

# **Growth Beacons**

How Urban Innovation Districts Can Create and Spread Prosperity

IPPO's Policy White Paper and Rapid Evidence Review

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CATAPULT

## **Executive Summary**

As the nations, regions, and cities of the UK grapple with the need to raise productivity, this report by the International Public Policy Observatory (IPPO), produced with the involvement of the UK Innovation Districts Group (UK IDG), argues that Innovation Districts will play an increasingly key role in facilitating economic growth. It shows how districts can share their benefits broadly and how governments can support them.

Drawing on a formal review of the global academic evidence alongside conversations with successful districts from across the UK and internationally, we set out the case for Innovation Districts as growth beacons - hubs of entrepreneurship, research and ingenuity which can drive forward economic development.

We consider what makes them work in facilitating innovation – the important roles played by anchor institutions, capital, their physical shape and sense of place, the key relationships and a long-term approach.

We also show how they can be successful socially - demonstrating the ways in which their benefits can be shared equitably with their local populations. Collating best practice from across the UK and globally, we set out options for districts including elements like local SME support, talent development and event programming.

The report also addresses what national and local governments can do to help districts succeed in their mission of driving inclusive innovation. While there is no one-size-fits-all approach to success, we provide some relatively low-cost and easy-to-implement policy steers that governments can act on now to help districts fulfil their potential. These are set out in detail on page 17 and summarised below:

#### **Policy Steers**

To Local Governments:

- **Explore stronger vehicles to grow districts.** Powerful intermediaries like development corporations could be used to mobilise capital and bring together partners.
- Link districts into jobs and skills strategies. Collaboration on local planning can support talent pipelines through early innovation experiences, apprenticeships, and FE college courses.
- **Collaborate with developers to provide infrastructure for innovation.** Planning obligations can incorporate innovation assets like venues, makerspaces, and equipment for communities.

#### To National Governments:

- **Connect regional and innovation strategy.** Join the dots between local growth plans and innovation strategies, encouraging greater R&D and inward investment in innovation districts.
- **Create ministerially chaired forums to unblock barriers to growth.** A place for districts, national and local governments to co-ordinate action: from investment support to regulatory flexibility and knowledge sharing.
- **Provide districts and authorities with data.** Support the planning for jobs growth and skill demand while encouraging the coordination of complementary activities.
- Explore tax options to capture land value and re-invest locally. Governments need to develop options to ensure the value created by districts can be channelled back into innovation, including through reshaping planning tools like Section 106.

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### Introduction

Over the past 30 years, Innovation Districts have become increasingly important as engines of innovation and economic growth.<sup>1</sup> There are now estimated to be more than 150 such districts globally and several dozen in the UK.<sup>2</sup> At a time when the new UK government and governments across all the UK nations are trying to boost economic growth, Innovation Districts are set to play an increasingly important role, whether by pushing the frontiers of technology or boosting productivity.<sup>3</sup>

This report focuses on the role that Innovation Districts can play as drivers of inclusive growth generating opportunities for as many people as possible, helping firms to grow, and acting as magnets for investment and talent. Documenting many examples of national and international good practice with a particular focus on how to best share benefits and opportunities, the report also makes policy recommendations to national and local governments. The recommendations are relatively simple, uncontroversial and low-cost steps that governments can take to make a difference in areas such as skills, data, planning and co-ordination.

This report was prepared in collaboration with members of UK Innovation Districts Group (IDG) and draws on interviews and roundtables with practitioners across the world including many UK districts, as well as international exemplars such as @22 in Barcelona, Kendall Square in the USA and Ruta N in Medellin, Colombia. It is accompanied by an academic evidence review by UCL's EPPI Centre (Appendix 1) which synthesises what is known globally about how districts work and how they can spread their benefits.

#### **Defining Innovation Districts**

The UK Innovation Districts Group provides this definition:

Innovation Districts are defined as densely populated geographic areas where leading-edge anchor institutions and companies cluster, connect and collaborate with startups, business incubators, and accelerators to developed applied innovation solutions that deliver tangible economic and/or societal benefits.

Common characteristics of Innovation Districts:

- a focused urban, mixed use, compact (walkable) zone
- hyper connected (physically, digitally and via networks)
- include some civic realm or public space as part of their physical make-up
- have a governance model that blends place-based academic, private and public partnerships that is designed to nurture the assets, networks, relationships and activity within the district and generate additional social and economic value.

#### **The Context**

The advantages that come from clustering industries and research is well-documented.<sup>4</sup> A topic of interest to economists since the late 19<sup>th</sup> century, Alfred Marshall wrote of industrial districts as places where "social forces ... cooperate with economic ones", and where, if someone comes up with an idea, "it is taken by others and combined with suggestions of their own and thus becomes the source of new

ideas."<sup>5</sup> More recently there has been waves of interest in the virtues of clusters – with many attempts to replicate the successes of Silicon Valley in digital, the City of London in finance or Hollywood in film and TV.

Whereas science parks used to be based outside cities, often close to greenfield universities, in recent decades innovation districts have mainly grown up within cities. Their rising importance reflects awareness that concentration matters even more in an economy driven by knowledge, creativity and innovation, than one based on natural resources, agriculture or manufacturing.

The frontiers of innovation are dominated by a relatively small number of clusters that lead in key fields, from pharmaceutical to AI, chips to software. A few, predominantly urban, places have become magnets for talent and money. As John Kay has argued, these are places where the "collective intelligence created by local competition and cooperation" deepens over time through attraction and experience – combining formal and tacit knowledge of all kinds and fuelled by relationships of trust and mutual respect.<sup>6</sup>

When it comes to innovation, the world is certainly not flat. This is why industrial policy increasingly involves competition between nations and cities to foster innovative clusters in frontier technologies - the substantial investment around AI, quantum computing and synthetic biology being the latest examples.

There is no doubt that successful clusters can serve as beacons or engines of growth, spinning off start-ups, products, services and jobs, and many of the new-generation industrial districts have helped to revive cities that were struggling with de-industrialisation.

But not everywhere can become a dynamic hub for AI, nanotechnology or life sciences. The many attempts to replicate Silicon Valley – with Silicon Glens, Wadis, Fjords and more – showed that clusters cannot easily be created just through decree or willpower. Instead, successful strategies have had to combine ambition and realism, building on strengths, but also focusing on capabilities that go with the grain of broader economic developments.

As shown by our review of the global evidence and discussions with successful districts, there are some reasonably clear lessons about the factors that are most likely to fuel success. These include: the presence of strong anchor institutions such as universities; effective relationships between the key players; a focus on developing industry strengths; the right kinds of building and space; flows of capital; and a long-term commitment, since districts generally take at least a decade to take shape and achieve results.

However, they have had relatively little attention from UK policymakers, who have tended to prioritise either the older clusters (such as Oxford and Cambridge), or place-based policies that emphasise deregulation (such as Enterprise Zones, of which there are 48 in the UK offering tax incentives and looser planning rules). Innovation strategy remains often disconnected from spatial and regional strategy.

Our review is therefore concerned with how this can be addressed; how districts can succeed socially as well as economically; and how local and national governments can help them do this.

## **Introducing Innovation Districts**

#### A Brief History of Innovation Districts

Over the last 30 years, many cities around the world have tried to create dynamic Innovation Districts to catalyse and amplify economic growth based on new knowledge. These became an alternative to the out-of-town science parks that dominated in previous decades, and usually linked universities, space for start-ups, and industry hubs. Successful examples can be found all over the world, from Kendall Square in Cambridge, Massachusetts, to Barcelona, and from Shenzhen to Melbourne.

The premise of these districts is that geographical concentration generates benefits. More regular interaction produces more ideas, more crosspollination, and more effective commercialisation of ideas. Turning places into magnets, they then attract both talent and investment, producing a virtuous circle that manifests in firm growth, higher salaries, higher GDP and higher land values.

More innovation jobs have the knock-on effect of multiplying jobs in the broader economy. For example, in the UK, Lee and Clarke note that "for every 10 new jobs created in a high-tech sector, like digital technology, 7 new jobs are created in other parts of the local economy, such as restaurants, security, cleaning, or business services."<sup>7</sup>

#### **Proximity Matters**

Some of the most famous locations for innovation grew fairly organically as clusters: the City of London and Wall Street in finance; Hollywood and Bollywood in film; and the clusters around Stanford in the US or Cambridge in the UK.

Others were prominent in previous eras, but then declined. For example, in Rochester, New York, a strong innovation ecosystem built up around Kodak and Xerox but decayed as those companies hit crisis.<sup>8</sup> However, the greater prominence of Innovation Districts today reflects the nature of the 21<sup>st</sup> century innovation-based economy, which has become even more concentrated, with the highest value activities happening in a relatively few places. This has been very visible in the AI boom and value of firms like Nvidia and ASML, as well as in industries such as TV and film or finance.

It was once thought that digital networks would supersede the need for geographical concentration. However, land values show that if anything, proximity has become more, not less important. Also, the recent move by big firms to limit working from home after the pandemic further confirms that the world is not yet ready to give up on geography.<sup>9</sup>



MaRS Discovery District, Toronto – Credit: MaRS Discovery District

MaRS in Toronto is a notable 21<sup>st</sup> century innovation district – linking the university, province, accelerators and venture capital, and contributing to the region's huge success in creating technology jobs – more in the late 2010s than Silicon Valley, Seattle and Boston combined, according to one survey.<sup>10</sup>

#### **Success Stories**

22@Barcelona, launched in the early 2000s, is often hailed as one of the first modern innovation districts.<sup>11</sup> Thanks to the presence of cuttingedge companies, universities and training centres, as well sa Barcelona's successful promotion of itself in fields such as mobile and data, it has now become one of Spain's most successful urban renewal projects and is spawning interesting spin-offs in neighbouring areas.<sup>12</sup> China has also developed many districts of this kind, from Shanghai to Chengdu. Shenzhen is now one of the most successful anywhere, with very distinct approaches to investment and rapid knowledge sharing that fuel a clutch of new corporate titans like Huawei and Tencent.<sup>13</sup>

Today, Innovation Districts can be found across the globe in cities as diverse as <u>Paris, Buenos</u> <u>Aires</u>, and <u>Montréal</u> – with ambitious initiatives continuing to be launched in places like <u>Singapore</u>. Increasingly, smaller cities without revered universities are also managing to foster successful districts; <u>Chattanooga</u>, <u>Tennessee</u> and <u>Fort Worth</u>, <u>Texas</u> are just two less-known US examples.

Built around a public utilities anchor, Ruta N in Medellin, Colombia, is a stand-out example of how an innovation district can form part of broader strategies of urban reinvention, including, in this case, radical steps to change the psychological geography of the city and the physical environment of poorer district.



Ruta N, Medellin – Credit: Ruta N

#### **Building on Strengths**

It's much easier to nurture a district where there is a world-class university. For example, the <u>Switzerland Innovation Park</u> in Zurich, which is home to ETH university, markets itself towards enterprises and academic research institutions. With a focus on robotics and mobility, aerospace and advanced manufacturing, it provides office space and laboratories for both businesses and universities.

Tsinghua in Beijing; NUS in Singapore; Imperial and UCL in London; and Aalto in Helsinki are all examples of universities that have helped to amplify the effects of grouping innovative minds.



Shenzhen Genzon Technology Innovation Centre – Credit: Shenzhen Technology Innovation Centre

Anchor also institutions don't have to be universities: for example, the Ford Corporation recently established a new 1.2 million square foot district in Detroit around the old Grand Union Station, focused on the "future of global mobility".<sup>14</sup> In Paris, the privately-funded Station F – styling itself as "the world's largest startup incubator" - hosts over 1000 startups and delivers over 30 programmes, becoming the anchor of an emerging innovation district.

Most districts emphasise how they build on existing industrial and research capabilities, whereas efforts to create districts in areas without any pre-existing capability usually fail. For example, the <u>Pittsburgh</u> Innovation District successfully leveraged the city's advantages as a hub for US healthcare – including \$3.1 billion of investment – into a broad base of economic activity.



Switzerland Innovation Park Zurich – Credit: SIP

Others emphasise building links with the wider city. For example, many cities are seeking to develop health innovation districts, linking hospitals, universities and firms, as well as involving the local public. One such example exists in Amsterdam, where the Health and Innovation District (HID) brings together 18 resident companies on a 60,000 square meter campus, leveraging the city's academic institutions and connections to Schiphol airport.



Health and Innovation District Amsterdam- Credit: HID Amsterdam

Likewise, the <u>Montreal</u> Health Innovation District sees the city's hospital collaborate with research institutions, health-tech companies and start-ups to "transform health for the benefit of all". Similar discipline-based districts can be found from <u>Cleveland</u>'s health tech corridor to <u>Phoenix's</u> Bioscience core.



Phoenix Bioscience Core – Credit: Phoenix Bioscience Core

Some districts focus on green jobs or transportation. The previously mentioned <u>Michigan Central</u> in Detroit, linked to Ford, uses the city's long-derelict Michigan Central Station as a civic amenity at the centre of its Corktown campus. The beautifully-restored station and surrounding properties includes spaces for rent and use by local businesses and the broader community, and recently <u>installed</u> the US's first wireless-charging public roadway.



Michigan Central, Detroit – Credit: Jason Keen/Michigan Central

### **Innovation Districts in the UK**

#### **Innovation Across the UK**

There are at least 30 districts in the United Kingdom and as we have shown the definitions are not precise. These vary greatly in size, focus, and scope, and include the Knowledge Quarter Liverpool, Glasgow Riverside Innovation District and SHIFT in East London's Queen Elizabeth Olympic Park, with the South Yorkshire Advanced Manufacturing District in Sheffield an example of a more sector-focused district. On the next page, we list current UK Innovation District Group members and their main anchor institutions.

One of the biggest is the Knowledge Quarter at Kings Cross in central London which has over one hundred members, many of them already long embedded in the area like the British Library and UCL, and newer multi-national arrivals such as Google. UK underscored that there is no one-size-fits-all approach to successful and inclusive place-based innovation.



UCL East Campus in the SHIFT Innovation District – Credit: UCL / Morley Von Sternberg



Google campus in London's Knowledge Quarter – credit: <u>Inc.</u>

UK Innovation Districts have many different governance arrangements, from paid membership models to initiatives led by local government partnerships or universities.

All are based in urban areas and most are relatively small in geographical terms, easily walkable and often with a strong sense of place and history.

However, despite these similarities, our conversations with Innovation Districts across the



Members of the UK Innovation Districts Group as of 2024 – Credit: UK Innovation Districts Group

| Name of UK Innovation District                | Anchor Institutions  |
|---|--|
| Belfast Innovation District                   | Belfast City Council, Belfast Harbour, Catalyst, Queen's<br>University and Ulster University, Invest NI  |
| Birmingham Digital Skills Innovation District | University of Birmingham, Bruntwood SciTech  |
| Glasgow City Innovation District              | Glasgow City Council, Scottish Enterprise, Glasgow Chamber<br>of Commerce, University of Strathclyde, Entrepreneurial<br>Scotland  |
| Glasgow Riverside Innovation District (GRID)  | University of Glasgow, Scottish Enterprise, Glasgow City Council   |
| Knowledge Quarter Liverpool                   | University of Liverpool, Liverpool John Moores University,<br>Liverpool University Hospitals NHS Foundation Trust, Liverpool<br>School of Tropical Medicine, Manufacturing Technology<br>Centre, Royal College of Physicians, Unilever       |
| Knowledge Quarter London                      | University College London, University of the Arts London, City<br>St George's, London Borough of Camden, London Borough of<br>Islington, The Francis Crick Institute, Google, The British<br>Library, The British Museum, The Wellcome Trust |
| Leeds Innovation Arc                          | University of Leeds, Nexus, Leeds Beckett University, Leeds<br>Teaching Hospitals Trust, Leeds City Council, British Library<br>North  |
| Newcastle Helix                               | Newcastle City Council, Legal & General, University of Newcastle   |
| SHIFT, Olympic Park, London                   | University of the Arts London, Lendlease, University College<br>London, Loughborough University in London, HereEast, Plexal,<br>London Legacy Development Corporation  |
| South Yorkshire AMID                          | University of Sheffield, Boeing  |
| West London Innovation District               | London Boroughs of Ealing, Hillingdon, and Hounslow, Fujitsu, WSP, AWS, Heathrow Airport, Brunel University, Segro   |
| White City Innovation District                | London Borough of Hammersmith and Fulham, Imperial College   |

#### Challenges for the UK

The UK does well in research, science quality in many frontier fields, and universities - with typically four in the top ten of the annual QS Ranking, and is developing a vibrant ecosystem of Innovation Districts (many of which are members of the <u>UK Innovation Districts Group</u>). most of their potential. Innovation activity – and high productivity firms – tend to be concentrated in the south-east, which has also dominated in terms of both infrastructure investment and public R&D funding.<sup>15</sup> Few districts have very strong business engagement from world-class firms. Growing a diversity of growth beacons will therefore require progress on several fronts simultaneously:

However, the UK faces challenges in making the

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### The first challenge will be to help existing and new innovation districts to grow.

Concentration – and the presence of one or more powerful anchors - can help achieve big impacts in accelerating economic growth, but it is not enough. Some initiatives have been overly dominated by hype and PR, while many were simply too unrealistic about their capabilities. Strategic clarity and patience are vital to making districts succeed. Furthermore, the adoption of new techniques and technologies is a particular priority for the UK – given the big gulf between the productivity of the most efficient firms and the rest. <sup>16</sup>



Newcastle Helix Innovation District – Credit: Newcastle Helix Innovation District

There is also a lack of capacity to drive the strategic actions which require a long-term outlook. The UK's Innovation Districts are held together by light-touch bodies, primarily for coordination and promotion. Stronger institutions, like those seen within urban regeneration, may be better placed to mobilise capital, do deals and follow through on long-term actions.

There is then a question of **how to ensure that the benefits are widely spread to local people.** If the district does succeed in amplifying growth, there is then the risk of this being detached from the daily life of the city or local area - an island of innovation rather than a catalyst. The spikiness and concentrated nature of innovation, mean that success often involves widening inequalities, at least in the short term.

This sees successful districts often facing a structural challenge in how to better share the value created by innovation. However, there are many districts, not least in the UK, that been imaginative in their use of training, apprenticeships, public procurement, and more, to widen the spillover benefits.

Finally, there is the **challenge of ensuring policy is aligned with the needs of districts.** In England for example, national government to date has put a strong emphasis on supporting enterprise zones and provides much less support for innovation district, whether in relation to finance or enabling regulatory flexibility.

A very different issue is how to ensure that regulation helps innovation. A good example of what's needed is the close connection between fintech innovators in the City of London and regulators. Their regular interaction encouraged the use of new methods such as regulatory sandboxes (which allow innovators to try out new ideas) and open data to speed up regulation to not block promising innovations. This was always done with care to manage risks and was usually more about updating regulation than cutting it back. However, it played a decisive role in enabling the City to maintain its dynamism in creating new banking products over the last decade. The City is in effect an innovation district for finance and as such offers a model that other Districts could benefit from, with a comparable level of engagement between innovators and regulators. The UK Government's newly created Regulatory Innovation Office could play a useful intermediary role in this respect.

### What Makes Innovation Districts Work?

Successful districts from @22 Barcelona to Kendal Square in the US have shown how placebased coordination of social, physical and human capital can lead to significant growth in businesses, jobs and GDP. However, it's not always easy to find out exactly what has and hasn't worked. The literature includes many boosterish self-published reports and case studies, with few meaningful comparisons of geographically distinct districts – particularly outside the US.

Therefore, we commissioned UCL's EPPI Centre to produce an Evidence Review (Appendix 1) that gathers a broad section of data, journal articles and reports, synthesising evidence to inform policy guidance.

Their research – together with our work with Innovation Districts across the UK - emphasises the obvious success factors: established universities and companies that have access to capital; an existing competitive advantage; a skilled workforce; the 'right' culture and social infrastructure; and physical assets from public transport to broadband connectivity, creating a "sense of place".<sup>17</sup>

Recent analysis confirms a large body of economic research showing the importance of geographical proximity and 'knowledge spillovers' to growth, alongside a strategy - often tied to an industry strength - and space for the district to evolve organically.<sup>18</sup>

Less successful examples have occurred where there has been significant upfront investment too far ahead of demand, leading to vacancies; <sup>19</sup> a lack of social capital with little mixing of residents and workers, or significant displacement of incumbent residents due to rising property prices.<sup>20</sup>



The Knowledge Quarter Liverpool has generated bridging capital by developing an investment partnership model – Credit: Knowledge Quarter Liverpool

#### Sense of Place

While older, science park-like areas like Silicon Valley are characterised by urban sprawl and dependency on cars, city-based districts tend to value liveability, density and walkability. They put a premium on human connection, including serendipitous encounters in cafes, restaurants and gyms<sup>21</sup>- the provision of which has come to be seen, albeit controversially, as a precondition for successful urban regeneration.<sup>22</sup>

In fostering a sense of place, it is important to involve exiting SMEs and social organisations, as well as high-tech industries, who are vital to the whole ecosystem and supply chains, as well as successful place-based development.

A broader rather than high-tech definition is likely to be more appropriate for place-based innovation

- Prof. Kieron Flanagan, Alliance Manchester Business School

#### **Anchor Institutions**

Innovation Districts are usually based around a physical anchor institution or institutions. <u>Kendall Square</u> in Cambridge, Massachusetts, dubbed "the most innovative square mile on the planet",

is surrounded by the Massachusetts Institute of Technology (MIT) campus and has been able to leverage the resources of the university to help attract and grow dozens of technology and life sciences companies, while developing physical and green infrastructure.<sup>23</sup>

In Spain, Barcelona @22 is supported by development corporation Barcelona Activa, a powerful part of the city council, which can align physical development, planning and support for companies.

#### **Generating Social Capital**

As anecdotal evidence has suggested, the physical design, mix of companies and programming of events are all essential in encouraging social capital and the crosspollination that supports innovation. Our discussions with Innovation Districts globally backed this up, confirming the importance of formal networking events to foster collaboration. However, there is still a lack of evidence measuring the strength of networks and collaboration (Appendix 1).

Cortex, St Louis developed a strategy that focused on attracting a mix of businesses in size and tenure which supported its social justice aims.

Past research assumed there were direct benefits to innovation from city size: in other words, simply being bigger meant that cities were more likely to innovate.<sup>24</sup> However, more recent studies suggest that the structure of relationships matter more - how firms and researchers in cities connect to and collaborate with their equivalents in districts and further afield.<sup>25</sup> Districts don't thrive as islands – they thrive when they are part of dynamic networks of cooperation. They succeed as more than the sum of their parts – benefitting from access to social, physical and technological infrastructure.<sup>26</sup>

Glasgow City Innovation District has supported the infrastructure for grass roots projects, bringing founders together through events including Glasgow Tech Fest and Glasgow Tech Week.

#### **Building and Financing the Environment**

R&D investment, especially private investment, is particularly important for stimulating productivity growth, with evidence that such investment can foster growth in peripheral regions and lower-tech sectors.<sup>27</sup> Additionally, some studies of successful Districts emphasise the role of venture capital – not just because it provides finance but also because it provides the best new firms with access to specialist expertise and mentoring.<sup>28</sup>

GRID have used the Glasgow City Region Intelligence Hub to inform the innovation district's focus industries, a major land and infrastructure audit and bids for national funding.

In this context, orienting districts around the existing strengths of an area – including using data to map strengths and engaging existing SMEs to attract outside investment – can help them succeed.

### **Inclusive Innovation**

Innovation drives economic growth – and improvements in everything from health to the environment. But innovation also creates new imbalances – it involves the decline of old industries and jobs, and changes in the places associated with them. In the past, less attention was paid to issues of inclusivity and equity in relation to innovation districts as cities focused on generating growth as an antidote to unemployment and urban decay.

But as districts have matured, and become more central to economic development, they have increasingly focused on inclusion, experimenting with different ways to ensure that local people participate in their success. Here we share examples of best practice from both the UK and internationally, including a menu of options for districts on page 16. This also builds on recent work in the UK including that of <u>the Inclusive</u> Innovation Commission, led by UK IDG.

#### Linking Local Procurement and Supply Chains

Promoting local procurement, especially by anchor institutions, can support local economies by promoting local industry development and employment.<sup>29</sup> While attracting new, often knowledge-intensive, industry is important for providing growth, nurturing existing businesses to become more innovative reduces the chance of displacement.

GRID, in partnership with Glasgow City Innovation District, has sought to overcome the barriers to local diverse innovators and support local community organisations by launching two social innovation programmes. Using funding to engage third-party providers, one programme will provide support for minority entrepreneurs and the other, integrate social enterprises into the local economy, while prioritising inclusion. Working groups can also bring together partners to promote common targets for local and diverseowned SME procurement more broadly. At a national level in the UK, the <u>Innovative</u> <u>Procurement Empowerment Centre</u> provides advice and training to public anchor institutions to overcome challenges in procurement innovation – acknowledging the innovation this can encourage.<sup>30</sup>

Districts can also encourage anchors and larger businesses to support SMEs by providing access to advice, support and resources, as well as networking and 'meet the buyer' events. For example, AMID Sheffield runs a programme supporting with existing organisations to support local SME to adopt new processes and methods, improving environmental and productivity performance.

Incubators and accelerators also help nurture early-stage businesses with space, advice and a network. One example is the <u>White City</u> <u>Innovation District</u> in West London, which hosts a network of incubators, co-working and venture builders.

#### Having the Right Kind of Physical Space

A mix of spaces and tenure types to accommodate businesses at different stages of their development is vital for nurturing an accessible ecosystem. Providing flexible and affordable space makes it easier to attract a wide range of different types of users.

Melbourne Connect, a new development with a significant amount of collaboration space, provides free bookable spaces for local networks and community groups to include those not currently in the innovation ecosystem. Cross-

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subsidising spaces and services through a tenant levy makes it possible to offer low rents to those starting out. At Melbourne Connect, a variety of income sources help to offset space costs and encourage spend targeting underrepresented groups and activation projects. Additional income streams include a retail lease, catering space, events hire, and sponsors. A partnership programme lays over the top of this, linking tenants to university research.

Ensuring affordable and flexible space is available is vital to increasing opportunities and ultimately diversity in new and high-tech business ownership.

#### – Vanessa Campbell, University of Melbourne

Spaces that bring residents into contact with innovation activity also encourage innovators to address local needs. Camden Council negotiated the ground floor of the Francis Crick Institute to be used as the neighbourhood's community centre, welcoming diversity into the building of an innovative research institute. Likewise in the US, the Fab Lab headquarters at Kendal Square provides state-of-the-art tools including a digital fabrication laboratory and site for STEM outreach. The location features space for training, business incubation and progression of sustainability innovations, as well as cross-pollination and exposure of different groups to careers in innovation.

Using currently available space, Glasgow City Innovation District has worked on a 'meanwhile strategy' to mobilise the local authority's own vacant retail properties. Offering £1 rent for the first year, followed by tiered income-based rent, the programme offers small local businesses opportunities to develop. Likewise, The Loop, based in SHIFT, London, is an interim land-use project where a large warehouse has been converted into a flexible workspace, with light industrial and retail space available at tiered rent for innovative circular economy businesses.

#### **Programming and Curating Events**

Hosting events is critical to both creating a sense of community and growing relationships that lead to fruitful collaborations. Districts can adopt a programming role to lead on co-ordination and consultation with existing communities, as well as district members, to provide a diverse programme of events that encourages residents to connect with organisations and support the growth of social capital.

The Kendal Square Association, for example, hosts around 1000 events a year for a huge variety of different demographics, serving to connect businesses, share the work of the district and bring residents in to learn, enjoy and even seek employment in the district. Likewise, KQ London hosts numerous networking and social events at its purpose-built Impact Hub, as well as linking up partners to host public events by the likes of The Alan Turing Institute.

#### **Housing for Innovation Workers**

Increased land value, and consequently housing costs, risks pushing out existing residents and creative talents from districts. Some of these dynamics are unavoidable – the natural sideeffects of success. With the negative effects of unaffordable housing risking greater inequality and stunted innovation, many districts are increasingly looking to adopt housing policies.<sup>31</sup>

Districts are also affected by existing planning policies: @22 Barcelona requires landowners to cede 30% of land for subsidised housing and community facilities, while new developments in UK districts are often subject to affordable and social housing requirements. Elsewhere, affordable housing schemes exist for medical, academic and professional healthcare staff or specific housing projects, like that for local STEM students, are providing within the District of InnovateABQ, New Mexico.<sup>32</sup> We believe similar approaches could be used to support innovators, or young researchers, including in the UK through expanding eligibility for key worker housing.

In Cambridge, Massachusetts, high commercial property tax around Kendall Square has helped support social provisions – universal childcare, higher education spending, transport, income support and low residential property tax. Moreover, as we show later, rising land prices could be captured through different means and reinvested into community assets.

#### **Governance and Community Participation**

All districts function under different structures, ownership and power dynamics, from limited companies to convening membership organisations. While the governance of districts can be either relatively exclusive or inclusive, a more bottom-up and participatory approach has often encouraged better provisions of basic and civic amenities.<sup>33</sup>

We really wanted a system which was truly democratic, it's the only way to ensure the objectives reflect the wider community. Our steering committee has representation from all our members, regardless of size. We're also looking to get community involvement and trialling new modes of community participation.

#### – Jodie Eastwood, Knowledge Quarter London

Serving clear missions can also guide the aims of districts to have positive social impact. These can be written in collaboration with local authorities and businesses who hold intel on local needs.

In Barcelona's @22 the close involvement of the local authority, whose previous Mayor was a community activist, meant that their physical urban development plans have been strongly influenced by local communities. Consultative governance structures like steering groups and assemblies which include representation of SMEs and local organisations can also help – and underpin support for initiatives like the Real Living Wage.<sup>34</sup>

#### **Engaging Young People in Innovation**

Striking research from the US showed that people are far more likely to become successful innovators, and creators of new patents, if they have early experience of innovation, with millions of clever young people, usually from poorer backgrounds, lacking these experiences.<sup>35</sup> In light of this, Innovation Districts can respond by focusing on increasing access for young people to coding education, innovation competitions or earlier experiences of working with local businesses on practical problems.

Collaboration with schools and other community groups can help districts place themselves at the heart of an existing community. Cultural institutions like the <u>Wellcome Collection</u> also play a vital role in engagement and providing education programmes - encouraged by their funding incentives. However, these programmes don't reach everyone, and community engagement often benefits from a designated role within a district with the capacity to engage existing schools, cultural and community organisations (Appendix 1). Simultaneously, collecting data on the demographics of the area can also help to plan infrastructure and interventions which actively engage hard-toreach groups.

The <u>Good Growth Hub</u>, based in East London's SHIFT, provides opportunities, events and traineeships to get young people into the creative industries. Meanwhile, Strathclyde University (GCID), like many anchor universities provides several spin outs and services for the districts' community, including business services and a law clinic, run by students and professors providing free advice.

Career aspirations are not aligned to local opportunities... sectors we see as high growth for the city.... the jobs that students can actually get into when they finish their studies. So, for our Future Innovators programme, we try and inspire them into a range of different careers.

#### – Emily Robson, Knowledge Quarter Liverpool

#### Providing Skills, Apprenticeships, and Training

Innovation districts can also become more directly involved in skills – offering apprenticeships, courses and entry-level jobs.

For example, Glasgow City Innovation District, which has Scotland's largest college within its tight boundaries, helps connect those doing practical foundation courses with spaces to experiment and incubate ideas. In Colombia, Ruta N, Medellin, looked forward by surveyed all businesses within the district's boundaries to identify the type of skills and 25,000 employees that would be required over the next ten years. Here, ensuring talent is trained locally also allows the district to maintain its advantage of lowercost programming skills.

Meanwhile, KQ Liverpool also surveyed businesses for future employment opportunities and has worked with partners to design pathways and promote future roles through KQ Futures.

The local talent pipeline is also integral to growing and training future employees from the surrounding neighbourhood – nearly all our members have workforce training programmes

– Beth Maloney, Kendal Square Association

#### **Inclusive Innovation Policy Options Menu**

| Policy Area                                    | Example   |
|--|---|
| Linking into procurement and supply chains     | AMID, Sheffield, runs a programme with their existing           |
|  | organisations, supporting local SMEs to adopt new processes     |
|  | and methods - improving environmental and productivity          |
|  | performance.  |
| Having the right kind of physical space        | Melbourne Connect, led by the University of Melbourne, has      |
|  | free bookable space for the local community – including those   |
|  | not included in the innovation ecosystem.                       |
| Programming and curating events                | Kendall Square, in the US, hosts over 1000 events a year from   |
|  | networking and talks to cultural performances.                  |
| Housing for innovation workers                 | At @22 Barcelona, landowners are required to cede 30% of        |
|  | land for subsidised housing and community facilities.           |
| Governance and community participation         | Knowledge Quarter London has representation from all            |
|  | members on its Steering Group and is trialling new modes of     |
|  | community participation.  |
| Engaging young people in innovation            | In SHIFT, East London, the Good Growth Hub provides             |
|  | opportunities, events and traineeships to get young people into |
|  | the creative industries.  |
| Providing skills, apprenticeships and training | KQ Liverpool surveyed businesses for future employment          |
|  | opportunities and has worked with partners to design pathways   |
|  | and promote future roles.                                       |

### **Policy Steers and Recommendations**

Successful Innovation Districts are by their nature shaped by their context and by their strategic priorities. Generic policies or approaches are unwise and risk doing as much harm as good, given the differing nature of innovation districts focused on fields as diverse as AI, the green economy, steel and manufacturing, pharma and life sciences. Each district brings with it different patterns of firm engagement, time horizons and investment needs. As a result, districts need to be given the freedom and space to evolve in ways that make the most of their local advantages and assets.

However, there are some ways in which local authorities and national governments can help or hinder their ability to act as growth beacons. In light of our review, we make the following policy recommendations – for both local authorities and national governments – that can help districts fulfil their potential for the whole community.

#### **Policy Recommendations for Local Authorities**

Local authorities are already closely involved in many districts including in many of the areas set out below. Nevertheless, we believe that their roles need to be deepened over the next decade as districts grow. We therefore suggest they:

#### • Explore options for building stronger vehicles to grow districts.

Local authorities should consider the use of development corporations or other mechanisms to provide innovation districts with the financial and strategic heft for greater growth. Over the last few decades, urban regeneration has often been accelerated through the creation of strong intermediaries, like development corporations, that can assemble capital, develop land and bring in new investors. Development corporations exist all over the world and they played important roles in the UK, from the New Town Development Corporations in the 1940s to the Urban Development Corporations in the 1940s and 1990s. Most current innovation districts in the UK are not supported by an intermediary with the kinds of power and resources that such development corporations have had. But these could help with the next phase of district development – providing a capacity to raise capital, and the strategic focus that's often vital for multi-decade urban programmes.

#### • Link districts into strategies for future jobs and skills.

The main purpose of innovation districts is to provide opportunities, for future employees, innovators and entrepreneurs. Innovation districts could be better linked to local jobs and skills strategies, ensuring supply meets demand by using local data, business surveys, skills demands and forecasts. Forecasting can address the likely patterns of change, helping plan for the future and help young people, as well as older people at risk of losing their jobs, navigate their way to future opportunities. Local government can use their networks of educators, trainers and job brokerages, to promote future jobs and prepare candidates. As we show, giving young people early experience of science and innovation; opening up apprenticeships in fast-growing firms; and providing skills aligned with future jobs are all ways to better embed districts in the wider economy.

#### • Collaborate with developers to provide infrastructure for innovation.

Local authorities play an important role in planning and transport, ensuring public services, green space and transport connections keep the innovation district attractive, productive and liveable. Through mechanisms like Section 106 and the Community Infrastructure Levy, they also negotiate with developers and landowners to ensure provision of affordable housing and community spaces – among other things - are provided within the district. Innovation-focused infrastructure can be further promoted through developing a list of innovation assets such as bookable rooms, hireable maker spaces, and equipment for community use to sit on local Section 106 Registers.

#### • Curate communities of practice to promote innovation adoption in the community.

The most successful innovation districts actively mobilise communities – linking into local businesses, start-ups and the community, helping everyone involved in supply chains to remain up to date with new technologies and techniques. The evidence shows that people are often most influenced by seeing innovations in practice as well as direct interaction with others. Innovation Districts can help with this, contributing to one of the biggest challenges currently facing the UK: low productivity and slow take-up of new options, including data and AI.

#### • Prioritise affordable housing for innovation workers.

As innovation districts succeed, they tend to drive up rents. Therefore, just as local authorities have experimented with ensuring affordable housing for artists in creative districts, and key public sector workers in major cities, they should also look at options for providing affordable homes. These can be for key workers in innovation districts who are currently furthest from the housing market including industrial cleaning specialists, lab technicians, early-stage researchers, service support workers, and researchers working on start-ups and spinouts.

#### **Policy Recommendations for National Governments**

While national government involvement in Innovation Districts should be light touch, there are a few key areas where they could play a more useful supporting role:

#### • Connect regional and innovation strategy.

UK government policy for place mainly falls under the Ministry of Housing, Communities and Local Government, while government policy for innovation mainly falls to the Department for Science, Innovation and Technology. These need to be better joined up than they were in the era of 'Levelling Up', connecting regional policies to spread growth on the one hand, and innovation strategies on the other, encouraging concentration of new innovation activity from R&D to inward investments in Innovation Districts.

#### • Create ministerially chaired forums to unblock barriers to growth

A place where districts, along with national and relevant local governments, can co-ordinate action: whether shaping packages of support for inward investors; providing regulatory flexibility where this can help emerging industries; and reducing unhelpful duplication. An Innovation Districts Growth Forum could be chaired twice a year by the relevant ministers. Such a Forum could also help with evaluation and learning – commissioning assessments of successes and challenges and ensuring continuous learning from equivalents around the world.

An important potential role for a Forum would be to get national government agreement to vary regulatory rules, particularly where these are inhibiting innovation, and where the risks are small. These variances will typically be temporary. It's common to find that innovations are blocked by rules designed for a previous era, with national rules taking time to catch up. Enterprise Zones established the principle that some places thrive best with fewer rules – but these were generic, and not focused on potentially high-impact innovation. The newly created Regulatory Innovation Office could be an important ally in helping to ensure that national rules don't unnecessarily inhibit useful innovation.

• Provide districts and Local Authorities with forecasting data and analysis – so they can plan for jobs growth and skill demands.

There's also a need for more standardised and open data, as well as analysis and interpretation, which allows districts and local authorities to plan for skills and investment. This should include comprehensive data on current jobs, skills needs, pay and location, and other micro-economic data, alongside forecasts, supporting a better understanding of complementarity. There are obvious economies of scale and scope in doing this at a national level, responsive to local needs.

• Explore tax options to better capture land value – and re-invest proceeds in the local area.

A more strategic task is to develop a repertoire of tax options to ensure that the land value increases produced by innovation districts can be captured and recycled, rather than falling as windfall gains for owners who have not contributed to the added wealth. Structures like Business Improvement Districts which place a levy on District residents could be used to reinvest in public goods. Existing mechanisms such as Section 106 could also be reshaped to better use the currently vastly underspent developer contributions towards developing Districts.<sup>36</sup> While individual districts are at the forefront of efforts to ensure their benefits are shared locally, national government can do more to promote a tax structure that ensures increases in value are redistributed through infrastructure, investment and assets for local communities.

• Make it a national policy priority to ensure all young people have experience of science, creativity, and innovation.

The UK government's current review of the national curriculum and assessment framework is a good opportunity to reassert the importance of innovation in young people's lives after a decade when it has often been discouraged by government in favour of traditional pedagogy. As the evidence shows, this can have a big impact on future innovative potential, and in the lives and careers of children, particularly from poorer backgrounds. Innovation Districts and their anchor institutions can play a critical role in giving the innovators of the future hands-on experience.

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