UK and CHINA COOPERATION on CLUSTER DEVELOPMENT AND FORMATION

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1. Context and Rationale for the Project

There is increased interest in developing policies to encourage and facilitate city clustering. This is because it is recognised that if cities can be encouraged to work together then this new ‘spatial’ unit of influence can help nations increase their relative competitiveness and thus enhance their rate of economic growth. City clustering can also help countries re-balance economic growth across their regions.

China’s New Urbanization Plan issued in 2014 states that city clusters should play a dominant role in future urbanization, and that rational division, functional complementation, coordinated development among small towns and cities, medium-sized and large cities should be promoted. It is considered that city clusters as an urban unit will unleash significant vitality for the concentration of industry, population, production elements and resources. In the next few years, formulating city cluster plans and promoting the development of city clusters is seen as crucial in allowing government departments to boost new-types of urbanization. China is currently engaged in the process of developing city clusters in a number of areas including the Yangze Delta Region, the west side of the Straits, Chengdu and Sichuan.

The United Kingdom has recently announced that ‘by the end of this Parliament, a regional network of cities, working together to take responsibility for their own prosperity, will underpin a thriving Northern Powerhouse and growth across all of the country’s regions’ (HM Treasury, 2015).

The Governments of China and the United Kingdom believe that there are benefits in them cooperating and learning from each other in developing their city cluster policies. This project is designed to help encourage this process and ensure that lessons and experience can be shared. It focuses on the two case study areas of Cheng-Yu in China and the Northern Powerhouse in the United Kingdom and considers how, by working together, the cities within them may produce economic and social benefits that are greater than the ‘sum of their individual parts’. The research outcome will improve the links and relationships between NDRC and DCLG under the recent MOU on sustainable urbanisation. The experiences in the process will be shared between the two countries and provide a platform for future cooperation and research.

The Chinese study is being undertaken by AMR and the United Kingdom study by Professor Peter Tyler supported by Dr Wei Yang. Key lessons from both studies will be drawn together in a summary document.

The UK Report

This Report provides:

A) An economic profile of the Northern Powerhouse including recent trends and sector performance;

B) An investigation of the economic linkages and complementarities between urban areas of the North including an assessment of commuting flows, production networks and population mobility as well as the extent to which these are supported by hard and soft infrastructure;

C) Analysis of shared challenges and opportunities to improve economic linkages across the North (i.e. connecting infrastructure etc);

Northern Powerhouse City Clusters. Professor Peter Tyler.
UK China Cooperation on Cluster Development and Formation. 2015
D) Assessment of governance arrangements across the North, including the current division of thematic responsibilities and collaborative mechanisms and the extent to which they could be improved to meet these challenges.

A meeting was held in Cambridge in the United Kingdom on the 17th July 2015 to clarify the content of the Report. It was decided that the following issues should also be considered:

- At the present time there is relative limited understanding in China as to how the local government system in the United Kingdom works, particularly as it relates to the encouragement of local economic growth;
- There is also limited knowledge of the challenges that the Northern cities have experienced in seeking to restructure their economies given the substantial deindustrialisation that they have experienced and how urban policies have helped to facilitate the process of economic adjustment, although there is some understanding of initiatives like the ‘Northern Way’;
- There is a strong interest in learning more about how urban regeneration policy has developed in the United Kingdom over the last fifty years and why it has evolved in the way it has. There is particular interest in understanding more about policies that have assisted land reclamation, the environment, housing, transport, the labour market and Universities and knowledge creation. The experience of the Regional Development Agencies is of interest and how this is now being reflected in the Local Enterprise Partnership agenda. Interest in the evolution of urban regeneration policy extends to the experience of London, Urban Development Corporations and the development of New Towns;
- There is also keen interest in understanding how the economic development of cities can be encouraged in a coordinated and integrated manner. It is recognised that city authorities tend to compete with each other, particularly when it comes to attracting inward investment and that this may have disadvantages both in terms of economic efficiency but also in securing outcomes that are sustainable;
- There is a desire to know more about how cities can be encouraged to work together to build on common economic linkages, shared histories and the realities of how local labour markets work. It is recognised that in some cases ‘clusters’ tend to be more aspirational rather than functional at the present time and the objective is to identify common areas of interest where cities can work together to encourage more economic growth but also more equitable outcomes in terms of who benefits. It is recognised that both the United Kingdom and Chinese city cluster policies should seek to ensure that the economic benefits of growth are shared by their residents.

This Report is structured in the following way. Section 2 examines the nature of the spatial rebalancing challenge that has faced the economy of the United Kingdom as its industrial base has declined. Industrial decline has affected the economic vitality of its Northern cities particularly badly and a number of policy responses have been adopted by HM Government to assist in the economic regeneration of the Northern cities. The section describes these policies and reviews what is known about their relative strengths and weaknesses. Section 3 then outlines the nature of the new economic challenges that currently face the United Kingdom’s leading cities and how City Clusters can help. It describes the key components of the Northern Powerhouse City Cluster approach highlighting the importance attached to a) enhanced connectivity through investment in transport infrastructure b) building an integrated City Cluster knowledge innovation system and c) the devolution of economic powers to encourage more integrated and coordinated decision making. Sections 4, 5 and 6 consider each of these key dimensions in turn outlining how the city clustering approach can offer significant benefits. The final section points to the key issues from the British experience that might usefully be
compared and considered in the light of the emerging findings from the Chinese AMR study as described in their First Report.

Section 2. The nature of the spatial re-balancing problem in the United Kingdom and the conventional policy approach

Introduction

The United Kingdom economy has been characterised for many years by a pronounced imbalance in where economic activity has been concentrated across its regions. The ‘North-South’ divide has been persistent and well documented (Gardiner, Martin, Sunley and Tyler, 2013). Figure (1) illustrates the broad nature of the problem. It shows the pattern of economic growth across the regions of the United Kingdom over the forty year period since 1971. Regions above the axis have grown more quickly than the UK average and the opposite for those below. The northern regions have experienced a relatively slower growth than the national average and it is the North East, North West and Yorkshire and Humberside that now feature in the Northern Powerhouse initiative.

Figure (1). Cumulative Regional Output Growth Gaps (GVA, 2006 prices), 1971-2010

Figure (2) shows the UK North-South regional divide even more sharply by aggregating the regions according to whether they are in the North or the South of England and again comparing their growth to that of the United Kingdom as a whole. The pronounced and persistent North South divide in regional growth stands out most clearly.

Source; Gardiner, Martin, Sunley and Tyler (2013)
The regional imbalances in the United Kingdom have been very persistent. Tables (1) and (2) show how GDP per capita has varied across the regions and its variation since 1871. Substantial differences in relative GDP per capita are apparent throughout, but what is of particular note is that by 2012 they were greater than at any time since 1871 and by a substantial order of magnitude. The relatively slower growth of GDP per capita in the North of the United Kingdom relative to the South has been influenced by its relative ability to adjust to the decline of their industrial base.

A further feature of the economic disparities between the regions of the UK is how much more extensive they are compared to elsewhere in Europe. Table (3) shows most clearly that by 2011 the degree of variation was far larger in the United Kingdom than in the other European countries shown. The degree of variation is over twice that in France, Italy and Germany.

One of the consequences of this pronounced North-South divide in the United Kingdom has been that people who cannot find jobs in the North have tended to migrate to the South. This migration has benefited the economy of the South, particularly that of London. However, it has not been without its problems. One obvious problem is that continued inward migration to the South has put considerable pressure on the infrastructure in the South, particularly as it relates to housing. At the same time the people who have migrated from the North have tended to be those who have relatively higher skill levels and their departure has thus further worsened the economic growth prospects of the Northern regions.

Table 1: Spatial Imbalance in the British Economy, 1871-2001:
Regional GDP per Capita Relative to the Great Britain Average (GB=100)

<table>
<thead>
<tr>
<th></th>
<th>1871</th>
<th>1911</th>
<th>1971</th>
<th>1981</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>147.3</td>
<td>165.6</td>
<td>123.4</td>
<td>126.0</td>
</tr>
</tbody>
</table>

Source: Gardiner, Martin, Sunley and Tyler (2013).
South East  88.5  124.6  104.6  108.4  
East Anglia  97.0  76.8  92.8  94.7  
South West  88.6  85.7  93.9  91.8  
East Midlands  106.2  90.6  95.7  95.6  
West Midlands  84.8  78.4  101.9  95.6  
Yorks-Humberside  91.3  76.2  92.5  90.2  
North West  106.0  97.2  95.3  92.9  
North  94.1  89.5  86.1  92.2  
Wales  87.7  90.1  87.5  82.0  
Scotland  89.9  102.1  92.2  94.8  
Coefficient of Variation (%)  17.7  24.9  10.5  11.6  

Source of Data: Crafts (2005). Northern Ireland is omitted due to lack of consistent comparable historical data. The estimates refer to the old ‘Standard Regions’, and are derived mainly from individual tax returns, and hence are essentially residence based.

Table 2: Spatial Imbalance in the UK Economy, 1988-2013: Regional GDP per Capita Relative to the UK Average (UK=100)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>152</td>
<td>149</td>
<td>152</td>
<td>162</td>
<td>169</td>
<td>172</td>
</tr>
<tr>
<td>South East</td>
<td>102</td>
<td>102</td>
<td>106</td>
<td>108</td>
<td>109</td>
<td>110</td>
</tr>
<tr>
<td>East of England</td>
<td>97</td>
<td>95</td>
<td>99</td>
<td>100</td>
<td>97</td>
<td>94</td>
</tr>
<tr>
<td>South West</td>
<td>93</td>
<td>92</td>
<td>89</td>
<td>92</td>
<td>92</td>
<td>91</td>
</tr>
<tr>
<td>East Midlands</td>
<td>97</td>
<td>94</td>
<td>93</td>
<td>90</td>
<td>88</td>
<td>83</td>
</tr>
<tr>
<td>West Midlands</td>
<td>93</td>
<td>92</td>
<td>93</td>
<td>88</td>
<td>85</td>
<td>83</td>
</tr>
<tr>
<td>Yorks-Humberside</td>
<td>91</td>
<td>90</td>
<td>89</td>
<td>87</td>
<td>84</td>
<td>81</td>
</tr>
<tr>
<td>North West</td>
<td>92</td>
<td>91</td>
<td>89</td>
<td>87</td>
<td>86</td>
<td>85</td>
</tr>
<tr>
<td>North East</td>
<td>85</td>
<td>86</td>
<td>80</td>
<td>78</td>
<td>76</td>
<td>74</td>
</tr>
<tr>
<td>Wales</td>
<td>85</td>
<td>84</td>
<td>79</td>
<td>76</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Scotland</td>
<td>99</td>
<td>101</td>
<td>96</td>
<td>94</td>
<td>96</td>
<td>94</td>
</tr>
<tr>
<td>N Ireland</td>
<td>75</td>
<td>79</td>
<td>81</td>
<td>79</td>
<td>79</td>
<td>77</td>
</tr>
<tr>
<td>Coefficient of Variation (%)</td>
<td>18.8</td>
<td>17.8</td>
<td>19.5</td>
<td>22.9</td>
<td>25.5</td>
<td>26.9</td>
</tr>
</tbody>
</table>

Source of Data: Office for National Statistics. The currently used Government Office regions in this table differ slightly from the former old Standard Regions shown in Table 1, and also include Northern Ireland. The data are also workplace based, rather than residence based.

Table 3: Spatial Imbalance in Selected EU Countries: Coefficient of Variation in Regional GDP per Capita, (PPS, NUTS2 Regions)

<table>
<thead>
<tr>
<th>Coefficient of Variation (%)</th>
<th>1980</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>0.31</td>
<td>0.36</td>
<td>0.45</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.43</td>
<td>0.44</td>
<td>0.37</td>
</tr>
</tbody>
</table>
The factors behind the United Kingdom’s North South imbalance

There has been a considerable amount of research undertaken to understand more about the factors responsible for the differences in regional growth rates across the British regions (Gardiner, Martin, Sunley and Tyler (2013)). A number of key messages have emerged. These are:

- there is no evidence to support the view that faster growth at the national level necessarily leads to a reduction in the degree of spatial imbalance in the UK. In fact, the growth gap between the ‘North’ and ‘South’ has tended to widen during periods of national economic boom. The United Kingdom’s mode of economic growth has remained inherently regionally imbalanced throughout with the North-South Divide’ becoming a firmly entrenched feature of the country’s economic landscape;

- the growth of the UK’s regions has been affected by the types of industries that they contain. Some regions have had a concentration within them of sectors that have been either growing or declining rapidly at the nationally. For much of the post war period the UK’s manufacturing sector has been in decline and therefore regions that have had a significant concentration of this sector have been particularly adversely affected. The Northern regions in the UK have been affected in this way. In contrast, the financial services sector has grown relatively rapidly and this sector has tended to have a greater concentration in the Southern regions, and particularly London;

- in general the economic performance of the large urban areas in the Northern regions has been weaker than that of the larger urban areas in the Southern regions;

- the reason for the poorer growth performance of the cities in the North compared to those in the South is that they have been less competitive;

- London is an example of a large urban area that has managed to ‘turnaround’ its economic competitiveness in recent years. It is thus a city of particular interest. With respect to the city clusters concept one clear reason for its ability to improve its relative competitiveness has been its excellent connectivity to the wider region of which it is a part. This has allowed it to draw on the extensive pool of labour around it.

Growth in the Cities of the North

In general cities in the North of the United Kingdom have tended to grow more slowly than those in the South. The decline of the United Kingdom’s industrial base had a negative effect on the growth of London in the South of the United Kingdom but also on Manchester, Liverpool, Leeds and Bradford in the North. However, the evidence suggests that from the late 1980s onwards the London economy began to shake off the legacy of its former industrial base and to grow strongly, partly as a result of it a strong presence in the relatively fast growing sector of financial services. However, unlike London, the Northern cities continued to decline. Figure (3) shows what has been happening to the growth of

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>Italy</th>
<th>Netherlands</th>
<th>France</th>
<th>Spain</th>
<th>Greece</th>
<th>EU-15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.35</td>
<td>0.32</td>
<td>0.17</td>
<td>0.15</td>
<td>0.14</td>
<td>0.35</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td>0.23</td>
<td>0.28</td>
<td>0.20</td>
<td>0.18</td>
<td>0.19</td>
<td>0.21</td>
<td>0.28</td>
</tr>
<tr>
<td></td>
<td>0.23</td>
<td>0.22</td>
<td>0.21</td>
<td>0.19</td>
<td>0.15</td>
<td>0.14</td>
<td>0.33</td>
</tr>
</tbody>
</table>

Source of Data: Cambridge Econometrics, European Regional Data Base
employment and output across a number of UK cities over the period 1981-2013. Two main results stand out. Firstly, as might be expected, the growth of output and employment are highly correlated and secondly the relatively faster growing cities have tended to be in the South of Britain relative to the Northern cities. Figure (4) shows the differences in growth rates across the British cities. Figure (5) shows those regions that have been the growth leaders are mostly in the South of the United Kingdom and the growth laggards are virtually all in the North of the United Kingdom.

Figure (3). Long-term Output and Employment Growth across British Cities.

![Figure 3](image)

Source: Martin, Gardiner and Tyler (2014).

Figure (4). Employment and Output Growth Across 63 UK Cities, 1981-2013

![Figure 4](image)
What has caused the United Kingdom’s Northern Cities to grow relatively slowly?

In their study for the Government Office for Science on The Evolving Economic Performance of UK Cities: City Growth Patterns 1981-2011, Martin, Gardiner and Tyler found that there did not appear to be any significant or consistent relationship between city size and economic growth in the United Kingdom. They also found that ‘industrial structure in general, and specialization more particularly,
played relatively minor roles in explaining differences in city growth rates’ between the relatively faster growing cities in the South of the United Kingdom relative to those in the North. And, as Figure (6) shows, the tendency for British cities to specialize in the production of specific goods and services has been declining over the last thirty years.

**Figure (6). Specialisation Trends in Selected Cities, 1981-2013**

![Specialisation Trends in Selected Cities, 1981-2013](image)

Source: Martin, Gardiner and Tyler (2014).

Figure (7) provides an indication of how competitiveness has varied across the cities of the United Kingdom over the period 1981-2013. It shows that ‘most of the fastest growing cities, of varying sizes, are in the South of the country, suggesting perhaps that (commuting) proximity to London plays a role, or that cities in the Greater South East function as interconnected nodes in a sort of ‘mega-regional production system’ (Martin, Gardiner and Tyler, 2014). This issue lies at the heart of the Northern Powerhouse City Cluster project because it suggests that the strategic development of similar polycentric mega-regions in, the North of the United Kingdom, could give a powerful boost to the relative competitiveness and thus growth of the Northern cities and their regions and is so doing help to re-balance the United Kingdom’s North-South regional divide. If the relative competitiveness of the cities in the UK’s North can be increased by the use of the City Custer policy then there is more chance of re-balancing the United Kingdom’s spatial economic landscape.
Understanding more about the determinants of city competiveness so as to establish the role for city clustering and other policies.

A number of factors have been identified as being important determinants of urban competitiveness and there is an extensive research base. In this Report the main objective is to provide a brief summary. Most people understand what is meant by a business being competitive and it is recognised that a business operates in a market place in which it will have rivals for its goods and services and its ability to secure market share is a reflection of its competiveness relative to other business. It is perhaps less clear what the concept means when it is applied to cities and it is thus perhaps not surprising that there are many different interpretations.

A relatively recent addition has been from the Economist Intelligence Unit—"Hot Spots 2025: the Future Competitiveness of Cities"1. The emphasis is: ‘Competitiveness is a holistic concept. While economic size and growth matter, several other factors determine a city’s competitiveness, including its business and regulatory environment, its institutions, the quality of human capital, cultural aspects and the quality of environmental governance. These cities not only help a city sustain high economic growth, but also secure its future competiveness’ (Economists Intelligence Unit), 2013.

On this basis the Economist Intelligence Unit suggested that competiveness overall reflected the ability of a city to attract capital, businesses, talent and visitors. Its 2025 City Competitiveness Index benchmarked the competiveness of 120 cities using 32 different indicators for each city. The eight, distinct, thematic categories covered are economic strength (30%), Physical capital (10%) and financial maturity (10%), institutional character (15%) and human capital (15%), global appeal (10%), social and

1 Hot Spots 2025: benchmarking the Future Competitiveness of Cities.
cultural character (5%) and environmental and natural hazards (5%). This illustrates the range of factors that are considered to be of importance.

Another interpretation of city competitiveness is provided by Martin and Simmie (2005) who define city competitiveness as:

“the ability of cities to continually upgrade their business environment, skill base, and physical, social and cultural infrastructures, so as to attract and retain high-growth, innovative and profitable firms, and an educated, creative and entrepreneurial workforce, to thereby enable it achieve a high rate of productivity, high employment rate, high wages, high GDP per capita, and low levels of income inequality and social exclusion”. (Martin and Simmie, 2007).

A helpful way forward for the purposes of the research presented in this Report is to adopt the pyramid approach summarised in Figure (8). The approach indicates that ultimately successful cities are those that are able to generate relatively high standards of living for their residents as well as those who commute in order to work in them.

**Figure (8). The Pyramid Approach to Understanding the Determinants of City Competitiveness.**

Figure (8) shows that cities can increase their GDP per capita by increasing their productivity, expanding their productive labour force (as indicated by its employment rate) and the amount of wages and profits they generate. Figure (9) gives some insight into how the growth of output and productivity has varied considerably across the cities of the United Kingdom. Figure (10) reveals quite clearly that the Northern cities in the United Kingdom have been associated with a relative decline in their
productivity and thus on the basis of this indicator of revealed competiveness their performance has been below that of the cities in the South of the United Kingdom.

**Figure (9). Productivity and Output Growth across British Cities, 1981-2013**

![Figure 9](image)

Source: Martin, Gardiner and Tyler (2014).

**Figure (10). How Productivity Varies across Cities, 1981 and 2013.**

![Figure 10](image)

Source; Martin, Gardiner and Tyler (2014).
The growth of productivity is affected by a number of determinants including innovation, investment, human capital, the degree of connectivity and quality of decision making. These, in turn, are influenced by the basic attributes of the city like its business environment, educational base, physical infrastructure, its socio-culture networks and its institutional and governance structure. In this Report we use the pyramid approach as shown in Figure (8) to highlight how the City Cluster approach to help to increase the competiveness of individual cities and thus, by association, the regions of which they are a part.

Before considering how the City-Cluster approach may assist the United Kingdom’s Northern cities to enhance their relative competiveness and thus grow more quickly, the next section considers the urban policies that have been used by successive British governments to improve the relative competiveness of cities.

British urban policy in the post war period

For much of the period up until the late 1970s British urban policy was focused mainly on urban problems associated with poor quality housing, city congestion and the need to accommodate the virtually insatiable demands of motorists for more road space. Urban policy was largely that set-out in the Barlow Report and other major post war initiatives that established the idea of a Green Belt around the large British cities. The objective was to encourage the planned decentralisation of population growth from the big cities to overspill and New Town developments that were a safe distance away from the larger cities and in so doing prevent urban sprawl whilst seeking to reduce congestion in the cities.

It was not until Peter Shore’s White Paper on the Inner Cities in the late 1970s that it became clear that severe economic decline was affecting the British cities and particularly the Inner Cities. The economic problems they were experiencing reflected a process of economic restructuring that has led to the loss of many millions of manufacturing jobs. The loss of large numbers of jobs from the British cities led to many of the people who lived there becoming unemployed because there were not enough new jobs available that matched their skill base. It seemed that once the process of decline in British cities had begun it had a momentum of its own that tended to pass from one generation to the next. Moreover, the problems did not appear to be removed by the workings of the market or the orthodox policies of mainstream government departments (Rhodes, Tyler and Brennan, 2005).

There were particular problems in the older Northern cities of the United Kingdom where Inner City deprived neighbourhoods suffered particularly from the closure of large industrial companies that created very large numbers of local residents that did not have a job. Many of these unemployed people did not have the skills required to get the new jobs that were being created on the periphery of the cities or even if they did have the required skills they were unable to travel to where the jobs were. Those people who could leave the cities did so and looked for jobs elsewhere. However, many people were constrained by an inability to obtain housing in other areas and as such they became ‘locked-into’ inner city neighbourhoods with very little opportunity to obtain work. It was also clear that new businesses were not tending to be established in inner city areas but preferred to go to new locations on the edge or periphery of the large urban areas. It was also the case that new investment in housing was also tending to be located on the edge of large urban areas and often in surrounding smaller towns and villages and frequently not in deprived neighbourhoods in the inner cities.


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By the beginning of the 1980s the United Kingdom Government began to develop a number of urban regeneration measures designed to improve the relative competitiveness of cities so that they could begin to attract new investment to replace the manufacturing industries that they had lost. A key focus of many of these regeneration initiatives was to overcome the intense market failures that were apparent in urban land and property markets. A constraint on attracting new development was that land could remain undeveloped for long periods because of high costs of assembly, fragmented ownership, dereliction, low development values and uncertain demand. There was thus a need to help to correct the adverse impact of market forces in urban areas and this formed part of the rationale for regeneration programmes, particularly in stimulating urban land and property markets. Examples of urban policies that had an emphasis on overcoming market failures in urban land, property; capital and labour markets included Enterprise Zones, Urban Development Corporations and Derelict Land Grant (See Tyler, 2013).

Urban Development Corporations represented a radical form of urban policy intervention. Probably one of the most well known was that of the London Dockland Development Corporation that regenerated a large part of East London following the decline of the East London Docks. The remit for Urban Development Corporations was established in the 1980 Local Government Planning and Land Act. Within a defined and designated Urban Area an Urban Development Corporation was ‘to bring land and buildings into effective use, to encourage the development of existing and new industry and commerce, to create a more attractive environment and to ensure that housing and social facilities were available to encourage people to live and work in the area. To help achieve these objectives, the Development Corporations were given extensive powers of land development control, including powers to compulsory purchase land. They also had resources to invest in infrastructure that could help kick start the process of development and also assist in the development of community based assets. (Ref: http://www.lddc-history.org.uk/lddcachieve/).

Throughout the 1980s and into the 1990s urban regeneration policy began to shift its emphasis somewhat and address other factors that were preventing the regeneration of urban areas. In particular it began to recognise that successful urban regeneration was more than simply overcoming the market failures that were constraining the ability of market forces to generate new investment and thus jobs. It was apparent that there were problems in the way that government departments were providing services relating to education, health, business development and a range of other mainstream services that were important in the regeneration process. One problem was that a lot of government expenditure on the provision of public services in the older urban areas was not based on a realistic appreciation of the actual needs of the residents and business that were based in the urban areas. There was also evidence of very poor take-up of mainstream government programmes, particularly those designed to help re-train workers who had lost their jobs in old industry and required new skills to obtain jobs in new industries. In some local areas only 2% of working age residents had participated in Government training schemes, even though some 61% of working age head of household was unemployed or otherwise economically inactive. The result of this was that too many unemployed workers in urban areas were not job ready (SEE REF). A further factor was that there was poor co-ordination of the delivery of government mainstream programmes at the local level and this reduced their ability to help regenerate urban areas.

Urban policy makers also began to realise the importance of government, business and local communities working together in partnership to tackle urban regeneration. The first extensive approach
to such partnership area based initiatives in urban regeneration was City Challenge in 1989 and the Single Regeneration Budget in 1992. Both these programmes represented innovative new approaches to regenerating urban areas.

City Challenge and the Single Regeneration Budget (SRB) signalled the arrival of Area Based Initiatives (ABIs) designed to regenerate areas. A key feature of the partnership approach to urban regeneration was that all the main partners; central government and local government, the private sector and the community/voluntary sectors needed to work together to address the problems that were causing urban decline and identify a regeneration strategy with which to overcome them, as indicated in Figure (11).

![Figure 11: Joined up regeneration](image)

A key feature of both the City Challenge and Single Regeneration Budget approach was that successful urban regeneration required actions on a number of different fronts. Thus, the resources available from government under SRB could be used to address any issue that might assist urban regeneration including:

- Enhancing the employment prospects, education and skills of local people, particularly the young and those at a disadvantage, and promote equality of opportunity;
- Encouraging sustainable economic growth and wealth creation by improving the competitiveness of the local economy, including business support;
- Improving housing through physical improvements, greater choice and better management and maintenance;
- Promoting initiatives of benefit to ethnic minorities;
- Tackling crime and improve community safety;
- Protecting and improving the environment and infrastructure and promote good design;
- Enhancing the quality of life of local people, including their health and cultural and sports opportunities.

The new Area Based Initiative to urban regeneration also recognised the importance of devolving responsibility and thus control for delivery to a local partnership. Increasingly, therefore, central government was moving away from strong central interventionist control and command as to how

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Northern Powerhouse City Clusters. Professor Peter Tyler. UK China Cooperation on Cluster Development and Formation. 2015
resources were used to giving local partners more discretion in how they used them. Throughout much of the 1990s HM Government created a number of new Area Based Initiatives designed to help regenerate local urban areas. Many important lessons were learned as to how to deliver successful regeneration. It was recognised that it was important to adopt models of partnership working that;

- Avoided leaving-out partners and also having too dominant partners;
- Avoided re-inventing the wheel and built on the previous experience;
- Good partnership working required officers experienced in local growth priorities, objectives and regeneration ‘speak’. There was a shortage of suitable qualified staff virtually across the board;
- partnership had to be clear about its key objectives and how they may ‘fitted’ with wider goals of the mainstream providers/emerging policy items;
- It was important to ensure geographic representation and have a strong secretariat. Policies drafted at one spatial level had to be customised in their delivery to reflect circumstances on the ground.
- Where existing partnership structures were weak it took time and resources to build capacity;
- The partnership required effective monitoring and reviews procedures that informed the partners on a regular basis as to progress against scheme targets.

And the following key features and interfaces were of particular importance

- The ability to lever-in private sector resources;
- Geography mattered-joining-up between areas in the labour market;
- Combining physical regeneration (e.g. developing sites, refurbishing buildings) with people related regeneration (e.g. providing skills training, community facilities);
- Forging transport improvements and other links between deprived areas and elsewhere where employment opportunities were available;
- Providing premises and support services to encourage local small businesses and self-employment;
- Bringing about changes in housing tenure and, in particular, securing the underlying conditions for suitable profitable private sector house building;
- Land and property market interventions were of central to the local growth challenge, particularly in the older urban areas because they enhanced quality of life, external image and visual appearance.

In the later part of the 1990s HM Government began to target socio-economic problems in particular parts of cities-a focus on neighbourhood based urban renewal initiatives. Thus, the New Labour Government addressed social exclusion at the neighbourhood level and thus the factors that were preventing those out of work and on low incomes in the poorest parts of cities to re-enter the labour market and enjoy a quality of life that was similar to that of the rest of society. A range of initiatives were tried that included an increased role of community based actions. Key policy initiatives included Neighbourhood Renewal Fund; Local Strategic Partnerships, Neighbourhood Management, and Neighbourhood Renewal Community Chests.

In 2000 the United Kingdom launched a new approach to local regeneration that focused on the drivers of local competitiveness (Figure (12)). Under this approach region and city economic performance was determined by:
- Productivity; the output that each worker produces;
- Employment; the number of people who are working, depending in turn on demography (population of working of age), labour market participation rates, unemployment rates
- The main contributor to regional disparities in growth was identified as regional differences in productivity.
- No single reason for underperformance was identified, but the main drivers were seen as:
  - Skills (life-long training and education that raises productivity, broadens employment choice and raises individual self-esteem);
  - Investment (facilitated by integrated and efficient capital markets);
  - Innovation (development, diffusion and adoption of new technologies and processes);
  - Enterprise (‘friendly’ tax and regulatory environment, culture to encourage risk taking);
  - Competition (boosts innovation, cost reduction and competitiveness);
  - Active labour market policies to overcome the barriers that were preventing people get work.

Macroeconomic stability was also considered important, as well as microeconomic reforms (integrated approach at national, regional and local level, focused on five drivers of productivity as a priority).

Overall the emphasis was on overcoming market failures at the national, regional and local markets through microeconomic reforms that would help to strengthen the key drivers of productivity growth. Institutional reforms were argued to be necessary to enable better decision making including devolution of power from central to local government.

The drivers approach to encouraging economic growth at the local level was delivered by Regional Development Agencies, and they adopted a number of different approaches to improving local economic competitiveness, particularly in the large cities of the North of England. Scotland, Wales and Northern Ireland were also given extensive powers to develop their own local economic policies and this reflected the start of a process of devolution that we discuss further in the next section.

**Figure (12). The Drivers Approach to the Determinants of Local Economic Growth.**

More recently the Coalition Government in 2010 adopted a new approach with which to encourage local growth and this has now been continued by the new Conservative Government elected in 2015. The emphasis has shifted away from Regional Development Agencies to the creation of Local
Enterprise Partnerships. The Local Enterprise Partnerships are partnerships between local authorities and businesses. They decide what the priorities should be for investment in roads, buildings and facilities in the area and seek to deliver the Local Growth Agenda. The LEPs have developed Strategic Economic Plans (SEPs) and receive to assist the process of local economic development from a Single Local Growth Fund that has been set up by HM Government\(^8\). Figure (13) shows the Local Enterprise Partnerships in England. Local Enterprise Partnerships can help to encourage local economic development by working in partnership with industry and other local stakeholders. They have been given resources by central government to assist with this through the Local Growth Fund. Figure (14) shows the types of activity that LEPs can spend their resources on. A large proportion is transport infrastructure related, housing and skills.

Figure (13). Local Enterprise Partnerships in England, 2015.
From 2011 onwards HM Government also introduced a new programme of Enterprise Zones. The Chancellor has recently confirmed that Enterprise Zones remain a central part of Government local economic policy and that they are available to the Local Enterprise Partnerships that represent the major cities in the Northern Powerhouse. Enterprise Zones offer tax incentives for businesses that are prepared to invest in them and they can be a powerful tool to assist in the process of local economic restructuring and development. The policy encourages the physical and economic regeneration of relatively small areas of around 50-150 hectares. Enterprise Zone sites benefit from:

- A business rate discount worth up to £275,000 per business over a five year period;
- Government help to develop simplified planning approaches for zone sites building on existing Development Order powers;
- All business rates growth within the zone for a period of at least twenty five years will be retained by the local area to support the Local Enterprise Partnership’s economic priorities;
- Government support to ensure that high speed broadband is available to companies on zone site.

The instruments of Enterprise Zone policy are designed to stimulate economic development by overcoming barriers that are constraining enterprise formation and growth in a defined local area. These barriers can take a number of different forms. In some cases there may be features of local land and property markets that affect development. An example is where land has been contaminated by previous land use and without the financial incentives offered by the zone there is insufficient...
development value to attract new investment. The objective is thus to break the vicious circle whereby relatively low returns, resulting from dereliction, contamination or poor image, deter new investment. Increasing the attractiveness of a zone site often requires investment in new infrastructure.

Other policy initiatives since 2010 have included the creation of a Regional Growth Fund that has been designed to provide grants to private sector projects and programmes with significant potential for economic growth, leveraging in private sector investment and creating or protecting jobs. Supporting areas that were relatively heavily dependent on the public sector for employment and needed to generate more market-based employment.

Conclusion

Over the last thirty five years urban policy has sought to assist British cities to restructure and overcome the problems associated with the decline of their industrial base. The policy measures have varied extensively in the form that they have taken. There has been a particular emphasis on encouraging businesses to invest in the areas concerned by offering financial incentives. These have either taken the form of a grant of relief from tax. There have been incentives to encourage new investment in plant and machinery but increasingly, as with Enterprise Zones; the focus has been on tax relief associated with investment and occupation of property.

Other policy assistance has been provided to enable area based partnerships to address a wide range of the problems that may be preventing the economic, social and physical/environmental regeneration of their areas. Examples of these included City Challenge and the Single Regeneration Budget. All of these measures were designed to build the capacity of local stakeholders to help with the economic, physical and social regeneration of their local areas. However, despite many successes and much achieved, much still remains to be done if the United Kingdom is to ‘re-balance’ economic growth between its cities in the North relative to its cities in the South. The next section considers the need for a new approach and the thinking behind the Northern Powerhouse City Cluster initiative.

Section 3. How can the economic growth of the Northern cities be enhanced; features of the New Economic Order.

Introduction

Over the last thirty years the policies described in the previous section have done much to assist cities in both the North and the South of the United Kingdom to improve their relative competiveness, increase their rate of economic growth and provide a better quality of life for the people who live in them. The evidence now suggests that the London economy was the first large city in the United Kingdom to successfully restructure its economic base away from an extensive manufacturing sector into one focused more on financial services, private and public consumer services, knowledge and creative industries. Urban policy initiatives made a significant contribution in this respect.

There is now evidence that other major British cities are also beginning to ‘turn-around’ in the same way (REF). However, Northern cities are still growing more slowly than cities in the South of the United Kingdom. This means that the North South regional imbalance is also not improving. This is a source of considerable concern to the UK Government. Thus;
something remarkable has happened to London over these recent decades. It has become a global capital... And it's a great strength for our country that it contains such a global city... But something remarkable has happened here in Manchester and in Liverpool and Leeds and Newcastle and other northern cities over these last thirty years too. The once hollowed-out city centres are thriving again... The cities of the north are individually strong, but collectively not strong enough... So the powerhouse of London dominates more and more. And that's not healthy for our economy... We need a Northern Powerhouse too. Not one city, but a collection of northern cities - sufficiently close to each other that combined can take on the world (George Osborne, 2014)

This section discusses how Northern cities can enhance their rate of economic growth given the nature of the New Economic Order which they now face.

Key features of the New Economic Order and how the Northern Powerhouse City Cluster Initiative can help the cities of the North to catch-up with those in the South

Powerful global currents are affecting economic and social systems in cities around the world and challenging their traditional economic strengths. However, on a more positive note, modern communication technology allows them to market themselves like never before. The challenge for the big cities of the North is re-structure their economic base towards the new and growing industries.

In relation to the Pyramid of Competiveness diagram shown in Section 2, Figure (8) showed that successful cities must enhance their core competencies or attributes so that they are relatively attractive place for businesses to want to invest in and people to live in. They can do this adopting a strategic approach that brings together the relevant agents of change from across all sectors, be it businesses, the government, voluntary sector stakeholders and local residents and which allows key investment decisions to be made in a decisive and effective manner. Making this happen is key to the Northern Powerhouse City Clustering approach and it requires leadership and the exercise of considerable political skill. HM Government is devolving power to local government to enable them to be more responsible for resource allocation.

This type of partnership working emphasises the need for multi-sectoral collaboration, so that the boundaries of common interest between the key stakeholders are shared. If this is to be achieved it is frequently necessary to redefine both the nature of civic leadership and the institutions through which ongoing collaboration occurs. As the OECD indicates, the emphasis has to be on recognising ‘the interplay between physical capital, human capital and the business environment’, recognising the ‘benefits of strong interaction between different types of regional assets’. (OECD, 2009)\textsuperscript{12}. Recent research has emphasised the importance of encouraging growth from within and understanding how history and geography shape the ability of a region to adapt to economic (Baxter, et, 2007). As Gardiner et al emphasize, sustained effort is required with respect to the promotion of entrepreneurship, innovation, investment and human capital formation (education and skills), as well as modernising infrastructure (Gardiner et al, 2013).

Economic success may also require the re-shaping of the traditional geographic units that have been associated with the administrative boundaries used in the past and the importance of recognizing the total place and enhancing the connectivity between its different parts. There are frequently

\textsuperscript{11}

\textsuperscript{12}

Northern Powerhouse City Clusters. Professor Peter Tyler. UK China Cooperation on Cluster Development and Formation. 2015
considerable challenges that prevent the required boundaries of interest being integrated and a number of issues in this respect around land assembly, reclamation, the provision of major transport infrastructure and the advantages of combining and integrating planning decisions. **Tackling these is a central component of Northern Powerhouse City Clustering. Considerable skill is required on the part of those involved** to manage and negotiate through different units of government;

At present time local growth initiatives in the cities of the Northern Powerhouse are struggling to gain enough traction to secure the new investment required in land reclamation, new transformational infrastructure and people. New ways have to be found to increase the volume of resources that can be levered into the local growth process. **This is particularly true when it comes to building the capacity of the Regional Innovation System and building interfaces between universities, business and government.**

**The Geography of the Northern Powerhouse**

Figure (15) provides an indication of the differences in scale between England and Chongqing – Chendgu. It also enables some idea of the physical distance between the leading centres in each country. In the case of England the distance between London and Manchester is around 180 miles. The distance between Chongqing and Chengdu is quite similar. In the North of England the distance between the leading cities is not great in physical terms but the quality of the road and rail infrastructure is not strong and journey times are therefore quite extensive.

**Figure (15). England Compared to Chongqing and Chendgu.**

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**The Economic Characteristics of the Northern Powerhouse cities**

The cities of the North of England contain just over 16% of the United Kingdom’s population with the largest percentage in the Manchester City Region and West Yorkshire Combined Authority. In comparison London had around 15% of the United Kingdom’s population (Figure 16). Thus, the
population of the Northern Powerhouse is not that much different to that of London, However, the economic growth performance of the cities of the Northern Powerhouse region is well behind that of London, which is now one of the most dynamic economies in the world.

Figure (17) indicates what has been happening to population growth. The population of London did not really grow at all over the period 1981-1990 but began to grow steadily after that and is growing particularly rapidly at the present time. In contrast to London, population growth in the more Northern sub-regions was in decline or static until the beginning of 2000. The ‘population growth turnaround’ in the Northern cities has thus occurred around twenty years after that of London reflecting their inability to regenerate their local economies as quickly as that of London.

Source: Centre for Cities (2015).

The Centre for Cities have provided evidence on GVA, employment and productivity for the Northern Powerhouse. The Northern Powerhouse produced some 13.3% of the United Kingdom’s Gross Value Added in 2013 and this was to be compared with 24.5% in London. Figure (18), shows that the Northern Powerhouse had 16% of all GB jobs in 2013 whilst London had 19%. Productivity in the Northern Powerhouse (GVA per worker) was £44,850 in 2013 and this was some 13% below the GB average and 29% below that of London.

Unfortunately, as the Centre for Cities show in their recent Factsheet (Centre for Cities, 2015), growth in GVA in the Northern Powerhouse has been below that of the national average over the period 2004-2013. The growth of GVA in London over the same period has been twice that of the Northern Powerhouse. It is this difference in the ability of the North of England to grow relative to the South that has led the British Chancellor to launch the Northern Powerhouse city cluster initiative.

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London Figures relate to Greater London area and not the Primary Urban Area.
In his Manchester speech on the 5th August 2014 he used HM Treasury analysis to show that ‘if the Northern economy grows in line with the rest of the UK over the next 18 years (2013-2030), compared to previous 18 years, it would be worth an additional £56bn in nominal terms to the northern economy, or £44bn in real terms’. (https://www.gov.uk/government/news/northern-powerhouse-chancellor-sets-out-pathway).

Figure (19) shows where the jobs are located across the cities of the Northern Powerhouse. The largest concentration is in Manchester, followed by Leeds and Newcastle.

Figure (18). The Distribution of Jobs across the Cities of the Northern Powerhouse.
One of the reasons for growth in the city economies of the Northern Powerhouse lagging behind that of the UK, and particularly that of London, has been its sectoral composition and the North is now seeking
to move more of its resources into the new and growing sectors of the knowledge economy and particular the Life Sciences. The Northern Local Enterprise Partnerships that are responsible for economic planning in the Northern Powerhouse have recently set out the sectors that they consider they can now build on in this respect and Table (4) provides some indication.

Table (4). The Growth Sectors of the Northern Enterprise Partnerships.

<table>
<thead>
<tr>
<th>City Region</th>
<th>Growth Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Manchester</td>
<td>Life Sciences, Healthcare and Freight and Logistics</td>
</tr>
<tr>
<td>Merseyside</td>
<td>Life Sciences, Advanced Manufacturing and Creative and Digital</td>
</tr>
<tr>
<td>South Yorkshire</td>
<td>Advanced Manufacturing, Engineering and Healthcare Technologies and Low Carbon Industries</td>
</tr>
<tr>
<td>Tyne and Wear</td>
<td>New Economy, Higher Education, Health Care and Health Care Technologies</td>
</tr>
</tbody>
</table>


The ability of the Northern Powerhouse Local Enterprise Partnerships to expand their economies into these new sectors will be affected by how quickly they can obtain labour with the right skill, innovate and improve their connectivity across and between their labour markets and elsewhere in the United Kingdom. Figure (20) shows the relationship between skills (as proxied by the percentage of the areas workforce with NVQ4+) and the level of productivity (as proxied by GVA per hour worked). The areas with the highest levels of productivity have the highest proportion of better skilled workers and it must thus be a key target for the Northern Powerhouse to increase the level of skills in its workforce.

Figure (20). The relationship between GVA per hour worked and levels of skill in English Local Enterprise Partnership areas.

Source: BIS (2015).
Section 4. The Key Policy Initiatives of Northern Powerhouse City; Enhancing Connectivity

Introduction

HM Treasury has argued that enhancing connectivity between the cities in the Northern Powerhouse is important not only to allow each city to realise its true economic potential but also to increase the economic growth of the Northern region as a whole. Unfortunately at the present time the physical connectivity between the Northern cities is relatively poor and there is an urgent need to improve it through investment in new transport infrastructure. Thus, as HM Treasury has commented recently ‘it is currently quicker to travel the 283 miles from London to Paris by train than it is to travel less than half that distance between the two Northern cities of Liverpool and Hull’\textsuperscript{15}. HM Treasury believe that if connectivity between the cities of the North could be increased as part of the Cities Clusters policy then there would be greater levels of trade between them. It would also make it easier for businesses to meet and interact and would be helpful in facilitating greater levels of collaboration between them, particularly in developing new products and process.

The failure to have sufficient connectivity also seriously impedes economic growth when it comes to the labour market. One of the reasons for London’s economic success is that its businesses are able to draw upon an extensive pool of labour from the wider region of which it is a part. However, the cities in the Northern Powerhouse are seriously constrained in this respect and this is in part due to the transport infrastructure being out-dated and configured to meet the needs of industries that no longer exist. Better connectivity would allow businesses in the cities to realise the benefits of agglomeration whilst enabling some part of their workforce to commute from their homes elsewhere in the city-region. It would also allow businesses to obtain the workers they may need by drawing on a wider labour pool which would include people commuting between the large cities in the North. At the present time, as will be examined below, commuting flows are relatively weak compared to what might be expected from the experience of London, but also in other cities elsewhere in the Europe and indeed the world.

The Northern Powerhouse Cities Cluster policy places much importance on increasing the level of connectivity between the cities in the Northern region. This section considers the key transport infrastructure problems that impede connection and then discusses how the Northern Power House City Cluster initiative seeks to overcome them.

The connectivity problem.

There has been much research undertaken to assess the limitations of the existing infrastructure and what might be done to improve the position. In 2004 the three Regional Development Agencies in the North established the Northern Way initiative\textsuperscript{16} which undertook a programme of work that came to a close in March 2011. The Northern Way Transport Compact was established as the partnership body that could provide advice at a pan-northern level on how enhanced transport connectivity could increase the growth of productivity in the region.

The Northern Way Initiative focused on the geography shown in Figure (21) and its objective was to identify ways in which the economic performance of the Northern region could be improved by the

\textsuperscript{16} One North East, Yorkshire Forward and the North West Development Agency.

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relevant partners working together. The agenda covered transport, energy, business investment and innovation. This section focuses on key findings from the initiative as they relate to transport\textsuperscript{17}.

Research undertaken for the Northern Way Initiative highlighted the factors that were constraining the North from increasing its overall level of productivity and realising its true economic potential. Relatively poor transport infrastructure was identified as a key constraint, particularly as it affected connectivity between the region’s eight largest cities.

A recent report on Transport Constraints and Opportunities in the North of England undertaken by Steer Davies Gleave for HS2 Ltd indicates quite clearly how limited the commuting is between the big cities in the Northern regions. (Table (5). Figure (16) shows a similar position. The effect of such limited commuting on the labour markets of the cities in the northern Powerhouse can be readily understood by simply comparing it with that of London (Figure (23). The London economy is able to draw on a supply of labour from its regional hinterland in a way that is simply not possible to the Northern cities at the present time. Poor connectivity between the cities of the Northern Powerhouse is a key factor in this.

Figure (21). Transport Infrastructure in the North. Source (Northern Way, 2011).

Table (5). Daily Commuting to/from City Regions in the North of England

<table>
<thead>
<tr>
<th>From: To&gt;</th>
<th>Greater Manchester</th>
<th>Merseyside</th>
<th>South Yorkshire</th>
<th>Tyne and Wear</th>
<th>West Yorkshire</th>
<th>All Other Routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
</tbody>
</table>


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<table>
<thead>
<tr>
<th>City Cluster</th>
<th>Commuting Fig.</th>
<th>Daily Commutes into London. Source: London: The Information Capital, Cheshire &amp; Uberti, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Manchester</td>
<td>766122</td>
<td></td>
</tr>
<tr>
<td>Merseyside</td>
<td>21867</td>
<td></td>
</tr>
<tr>
<td>South Yorkshire</td>
<td>3422</td>
<td></td>
</tr>
<tr>
<td>Tyne and Wear</td>
<td>420</td>
<td></td>
</tr>
<tr>
<td>West Yorkshire</td>
<td>11285</td>
<td></td>
</tr>
<tr>
<td></td>
<td>785</td>
<td></td>
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<td>14730</td>
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<td>538</td>
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<td></td>
<td>671710</td>
<td></td>
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<tr>
<td></td>
<td>44168</td>
<td></td>
</tr>
</tbody>
</table>

**Data Source:** 2011 Census Travel to Work data, Steer Davies Gleave analysis
Capacity and capability constraints on rail connectivity, particularly in and around the centre of Manchester, present a major constraint. The central Manchester rail network was considered the ‘most significant rail bottleneck in the North’. The Northern Way Initiative proposed a package of investment centred on ‘the Northern Hub’ that could address the problem. Some of the core elements in the proposed approach have received funding from the Chancellor for implementation in late 2016. Further proposals were also made to address other key rail links including the Trans-Pennine corridor. The Northern Way Compact also argued extensively for the enhanced North South rail connectivity that has now being enshrined in the current proposal for High Speed Two\(^{18}\).

Congestion on the strategic motorway and trunk road network around the Northern cities was identified as the ‘biggest transport threat to the North’s economy. As part of its work the Northern Way Compact pin-pointed a number of key areas for investment in the rail system particularly as they related to access to Northern Ports\(^{19}\).

A further focus was on how to improve access to and from the region’s ports and airports. Other components of the Northern Way’s Initiative focused on how new ticketing technology could assist in smarter travel choices and network integration\(^{20}\).

The Northern Way Growth Strategy identified three major transport priorities for the North that were required for a step-change in its relative competiveness as a place in which to invest. These were:

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\(^{19}\) Existing and Future Traffic and Congestion on the North’s Strategic Road Network (2008).

• To improve surface access to the North’s airports;
• To improve access to the North’s sea ports; and
• To improve links within and between the Norths’s City Regions.

A considerable amount of research has pointed to the importance of a pan-regional strategy in deciding transport priorities. Thus, a city relationships research programme was carried out between October 2008 and November 2009 by the Work Foundation, Centre for Cities and SURF, commissioned and sponsored by the Northern Way and the Department of Communities and Local Government. This study found that:

‘Our analysis demonstrates that strengthening economic links between places does have the potential to contribute to sustainable economic growth, higher individual prosperity, the attraction and retention of higher skilled workers and the reduction of deprivation. Places such as Stockport, Harrogate, North East Derbyshire and Sexton have all benefited from their links with their economic centres. However, some places have more complementary economic relationships than other places. Economic disparities are growing where there are less complementary relationships. For example, St. Helens within Liverpool City Region and Easington within Tyne and Wear City Region are places ‘isolated’ from the economic centre, where productivity growth has fallen behind that in the economic centre and the gap has widened substantially. The extent to which relationships are complementary is affected by a range of factors, including skills, transport, firm links, the ‘pull’ of economic centres, industrial history, and quality of place and housing. The wider relationships in a city region –whether it is homocentric, polycentric or bipolar – can also impact upon economic relationships between places’.

In order to take forward the transport component of the city cluster Northern Powerhouse initiative a Transport for the North partnership (TFN) between the Northern city region, authorities, Government and the relevant national transport agencies was established in March 2015. Its ambition is to ‘create a ‘Northern Powerhouse’ driven by a flourishing private sector and supported by innovative local government’. TFN states ‘By harnessing the power of our city regions, and the wider North, we will drive economic growth in the industries of the future – rebalancing the country’s economy and establishing the North as a global powerhouse’. The Northern Powerhouse is considered as fundamental to the UK’s future success, establishing an economy capable of complementing and acting as a balance to the economic weight of London. Together we will be more resilient to future global challenges, make better use of the nation’s natural assets and secure greater prosperity for al’

(http://www.transportforthennorth.com/index.html).

In March 2015 TFN set-out the key elements of its Northern Powerhouse transport strategy that involves a high speed Trans North rail system, a revitalised highways network and a number of other transport improvements in the years ahead.

At the present time railway services are seen as being particularly poor: Thus, it is recognised that ‘Many rail journeys in the North-particularly east-west-are too slow and take far longer than journeys of equivalent distance elsewhere in the country or Europe ( )’. And, ‘this is compounded by the infrequency of some services between certain destinations’ (Ref). The ‘quality of some of the rolling stock in the north of England is very poor’ and ‘rail connections north and south to the rest of the country are too slow and increasingly crowded at peak times’ ( ).

The ‘shared rail vision for the future’ as embodied in the Northern Powerhouse initiative involves:

• Major new investment in rail infrastructure that will improve east-west connectivity as defined in the Northern Hub and TransPennine line electrification projects linked with improvements to the
East Coast Main Line to Newcastle. Faster travel would be provided by an electrified, high speed east west railway that could achieve speeds of up to 140 mph;

- Major new investment designed to improve the quality of the travel experience by providing better equipped rolling-stock;
- Seeking to obtain the full High Speed Two North South extensions to the Northern cities as early as possible so as to ensure that the North has the highest standard of access to the South possible.

The **Highways** element of the TFN transport strategy recognises that the number, capacity and reliability of east-west road connections are a constraint on the growth of the Northern economy. There are also areas of very high congestion on the road network, with high demand for freight from Northern Ports and the responsibility for road investment being divided between different organisations at different geographical levels.

To address these problems it is proposed to;

- Ensure a core free-flow network with ‘mile a minute’ journeys increasingly typical on expressways and motorways in the North of England;
- Improve East –West major road links to ensure better and more reliable journey times between the major cities within the North;
- Expand capacity on North-South major road links through the North to ensure improved journey times and reliability; ensure effective road connections to the country’s major ports in the North of England;
- Future-Proof the Northern road network so that it can support the next generation of low emission vehicles;
- Ensure future road investment in enhancements, maintenance and renewals is better planned between the different organisations.

Significant investment is also proposed in **Freight and Logistics** and to produce a single plan for freight and logistics across the North and thus ensure a cohesive and robust approach to developing the whole network. Thus, the objective is;

- A single plan for the needs of freight and logistics in the future;
- To deliver a transport network that supports the growth of the Northern economy
- Recognise the importance of investment in Northern Ports so as to ensure the delivery of port infrastructure that can meet the future needs of the shipping industry.

The Plan for **airports** recognises that the North has an excellent network of regional airports, in particular the extensive scheduled intercontinental services from Manchester and Newcastle and a substantial presence in regional airports that facilitate short-haul travel. However, the wider transport network has to be developed in such a way that it will enable to growth and development of the Northern economy. The shared vision for the North’s airports is to provide;

- More destinations served by the existing quality network that includes Liverpool John Lennon, Manchester, Leeds-Bradford, Newcastle, Durham-Tees Valley, Doncaster-Sheffield and Humberside providing direct links for businesses and the public to a range of destinations;
- Provide high quality surface access to airports across the North;
- Provide better connectivity to Manchester airport;
- Ensure the continued success of Newcastle airport.
And overall, a key element is to ensure integrated and smart travel by:

- Developing a ticketing solution across the North that makes travel by rail, bus, Metro and tram as simple, attractive and convenient as possible;
- Ensure an integrated Northern travel area, based around clear geographical zones and a fair and simple fare structure;
- Introduce a single smart ticketing solution that works on all modes of public transport right across the region;
- Provide Pan-Northern customer travel information allowing people to plan, choose and purchase travel both within and between Northern cities in a straightforward manner;
- With Transport for the North acting as the coordinating lead across the North on fares and ticketing issues

It is planned to:

- Take immediate action to simplify rail fares across the North;
- Draw up proposals for an integrated Northern travel area;
- Align Smart ticketing approaches across the region;
- Agree approaches to the introduction of new technology and ensure an integrated approach.

In summary, Box 1 outlines the Northern Powerhouse Transport for the North Plan to enhance local Connectivity and Box 2 how those involved believe they will make the Plan a reality.
Box (1). Key elements of the Northern Powerhouse TFN Plan to enhance Local Connectivity. Transport for the North (2015). The Northern Powerhouse: One Agenda, One Economy, One North.

The objective;

- To link the different modes of transport in the region so as to ‘enable local businesses to link to each other, people to get to work and access the exceptional education, training, leisure, recreation and cultural opportunities available in the North’.

The identified case for action;

- City regions’ Strategic Economic Plans will identify business sector strengths and opportunities and key locations for growth;
- The Northern Powerhouse needs good connections within city regions as well as between them;
- Commuter rail service quality is variable: on some routes trains are often slow, crowded, infrequent and low quality;
- Congestion on city region roads is high and forecast to get higher.

The ‘shared vision for city region connectivity’.

- Better local connectivity to the priority areas for jobs growth;
- Better local rail, rapid transit and bus;
- City regions where people and goods can travel reliably on road and public transport networks;
- Regenerated city centres, driven by station sites and transport investment.

How it is planned to realise the vision; key elements in the agenda

- In August 2014 the six city councils of Leeds, Liverpool, Hull, Manchester, Newcastle upon Tyne and Sheffield came together and produced a transport plan linking together their cities called ‘One North’. This plan incorporated a new 125 miles per hour (201 km/h) trans-Pennine high speed rail link connecting to the northern branches of HS2 at Manchester and Leeds (30min journey time), together with other regional rail developments, and the bringing forward of the construction of the northern part of HS2, as part of a regional transport plan including other road, intermodal port rail freight improvements'
- The cost for the high speed Manchester-Leeds railway link has been put at around £5bn. Completion has been estimated as 2030 and the whole project estimated to cost £10-15 billion.
- George Osborne backed the project. A report Rebalancing Britain published by High Speed Two Limited in late 2014.
- On 20 March 2015 the Department of Transport announced plans for transport infrastructure improvements in the north of England, including proposals by the Transport for the North (TfN, or TransNorth) working group;
- The TransNorth report provides options for improved rail links between Liverpool, Manchester, Leeds, Sheffield, Newcastle and Hull with line speeds up to 140 miles per hour (230 km/h). The proposals is for estimated journey times of one half to two thirds of current routes. The proposals are in addition to existing High Speed 2 route options for Liverpool and Sheffield-Leeds. The development options were planned for Network Rail Control Period 6 (2019-24)
Box (2). Transport for the North Delivery Vehicle

The opportunity;
To establish a partnership that will take an increasing role in decisions relating to transport provision in the North as powers and responsibilities are devolved from central government.

The identified case for action;
At the present time the North has no single voice or way of agreeing strategic priorities, and the responsibility for transport is divided over many organisations at different geographical levels. If the vision of the North is to work as a single economic area then this will require extensive coordination of actions across the partners involved.

The North has not been able to ‘speak with one voice’ when it comes to agreeing transport priorities in Spending Rounds or rail and road investment planning.

The ‘shared vision for city region connectivity’.

To establish a single body—Transport for the North that can bring together all the relevant parties to work in partnership and establish a clear, long term, strategic vision for the North of England that is shared by all parties and allows the North to speak with a single voice and execute its vision;

Transport for the North will develop a portfolio of strategic prioritised transport investment opportunities to support economic growth at both the national, and local level using robust appraisal methods;

Transport for the North will co-ordinate efforts to achieve this strategy across the North of England, and develop its own in-house capacity to ensure that national and local bodies can work together with the whole being greater than the sum of its parts. This should be underpinned by sufficient financial certainty to enable effective forward planning, through a clear future budget envelope to be agreed at the Government’s Spending Review in 2015.

How it is planned to realise the vision

- City regions will continue to identify and develop city-level transport schemes in longer term strategies that extend significantly beyond the 2021 horizons of Strategic Economic Plans’;
- Growth around HS2 stations will be led by local authorities, which are developing HS2 Growth Strategies;
- Government is taking immediate action to improve local rail services for passengers;
- Highways England and local authorities will have a new relationship;
- Review and agree the governance of Transport for the North by autumn 2015;
- Transport for the North will establish supporting capabilities to ensure it is more than just a strategic board;
- Agree in spring 2015 a new Memorandum of Understanding between Network Rail, High Speed 2 Ltd and Transport for the North;
- Agree during spring 2015 a Memorandum of Understanding between Highways England and Transport for the North;
- Appoint an independent Chair of Transport for the North by the autumn of 2015;
- Regularly update this strategy, with clear and prioritised transport investment opportunities, initially in Spring 2016;
- The Government will look to make a multi-year commitment of funds to transport in the North;
- Establish a programme office to oversee the next steps in the development of the Northern Strategy;
- Transport for the North and Government will work together on how all the relevant impacts are included in appraising schemes as a part of the Northern Transport Strategy.
The Northern Powerhouse Transport Strategy and High Speed 2.

Major new investment in transport investment in the North of England is clearly required if the City Cluster model is to realise its ambition of increasing the connectivity between the Northern cities and thus enhance their ability to be competitive locations for business to produce in and people to live in. However, the proposals for new transport related infrastructure in the North of England have to be considered alongside the proposed new High Speed 2 railway investment in England designed to integrate the Northern and Southern regions and thus, hopefully, secure a more balanced distribution of economic activity across the United Kingdom as a whole.

A recent report by High Speed 2 Ltd makes a number of key points that should also be considered. It emphasises that the significant High Speed 2 railway investment should be a ‘catalyst for change’ in the transformation of the UK economy to the knowledge based economy that it wishes to become. In this context as the latest HS2 Report makes clear ‘faster, more reliable, less congested services will make it easier for individual cities to pool the skills, talent and other elements that they need to thrive in the knowledge economy’ (REF). The Northern Powerhouse City Clusters initiative is thus of crucial importance if the Northern cities are to fully complete their transition from their old industrial past to the knowledge based economy of the future. Figure (24), taken from the Report, shows how poor the East West rail connectivity is at the present time compared to the North South. Figure (25) shows the proposed route of the proposed HS 2 rail investment.

Figure (24). East West and north South Connectivity in the United Kingdom.
Introduction

The United Kingdom was the first country to industrialise and thus harness the power of steam to lead the world in the mass production of industrial goods. The late 18th and early 19th century witnessed a dramatic expansion in industrial production. Invention flourished as a new breed of entrepreneurs emerged from across British society. Great innovations, the power of steam, and an atmosphere of can do and will do allowed great fortunes to be made and drove a significant programme of investment in new roads, canals, bridges and eventually railways. The need to find labour to produce industrial goods led to the migration of workers from rural areas to the emerging big cities and Britain’s industrial supremacy was secured. Much of the United Kingdom’s industrial North was at the centre of this industrial revolution and prospered as a result.

The United Kingdom’s industrial base has now declined and as discussed in Section 2 of this report the consequences for the large cities that were at the centre of its growth have been traumatic. However, whilst it is difficult to be sure when Britain’s relative industrial decline began it is also not possible to be precise as to when the United Kingdom began to emerge as a leading player in another revolution-that

Section 5. Northern Powerhouse City Cluster Policy Instrument; Integrating the Boundaries of Knowledge, Science and Innovation
associated with the exploitation of the knowledge base around the emerging technologies of the twentieth century. Advances in telecommunications and life science technology can now be seen to have reached something of a critical mass in the 1960s enabling exploitation and application into the myriad range of goods and services that have transformed the ways in which business works and how people live.

The revolution in telecommunications technology has contributed significantly to the globalisation of economic activity, a phenomenon that has, in turn, further reduced the ability of countries like the United Kingdom to compete in the production of mass-produced industrial products. Since basic information can be readily codified it can be transmitted around the world easily and this has enabled locations with relatively low labour costs to exert their comparative advantage in the production of basic goods and services, further eroding the ability of countries like the United Kingdom to compete in the production of industrial goods that require little skilled labour. The ‘death of distance’ has thus quickened the pace of industrial decline in the United Kingdom.

Whilst the United Kingdom has lost its comparative advantage in the production of industrial goods it currently has a leading edge in the knowledge industries, reflecting the relatively large numbers of knowledge based workers it has and the breadth and depth of its knowledge based institutions and companies. And, as a number of researchers have shown, in this New Economy companies cluster, often around research universities and centres, developing and benefiting from networks of highly skilled workers, innovators, entrepreneurs, financiers and customers. They cluster to acquire benefits from the external economies often associated with the transmission of tacit knowledge that close geographic proximity allows (Saxenian, 1990, Baxter et al, 2007).

There has been an extensive amount of research that has sought to identify how cities can encourage the growth of their knowledge based activity. Writing in their Report on the factors that made for Enterprising Places in the creation of Knowledge Based activity Baxter et al commented:

“-perhaps more than any other form of enterprise, successful knowledge-based businesses are moving away from the strong rigid organisational boundaries associated with traditional corporate structures to what has been termed a ‘networked enterprise’, where organisations collaborate and form partnerships with each other at different stages of the business process, from research to production and marketing. These networks are not simply company-to-company, but involve interactions between companies, universities and the full range of public and private service providers. Corresponding to this, traditional knowledge-based institutions like universities, (-) are transforming their own organisations to increase their connections to, and interactions with, private enterprise. And what is clear is that the process is associated with strong patterns of spatial outcomes. In order to acquire the people they require and to forge networks, the knowledge-based companies cluster geographically around knowledge-based institutions. These knowledge-based clusters tend not to start from scratch, but rather evolve from, and take advantage of, existing infrastructure, institutions and industries. This evolutionary process can be serendipitous (right time, right place, key individuals, etc.) and/or more formally driven by a research agenda and other policy interventions. It is usually a combination of the two. However, the dynamism of the cluster is driven by the extent of collaboration that occurs across the realms of business, academia, government and civil society. To encourage such collaboration requires the development of new vehicles of engagement, new instruments of policy and new civic leaders to promote change” (Baxter, et al, 2007).

If cities are to build their knowledge based economies and transform from the old economies to those of the new, then they have to re-orientate their land uses, resource bases and institutions accordingly. And again, there is extensive evidence to show (Baxter et al.) that "successful enterprising places that
foster the growth of technology based activity do four things well. They encourage academic excellence, flexible local institutions, adjustable infrastructure and civic leadership”.

The importance of encouraging new knowledge based enterprise in Britain’s Northern Cities cannot be overemphasized. As figure (26) shows there are a substantial number of KBIS businesses in the Northern Powerhouse, although the proportion varies significantly across the major cities of the North and the total for the Northern Powerhouse as a whole is somewhat below that of London. Whilst the share of KBIS jobs of all jobs in London is some 25% it is presently only around 14% in the Northern Powerhouse.

Building new economic growth in Northern cities is a key element in the UK government Northern Powerhouse City Cluster Policy. The approach by HM Government so far has comprised two key elements. The first is to support major new investment in knowledge based assets in the Northern cities that have the ability to make a transformative impact. The second is to encourage the creation and development of partnerships between the key players across business, universities and government to encourage collaborative and enterprising innovative behavior that can enhance the rate of economic growth.

**Investment in transformative knowledge based assets**

Most recently HM Government has announced major investments in key knowledge based infrastructure to help build the competitive offer of the Northern Powerhouse. These include:

- Major new projects including the Sir Henry Royce Institute, Cognitive Computing Centre at Daresbury, Newcastle Institute for Ageing and National Graphene Institute;
- Ensuring future revenue benefits of shale gas exploitation are reinvested through a long-term investment fund;
- Committed £20 million to Health North – to build on the North’s strengths in health science; Committed £14 million over 2 years to invest in an Advanced Wellbeing Research Centre in Sheffield;
- Committed £11 million investment in tech incubators in Manchester, Leeds and Sheffield – supporting Tech North and the over 170,000 people now working in digital businesses in the North

**Encouraging collaborative working**

The cities of the Northern Powerhouse have extensive knowledge based assets. There are eight research intensive universities in the North of England: Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York. In recognition of the extensive economic benefits that can be obtained by them working together they have created the N8 Research Partnership which is a ‘collaboration of the eight most research intensive universities in the North of England: Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York. Working with industry, N8 aims to maximise the impact of this research base by identifying and coordinating powerful research collaborations across the North of England and beyond’ (http://www.n8research.org.uk/).

**Figure (26). Maximising the economic benefits from the knowledge based economy across the Northern Powerhouse City.**
The N8 universities have an extensive combined research capability and argue that they represent a significant cluster of research power among the 130 universities in the UK. The website shows that they have almost 15,000 academic staff—12% of UK total, over 38,000 postgraduate students—11% of UK total (taught and research) and a total research income in 2010/11 of £747m—17% of UK total. They received almost £500m of government research funding—18% of UK total, £72m of UK industrial research funding—16% of UK total and £120m from overseas research partners. All eight universities are in the top 1% of institutions in the world.

The key research areas covered by the N8 Partnership are summarised in Box 3.
Box (3). The N8 Research Partnership (http://www.n8research.org.uk/research-themes/)
Research Areas.

The N8 Research Partnership’s main research areas are based on existing research strengths in the
N8 universities and the potential for economic impact.

Regenerative Medicine and Molecular Engineering emerged as the priority themes, and as a result
Regener8 and METRC were established. N8 is now expanding its collaborations into the social
sciences to establish research programmes on the economic Impact of Demographic Change and the
Impact of the Arts and Humanities.

Research areas include;

- Food Security and Technology
- Impact of Arts and Humanities
- Regenerative Medicine (Regener8)
- Policing
- Industrial Biotechnology
- Co-Production

The focus of all the N8 research programmes is to deliver collaborative R&D which combines the
complementary capabilities across the N8 universities and ensure the commercialisation and
application of the research outputs – with particular relevance to private and public sector research
users in the North of England.

N8 identify the key features of their partnership approach and how they support knowledge exchange
and innovation as:

- Light touch collaborative models that promote quicker and easier access to the
  research base;
- A collaborative approach to connecting private sector R&D with world-class research from the
  “power of 8” universities
- A strategic approach to scientific excellence though planning and investment in
  state-of-the-art research assets (N* REF).
- Five year track record of working together and experience of developing successful
  collaborations.

Box (4) summarises the achievements that the N8 Partnership point to at the present time.

Box 4. Achievements of the N8 Northern Research Partnership (See:

Since N8 was created in 2007. It identifies its achievements as having;

- Delivered successful, business-led research programmes in Regenerative Medicine and
  Molecular Engineering.
- Created Regener8 and METRC – two centres with a critical mass of assets to support broader
  industrial and commercial opportunities
- Achieved significant success in working with SMEs, developing supply chains and connecting
  to larger industry players through these programmes.
- Worked with over 200 businesses, achieved over £41m of income and created 60 jobs.
- Delivered a collaborative research programme on “Impacts of Demographic Change”, working with LEPs and Local Authorities to implement the findings.
- Formed a specialist Parasitology Network to address issues such as the development of vaccines, diagnostic tools and drugs.
- Launched the N8 Industry Innovation Forum to maximise links between private sector R&D, industrial and consumer needs and the research base in the UK. To date this has generated 27 new collaborations between university and industry partners.
- Held 2 successful N8IIF meetings focussed on Advanced Materials and Active & Healthy Ageing, leading to a number of new research projects which have secured funding for further development.
- Initiated Proof of Concept funding through Regener8 and the Medical Technologies IKC, funding N8 projects that align with the therapeutic priorities identified in the Research Council's UK regenerative medicine platform.
- Introduced the METRC Innovation Awards to support new research and innovation projects between universities and companies (particularly SMEs) in the fields of nanotechnology, science and engineering.
- Established the £3.25m N8 High Performance Computing centre, making it easier for N8 partners to combine research strengths, build more realistic computational models and undertake more complex analyses.
- Launched n8equipment.org.uk, a fully searchable online database which can be used by academic and industry researchers to locate and request access to research equipment across the N8 university partnership.
- Initiated a series of workshops to explore the impact of the arts and humanities in generating economic growth.
- Being cited in a range of government policy documents as a best practice model for collaborative working and asset sharing.

A further key element in the evolution and development of the N8 partnership has been the creation of the N8 Industry Innovation Forum. The Forum brings together leading businesses and the research intensive universities with other key organisations and networks to help facilitate and encourage innovation. At the present time the businesses involved include Proctor and Gamble, Reckitt Benckiser, Siemens, Smith and Nephew and Unilever. The universities involved are Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York.

The Forum has a key objective of enabling collaborations between industry and the research base in order to ‘drive innovation, competitive advantage and growth. It maximises linkages and market pull between private sector R&D, industrial and consumer needs and the world class research base in the UK’ (REF). The emphasis is on ‘taking collaborations forward that involve multiple disciplines, multiple institutions, the public and voluntary sectors, and businesses-with the aim of building “innovation communities” (Simpson, N8 Chief Executive, July 2015).

This initiative is an important example of the ways in which leading knowledge based institutions, business and many of the other relevant stakeholders can coordinate their activities for their own benefit and that of the entire cluster of cities of which they are a part. Recent initiatives have focused on advanced materials, active and healthy ageing, industrial biotechnology and achieving sustainable food (http://www.n8research.org.uk/industry-innovation-forum/). Box 5 provides detail on the sustainable food initiative.

Northern Powerhouse City Clusters. Professor Peter Tyler.
UK China Cooperation on Cluster Development and Formation. 2015
Box (5). The N8 Sustainable Food Initiative

In March 2015 HEFCE awarded the N8 Research Partnership a grant of £8 million (matched by funding from each of the respective N8 universities). This represents a multi-disciplinary initiative designed to build on the N8’s research strengths in science, engineering and the social sciences to address key global challenges in food security, including sustainable food production, resilient food supply chains, improved nutrition and consumer behaviours.

Through the programme, the N8 aims to combine world-leading crop and livestock research - plus the facilities offered by six experimental farms across the N8 universities - with the partnership institutions’ vast expertise in social sciences, including business and management, to create a single research initiative focused on ensuring the stability of national and global agri-food supply chains.

Sir Alan Langlands, Chair of the N8 Board of Directors and Vice Chancellor of The University of Leeds, said: "Food security is one of the great challenges in our increasingly urbanised and globalised world; the need to ensure food production and distribution is resilient and sustainable is an urgent task faced by governments, industry and society. This is a task beyond any single research group or institution. "This Catalyst funding from HEFCE means that the N8 can now implement an integrated, large scale multi-disciplinary research programme which will make a major, long-term impact in addressing the challenge of food security." The N8 Research Partnership has great strength, expertise and resources to make progress in this area and our work will play a key part in the Agri-Food Resilience Programme.

Section 6. Northern Powerhouse City Cluster Policy Instrument; Enhancing Decision-Taking by Devolving Power and Increasing Effective Governance.

Introduction

The third key component of the Northern Powerhouse concerns the decentralisation and devolution of governance from central to local government. Section 2 of this report described the considerable achievements of British urban policy in assisting British cities in both the North and South regions to restructure their economies following the decline of their manufacturing base. However, although much has been achieved the Northern cities are still growing too slowly. New approaches are needed to help them increase their rate of growth.

Local Government Expenditure

Some idea of the services that local government provide across Britain is in a recent paper by Innes and Tetlow (2015). Their analysis indicates that the main services delivered by local government in England are education, social care, police services and transport. They are also responsible for housing, cultural services, environmental services, planning and development services, and regulatory and protective services (Table (5)). Expenditure on these services in England was £103.6 billion in 2009-10, equivalent to £1,984 per person.

<table>
<thead>
<tr>
<th>Service</th>
<th>%</th>
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<tbody>
<tr>
<td>Education services</td>
<td>43%</td>
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<tr>
<td>Social care</td>
<td>20%</td>
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Table (5). Services Provided by Local Government in England (% Total Expenditure, 2009-10).
The United Kingdom is unusual compared to many countries in that its local government has very little control over its own local tax base and it thus depends heavily for its finance from central government. Table (6) shows local and regional tax revenue as a percentage of total tax revenue for different countries. It indicates most clearly that the United Kingdom is very different to other countries, particularly those like the United States that have a federal system of governance. Thus in 2012 local government in the United Kingdom was responsible for only 4.9% of its tax revenue and relied for the rest of its revenue on fiscal transfers from central government. In the United States local and regional government raise over 35% in comparison. And in Europe local government in Germany and Spain raise around 40%.

Table (6): Attribution of Tax Revenue to Local and Regional Government as a Percentage of Total Tax Revenue

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<tbody>
<tr>
<td>United States</td>
<td>34.2</td>
<td>33.1</td>
<td>35.8</td>
</tr>
<tr>
<td>Spain</td>
<td>4.3</td>
<td>13.3</td>
<td>42.1</td>
</tr>
<tr>
<td>Denmark</td>
<td>30.4</td>
<td>31.9</td>
<td>26.9</td>
</tr>
<tr>
<td>France</td>
<td>7.6</td>
<td>11.0</td>
<td>13.2</td>
</tr>
<tr>
<td>Italy</td>
<td>0.9</td>
<td>5.4</td>
<td>16.4</td>
</tr>
<tr>
<td>Japan</td>
<td>25.6</td>
<td>25.3</td>
<td>24.7</td>
</tr>
<tr>
<td>Germany</td>
<td>31.3</td>
<td>29.0</td>
<td>39.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>11.1</td>
<td>3.7</td>
<td>4.9</td>
</tr>
</tbody>
</table>


A lack of resources from their own tax bases has meant that local government in the United Kingdom has had to rely heavily on discretionary resources provided by HM Central Government. This was particularly the case when local governments across the UK sought to regenerate their local economies in the face of substantial deindustrialisation. Much of the finance for the Urban Policy measures discussed in Section 2 came from central government.

Another outcome of local government in the United Kingdom relying so heavily on central government for its tax revenue is that central government also plays a relatively large part in deciding what the resources should be spent on. Some argue that the local growth agenda requires that local government in the United Kingdom should have more ability to raise their own tax revenue and more say in how they spend their money. If this was the case then over a period of time this would allow them to build their decision making capabilities. Strong civic leadership is also clearly important.
In 2012 HM Government asked Lord Heseltine to investigate how local government, and particular urban government, might be given more control of government expenditure in key areas that would help them grow more quickly. Lord Heseltine identified some £49 billion of central government spending on skills, infrastructure, employment, housing, regeneration and business support that he considered could, and should be, devolved directly to city-regions (Heseltine, 2012). The Government accepted most of Heseltine’s recommendations (HM Treasury, 2013) and in response has set up a Local Growth Fund. However, the resources committed initially was only £2 billion.

However, recently the British government has made it clear that it is prepared to devolve more spending and tax-raising powers to local government if they can show that they have the right management and delivery systems in place to use this freedom effectively, particularly when it comes to improving their ability to grow their local economies. It is prepared to ‘do-deals’ with local government that demonstrate they have the required approach. One factor that is considered to be of particular importance is that local government coordinate decision across areas through Combined Authorities, particularly when it comes to taking decisions on land use planning. In July 2015 HM Government Communities Secretary Greg Clark 2015 told local government leaders in Harrogate;

‘I want every place in the country to consider how they can assert their strengths and make their mark. We must be a nation of muscular communities – north and south, town and country. The government’s Cities and Local Government Devolution Bill is paving the way to sweep a myriad of powers from ministers to town halls. This is the chance of a lifetime to direct the future economic prosperity and social flourishing of your area. To make life better for even more people than you can now. Those who are prepared to organise to be more effective and more efficient should be able to reap substantially the rewards of that boldness, whether in costs saved, additional revenues generated, or powers that can be vested. I have no doubt about the ability of the people in this hall. Take power now. Don’t let yourself, any longer, be ruled by someone else (Local Government Association Annual Conference in Harrogate, July, 2015).

The Cities and Local Government Devolution Bill that the Communities Secretary refers to makes provision for the election of mayors for the areas and for conferring additional functions on, combined authorities established under Part 6 of the Local Democracy, Economic Development and Construction Act 2009; to make other provision in relation to bodies established under that Part; to make provision about local authority governance; and for connected purposes.

(http://services.parliament.uk/bills/2015-16/citiesandlocalgovernmentdevolution.html)

Thus, central government in the United Kingdom is offering local government more freedom on how they spend their resources, particularly in the areas of local transport, housing, skills and healthcare. It is also seeking to give them more tax raising abilities. However, in return for these greater freedoms HM Government is asking local areas and particularly those representing the larger cities to adopt better models of governance that will enable them to grow more quickly. It also wants them to have elected Mayors.

George Osbourne, the British Chancellor made the position clear in his speech at the Victoria Warehouse, Manchester on the 14th May, 2015;

“We will hand power from the centre to cities to give you greater control over your local transport, housing, skills and healthcare. And we’ll give the levers you need to grow your local economy and

21 Specifically 81 (in full or in part) of Heseltine’s 89 recommendations.
make sure local people keep the rewards. But it’s right people have a single point of accountability: someone they elect, who takes the decisions and carries the can. So with these new powers for cities must come new city-wide elected mayors who work with local councils I will not impose this model on anyone. But nor will I settle for less. London has a mayor. Greater Manchester has agreed to have a mayor as part of our Northern Powerhouse - and this new law will make that happen My door now is open to any other major city who wants to take this bold step into the future. This is a revolution in the way we govern England”.

HM Treasury develops the basic thinking behind the approach further. Thus:

‘Just as strong local leadership is what made cities successful in the past, it also has the potential to transform competitiveness in the present. The government wants to build on the success of the deal with Greater Manchester, to give more cities the freedom and powers to enable investment and make decisions in the best interest of their metro area. That is why the government has invited major cities to come forward with proposals to elect a major and take greater control and responsibility over all the key things that make a city work, from transport to housing to skills, and key public services like health and social care. By the end of this Parliament, a regional network of cities, working together to take responsibility for their won prosperity, will underpin a thriving Northern Powerhouse and growth across the country’s regions’.

And further:

Building on the ground-breaking devolution deal agreed in November 2014, the government is making further progress in devolving powers to Greater Manchester. This includes putting Fire Services under the control of the new directly-elected major, establishing a Greater Manchester Land Commission, granting the city region more powers over planning (‘), and further discussion of collaboration on children’s services and employment programmes ‘ (HM Treasury, 2015). Box (6) presents the basic approach.

Box (6). Greater Manchester Devolution Deal  (HM Treasury Fixing the Foundations: Creating a More Prosperous Nation. 2015)

The Government is committed to giving cities the opportunity to drive growth within their metro areas. That is why, on 3rd November 2014, the Chancellor and Greater Manchester civic leaders signed a ground-breaking agreement for Greater Manchester to create the first directly elected metro-wide major outside of London, with powers over transport, housing, planning and policing.

Following the initial deal, Greater Manchester and NHS England signed up to arrangements to bring together £6 billion of NHS and social care budgets so that joint planning of these services can deliver better care for patients.

In addition, the March Budget 2015 announced a pilot scheme in Greater Manchester and Cheshire East to enable the retention of 100% of any additional business rate growth.

Vice chair of the Greater Manchester Combined Authority responded: “We are extremely pleased that we can now demonstrate what a city region with greater freedoms can achieve and contribute further to the growth of the UK. Our ultimate ambition is for full devolution of all public expenditure in Greater Manchester, currently £22 billion a year, so that we either influence or control the whole amount”
The agreement with the city of Greater Manchester in the Northern Powerhouse is thus illustrative of the path that will be followed with other local government leaders and their authorities in the months ahead.

Section 7. Next Steps.

This Report has provided some insight into how it is hoped that the Northern Powerhouse model of city clustering will enhance the economic growth of the North of England and allow it to grow more in line with that of the South of England and in particular that of the London economy.

It is important to be clear on the key challenges that exist and how policies adopted by the stakeholders involved can change things. Also, the cities involved in city clustering in both China and the United Kingdom have to monitor and assess their achievements and learn where they are having a clear impact. And it is also important that the cities benchmark their performance and learn from each other.

The Report received on the Spatial Structure and Development Mode of the Cheng-Yu City Cluster by AMR22 has provided some excellent insight into the issues that are relevant to the development of that cluster. It does appear that policy makers in both China and the United Kingdom have much in common in the objectives they are seeking and the challenges and opportunities that they face.

In the second phase of the programme of research collaboration it would be helpful to understand more about the approaches being adopted by key stakeholders in both China and the United Kingdom to allow cities to work together to benefit from the advantages of their clustering. In particular;

- How are they coordinating activities in land use planning and across the city-region as a whole but also in each of the cities?
- What are the major infrastructure investments that can have a pan-city wide regional impact including the incorporation of new technologies and what are the plans to deliver them?
- How are they seeking to manage the migration of people between areas to assist in the overall growth of the economy of their city-region?
- What do the economic planning authorities in the Northern Powerhouse and Cheng-Yu City cluster identify as their main challenges to the improvement of their competitiveness on the basis of the Competitiveness Pyramid approach presented in Figure (8), Section 2 of this Report?
- How are they coordinating their industry and labour market policies to ensure they build the economic base of the city-region taking as a whole? There are particularly important issues in relation to the attraction of inward investment and avoiding harmful competitive displacement;
- How should progress in delivering an integrated City-Cluster agenda be monitored and evaluated in the years ahead?

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