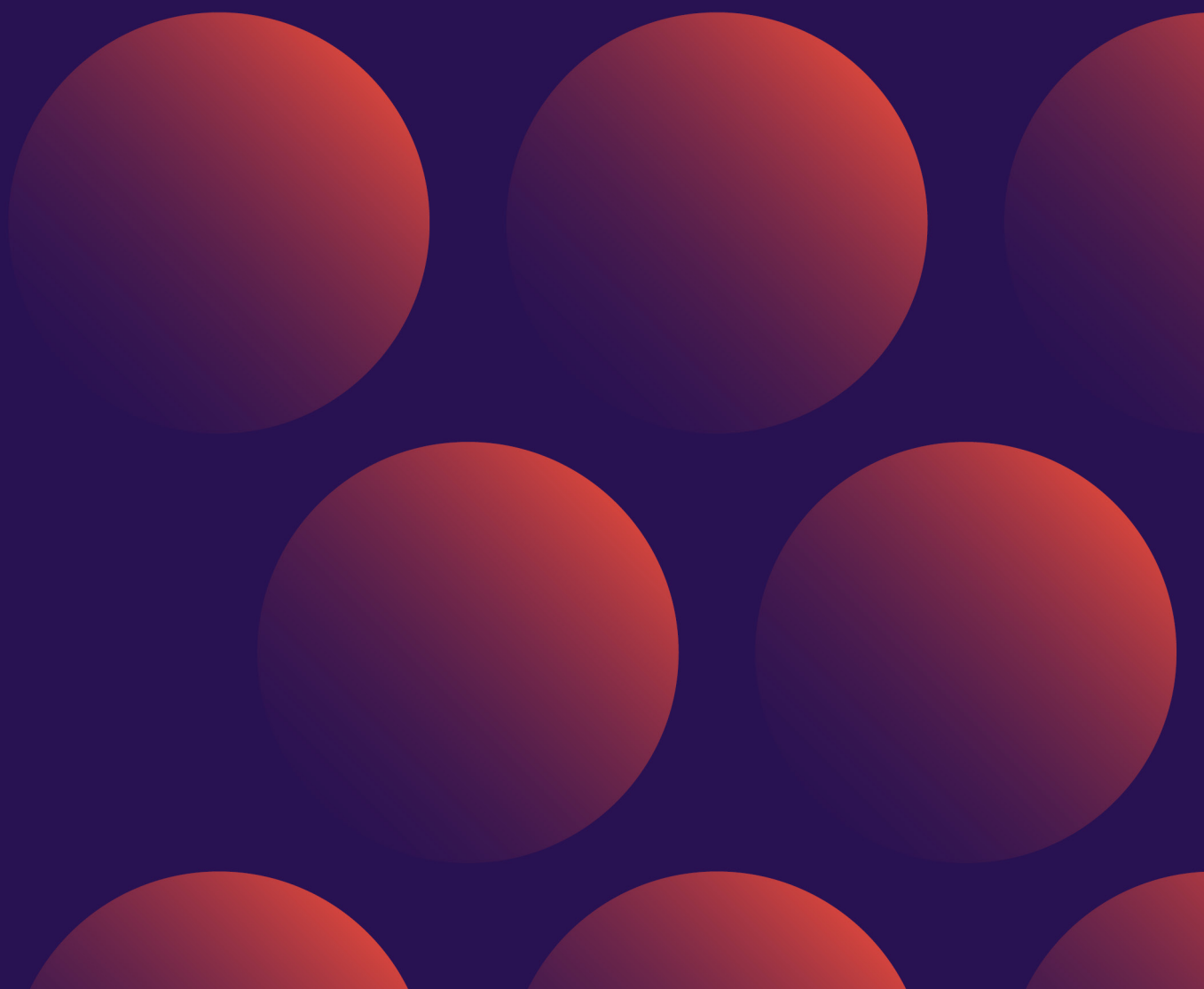


The power of data for Innovation Districts

Using public data to show impact



Executive summary

UK innovation districts are key drivers of innovation and urban economic growth, but their impact is often difficult to evidence because of limited access to data and the challenge of showing causality. This report and data dashboard behind it examines the availability of localised data that can help demonstrate the value innovation districts create.

This report has two purposes. It shows the value UK innovation districts create, and it sets out lessons learned from using public data to demonstrate this value. It provides clear recommendations on what innovation districts and data providers should do next to measure and evidence impact more effectively.

Innovation districts are key facilitators of place-based economic development and urban renewal globally. They are key contributors to longer-term socio-economic outcomes and outperform their size in terms of contribution to the wider economy.

Despite being 0.6% of their city's size, innovation districts generate 15.3% of their total GVA, host 143% more jobs per resident than the UK's Core Cities average, and are 16% more productive on average than the rest of their cities.

However, measures of innovation district impact are often limited to short-term economic outcomes that do not tell the full story. Often indicators only reflect the extent to which efforts to create the presence of an innovation hub and its actors have been successful. Measures such as Gross Value Added are important, but they don't explain how this economic value is created.

It is important to include indicators that measure wider place-based developmental outcomes associated with innovation district activity. Capturing these outcomes is key to further understand how economic development, from creating an environment that attracts high-value economic activity to highly skilled labour, can lead to wider impact.

To capture this full picture, the UK Innovation Districts Group's new dashboard groups indicators across three stages – design, delivery and diffusion – that trace how innovation districts turn investment into impact. The dashboard combines 92 economic, innovation, business, infrastructure, and place-based indicators to provide an overview of the characteristics and performance of innovation districts across the UK. A multi-year approach was adopted to enable trend analysis and support longitudinal comparison between locations.

Refreshing the UK Innovation Districts Group's data dashboard also uncovered key gaps in the accessibility of necessary data to understand the characteristics of places, and capacity of places to conduct this analysis.

Collecting and analysing local economic data is only the first step, and the barriers that innovation districts must overcome to use data in place-making are well-documented. Moving forward, innovation districts should use data proactively as part of decision-making, stakeholder engagement, and strategic communication rather than reactively.

To help use data more effectively in activities, innovation districts must:

- Build familiarity and capacity for data use, analysis, and interpretation.
- Map datasets to understand how they are used within innovation district activities to prevent duplication of the (often-labour intensive) data cleaning and analysis step.
- Co-develop local data standards with key stakeholders that align with national open data standards to enable local data sharing.
- Collect and integrate primary data or access proprietary data sources to understand and evidence unique local developments.

A coordinated and standardised framework for local-led data collection at a place level is needed to understand local place growth dynamics, and innovation districts are well-positioned to support this activity. This can establish greater consistency in measurement approaches, improve benchmarking capability, and reduce the analytical burden placed on local place partnerships.

Impact at a glance

These headline figures compare UK innovation districts with the UK's Core Cities and are drawn from the dashboard behind this report.

- Innovation districts are 16% more productive than their cities, and there is 24% higher return on investment into innovation districts due to higher productivity than sector-agnostic place development across the UK's Core Cities.
- Innovation districts generate 15.3% of their city's total GVA despite being just 0.6% of their city's size, which is more than a twenty-times the return relative to their size.
- They host 143% more jobs per resident and 196% more jobs per km² than the UK's Core Cities.
- Innovation districts receive nearly a third of all Innovate UK funding received in their city, with the average grant size being 80% larger.
- 40.7% of UK academic outputs cited by patents in the last five years come from innovation districts showing their role in innovation.
- Innovation districts are 8% less deprived than the average across the UK's Core Cities.

These figures are drawn from the dashboard's economic, innovation, business, infrastructure and place-based indicators, benchmarked against the UK's Core Cities. The data was collected between March 2025 and June 2025 and draws on data sources from 2021 to 2025. The full methodology and sourcing of this data are set out in the Appendix.

Impact at a glance

UK Innovation
Districts Group



Innovation districts are 16% more productive than their cities.

16%



Despite being 0.6% the size, innovation districts are responsible for 15.3% of their city's total GVA, over 20 times more value generated than their size would indicate.

20x



Innovation districts are key hosts of high-value specialised employment activity with 143% more jobs per resident, and 196% more jobs per km² on average than the UK's Core Cities.

143%



20.1% of jobs in innovation districts belong to knowledge sectors, and concentration of these jobs is 28 times higher in innovation districts compared to the average across the UK's Core Cities.

28x



The transport connectivity to employment, services, and leisure in innovation districts is better than 87% of areas across the UK.

Top 13%



Investing in innovation district-focused place development could unlock a 24% higher return on investment compared to sector-agnostic place development due to increased productivity.

24%



Innovation districts receive nearly a third of all Innovate UK funding received in their city, with the average grant size being 80% larger.

80%



40.7% of UK academic outputs cited by patents in the last five years come from innovation districts showing their role in innovation.

40.7%



Business activity in innovation districts' prioritised sectors is 57% more specialised in innovation districts than in the UK's Core Cities, benefitting from commercial space being 193% more concentrated.

57%



For every 10 new knowledge jobs created, 7 new jobs are created in other parts of the local economy.

10:7



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Introduction

UK innovation districts are key drivers of innovation as the engines of urban economic growth across the UK, but their impact is often difficult to evidence due to challenges in accessing data and identifying causality.

Measures into the impact of innovation districts are often limited to short-term economic outcomes that reflect the extent to which efforts to create the presence of an innovation hub and its actors are successful. This excludes more focus on the impacts generated and attention to the wider place-based development outcomes associated with innovation district activity and development.

This report and data mapping exercise identifies the current accessibility and availability of localised data that can be used to demonstrate the impact of innovation districts and makes recommendations for how this data can be used more extensively moving forward.

Approach

This work builds on previous data strategy work undertaken by UK Innovation District Group and The Business of Cities which involved assessing metrics suitable for the Innovation Districts' scale.

The previous exercise was first-of-its-kind in systematically mapping the data that is available at the required granularity to illustrate innovation district activities and impact. The methodology employed in this exercise builds from this to gather a wider set of indicators mapped against how innovation districts actually operate. This change in approach was taken to encourage the use of data by innovation districts more proactively.

To make this adjustment, the dashboard draws on a framework developed by the UK Innovation Districts Group that groups activities into three stages:

1. the design of the conditions that enable innovation;
2. the delivery of innovation activity itself, and;
3. the diffusion of its benefits through the wider economy.

To support comparability and usability, indicators were grouped into thematic categories reflecting key dimensions of this framework. These included economic performance, business activity, innovation capacity, accessibility, infrastructure and wider place-based characteristics. Grouping indicators thematically enabled users to interpret relationships between metrics more effectively and identify broader strengths and weaknesses within individual locations.

The dashboard combines 92 economic, innovation, business, infrastructure, and place-based indicators to provide an overview of the characteristics and performance of innovation districts across the UK. A multi-year approach was adopted to enable trend analysis and support longitudinal comparison within and between locations.

The methodology to construct the data dashboards consisted of four principal stages:

1. Indicator identification and selection
2. Data collection and review
3. Data processing and standardisation
4. Dashboard construction and benchmarking

A desk review was undertaken to understand best practices of innovation districts globally, and how they translate into impact. The impact indicators uncovered from this review were integrated alongside the indicators already within the existing data dashboards from the previous work.

The approach sought to balance analytical robustness with practical usability. Given the variation in data availability across UK innovation districts, the methodology prioritised indicators that were:

- Publicly accessible
- Available across multiple locations
- Consistently measurable over time
- Relevant to innovation district performance
- Suitable for benchmarking and comparative analysis

The dashboard was designed as a strategic evidence tool capable of supporting decision making, investment discussions and place-based performance monitoring. The validated analysis in this report demonstrates how innovation district activities translate into impact. For more details on the methodology employed, please see the appendix.

This report

This report synthesises the findings of the data dashboard refresh to provide both an assessment of the value innovation districts create and a practical roadmap for strengthening the evidence base needed to understand and communicate that value. The report is structured into three sections:

1. The first section examines how UK innovation districts contribute to the wider economy, using the UK IDG's inclusive innovation framework and drawing on lessons from international practice.
2. The second section explores how innovation districts use data in practice and highlights the main barriers to accessing, interpreting and applying it consistently.
3. The third section sets out key lessons learned and presents recommendations for public data providers, innovation districts, and future place-level dashboard development.

How do UK innovation districts impact the wider economy?

UK Innovation districts are key drivers of economic growth. They are where the UK converts research into jobs, investment and higher productivity; making them one of the strongest levers for inclusive innovation led growth.

However, inclusive growth and reduced deprivation won't happen naturally. So, the policy test is to back them as engines of prosperity while ensuring the benefits are widened through skills, employment, place, and housing policy.

Innovation in local areas works in different ways. In some, activity is a result of the historical development of a local specialism or identity. In others, this is set through targeted, incremental policy implementation. Innovation districts have emerged as central elements of these innovation ecosystems: they operate in different ways, with varying degrees of formality and embedded capacity.

In 2022, the [UK Innovation Districts Group](#) initiated a Research Commission on Inclusive Innovation. This explored the dynamics of innovation in local economies through interviews with people leading and working in innovation districts across the UK, forming a framework for how innovation works in these places.

Figure 1 highlights the themes of activity uncovered in this study across the three stages for innovation to create an inclusive innovation framework. It covers each stage of the innovation cycle:

- The design of research, strategies, priorities, and mechanisms that empower innovation activity;
- The delivery of innovative processes and activities; and
- The diffusion of the benefits and proceeds from innovation throughout the economy.

Despite the heterogeneity of innovation districts, they have key commonalities in how they generate economic impact. This framework has been used to construct the data dashboards by using the wedges of the inclusive innovation wheel. It has also been used to assess the aggregate impact of innovation districts part of the UK Innovation Districts Group across the UK. Many categories require primary data collection to evaluate properly, which is highlighted in this report.



Figure 1 - Inclusive innovation wheel

The impact of innovation districts is compared to the UK's Core Cities as a benchmark. The UK's Core Cities are an alliance of 12 cities - Belfast, Birmingham, Bristol, Cardiff, Edinburgh, Glasgow, Leeds, Liverpool, Manchester, Newcastle, Nottingham and Sheffield.

The exclusion of London as a benchmark in this analysis is due to its unique size and nature. This often skews results and makes it more difficult to benchmark non-London-based innovation districts, leading to less consistent comparability. London functions more as a global city competing with New York, Paris, and Singapore than as a peer to other UK cities with its innovation ecosystem drawing on international capital, talent, and firms in a way that is not always directly comparable to the impact of UK innovation districts in other cities.

Impact from design

The physical infrastructure and access to investment is a core mechanism behind the high concentration of innovation expertise and experience in innovation districts.

The physical infrastructure of innovation districts supports knowledge activity

Innovation districts are desirable places to live and work due to their place quality and connectivity:

- The transport connectivity to employment, services, and leisure in innovation districts is better than 87% of areas across the UK.
- 11 out of 15 innovation districts reach the minimum level of green space provision per person set by Fields in Trust (more than 2.4ha of accessible green space for every 1,000 people).
- Innovation districts have an air quality score that is 52% higher on average than across the Core Cities.

Innovation districts also provide the infrastructure for businesses to locate, grow, and thrive:

- Innovation districts have 193% more commercial space per km² than the average across the Core Cities, which provides more opportunities for businesses to locate or scale than elsewhere within UK Core Cities.

Innovation districts provide a conducive environment for cluster development

Access to highly skilled labour and finance are key requirements for innovation activity:

- The availability of both within innovation districts means businesses are 57% more sector specialised than the UK Core Cities. A factor which helps drive more productivity gains.

The availability of highly skilled labour is essential for innovation activities such as R&D.

- 20.1% of employment within innovation districts is in knowledge sectors, equivalent to 62 knowledge jobs per 100 people. The share of knowledge employment in the UK's Core Cities is 0.6% by comparison. These roles are also 28 times more concentrated within innovation districts compared to the average concentration of these jobs across the UK's Core Cities. This shows the role of innovation districts as centres of R&D activity in cities.
- It is likely that the share of knowledge employment within innovation districts is even higher due to:
 - limitations of self-reported Standard Industrial Classification (SIC) codes through reporting for defining knowledge activity;
 - high variation in the development stage of innovation districts, and;

- non-standardised definition of innovation district boundaries, which can sometimes include areas not focused on innovation.

Innovation districts are also key conduits for innovation investment within cities, providing organisations with better access to necessary financing.

- Innovation districts receive 34% of the total Innovate UK grant awards of their city, nearly 50 times more investment than their size would otherwise indicate. Organisations in innovation districts are 139% more likely to receive funding from Innovate UK than equivalent organisations based elsewhere in the UK's Core Cities.
- The mean Innovate UK grant award size for an organisation based within an innovation district is also 80% larger than the mean grant received by an equivalent organisation elsewhere in the city. This indicates a larger scale of innovation activity at a firm level in innovation districts as opposed to elsewhere in the city.

Impact from delivery

Innovation districts are key contributors to their city's overall productivity due to their focus on innovation activities and employment density.

Innovation districts are hotbeds for innovation, taking ideas from research to application

The collaborative activity between academic institutions and industry enabled by innovation districts has likely contributed to a larger focus on applied research:

- 40.7% of all academic outputs that have been cited by patents (e.g. papers, books, conferences published in the UK) in the last five years come from innovation districts.
- Over the past five years, cities with innovation districts included in the UK IDG produce 3.5 patents per 100 businesses, 7.7% more than the average across the UK's core cities without one. This shows the role of innovation districts in fostering innovation from research into products and services.

However, the lack of granular public data available on innovation activity at a district level means that it is difficult to understand what proportion of the products and services generated from research are successfully commercialised within innovation districts.

Innovation districts are key drivers of productivity within cities

Economic activity in innovation districts generates higher value output per worker than elsewhere in their city. Sector-specialised place development is associated with higher productivity than sector-agnostic place development:

- Much of the high-value R&D activity within innovation districts means that they have 16% higher productivity on average than their city (or in London's case, their surrounding boroughs).

- Innovation districts have 24% higher productivity compared to sector-agnostic place development across the UK's Core Cities. This shows that if you invest in innovation district activities compared to activities in other parts of the UK's Core Cities, you are likely to generate 24% more value from your investment.

Impact from diffusion

Innovation districts are key contributors to longer-term socio-economic outcomes and outperform their size in terms of contribution to the wider economy.

Innovation districts are key creators of value within cities relative to their size

Despite being 0.6% the size of their cities, innovation districts are responsible for 15.3% of their city's total GVA. This means that innovation districts economic activity is over 20 times larger than their size would indicate.

- The average economic contribution of science and technology across the whole UK economy is estimated to be between 3.9% and 6.9%. This shows that Innovation Districts are key leaders within cities of the UK's innovation, science, and technology activity.
- Innovation districts are also key hosts of high-value specialised employment activity within a city. They have 133% more jobs per resident, and 196% more jobs per km² on average than the UK's Core Cities.

With 20.1% of these jobs belonging to knowledge sectors, this shows that jobs in innovation districts tend to be magnets for high value “good” jobs, offering more economic opportunity than other places within cities. The UK IDG report “Opening the Innovation Economy: The case for inclusive innovation in the UK” found that workers in the most R&D intensive firms earn 20% more than those in firms that conduct no R&D.

Similarly, for every 10 new jobs created in a high-tech sector, such as digital technology, 7 new jobs are created in other parts of the local economy, and the wider return for increases in private R&D investment is four times greater for the overall economy than it is for individual firms.

Socio-economic outcomes are better in places with innovation districts

The economic performance of innovation districts means that they possess a higher socio-economic baseline than the rest of the UK.

- They are 8% less deprived than the average across the UK's Core Cities. The significant economic activity concentrated within these areas means that there is an opportunity to increase access to these benefits to the rest of their cities.
- Innovation districts are 12.1% less economically unequal than the average economic inequality across the Core Cities, which suggests that gains from innovation district activities are distributed more equally within the area.

- A person living within innovation district catchments is likely to be 45% healthier than a person living in the UK's Core Cities. This is largely due to the relative abundance of students and people of working age within these areas.

That is not to say that Innovation Districts enable inclusive growth naturally. The opposite is true that without intervention there are serious risks that innovation districts drive inequality and operate quite exclusively. So, the real challenge is to support them as engines of good growth by ensuring inclusion is hard wired into all stages of the innovation cycle through appropriate skills, employment, supply chain, place and housing policies.

Lessons learned from global innovation districts

Innovation districts globally are hubs for the creation of highly skilled jobs related to R&D with clear short-term and long-term economic benefits.

Several successful innovation districts share characteristics with other areas of innovation, sharing mechanisms of similar models such as innovation clusters and hybrid science parks.

However, empirical evidence of innovation districts' impact is limited in its conclusions due to the lack of available relevant data, and structured evaluation studies. Most evidence does not include a longitudinal component, making it difficult to model the impact of innovation districts.

This section details evidence from over 80 empirical studies on the impact of innovation districts globally. It provides insights into how innovation districts in the UK can use data to capture the full range of their impact.

Short-term economic effects

Innovation districts are effective in generating short-term economic outcomes such as the creation of highly skilled jobs in innovation. They do this through key mechanisms:

Innovation districts provide an environment conducive to high-growth businesses

The evidence shows that on average 34% of roles within global innovation districts are directly linked to innovation. These proportions are higher in districts led by national government initiatives than local government initiatives, demonstrating the importance of central government support for sector-specialised place development.

Similarly, as Innovation Districts often also host long-term anchor institutions, they provide an ideal framework for smaller businesses to work collaboratively with them to determine good long-term innovation investment priorities. They also understand the soft infrastructure (the human capital or network assets) that need to be invested in and how best to provide this.

Studies emphasise that another important contributor to innovation environments is the diversity of businesses and organisations, and not just the absolute numbers. The mix of smaller, innovative businesses and access to key anchor institutions creates a supportive environment for innovation and business growth. US data shows that companies within an innovation district employ an

average of 23.4 staff, meaning that there is a high concentration of ‘small’ sized enterprises in them.

Innovation districts provide key convenor support to foster collaboration

Co-location alone is not enough to trigger collaborative activity. Instead, what matters is how an innovation district is designed and run. The high concentration of innovation expertise and experience is a key condition for innovation districts’ impact. This concentration is activated by having a balanced composition of the business population across sizes, sectors and functions and the coordination of formal networking and collaboration activities that fosters partnerships.

Longer-term economic effects

Innovation districts are also key contributors to longer-term outcomes including jobs within the broader economy. However, the mechanisms and scale through which new jobs and broader economic opportunities spillover to the wider community are not well defined due to a lack of empirical evaluation.

Innovation districts can create employment opportunities within their area and for the rest of their cities

The creation of innovation districts is correlated with the creation of jobs over time both within the district itself and the broader economy, although the causal mechanisms linking the two is undefined.

For each job within innovation districts in the US, 1.67 additional support jobs are created in the broader economy. However, the evidence also suggests that some roles created within innovation districts may be inaccessible to local residents without enabling meaningful community participation.

Despite the low average rate of unemployment across global innovation districts and the cities they reside in, there is significant variation. This indicates that the impact of innovation districts on unemployment could be limited without activities that promote equitable access to these economic opportunities.

Innovation districts can support the development of key skills for innovation

Innovation districts globally undertake education and capacity building activities, including creating awareness of innovation-related careers among children, young people, and schools. Many also implement programmes to enable broader lifelong learning among district users. However, the success of these activities is unclear due to a lack of structured evaluations.

Innovation districts offer opportunities for developing meaningful quadruple-helix approaches to place development

Evidence is mixed on the impact of innovation districts on inequality. Innovation districts are often perceived by residents to exacerbate levels of local income inequality. The literature suggests that some innovation districts have tended to heighten housing pressures, particularly affordability.

One reason residents may perceive innovation districts as worsening inequality is that they can experience community engagement as tokenistic. This often comes down to a mismatch: developers typically have far more resources to run engagement than communities have capacity to meaningfully take part in it. Elements behind this are explored more fully in our [Opening the innovation economy report](#).

However, there is also evidence that innovation districts provide more equitable employment opportunities than other types of areas of planned employment such as industrial zones. This indicates that there *can* be activities conducted by innovation districts that *help* mitigate inequality caused by economic activity in areas with *dense innovation concentration*. Providing support to communities such that they can meaningfully participate in economic opportunities created in innovation districts could enable further diffusion of economic gains beyond districts.

Interventions to enhance how embedded innovation districts are within local areas appear to have mixed success depending on their type and the timescales involved.

- Innovation districts that develop community or civic amenities, or develop links with existing amenities, can create wider economic benefits.
- ‘Value capture’ policies, where funds are secured through taxes, fees, or contributions and then reinvested to offer support can increase the social mobility and wellbeing of lower income residents.
- Conducting meaningful community engagement and providing career training and sectoral-focused skills to graduates, and residents to meet recruitment requirements from industries operating within innovation districts can improve the social mobility of residents.

Furthermore, evidence suggests those who do not develop interventions or links with community or civic amenities can even have a detrimental effect on their wider economy. Where innovation districts struggle to form areas where people can both work and live (24-hour communities), long-term residents are less likely to be integrated. This can lead divides between them and new residents without access to these shared civic spaces.

Innovation Districts that were successful in creating vibrant communities are qualitatively judged to be at a competitive economic advantage across studies, especially as the nature of work shifts towards hybrid and remote working patterns. The multiplier effects of innovation districts are highly linked to the level of their usage as places to live and work.

The evidence therefore shows that for innovation districts to generate even wider impact, they must enable meaningful participation in activities across the full quadruple helix of academia, industry, policy, and communities. In practice, this means bringing academia, industry, policy makers and local communities together as equal partners in decisions about a district.

How do innovation districts use data?

Refreshing the UK Innovation Districts Group's data dashboard uncovered key gaps in the availability of necessary data to understand the characteristics of places, and capacity of places to conduct this analysis.

Innovation districts require access to robust and comparable data to understand local economic performance, monitor progress over time, identify strengths and weaknesses, and support evidence-based decision-making. This analysis is often undertaken for primarily two purposes:

1. Data is used in innovation districts to demonstrate the impact of past, current, and future activities to investors, public sector stakeholders, and funding bodies.
2. Data is used to understand local economic circumstances as part of local policy and place strategy development.

Data collection and analysis resource is often allocated to the first purpose of demonstrating impact as a requirement for business cases and evaluations. This means that data collection and analysis is often carried out ad-hoc, as opposed to continually, which limits the ability of decision makers to use data in their local policy and place strategies.

The prioritised allocation of data analysis resource to impact reporting is due to several barriers that innovation districts face, both internally and externally. These challenges prevent innovation districts from effectively accessing, interpreting, and using local data in their activities.

Barriers for innovation districts to use data

These barriers reflect wider challenges associated with place-based economic analysis across the UK and demonstrate the complexity involved in constructing a consistent, comparable, and multi-year evidence base across different geographies.

Limited availability of data highly relevant to innovation districts

Several indicators required for the dashboard are not available at the innovation district geography itself and instead had to be estimated using postcode, local authority, or wider city-region level data. This created further challenges in ensuring consistency and comparability across locations.

There were also notable gaps in the public availability of innovation data around:

- Real-time business and workforce activity, including start-up activity.
- Commercialisation activity.

- Research translation and spin-out performance.
- Innovation collaboration between businesses and universities.
- Venture capital and private investment flows.
- Business growth within innovation district boundaries.

Limited accessibility of public data at the required levels of geographical granularity

The dashboard approach highlighted the importance of presenting data in a clear and accessible format. While large volumes of public data exist, they are often fragmented across different sources and difficult for local stakeholders to interpret without significant processing and contextualisation. Data relevant to innovation districts is often:

- Distributed across multiple platforms and organisations e.g. across ONS, statistics.scot.gov, and NISRA.
- Published at inconsistent geographic scales or only available at the required granularity through Census data, which is not collected regularly enough for decision-making.
- Updated at different time intervals.
- Subject to licensing or access restrictions such as patent, business, and employment data.
- Presented in formats requiring substantial manipulation before use.
- Often hidden within larger national datasets such as the Business Register and Employment Survey, which is only accessible through Nomis whereas ONS only publishes data at a Local Authority level.

A challenge throughout the dashboard refresh process was the variation in statistical geographies and reporting methodologies across the devolved nations of the UK. England and Wales, Scotland and Northern Ireland often use different geographic units, classification systems and reporting standards, making direct comparison difficult:

- England and Wales use Lower Layer Super Output Areas (LSOAs).
- Scotland uses Data Zones.
- Northern Ireland uses Super Output Areas (SOAs).

These geographic systems are not directly aligned and are often built using different methodologies, population thresholds, and boundary definitions. As a result, datasets could not always be compared directly without additional processing or aggregation.

This challenge was further compounded by the introduction of updated Scottish Data Zones following the 2021 Census in Scotland and updated LSOAs boundaries and codes following the 2021 Census in England and Wales. The revised Data Zone geography created difficulties in maintaining consistency across multi-year trend analysis, particularly where historical datasets used pre-2022 and 2021 boundaries, and newer datasets adopted the revised coding structure.

As a result:

- Some datasets required manual geographic matching between old and new codes.
- Certain indicators could not be directly compared year-on-year.
- Trend analysis occasionally required approximations or proxy geographies.
- Additional processing was required to ensure continuity within the dashboard.

This highlighted a wider challenge for longitudinal place-based analysis, where changes in administrative or statistical geographies can reduce consistency over time and complicate efforts to monitor long-term trends.

As a result, proxy indicators were often required to provide a broader understanding of local innovation ecosystems. To overcome this barrier, primary data would need to be collected by the innovation district itself through accessing proprietary data or commissioning primary data collection and analysis to get accurate measurements of these metrics.

Local-led data collection at a place level can be more relevant, more efficient, and less costly than the equivalent exercise carried out by national agencies due to their local knowledge, connections with the local ecosystem, and the high concentration of activity within a relatively small geographical area (the average size of innovation districts is 1.13km²). However, place partnerships often are resource-constrained and do not have the internal capacity to conduct this data collection. With support, innovation districts can play a key role in leveraging their networks to enable real-time granular innovation and business performance data.

Limited interpretability of available data

The dashboard refresh process demonstrated that many publicly available datasets require careful interpretation due to differences in methodology, geography and reporting periods. Indicators sourced from different organisations may measure similar concepts in different ways, while changes to data collection approaches over time can also affect comparability.

As technology such as AI continues to progress, this type of dataset cleaning and interpretation work becomes more accessible, but the fundamentals must be understood in order to use this data effectively, especially when attempting to uncover causal relationships.

The exercise highlighted that access to data alone is insufficient without the ability to interpret what indicators mean in practice. Many economic and innovation indicators are complex and can be misinterpreted without appropriate context:

- High GVA does not necessarily indicate high productivity without standardisation for size, location, and population density for comparability, and it does not explain the mechanisms behind why a place is successful.
- Patent activity does not always translate into commercial impact and can be distorted at a local level due to centralised patent registration by multi-site businesses.
- Strong research outputs may not reflect local business engagement or commercialisation potential even if correlated with increased business activity.

- Population growth may create infrastructure pressures alongside economic benefits.

Benchmarking innovation districts also presents challenges due to the unique characteristics of each location. Innovation districts vary significantly in:

- Scale and maturity
- Sector specialisms
- Physical size and geography
- Governance structures
- Relationships with universities and anchor institutions

As a result, direct comparison between locations should be treated carefully and supplemented with local context and qualitative insight.

To improve accessibility and interpretation, the dashboard incorporated:

- Trend analysis across multiple years
- Benchmark comparisons
- Indexed scoring approaches
- Interpretation text for key indicators
- Visual indicators showing relative performance changes
- Links to the original sources to allow for data to be checked and updated easily

This demonstrated the importance of combining quantitative data with qualitative local knowledge and strategic context when assessing innovation district performance.

A lack of internal data capacity and resource

While strategic ambitions are often significant, the resources required to collect, clean, analyse and maintain public datasets are often too costly and labour-intensive for innovation districts to engage with regularly.

A key challenge throughout the refresh process was the inconsistency in how data is collected, structured, and published across the different nations of the UK. Many datasets required manual restructuring, reformatting, or geographic matching before they could be integrated into the dashboard model, increasing both the time and technical expertise required for ongoing updates.

The process of refreshing the dashboard required:

- Sourcing data from multiple national and local datasets
- Identifying comparable indicators across different UK nations
- Standardising metrics across varying geographies and time periods
- Cleaning inconsistent datasets and formats
- Constructing comparable indicators and benchmark measures

→ Translating technical indicators into accessible outputs

This level of analytical work can be difficult for smaller organisations or partnerships without dedicated analytical teams or specialist data expertise.

Many innovation districts and local place partnerships operate with limited internal analytical capacity, both in terms of resource availability and time. This limits the ability of innovation districts to routinely monitor performance, undertake benchmarking exercises, or maintain live evidence bases to support funding and investment opportunities.

A lack of internal resource also prevents innovation districts from accessing proprietary data sources such as Beauhurst, FAME, or the Data City, which are often expensive to obtain a licence for, or collecting primary data themselves. Key relevant non-public data often remains confined within individual organisations or proprietary data sources, and measurement tends to reflect each organisation's limited perspective rather than the district's collective impact.

As a result, it is challenging to map how different stakeholders within innovation districts contribute to shared outcomes without data when governance arrangements within a district are still evolving. This creates challenges to understand how to design primary data collection methods that gather useful and available data from district users.

This means that innovation districts often rely on snapshots or commissioned work where gaps exist, which limits the proactive use of data.

Lessons learned and recommendations

Local places need data to understand where they are, where they want to be, and to plot how they get there. However, access to data that places can use to show the full extent of their value can be inaccessible.

The development of the UK Innovation Districts Group dashboard demonstrated the wide range of ways data can support innovation district activity. Consistent data handling can support:

- Understanding the economic profile and specialisms of innovation districts
- Benchmarking performance against comparator locations
- Tracking changes in innovation activity over time
- Identifying gaps in skills, infrastructure, and investment
- Supporting inward investment and marketing activity
- Demonstrating the wider social and economic contribution of innovation districts

Key innovation district activities are currently not being captured effectively:

- Innovation districts impact companies spend on R&D, the number of R&D jobs, PhD students supported, and academic publications, and the number of actors/stakeholders that set-up within an innovation district.
- The extent and density of stakeholder networks must be collected.
- Longer-term economic outcomes such as job creation and spatial inequality require more targeted and consistent data collection. In practice, most data collection activities are focused on short-term ones tied to funding requirements, rather than these longer-term outcomes.
- Broader outcomes such as systems change enabled by innovation districts require measures of place quality, reduction in regional inequalities, improvements in climate sustainability, and measures that reflect equalising educational opportunities.

However, the cost associated with collecting, analysing, and interpreting this broader data at the frequency required is too high for innovation districts. Innovation districts do not have the internal capacity to take on this task, especially continually, since they often only use data as necessary in an ad-hoc manner.

To use data effectively, both data providers and innovation districts must evolve and establish shared data standards to mitigate this gap.

Lessons learned for public data collection

The need for a more coordinated framework for local data collection is apparent. This can support greater consistency in measurement approaches, improve benchmarking capability, and reduce the analytical burden placed on local place partnerships. To enable more data-informed decision-making at a place level, public data providers should:

- Work with innovation districts and other place actors to develop local shared data standards and primary data collection methods that align with national open data standards.
- Make Inter-Departmental Business Register (IBDR)-derived business and workforce indicators publicly available at a place/LSOA level.
- Increase the availability and collection of place-level economic and innovation indicators, including knowledge exchange and commercialisation measures often used by UKRI.
- Continue to improve standardisation of public datasets across UK nations and organisations through open data standards and APIs, in line with regulations.
- Standardise historical data within datasets, rather than relying on the geographic designation lookup service, to develop accessible longitudinal datasets that support trend analysis.
- Expand ONS Local beyond a local authority level to a district and place level so that it works across a smaller geography e.g. LSOAs.

Lessons learned for mature innovation districts

More mature governance structures provide the coordination needed to view the system holistically and to hold partners accountable to a shared framework for measurement. Moving forward, innovation districts should establish local data sharing partnerships to:

- Establish processes and relationships with holders of key local data such as businesses, the NHS, ONS, and other local organisations to enable data sharing aligned with national open data standards.
- Increase efficiency and prevent duplication in efforts where the same data is used for different purposes.
- Not only demonstrate past, current, or future impact, but also enable larger, longer-term impact evaluation through more effective delivery of interventions.

To use data proactively as part of decision-making, stakeholder engagement, and strategic communication, innovation districts must:

- Establish a theory of change through which innovation districts add value to the wider economy that can be evidenced through consistent and targeted data collection.
- Develop internal capacity for data use and analysis and interpretation.

- Build internal familiarity of available local indicators and map datasets to understand how they are used within innovation district activities to prevent duplication of the often-labour intensive data cleaning and analysis step.
- Co-develop local data standards with key stakeholders that align with national data standards to enable more efficient sharing of local data.
- Collect and integrate primary data or access proprietary data sources to understand unique local developments otherwise not captured in public data.

Lessons learned for emerging innovation districts

More mature governance structures provide the coordination needed to make effective decisions and to hold partners accountable to a shared framework for measurement. Moving forward, innovation districts should establish local data sharing partnerships to:

- Establish processes and relationships with holders of key local data such as businesses, the NHS, ONS, and other local organisations to enable data sharing aligned with national open data standards.
- Increase efficiency and prevent duplication in efforts where the same data is used for different purposes.
- Not only demonstrate past, current, or future impact, but also enable larger, longer-term impact evaluation through more effective delivery of interventions.

To use data proactively as part of decision-making, stakeholder engagement, and strategic communication, innovation districts must:

- Establish a theory of change through which innovation districts add value to the wider economy that can be evidenced through consistent and targeted data collection.
- Develop internal capacity for data use and analysis and interpretation.
- Build internal familiarity of available local indicators and map datasets to understand how they are used within innovation district activities to prevent duplication of the often-labour intensive data cleaning and analysis step.
- Co-develop local data standards with key stakeholders that align with national data standards to enable more efficient sharing of local data.
- Collect and integrate primary data or access proprietary data sources to understand unique local developments otherwise not captured in public data.

Recommendations for future dashboard development

The dashboard refresh process identified opportunities to strengthen future place-based data collection and analysis for innovation districts, including options for future dashboards. As innovation districts continue to evolve, additional indicators from proprietary sources or primary data collection should be incorporated relating to:

- Start-up and business activity
- Venture capital investment
- Business collaboration networks
- Research commercialisation
- Value chains i.e. data capturing the range of activities needed to create a product or service and make it available to consumers
- Innovation adoption i.e. data capturing the commercialisation of innovations to enter the market
- Skills retention and graduate flows
- Sustainability and net zero performance
- Partnership, collaboration, and community engagement activity

Overall, the methodology demonstrates that publicly available data can provide a strong foundation for understanding innovation district performance, but that significant analytical input remains necessary to ensure consistency, comparability, and strategic relevance.

Adopting a more proactive approach to data collection and analysis also enables more rigorous impact analysis to be undertaken and the identification of causality. The consistency and availability of reliable and accessible data at a place level is a key constraint to understanding the mechanisms by which innovation districts create impact in the UK.

Yet despite these limitations, the increasing role that innovation districts play driving economic growth in the UK economy is evident. These are engines of productivity where the UK converts R&D into jobs, businesses, investment and wider place value.

Appendix

Methodology



This appendix outlines the methodology used to refresh and develop the UK Innovation Districts Group (UKIDG) data dashboard.

The methodology was designed to establish a consistent and comparable evidence base across UK innovation districts using publicly available datasets and standardised analytical approaches.

The dashboard combines 92 economic, innovation, business, infrastructure, and place-based indicators to provide an overview of the characteristics and performance of innovation districts across the UK. A multi-year approach was adopted to enable trend analysis and support longitudinal comparison between locations.

Approach

The methodology consisted of four stages:

1. Indicator identification and selection
2. Data collection and review
3. Data processing and standardisation
4. Dashboard construction and benchmarking

The overarching approach sought to balance analytical robustness with practical usability. Given the variation in data availability across UK innovation districts, the methodology prioritised indicators that were:

- Publicly accessible
- Available across multiple locations
- Consistently measurable over time
- Relevant to innovation district performance
- Suitable for benchmarking and comparative analysis

The dashboard was designed not only as a data repository, but as a strategic evidence tool capable of supporting decision making, investment discussions and place-based performance monitoring.

Indicator selection and rationale

Indicators were selected through a desk-based review of publicly available datasets and existing innovation district frameworks. The selection process focused on identifying metrics capable of capturing the economic, innovation and place-based characteristics commonly associated with successful innovation districts.

Metrics were assessed against a series of core criteria:

- Relevance to innovation district performance and strategic objectives
- Geographic availability and consistency across UK locations
- Availability across multiple years to support trend analysis
- Reliability and credibility of the underlying data source
- Ability to support benchmarking and comparative analysis
- Accessibility and ease of interpretation for users

A balance was also sought between innovation-specific indicators and broader place-based measures. While metrics such as patents, research activity and business density provide insight into innovation ecosystems, wider indicators relating to accessibility, infrastructure, labour markets and deprivation were included to reflect the broader economic and social conditions that influence innovation district performance.

In several instances, ideal metrics were not consistently available at innovation district level or across all UK nations. Where this occurred, proxy indicators were used to provide the closest comparable measure available.

Data collection and accessibility

Data was collected from a range of national statistical agencies and publicly available datasets. Key sources included:

- Office for National Statistics (ONS)
- Central government open datasets
- Local authority open datasets
- NOMIS
- UK Intellectual Property Office (IPO) and other patent databases
- Higher Education Statistics Agency (HESA)
- Companies House

Where possible, data covering the period between 2020 and 2024 was collected to support multi-year trend analysis.

A key finding from the dashboard refresh process was that, although substantial volumes of public data exist, accessibility and comparability remain significant challenges. Relevant datasets are often distributed across multiple organisations, published at different geographic scales, and updated at inconsistent intervals.

The methodology also identified several structural barriers to local data accessibility:

- Inconsistent statistical geographies across the UK
- Differences in measurement methodologies between nations
- Limited availability of innovation-specific local indicators
- Changes to geographic boundary definitions over time
- Data gaps at innovation district level

England and Wales, Scotland, and Northern Ireland each use differently defined small-area statistical geographies. These geographies are not directly aligned, creating challenges for comparative analysis.

Additional complexity arose following the introduction of updated Scottish Data Zone boundaries and coding structures associated with the 2022 Census, as well as updated LSOAs following the 2021 census. Historical datasets often used superseded geographic identifiers, requiring additional processing and geographic matching to maintain consistency across years.

Innovation districts do not align neatly with standard administrative geographies. Therefore, a hybrid geographic framework was adopted. Depending on data availability, indicators were collected at:

- Innovation district level
- Postcode level
- Local authority level
- City-region level

Where district-level data were unavailable, the nearest appropriate geography was used as a proxy.

The development of small-area geographies focused on business activity (i.e. each area represents the same number of businesses) rather than population may offer a solution to understanding place economic activity, especially as the nature of work becomes more remote-based with the development of technology and transport infrastructure. This is possible by linking existing Inter-Departmental Business Register datasets to a wider set of indicators using postcodes.

The dashboard refresh process also identified opportunities to strengthen future place-based data collection. As innovation districts continue to evolve, additional indicators, otherwise inaccessible through public sources, should be incorporated from proprietary sources or primary data collection relating to:

- Start-up and business activity (Beahurst, FAME, Dealroom, Companies House, Growth Flag)
- Venture capital investment (Beahurst, FAME, Dealroom)
- Business collaboration networks (Primary data collection)
- Research commercialisation (Primary data collection and university data sharing)
- Value chains (Primary data collection)
- Innovation adoption (Primary data collection and university data sharing)
- Skills retention and graduate flows (Local education provider data sharing)
- Sustainability and net zero performance (Primary data collection)
- Partnership, collaboration, and community engagement activity (Primary data collection)

Data processing and standardisation

Following collection, datasets were cleaned, processed and standardised to improve comparability across locations and time periods.

This process included:

- Removing duplicate or incomplete records;
- Standardising geographic identifiers;
- Aligning reporting periods where possible;
- Normalising indicators on a per capita or per business basis;
- Constructing indexed scores and comparative measures.

Several indicators required aggregation from postcode or lower-level geographies into wider innovation district areas. In cases where direct measures were unavailable, proxy indicators were used to provide indicative insight into local innovation ecosystem performance.

Benchmarking methodologies were also applied to support relative comparison between locations. This included trend analysis, indexed scoring and comparison against national averages or comparator locations.

Dashboard construction

Overall, the dashboard construction approach sought to create a flexible and repeatable analytical tool capable of supporting strategic decision making, benchmarking and future evidence development for UK innovation districts.

The dashboard was developed in Microsoft Excel using linked multi-year datasets, structured data tables and automated formula systems to support consistency, reproducibility and future annual updates. The approach was designed to create a scalable and adaptable framework capable of incorporating additional locations, indicators, and future data refreshes over time.

The dashboard architecture consisted of two principal components:

- A central multi-year data repository containing the underlying raw and processed datasets;
- A series of front-end dashboard interfaces designed to visualise and interpret location-specific performance.

The multi-year data repository acts as the primary data source for all dashboard outputs. This structure enables indicators to be updated centrally, with changes automatically feeding through to dashboard visualisations, trend analysis and benchmarking outputs. The use of linked datasets reduces manual updating requirements and improved consistency across locations and thematic sections.

To support comparability and usability, indicators were grouped into thematic categories reflecting key dimensions of inclusive innovation. These included economic performance, business activity, innovation capacity, accessibility, infrastructure and wider place-based characteristics. Grouping indicators thematically enabled users to interpret relationships between metrics more effectively and identify broader strengths and weaknesses within individual locations.

Dashboard interfaces were designed to balance analytical detail with accessibility for non-technical users. Interactive selection tools and automated lookup functions were incorporated to allow users to switch between locations and indicators dynamically without altering the underlying datasets. This enabled a consistent dashboard structure to be replicated across multiple innovation districts while maintaining location-specific outputs.

Trend analysis functionality was integrated to support longitudinal assessment between 2020 and 2024. This included automated calculations of percentage change, comparative rankings and directional trend indicators in the form of line graphs to provide a clearer understanding of performance over time. Benchmarking features were also incorporated to allow comparison against national averages and comparator locations where appropriate.

Consideration was also given to the visual presentation of information. The dashboard was structured to present complex datasets in a concise and interpretable format. Interpretation text was included alongside key metrics to improve accessibility and reduce the risk of misinterpretation, particularly for users without specialist analytical backgrounds. This was considered important given the technical nature of several innovation and economic indicators included within the dashboard. Links to the original data sources are also supplied to each metric to allow for data to be checked and updated easily.

The construction process required significant data validation and quality assurance procedures. Due to the integration of multiple datasets from different sources, checks were undertaken to identify inconsistencies in geographic coding, reporting periods and metric calculations. Particular attention was given to ensuring consistency in multi-year trend analysis where changes to geographic boundaries or statistical methodologies had occurred.

International evidence review

The lessons learned from global innovation districts set out earlier in this draw on a review of 80 empirical studies covering innovation districts and comparable models (such as innovation clusters and hybrid science parks) across the USA, Europe, Japan, and Australia. Studies were selected on the basis of their relevance to innovation district impact, focus on measurable economic or social outcomes, and methodological transparency.

Most available evidence is cross-sectional rather than longitudinal, which limits the ability to track how impact changes over time or to establish causality between innovation district activity and the outcomes observed.



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2026

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