# **UK Cities DNA**



# Discovering Dynamos

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The seventh of twelve insight papers in our UK Cities DNA initiative — putting real estate supply and demand in the context of the economic direction of travel.

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# High-growth sub-sectors, emerging fields and their geographic footprint

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# **KEY FINDINGS**

To truly grasp the economic DNA of the UK's towns and cities, a holistic approach is essential – one that marries the "big picture" macro-economic analysis with a deeper dive into local and sector-specific nuances.

With this understanding, real estate supply can be better aligned with demand, the right infrastructure, industrial strategies, and operational support can be established, and companies can position themselves in optimal locations to benefit from clustering. This, in turn, will unlock the full potential of our cities.

Adopting this approach offers the following insights into the Information and Communications sector, identified in *insight paper six* as the sector with the highest growth potential at a national level over the next 25 years:

Uneven growth dynamics: The sector encompasses both mature, steadily growing sub-sectors like IT consultancy services, and high-growth emerging fields such as artificial

intelligence (AI), each advancing at their own distinct scale and pace.

One size doesn't fit all: While the sector is largely composed of small enterprises, business sizes can vary significantly across sub-sectors, which is crucial when considering space requirements.

Clustering in cities big and small: As the Al sector rapidly grows, clusters are surfacing in unexpected places, revealing untapped potential across the UK.

# THE PREMISE

While the UK standard industry classification (SIC) group codes used in the precursor paper, "A Tale of Ten Cities" are valuable for macro-economic analysis and traditional sector assessments, they alone fall short in capturing the complexity of the UK's economic growth and the fast-evolving dynamics of certain industries.

This is particularly true for the Information and Communications sector, or TMT (tech, media, and telecommunications), poised for significant growth, with GVA projected to increase by 111.2% over the next 25 years.

This diverse sector spans 32 sub-sectors, including TV and

film production, data processing, telecommunications, and software development, each with varying growth potential and distinct real estate and locational requirements. Understanding these nuances requires an examination of individual sub-sectors.

Furthermore, SIC group codes often fail to capture the specialised fields driving growth within this sector, potentially obscuring the true drivers of expansion. A clear example is artificial intelligence (AI), a critical pillar of the UK's current and future tech landscape. Despite its importance, many of the top AI firms are classified under the broad SIC code for 'business and domestic software development,' which

overlooks the specialised nature of AI. This underscores the need for a revised taxonomy to more accurately reflect evolving dynamics.

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The Information and Communications SIC group code breakdown can be broadly categorised into Technology, Media, and Telecommunications.

TECHNOLOGY	MEDIA		TELECOMMUNICATIONS
Business and domestic software development	Book publishing	Publishing of directories and mailing lists	Other telecommunications activities
Computer facilities management activities	Motion picture distribution activities	Publishing of learned journals	Satellite telecommunications activities
Data processing, hosting and related activities	Motion picture production activities	Publishing of newspapers	Wireless telecommunications activities
Information technology consultancy activities	Motion picture projection activities	Radio broadcasting	Wired telecommunications activities
Other information service activities	Motion picture, video and television programme post-production activities	Sound recording and music publishing activities	
Other information technology service activities	News agency activities	Television programming and broadcasting activities	
Other software publishing	Other information service activities	Television programme distribution activities	
Ready-made interactive leisure and entertainment software development	Other publishing activities	Television programme production activities	
Web portals	Publishing of computer games	Video distribution activities	
	Publishing of consumer and business journals and periodicals		

# THE PROCESS

While acknowledging that a comprehensive analysis of economic strengths and growth must account for factors such as public and private

funding, as well as local and national industrial strategies, applying the following method – examining the Information and Communications sector at a sub-sector and emerging

field level through a revised taxonomy and using key metrics – provides a more granular picture.

# **METHOD**

# STAGE ONE

Break the Information and Communications sector into its constituent parts and apply metrics

# **STAGE TWO**

Use a new sector taxonomy that looks at a companies activity to identify emerging fields within Information and Communications and apply metrics

### STAGE THREE

Map companies to identify clusters

# **METRICS**

Market size metrics	Growth metrics	Company size metrics
Application: Uncover sectors of scale	Application: Identify dynamo growth sub-sectors and fields	Application: Understand spatial requirements
Number of active companies <sup>1</sup>	% of high-growth active companies <sup>2</sup>	Average number of employees
Total number of employees	% and actual change in the number of active companies over the past five years	

Source: Beauhurst and Knight Frank Research. Beauhurst is a searchable database of the UK's private companies, focusing on tracking high-growth companies.

¹According to Companies House, a company is considered active if it is incorporated and exists on the register of companies.

²Companies that meet Beauhurst's high-growth tracking triggers – secured equity investment, secured venture debt, underwent a management buyout or buy-in, attended a selected accelerator programme, has been or is a scaleup, spun out of an academic institution, was featured on a selected high-growth list, accepted a large innovation grant.

## THE FINDINGS

# Stage 1:

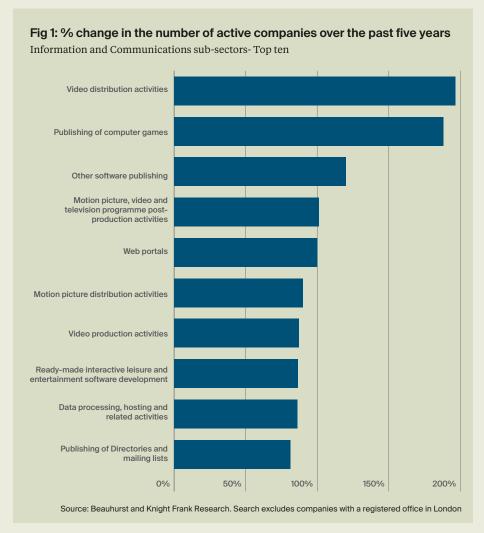
# Breaking Information and Communications into its constituent parts

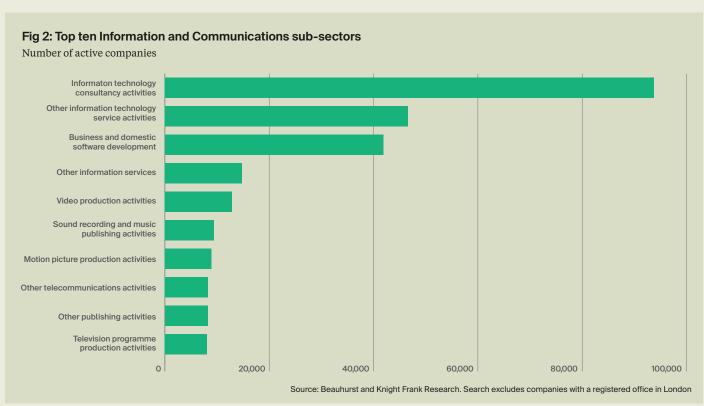
Dissecting the Information and Communications sector into its component sub-sectors, and crossreferencing the respective metrics yields several revealing insights:

# Growth dynamos: Video distribution and Gaming

Video distribution companies have experienced the strongest growth, measured by the percentage increase in active companies over the past five years (+195%, which equates to a rise from 306 to 904 active companies), closely followed by the publishing of computer games (+188%, which equates to an increase from 652 active companies to 1,878). The growth of video distribution companies has been driven by the rise of streaming services and new content platforms. While the gaming industry has undergone some restructuring recently, it remains a core strength of the UK's creative economy.

Both of these sub-sectors mainly consist of small companies, with video





distribution firms averaging just two employees and gaming companies averaging around seven. However, there are also some notable large players, such as Frontier in Cambridge and Cloud Imperium in Manchester.

# Sectors of magnitude: IT Consulting

Information technology consultancy services is the largest sub-sector within the broader Information and Communications sector, with nearly 94,000 active companies across the UK and an estimated 346,390 employees. The sub-sector has experienced the highest absolute growth in the number of active companies over the past five years (60,580 companies to 93,758). Its scale is driven by its maturity, while its growth is fuelled by the surging demand for data and AI services, alongside the ongoing strong demand

for a broad range of technology services to support societal and corporate digital transformation. Big names in IT consulting include listed multinational Computacenter, based out of Hatfield and Sage, with its HQ in Newcastle-Upon-Tyne.

# Operational scale: Significant variations

The average company size within Information and Communications is ten employees, though our analysis identifies significant variation between sub-sectors. For example, companies in the 'other software publishing' sub-sector average 118 employees, suggesting a much larger operational scale, while those in sound recording and music publishing activities have an average of just one employee, reflecting a much smaller operational footprint.

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# Fig 3: Operational scale

Average number of employees

50+

10-19

Business and domestic software development, computer facilities management activities, motion picture distribution activities,

development, computer facilities management activities, motion picture distribution activities, publishing of learned journals, ready-made interactive leisure and entertainment software, publishing of computer games, information technology consultancy activities, other publishing activities, web portals, book publishing, other information services, publishing of directories and mailing lists, radio broadcasting, television programme production activities, television programming and broadcasting activities, news agency activities, television programme distribution activities, motion picture production activities, motion picture, video and television programme postproduction activities, video distribution activities, sound recording and music publishing activities, video production activities Other information technology service activities, publishing of consumer and business journals and periodicals, satellite telecommunications activities 20-49

other telecommunications activities, wired telecommunications activities, motion picture projection activities, data processing, hosting and related activities

Other software publishing, wireless telecommunication activities

### Stage 2:

# Apply a new sector taxonomy that looks at a company's activity to identify emerging fields within Information and Communications

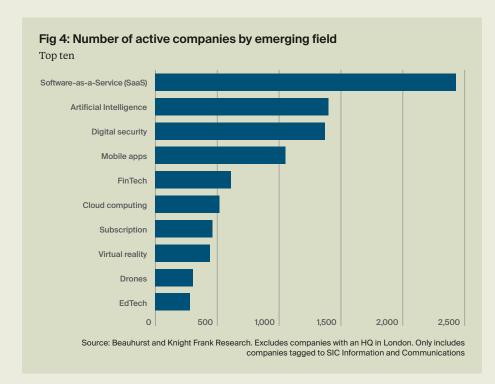
Breaking down the Information and Communications sector into its components enhances our understanding of the sub-sectors driving the UK's growth trajectory and defining its current and future economic landscape. However, emerging fields are still masked in such an analysis. We can generate additional insights around these emerging fields by looking at the sector through a revised taxonomy, which codes businesses according to activities.

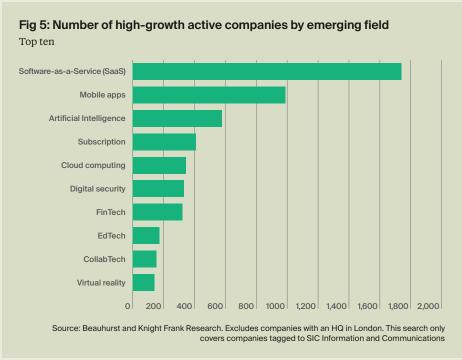
# Dominant fields: Software-as-a-Service, and AI

Software-as-a-service (2,423 companies) and AI (1,396 companies) are the fields within **Information and Communications** with the highest concentration of companies in the UK. Companies in the software-as-a-service field develop software that fulfils a specific service or function. Applications include customer relationship management and project management. AI is broadly defined as computer systems designed to perform tasks that typically require human intelligence. The AI value chain consists of various components, ranging from the hardware needed to run the models to data management, analysis, and frontend tools. Some AI companies act as generalists, while others specialise in solutions for specific industries. High-profile companies include Darktrace, based in Cambridge and Graphcore in Bristol.

# Front-runners: Software-as-aservice, mobile apps and AI

Though many emerging fields in the Beauhurst taxonomy are recognised as high growth, some are expanding faster than others. Software-as-a-service has the largest proportion of high-growth companies, followed by mobile apps and AI.





# Small but strategically important:

Companies within these emerging fields typically employ only a handful of people and require flexible, affordable spaces with shared resources and support services, such as incubators and accelerators. When appropriately nurtured, such companies underpin innovation ecosystems, providing a pipeline of future occupiers, some of which will ultimately scale up significantly

and rapidly. Furthermore, this subset attracts larger companies seeking proximity for collaborative opportunities – an inter-relationship that Charles Handy once described as 'elephants and fleas'. While these highpotential sectors present significant growth opportunities, they also carry higher failure rates, necessitating adaptable real estate models to cater to specific needs and an uncertain and uneven trajectory.

### Stage 3:

# Map companies to identify clusters

Sector growth, of course, is rarely evenly distributed across geographic regions. Clusters form for various reasons, driven by access to specialised talent pools, proximity to academic and research institutions, critical infrastructure (housing, power, data centres, etc) and funding sources, local industrial strategies, and government incentives. In many cases, a critical mass of companies in a particular sector, or even the dominance of a single influential company, can spur further growth. Sometimes, clusters simply emerge due to a serendipitous event.

Understanding clustering activity enables more focused property investments, development strategies, and occupier targeting. Examining growth at a local level also uncovers potential untapped investment opportunities in cities beyond the top ten<sup>3</sup>.

AI is the next technological innovation that could drive clustering behaviour. According to the US International Trade Administration, the UK AI market is worth more than £16.8bn, with growth to £801.6bn anticipated by 2035. Furthermore, Britain has twice the number of AI-based companies of any European nation⁴. While London is a core location for these companies, four in every ten of the UK's AI companies have a presence outside the capital.

Although a thorough cluster analysis typically involves assessing multiple metrics, the focus here is on the number of high-growth companies.

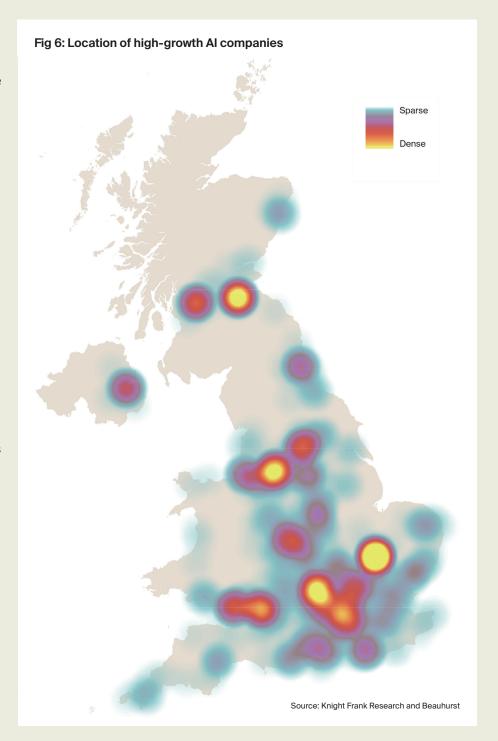
Cambridge, Oxford, Manchester and Edinburgh are at the forefront regarding the number of highgrowth AI companies, with over 50 in each location. The connection with academic infrastructure is evident here. The University of Edinburgh is one of Europe's largest hubs for AI research, boasting the highest UK enrolment in AI-related higher education courses. Similarly, Cambridge University ranks second in the UK and sixth globally for computer science, with the city strategically

positioned at the intersection of AI and other key sectors like life sciences.

Beyond these cities, emerging clusters of high-growth AI companies are also found in Bristol, Glasgow, Cardiff, Leeds, Birmingham, Newcastle, Sheffield, Reading, Liverpool, Brighton and Hove, Southampton, and Guildford, each hosting ten or more such companies.

# CONCLUSION

Integrating broad economic analysis with detailed insights reveals the true dynamos driving national and localised growth. This clarity paves the way for effective real estate and industrial strategies that create thriving business environments. Success hinges on the details – and the ability to interpret and act on them.



<sup>3</sup>Top ten defined as - Cardiff, Bristol, Edinburgh, Glasgow, Manchester, Leeds, Sheffield, Newcastle, Aberdeen, Birmingham <sup>4</sup>https://www.gov.uk/government/news/uk-unveils-world-leading-approach-to-innovation-in-first-artificial-intelligence-white-paper-to-turbocharge-growth

We like questions, if you've got one about our research, or would like some property advice, we would love to hear from you.



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