

## **Industrial Policies, Strategy, and the UK's Levelling Up Agenda**

### ***Abstract***

In the context of the UK economy's slow and unbalanced growth, this paper discusses the degree to which recent Conservative Governments in the UK have moved towards the adoption of a strategic and coherent set of industrial policies to enhance economic performance across the country. It starts by outlining the priorities and principles of new forms of industrial strategy which emphasises the importance of cross-sectoral goals, intensive dialogue between government and the private sector, co-ordination between different policies and levels of government, directions to address societal and environmental challenges, and the role of place-based policy making. The paper discusses the degree to which these principles have shaped, or been largely absent from, recent industrial policy development in the UK and particularly the interface between industrial and regional policies. It discusses the May Government's move to set up an Industrial Strategy with a place 'pillar' and the influence of a mission approach. It then reviews the Johnson's Government's 'Plan for Growth' industrial policy agenda, focusing on the recent Levelling Up White Paper, and examines how far and in what ways it has embedded these reforming principles. It finds that despite reflecting some of these principles in its rhetoric, the current government programme has substituted innovation and infrastructure policies for an actual industrial strategy, and continues to rely mainly on a top-down and technologically driven type of approach. The agenda lacks the capacity to deliver its levelling up goals due to inadequate funding, an incomplete devolution agenda, and insufficiently developed place-based capacities and policies. Future development needs to move the principles from rhetoric into industrial policy direction and design, and to remedy the continuing lack of local and regional collaboration and co-ordination.

## **1. Introduction: widening geographical inequalities and industrial policy experiments**

Intensifying geographical inequalities have risen to the top of the political agenda in many industrialised countries. A powerful trend towards urban and regional economic divergence has seen the relative economic decline of many formerly industrial and peripheral regions, further marginalising 'left-behind' areas. This trend to geographical economic divergence is particularly strong and entrenched in the UK (Martin *et al*, 2021), and the UK is now one of the most spatially unequal OECD economies (Coulter and Palmou, 2021; McCann, 2016). Decades of offshoring and decline in manufacturing employment, relatively poor productivity gains, and a weakness in services, have meant that especially old industrial regions have poorly performed (Harris and Moffat, 2022; Sunley *et al*, 2021). Employment growth has been dominated by low productivity service sectors and the 2008 crisis revealed that the economy had become overly dependent on a range of financial service industries, which have produced a high degree of economic instability.

The UK's slow productivity growth is inseparable from its regional problem as many peripheral regions show considerable lags in productivity (Haldane, 2018). The performance of manufacturing industries has been highly varied and even some knowledge intensive manufacturing industries such as pharmaceuticals and motor vehicles have declined in recent years (Sunley *et al*, 2021). Spending on research and development has been below the OECD average and the innovation system has not seen relative strengths in research translate into development (Bailey and Tomlinson, 2017). This weak economic performance has worsened since the 2008 global financial crisis, and recent data shows that the economic recovery from Covid-19 will be 'contorted by large sectoral and regional imbalances' (IFS, 2021, p.46, also Harris *et al*, 2020). Meanwhile, the economic costs of Brexit are further intensifying the chronic problem of slow and uneven economic progress (The Economist, 2022). The UK economy thus faces a daunting combination of severe problems and difficult challenges. Its entrenched regional inequalities show every sign of intensifying; its exporters have had to face the difficulties and disruptions of Brexit; and, for most workers, real wages have stagnated or fallen since the pandemic and strike action is back on the agenda. The UK economy is now suffering from the major inflationary wave triggered by devaluation, post-pandemic supply shortages and the Ukraine war. Moreover, such problems are occurring in the midst of longer-term transformational disruptions. These include the need to participate in the Fourth Industrial Revolution (FIR) and speed up the absorption of, and adaptation to, new digital and AI technologies. And on top of all this, of course, there is also the urgent need to accelerate the transition to a low-carbon economy.

It is perhaps no surprise, then, that recent Conservative governments in the UK have acknowledged and experimented with new mission-driven innovation policies that attempt to address key industrial

and societal problems, and have also emphasised their commitment to reducing these regional and geographical inequalities (HM Government, 2022). Indeed, the recent White Paper on Levelling Up represents the biggest potential shift in UK spatial policy since the Barlow Commission Report of 1940 argued for a spatial rebalancing of the economy away from London. However, commentators have noted that UK governments have long struggled to marry industrial policies with efforts to reduce spatial inequalities. The interface or engagement between industrial policy and regional development has been obscure and unclear, despite the increasing use of a place-based narrative and rhetoric after 2010 (McCann et al, 2021). Our aim in this paper is to examine whether, and how far, the recent industrial policy departures by UK governments have moved towards a comprehensive set of co-ordinated policies at different spatial scales to encourage a more spatially balanced growth across the country, with particular emphasis on lagging regions that are most in need of being 'levelled up'. We argue that progress has been intermittent and small. We start by reviewing some of the key principles and priorities of multi-level or multi-scalar industrial strategy. We then briefly review the May Government's 2017 Industrial Strategy and its new commitment to a mission approach and a place pillar. We compare this with the Johnson government's 2020 agenda based on its Plan for Growth and the recent Levelling Up White Paper. Despite important continuities, we argue that the Levelling Up White Paper represents a significant change in government recognition and appreciation of the UK's geographical inequalities and includes steps towards more place-based and sensitive policies. However, the agenda fails to provide the comprehensive and multi-level industrial strategy necessary for the UK's major economic challenges, including the highly uneven nature of the UK's economic geography. The concluding Section provides some recommendations for how such a strategy should be developed and strengthened.

## **2. Principles and Priorities for a New Industrial Strategy**

It has been widely recognised that the renaissance of industrial strategy and policies in many countries since the mid-2000s has been associated with new rationales, justifications, and design principles (Warwick, 2013). This has highlighted a move from traditional vertical and horizontal subsidies and incentives towards more of a systems failure approach that is based above all on vision and institutional co-ordination around a direction of structural change. Aiginger and Rodrik (2020) have argued that there are four key priorities for a successful, new generation industrial strategy<sup>1</sup>. While

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<sup>1</sup> Here we understand industrial policies as "policies that stimulate specific economic activities and promote structural change" (Rodrik, 2019, p.2), whereas an industrial strategy is "a consistent and articulated group of policy instruments designed in order to reach specific policy objectives" (Crisuolo *et al*, 2022a, p.15).

there is much uncertainty about the effectiveness of individual policy instruments, there is a growing international agreement on the significance of these broad principles (Criscuolo et al, 2022a; Wilkes, 2020). First, recognising the importance of servitization, it needs to nurture and develop economic activities that include services as well as manufacturing. Manufacturing remains essential to industrial development because of its significance to exports, productivity growth, and technological change but it is increasingly blurred with services and sectoral interdependences need to be exploited (Vaillant et al, 2019). Second, industrial policy has moved away from traditional conceptions of top-down policy making, targeting pre-selected sectors, and employing a standard set of subsidies and incentives. In their words, “The contemporary conception and practice of industrial policy is much less about top-down incentives and much more about establishing a sustained collaboration between the public and private sectors around issues of productivity and social goals. This kind of dialog eschews an *ex ante* selection of activities to promote or policy instruments to utilize. It focuses instead on engineering an appropriate institutional setting within which the collaboration can best bear fruit” (Aiginger and Rodrik , op. cit., p.192). In accord with evidence on what works best in the governance of industrial policies, policy design is therefore best seen as intensive dialogue between government and business, with a search process that is open to new solutions and experiments (Paic and Viros, 2019). This should involve learning about constraints, opportunities, and choice of policy instruments together with accountability, to form an experimentalist approach that prevents regulatory capture. Third, they also argue that industrial policy can no longer be an isolated policy, developed on its own and competing with regional and other growth policies. Instead, industrial policy needs to be strategic and systemic, focusing on both demand and supply factors, and maximising synergies with other policies such as education, training, entrepreneurship (Bailey *et al*, 2019a). The synergies between policies and framework conditions for business have been found to be essential to policy effectiveness (Criscuolo et al, 2022b). Fourth, structural change and productivity growth can no longer serve as end goals without any consideration of the direction of this change. If industrial policies promote structural change and specific economic activities, then they inevitably raise normative questions about what type of structural change is desirable and beneficial to society.

Aiginger and Rodrik (2020) argue for steering technological change in a direction that is friendlier to both labour and the environment, focusing on developing quality and sophisticated products. In this view, industrial policy should respond to pressing social and environmental needs, and should include market shaping and a mission orientation to address key problems such as health, ageing, and climate change. This emphasis on the need for direction partly explains the recent popularity of mission approaches to innovation which aim to identify societal challenges and problems, and then identify and design reachable ‘missions’ that respond to these overall challenges (Mazzucato, 2018; Mazzucato

et al, 2019). Collaborative cross-sector working is seen as a key means to reach these missions. Moreover, according to some, the directionality of industrial change should also include distributional issues and the effects of industrial and technological change on patterns of inequality (Berry *et al*, 2021). Certainly, it is evident that industrial policies need to engage with regional differences and inequalities if they are to deliver structural change that has wide benefits.

This new understanding of industrial strategy has often included calls for better co-ordination between national and sub-national governments and the introduction of place-based policies at regional and local scales. If industrial policies are to engage with geographical inequalities, then national policies need to be spatially aware and place sensitive rather than 'spatially blind' so that the geographical outcomes and effects of these policies are considered, and, if necessary, modified. There have been growing calls for the introduction of more place-based and place-sensitive economic and industrial strategies that respond to the economic stagnation of former manufacturing Rustbelts and peripheral regions (Tomlinson *et al*, 2019). Top-down policies rarely have a perfect knowledge of local issues, whereas local institutions and policies can be diagnostic and experimental, providing a better tailored response to needs, problems, and opportunities of local economies (Barca, 2009; 2011; Beer *et al*, 2020; McCann *et al*, 2021; Morgan and Sabel, 2019). Moreover, properly resourced place-based policies can diagnose and build on local competitive strengths and advantages, as is emphasised in the EU's smart specialisation policies, and provide the basis for collaborative public-private partnerships to build up rare or 'bottleneck' assets (Bailey *et al*, 2019a). Devolved policy making is seen as integral to any place-sensitive industrial strategy because it empowers those with intimate knowledge of local problems and provides them with the capability to diagnose and pursue place-specific solutions to place-specific problems (Foray *et al*, 2009; 2021). New policies and successful initiatives are more likely to emerge from these local dialogues. Effective devolved governance is neither top-down nor bottom-up, but utilises experimental governance between various scales, continuously improved and refined through various feedback loops (Morgan and Sabel, 2019). Place-based policies will not work if accompanying national economic policies are contradictory, so national and place-based policies need to be co-ordinated and aligned (Barca, 2019). This requires a multiscale and multi-actor industrial strategy that shows co-ordination and co-operation between levels of government.

In some contrast to many of these principles, UK governments have traditionally been averse to explicit industrial strategy. Industrial policies have been fragmented and subject to rapid churn, often representing narrow and temporary industry interventions rather than a coherent and framing industrial strategy (Cowling and Sugden, 1993; Coyle and Muhtar, 2021). There has been little sustained policy collaboration and dialogue around the directions that industrial strategy should follow. Instead, an implicit Treasury-led industrial strategy has been to grow and prioritise the financial

sector (Lee, 2021; Silverwood and Woodward, 2021). In the next section, we start to examine whether and how far recent UK industrial policy developments have moved away from these traditional deficits and embraced or moved towards, the principles above.

### **3. Rediscovering Industrial Strategy and the 'Place' Pillar**

The 2008 global financial crisis certainly triggered some recognition of the need for industrial strategy in the UK (Wilkes, 2020). The Conservative and Liberal Democrat coalition government from 2010 expressed a national ambition for sectoral and spatial 'rebalancing', and George Osborne (2011) called for a 'march of the makers'. Government aversion to industrial strategy had apparently weakened, but little of substance materialised apart from increased research and development spending and the introduction of Catapult centres modelled on the German Fraunhofer Institutes and designed to apply and translate new technological research (Department for BEIS, 2017). Despite much rhetoric, Bailey and Tomlinson (2017) show that government industrial policy was characterised by much ambivalence and a policy disconnect between sectors and places.

The Industrial Strategy Green and White papers published by the May government in 2017 started to show more influence of missions approaches to innovation as they identified key national challenges (HM Government, 2017a; 2017b). The four grand challenges were to 'put the UK at the forefront of the artificial intelligence and data revolution; maximise the advantages for UK industry from the global shift to clean growth; become a world leader in shaping the future of mobility and harness the power of innovation to help meet the needs of an ageing society' (HM Government, 2017b, p.34). However, the challenges did not instigate a new sustained dialogue with industry for how they could be achieved through specific missions (Wilkes, 2020). Instead, the Strategy included 142 different policies and ambitions for UK 'world leadership' in emergent and growing future specialisms, primarily legitimised by a search for nation-state prowess, rather than improving living conditions (Chick, 2018). However, the renamed Department for Business, Energy and Industrial Strategy (BEIS) established a dedicated Industrial Strategy Directorate as well as a corporatist-style, quasi-independent Industrial Strategy Council to provide leadership. Specific and tailored support packages were agreed with about a dozen priority industries in the form of 'Sector Deals'. The number of Catapult Centres was also increased.

In hindsight, the Strategy was more a list of specific policies, rather than a coherent framework and direction (Owen, 2021). Essentially, it focused on technological innovation in key technologies and industries, designed to move UK firms into the technological frontier (or keep them there) and representing a substitutive state model in which the state would supplement private R and D spending

in these areas (Berry, 2022). Nevertheless, May's 2017 Industrial Strategy recognised the need for 're-balancing' the UK's economy and offered some semblance of movement towards a recognition of place-based thinking. LEPs were now tasked with introducing Local Industrial Strategies that were set to be 'long-term, based on clear evidence, and aligned to the national Strategy. These should identify local strengths and challenges, future opportunities and the action needed to boost productivity, earning power and competitiveness' (HM Government, 2017b, p.220). Indeed, the Industrial Strategy Council (2020) emphasised that 'a comprehensive set of local industrial strategies, consistently-applied is key to "levelling-up" the UK'. But, other governance initiatives, including City Deals and Combined Authorities post-2010, were not explicitly connected into this policy agenda. Indeed, despite being stated as a 'key' pillar in the White paper, 'place' appeared to be an afterthought and not an underpinning or cross-cutting principle that ran throughout all parts of the Strategy, instead relegated to the final section of the document.

Neither were there significant signs that this technologically based Strategy was genuinely place-sensitive. Fothergill *et al's* (2019) analysis of the Industrial Strategy Challenge Fund's first selection of six target sectors found that the majority of the relatively small employment in these sectors was located in the research-intensive regions of London, the South-East, and the East of England. Similarly, five of the initially proposed seven Catapult Centres were located in the South of England. There was little attempt to address the 'regional innovation paradox', or the contradiction between the need for higher levels of investment for innovation in lagging regions and their lower capacity to absorb such funding and develop innovation capabilities compared to more advanced regions (Oughton *et al*, 2002). Despite the experiment with local industrial strategies, there is a consensus that the UK, and especially England, has lacked the policy capacities at both national and regional scales to deliver the collaboration and co-ordination required for mission-type industrial strategies. The patchwork of LEPs and two-tier local authorities has to date delivered disappointing results (Fai, 2018; House of Commons Committee of Public Accounts, 2019). LEPs, in particular, have been chronically underfunded and suffered from unclear guidance from central government (Romaniuk *et al*, 2020), leading to suggestions that they fundamentally lack the capacity to develop complex local economic growth projects (House of Commons Committee of Public Accounts, 2019). However, after the trauma of the Brexit debate and vote had revealed the depth of territorial resentment and political discontent in many traditional manufacturing regions, the incoming Johnson Conservative government in late 2019 promised to make geographical levelling up its priority, and we now want to consider whether it has changed industrial policies to be more aligned with resolving regional inequalities and more attentive to some of the principles of industrial strategies outlined above.

#### **4. The 2020 Agenda: Putting Missions in Place?**

The Levelling Up White Paper released in February 2022 represents a significant shift in thinking, stating that ‘place-based strategies can grow the pie... (t)hey are about unleashing opportunity and boosting allocative efficiency, not redistribution between places per se’ (HM Government, 2022, p.96) Importantly, it adopts a generative growth perspective and recognises the importance of place-specific endowments across the national economy which can be nurtured through variations in policy to achieve growth in all places (Falk, 2022). However, the government’s reworking of industrial policies has been even more ambivalent about industrial strategy, dismissing the notion of an Industrial Strategy, but has shown continuity with some of the key policies of May’s framework. The UK Industrial Strategy was abandoned, and the Industrial Strategy Council and the Industrial Strategy Directorate in BEIS were both abolished, which provoked some dismay amongst industry representatives (Coulter, 2021; MakeUK, 2021). Crucially for the ‘place’ agenda, Local Industrial Strategies were abandoned and, in response to the huge shock of the pandemic, replaced by local economic recovery plans. LEPs in England have also been put in review and their future is clouded by uncertainty. It appears that the Government has preferred to rely on a set of ambiguous industrial policies united under the also ambiguous banner of ‘levelling up’, rather than a coherent industrial strategy that addresses fundamental supply-side issues (Coulter, 2022). Yet again, the UK has a set of industrial policies, but no explicit guiding strategy.

Many of the key policies of the Levelling Up White Paper and agenda strongly resemble those in the abandoned Industrial Strategy (Jones, 2022). For example, the ‘Build Back Better: Our Plan for Growth’ (HM Government, 2021a) document, published in March 2021, includes calls for more of the innovation centres in Net Zero, new energy and digital fields. The focus of these policies remains primarily on supporting innovation in key sectors and technologies. In October 2021, the government released details of the ‘Net Zero Strategy’ to ‘build back greener’ (HM Government, 2021b), echoing the May Strategy call to maximise the advantages for UK industry from the global shift to clean growth, which focuses on technological innovation to meet Net Zero goals, relying optimistically on yet-to-exist technologies (CCC, 2021). The UK Innovation Strategy launched in July 2021 continues the aim to make the ‘UK a global hub for innovation’, by supplying new organisation and avenues for funding, focusing on seven key emerging technology families that offer commercialisation potential. The Strategy also includes the creation of the UK Advanced Research and Invention Agency to stimulate innovation. The Sector deals with key industries have continued, albeit with a lower profile, and have been supplemented by a new Export Strategy in November 2021 (HM Government, 2021d) involving a 12-point plan to support strategic sectors.



To what extent are these technologically focused industrial policies place-sensitive? It is certainly true that place has become increasingly central to the discourse in these documents. While the Plan for Growth has no specific 'place' component, the UK Innovation Strategy shows a stronger focus on place-based policies; 'places' stands as a key pillar, following the advice of a Place Advisory Group. Government research funding is to be aimed at innovation clusters and eight freeports throughout the UK connecting to the levelling up ambition (HM Government, 2021c, p.72), representing a significant expansion of cluster and innovation centre initiatives and backed by increased funding for outside the Oxbridge-London triangle.

The agenda again shows the influence of missions thinking, however, the language of missions has now shifted from directed and transformational innovation agendas, into targets for levelling up. However, most of the eight missions proposed focus on raising measures of wellbeing. Observers note that these are a mixed bag: some targets are too imprecise; some targets are readily achievable while others are 'staggeringly ambitious'; and the majority will not directly resolve economic problems (Gibson, 2022; Shearer, 2022). Three key specific geographical commitments are: first, that by 2030 every area of the UK will contain a globally competitive city; second, that domestic public investment in research and development outside the Greater South-East will increase by at least 40%; and third, that every part of England that wants one will have a devolution deal with powers at or approaching the highest level of devolution and a simplified, long-term funding settlement. This represents a significant shift in the way place is incorporated into UK policymaking, but at the same time there is little in the way of new funding announced with only three further £100 million Innovation Accelerators and a £1.5 billion Levelling Up Home Building Fund, the latter provided through loans.

Do the current set of Plans for Growth manage to combine economic strategies with awareness of spatial priorities? Clearly the Levelling Up White Paper includes a welcome commitment to increase the place sensitivity of all government spending and procurement, even promising to make this a 'golden thread' through departments. However, the White Paper lacks a clear actionable core economic plan for addressing spatial inequalities (Institute for Government, 2022). In effect, the reduction of emphasis on strategic grand challenges has made the economic direction both more obscure and narrower. It combines a disparate set of rather unclear and overlapping innovation goals and targets or commercial technologies with some sense of broader transformations. As Flanagan (2022, p.3) writes, 'There's a big hole in this White Paper where a developed long term industrial development strategy should be – one that meets the scale of the problem with appropriate and long-term commitments'. As a result, there is an apparent lack of co-ordination between the various policies. For example, Net Zero and the green industrial revolution are second bottom in the list of 16 priorities, missing out on key commitments and opportunities for a green recovery (Harvey, 2022).

Moreover, the relations between these sets of key technologies and any place-sensitivity or levelling up plans are much less clear. Three major innovation clusters are to be developed in Manchester, the West Midlands and Glasgow. These will try to build on the success of some of the Industry Catapults, such as the AMRC in Sheffield, which have strengthened research and translation in some advanced manufacturing sectors (Department for BEIS, 2017). Beyond this, however, the Innovation plan makes optimistic claims that there are potential technology clusters that could be developed in every region, and that every region should host a world-leading city. But the evidence for these claims is little more than impressionistic and arbitrary maps of industry specialisations that echoes cluster policy fads of the past (Martin and Sunley, 2003). The association of freeports with major growth and innovation clusters is also unconvincing. The approach is based on a large slice of optimism that the new technologies will connect with and reinforce existing strengths in some manufacturing and service industries, but there is a clear danger that they will be disconnected from other interventions (Flanagan, 2022). A more comprehensive industrial strategy would have considered the relations between technologies, regulations, demand, and skills in more detail, and designed plans to develop public-private collaborations to meet the key needs and bottlenecks.

Previous innovation centres and enterprise zones that have performed best in the UK are those integrated into the fabric of the region (Hooton and Tyler, 2019). HORIBA-MIRA, for example, is located on a site in the Midlands that has led automotive innovation for over 100 years. This is in stark contrast to those innovation centres located in a more ad-hoc manner, which often connect mainly with large firms and do not provide strong benefits to the local community of SMEs. While the Net Zero and Levelling Up White Papers attempt to position future innovation centres and clusters in the less developed areas of the UK, if they are not leveraging properly on local expertise then they risk becoming white elephants. Such clusters will require continued long-term support beyond 2030, but there is currently little evidence of long-term plans which are essential to adapt to clusters' cycles and phases (Harris, 2021). While the government is investing significant sums of money on centres at the early stage of the innovation process, later stages of the innovation process have been much less well supported (Jones, 2020). This suggests that these plans may struggle to deliver local value capture and support downstream innovation which takes place through the diffusion, absorption and translation of new technologies. This is surprising given that one of the key missions of contemporary industrial strategies should be the promotion of the Fourth Industrial Revolution based on the combination of new technologies that have emerged in AI and robotics, digitisation, additive manufacturing, genomics and life sciences, and carbon reduction and new energies (De Propris and Bellandi, 2021).

## 5. Co-ordination and Place-based Capacities

As we have argued, the delivery of new mission and problem-focused industrial policies requires the construction of institutional co-ordination both horizontally across sectors and public-private boundaries, and vertically between different scales of government. However, the removal of the Industrial Strategy Council has reduced national capacity for policy co-ordination and the introduction of levelling up missions appears to have run well ahead of the development of the institutional capacity to deliver co-ordination between Departments and levels of administration. In past decades, the UK has lacked the networks of public, private and intermediate regional and local institutions that provide the basis for an 'industrial commons' in which firms and related institutions share knowledge, build skills, and contribute to policy development (Coulter, 2022; Sunley *et al*, 2021). One of the key reasons for this is that Government has largely preferred to rely on a top-down mode of conditional governance rather than multi-level co-ordination. Thus, the 2020 agenda continues to rely heavily on the use of spatially targeted policies to create new investments such as innovation centres, enterprise zones, and free ports in left behind places to stimulate agglomerative effects. These policies all run the risk of layering some additional funding and general business and tax incentives on top of the existing area while not attaching to the roots and histories of their location. Spatially-targeted policies not directly tied to the concerned population 'are liable to reinforce rather than redirect development to underserved regions' (Bailey *et al*, 2019b, p.323), and the more embedded the policy is in a place the likelier it is to address underlying problems (Shambaugh and Nunn, 2018). The Enterprise Zones and Freeports, identified as Brexit bonuses (Sunak, 2017), are particularly egregious examples which have been found in the past simply to redistribute growth from neighbouring areas (Hooton and Tyler, 2019), rather than produce a generative effect across regions.

It is unclear whether the plans for further devolution to mayoral authorities and counties will provide the basis for a growth of place-based bottom-up industrial policies. The extension of devolution introduced by the Levelling Up White Paper does not appear designed to supply a stronger institutional basis for such policy-making. The economic and fiscal powers of the new combined authorities will continue to be strongly circumscribed, as the apparent lack of Treasury buy-in to the Levelling Up Programme means it has been reluctant to let go of any significant economic levers and fiscal powers. Even the more recent combined authorities agreed since 2016 have a confusing mix of limited powers and have lacked tax raising powers. The most powerful, Greater Manchester Combined Authority, has a range of powers and resources still short of those held by city and regional authorities in European nations (Jacobs *et al*, 2017).

There are also continuing doubts whether the combined authorities alone will be adequate to provide the regional scale of management for effective infrastructure policies and fill the regional gap in the institutional jigsaw (Hildreth and Bailey, 2014). Regional bodies such as ‘Northern Powerhouse’ and the ‘Midlands Engine’ are currently devoid of any significant power, but they are seen as essential by many manufacturing firms and represent potential avenues to provide the devolved powers necessary to support industry growth. Major infrastructure and facility investments need to be co-ordinated at a regional scale. Finding ways to facilitate relationships between regional collaborations, combined authorities, and local bodies may be the key to unlocking growth. The successful Made Smarter pilot in the North-West, for example, features a coming together of LEPs and combined authorities with other facilities in the region (MadeSmarter, 2021). The scheme and its offshoots have provided advice, grants and placements for SMEs to aid their digitalisation but lack scale and reach (House of Commons, 2019).

While the devolution road map may eventually develop into the basis for place-based industrial policies, current plans are only the first small steps. Those areas lacking any combined authority will continue to be marked by fragmented and under-funded economic governance, and it appears that the new combined authorities will be short of resources and powers to make a difference to their economic development. There is no doubt that some of the new innovation clusters will support technology creation in the FIR, but all parts of the economy and especially less prosperous regions will need policy support to learn, absorb, and adapt to the FIR. While UKRI knowledge exchange and commercialisation programmes support diffusion from university research, there is much more that could be done to encourage diffusion and absorption via networks and partnerships in regions. Given the ‘long tail’ of low productivity firms in many UK regions it is perhaps surprising that current innovation policies only provide sketchy and brief direction in terms of the FIR, nor do they aim to develop strong place-sensitive and place-based policies to support and increase its diffusion and allow local experimentation based on existing industrial strengths and opportunities. In many documents it is assumed that developing denser and larger second-tier cities will be adequate to raise regional productivity levels.

What is missing are place-based policies that attempt to anchor and attract new niches in the FIR, enable place-based collaborative learning about the potential of new technologies and practices, share knowledge on how they can raise productivity, and closely co-ordinate these policies with local education and skills development. Hence, in our view, current initiatives, despite recognising some of the significance of place, remain short of a sufficiently strong direction or ‘mission’ to capture the benefits of the Fourth Industrial Revolution and manage its costs. It is possible that the existing combined authorities and the new devolved authorities envisaged in the Levelling Up White paper will

perceive these opportunities and help their firms to collaborate on their diffusion. But the technologies and their impacts are moving rapidly while the process of devolution set in motion is likely to be too slow and patchy. These developing authorities will be faced by many pressing social and health issues. It appears unlikely that most of them will have the resources and capacities to provide a forceful local steer and adequate support to encourage more engagement with industrial policy.

The relative weakness of place-based policies is likely to be highly problematic for several reasons. Place-based policy making is a process in which industrial policies can be much better integrated and aligned with other supply and demand side policies. In its absence, local co-ordination and co-operation between stakeholders on issues such as skills, transport, finance, and housing, and how they affect industrial change will continue to be in short supply. It also means that local industrial policies will not be able to benefit from the diagnostic and experimental activity of place-based policies which can identify local needs, opportunities, and capabilities, and attune policies to them. This includes the opportunities for local diversification and technological innovation targeted by smart specialization and entrepreneurial discovery, but it is not limited to them. It will also mean that local industrial policies will not be problem-based in the sense that they are responsive to pressing local needs and issues, and local environmental and social needs (Flanagan *et al*, 2022). The potential for local industrial policies to support and drive local foundational economies will continue to be foregone.

## **6. Conclusions**

This paper has reviewed the recent development of industrial policies in the UK in the light of the objective to improve economic performance in a way that also contributes to a spatial (re)balancing across the country. We have assessed whether and how the principles of cross sectoral collaboration, intensive dialogue, systemic alignment between industrial and other policies, and multilevel co-ordination and place-based policy learning, have been implemented. The paper finds that while the rhetoric around these principles has certainly appeared in recent policy documents and has shaped some of the policy thinking around grand challenges and levelling up targets, the principles have yet to make significant impact in terms of displacing an implicit and amorphous set of goals, and technologically focused and top-down modes of intervention. The agenda put forth by the recent Johnson government demonstrates a demonstrable shift in thinking about regional problems, that may in time produce the transformative changes to policy making required to tackle the UKs entrenched spatial inequalities, but this agenda is hugely weakened by its turn away from an industrial strategy. A recent review of mission and challenge type policies explains that the achievement of any

mission depends on the construction of three types of policy capacity: the first is the ability to set a strategic orientation and direction; the second is the capacity to co-ordinate and lead networks both horizontally and vertically; and the third is the capacity to select, evaluate and learn from policy instruments and interventions (Larrue *et al*, 2019). Industrial Strategy in the UK has suffered from and failed to remedy capacity deficits in all three. In terms of strategic direction, the Government has identified some public challenges with extensive and public support, however the reversion back to a lack of national institutional leadership and a narrower technological focus has made co-ordination with industry, public and third sector organisations on key societal challenges harder to build and legitimise, and less consistent. An implicit industrial strategy will not encourage collaboration, and the cloudy agenda is far harder to legitimise and mobilise around. The co-ordination of industrial policies with other types of policy and especially with the levelling up aims does not appear to have been taken seriously, and the hope for co-ordination depends almost entirely on the extent to which Catapult centres and innovation clusters will produce results consistent with the levelling up goals. In terms of policy design, the continued reliance on top-down centralised disbursement prevents strong co-ordination. The lack of local and regional policy capacity greatly limits the set of policy instruments and experiments that can be used to support economic actors across the country and undermines policy flexibility and learning at a local scale (Martin *et al*, 2021). And, as a consequence, in many regions there is little practical support for the growth of economic capacities based on high-skills and high-productivity practices. The use of special purpose funds for defined projects is ill-designed in terms of providing better co-ordination between education and skills, housing, and economic policies at a local level. Ultimately, co-ordination failures will remain endemic in the policy system unless there is a more strategic effort to build policy capacities that enable longer term deliberation and co-ordination.

While some places will undoubtedly benefit from the plethora of new policies coming forth, seeing some sort of 'levelling up', it is also equally likely that many others will fall behind further due to their lack of political significance or weak policy capacities. Such places will be unsuccessful in their bids to capture central funding or navigate the confusing institutional landscape, and may miss out on the benefits of a new innovation centre, or perhaps could receive only the questionable effects of a poorly thought-out innovation centre, enterprise zone, or freeport. In our view, the principles and priorities discussed above need to be moved from easy rhetoric into difficult and long-term actions focused on dialogue and multilevel co-ordination. At present, current 'levelling up' policies will be stymied by the lack of a new industrial strategy and this risks an acceleration in the further widening of spatial inequalities.

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