Chapter 3

The influence of policy, public service and local politics on the shift to a Low Carbon Economy in the East Midlands.

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3.0 Abstract

This chapter charts the shift from Sustainable Development policy drivers, through the emergence of Climate Policy and its impact on public service managers, to the more recent development of Low Carbon Policy. We also explore the relationship between local business, the local political 'regime', the national and European political 'landscape' and implications for local actors in the East Midlands; arguing that whilst Low Carbon Policy might be more in tune with political realities than attempts at wholesale reductions of carbon emissions, it has brought into question the viability of existing carbon reduction targets. In doing this, we explore the tensions between the 'grand challenge' of climate change, the difficult details of policy implementation and the pragmatic reality of business practice.

3.1 Introduction

The shift to a Low Carbon Economy in the East Midlands has been influenced by two main policy drivers – Climate Policy and Low Carbon Policy. Both policies are predominantly driven by legislation emanating from the UK national government and the European Union and represent key features in the landscape of local politics, public service and business. This chapter charts the emergence of Climate Policy and its impact on public service managers and goes on to explore the more recent development of Low Carbon Policy and the relationship between local business, the local political 'regime', the national and European political 'landscape' and implications for local actors in the East Midlands (Geels and Kemp 2007; Geels 2011).

In 2012, one of the authors was invited to an East Midlands workshop on 'communicating climate change', attended by a range of experts and practitioners in the field. Much of the discussion ranged around the usual topics, such as how to assess and discuss the range of uncertainties in the scientific literature and how to engage with the apparent intangibility of climate change as a phenomenon within everyday experience. A manager of one local authority climate change unit provided a memorable response to these issues. Speaking from many years of experience as a policy practitioner, the manager neatly summed up the dilemma of those implementing climate policy on the ground: '*the way we talk about climate change is to not talk about climate change*.' For an experienced official responsible for formulating and implementing climate policy to make such a comment provides sharp insight into the fragility of climate change as a driver for local action. While a consensus has formed across East Midlands local authorities that climate change is a problem requiring a response, identifying levers for action has proved challenging. The terms of reference for climate change are typically global and long-term, and lie beyond the usual horizons of local politics (Pearce 2014). This spatial and temporal disjoint between the ambitions of climate policy and the realities of local politics provides important context for the emergence of the low carbon economy (LCE) agenda.

This chapter explains the implications of the LCE agenda for policy outcomes, combining a review of sub-national environmental policy in the UK with original research conducted in the East Midlands. We argue that while the LCE agenda is often assumed to be a proxy for decarbonisation, it is in fact a 'kindred policy' that shares some features with decarbonisation policies, while remaining distinct. While kindred policies such as LCE might be more in tune with political realities than attempts at wholesale reductions of carbon emissions, they bring into question the viability of existing carbon reduction targets.

3.2 From sustainable development to climate change.

Sustainable development has been broadly defined as the integration of society's environmental, social and economic needs in the present day, whilst not compromising future generations' capacity to meet their own needs. The concept gained a foothold within local government agenda following the agreement of Local Agenda 21 (LA21) at the 1992 Rio Summit. LA21 was explicitly designed to help local authorities consult with communities to find ways of advancing sustainable development locally (Laffertey 2001). LA21 was an attractive option for local authorities that had seen their powers and responsibilities eroded by central government, and were seeking to expand their influence into new areas. Within the context of an ambitious global agenda, local authority action on sustainable development often appeared modest, emphasising a desire to 'get their own house in order' before expanding into the wider community (Wild and Marshall 1999). There was also disproportionate focus on environmental issues at the expense of the social and economic. This reflected the policy context for sustainable development in the UK at the time, which sat within environmental departments both nationally and locally (Bond et al. 1998, Levett 1998). Despite these limitations, LA21 marked a step change in local policy activity, altering the way environmental issues were perceived and how they could be linked with economic and social issues as part of a more holistic approach to local policy (Church and Young 2001). These developments prepared the ground for local government's response to climate change as it continued to emerge as a global issue.

As progress on LA21 continued steadily during the 1990s, climate change also emerged as a national policy issue. As UK research investigated the potential impacts of climate change, the focus shifted to what action could be taken to avert the threat, establishing climate change as a significant public policy issue (Hulme and Turnpenny 2004). Strong environmental expertise and leadership enabled some UK local authorities to seize on climate change as a new manifestation of sustainable development (Centre for Sustainable Energy 2005). However, there were significant differences between the two agendas (Cohen et al. 1998). Sustainable development sought to

capture the entanglement of the economic, social and environmental, prompting the emergence of a complex and extensive set of indicators by which progress could be measured. Climate change focused on one issue within this complexity: the reduction of greenhouse gas emissions. This singular focus was more readily incorporated into existing frameworks for performance management which had increasingly become the norm in dealing with new policy issues (Hoggett 1996). While some local authorities were enthusiastic to play a role in addressing climate change, the absence of relevant policy competences (in particular, restrictions on revenue raising and allocation) left UK local authorities with 'probably uniquely unfavourable circumstances for the implementation of local policies' (Collier and Löfstedt 1997:38).

In the late 2000s, the local government response to climate change coalesced around the Nottingham Declaration (Gearty 2007); a voluntary agreement which committed signatory councils from across the UK to 'develop plans with our partners and local communities to progressively address the causes and the impacts of climate change' (Nottingham Declaration on Climate Change 2005). Nottingham City Council established the Declaration in 2000, followed by a co-ordinated launch to all of local government in 2005, and within four years 340 UK local authorities had signed up (Footitt et al. 2007, Gearty 2007, HM Government 2009). The East Midlands was the first English region to have all its local authorities sign the Declaration (EMRCCP 2009). The Declaration proved popular with local authorities keen to demonstrate to local residents and partner organisations their commitment to addressing climate change (House of Commons Environmental Audit Committee 2008a). However, such commitment did not necessarily translate into policy. By 2007 only a third of signatory local authorities had climate change strategies in place, few of which encompassed all areas of local authority control (Carty and Hislop 2007). There was a danger that local authority engagement with climate policy would go little further than 'a framed copy of the declaration hung in the reception area of a council building' (House of Commons Environmental Audit Committee 2008a, p.22). While these fears appeared well-founded, the public nature of local

authorities' commitment through the Declaration proved significant in the negotiations of Local

Area Agreements (LAAs) in 2008.

Local Area Agreements and National Indicators.

LAAs were a set of policy priorities negotiated between local authorities, other local stakeholder

organisations and the regional Government Offices. Each priority area was assigned a three-year

target, measurable using one of the National Indicators (NIs) established by central government to

track local government progress. Two NIs covered carbon dioxide emissions (DCLG 2008, p.12):

- NI185: carbon dioxide reduction from local authority operations
- NI186: per capita reduction in carbon dioxide emissions in the local authority area.

NI185 had a narrow focus, reporting only emissions from a local authority's own operations

(Department of Energy and Climate Change 2009). NI186 was a broader measure based on new

official statistics issued by the Office for National Statistics for area-wide carbon dioxide emissions

per capita, but omitting large point emissions sources which were judged to be beyond the influence

of local authorities, such as motorways and large power stations (DCLG 2008). Again, the East

Midlands was a leading region, with all nine LAAs including targets for carbon emission targets

(throughout England as a whole, 100 out of 150 LAAs set such targets: Eadson 2008, EMRCCP

2009). Two of the East Midlands LAAs selected NI185 as their indicator, with the remaining seven

choosing the wider NI186. On the surface, NI186 may have appeared the more sensible indicator to

adopt; its area-wide focus meant that it already included the local authority operations measured by

NI185, enabling local authorities to get 'both indicators … for the price of one' and rendering

NI185 superfluous (Pearce and Cooper 2011, p.209). In interviews with local authority officers,

however, concerns emerged about adopting NI186 as a measurement of policy progress. These were

neatly summarised by one experienced manager:

> *'Our view was when 186 came out, well we're not going to say no because we've been asking for this for a very long time, but a) we have no resources, and b) we have no control.'* (County 5 Climate Change Manager)

While two local authorities felt strongly enough about NI186's weaknesses to reject it in favour of NI185, most did not want to be seen as backing away from the more ambitious NI186 indicator. However, demonstrating credibility to central government and the public was not the only salient issue in indicator choice. In selecting NI186, local authorities prioritised its symbolic importance over the flaws in its design to demonstrate that carbon dioxide reduction was a local priority within an institutional context. To do this, carbon emissions reduction had to be established within the performance management regime that had become increasingly important within local government since the 1980s (Andrews et al. 2005, Hood 2006, Wilson and Game 2006). By including NI186 within their LAAs, climate change mitigation became a mainstream policy area towards which resources could more justifiably be directed:

> *'NI186's power is to raise the profile of climate change within a formal performance management structure. The fact we have NI186 … within our LAA is a good indication of our commitment to the climate change agenda.'*
> (City 1 Climate Change Manager)

Climate change managers seized the opportunity of raising the issue's priority within their local authorities. By introducing a carbon dioxide emissions metric into council performance management frameworks, climate change would no longer be seen as an issue of fringe concern. For central government and senior management in local authorities, the meaning of NI186 was the transformation of climate change into an area of policy that could be measured and managed in the same way as others within the existing performance management regime:

> *'It's meaningless really but the politicians and performance management people for the LAA use it [NI186] as 'have we passed or not?''* (City 2 Climate Change Manager)

For climate change managers, NI186's flaws rendered the data itself 'meaningless' for policy evaluation and implementation. Instead, it was the very acts of measurement and monitoring that were important, as they gave climate change new meaning as a mainstream policy concern and created the space within which they could introduce new programmes. However, the narrow focus on carbon emissions left local authorities with a dearth of usable evidence on which to base policy. While NI186 legitimised new projects and partnerships with local organisations, local managers found themselves faced with a vexing question: 'where do we start?'

> *'NI186 has been hard to get our heads around…nobody seems to know how to tackle it and nobody seems to have the confidence of understanding it … . I think NI186 was too big and it has taken almost three years for local authorities to do some stuff on it.'* (Regional 2 Climate Change Manager)

Managers intended NI186 to legitimise new programmes and policies. Instead, the indicator's inherent failings stifled their ability to conceive ways to proceed. By contrast, local authorities found the task of addressing their own corporate emissions (NI185) both more plausible, due to the reduced scope of the challenge, and more urgent, due to the need to demonstrate leadership. The latter argument recalls the previous trend within sustainable development policy for local authorities prioritising 'putting their own house in order'.

Re-examining climate policy: political leadership and kindred policies
With the change of government in 2010 came a change both in the content and style of local government's relationship with the centre. One of the first acts of the new Secretary of State, Eric Pickles, was to abolish the NI system, describing it as part of 'the old command-and-control regime' (Pickles 2010). This formed part of Cameron's Coalition Government new 'localism' agenda that gave local authorities more freedom to pursue their own policy priorities. However, alongside localism came public spending austerity which hit local government disproportionately

hard, with cuts in grants from central government of 10.2 per cent in 2011-12 and a total of 27 per cent up to 2014-15 (Hayman 2010, Jones *et al*. 2011, Lowndes and Pratchett 2011). This proved to be severely detrimental for the climate agenda within local authorities. As the obligation to report emissions was removed, so was the main driver for action. And as funding cuts began to bite, many UK local authorities scaled back their climate change work (Green Alliance 2011). This trend was observed within the East Midlands, with budgetary pressures being exacerbated by the previous lack of focus in policy to reduce area-wide emissions. Intertwined with this lack of focus was a perceived lack of political saliency of climate policy, which can be traced back to the emergence of climate change as a global issue lacking local roots (Demeritt 2001). This was a disadvantage in comparison to the previous sustainable development agenda, which found a local articulation through LA21 (see above).

However, the decline in climate change work did not spread to all East Midlands local authorities. One local authority (City 1) largely maintained its climate change budget despite suffering similar levels of funding cuts to other local authorities in the region. Here, councillors were more heavily involved in policy discussions with their managers than was usual within the rest of the region's local authorities, where managers often saw councillors as distant. Despite none of the relevant councillors within City 1 having backgrounds in environmental issues, their greater engagement with public service managers enabled them to identify those elements of the climate change agenda which could gain political support locally; for example, installing insulation and renewable energy technology as a means of tackling fuel poverty and improving public transport. This brought greater political legitimacy to programmes associated with climate policy, enhancing the arguments for policy beyond that of 'reducing carbon emissions'. That such a close interest in the agenda was the exception, rather than the norm, within local authorities was reflected in successive regional-level programmes which aimed to increase local councillors' engagement with climate change issues (East Midlands Improvement and Efficiency Partnership 2009; Climate East Midlands 2011). This indicated that, despite the commitments made to the Nottingham Declaration and LAAs in the late

2000s, there remained a general ambivalence towards climate change within the political

leaderships of many local authorities.

Overcoming this ambivalence in City 1 required political leadership to recognise elements of the

climate change agenda that could resonate locally. However, this meant a shift in policy emphasis

towards 'kindred policies' which '*would not have emissions reduction as their first order priority,*

but trade adherence to a global framing of climate policy for feasibility within the financial and

political constraints local authorities find themselves under' (Pearce 2014, p.200). Local political

support was more readily mobilised for kindred policies such as improved insulation in domestic

housing, reducing local authorities' own energy usage or improving public transport provision. As

the economy continued to struggle in the early 2010s, particularly outside of South-East England,

existing policy ideas of transformation to a low carbon economy (LCE) took on the most fruitful

means of advancing the climate change agenda. The next section outlines how the LCE, as a

kindred policy, relates to aims of reducing carbon emissions.

3.3 From climate change to the Low Carbon Economy

On March 8, 2011, the European Commission adopted its Roadmap to a competitive low-carbon

economy by 2050 (EU 2011b), outlining the path towards a low-carbon European economy and

highlighting its benefits for regions and business sectors across Europe. There is, however, no

single agreed definition of a 'low carbon economy' (LCE). It has been defined as 'the sector of the

economy that produces goods and services with an environmental benefit' (Muro, Rothwell, & Saha

2011, p.3), and the UK Department for Business Innovation and Skills (BIS) spent six years

working with local politicians and business sector leaders to set out a measureable definition of the

Low Carbon Environmental Goods and Services Sector (LCEGS). Their definition aimed to fill the

gap in Standard Industry Classification (SIC) codes that resulted in LCEGS activities being

consistently over-looked and under-valued; and includes overlapping categories such as Eco,

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Renewable, Sustainable, Clean Tech, Low Carbon or No Carbon business activities. However, BIS (2013) recognise that in the strictest sense LCEGS is not a 'sector' but an 'umbrella' term used to capture a range of activities spread across many existing sectors like transport, construction and energy that have the common purpose of reducing environmental impact. They split the sector into three broad areas; renewable energies, environmental services and emerging low carbon technologies. These definitions focus squarely on the supply side of the economy, however, a full definition also needs to acknowledge the demand side of the low carbon economy and the fundamental motivators that drive demand for low-carbon activities. Regions for Sustainable Change (n.d.) argue that the fundamental aims of a LCE '*are to achieve high energy efficiency, to use clean and renewable energy, and to pursue green GDP via technological innovation, while maintaining the same levels of energy security, electricity supply and economic growth [and that to succeed in..] such a wide-range transformation will involve a comprehensive policy response from regions that will also include radical changes in behaviour and consumption patterns*.' So, as others have suggested (Geels 2011; Grin 2010), the shift to a low carbon economy is as much a social challenge as it is a technical one. In the East Midlands, and in line with the above distinction, the Low Carbon Growth Hub (as part of the Local Enterprise Partnership - D2N2) distinguishes between its role in building supply in the Low Carbon Sector and its role in promoting demand in the Low Carbon Economy - which it defines as "*an economy in which carbon neutrality is achieved and maintained. As such, low carbon supply chains are integral and compromise: agriculture, hunting/fishing, forestry, mining (primary); metallic and non-metallic manufacturing, food and drink manufacturing (secondary); and retail, transportation and health (tertiary)*" (Baddley 2015 p.3).

The social component of the LCE is also recognised within EU policy and funding streams, which provide a strong impetus for economic innovation and low-carbon enterprise. Europe has ambitions to reduce greenhouse gas emissions by 80% by 2050 (European Union 2008) and make a transition to a competitive low carbon economy and resource efficient Europe (European Union 2011b;

European Union 2011a). However, there is recognition from policy makers that whilst progress towards a sustainable economy can be made with current technologies, incremental innovation in green technology will not be sufficient to reach the EU's greenhouse gas emissions target (Steward, 2012). The scale of the changes required on both the supply side and the demand side of the low carbon goods and services sector (LCEGS) implies a need for '*purposive societal action to influence business and consumers*' (Steward 2012, p.332). This marks LCE as a 'wicked problem'; an issue requiring a collective shift in perspective and behavior in our politics, public service, communities and business practice rather than a narrow set of policy 'solutions' (Grint 2008). Indeed, as Grint (2008) argues, we will need to become content with a patchwork of 'clumsy solutions' to global challenge of averting catastrophic climate change.

The broad recognition that the 'economy will require a fundamental transformation within a generation… in both producer and consumer behaviour' (European Union 2011a) can be seen across the globe in a range of political moves. For example; the European Roadmaps; The 12th Five Year Plan in China; and the US-Chinese accord on the transition to a green and low-carbon economy (Steward 2012). The UK Climate Act (2008) and the independent Committee on Climate Change which provides advice to the UK government on meeting emission reduction commitments have been key drivers of the UK's long-term emission reduction targets (Lockwood 2013; Kern et al. 2014). Policy initiatives like 'Enabling the Transition to a Green Economy'(HM Government 2011b) and the associated 'Carbon Plan' (HM Government 2011c), recognise that government cannot necessarily rely on incremental business-led innovation and needs to take a central role in the social change required to stimulate demand within the LCE. It is widely recognised that achieving the Climate Change Act target of reducing greenhouse gas emissions by 80 per cent (of 1990 levels) by 2050 will require radical economic and social change in addition to technological innovation (Committee on Climate Change 2013; Clarke, Wilcox, & Nohrova 2013; Romani, Rydge & Stern 2012; Shove & Walker 2010).

Although spending on low carbon innovation by key UK funding agencies such as the Low Carbon Innovation Coordination Group[1] fell by £171 million between 2010-11 and 2011-12 (a reduction from £522 million to £351 million) and reduced business leaders' ability to plan their long term investment strategies (National Audit Office 2013), the new Government's aspirations to boost economic growth and devolve power did prompt the introduction of Local Enterprise Partnerships (LEPs) in England in 2010. LEPs were given a key role in local planning and housing, business start-ups, transport, infrastructure, employment and enterprise; and represented a shift away from regional and public leadership of economic development (as previously reflected in the Regional Development Agencies and the nine Regional Government Offices) towards private sector leadership of economic development in city-regions. From 2015, a key part of LEP's remit was to administer EU Structural and Investment Funds (EU SIF), including European Regional Development and Social Funds (ERDF) and the Single Local Growth Fund (SLGF). Annually, this means that LEP areas can access around £7.3 billion worth of 'Growth Deal' funding from central government over the duration of their via five year plans (HM Government 2013a; HM Government 2013b), with up to 20% of this money ear-marked for LCEGS sector development.

However, in line with the localism agenda (HM Government 2011a), national government has provided only the lightest steer to LEPs on how their role in sustainable economic development in general and low-carbon economic strategy in particular will be fulfilled (Britton and Woodman 2014). This means that LEP leaders have had considerable discretion about how, and to what degree, local partnerships address the shift to a LCE. In practice the result has been patchy attention to the low carbon agenda within LEP strategies. A study of all 39 English LEPs by Britton & Woodman (2014:622) shows that '*the lack of reference to carbon in LEP guidance has not given*

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[1] The Low Carbon Innovation Coordination Group consists of the Research Councils UK, Technology Strategy Board, Department of Energy and Climate Change, Energy Technologies Institute, Department for Business Innovation and Skills and indirect spend by government through the Carbon Trust.

the agenda high priority'[2]. Although Britton & Woodman's (2014) study showed that LEPs across the country were prioritising a number of key sectors: LCEGS and environmental technologies; domestic and commercial energy and resource efficiency; energy generation and supply; and low-carbon transport, their study also showed a clear correlation between LEPs that were 'comprehensively embedding' low carbon in their strategies with those areas with the greatest LCEGS employment and growth – Manchester, Birmingham, Sheffield and Derby/Nottingham (D2N2). This exemplifies the tension between the societal efforts required for a transition to a LCE and recent attempts to devolve policy and spending decisions to local areas: showing there can be no guarantee that local areas will buy into national LCE policy aims.

In the East Midlands, LCEGS business growth is considered a crucial element of D2N2's Strategic Growth plan to create 55,000 new jobs and it is given prominence in the region's Low Carbon Plan (2013). This acknowledges the strength of LCEGS business in the area and the large proportion of Low Carbon SMEs in the region relative to its population. In 2011, the East Midlands Development Agency (EMDA 2011) identified 2,037 local businesses working in the Low Carbon Goods and Environmental Services (LCEGS) sector; with 74% of these businesses planning to grow in the coming year. However, inconsistent definitions of LCEGS businesses (in comparison to businesses that simply seek to make significant resource efficiencies) and inconsistent measures of the impact on carbon emissions means that there is no reliable benchmarking data and hence only partial economic narratives of progress (the mini Stern reports for cities such as Sheffield and Leeds being leading examples: Gouldson, Kerr, & Topi 2011; Gouldson, Kerr, Topi et al. 2011).

Other research suggests that there is plenty of scope for growth in the LCEGS sector with significant opportunity to service the needs of both larger organisations and non-low-carbon SMEs who lag behind larger companies in adopting environmental related improvements. According to a

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[2] This contrasts with lower carbon being one of the key priorities for EU ERDF, requiring 12-20% of the funds to be targeted at reducing carbon emissions and the EU SIFs that require Strategic Environmental Assessments required for all programmes and projects.

survey of over 1000 SMEs by Lloyds Commercial Banking (2013) a quarter of SMEs cite sustainable practices as one of their top priorities. However, a study by the Association of Certified Chartered Accountants (ACCA 2012) showed that only 29% of SMEs had introduced any measures to save energy or raw materials compared with 46% or large enterprises with only 4% having comprehensive energy efficiency systems in place compared with 19% of large enterprises. SMEs are key to the success of the LCE agenda, but face significant challenges in prioritizing de-carbonisation. The ACCA report highlights the differences between SMEs and larger companies in their approach to sustainability; in particular the importance of owner-managers' motivations for instigating sustainable innovations in the face of more mundane barriers such as budget, cash flow or staff capacity, motivation and skills.

These studies highlight several key issues that LEPs will need to address in order to progress the low carbon economy agenda.

The study by Britton & Woodman (2014) highlighted that whilst many LEPs identify 'low carbon economy' as both a core theme and growth priority there are a variety of interpretations of the term, suggesting that many LEPs have a weak vision of the LCE of the future, both at local and national levels. Britton & Woodman (2014) also show that LEPs who demonstrated a more embedded approach to developing the low carbon economy emphasized the importance of developing a robust low-carbon economic evidence base. High quality economic data (such as mini Stern reports) that assess the local economic benefits of de-carbonisation are seen as essential to developing buy-in across the LEP stakeholders (Gouldson, Kerr, and Topi 2011; Gouldson et al. 2011; Nottingham Economics 2011). One interviewee described the economic evidence base as:

'… *a break through in terms of how this agenda was perceived. It was no longer a crank area driven by environmental people – it was there because of the economic case for investing in the low carbon economy*' (Britton & Woodman 2014: 261).

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Many LEPs recognise the key role that Local Authorities (LAs) play in providing evidence to inform their priorities – but as discussed above, 65 per cent of Local Authorities have reduced staff and deprioritized climate change and the low carbon economy in the light of funding cuts since 2010, drastically diminishing the capacity for capturing, analysing and sharing economic intelligence in order to promote low carbon growth in the most effective and efficient manner for the local circumstances. For example, (Britton & Woodman, 2014) showed that despite 24 of the 39 LEPs mentioning energy efficiency and demand reduction in their strategies, few had translated this into any form of focused programme - due, it seemed, to the perceived lower impact on jobs and growth compared to 'big ticket' projects such as district heating or offshore wind that can more readily demonstrate Gross Value Added (GVA) and associated growth in employment. Britton & Woodman (2014:267) argue that this is because '*many areas lack an economic evidence base to link social benefits of energy efficiency programmes to wider prosperity*'. It also begs a question about whether we have learned sufficient lessons from previous environmentally focused initiatives to reduce climate change.

Building on this theme, another recent local study by Derby Business School (Jones and Woodside 2013) amplifies research carried out elsewhere (Sotarauta, Horlings, and Liddle 2012; Accenture 2013; Garud, Gehman, and Kumaraswamy 2011; Draper 2013; Parkin 2010; Senge et al. 2008) that highlight the imperative of strong leadership and networking of innovation insight. Jones & Woodside (2013) recognize that developing a low carbon economy in the region was a 'socio-economic transformational change of immense significance' that should be regarded as a multi-million pound change programme requiring strong and visible programme sponsorship; a well-articulated, compelling and realistic vision; a tailored measurement instrument which has broad ownership locally and a bespoke programme organization which adopts the right leadership approach.

In the East Midlands, the D2N2 LEP has set out a vision for the future local economy that includes creating a 'Growth Hub' that aims to simplify the business support landscape by providing a single point of contact to expert and tailored advice for both start-up and existing businesses (D2N2 Local Enterprise Partnerhsip, 2014). Whilst there is a patchwork of support currently, there is no single point of contact for low carbon businesses and several programmes, funded through EU and national schemes, have started and finished without establishing continuity of support for the low carbon sector. This makes it difficult for LCEGS businesses to access the support and information they need. In response, the LEP has included the LCE as one of its eight priority sectors and set up a Low Carbon Growth Hub function that will link innovation and business support for the LCEGS companies in the region by investing in low carbon technologies, enhancing energy efficiency for SMEs, promoting business resource efficiency and smart energy communities. In its Implementation Plan the LEP also acknowledge that joined up support and investment requires knowledge transfer and learning across interventions.

The Low Carbon Growth Hub (Baddley 2015) also recognizes its role on both the supply and demand side of the local LCE by taking referrals from businesses both looking to develop low carbon solutions and those offering enabling technology, goods and services; maximizing useful business interactions and collaboration; supporting LCEGS engagement with the wider market and the region's key low carbon procurers in particular. It has also identified the need for better integration of local support structures for the low carbon sector. If practice reflects planning, this bodes well for the D2N2 region and will help justify the high regard the LEP has established (Britton and Woodman 2014). But what are the implications of all this for political governance and civic leadership?

3.4 From policy to local governance and civic leadership

The governance of transition initiatives, the remit of different organisations in promoting change and the nature of the authorizing environment for change all remain issues that need constant attention in the transition to a Low Carbon Economy (and a sustainable future more broadly). Liddle (2012) argues that because governance arrangements for LEPs were not predetermined by central government other than that they were expected to have 'sufficiently robust governance' structures and proper 'accountability' mechanisms for delivery goals, the need to establish effective consensus about purposes and ends as well effective collaboration between business and civic leaders is becoming a real imperative. She adds,

'…it is unclear as yet as to how successful LEP Boards have been in drawing on city wide or regional sources and capabilities. This is because few LEPs possess the information sharing capacities that public agencies have and, without trusting relationships and legitimacy, it remains problematic as to how they will obtain the necessary resource base'. (p49)

The above point highlights the importance of defining the boundaries of transitional activity, establishing clarity of roles amongst key players and the importance of leadership of 'place'. All this requires attention to, and skills for, building collaboration between business, public service and community leaders. With the current emphasis on business transition, it remains unclear in the D2N2 LEP arrangements how well and to what degree public service and community interests will be genuinely sought and included in initiatives. No doubt, this issue is being replayed to different degrees in all 39 English LEPs.

Liddle's point also reminds us not underestimate the importance that data, information and intelligence play in supporting transformative actions. But in the same way that climate change and environmental policy officers were previously challenged to identify appropriate National Indicators for carbon emissions, economic officers are facing equivalent challenges identifying appropriate data sets to define, monitor and drive the local Low Carbon Economy. As Wesselink &

Gouldson (2014) found in their review of the utility of a 'mini-Stern' report for the Leeds City Region, whether and how evidence is used depends on the policy and political context in each local jurisdiction (Local Authorities in their study). Whether robust evidence is commissioned and then used as either an idea, argument of instrument for change depends on a number of key factors. These include the local political priorities; the composition, agenda and activities of local civil society and the local business community, as well as the expertise of policy officers in the local councils. As we move into the future, it will be crucial to establish increasingly transparent, robust and multi-functional evidence bases that are fit for multiple political contexts in addition to supporting local collaborative action. More important though, could be the imperative to re-build the expertise and capacity of Local Authority officers to marshal and utilize such data to best effect – as it is unlikely that business, community or not-for-profit organisations will have the resources to fulfill this role.

Finally, there is the role of 'civic' leadership. Liddle (2012) concedes that Local Enterprise Partnerships in the UK have had little time to establish their credibility and demonstrate their ability to deliver change because the experiment of privileging business interests in regional development through the LEPs is still in its infancy. However, it is clear that the shift in emphasis from civic leadership to business leadership of economic regeneration increases the possibility of conflicts of interest between the economic and social objectives of regeneration, making it '*even more important that leaders seek legitimacy and build trust in their actions, taken on behalf of places'* and that '*collective leadership [*is becoming*] an imperative'* (p.53). In addition to collaboration across the boundaries of business, public service, not for profit and community sectors, 'place-based' leadership requires trust building, clearly agreed purposes and objectives, the marshalling of private and public funds, allocation of diminishing resources as well as harnessing a host of intangible resources such as tacit knowledge, goodwill and network connections. In the current landscape of fragmentation, policy shifts, uncertainty and seemingly intractable problems, we

suggest that, **we can no longer rely on the traditional heroic leaders of the past** to choose from a familiar range of solutions to 'place-based' ills' (Liddle 2012, p.54). Whether through Local Enterprise Partnerships or other civic mechanisms, this **'leadership of place' requires a new and challenging set of skills and approaches**.

3.5 Conclusion

This chapter has outlined trends in local environmental policy in the UK since the early 1990s, identifying a shift in emphasis from sustainable development to climate policy. While this marked a simplification of policy aims which proved more amenable to local authorities, this overt emphasis on environmental factors over the economic and social, left local climate policy fragile in the face of the spending cuts imposed after 2010. The move away from a narrow focus on carbon reduction towards policies that stimulate LCE growth arguably introduces a better balance of environmental and economic robustness – with climate change re-framed as an economic investment opportunity that 'aligns with current hegemonic policy discourses where economy is all-important, and gives it a much higher priority on the political agenda' (Wesselink & Gouldson 2014, p.18). We frame this as a move to a kindred policy, rather than a fundamental shift, which still includes carbon reduction but incorporates additional aims such as economic growth and job creation. However, we also note that a significant transition to a LCE requires social as well as economic changes, suggesting that the move away from sustainable development towards carbon reduction was a mistake because policies need to be economically, socially and environmentally robust if they are to gain the political support required for their implementation (Pearce 2014). However, it is an open question whether pluralising policy aims in this way will increase or decrease society's chances of attaining carbon reduction targets. The trend to localism in the UK provides opportunities for LEPs to place this agenda within their local political, social and economic context. However, this will inevitably lead to 'patchy' progress on LCE, at least in the short to medium term, as enthusiasm for LCE reflects the diversity of contexts. As noted in this chapter, this has already been visible in the UK, with D2N2 within the East Midlands being one of the LEPs leading the LCE transition. However,

while such localism is potentially good for implementation and local democracy, tension remains with the global roots of climate change and carbon reduction as a policy area. We have also shown that whilst the policy focus has shifted, some issues have remained constant: governance, collaboration, intelligence and leadership and conclude that the complex challenges facing us require a new, or at least enhanced, 'leadership of place'.

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