

Practice review

Embedding innovation in practice: reflections from a university–NHS partnership model

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Abstract

Innovation is essential to the NHS's future sustainability and capacity to respond effectively to evolving health needs, yet persistent gaps remain between policy ambition and practice capability. Effectively embedding innovation in healthcare organisations is about more than introducing novel ideas or technologies – it also requires the establishment of enabling structures that support cross-organisational collaboration and strengthen evaluative capacity. The article reflects on a joint initiative between a higher education institution (Liverpool Business School) and an NHS trust (NHS University Hospitals of Liverpool Group). Together, these bodies introduced the Centre for Management Development and Innovation in 2022, as a locally embedded innovation infrastructure. The centre aims to support the co-development, evaluation and governance of health service innovation within a large acute provider context. Its core functions are structured around two interdependent pillars: supporting project-based innovation through outcome mapping, stakeholder engagement and developmental evaluation; and contributing to innovation governance, including the piloting of a bespoke Innovation Impact Assessment Framework. Drawing in the centre's first 18 months of operation, this article explores the tensions and challenges accompanying this model, such as relational legitimacy, reliance on key individuals and the need for more inclusive public involvement. The wider applicability of this approach for healthcare systems seeking to embed and enhance innovation is also discussed.

Key words

Governance; Innovation; Partnerships; Stakeholder engagement

Introduction

Innovation has been recognised as a cornerstone of NHS transformation, necessary to respond to increasing demand, widening health inequalities and structural workforce challenges ([NHS England, 2024](#)). While national strategies have articulated the need for innovation at scale, they often assume a level of organisational capability, infrastructure and evaluative literacy that does not exist uniformly across the healthcare system ([NHS England, 2019](#); [Department for Business, Energy & Industrial Strategy, 2021](#); [Department of Health and Social Care, 2024](#)). In practice, innovation is often unsystematic, under-resourced and heavily dependent

on short-term projects or isolated pockets of good practice ([Wellcome Trust, 2025](#)). It is also hindered by systemic conditions, including financial pressures, regulatory fragmentation and a predominant focus on short-term operational targets ([Knight et al, 2025](#)).

Provider organisations, particularly large acute trusts, are operationally stretched, subject to intense regulatory oversight and often lack the dedicated translational infrastructure needed to develop, govern and systematically learn from innovation ([Romanelli et al, 2024](#)). Therefore, most innovation activity is ad hoc or externally driven, with limited integration into core systems of governance, education or workforce development ([NHS England, 2024](#)). In such settings, bridging the gap between innovation intent and operational delivery requires relational, evaluative and institutional mechanisms to support innovation across its full lifecycle ([Greenhalgh et al, 2019](#)).

It was in this context that the Centre for Management Development and Innovation (CMDI) was established in 2022 as a strategic partnership between Liverpool Business School and NHS University Hospitals of Liverpool Group. Rather than functioning as a research centre, improvement hub or time-limited programme, the CMDI was conceived as a flexible, embedded infrastructure, designed to support innovation practice, build capacity for evaluation and enhance strategic learning within the trust. Its formation was a direct response to a recognised gap in the local innovation ecosystem: the absence of a sustained, neutral and academically credible structure, capable of working across boundaries to strengthen innovation governance and capability in a joined-up and place-based manner.

Two interrelated frameworks informed the CMDI's theoretical orientation:

1. Quadruple Helix innovation model ([Carayannis and Campbell, 2009](#)): this conceptualises innovation as emerging from dynamic interactions between academia, government, industry and civil society, highlighting the importance of co-production, knowledge exchange and non-linear value creation processes
2. Regional Innovation Systems perspective ([Roman et al, 2020](#)): this emphasises how regional contexts influence and shape these interactions, recognising that innovation processes are embedded within specific geographical, institutional and socioeconomic environments, foregrounding the role of institutional connectivity and place-specific relationships in shaping innovation outcomes

Together, these frameworks advocate for an approach to innovation that is relational, embedded and distributed – principles which the CMDI aims to operationalise in practice. For example, the centre's support for the retrospective review of a patient-initiated follow-up pathway brought together academic evaluation expertise, clinical leadership and operational management, while aligning with broader system priorities for equity and self-management.

[Service context and background](#)

NHS University Hospitals of Liverpool Group operates in one of England's most socioeconomically and demographically complex urban health systems, serving a population characterised by high levels of deprivation and multimorbidity, as well as significant health inequalities ([Marmot et al, 2022](#)). As one of the largest acute trusts in the North West of England, the trust plays a key role in system-wide innovation and transformation agendas, but it must do so while grappling with operational pressures, workforce attrition and stretched managerial capacity.

The CMDI aims to act as an intermediary and enabler of innovation across the trust, working at the interfaces of operational management, clinical practice, academic research and system strategy. Critically, the centre was not designed to ‘own’ innovation projects or assume decision-making authority. Instead, its function is to support others across the organisation to plan, evaluate and learn from innovation more effectively. This includes helping clinical teams to define the intended outcomes of their interventions, advising on proportionate evaluation strategies, mentoring staff in reflective and evidence-informed practice and creating tools that allow strategic learning from local experience.

The partnership was made possible by a convergence of factors, including:

- A long-standing collaborative relationship between the trust and the university, built on earlier joint activity, including co-designed executive education programmes and applied research projects focused on service evaluation and system transformation
- A shared vision among senior leaders across both institutions
- Recognition that support for innovation needed to be repositioned, not at the periphery of the organisation, but within its operational core

The centre was formed from this shared agenda and was underpinned by a signed Memorandum of Understanding. It is operationalised across two interdependent strands: supporting innovation pipeline development and contributing to governance through tools, frameworks and strategic advice.

[Innovation pipeline development](#)

The CMDI supports service teams with the design, development and delivery of innovation projects where clarity of purpose, stakeholder alignment and outcome definition are crucial, but often underdeveloped. This support is informed by [Patton's \(2011\)](#) principles of developmental evaluation, which emphasise real-time feedback, flexibility and embeddedness in contexts of complexity and uncertainty. Rather than applying a single evaluation model, the CMDI coproduces bespoke approaches with clinical and managerial teams, tailored to the innovation’s maturity, context and ambition. This includes supporting teams to articulate logic models and outcome pathways, facilitating structured stakeholder mapping and engagement planning, advising on evaluation scoping and methodological appropriateness, and providing developmental evaluation approaches that support adaptive learning.

Projects supported by the centre to date include:

- A retrospective review of a patient-initiated follow-up pathway, including outcome mapping and equity analysis.
- A mixed-methods evaluation of a virtual reality-based training programme for post-falls care, codeveloped with clinical educators, using both survey and narrative methods.
- Early-stage evaluation of novel medical technology.

[Governance and evaluation](#)

The CMDI contributes to organisational governance structures through both formal and informal mechanisms. Formally, the centre’s staff participate in the trust’s research and innovation strategy group and evaluation oversight group, where they provide expertise in

evaluation design and outcome definition. Informally, the team offers strategic input to directorate leads, project managers and senior leadership teams.

An important tool in this work is the Innovation Impact Assessment Framework, now in its second iteration, was developed by NHS University Hospitals of Liverpool Group. CMDI piloted the framework to evaluate its applicability and effectiveness in supporting project leads to define anticipated benefits, identify indicators of success, and align innovation efforts with strategic organisational goals such as quality improvement, patient experience, equity, and workforce development. The framework is designed to be proportionate, context-sensitive and practical, reflecting a deliberate departure from more burdensome approaches to innovation appraisal ([NHS England, 2024](#)).

Reflections and challenges

The CMDI's value lies in its ability to operate across boundaries and bring together stakeholders from clinical, operational and academic domains. However, the centre does not hold formal commissioning authority, budgetary control or governance oversight. Its influence depends on strategic alignment and its relational legitimacy – the perception that its advice, tools and support are timely, relevant and trustworthy ([Tabrizi, 2023](#)). While this 'soft power' enables responsiveness and neutrality, it also creates vulnerability. The centre relies on the continued goodwill and strategic vision of senior leaders who recognise the importance of embedded innovation support. It is also reliant on a small group of individuals with deep cross-sector knowledge, high institutional credibility and the ability to navigate both NHS and academic cultures. While this has enabled agility and relationship building, it poses a risk to sustainability and scalability ([Collins, 2018](#)). The CMDI team has begun to mitigate this risk by considering succession planning, role formalisation and distributed learning structures.

One of the centre's foundational aims is to normalise evaluation as a developmental and embedded part of innovation practice. However, the cultural and technical barriers to doing so remain significant. Many NHS teams lack the time, data infrastructure or methodological confidence to design and deliver meaningful evaluations. When evaluation is attempted, it can be retrospective and disconnected from service planning or learning cycles.

While the CMDI is theoretically grounded in the Quadruple Helix model, which explicitly includes civil society as a partner in innovation ecosystems, its work has focused predominantly on provider-facing activity. Patient and public involvement has been limited and, where it does exist, it is often secondary to staff-led design processes. This reflects a broader systemic challenge: although co-production is widely advocated in NHS policy and research, recent evidence indicates that its implementation in innovation evaluation and service transformation remains uneven and often superficial, despite progress in formal strategies and frameworks ([Overton et al., 2024](#)) The CMDI has recognised this gap and committed to embedding more inclusive approaches to innovation, design and evaluation. For example, the centre is developing a 'living lab' model, aligned with the principles of the European Network of Living Labs. Gaining accreditation with this body requires demonstration of key features, including real-life experimentation, multi-stakeholder engagement, active end-user involvement and iterative cocreation ([European Network of Living Labs, 2025](#)). It is hoped that pursuing accreditation will provide a credible and internationally recognised framework for embedding inclusive design in healthcare innovation.

A final, more complex challenge concerns the pace and nature of change in the NHS. The CMDI is focused on long-term transformation, an approach that relies on continuity, stability, and iterative development. However, the organisational context in which the centre operates is often shaped by short-term priorities, urgent operational demands and externally imposed reporting cycles. The centre's ongoing challenge is to protect and sustain space for strategic thinking and system-wide learning within this context.

Conclusions

The CMDI's model aims to deliver a cross-boundary, strategically aligned and academically credible resource, embedded within the operational fabric of an NHS organisation. By building trust with clinical, operational and academic partners, the centre has supported strategic decision making and helped to improve the coherence of innovation activity across the trust. At the same time, the CMDI's development has revealed several challenges, the learning from which may be instructive for others seeking to build similar infrastructure.

Despite these challenges, the authors believe that the CMDI's model offers a promising and potentially scalable approach to embedding innovation capability. Its core strengths lie in its responsiveness, proximity to practice and capacity to build evaluative and translational capacity at multiple levels, from frontline teams to executive governance. This model also offers practical insights into how Quadruple Helix and regional innovation frameworks can be applied in healthcare settings, not only as conceptual tools but as operational principles that shape innovation design, governance and system learning. This relational and place-based orientation aims to support more coherent, participatory and context-responsive innovation practice.

Looking forward, a central aspiration for the CMDI is to scale and replicate its embedded innovation infrastructure across the wider integrated care system footprint, supporting regional strategic innovation agendas. As healthcare systems continue to evolve, this model can offer learning relevant to other NHS providers and system leaders seeking to develop the institutional conditions for innovation to thrive across organisational and geographical boundaries.

Key points

- The Centre for Management Development and Innovation (CMDI) aims to offer a replicable model of embedded innovation infrastructure, coproduced by an NHS organisation and a university, and aligned with organisational strategy and system priorities.
- The centre operates through relational legitimacy rather than formal authority, which allows flexibility and responsiveness, but relies sustained leadership support and clear governance links.
- Embedding evaluation as a routine, developmental tool requires cultural change, methodological support and systems-level reinforcement, not just toolkits or frameworks.
- Inclusive innovation practice remains an unmet goal, and future development must include systematic efforts to embed patient, carer and community perspectives in the design, evaluation and governance of innovation.
- The CMDI's success to date highlights the importance of embedded, place-based and cross-sector approaches to NHS innovation, particularly in system development and regional capacity building.

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