



Evidence paper for the Midlands Engine Independent Economic Review

GEOGRAPHICAL SCALES AND FUNCTIONS: THE CASE OF THE MIDLANDS ENGINE

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GEOGRAPHICAL SCALES AND FUNCTIONS – THE CASE OF THE MIDLANDS ENGINE

Executive Summary

This paper addresses the question: *What functions or activities does it make sense to discharge at a pan-regional level?* It addresses this question from the specific perspective of the Midlands Engine.

The geography of the Midlands

Evolving perspectives on regional geographies are introduced before the distinctive nature of spatial and economic development in the Midlands is considered.

The Midlands is an area that lacks the pronounced physical boundaries seen in regions such as the South West and the North East. In this sense it is relatively open – particularly to the north and south. As a result, many parts of the pan-region are influenced by major economic centres outside its boundaries.

The Midlands pan-region is fundamentally polycentric in character, but the nature of this polycentricity is not uniform. The West Midlands is dominated by the Greater Birmingham conurbation, while the East Midlands is seen as a network of small cities based on the historic county towns. The historical reasons for this difference lie in the spatial and social organisation of traditional industries in East and West Midlands.

Polycentrism and boundaries

As a model of regional development, the polycentric region offers the potential economic advantages associated with agglomeration without the disadvantages associated with congestion that are often experienced in large conurbations.

If this potential is to be realised, connectivity between centres must reach a high level. This, coupled with the need for coordination, planning and scale provides the justification for activity at the pan-regional scale. Furthermore, it is accepted that there are certain strategic policy concerns that transcend the resources and powers of local bodies.

Functions at the Midlands Engine Scale

In general, these are likely to relate to policy domains for which the relevant spatial scale is larger than the coverage of individual local authorities or LEAs, but smaller than the national scale. Candidates include transport, strategic infrastructure and utilities, and economic development. These tend to be characterised by significant scale (and capital requirements) to support investment, or obvious benefits associated with economies of scale/efficiencies of administration, and/or the need to plan in order to meet the needs of large/multiple areas. The principles of subsidiarity and additionality are also considered important.

There are also grounds for suggesting that the pan-regional scale is an appropriate level at which to develop strategic capabilities that can support evidence-based decision making, planning, programme and project design at other spatial scales. These capabilities may relate to research, evaluation and analytical functions that can be hard to provide at lower spatial scales due to the specialist skills involved, the need for 'critical mass' and coordination if duplication is to be avoided.

The key messages emerging from an assessment of the functions and activities set out in detail in Appendix 1 are:

1. For most of the functions identified there is a role for *advocacy* – and to some extent for *strategy* also - at the pan-regional level. There is also a role here for sharing good practice. There is a more limited role for delivery at the pan-regional scale.
2. The pan-regional scale seems particularly appropriate for functions and activities related to specialist science and innovation investments, digital infrastructure, (some elements of) business finance, internationalisation – including inward investment, strategic inter-regional (and intra-regional) transport infrastructure and energy.

Finally, in the context of any form of multi-level governance arrangement, it is important to recognise that the manner in which different tiers of government work together is as important as the nature of any functional division of labour between them. Clarity over an agreed division of responsibility between the Midlands Engine, WMCA, LEPs, Local Authorities and other stakeholders in the Midlands should be regarded as an essential prerequisite if the pan-region is to respond quickly to opportunities for new strategic investments as and when they arise and to access and deploy new devolved powers should they become available.

GEOGRAPHICAL SCALES AND FUNCTIONS – THE CASE OF THE MIDLANDS ENGINE

1. Introduction

This paper addresses the question: *What functions or activities does it make sense to discharge at a pan-regional level?* It addresses this question from the specific perspective of the Midlands Engine. The introductory section outlines the changing nature of interest in regional geographies over time and some key underlying concepts related to them. It also outlines the concept of the Midlands Engine as a pan-region between the regional and national scales. The next section details the geography of the Midlands, setting out its spatial and economic development, highlighting its polycentric nature and associated implications. Attention shifts to boundaries, governance and jurisdiction design in the following section. The final section considers links between functions and activities at different geographical scales and sets out which might be most appropriate at Midlands Engine level¹.

1.1 The development of regional geographies

At the outset it is instructive to trace the evolution of geographers' concerns with regions. Drawing on a review by Paasi et al. (2018), the origins of *regional geography* can be traced back to the 19th century. At this time place-based studies focused on details of the environment, territories and mapping, subsequently synthesised into a broader spectrum of regional knowledge.

In the mid-20th century, attention moved away from particularistic concerns with regions to the identification of 'scientific' laws to explain spatial behaviour and associated economic relationships. This *regional science* tradition built on earlier location theory, including central place theory by Christaller (1933) that was later modified by Losch (1954). Essentially central place theory seeks to explain the distribution patterns of cities, towns and their hinterlands based on the economic relationships between them and the populations they served in terms of different types of services and goods, with adaptations to maximise consumer welfare. Also central to the regional science tradition is the application of gravity models which explain the interaction between regions/ cities as a function of their mass (i.e. size) and the distance between them.

The two traditions outlined above tended to take 'regions' as given areal units. With the emergence of *new regional geography* in the 1990s this changed as the emphasis moved to the social practices through which regions were produced, reproduced and transformed over time through socio-spatial transformations and became institutionalised. Subsequently *new regionalism* in the 1990s made a distinction between an economic and a political logic for regionalism. In economic terms the concept of agglomeration economies (i.e. the process by which firms and people come together to benefit from inter-linkages and specialist supply networks, improved skills matching, knowledge spill-overs, infrastructure, etc.) highlighted the importance of information and networking in understanding economic success. In political terms the emphasis was on transfer of power upwards through processes of

¹ The views expressed are those of the authors and do not represent the views or policy of the Midlands Engine Partnership or its constituent organisations.

internationalisation and downwards through devolution (i.e. the transfer or delegation of power to a lower level) and a revival in territorial identity.

Recognising the complexity of socio-spatial dynamics, in contemporary debates on *new regional worlds* a plurality of terms are used to describe regions. In a review of the development of regional geographies, Paasi et al. (2018) list 150 concepts identifying 21st century regions and regionalism, suggesting that the multiplicity of hybrid terms is indicative of the complexity of ways that regions are embedded in socio-spatial dynamics. Of the terms used these, pan-region is of particular relevance here because the Midlands Engine may be thought of as such, joining together the West Midlands and the East Midlands economies.

1.2 The Midlands Engine as a pan-region

Writing about the Northern Powerhouse (covering the three northernmost regions of England: the North East, the North West and Yorkshire & the Humber), Lee (2017) notes that the central idea of such a pan-region is to join the constituent regions together into a single functional economy to have the scale to counterbalance London. Cox (2017) suggests that this pan-regional scale is appropriate to drive growth, arguing that the national scale is too large and Local Enterprise Partnerships (LEPs) are too small. For Lee (2017), the Northern Powerhouse is both a brand and a strategy, while Bentley (2018) suggests that the same can be said for the Midlands Engine.

Policy areas benefitting from co-ordination at a meso scale and so identified as underlying pan-regions such as the Northern Powerhouse and the Midlands Engine include transport, infrastructure, science and innovation and productivity (Sandford, 2019). Investments in transport to improve connectivity are seen as one way of achieving agglomeration (HM Treasury, 2010; Bentley, 2018), while science and innovation are seen as key success factors for regional economies (Lee, 2017). However, in the light of the lack of executive functions held at pan-regional scale, Bentley (2018) suggests that rather than representing a re-territorialisation of policy making, the pan-regional Midlands Engine scale represents a delegation of the administration of national policy to the meso-scale.

Decentralisation (including devolution – i.e. the transfer of power and control from national to sub-national level) is a further ingredient in the establishment of pan-regions such as the Midlands Engine. Decentralisation has been advocated as a way of improving economic performance on the grounds that decisions may be made closer to the businesses and people that they affect and as a result they may be more sensitive to an understanding of regional/local economic potential and other place-specific factors (Pike et al., 2019). There may be benefits of improvements and lower costs associated with co-ordination also. However, a review of international experience suggests that the evidence on efficiency gains and local growth are inconclusive, with the context, design, rationale and implementation of decentralisation strongly affecting its impacts. An assessment of whether there is an economic dividend associated with devolution in the UK also yields inconclusive results, in part because of the strong role played by national policy in sub-national spatial economic outcomes (Pike et al., 2012).

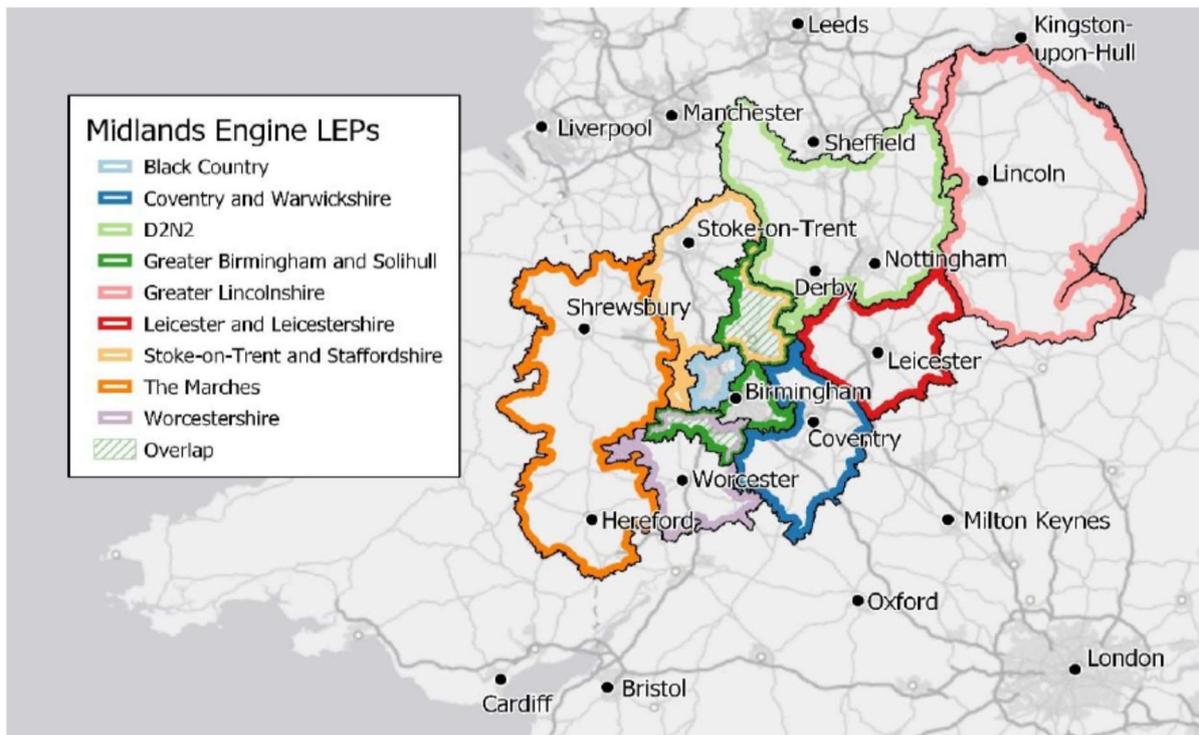
2. The nature and geography of the Midlands Engine pan-region

This section discusses the nature and geography of the English Midlands in historical context. It discusses how economic development reinforces spatial patterns and how spatial patterns impact on economic development. Evolutionary economic geographers have raised awareness that regional and local development is, at least in part, a function of past histories (Boschma and Frenken, 2006; Martin and Sunley, 2006; Boschma, 2004; Bristow, 2005; Huggins, 2010). It is widely accepted that historical trajectories of development can influence the ability of regional economies to weather exogenous shocks and adapt to take advantage of new and emerging market opportunities (Martin 2005). A long-term evolutionary perspective can help us to understand the spatial economy of the Midlands as we see it today.

2.1 Spatial and economic development of the Midlands

If we look at a contemporary map of the Midlands, a number of features are immediately apparent. Unlike regions such as the South West or the North East, the Midlands is not 'physically bounded' to a pronounced degree. The South West is a peninsula surrounded by sea. The North East is essentially a strip of land sandwiched between the North Sea and the Pennines. In both regions there is a pattern of spatial development that is heavily influenced by this physical geography. It is true that the Midlands is bounded by the great rivers of the Welsh borders in the west and the North Sea in the east, but in general the softer landscape of the Midlands, bisected by the rivers Severn, Avon and Trent, has not constrained spatial development in quite the same way, although the presence of natural resources such as coal, ironstone, limestone and water has undoubtedly been significant in shaping the development of the region in other ways. One consequence of this relatively open configuration is that development to the north and south of the region in particular is influenced by major centres of economic activity located outside of its own boundaries – such as Sheffield and Manchester in the north, Peterborough to the south east and Oxford and Milton Keynes and Northampton in the south, as well as those in the region.

Figure 1: The Midlands Engine and its constituent LEPs



Source: produced by SQW, Licence 100030994, contains Ordnance Survey data, crown copyright and database right 2018.

From a historical perspective, the Midlands has been described as “an area of debatable land frequently subject to competing powers, especially between English and Dane in the tenth century...” (Rowlands, 1987; 5). Indeed, there are echoes of this historic divide between Mercia and the lands of the Danelaw in the distinction between East and West Midlands manifest in the Government Office Regions (now used only for statistical purposes) and their predecessor Standard Statistical Regions (ONS website undated, accessed 25.09.2019).

The spatial economy of the Midlands is essentially polycentric in character, but the nature of this polycentricity is by no means uniform across the pan-region. It is an asymmetrical form of polycentricity that sees the West dominated by the Greater Birmingham conurbation, while the East comprises a network of historic county towns that became cities of modest size through the twin processes of industrialisation and urbanisation during the nineteenth century.

A defining characteristic of the East Midlands is the relatively dispersed pattern of spatial development. The five historic county towns/cities of Nottingham, Leicester, Derby, Lincoln and Northampton have remained at the apex of the urban hierarchy in the region since the early Middle Ages. The scale of these centres increased – particularly with the urbanisation of the nineteenth century. However, none of these centres came to subsume or dominate the others – certainly not to the extent that is evident in the West Midlands or many other regions – or indeed as Geddes (1915) might have predicted. In the West Midlands the pattern of spatial development dominated by the large conurbation of Birmingham:

"This larger recognition of regional facts involves the conception of a larger city- region" Midlandton," as we may perhaps call it: and Greater and growing Birmingham is but the capital of this, though its exact limits may be hard to define". (Geddes 1915; 37)

What is it then that drove spatial development in the East and West Midlands down apparently divergent paths? One explanation may lie in the social and spatial organisation of production characteristic of the dominant industries that emerged in both regions in the decades after the Industrial Revolution. The textiles industry that was so concentrated in the East Midlands contrasts with the metal-based manufacturing and ceramics of the West Midlands (Hudson 1992; Stobart and Raven 2005).

The evolution of the transport infrastructure was central to the economic development of both regions in that it facilitated the emergence of spatial divisions of labour, served to integrate (to a degree) the regional space-economy and linked locations of specialised production to the markets in which the products of this industry were consumed (Raven & Stobart in Stobart & Raven ed. 2005; 80). This is the kind of generalised statement that can be made of many regions, but comparing this evolution more specifically in the East and West Midlands, important differences become evident:

"Dispersed and often domestic production of the East Midlands with its hierarchical divisions of labour encouraged and relied upon a dense, hierarchically structured transport system centred on the organisational centres of Leicester and Nottingham... In contrast, the concentrated production and detailed spatial divisions of labour seen in Birmingham and the Black Country engendered corridors of intense traffic and encouraged the early construction of navigations and canals." (Raven & Stobart in Stobart & Raven ed. 2005; 99)

In both regions the transport network can be seen both as a product of and a stimulus for economic development – but the resulting spatial pattern is markedly different. The textiles industry of the East Midlands placed greater reliance on a hierarchical organisation of production (centred on Leicester and Nottingham) and made extensive use of relatively small-scale domestic units in the surrounding areas to which work was 'put out'. The result was a consolidation of the position of the historic county towns in the region:

"...the increasing prosperity and continuing economic dominance of the county towns of Derby, Leicester and Nottingham appears to have had no parallel elsewhere in industrialising Britain." (Ellis in Stobart and Raven ed. 2005, p. 147)

The continued dominance of the county towns of the East Midlands in the regional space economy has had significant consequences for the pattern of development observed today. In essence it has left us with a morphologically polycentric region in which no single economic or population centre dominates the regional landscape – notwithstanding Nottingham's status as the East Midlands' largest conurbation (Coombes et al., 2005, Parr, 2014). This contrasts with the West Midlands where Birmingham's rapid expansion eclipsed the historic county towns of the area as both centres of economy and government².

² It is important to note that we are not suggesting that the West Midlands is not itself polycentric, while the East Midlands is polycentric. Rather it is suggested that the character of polycentrism evident differs - when viewed at this pan-regional scale.

This in turn raises an interesting question as to the what form of governance is appropriate to a region with these characteristics (and so whether different governance forms are appropriate for the East Midlands and the West Midlands) and also the functions that it may be appropriate to discharge at the larger pan-regional scale of the Midlands.

2.2 Implications of polycentricity in the Midlands

“polycentricity is an elusive concept which is not easy to define precisely. Rather, it provides a frame of reference for thinking about territorial development which can be applied at a variety of different spatial scales and in essence describes the interconnections and mutual interdependence that exists or may develop between places” (Shaw & Sykes 2004; 285)

In section 2.1 the Midlands was described as an ‘asymmetrical polycentric region’ reflecting the fact that the population and economic activity is dispersed across a number of significant centres. But the term polycentricity also has a more functional meaning in referring to a model of regional development in which a number of linked, but physically separate economic centres complement each other through specialising in different areas of economic activity or service provision (Parr 2004 and 2014). A key test of functional polycentricity, as defined by Parr, relates to the level of interaction evident between the centres in such a region.

Parr’s definition of polycentricity (2004):

1. A region that has at least two and possibly more principal centres that are of comparable size/significance.
2. These centres are not in the same built-up area (i.e. not part of one conurbation).
3. The centres do not simply duplicate each other in the functions they provide – they evidence a specialisation of industry mix.
4. There is substantial interaction between the centres – perhaps indicated by levels of commuting and the ‘inter-penetration’ of their respective labour markets.³

Evidence as to how far the Midlands fits this definition of a functionally polycentric region is somewhat mixed. Most commentators would probably accept that the Midlands meets the first two of these criteria, but the third and fourth are more problematic (see Coombes et al 2005 for a systematic review in the East Midlands). There is certainly some evidence that Nottingham and Derby have specialised to a degree – Derby focussing on manufacturing linked to transport while Nottingham has become more services orientated. There are also some differences in sectoral focus in the West Midlands, with Birmingham specialising in services to a greater degree than Coventry. However, whether the nature and strength of interactions between these cities is sufficient to be regarded as an example of functional polycentricity is more debatable.

As a model of regional development, the polycentric urban region has excited interest in academic and policy circles because it would appear to offer the potential economic advantages associated with agglomeration without the disadvantages associated with

³ This is a simplified summary of Parr’s approach. He also discussed degrees of separation at some length.

congestion that are often experienced in large conurbations (Coombes et al., 2005). This was the implicit and sometimes explicit rationalisation for the identification of a ‘Three Cities’ sub-region in East Midlands regional spatial and economic strategies prior to 2010 (EMDA, 2006; EMRA, 2007)⁴. If this potential is to be realised:

“...polycentric development pre-supposes that connectivity between the cities and towns can reach a high level” (Coombes et al 2005).

As an approach to regional development the polycentric model emphasises the importance of providing/planning for the kind of good infrastructure that can facilitate the development of spatial divisions of labour and complementarities between neighbouring centres. This in turn raises the fundamental question about the appropriate governance model for a region with polycentric characteristics.

3. Boundaries, governance and jurisdiction design

In the UK debates about the optimal scale of jurisdictions have tended to focus on the related spheres of devolution, regional policy and local government. From a broader international and disciplinary perspective, it is possible to discern two alternative orientations to jurisdictional design: an *instrumentalist* approach and a *communitarian* perspective (Hooghe and Marks 2016). The former is concerned with balancing territorial heterogeneity with administrative efficiencies that are often associated with scale. The latter tends to emphasise questions of community or territorial identity. The features of each are compared in Table 1:

Table 1. Types of Jurisdictional design

Scale	Community
<p>Top-down Design implements a central plan.</p> <p>Instrumental Jurisdictions are designed to provide public goods at a particular scale.</p> <p>Standardized Jurisdictions are standardized in size and authority.</p>	<p>Bottom-up Design accommodates local conditions.</p> <p>Expressive Jurisdictions are designed to express community self-rule.</p> <p>Differentiated Jurisdictions are differentiated in size and authority.</p>

Source: Hooghe & Marks (2016)

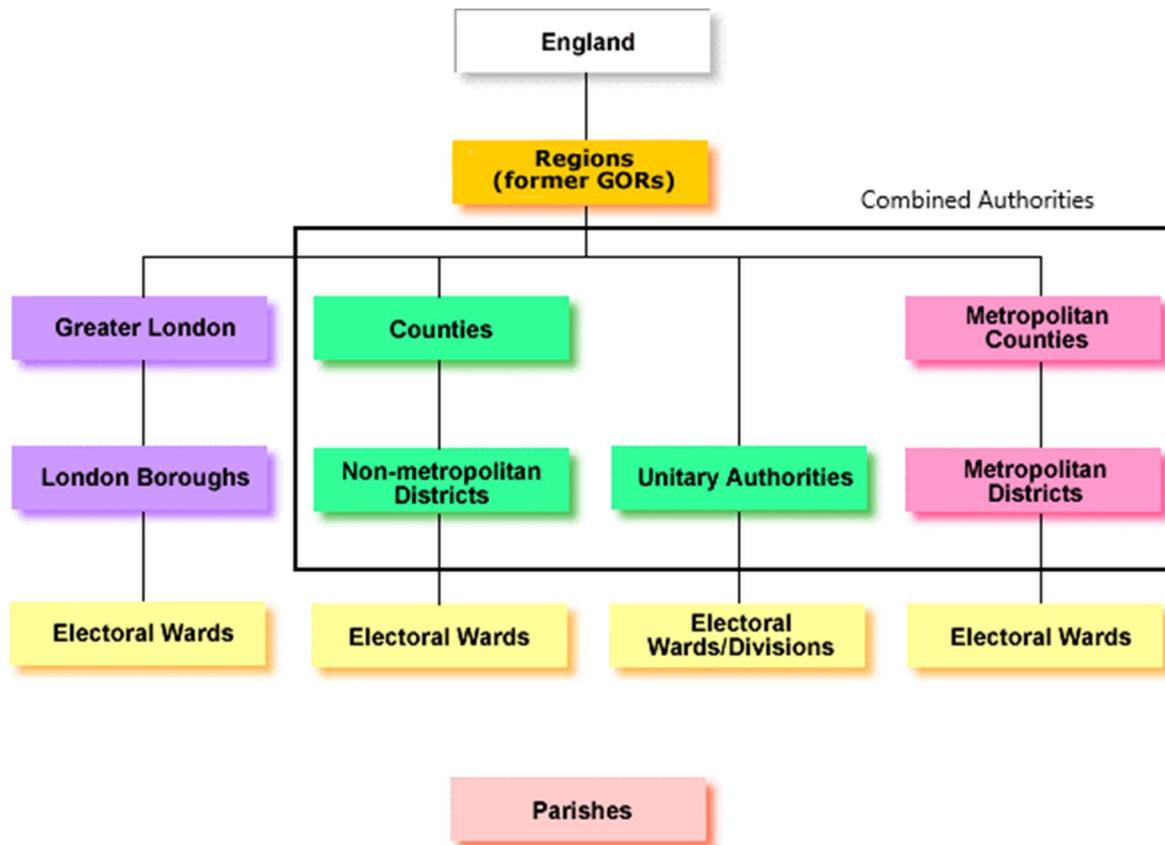
Debates about the (re)organisation of local government have a long pedigree. The current institutional framework of local government in England reflects the major reorganisation of 1974 (following the Local Government Act of 1972).

The 1974 reorganisation has been modified subsequently by a number of more or less piecemeal waves of ‘unitarisation’ - such as that of 1997/8 that established Leicester City Council and Nottingham City Council as unitary authorities. The modest voluntarist

⁴ It is noteworthy that Coombes et al in their review of the evidence (2005) saw Leicester as a more self-contained centre, relatively independent of Nottingham and Derby.

encouragement to local authorities to reconsider their boundaries following the Local Government White Paper of 2005 fits into this pattern of periodic interest in the subject. Overall, in his review of administrative boundaries in England Sandford (2019) concluded that historical contingency has exercised a major influence.

Figure 2. English (Administrative) Geographic Structure (adapted from ONS)



At different times this local government architecture has been overlaid by a regional tier. Examples including the Regional Economic Planning Councils under Wilson in the 1960s, the Government Office Regions under the Government of John Major in the early 1990s and then the Regional Development Agency areas of New Labour under Blair and Brown. The move away from regions and towards Local Enterprise Partnerships as vehicles for promoting economic development could be seen as a shift away from an instrumental towards a more communitarian approach to jurisdictional design. Central to the Conservative critique of labour regional policy had been the view that regions were, in a sense, artificial constructs that were often too large to be meaningful from the perspective of localities and communities.

“We have been concerned that some local and regional boundaries do not reflect functional economic areas. We wish to enable partnerships to better reflect the natural economic geography of the areas they serve and hence to cover real functional economic and travel to work areas.” (Ministerial letter from Cable & Pickles 29th June 2010c).

In consequence of this critique, local authority and business leaders were invited to develop their own proposals for local enterprise partnerships. It is in this bottom-up, self-defining approach to jurisdiction design that the move towards LEPs can be seen as a shift towards a more communitarian approach. Albeit, as the ministerial letter also made clear, this was in the context of a wider centralisation of responsibility for former RDA functions:

“We believe some of these are best led nationally, such as inward investment, sector leadership, responsibility for business support, innovation, and access to finance, such as venture capital funds.” (Ministerial letter from Cable & Pickles 29th June 2010c).

At the heart of these debates lie three questions about the role and spatial extent of different jurisdictions that must be addressed:

- 1) To what extent should boundaries reflect ‘functional economic’ or other areas?
- 2) What fundamentally is the role of local or regional institutions (and their relationship with Whitehall) – are they agents of central government or autonomous authorities responsible to their populace?
- 3) What is the optimal relationship (or fit) between spatial scale and functional competence to be delegated?

None of these questions has been resolved and as a result, they have tended to resurface periodically – sometimes in the context of a royal commission or similar enquiry – and more recently in the move to largely city-regional ‘devo-deals’ in England.

The 1974 reorganisation of local government was preceded by a Royal Commission on local government chaired by Lord Redcliffe-Maude that reported in 1969. The recommendations of this review were modified by the Heath Government prior to implementation. The review was notable for exploring in great detail the first of these questions. Indeed Derek Senior’s dissenting memorandum went as far as advocating a radical redrawing of local government boundaries with 35 city regions and 148 districts based on Travel to Work Areas as the means to aligning these boundaries to ‘functional economic areas’.

Derek Senior’s basic proposition has been echoed in more recent policy on local and regional economic development. At the heart of both New Labour⁵ and Coalition Government⁶ policy on local and regional economic development is an apparently simple proposition to the effect that if we can better align decision-making for economic development to ‘functional economic geographies’, better economic outcomes should result. Views on what are the functional economic geographies that matter diverged. Given the prominence of this proposition in recent policy discourse on economic development/local growth, it is salient to note that in 2011 Experian concluded that:

“There is no substantial evidence on the links between different governance arrangements and economic outcomes.”⁷

If the first question about the optimal scale of local government was most exhaustively explored as part of Redcliffe-Maude’s deliberations, the second was posed most directly by

⁵ The Sub-national Review of Economic Development and Regeneration (HMT, 2007) arguably represents the clearest articulation of this proposition under New Labour.

⁶ HM Government (2010b) *Local growth: realising every place’s potential*, London: HMSO.

⁷ Experian (2011) for CLG – *Updating the evidence base on English cities*.

the Layfield Report of 1976 following a major enquiry into local government finances. Layfield identified a fundamental choice to be made by central government about the role of local government. Identifying a growing reliance of local government on centrally allocated funds rather than locally raised taxes, Layfield felt that this risked undermining the local accountability of local government. He therefore suggested that:

“National government had to choose between a continuing drift towards further centralisation or a reaffirmation of local responsibility by providing local government with a more extensive and robust tax base.... to create the conditions for local choice and local democracy by ensuring that local politicians have to raise the money to pay for their decisions about policy choices and service levels.” (Stoker and Travers, JRF, 2001)

The third question noted above concerns the relationship between function and geographic scale (and is discussed in more detail in the following section). The recent policy discourse of devolution in England has been dominated by the related concepts of localism and city regionalism. It has also been framed by a general concern about the excessive centralism characteristic of the British state (McCann 2016). Since the abolition of the regional tier in England after the 2010 General Election, the regional scale has faded from the debate (although a knowledge and assessment of functions and activities undertaken by Regional Development Agencies (RDAs) that operated at this scale provides insights into the types of functions that can be undertaken at different spatial scales). Indeed, the absence of an intermediate or meso tier of government, has given this debate an oddly polarised character. Irrespective of the policy domain or service under consideration, the structural options for governance/management would now seem to be local or national. This has led Professor Graham Pearce to conclude that in England:

*“...apart from the LEPs and a handful of ‘Combined authorities’, for example in Greater Manchester and the North East, there is no formal tier of governance between the national and the local. Given the range of key strategic policy concerns that transcend the capacities of the multiplicity of local authorities, the lack of an intermediate layer of governance between the local and national with the necessary capacity, powers, funding and geographic coverage is hard to justify.”*⁸

4. Links between functions/ activities at different geographical scales

4.1 Introduction

So, what then are the ‘strategic policy concerns that transcend the capacity of local authorities’? In general, these are likely to relate to policy domains for which the relevant spatial scale is larger than the coverage of individual local authorities or LEPs, but smaller than the national scale. As outlined in section 1 when considering the rationale for pan-regional bodies such as the Midlands Engine and the Northern Powerhouse, transport, strategic infrastructure and utilities, economic development, some aspects of innovation policy could all be seen as candidates. These tend to be characterised by significant scale (and capital requirements) to support investment, or obvious benefits associated with economies of

⁸ Graham Pearce, Emeritus Professor of Political Science at Aston University, Policy and Politics Journal Blog, October 2014.

scale/efficiencies of administration, and/or the need to plan in order to meet the needs of large/multiple areas. It is not coincidental that these policy domains have been the focus of Combined Authorities in Greater Manchester and the West Midlands (based on Greater Birmingham).

Hooghe et al (2010) make a very similar point:

“Functional pressures arise because some collective problems (such as town planning or fire protection) are best handled at a population scale of tens of thousands, some (such as secondary education or hospitals) are best dealt with at a scale of hundreds of thousands, others (such as tourism promotion or transport infrastructure) at a scale of millions, while yet other problems require jurisdictions that are vastly larger”.

Even before the abolition of the regional tier following the 2010 general election, Hooghe et al (2010) in their major comparative study of the nature and extent regional devolution in 42 nations noted the modest extent of devolution to the then UK regions. In their survey, 2 tiers of regional government emerged as the most common configuration. Many other commentators have also highlighted the extreme centralisation characteristic of the UK (McCann, 2016). In a Regional Authority Index measuring regional authority along ten dimensions capturing both economic scale and community dimensions⁹ the UK is ranked considerably lower than countries such Germany, Spain, Belgium, the US, Italy, Austria and Japan (Hooghe et al 2010, Pike et al., 2019a). A key point of difference for the UK that influences this outcome is the relative lack of powers and particularly fiscal autonomy enjoyed by the regional or sub-regional tier. This explains Bentley’s (2018) characterisation of devolution to pan-regional areas like the Northern Powerhouse and Midlands Engine as a form of administrative devolution of national policy implementation – in contrast to more meaningful forms of executive and fiscal devolution evident in many other nations at the regional and sub-regional scale.

A further point of difference when comparing the nature and extent of devolved powers in England and the wider UK to that enjoyed by sub-national tiers of government internationally, is the inconsistent and ad hoc nature of devolution in the UK. This is evident at the national level if the powers of devolved administrations in Scotland, Wales and Northern Ireland are compared. It is also evident when the powers of ostensibly similar forms of sub-national government are compared. Table 2 illustrates the powers enjoyed by Mayoral Combined Authorities in England that are currently agreed or under negotiation with Government. The piecemeal nature of devolution deals in England is clear. It is also evident in the coverage of Combined Authorities that have been established to date. The Midlands Engine area has a single example in the shape of the West Midlands Combined Authority. The lack of a Combined Authority in the East Midlands following the failure of the proposed North Midlands Combined Authority proposal in 2016, is widely seen as a problem in the East Midlands. This asymmetry can itself be seen as demonstrating the need for the Midlands Engine Partnership to fulfil an important advocacy function on behalf of the whole Midlands area.

Table 2 Powers by Combined Authority Area

⁹ (1) institutional depth; (2) policy scope; (3) fiscal autonomy; (4) borrowing autonomy; (5) representation; (6) law making; (7) executive control; (8) fiscal control; (9) borrowing control; (10) constitutional reform.

	Skills & Adult Education	Housing	Investment fund	Transport	Low Carbon & Energy	Business Support	Heritage & Environment	Policing	Health and Wellbeing	Justice	Fiscal autonomy	Borrowing
West Midlands		✓	✓	✓		✓						
Greater Manchester	✓	✓	✓	✓		✓		✓	✓	✓		
Liverpool	✓	✓	✓	✓	✓	✓	✓		✓	✓		
Sheffield	✓		✓	✓		✓						
West of England	✓		✓	✓								
Cambridgeshire & Peterborough	✓	✓	✓	✓								
North of Tyne	✓		✓			✓						
Tees Valley	✓		✓	✓		✓						

Adapted from Pike et al (2019b) – shows powers agreed or under discussion with Government as of April 2019.

4.2 International comparisons

Governance structures vary quite widely across different countries. For example, across the OECD there are nine federations and quasi-federations (including Germany, the US and Canada) and 25 unitary countries (including the UK, France, the Netherlands and the Nordic countries) (OECD, 2017). In federal countries sovereignty is shared between federal government on the one hand and self-governing regional entities (i.e. federated states) on the other, and the responsibilities of local governments may vary between states. In unitary countries the responsibilities of sub-national bodies, including local government, are decided by central government.

Within both federal and unitary states there are further differences in terms of the number and nature of sub-national levels of governance (at regional, sub-regional, local and at finer levels of spatial disaggregation). Also in both federal and unitary countries there are varied amounts of decentralisation – politically, administratively (i.e. in terms of the assignment of tasks and functions to different territorial levels) and fiscally (in terms of the amount of autonomy over decisions on tax bases and spending). In all countries there is mutual dependence across different levels of government and this can lead to challenges in co-ordination – including in terms of the aligning objectives, capacity, funding, (mis)matches in the size/ functional relevance of administrative units and their responsibilities, etc.

The UK is relatively unusual in terms of having a relatively polarised governance structure with a national tier and a local tier but no institutions at the regional tier. In terms of settlement structure the **Netherlands** provides an interesting analogue with England and the Midlands as a densely populated country with many urban centres in close proximity, there is a much more highly developed approach to multi-level governance. There are three levels of government in the Netherlands: the central government; twelve provinces; and municipalities. At national level, the central government sets out a policy framework and collects and redistributes state budgets. Provinces are responsible for the coordination of public policies such as planning, transport, culture and social affairs. It is instructive to focus on one of the major cities to understand governance arrangements and relationships between different levels of governance. Rotterdam is a municipality that is part of the province of South Holland (Green et al., 2017). In geographical terms it is part of the wider Randstad (a conurbation of urban agglomerations). At sub-Randstad level it is part of the Metropolitan Region of Rotterdam-The Hague. This region was designed in an attempt to represent an attempt to capture agglomeration economies with co-operation based on the twin pillars of transport and economic development (OECD, 2016). The municipality of Rotterdam also forms part of the Urban Region of Rotterdam (comprising 15 municipalities including Rotterdam). Municipalities in the Netherlands have a relatively broad set of responsibilities, but as in the UK, the majority of municipal funding comes from national level taxes. One of the responsibilities devolved to the municipality of Rotterdam is delivery of welfare policy – and it can retain benefits of reducing welfare spending. Alongside transport, economic development and welfare, it is also instructive to consider the case of spatial planning in the Netherlands. Since the 1980s there has been a shift from a hierarchical style in the direction of network-oriented governance, so that while paying attention to economics, spatial planning was more sensitive to local social dynamics, with an emphasis on citizen participation and co-operation between public and private actors. An increased range of interactions between actors and spatial scales implied in network governance places more onus on capacity and expertise being available at regional and local levels.

The reference above to network governance is also applicable to the case of **Finland**, which is presented here as a second example of sub-national governance relations in a unitary state. As in the Netherlands, there are three main levels of governance: national, regional and local (municipal) level. Local authorities have strong self-government rights and have responsibility to create conditions for well-being, economic development and a safe and attractive environment. They also play a role in labour market activation programmes and in supporting the long-term unemployed. The majority of municipal income is from local income and property taxes. Finnish local authorities are free to work in cooperation with other local authorities. So taking the case of Helsinki, the City of Helsinki is part of the Helsinki Metropolitan Area (HMA) which three other municipalities. The co-operation is based on an agreement, a common vision and a joint strategy and co-ordinated by the HMA Advisory Board. The Advisory Board is responsible for strategic cooperation and steering of the most important joint municipal organisations. The main pillars of the strategy are common welfare services, international competitiveness, land use, housing and transport. The metropolitan area has its own business / competitiveness strategy with its own regional development agency. Regional development agencies of this kind in Finland are accountable to and funded by municipal authorities through local taxation. A notable example of the fiscal autonomy absent in England.

4.3 Fit between geography and function

When considering appropriate geographical scales for discharging different functions and activities there are a range of concepts and issues to consider. One key such concept is *subsidiarity* – i.e. the principle that social and political issues should be dealt with at the most immediate (or local) level that is consistent with their resolution. Another is *additionality* – which is concerned with how working at a pan-regional scale (or other broader geographical scale) can add value to activities at finer scales of geographical disaggregation (e.g. through co-ordination of activities, advocacy, etc.). Indeed the 2017 Midlands Engine Vision for Growth places additionality (i.e. generating added value for collaboration) at the heart of the role of Midlands Engine activity at the pan-regional scale and identified connectivity, investing in strategic infrastructure, growing international trade and investment, increasing innovation and enterprise, and shaping great places as priority activities at the pan-regional scale.

Four key questions posed by Cheshire (2007) capture some of these concepts and are of relevance here when considering the fit between policies/ functions and geographical scales:

1. Do conditions vary across space in ways that mean there is a plausible case for local tailoring of policies to regional/ local circumstances?
2. Are there likely to be spill-overs at particular spatial scales that ought to be considered?
3. Are there economies of scale or scope affecting the policy issue in question that need to be taken into account?
4. Are there synergies or co-ordination challenges within and between policies and functions such that they should be examined together at one or more spatial scales so that complementarities are achieved?

While there might be an ‘ideal’ geographical scale at which a particular function should be discharged, in practice pragmatic considerations (taking into account institutional structure and capacity at different scales) and *governance* issues (including facilitation and challenging roles) play a part. The responsibilities of actors and different geographical scales, the extent of fiscal autonomy and the *levers* (including financial resources) they have available to them at different geographical scales are key factors here.

The Table in Appendix 1 illustrates across a range of policy domains appropriate geographical scales for discharging different functions and activities; (note that the Table is not exhaustive but it does aim to capture the main dimensions identified in the Midlands Engine Strategy). Four sub-national spatial scales are identified (ranked from larger to smaller):

- *Pan-regional*: this is the scale at which the Midlands Engine operates
- *Regional scale*: this is NUTS 1 regional scale (at which Regional Development Agencies operated previously)
- *Sub-regional scale*: this covers actors such as LEPs, Combined Authorities, Chambers of Commerce, etc.
- *Local scale*: the local authority scale

There may be some activities (e.g. engagement with individuals furthest from the labour market) which are appropriate to undertake at finer levels of geographical disaggregation (e.g. the ward or neighbourhood scale) but these levels are not considered here¹⁰.

There are also grounds for suggesting that the pan-regional scale may be an appropriate level at which to develop strategic capabilities that can support evidence-based decision making, planning, programme and project design at other spatial scales. These capabilities may relate to research, evaluation and analytical functions that can be hard to provide at lower spatial scales due to the specialist skills involved, the need for 'critical mass' and coordination if duplication is to be avoided. These activities cut across the policy domains considered in Appendix 1.

In populating Appendix 1, the authors have sought to apply the principles of subsidiarity and additionality noted above, but also consider:

- the availability of levers to influence outcomes at different spatial scales;
- the spatial extent/nature of the phenomena to be addressed;
- the existing locus of strategic decision making and delivery responsibilities in different domains;¹¹
- evidence compiled as part of the wider Midlands Engine Independent Economic Review (including business interviews) and the wider literature; and
- reflection on their collective experience of researching and working in regional economic development in the Midlands at a variety of geographical scales and across various locations.

Inevitably this process is interpretive. It is not presented here as definitive. Rather it is intended to stimulate an informed discussion and debate about the appropriate focus of Midlands Engine activity.

The key messages emerging from this assessment of the functions and activities set out in the tables in Appendix 1 are:

1. For most of the functions identified there is a role for *advocacy* – and to some extent for *strategy* also - at the pan-regional level. There is also a role here for sharing good practice. There is a limited role for delivery at the pan-regional scale.
2. The pan-regional scale seems particularly appropriate for functions and activities related to specialist science and innovation investments, digital infrastructure, (some elements of) business finance, internationalisation – including inward investment, strategic inter-regional (and intra-regional) transport infrastructure and energy.

¹⁰ The national and neighbourhood scales are omitted in the interest of clarity.

¹¹ It should be noted that it is possible that these may change over time.

5. Conclusions

Over the long-term interest in regional geographies has evolved from a primary concern with the particular characteristics of specific individual areal units towards a more relational understanding of the importance of regions and the economic and social practices through which they are produced, reproduced and transform. Economic and urban economics concepts such as agglomeration economies have been influential in understanding types of interaction at different geographical scales and in the emergence of interest in pan-regions at a meso scale in order to yield added benefits of spill-overs and collaboration, while recognising that according to the principle of subsidiarity that some decisions/ functions are more appropriately discharged at the local level means that inter-relationships between pan-regions and both the national level and areas at a finer degree of spatial disaggregation are also important.

In the Midlands there have been contrasting patterns of spatial economic development between the West Midlands and the East Midlands, with the Greater Birmingham conurbation dominating in the former in the way that no single city does in the latter. The boundaries of the Midlands Engine pan-region are not distinctive in physical terms, while economically major cities outside the region (e.g. Sheffield, Northampton¹² and Milton Keynes) also exert an important influence. Rather the Midlands may be characterised as displaying asymmetrical polycentricity, where to take advantage of agglomeration economies and spill-overs a good infrastructure is required to take advantage of the specialisation and complementarities of local areas.

How regional and sub-regional units are defined geographically has varied over time. The degree to which administrative units conform to functional economic geographies varies. Over time there has been some shift in England in jurisdictional design following a top-down approach reflecting economic scale considerations to more of a bottom-up one based on communities of interest (as in the development of the LEP areas), albeit the result is a patchwork of sub-regional and local areal units defined in different ways. Questions about the role and spatial extent of different jurisdictions are not fully resolved. Where England is relatively distinctive in international comparative terms at the current time is in the lack of a regional tier of government and the limited range of levers available at local level. The devolution agenda is important here in terms of gaining greater powers at sub-national level. International experience also shows how different sub-national areal units come together in different ways for different purposes in patterns of networked governance. However, this requires capacity and resource for effective operation. England is also distinctive in the lack of fiscal autonomy enjoyed by the sub-national/local tier of government.

In terms of the fit between geographical scale and function, there is no 'right answer' as such. There are however important principles, reviewed in this paper, that should be considered when determining the appropriate spatial levels at which to discharge particular functions or activities. These principles lead us to conclude that issues such as strategic intra-(and inter-)regional transport development, investments in digital infrastructure, specialist science and

¹² The former Northamptonshire LEP merged with the South East Midlands LEP and Northamptonshire lies outside the Midlands Engine area.

innovation investments, strategic business finance and international issues (such as inward investment) are important functions amenable to intervention at the pan-regional (Midlands Engine) level. In other functional areas (such as skills) the pan-regional scale can be important for advocacy and sharing good practice, but delivery and planning is more appropriately focused at sub-regional and local levels.

Finally, in the context of any form of multi-level governance arrangement, it is important to recognise that the manner in which different tiers of government work together is as important as the nature of any functional division of labour between them. Indeed, the trailing of new devolution measures in the Queen's Speech of October 2019 suggests that clarity over an agreed division of responsibility between the Midlands Engine, WMCA, LEPs, Local Authorities and other stakeholders in the Midlands should be regarded as an essential prerequisite if the pan-region is to respond quickly to opportunities for new strategic investments as and when they arise and to access and deploy new devolved powers should they become available. Having a clear and ambitious shared vision for the Midlands is important here.

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Appendix 1: Appropriate geographical scales for discharging different functions and activities

Function/ Activity	Pan- regional	Regional	Sub- regional	Local	Comments/rationale
1 Skills					<p>It is accepted that skills are key drivers of economic development and crucially contribute both to innovation (absorptive capacity) and productivity. In the Midlands Engine pan-region skills levels are lower than the England average. National policy and planning has a strong influence on skills policy. However, the delivery infrastructure is primarily local, albeit this varies with skill level and the degree of specialisation, with a positive association between skill levels and geographical scale. There is a role for sharing good practice and lobbying/ advocacy roles at regional and pan-regional levels. Business interviews undertaken for the Independent Economic Review suggested a particular area where a pan-Midlands approach could add value was in terms of common skills issues (including skills shortages in key sectors and the retention/attraction of talent.</p>
Advocacy	✓	✓			
Strategy/ planning			✓		
Delivery				✓	

Function/ Activity	Pan- regional	Regional	Sub- regional	Local	Comments/rationale
2. Innovation					Importance of regional/pan-regional networks (in and outside of HE) and policy to develop a regional innovation system. Also a considerable scale of investment may be required for special facilities. All of these factors tend towards a view that this domain is amenable to intervention at the pan-regional and regional scales, in order to capitalise on common/ linked strengths and collaboration opportunities. Some sectoral bodies exist at this scale (e.g. the Midlands Aerospace Alliance), but there is also scope for developing links across areas of specialist expertise. The exception may be certain kinds of process innovation linked to managerial skills (especially for SMEs and micro-businesses) which may be applicable at sub-regional and local scales. Business interviews undertaken for the Independent Economic Review suggest that while proximity can be important – particularly to establish new relationships – the ability to draw on the best research and development expertise wherever it is to be found is also important.
UKRI/ Higher Education					There is increasing focus on research collaboration/partnerships at larger spatial scales – examples of specific regional groupings of higher education institutions (including networks of universities across the Midlands such as Midlands Innovation and Midlands Enterprise Universities). Harrison et al., 2017 demonstrate that this is increasingly the norm).
Advocacy	✓				
Strategy/ planning	✓				
Delivery	✓	✓			
Catapults					Large scale of investment and need for networks integrating specialist expertise – so larger spatial scale appropriate
Advocacy	✓				
Strategy/ planning	✓				
Delivery	✓	✓			

Enterprise Zones/ Incubators					This relates to those sector themed/innovation focussed incubation facilities (as distinct from more generic facilities regarded as aspects of generic business support). Simpler or more generic business incubators that provide managed workspace and some level of additional business support are often managed/delivered at the local level and are best seen as a form of generic business support (above). More specialised facilities tend to require higher levels of investment and often serve larger catchment areas – examples of the latter include BioCity in Nottingham and the MIRA Technology Park.
Advocacy	✓				
Strategy/ planning	✓	✓	✓	✓	
Delivery		✓	✓	✓	
Process Innovation					Significant link to managerial skills/capacities relating to job design and work organisation – may therefore be tackled at lower spatial scales. For SMEs and micro-businesses and for generic training, delivery at the local level may be particularly important, in order that opportunities are accessible.
Advocacy	✓	✓			
Strategy/ planning			✓		
Delivery			✓	✓	

Function/ Activity	Pan- regional	Regional	Sub- regional	Local	Comments/rationale
3. Transport & Infrastructure					<p>The primary challenge at the pan-regional level is East-West connectivity – although it is also important for the Midlands economy that good North-South links are maintained. Good fit between regional/pan-regional scale and challenge/levers. Delivery at multiple spatial scales reflecting the nature of infrastructure and patterns of movement. The planning of housing is also relevant here in that it links to infrastructure and requires a degree of coordination across space.</p> <p>It is noteworthy that business interviews undertaken for the Independent Economic Review provided significant support for Midlands Engine level intervention.</p>
Major Infrastructure (road and rail)					Focus on inter-regional connectivity
Advocacy	✓				
Strategy/ planning	✓	✓	✓		
Delivery		✓	✓	✓	
Local infrastructure					Focus on local/intra-regional connectivity
Advocacy	✓				
Strategy/ planning		✓	✓		
Delivery		✓	✓	✓	
Service provision					

Advocacy	✓	✓			Major focus of planning and delivery at sub-regional/local scale. Examples include planning of some bus services, the Nottingham tram (NET) and the West Midlands Metro.
Strategy/ planning			✓	✓	
Delivery			✓	✓	

Function/ Activity	Pan-regional	Regional	Sub-regional	Local	Comments/rationale
4. Enterprise					
Generic business support					Largely delivered by local/sub regional organisations – little case for pan-regional intervention beyond general advocacy. Subsidiarity principle also suggests best left to local intervention and delivery. The former role of RDAs in coordinating delivery of business support activity suggests that the regional level can be important – particularly for more specialised forms of support.
Advocacy	✓	✓			
Strategy/ planning			✓	✓	
Delivery			✓	✓	
Business Finance					General investment readiness type interventions at local level (see above as a form of generic business support). Regional venture capital/investment fund schemes require more specialist (fund management) expertise and scale – hence are likely to be appropriate subjects of pan-regional intervention.
Advocacy	✓	✓			
Strategy/ planning	✓	✓			
Delivery	✓	✓			
Supply chain development					Where there is evidence that supply chains span regions, there is a strong case for pan-regional initiatives designed to support them. Otherwise the regional level might be more appropriate – albeit there are likely to be variations by sector. Business interviews conducted for the Independent Economic Review tend to support this conclusion.
Advocacy	✓	✓			
Strategy/ planning	✓	✓			

Delivery	✓	✓			
Function/ Activity	Pan-regional	Regional	Sub-regional	Local	Comments/rationale
5. Internationalisation					
Trade promotion					While pan-regional and regional scales are appropriate for advocacy and strategic planning functions, delivery can happen at multiple geographical levels from the Midlands Engine scale to more local levels – for instance, Chambers of Commerce play a historic local role here with activities including trade missions, export documentation, etc. In the context of Brexit, this domain is likely to be increasingly important.
Advocacy	✓	✓			
Strategy/ planning	✓	✓			
Delivery	✓	✓	✓	✓	
Inward Investment Promotion					Geographical scale is often seen as important when marketing areas for inward investment purposes – but it is important that activities at different geographical scales are joined up.
Advocacy	✓	✓			
Strategy/ planning	✓	✓			
Delivery	✓	✓	✓	✓	
Destination marketing					Destination marketing can be aimed at international or domestic audiences. Delivery is at multiple scales. There was a historic pan-regional ‘British Midlands’ campaign and there are a range of regional and local initiatives also. Business interviews conducted for the Independent Economic Review suggested that there needs to be a pan-Midlands approach to creating and communicating a unified identity and vision/voice for the Midlands – both nationally and internationally. (This would be positive for inward investment promotional activities also.). There was also a plea that this should be ambitious.
Advocacy	✓	✓			
Strategy/ planning	✓	✓			
Delivery	✓	✓	✓	✓	

Function/ Activity	Pan-regional	Regional	Sub-regional	Local	Comments/rationale
6. Digital Infrastructure					Key issue for Industry 4.0 and (polycentric) connectivity. Broadband is known to be a particular problem in the region's rural areas also in some (pockets) of the region's major urban centres – hence may be a need for local advocacy to highlight issues where they arise.
<i>Full-fibre broadband</i>					
Advocacy	✓	✓	✓	✓	
Strategy/ planning	✓	✓			
Delivery		✓	✓	✓	
5G					Key enabler of data heavy digital services
Advocacy	✓	✓			
Strategy/ planning	✓	✓			
Delivery			✓	✓	
7. Environment, climate change and energy					Some challenges require intervention/planning at a large geographic scale – e.g. the Environment Agency uses river catchments to consider water resources/flood defence. Also National Grid/planning of new power generation in the energy field. There remains scope for local (and neighbourhood) level intervention such as micro-generation, community battery initiatives and behavioural change initiatives.
Advocacy	✓	✓			
Strategy/ planning	✓	✓	✓		
Delivery	✓	✓	✓	✓	

