity for local jobs and training, especially in vulnerable areas.
- How graduate retention can be enhanced and how it can benefit these specialisations.
- Land value capture and how greater devolution of planning powers could support better distribution of benefits to local areas.

Further references, as mapped:

- Northern Powerhouse Independent Economic Review, 2016
- Official statistics on the bioscience and health technology sector 2018 - https://www.gov.uk/government/statistics/bioscience-and-health-technology-sector-statistics-2018
- Enterprise Zone information, UK government
- BEIS Industrial Cluster analysis, 2016
- HESA survey: destination of leavers, 2016/17; and Centre for Cities 'Great Brain Drain', 2016: https://www.centreforcities.org/search/brain+drain
- Engineering and Physical Sciences Research Council, https://epsrc.ukri.org/research/
- NOMIS Annual Population Survey, 2018 – unemployment and skills

[1] Northern Powerhouse Independent Economic Review, 2016

[2] Official statistics on the bioscience and health technology sector 2018 - https://www.gov.uk/government/statistics/bioscience-and-health-technology-sector-statistics-2018

[3] https://www.manchester.ac.uk/discover/magazine/opinion/the-value-of-universities-to-society/

[4] HESA survey: destination of leavers, 2016/17; and Centre for Cities 'Great Brain Drain', 2016: https://www.centreforcities.org/search/brain+drain

[5] Centre for Cities, The Great British Brain Drain, 2016

Energy and natural resources

The North's natural assets (water, gas, renewables, land) are vital for the UK and will consequently play a key role in meeting UK-wide demand.

The situation

Northern Uplands. IPPR North's 2018 report on the Northern uplands recognised that this area underpins the Northern Powerhouse economy and contributes to the wellbeing of its people. This is supported by the level of water that is sourced here and the peatlands' role in carbon capture and agriculture. The Commission for Rural Communities estimated in 2010 that 44 per cent of all breeding ewes and 30 per cent of beef cows in England are in the North's uplands. However, there has been degradation of this area including its peat resources .

Water. Approximately 43% of England's domestically abstracted water is from the North, and both the North and South West water surpluses currently outweigh England's regional deficits. The North's water supply is distinct from the rest of England with almost all water abstraction being sourced from surface water and with less water stress. With estimates that climate change could reduce UK water availability by 10-15% by 2050, in advance of the needs from projected population increases, much of the UK will face significant water deficits - water transfers will have an important role in addressing regional variabilities in water supply.

Coal. The North has an important legacy of coal-mining with a fundamental contribution to the country's past economic success. Extraction has been in long term decline and today employs around 4,000 workers in the UK . How the transition to a low-carbon economy is achieved is a primary focus.

Gas Energy. The British Geological Survey identified significant potential areas for gas in the North, including Widmerpool and the Elswick Gasfield near Blackpool, which could meet much of the UK's gas demand.

Renewables. The North's contribution to England's renewable energy increased 14% between 2007 and 2017. The North has strategic advantages in key areas of wind, hydrogen, tidal and marine energy generation and storage , whilst it hosts research centres such as the National Centre for Energy Systems Integration (CESI) in Newcastle. Energy research, technology development and commercialisation will provide direct business, employment and supply chain opportunities. IPPR North estimates that up to 46,000 jobs could be created in the North by 2030 in the low-carbon energy economy .

Challenges and needs

The question of where low-carbon energy technologies should be deployed is just as important as which ones and how much of each. This is not just about selecting the most geographically and geologically advantageous regions, but also recognising the opportunity to redress deep imbalances in the UK economy. Despite devolution, a new approach is necessary to provide long-term certainty for the future of the low-carbon energy sector. The 2017 Northern Energy Strategy recommended the development of local energy strategies for all 11 LEP areas across the North, and that each should include a portfolio of 'investible' energy projects, with incentives to reduce energy demand and bring down costs with clear guidelines for the integration of planning with transport, air quality and energy. More recent recommendations by IPPR North include targets, subsidies, devolved carbon budgets and a new body; Energy for the North, to coordinate such activities.

Direction and key questions for the next phase

The North holds immense potential. As IPPR North suggests; 'Managed well, the region has the geographic and geological advantages, historic expertise, and world-leading academic research institutions to become the new heartland for a low-carbon energy economy.' The One Powerhouse plan will support recommendations for how the North can transition to a low-carbon energy economy. We will explore how spatial planning in the North can help to:

- Manage the UK's impending water challenges.
- Strike the right balance between demand for resource extraction and protecting rural communities and natural resources.
- Meet the demand for relevant skills to meet the needs of a rapidly expanding low-carbon energy sector.
- Sustain and enhance the potential of upland areas for food production, tourism and as a resource for carbon capture.

Further references, as mapped:

- Atkins Go Geospatial Tool
- Water abstraction tables, Environment Agency (EA), 2018
- Nuclear Jobs report, Nuclear Industry association (NIA), 2018
- UK Red Marine Map – Renewables UK
- Digest of UK Energy Statistics (DUKES), Department for Business, Energy & Industrial Strategy (BEIS), 2018

Trade and logictics

Trade and logistics are a vital sector for the North; enabling other key sectors to grow.

The situation

Transport for the North (TfN) have projected a significant increase in freight movements into, out of and through the North. This will enable the growth of other key sectors including manufacturing, machinery and transport, and chemicals. The North is well endowed with assets that support the role of trade and logistics in its economy. UK wide, the North is home to around 24 per cent of the total population, whilst it transports 56 per cent of the UK's rail tonnage, 35 per cent of its road tonnage, and accommodates 35 per cent of total port throughput.

- The UK relies on water-based freight, for which the North provides 11 major ports with large investment and development underway, notably in Liverpool.
- The North has seven international airports and three Strategic Rail Freight Interchanges, supporting multimodal connectivity.
- The North also has a well-developed base of distribution centres, which is growing rapidly as a result of internet-based services and higher demand for home deliveries.

Challenges and need

Projected increases in freight traffic mean that further efforts will be needed to address the North's network capacities and gaps.

Connecting freight and logistics centres to ports and airports remains a significant challenge. For example, the M62 and A63, connecting Liverpool to Hull through Greater Manchester and West Yorkshire, carries half of trans-Pennine road traffic and two thirds of all freight, leading to high levels of congestions and pollution at peak hours. With regards to rail, TfN highlight that the average freight journey time from Liverpool to Drax Power Station in North Yorkshire takes 7.5 hours. In comparison, a car journey would take around 2 hours and a passenger rail journey between 2 and 3 hours.

In addition to consolidating the existing network, developing alternative mode and inter-modal hubs and reducing major congestion points will be crucial elements of regional spatial planning, especially for sectors with strong export potential. The proposed inland port in Leeds, which will transport goods directly from the Humber estuary to the outskirts of the city, is an example of such development.

Direction and key questions for the next phase

As the plan develops we will explore how spatial planning can support trade and logistics, both as a sector itself and as an enabler for other growth sectors, and more specifically:

- How can the existing and future rail freight interchanges and main logistic centres in the North best support future trade?
- Which regions and sectors depend upon transport infrastructure and ports for their imports and exports (national and international).
- What new investments in logistics and freight are needed?

Further references, as mapped:

- Department for Transport Statistics (2017) UK major port freight traffic.
- HM Revenue & Customs (2019) UK Imports and Exports by Region
- TFN (2018) Freight Logistics Enhanced Analysis Report

[1] https://www.ippr.org/publications/gateways-to-the-northern-powerhouse

[2] TFN (2018), Freight logistics Enhanced Analysis report

Challenges for placemaking

Placemaking can be an enabler to reduce spatial inequalities across the North, but it should be considered as complementary to social policies.

Situation

The North has natural, historical and leisure assets to tap on, including five National Parks, 6 Areas of Outstanding Natural Beauty and over 60 National Nature Reserves, museums (the Tate Liverpool, BALTIC Centre in Gateshead), heritage cities and towns (York, Chester, Durham) and large sport facilities. National and international events, such as Hull City of Culture 2017, have and will also contribute to improving the North's built environment, and make it a better place to live, work and play. Large regeneration schemes, engaged across cities, not only can help make them more attractive to new residents and businesses alike, but also improve a sense of belonging and pride among inhabitants.

In a context of high geographical imbalance across the North, as highlighted on Map 1 – intra-regional inequalities and Map 2 – growing innovation ecosystems, placemaking can be an important enabler to reduce spatial inequalities.

Challenges and needs

Challenges and opportunities to improve placemaking will be explored in developing the research. Some challenges are very local (improving the quality of the high street, prioritise walking and cycling, unlock vacant land for redevelopment), while others are better tackled at the regional level (for instance, improving connectivity to the main demographic and economic centres). Several forward-looking initiatives will be considered, including the use of new technologies to inform planning policies, and give more strength community-led planning initiative to improve local engagement.

Fundamentally, placemaking must not be considered in isolation from wider debates on the economic development of the North and should only accompany investments that aim to tackle the fundamentals – namely skills and education. National schemes such as the Shared Prosperity Fund and Stronger Towns funds aim to target this. Without those fundamentals in place the impact of placemaking investments is likely to be limited.

Direction and key questions for the next phase

As this theme is further developed, we will continue to identify the largest placemaking investments taking place across the North and identify what issues should be prioritised. Key questions include:

* What does good placemaking look like in the North?
* What sort of urban regeneration policies should be prioritised, and where?

Further references, as mapped:

* Visit Britain, Annual survey of visits and visitors attractions, 2017
* ONS, Life satisfaction Index, 2014-15
* Deloitte, Regional Crane Survey 2019
* Centre for London, Making Good – Shaping places for people, 2017
* UK2070, Fairer and stronger: rebalancing the UK economy, 2019
* RTPI, Ambitions for the North: a spatial influence for people and places, 2019

One Powerhouse:

What's next?

This prototype will be developed further over the coming months. Using this prototype and the equivalents for the South East / South West / Midlands, the One Powerhouse Consortium and the RSA will create joined-up plans.

All these documents will be released by the end of 2019.

The themes discussed provide critical elements for developing a vision for the North, to identify the opportunities and overcome challenges for the region in a UK-wide context.

Regional spatial planning is a valuable tool to geographically approach these issues and their interactions. Indeed it will be important to continue to recognise the interdependencies between these themes across the North.

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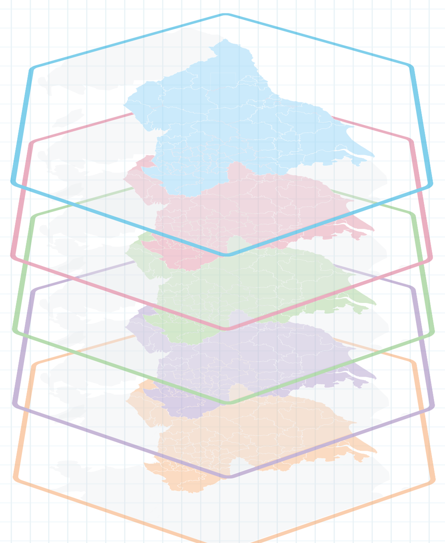

Acknowledgements:

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