The Cambridge × Manchester Partnership

# Baseline Report: The Cambridge x Manchester Partnership

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# Introduction

The Cambridge x Manchester Partnership brings together two of the UK's most significant, but structurally different, innovation systems. Each plays a distinct role in the national innovation economy. Cambridge operates as a globally recognised centre of discovery, research translation, and capital-intensive venture formation. Manchester functions as a large, diversified metropolitan innovation system, with substantial capacity for adoption, diffusion, and scaling across a broad commercial base. The strategic question is not whether these systems are comparable, but whether their strengths can be productively connected.

This Baseline Report proposes the analytical and monitoring standard for activity delivered under the Research England-funded Cambridge x Manchester Innovation Partnership. It sets out not only a snapshot of current conditions, but a shared measurement architecture - spanning company dynamics, research collaboration, investment flows, and system health - against which Partnership activity and outcomes can be assessed consistently over time. In doing so, the report provides a framework for building a common evidence base for annual reporting, learning, and adaptive decision-making across the Partnership's workstreams, ensuring that future activity can be evaluated against clearly defined baselines rather than retrospective or ad hoc metrics.

This baseline establishes a shared empirical foundation for answering that question. It characterises the current structure, behaviour, outputs, connectivity, and systemic health of the two ecosystems, individually and as a potential joint proposition. The aim is not to rank performance or construct a composite index, but to make system roles, complementarities, and constraints legible - so that future intervention and monitoring are grounded in how innovation systems actually function over time.

A defining feature of this work is its system orientation. Innovation is treated not as a collection of companies or projects, but as an interacting set of assets, flows, and feedback loops linking companies, institutions, people, capital, and places. Structural indicators describe the composition of each ecosystem; dynamic indicators capture behaviour and progression; connectivity indicators examine whether knowledge, capital, and opportunity move between systems; output indicators measure translation into externally legible results; and health and resilience indicators assess whether the system is capable of sustaining and renewing itself.

Crucially, this analysis moves beyond headline counts and investment totals to examine where value is created, where it compounds, and where it leaks. Company-level data from Dealroom are triangulated with Beauhurst stage classifications, labour-market intelligence, and research and funding records to surface patterns that are often obscured in conventional regional reporting. These include differences in early funding engagement, scale-up conversion efficiency, capital depth, resolution pathways, and recycling dynamics. Where data coverage is partial, this is treated explicitly, with proxies used conservatively and future measurement requirements clearly specified. We have yet to align with known analysis from each city, which will commence when this baseline is issued in April 2026.

This baseline draws on a combination of datasets, including Dealroom, Beauhurst, Companies House, labour market intelligence sources, and UKRI research data, each of which captures different aspects of the innovation system. Dealroom is used as a central analytical spine within this initial release, reflecting its strength in tracking company-level performance, capital flows, and ecosystem dynamics in a consistent and comparable way across geographies. This enables the construction of metrics such as scaleup conversion, funding pathways, and investor connectivity that are not readily observable through official statistics alone. However, this approach also introduces important considerations around coverage and definition. The analysis should therefore be understood as a structured and transparent first iteration, with findings triangulated where possible and subject to further validation and augmentation through additional datasets and stakeholder input as the Partnership's evidence base matures.

The baseline also introduces a set of systemic metrics that are rarely applied in a UK city-to-city context. These include scale-up conversion funnels, capital leverage pathways, dropout and stagnation analysis, and ecosystem recycling mechanisms. Together, they shift the focus from activity to yield: not how much happens, but how effectively resources are transformed into sustained growth, exits, learning, and renewal. These metrics are designed to be repeatable over time, allowing the Partnership to track whether integration changes system performance rather than simply redistributing activity between places.

The connected cluster proposition rests on the assumption that integration - through shared capital, collaborative research, joint programmes, and human networks - can alter outcomes. The baseline therefore distinguishes between symbolic connectivity and structural connectivity, and between incidental overlap and behaviour that meaningfully changes company trajectories. Early evidence suggests that capital and institutional overlap already provides a latent connective tissue, even where multi-location company footprints remain limited. This creates a practical starting point for intervention, and a clear set of indicators against which progress can be assessed.

The baseline establishes three propositions. First, Cambridge and Manchester are not substitutes or competitors; they are functionally complementary systems operating at different points in the innovation lifecycle. Second, current cluster-level performance largely reflects aggregation rather than integration, meaning that the Partnership's additionality must be demonstrated through changes in conversion, leverage, and recycling, not simply through scale. Third, credible monitoring requires discipline: consistent definitions, transparent assumptions, and a willingness to measure uncomfortable dynamics such as stagnation and leakage alongside success.

This introduction sets the frame for the sections that follow, which build a detailed, evidence-led picture of the two ecosystems. It also establishes the baseline against which future progress will be judged - not by ambition or activity alone, but by whether the Cambridge and Manchester proposition becomes a system that converts potential into durable, distributed impact.

## What this report covers - and what it does not

This report analyses a defined population of innovation-active companies across Cambridgeshire and Greater Manchester. This is the core unit of analysis throughout, unless otherwise stated.

Innovation-active companies meet explicit, observable criteria indicating engagement in innovation-led activity. These include signals such as external equity investment, proprietary technology or product development, intellectual property activity, participation in recognised innovation ecosystems, and scaling behaviour. Companies that do not meet these criteria are excluded, regardless of size, sector, or age.

This population therefore:

- includes start-ups and scale-ups
- includes established companies where they meet the same innovation criteria (e.g. companies such as ARM in Cambridge and Matillion in Manchester)
- excludes companies not engaged in innovation-led activity

The boundary is set by activity, not by stage, sector, or label. As a result, this is not a count of “start-ups”, nor is it a measure of the full business population. For clarity, the population includes companies such as Matillion (Manchester) and ARM (Cambridge) but excludes companies whose activity is not innovation-led, such as traditional construction contractors, hospitality businesses, some services companies, or local retail chains without a technology or product development core.

The analysis uses company-level data as an analytical spine to examine how innovation-active companies are formed, financed, scaled, and resolved over time, and how these dynamics interact with research, capital, labour markets, and institutional activity. This enables the construction of system-level metrics - such as scale-up conversion, capital progression, connectivity, and system health - that are not observable through aggregate or sector-based approaches.

Where other populations or datasets are introduced (e.g. for contextual comparison), these are explicitly identified and should be interpreted on their own terms.

This approach (focused on innovation-active companies) is aligned with the population used in the Cambridge Founders report and should be interpreted on that basis[1].

Because the report uses a defined, activity-based population, its findings are not directly comparable to analyses that use broader business population measures or alternative definitions (e.g. purely sector-based or “knowledge-intensive” classifications). Differences in reported totals therefore reflect differences in scope and methodology, rather than discrepancies in underlying data quality.

[1] Dealroom, Founders at the University of Cambridge (2025) The rise of Cambridge Tech & its role in the future of innovation. Available at: https://content.dealroom.co/uploaded/2025/05/Cambridge-report-2025-2.pdf

On this basis, the report should be read as a consistent, decision-relevant baseline for understanding how the two innovation systems function, rather than as an estimate of total company activity within either geography.

# Key statistics

The baseline statistics point to a paired innovation system characterised less by symmetry than by functional differentiation. Cambridge and Manchester occupy distinct positions, with differences that are structural rather than cyclical, and complementary rather than competitive. The indicators below are therefore presented not as isolated facts, but as signals of system behaviour-revealing how innovation is generated, financed, scaled, and absorbed across the two cities, and where targeted intervention could materially improve system performance.

At the most aggregate level, the two ecosystems differ sharply in scale, capital intensity, and institutional orientation. Greater Manchester supports a substantially larger population of innovation-active companies, while Cambridgeshire and Peterborough concentrate far higher levels of capital and research-derived activity within a smaller company base. This asymmetry recurs across multiple dimensions of the data and underpins the logic of the Partnership.

## Company stock, capital engagement, and structural asymmetry

Cambridge supports 2,836 innovation-active companies, compared to 5,285 in Greater Manchester, yet attracts more than three times the total disclosed venture funding ($16.3bn versus $4.9bn). This divergence is not merely a function of a handful of outliers; it reflects systematically different funding engagement across the company population. Over 21% of Cambridge companies have raised disclosed external funding, compared to under 10% in Manchester, signalling a much higher propensity for formal capitalisation early and throughout the company lifecycle.

The depth of this difference becomes clearer when companies are examined by employee bands.

**Table 1** Company stock, funded count, and disclosed funding by employee band (2025)

| Geography | Employee band | Companies (n) | Funded companies (n) | Funded share (%) | Total disclosed funding (USD m) |
|---|---|---|---|---|---|
| Cambridge | 1 employee | 1,012 | 148 | 14.6% | 412.3 |
| Cambridge | 2-10 employees | 934 | 221 | 23.7% | 2,184.9 |
| Cambridge | 11-50 employees | 566 | 157 | 27.7% | 5,936.4 |

| | | | | | |
|---|---|---|---|---|---|
| Cambridge | 50+ employees | 324 | 72 | 22.2% | 7,800.5 |
| Cambridge total | All bands | 2,836 | 598 | 21.1% | 16,334.1 |
| Manchester | 1 employee | 1,640 | 53 | 3.2% | 58.5 |
| Manchester | 2-10 employees | 2,027 | 193 | 9.5% | 420.9 |
| Manchester | 11-50 employees | 988 | 157 | 15.9% | 1,164.5 |
| Manchester | 50+ employees | 630 | 112 | 17.8% | 3,247.1 |
| Manchester total | All bands | 5,285 | 515 | 9.7% | 4,891.0 |

(Source: Dealroom, 2025)

What is particularly striking is not simply that Cambridge companies raise more capital, but how early and how consistently this engagement occurs. Even at the smallest company sizes, Cambridge companies are materially more likely to be funded, suggesting an ecosystem that actively converts ideas and early research into capitalised ventures. Manchester, by contrast, exhibits a very broad base of micro-companies with limited engagement in formal venture markets. From a monitoring perspective, this divergence creates a clear signal: Cambridge's challenge is concentration and dependency, while Manchester's challenge is conversion and selectivity.

## Company maturity, pipeline shape, and progression risk

Triangulation using Beauhurst data reinforces this interpretation. Cambridge's company population is skewed toward earlier-stage activity, while Manchester maintains a thicker tail of established companies.

Triangulation strengthens the robustness and defensibility of this interpretation by showing that the pattern holds across independent data sources with different methodologies and coverage. While Dealroom provides one view of company formation and scaling dynamics, cross-checking against Beauhurst reduces the risk that the observed differences are an artefact of a single dataset's biases or definitions. The fact that both sources point in the same direction increases confidence that Cambridge's skew toward earlier-stage activity,

and Manchester's relatively thicker base of established companies, reflects a real structural difference rather than a data issue.

**Table 2** Company maturity distribution by stage

| Stage of evolution | Cambridge (n) | Cambridge (%) | Manchester (n) | Manchester (%) |
|---|---|---|---|---|
| Seed | 965 | 46.3% | 913 | 41.4% |
| Venture | 721 | 34.6% | 707 | 32.1% |
| Growth | 258 | 12.4% | 294 | 13.3% |
| Established | 138 | 6.6% | 291 | 13.2% |
| Total | 2,082 | 100% | 2,205 | 100% |

(Source: Dealroom, 2025)

Cambridge's pipeline is therefore dense at the front and narrow at the back, shaped by spinout formation, grant-led early capital, and deep-tech venture models that are capital intensive but selective in their eventual scaling. Manchester's pipeline is broader and flatter, reflecting a more heterogeneous innovation economy in which many companies persist without necessarily transitioning into high-growth scale-ups.

Analytically, this matters because system health is not determined by entry rates alone, but by the efficiency with which systems identify, resource, and advance companies with genuine scaling potential. The data suggest that Manchester's system generates volume but expends relatively limited effort on filtration and acceleration, while Cambridge filters early but concentrates resources heavily on a smaller number of companies.

## Capital concentration and resilience signals

Capital distribution further sharpens this contrast. In Cambridge, the top 10 companies account for 72% of total disclosed funding, rising to 86% across the top 25. In Manchester, the equivalent figures are 61% and 74% respectively.

**Table 3** Capital concentration (system health signal)

| Indicator | Cambridge | Manchester |
|---|---|---|
| Share of total funding held by top 10 companies | 72% | 61% |
| Share of total funding held by top 25 companies | 86% | 74% |

(Source: Dealroom, 2025)

High concentration is a double-edged signal. It reflects the presence of globally competitive companies capable of absorbing large amounts of capital, but it also increases systemic exposure to a small number of outcomes. The analytical question for monitoring is therefore not whether concentration exists, but whether its downstream effects are regenerative-through spinouts, angel activity, talent circulation, and reinvestment-or extractive.

Manchester's lower concentration suggests greater diversification but also weaker capital deepening. Monitoring should therefore focus not on replicating Cambridge's funding profile, but on understanding how different capital structures affect long-term resilience.

## Connectivity and latent integration capacity

Despite limited physical co-location of companies, financial connectivity across the clusters is already substantial. There are 307 investors active in both ecosystems, linking 762 Cambridge companies and 581 Manchester companies through shared capital relationships. By contrast, only five companies currently operate in both locations, according to this report's analysis at the time of publishing.

This imbalance is analytically significant. It suggests that the cluster connectivity already exists as a financial and informational network, but has yet to translate into organisational or operational integration. From a monitoring standpoint, this opens a powerful line of enquiry: whether shared investors can be leveraged as agents of coordination, knowledge transfer, and cross-city scaling, and whether changes in investor behaviour precede changes in company behaviour.

## Labour market pressure and growth signals

Labour market data adds a further layer. Cambridge exhibits markedly higher wage growth (+10.3% year-on-year) relative to Manchester (+4.9%), despite similar posting durations. This points to talent scarcity rather than weak demand in Cambridge, and to a more elastic labour market in Manchester.

For monitoring purposes, this creates an opportunity to track talent flow, role migration, and hybrid employment patterns across the cluster-dimensions that are not yet well captured but are likely to be critical to long-term integration.

## Summary: key monitoring signals

Cumulatively, the baseline statistics surface a set of priority signals for ongoing monitoring:

- **Scale versus intensity:** Manchester provides volume; Cambridge provides capital density.
- **Conversion efficiency:** Cambridge converts early activity into funded ventures; Manchester generates more entry than progression.
- **Capital concentration:** Cambridge faces resilience risks through dependency; Manchester faces scaling risks through dilution.
- **Latent connectivity:** Financial networks are already shared; organisational integration lags.
- **Talent pressure:** Cambridge shows demand-side overheating; Manchester retains capacity.

These signals do not imply convergence as an objective. Rather, they define the productive tension that makes the Partnership strategically valuable. The monitoring challenge - and opportunity - is to track whether interventions improve *system performance* (conversion, recycling, resilience) without eroding the distinct strengths of either ecosystem.

# Structural differences in ecosystem composition

The structural differences between the Cambridge and Manchester innovation ecosystems are not incidental, nor are they reducible to differences in headline performance. They reflect distinct system architectures, shaped over decades by institutional endowments, economic structure, labour-market scale, and the ways in which knowledge, capital, and companies are organised and legitimised. These differences are durable, internally coherent, and highly consequential for how each ecosystem generates, selects, and resolves innovation activity.

Greater Manchester supports a large, heterogeneous population of innovation-active companies, embedded within a diversified metropolitan economy with strong links to applied digital services, creative industries, advanced manufacturing, and public-sector demand. Cambridge, by contrast, supports a smaller but more tightly coupled innovation system, characterised by dense institutional proximity between world-leading research organisations, specialist investors, and venture intermediaries. The result is not simply that Cambridge produces “more successful start-ups” or that Manchester produces “more companies”, but that each system is configured to perform different functions within the innovation lifecycle.

## Company lifecycle dynamics

One of the most consequential structural distinctions concerns how companies enter the innovation system and how early selection is exercised. Cambridge operates as a relatively high-friction, high-selection environment. The presence of a globally significant research base, formalised technology transfer offices, experienced IP advisors, and a dense network of specialist seed investors means that many potential ventures are filtered, shaped, and legitimised *before* they appear as independent companies. In practice, this results in a system where early-stage companies are fewer in number but more tightly specified: they tend to be IP-anchored, grant-aware, and venture-oriented from inception.

Manchester’s system, by contrast, is structurally more permissive at entry. The metropolitan scale of the economy, combined with a strong base of digital services, creative industries, and applied technology companies, supports a much larger volume of innovation-active businesses entering the system through a wide range of routes. These include consultancy spin-ins, agency-to-product transitions, founder-led digital start-ups, and technology adoption within existing SMEs. Many such companies innovate meaningfully, but do so without immediate recourse to formal venture finance or research translation mechanisms.

This difference in entry conditions has two important structural consequences. First, Cambridge’s system tends to front-load institutional validation, bringing companies into contact with capital, IP regimes, and growth expectations early. Manchester’s system defers that validation, allowing companies to persist, adapt, or resolve through market mechanisms before encountering formal selection pressures. Second, Cambridge’s early filtering produces a clearer but narrower pipeline, while Manchester’s permissive entry produces a

broader but noisier population of companies, only a subset of which will ever surface in conventional growth metrics.

From a systems perspective, neither configuration is inherently superior. Cambridge optimises for signal clarity and capital efficiency; Manchester optimises for experimentation and absorptive capacity. The challenge for the Partnership is not to increase entry or selection in isolation, but to improve the alignment between permissive entry and selective progression across the two systems.

## Sectoral composition

These structural differences are reinforced by the sectoral composition of the two ecosystems. Cambridge's company population is disproportionately concentrated in science-led and deep-technology domains, including life sciences, biotechnology, advanced materials, hardware, and research-intensive AI. Manchester's company population is more evenly distributed across applied digital technologies, creative and cultural industries, fintech, cybersecurity, and platform-based business models, alongside growing activity in AI and climate-related innovation.The scoring system presented in Table 4 is designed to capture relative sectoral intensity rather than precise firm counts, enabling a clearer comparison of structural emphasis between the two ecosystems. Labels such as "high", "moderate", and "low-moderate" reflect each sector's share of the total innovation-active firm population within a city, normalised against its overall ecosystem composition rather than absolute size. This approach avoids distortions that arise from differences in total firm counts or data coverage, and instead highlights where each ecosystem is disproportionately concentrated. The scores are derived through triangulation across Dealroom and Companies House data, grouping firms into consistent sector categories and assessing their relative weight within each local economy. In practice, this allows the analysis to surface meaningful structural patterns - such as Cambridge's concentration in research-led, deep technology domains versus Manchester's strength in applied, market-facing sectors - without over-claiming spurious precision.

**Table 4** Sectoral composition of innovation-active companies

| **Sector** | **Cambridge (% of all firms)** | **Manchester (%)** | **Structural interpretation** |
|---|---|---|---|
| Life sciences & biotech | High | Low-moderate | Research-led discovery and translation |
| Healthtech (applied) | Moderate | Moderate | Shared opportunity space |
| AI & data | High | High | Cross-cutting general-purpose technology |

| | | | |
|---|---|---|---|
| Advanced materials & hardware | High | Moderate | University-driven deep tech |
| Fintech | Low | High | Market-facing digital services |
| Creative & digital industries | Low | High | Cultural economy and applied innovation |
| E-commerce & platforms | Low | High | Scale-oriented commercial models |
| Climate & clean tech | Moderate | Moderate | Mission-oriented convergence |

(Source: Dealroom, Companies House, 2025)

The significance of this distribution lies not only in what sectors are present, but in how those sectors behave. Science-led domains tend to require long development timelines, high upfront capital, and specialist talent, with outcomes that are binary and heavily path-dependent. Applied digital and creative sectors, by contrast, tend to support faster iteration, earlier revenue, and a greater diversity of viable business models, including acquisition-led exits and sustained SME-level operation.

As a result, Cambridge's ecosystem is structurally predisposed toward long-horizon, capital-intensive innovation trajectories, while Manchester's is predisposed toward shorter-cycle, market-integrated trajectories. This has implications for how success manifests. In Cambridge, success is often visible as a small number of very large outcomes; in Manchester, success is distributed across a larger number of moderate outcomes that may never register as "scale-ups" in conventional terms.

The opportunity emerges precisely at the intersection of these orientations. Many Cambridge-origin technologies require large, complex environments in which to be tested, adopted, and scaled. Manchester's sectoral mix and market scale offer such environments. Conversely, Manchester-origin companies operating in applied domains increasingly face limits to differentiation and defensibility that could be addressed through deeper engagement with frontier research and specialist capital more readily available in Cambridge.

## Universities, spinouts, and modes of translation

The role of universities provides a further structural lens through which the two systems diverge. Cambridge's innovation economy is deeply shaped by formal research translation, with spinouts constituting a significant share of the company population. Manchester's universities are highly productive research institutions, but their relationship to local company formation is more weakly coupled, with innovation more often occurring through collaboration, procurement, and adoption rather than direct spinout.

This contrast is visible in the relative prevalence of spinout-tagged companies and acquisition events.

**Table 5** Spinouts and acquisition events as structural signals

| Indicator | Cambridge | Manchester | Structural implication |
|---|---|---|---|
| Spinout-tagged companies (n) | 303 | 82 | Strength of formal research translation |
| Spinouts as share of company population | 10.7% | 1.6% | Institutionalised spinout pathways |
| Recorded acquisition events (n) | 212 | 305 | Resolution through market integration |
| Acquisitions per 1,000 companies | 75 | 58 | Different exit intensities |

(Source: Dealroom, 2025)

These patterns suggest fundamentally different modes of translation. In Cambridge, translation is frequently upstream: research problems are externalised into new ventures, capitalised early, and developed as independent growth entities. In Manchester, translation is more often downstream: innovation is absorbed into existing companies, resolved through acquisition, or embedded within broader organisational contexts.

From a system-health perspective, this distinction matters because it shapes how knowledge circulates and how value is recycled. Cambridge's model creates strong incentives for IP-based entrepreneurship and repeat venture formation, but also risks over-concentration and dependency on a limited number of pathways. Manchester's model supports resilience through diversity and absorption, but risks under-capitalisation of promising technologies and premature resolution of growth trajectories.

For the Partnership, this reinforces the case for hybrid translational mechanisms: pathways that allow research-intensive innovations to benefit from Manchester's absorption capacity, and that allow Manchester-based companies to draw on Cambridge's translational infrastructure when deeper technological development is required.

## Labour-market scale and organisational behaviour

Labour-market conditions provide a final structural anchor. Manchester's metropolitan labour market supports high volumes of hiring across technical, creative, and commercial roles, enabling companies to scale teams, experiment with organisational forms, and sustain growth without immediate reliance on automation or capital substitution. Cambridge's labour

market, by contrast, is smaller, more specialised, and subject to stronger wage pressures, particularly in technical and scientific roles.

These conditions shape company behaviour in predictable ways. In Cambridge, labour scarcity and salary inflation reinforce a reliance on venture funding and capital-intensive growth strategies. In Manchester, labour availability supports organisational scaling, service delivery, and adoption-led growth. Structurally, this means that Cambridge generates high-value innovation but faces constraints on domestic scaling, while Manchester offers scaling capacity but is less frequently the origin point of frontier discovery.

Viewed through this lens, labour markets are not simply contextual variables but active components of system architecture. They influence where companies choose to locate functions, how they sequence growth, and whether they remain independent or resolve through acquisition.

## Structural synthesis and implications

The combined structural evidence points to three analytically important conclusions.

First, Cambridge and Manchester are functionally differentiated systems, optimised for different stages and modes of innovation. Their differences are structural, persistent, and internally coherent.

Second, Cambridge's concentration and dependency arise from its success in producing capital-intensive innovation; Manchester's diffuse growth and lower visibility arise from its capacity to absorb and sustain a wide range of innovative activity.

Third, the value of the Partnership lies not in reducing these differences, but in connecting them deliberately. Structural integration should focus on enabling transitions: from discovery to deployment, from permissive entry to selective progression, and from capital-intensive growth to labour-intensive scaling.

From a monitoring perspective, this section underscores the importance of tracking flows rather than stocks. The most meaningful indicators will not be company counts or funding totals alone, but measures of how companies move between stages, sectors, and places- and how effectively the clusters enable those movements.

# Dynamic growth and scaling behaviours

Growth within the Cambridge and Manchester innovation ecosystems does not follow a single or uniform pathway. Instead, it is distributed across a range of trajectories that differ in timing, visibility, capital intensity, and mode of resolution. Examined together, the evidence points to two distinct but interrelated growth patterns: one characterised by frequent engagement with formal funding and long growth trajectories, and another characterised by broader participation, earlier resolution, and growth that is less consistently captured by venture-focused metrics.

Understanding these patterns requires moving beyond aggregate indicators and considering how growth is distributed over time, how it interacts with labour and capital constraints, and how companies ultimately resolve their growth journeys.

## Distribution of growth over time and sensitivity to funding cycles

A first layer of the growth mosaic concerns the distribution of observable growth events over time, and the extent to which these events are shaped by wider funding conditions. Data on recorded funding rounds and transactions shows that Cambridge companies generate a higher volume of observable growth events relative to the size of the company population, while Manchester companies generate fewer such events but across a much larger base of companies.

**Table 6** Recorded funding and transaction events by year

| Geography | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|
| Cambridge | 271 | 224 | 187 | 168 |
| Manchester | 224 | 189 | 220 | 166 |

(Source: Dealroom, 2025)

Two features stand out. First, Cambridge consistently records a higher volume of events despite having a smaller company population, indicating a system in which growth is more tightly coupled to formal funding and transaction milestones. Second, Cambridge's activity contracts more sharply following the post-2022 tightening in global venture markets, while Manchester shows a flatter profile and a partial rebound in 2024.

This difference reflects sensitivity to funding cycles. Cambridge's growth is more exposed to global venture conditions because a larger share of companies rely on repeated capital engagement to progress. Manchester's growth is more loosely coupled to those cycles, with a greater share of activity taking place through revenue growth, service delivery, workforce expansion, and acquisition-led outcomes.

From a monitoring perspective, this implies that volatility in Cambridge is an expected feature of its growth model, while relative stability in Manchester reflects diversification of growth modes rather than stagnation.

## Modes of growth and resolution

A second layer of the mosaic concerns how companies grow and how growth resolves. The composition of recorded events illustrates clear differences in the dominant pathways through which companies progress.

**Table 7** Composition of recorded funding and transaction events (selected types)

| Event type | Cambridge (n) | Manchester (n) |
|---|---|---|
| Grants | 618 | 266 |
| Seed & early VC | 627 | 558 |
| Series A | 147 | - |
| Spinout events | 179 | - |
| Acquisitions | 212 | 305 |
| Debt & alternative finance | - | 113 |

(Source: Dealroom, 2025)

Cambridge's growth pattern is characterised by early and repeated engagement with grants and venture funding, often following formal research translation through spinouts. Companies tend to remain visible in venture datasets for longer, progressing through multiple stages before resolving through exit or sustained scaling.

Manchester's growth pattern is more frequently resolved through acquisition or stable commercial operation, often without passing through later-stage venture milestones. This reflects both sectoral composition and market structure. In applied digital, creative, and service-oriented sectors, acquisition represents a rational and often value-maximising outcome rather than a premature termination of growth.

The analytical implication is that growth in Manchester is more likely to resolve into integration, while growth in Cambridge is more likely to remain within independent venture vehicles for longer. These are not competing outcomes; they represent different ways in which innovation creates value within the wider economy.

## Visibility of growth and measurement effects

These differences in growth modes create systematic differences in how visible growth is in company-level data. Cambridge's growth trajectories are highly legible: grants, funding rounds, and spinouts generate frequent, well-defined signals. Manchester's growth trajectories are less consistently captured, particularly where companies scale through revenue, headcount growth, or acquisition without repeated capital raises.

The acquisition data is particularly instructive. Manchester records a higher number of acquisition events despite lower overall venture intensity, indicating that growth often resolves before companies accumulate long funding histories. This contributes to productivity gains and capability building within acquiring organisations, but is weakly represented in monitoring frameworks that privilege independent scale-up progression.

As a result, comparative assessments based primarily on venture funding risk overstating growth in Cambridge and understating growth in Manchester, unless complemented by indicators that capture alternative growth and resolution pathways.

# Labour markets and scaling capacity

Labour market dynamics add an additional layer to the growth mosaic, shaping where and how companies can scale.

**Table 8** Labour demand and salary dynamics

| Indicator | Cambridge | Manchester |
|---|---|---|
| Unique job postings | 77,749 | 182,394 |
| Year-on-year change in postings | -13.6% | -16.1% |
| Median advertised salary | £37,320 | £36,223 |
| Year-on-year salary growth | +10.3% | +4.9% |
| Median posting duration (days) | 29 | 29 |

(Source: ONS, Adzuna, 2025)

Cambridge's labour market is characterised by tighter supply and faster salary growth, particularly in specialist technical roles. This reinforces capital-intensive growth strategies and increases reliance on external funding to substitute for scarce labour. Manchester's labour market, by contrast, operates at metropolitan scale, supporting higher volumes of

hiring at comparable salary levels and enabling companies to scale operationally even in the absence of large funding rounds.

These conditions influence company behaviour directly. Cambridge-origin companies may face binding constraints as they move from early growth to scaling, while Manchester offers greater capacity for workforce expansion, operational scaling, and market deployment. The data therefore supports a clustering logic in which growth functions are spatially differentiated, even where company headquarters remain fixed.

A further dimension, not fully captured in the baseline indicators above, relates to the structure of labour engagement itself - specifically the prevalence of consultants, contractors, and fractional talent, particularly in Cambridge. In practice, a significant share of high-skill work in the Cambridge ecosystem is delivered through non-permanent labour arrangements. This reflects both supply-side conditions (a dense pool of highly specialised, often commercially experienced individuals operating independently or through micro-consultancies) and demand-side constraints (firms facing high salary costs and limited availability of full-time hires in critical roles).

This has two implications. First, it dampens the visibility of labour demand in conventional datasets such as job postings, which primarily capture permanent hiring activity. Firms may be scaling capability without corresponding increases in advertised roles, instead drawing on flexible, project-based expertise. Second, it alters the cost and risk structure of scaling. While outsourcing and fractional engagement can provide access to scarce skills and increase agility, it may also fragment organisational capability over time, particularly as firms move toward later-stage growth where embedded teams, institutional knowledge, and execution continuity become more critical.

The baseline report should therefore be understood as a foundation rather than a complete picture of labour market dynamics. Building on this, further work should seek to capture these less visible dimensions of the workforce - combining quantitative indicators with qualitative evidence on hiring strategies, contractor utilisation, and workforce composition. This could include triangulation with alternative data sources (e.g. professional services activity, contractor platforms, or LinkedIn employment patterns) and targeted interviews with firms to better understand how labour constraints are being navigated in practice.

Incorporating these dynamics would provide a more defensible and policy-relevant account of scaling capacity, particularly in ecosystems like Cambridge where the boundary between firm and labour market is more porous. It also sharpens the comparison with Manchester, where larger local labour pools and different sectoral compositions may support more traditional employment-based scaling pathways.

## Length of growth trajectories and progression risk

The evidence suggests that Cambridge supports longer, more capital-intensive growth trajectories, while Manchester supports shorter, more market-integrated trajectories. Each model carries distinct risks. In Cambridge, extended growth paths increase exposure to funding gaps, late-stage concentration, and dependency on a small number of outcomes. In

Manchester, earlier resolution can limit the emergence of visible scale-ups and reduce opportunities for capital recycling within the local ecosystem.

This points to a shared challenge around the middle stages of growth. Companies that have moved beyond initial experimentation but have not yet resolved into exit or sustained scale represent a critical leverage point. Improving access to growth capital, experienced leadership, and cross-city markets at this stage could materially improve outcomes in both systems without distorting entry dynamics.

Viewed as a mosaic rather than a pipeline, the growth dynamics of Cambridge and Manchester reveal two complementary systems. Cambridge excels at generating high-intensity, capital-backed growth that pushes technological frontiers but is sensitive to funding conditions and labour constraints. Manchester excels at absorbing and scaling innovation across a broad economic base, producing steady growth that is less visible in venture datasets but economically significant.

The value of the Partnership lies in connecting these growth patterns, not in forcing convergence. Success should be measured by improved transitions: smoother movement between funding and market-based growth, longer and more inclusive growth trajectories, and stronger alignment between where innovation is generated and where it ultimately creates value.

# Connectivity and collaboration

The long-form baseline makes clear that “connectivity” between Cambridge and Manchester is not a single phenomenon. Instead, it operates across multiple layers of the innovation system: knowledge production, funding and investor behaviour, programme participation, and company-level operational integration. When these layers are examined separately - and evidenced properly - a more precise picture of the clusters emerges. Some forms of connectivity are already structural and deep; others remain thin, fragmented, or largely latent. This distinction matters, because different forms of connectivity have very different implications for growth, resilience, and governability.

## Knowledge collaboration: a mature and accelerating foundation

The strongest and most unambiguous evidence of connectivity sits in joint knowledge production. The baseline identifies 1,088[2] research outputs co-created by academics from the University of Cambridge and the University of Manchester, demonstrating that collaboration between the two institutions is not episodic or symbolic, but structural.

The evidence presented here draws on Gateway to Research (GtR), the UK’s primary administrative dataset of publicly funded research projects, grants, and associated outputs. GtR aggregates data from across UK Research and Innovation (UKRI) councils and partner funders, providing structured information on project titles, abstracts, participants, funding flows, and - critically for this analysis - collaborative links between institutions and researchers. As such, it offers a systematic, bottom-up view of how research collaboration actually occurs, rather than how it is described in strategy documents or institutional narratives.

For this section, GtR is being used as a gateway into the underlying structure of the Cambridge and Manchester research relationship. By identifying jointly funded projects and co-produced outputs, it allows the analysis to move beyond anecdotal or reputational accounts of collaboration and instead quantify where, how often, and in which domains institutions are working together. The SDG alignment is derived by mapping project content (titles, abstracts, keywords) to thematic categories, providing a consistent way of comparing research activity across domains. While this introduces some abstraction, it enables a scalable and comparable view of thematic concentration across a large corpus of outputs.

There are, however, important boundaries to what GtR captures. It primarily reflects publicly funded research and therefore underrepresents privately funded R&D, informal collaboration, and commercially sensitive partnerships. It also tends to emphasise earlier-stage and pre-commercial research activity, with less visibility on downstream translation, spinouts, or industry adoption. For this reason, the GtR analysis should be read as a robust indicator of the *knowledge production layer* of the corridor - where relationships are formed,

[2] (Source: GtR, Scopus, 2025)

capabilities are developed, and intellectual trajectories are established - rather than a complete account of innovation activity.

That said, its strength lies precisely in this positioning. As a consistent, longitudinal dataset, GtR provides a defensible baseline for understanding collaborative intensity, thematic anchors, and institutional participation. When combined with complementary sources (e.g. Dealroom for company formation and capital flows, labour market data for talent dynamics), it becomes possible to trace how these research connections propagate into wider ecosystem effects. In this sense, GtR functions not just as a dataset, but as an entry point into the deeper architecture of the Cambridge and Manchester joint proposition as a connected system of knowledge creation.

**Table 9** Temporal distribution of Cambridge and Manchester joint research outputs

| Period | Outputs (n) | Share |
|---|---|---|
| 2020-2025 | 413 | 38.0% |
| 2015-2019 | 413 | 38.0% |
| 2010-2014 | 86 | 7.9% |
| 2000-2009 | 35 | 3.2% |
| Pre-2000 | 41 | 3.8% |

(Source: GtR, Scopus, 2025)

More than three quarters of all joint outputs have been produced since 2015, indicating that the partnership is being actively constructed in the present rather than inherited from historic ties. In system terms, this suggests a live, adaptive knowledge network, capable of responding to new funding regimes, scientific priorities, and societal challenges.

The thematic orientation of this collaboration further sharpens the picture. Joint outputs are not evenly distributed across domains; they are strongly health-led, with nearly a quarter aligned to SDG 3 (Good Health & Well-being).

**Table 10** SDG alignment of Cambridge and Manchester joint research outputs

| SDG | Outputs (n) | Share |
|---|---|---|
| SDG 3 - Good Health & Well-being | 264 | 24.3% |

| | | |
|---|---|---|
| SDG 9 - Industry, Innovation & Infrastructure | 20 | 1.8% |
| SDG 13 - Climate Action | 18 | 1.7% |
| SDG 11 - Sustainable Cities & Communities | 16 | 1.5% |
| SDG 8 - Decent Work & Economic Growth | 14 | 1.3% |
| SDG 16 - Peace, Justice & Strong Institutions | 13 | 1.2% |
| Other SDGs (combined) | 66 | 6.1% |

(Source: GtR, 2025. Note: not all projects are SDG aligned, this data shows the subset of all projects that are.)

The breadth of participation signals repeated lab-to-lab and group-to-group interaction - the kind of connectivity that supports durable collaboration, shared infrastructure use, and translational spillovers. Concept analysis reinforces this picture, revealing connected clusters that span both translational biomedical research and fundamental physical and materials sciences.

**Table 11** Most frequent research concepts across joint outputs

| **Concept** | **Number of shared outputs** |
|---|---|
| Emissions | 34 |
| Breast cancer | 32 |
| Malignant neoplasm | 31 |
| Diseases | 28 |
| Cancer risk | 25 |
| Genome-wide association study | 23 |
| Cosmic microwave background | 21 |

| | |
|---|---|
| Materials / film | 20 |

(Source: GtR, 2025)

From a governance perspective, this matters because identifiable anchors provide practical entry points for programme design, funding coordination, and leadership engagement. The research evidence establishes that the Cambridge and Manchester joint proposition already functions as a connected knowledge production system, particularly in health-led domains.

**Note on data limitations**

The capital connectivity analysis (as with other areas of analysis in this report) should be treated as a directional indicator rather than a complete or definitive account of how investment flows operate across the corridor. The figures presented here are derived primarily from Dealroom data, which provides strong coverage of venture-backed companies and formal investment rounds, but is inherently more complete at the growth and venture end of the market than in earlier-stage, informal, or non-dilutive contexts. As a result, certain forms of capital participation - particularly angel activity, smaller tickets, syndicated micro-rounds, and locally embedded funding relationships - may be underrepresented or unevenly captured.

The “shared lead investor” metric in particular requires careful interpretation. Lead designation is not always consistently recorded across rounds, and in practice leadership can be diffuse, especially in syndicated or public-private co-investment structures. It is therefore possible that elements of de facto leadership - such as strategic influence, follow-on commitment, or board participation - are not fully reflected in the underlying data. The figure of four shared leads should be read as a strong signal of limited visible cross-corridor leadership, but not as an exhaustive measure of all forms of investor influence.

More broadly, capital markets are relational and path-dependent. Dataset-driven views necessarily simplify these dynamics into discrete events (rounds, investors, roles), which can obscure longer-term patterns such as repeated backing, informal networks, or investor/founder relationships that span geographies without being explicitly coded as “shared” in a given round. This is particularly relevant in ecosystems like Cambridge, where university-linked and angel capital may operate through less formalised or less visible structures, and in Manchester, where scale-up capital may be anchored in different networks.

For these reasons, this element of the baseline will be subject to ongoing evaluation and refinement. Future iterations will test how closely the observed patterns - particularly the distinction between shared participation and limited shared leadership - reflect lived investment behaviour across the corridor. This will involve triangulation with additional sources, including Beauhurst, qualitative validation through investor and founder interviews, and exploration of alternative indicators (e.g. follow-on investment patterns, syndicate structures, and board-level involvement). The intention is not only to validate the current interpretation, but to progressively augment the data foundation so that capital connectivity can be understood with greater precision and confidence over time.

## Capital connectivity: a shared market with asymmetric depth

Connectivity in capital markets is more complex. The long form baseline identifies 307 shared investors and funders active across both ecosystems, indicating that Cambridge and Manchester already operate within a partially shared investment landscape.

**Table 12** Shared investor base (overlap indicators)

| Indicator | Value |
|---|---|
| Shared investors (GM + Cambridge) | 307 |
| GM companies with shared investors | 581 |
| Cambridge companies with shared investors | 762 |

(Source: Dealroom, 2025)

This is a strong signal: it suggests that deal flow, evaluation norms, and early-stage capital participation already cross the cluster boundaries. However, the composition of this shared investor base is where interpretation becomes critical.

**Table 13** Shared investors by role classification

| Investor role | Count |
|---|---|
| Public / non-dilutive funders | 96 |
| University-linked funds | 41 |
| Angel networks | 58 |
| VC (early stage) | 62 |
| VC (growth / later stage) | 29 |
| Corporate / strategic | 21 |

(Source: Dealroom, 2025)

The clusters' shared capital commons is weighted towards public funding, university-linked mechanisms, angels, and early-stage VC. This aligns closely with the system-health findings elsewhere: early-stage connectivity is relatively strong, while later-stage conviction remains thinner and more locally anchored.

This asymmetry is made explicit by the most revealing capital connectivity statistic in the baseline: only four shared lead investors operate across both ecosystems.

The contrast between 307 shared investors and 4 shared leads is analytically decisive. It shows that co-presence in rounds is common, but the deeper behaviours that drive scaling - board leadership, syndicate formation, repeated growth-stage backing - are not yet cluster-wide. In other words, the clusters currently share capital participation, not capital leadership. This distinction is central to understanding why connectivity has not yet translated into performance uplift.

## Programmatic and non-dilutive support

Programme participation and non-dilutive funding provide another layer of connectivity. These signals matter because they shape which companies are legible to national and international innovation infrastructures.

**Table 14** Grant and programme linkage signals

| Indicator | Manchester | Cambridge |
|---|---|---|
| GRANT round events | 266 | 618 |
| Innovate UK-linked companies | 129 | 263 |
| Horizon Europe-tagged companies | 54 | 144 |
| Eurostars-tagged companies | 5 | 27 |

(Source: Dealroom, 2025)

Cambridge exhibits markedly higher programme density, consistent with its research-commercialisation orientation and strong integration into competitive R&D funding circuits. Manchester's engagement is still substantial - particularly with Innovate UK - but the picture here is asymmetric. Cambridge currently supplies a larger share of programme-connected companies that can act as translational testbeds or collaborative award vehicles, while Manchester offers broader deployment and market contexts.

## Company-level operational integration

At the company level, the baseline deliberately applies a conservative proxy: whether companies list the other geography as an operational location. This analysis should be interpreted as directional rather than exhaustive; refer to the note on data limitations on pages 22 and 23.

**Table 15** Dual-footprint company signal

| **Base geography** | **Dual-location companies** |
|---|---|
| Manchester companies listing Cambridge | 1 |
| Cambridge companies listing Manchester | 4 |

(Source: Dealroom, 2025)

At baseline, connectivity is not expressed through companies maintaining dual operational bases. Instead, connectivity manifests upstream - in research, funding participation, and programmes - rather than downstream in organisational structure.

This suggests that effects will not emerge automatically through company relocation or co-location. They must be deliberately engineered through mechanisms that translate knowledge and capital connectivity into operational scaling, adoption pathways, and growth capability.

Evidence on connectivity paints a nuanced picture. Cambridge and Manchester are already deeply connected where barriers are lowest and returns are long-term: co-authorship, shared early-stage funding, and programme participation. These layers form a credible foundation. However, connectivity thins precisely where effects would most directly improve system performance: shared lead investment, growth-stage decision-making, and company-level scaling integration.

# System health and resilience

Beyond counting companies, funding totals, and discrete innovation outputs, the baseline interrogates the joint proposition as a living innovation system: how efficiently it converts early activity into scale, how strongly it mobilises follow-on capital, where ventures stall or fall out of the pipeline, and whether success is recycled into new ventures and capability. These are more intangible qualities than “stock” measures, but they are also the qualities that determine whether cross-cluster effects compound over time or remain a set of parallel successes.

The four core metrics are: Scale-up Conversion, Capital Leverage, start-up Dropout (Churn), and Ecosystem Recycling. Each is explained below with baseline observations, and each is set up so it can be monitored over time as the Partnership interventions mature.

## Scale-up conversion

*From entry to sustained growth - and the Partnership’s core “yield” statistic*

Scale-up conversion measures the ecosystem’s ability to turn start-ups into scale-ups - companies that have crossed from early experimentation into sustained organisational growth. In practice, it captures the combined effect of capital access, talent availability, market pull, leadership capability, and scaling support.

At baseline, scale-up status is proxied using a standard threshold of 50+ employees (with “10+ employees” used as an intermediate traction step). Conversion can and should be measured more precisely in future by tracking defined cohorts through time (e.g. 2015 cohort to 2025 outcomes). For baseline purposes, the aim is to make the conversion *shape* visible and interpretable.

### Scale-up conversion funnel

Having established Cambridge and Manchester separately, the next step is to treat the joint proposition as a single composite system. This matters because one of the Partnership’s hypotheses is that cluster integration should change aggregate performance, not merely rebalance outcomes between places.

**Table 16** Scale-up conversion funnel: Cambridge and Manchester (2010-2024 cohort)

| **Funnel stage** | **Cross-cluster total** |
|---|---:|
| Companies founded 2010-2024 | 6,000 |
| Companies with any external funding | 920 |

| | |
|---|---|
| Companies reaching 10+ employees | 1,330 |
| Companies reaching 50+ employees (scale-ups) | 470 |
| Scale-up conversion rate | 7.8% |
| Funded to scale-up conversion | 51% |

(Source: Dealroom, ONS, 2025)

**Table 16a** Scale-up conversion funnel from 2020-2026: Cambridge and Manchester combined

| Year | Companies founded | With funding | 10+ employees | 50+ employees (scale-ups) |
|---|---|---|---|---|
| 2020 | 301 | 53 | 44 | 11 |
| 2021 | 156 | 38 | 25 | 4 |
| 2022 | 93 | 36 | 20 | 4 |
| 2023 | 145 | 28 | 19 | 2 |
| 2024 | 167 | 15 | 8 | 1 |
| 2025 | 132 | 7 | 0 | 0 |
| 2026 | 8 | 0 | 0 | 0 |

(Source: Dealroom, ONS, 2025)

This cohort-based breakdown provides a more granular and defensible view of scale-up dynamics across the corridor than a single aggregated window. By tracking companies founded in each year from 2020 onwards, it becomes possible to distinguish between structural performance and timing effects. In particular, more recent cohorts (2023 onwards) have not yet had sufficient time to progress through the funnel, meaning lower observed conversion into 10+ or 50+ employee firms should not be interpreted as underperformance. The most reliable signals therefore sit in the 2020-2022 cohorts, where both funding uptake

and early scaling outcomes are observable. This approach allows for a clearer assessment of whether conversion dynamics are improving, stable, or weakening over time, and provides a more robust basis for ongoing monitoring as newer cohorts mature.

Two observations are particularly important here:

First, the cross-cluster conversion rate (7.8%) sits below Cambridge's (10%) but above Manchester's (6.5%). This is exactly what you would expect from a loosely coupled system: aggregation smooths extremes, but does not yet unlock new performance.

Second, the funded to scale-up conversion looks deceptively strong at cross-cluster level **(**51%**).** This is because Cambridge's higher conversion masks Manchester's weaker performance. Without disaggregation, the joint proposition would appear healthier than it actually is - an analytical trap in UK regional reporting.

## Capital leverage

*Whether early promise escalates into conviction - or stalls in the mid-funnel*

Scaleup conversion tells us how many companies scale. Capital leverage tells us how convincingly the system backs those that do. Here the funnel tracks companies through funding depth, rather than employment.

**Table 17** Capital progression funnel of innovation led companies

| **Funding stage** | **Cambridge** | **Manchester** |
|---|---|---|
| Companies with any external funding | 540 | 380 |
| Companies raising ≥£1m | 410 | 240 |
| Companies raising ≥£5m | 230 | 120 |
| Companies raising ≥£20m (Series B+/growth) | 95 | 35 |
| ≥£20m as % of funded companies | 18% | 9% |

(Source: Dealroom, 2025)

Cambridge backed companies are roughly twice as likely as Manchester-backed companies to progress from early funding into serious growth capital. This aligns with everything observed elsewhere in the baseline: investor density, specialist capital, experienced boards, and credible exit pathways.

Manchester's drop-off between £1m and £5m, and again between £5m and £20m, is where capital leverage fails.

Manchester does not lack early capital. From a system perspective, this matters more than total funding volumes. It explains why Manchester produces many capable early-stage companies but relatively few large, independent growth companies.

## Connecting the funnels: what the system is actually telling us

When the conversion funnel and capital funnel are read together, a coherent diagnosis emerges:

- Manchester's weakest transition is post-seed to scale, not ideation to start-up.
- Cambridge's strongest transition is seed to growth, but applied to a narrower base.
- The opportunity is therefore selective coupling, not blanket integration.

Because these funnels are numerically defined, the Partnership can set explicit targets, test whether interventions move specific transitions, and avoid the trap of celebrating activity that does not improve system yield. Ecosystem recycling

*Whether liquidity becomes new ventures, new capital, and thicker capability - or leaks out of the system*

Recycling is the mechanism by which an innovation system regenerates itself. In a healthy system, liquidity events (acquisitions and exits) do not simply terminate a company's story; they release founders, operators, and capital back into the ecosystem, enabling repeat ventures, angel investment, and thicker capability. In a cross-cluster context, recycling is doubly important: the strategic goal is not merely that value is recycled locally, but that it can be recycled across the clusters, thickening both Cambridge and Manchester over time.

The baseline is explicit that acquisitions are a proxy - not the full measure. The baseline therefore uses acquisitions as the observable "gate" into the recycling funnel, while setting out what must be added to measure recycling directly (founder/investor network mapping and person-level mobility).

## 1) Recycling funnel: what we can measure now, and what could be measured next

**Table 18** Ecosystem recycling funnel

| Funnel stage | What it represents | Baseline proxy available now | Cambridge | Manchester | Combined | What's needed to measure it properly |
|---|---|---|---|---|---|---|
| Stage 1: Liquidity events | "Something ended in a way that can release people and capital" | Acquisition events (n) | 212 | 305 | 517 | Dealroom + (optional) Companies House M&A validation |
| | | Acquisitions per 1,000 companies | 74.8 | 57.7 | 63.7 | Cohort definitions + consistent denominator |
| | | Share of rounds that are acquisitions | 9.0% | 12.7% | - | Weighted round totals |
| Stage 2: Released operators | Founders + senior team now available to redeploy | - | - | - | - | Person-level mapping (founders, C-suite, VPs); LinkedIn mobility + partner logs |
| Stage 3: Re-entry and reinvestment | Serial founding + angel activity + micro-funds | Angel network signal (Dealroom occurrences) | 83 (Cambridge Angels) | 2 (Cambridge Angels) | 85 | Angel/LP mapping, director histories, fund formation data |
| Stage 4: Alumni venture formation | Second-generation ventures appear | Spinout prevalence (proxy) | 303 (10.7%) | 82 (1.6%) | 385 | Alumni graphing; founder pedigree; lineage mapping |
| Stage 5: Compounding | Exits to new companies to follow-on capital to exits | Round depth (repeat rounds) | 12.8% (3-5); 3.2% (6+) | 5.5% (3-5); 0.9% (6+) | - | Longitudinal tracking + repeat-founder identification |

(Source: Dealroom, Companies House, 2025)

The critical methodological point is that we can already observe entry into recycling (liquidity) and capacity to compound (round depth, investor commons). What remains is to connect the middle of the funnel - the released people and their re-entry behaviour - where UK studies typically go soft.

## 2) Baseline reading: Cambridge and Manchester recycle differently - and that matters

Liquidity is apparent in both systems, but the pattern differs.

**Table 19** Acquisition intensity

| Geography | Acquisition events (n) | Acquisitions per 1,000 companies | Share of rounds that are acquisitions |
|---|---|---|---|
| Manchester | 305 | 57.7 | 12.7% |
| Cambridge | 212 | 74.8 | 9.0% |

(Source: Dealroom, 2025)

Cambridge's higher acquisition intensity per company suggests liquidity events are more consequential relative to cohort size. Manchester's higher acquisition share suggests acquisition is a frequent resolution pathway - but one that risks leakage if founders and operators are absorbed into acquirers or drift away from the start-up circuit rather than re-entering it.

## 3) The recycling engine room: repeat funding depth and concentration

Recycling is not just exits; it is the system's ability to generate multiple viable world leading companies.

Cambridge's thicker repeat-round tail indicates more board experience, deeper operator capability, and more "graduated" founders. Manchester's thinner tail is consistent with broad entry but thinner progression. At the same time, Cambridge's high capital concentration means recycling must counterbalance dependency: a top-heavy system is resilient only if value and capability reliably regenerate beneath the top tier.

## 4) Cross-cluster loops vs local loops

A cross-cluster approach introduces a third category of recycling: system reintegration.

The baseline shows a large shared investor commons across Cambridge and Manchester, but very limited shared lead behaviour. This matters because lead investors are often the

actors who recruit scale leadership, anchor boards, and catalyse second-generation venture formation. A key hypothesis is therefore measurable:

If cross-cluster mechanisms increase shared lead behaviour, recycling happens in both clusters- rather than remaining locally trapped.

# Start-up dropout and stagnation

*Where value leaks, where it stalls, and what the system quietly loses*

Dropout is the negative space of conversion. Every ecosystem celebrates the companies that grow; far fewer examine what happens to the much larger population that neither scales nor exits. Dropout is not simply failure; it is the accumulation of stalled potential - companies that absorb time, talent, and support without resolving into growth, exit, or recycling.

## 1) Defining dropout properly

Formal closure is not enough in the UK context. Many companies remain legally alive while economically inactive. The baseline therefore uses a three-tier lens:

- Formal closure (dissolution / “closed” status)
- Economic stagnation (very small, unfunded, no growth signals)
- Pipeline exit without resolution (no scale, no exit, no recycling)

At baseline, only formal closure is directly observable at scale. The other layers must be inferred from company-level signals, which is exactly why they are often excluded - and why system health analysis is often superficial.

## 2) Dropout funnel: what the data already shows

Using the same cohort logic, a conservative stagnation funnel can be constructed:

**Table 20** Dropout and stagnation funnel

| Funnel stage | Cambridge | Manchester | Purpose for measurement |
|---|---|---|---|
| companies founded 2010-2024 | 2,100 | 3,900 | Entry volume |
| companies with any external funding | 540 | 380 | Early validation |
| companies reaching 10+ employees | 620 | 710 | Initial organisational traction |

| | | | |
|---|---|---|---|
| companies reaching 50+ employees | 210 | 260 | Scale-up resolution |
| companies not reaching 10+ employees | 1,480 | 3,190 | Latent stagnation pool |
| Share stagnating below 10 employees | 70% | 82% | Core leakage signal |

(Source: Dealroom, 2025)

This should be uncomfortable because it is the system reality most reports glide past. Many of these companies will be deliberate micro-enterprises; nevertheless, from a system investment perspective they represent activity that did not convert into growth, exit, or recycling.

### 3) Where leakage occurs

The key insight is where companies stall:

- **Pre-funding stagnation:** Manchester's low funding penetration means many companies never receive external validation or growth capital. Cambridge's higher engagement reduces but does not eliminate this pool.
- **Post-seed plateau:** Manchester's sharp drop-off between £1m and £5m, and again between £5m and £20m, is where companies stop progressing but do not close - expensive stagnation from a system perspective.
- **Non-resolving maturity:** Even Cambridge sees ventures stall at 10-20 employees, but resolution pressure tends to be higher, releasing people back into the ecosystem.

### 4) Why resolution matters more than survival

A healthy system does not minimise failure; it minimises unresolved stagnation. This reframes dropout as a design problem: the system needs earlier viability signals, clearer off-ramps (acquisition, acquihire, shutdown), and stronger pathways for founders and employees to re-enter the ecosystem.

### 5) Making dropout measurable (the monitoring innovation)

To turn dropout into a first-class metric, the monitoring framework will track:

- 3-year survival rate
- Growth inactivity rate (no funding/employment change over 24 months)
- Resolution rate (scale, exit, or closure within 5 years)
- Post-closure re-entry rate

## System synthesis: the "health thesis" at baseline

When the four systemic metrics are read together, a coherent and cluster-relevant diagnosis emerges:

- **Cambridge is high-performing but concentrated:** strong conversion and leverage, meaningful recycling capacity, but with dependency risk if recycling fails to regenerate beneath the top tier.
- **Manchester is broad but under-realised:** large entry volumes and meaningful liquidity, but weaker capital leverage and conversion yield; stagnation is the quiet cost.

The Partnership's strategic opportunity is therefore not to homogenise the two places, but to increase the system's compounding capacity by improving specific transitions: raising Manchester's funded to scale-up conversion and growth capital progression, strengthening cross-cluster recycling loops, and reducing the share of companies stuck in prolonged stagnation.

This is what makes the joint proposition governable. Because the funnels are numerically defined, the Partnership can set explicit targets (e.g. Manchester funded to scale-up conversion rising from 24% to 32%), test whether specific interventions move specific transitions, and avoid mistaking activity for progress.

# Implications for the Partnership and forward monitoring

The baseline establishes that cross-cluster connectivity and outcomes are already real in some respects - visible in shared capital networks, extensive co-produced research, and complementary ecosystem structure - but not yet fully integrated in the ways that matter most for long-run performance. The system metrics are particularly revealing here. They show a joint proposition that currently behaves as two adjacent systems: Cambridge's high-yield scaling machinery and Manchester's broad entrepreneurial base sit alongside one another more than they interlock. The Partnership's job, therefore, is not to narrate a "corridor" into existence, but to engineer the conditions under which cross-cluster effects become measurable: higher conversion yield, stronger growth-capital progression, thicker recycling loops, and reduced stagnation.

This section sets out the practical implications of the baseline for Partnership strategy and for the monitoring system. It is written deliberately as a governance tool: clear hypotheses, measurable leading indicators, and a monitoring cadence that turns evidence into adaptation.

## Implication 1: Move from "activity" to "yield" as the organising principle

The baseline funnels and system diagnostics make one thing unavoidable: success will not be gauged by the volume of activity it convenes, but by whether it improves the yield of the innovation system.

At baseline, scale-up conversion sits around 7.8% (2010-2024 cohort), with Cambridge materially higher (10%) and Manchester lower (6.5%). More importantly, Manchester's funded to scale-up conversion (24%) is far below Cambridge's (39%), and growth-capital progression (≥£20m as a share of funded companies) is roughly half (Manchester 9% vs Cambridge 18%). These are not narrative differences; they are the most decision-relevant signals.

**Strategic implication:** the Partnership should prioritise interventions that explicitly improve two transitions:

1. **post-seed to scale** (Manchester's key leakage point)
2. **seed to growth capital** (confidence escalation and late-stage backing)

**Monitoring implication:** the Partnership should treat these as primary outcome proxies, and report them consistently, rather than defaulting to easier counts.

## Implication 2: Design “selective coupling” mechanisms, not blanket integration

The baseline does not support an assumption that simply increasing general connectivity will automatically produce performance. The evidence points to a more precise opportunity: selective coupling.

- Cambridge’s strength lies in deep-tech translation pathways and high-conviction scaling
- Manchester’s strength lies in breadth, market surfaces, and applied innovation environments, with a large base of companies that could scale but often do not.

The Partnership should therefore focus on mechanisms that create high-friction connections (the kind that change outcomes), not low-friction networking.

**Examples of selective coupling mechanisms (illustrative, not exhaustive):**

- **Growth leadership exchanges:** structured placement of scale-up CFO/COO/VP Growth capability across companies at the 10-50 employee band.
- **Cross-cluster growth capital syndication:** deliberately increasing shared lead behaviour (not just shared investors), with a small number of repeatable deal structures.
- **Cross-cluster talent circuits:** targeted mobility programmes for high-skill roles (AI/ML, regulatory, clinical, data engineering), measured via flows, not participation.

**Monitoring implication:** each mechanism must have a metric that tests whether it is working (e.g., share of Manchester companies reaching 3-5 rounds; number of shared lead deals; revenue/adoption milestones; mobility flows), rather than assuming impact from participation. In practice, this should centre on scale-up conversion and progression metrics - tracking whether firms move from early-stage to successive funding rounds (e.g. 3-5 rounds), reach key employment thresholds (10+, 50+ employees), and demonstrate sustained revenue or market adoption - so that each intervention is tested against observable movement through the scaling pathway, rather than assumed impact from participation alone.

## Implication 3: Treat recycling as a cluster asset - and measure it as a funnel

The baseline shows meaningful liquidity in both ecosystems (acquisitions as the proxy gate), but different recycling dynamics. Cambridge appears better positioned to recycle through dense investor/angel and repeat-round pathways; Manchester appears to have more frequent acquisition-type resolution but risks greater leakage of talent and capital.

In a cluster context, recycling becomes a strategic lever. It is one of the few system properties that can compound quickly if intentionally designed. Connected clusters that

captures post-exit operators and reintegrates them across both places will build advantage faster than one that simply hopes recycling occurs locally.

**Strategic implication:** the Partnership should create explicit post-liquidity reintegration routes (operator pools, angel mobilisation, founder re-entry pathways), and treat these as core infrastructure rather than “nice to have”.

**Monitoring implication:** move recycling from proxy to direct measurement over time by operationalising:

- repeat founder rate
- post-exit re-entry rate (within 24 months)
- angel / micro-fund formation rate and eventually an alumni graph that links exits to subsequent venture formation and investment.

## Implication 4: Make stagnation visible - and design for resolution, not just survival

The dropout / stagnation funnel shows the uncomfortable reality of the system: large shares of companies never reach 10+ employees, and Manchester’s unfunded tail is particularly large. Many of these companies are intentionally small; many are not. The cost to the system is not “failure”; it is unresolved stagnation - capability and effort tied up without scaling, exiting, or recycling.

**Strategic implication:** the Partnership should treat resolution as a design objective, building clearer pathways for companies to:

- scale (via growth capability + capital + markets)
- exit (including acquihire and structured M&A pathways)
- close and re-enter (supporting founder second attempts and talent reuse)

**Monitoring implication:** adopt the resolution logic explicitly through cohort tracking:

- 3-year survival
- inactivity rate (no growth signals)
- resolution rate (scale/exit/closure within 5 years)
- post-closure re-entry

This is one of the few ways to credibly claim “system health improvement” in the UK context.

## Implication 5: Treat monitoring as a governance loop, not a reporting function

The Monitoring & Data Framework already signals a shift from static evaluation to a learning system. The baseline reinforces why this matters: the most important changes will appear first in leading indicators (conversion transitions, capital escalation, shared lead behaviour,

mobility flows) well before they appear in lagging outcomes (GVA, productivity, long-run employment).

**Strategic implication:** the Partnership should commit to a simple, repeatable governance loop:

1. **Measure** (refresh key tables quarterly/ biannually where possible)
2. **Interpret** (a structured “what moved and why?” review)
3. **Decide** (agree 2-3 adaptations, not 20 actions)
4. **Document** (record decisions and rationale)
5. **Re-measure** (test whether adaptations moved the intended transition)

# Conclusion: From baseline to learning system

This baseline establishes a clear, evidence-led understanding of the Cambridge and Manchester Partnership as it currently exists: its structure, dynamics, outputs, connectivity, and systemic health. It shows two innovation systems that are already substantial in their own right, and demonstrably connected in specific and meaningful ways - most notably through research collaboration, shared early-stage capital infrastructure, and overlapping institutional participation - yet not fully integrated in the dimensions that most strongly shape long-run performance.

The analysis highlights a central insight. At present, cluster-level outcomes largely reflect aggregation rather than integration. Cambridge's strength in research translation, capital leverage, and scale-up conversion sits alongside Manchester's breadth, diversity, and deployment capacity, but the performance of the combined system has not yet shifted materially beyond what would be expected from two adjacent ecosystems. This is visible in the scale-up conversion funnel, in growth-capital progression, and in the limited extent of shared lead behaviour and operational integration.

At the same time, the baseline surfaces a set of credible and actionable opportunities. The evidence points to specific transition points where targeted intervention could materially change system behaviour: improving post-seed conversion for Manchester-based companies; strengthening growth-stage conviction and shared lead investment; capturing and reintegrating post-exit talent and capital; and reducing prolonged stagnation by enabling clearer pathways to scale, exit, or recycling. These are not abstract ambitions, but measurable system properties, now defined in a way that allows progress to be tracked.

A defining feature of this work is the shift from descriptive reporting to system governance. By introducing conversion funnels, capital leverage pathways, recycling proxies, and dropout diagnostics, the baseline moves beyond counting activity to examining yield, leakage, and regeneration. This provides a more appropriate lens for understanding whether the clusters are becoming more resilient, adaptive, and capable of compounding value over time. It also enables uncomfortable but necessary questions to be asked - about where effort dissipates, where confidence fails to escalate, and where success does not yet recycle.

Crucially, this baseline is not intended as a one-off assessment. It sets the reference point and analytical standard for ongoing monitoring of the Research England-funded Cambridge x Manchester Partnership. The indicators and system metrics established here are designed to be refreshed annually, allowing changes in structure, behaviour, and outcomes to be observed consistently over time. This creates the conditions for genuine learning: testing whether Partnership activity alters key transitions in the system, adjusting strategy in response to evidence, and distinguishing meaningful progress from noise.

Future iterations will therefore not simply update numbers. They will track shifts in system shape: whether scale-up conversion improves; whether capital depth thickens; whether recycling becomes more visible and cluster-wide; whether shared leadership in investment

and delivery increases; and whether stagnation gives way to resolution and renewal. Over time, this longitudinal view will allow the Partnership to understand not just whether activity is occurring, but whether the clusters are functioning differently as a result.

In this sense, the baseline marks the start of a cycle rather than its conclusion. It provides a common evidence base, a shared language for decision-making, and a framework through which ambition can be tested against outcomes. The real measure of success will lie in future updates - whether the data show that Cambridge and Manchester are no longer merely connected, but operating as a more integrated, resilient, and productive innovation system than either could be alone.