

# Fostering Innovation in Healthcare Through Collaborative Learning and Research

All-Wales Academy for Innovation  
in Health and Social Care/  
Innovation Academy

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# Fostering Innovation in Healthcare Through Collaborative Learning and Research

Healthcare systems worldwide face mounting pressures from rising costs, ageing populations, and increasingly complex patient needs. To address these challenges, researchers at the All-Wales Intensive Learning Academy for Innovation in Health and Social Care at Swansea University are exploring innovative approaches that deliver better value in healthcare provision. The team led by Dr Daniel Rees and Dr Roderick Thomas are leading efforts to develop new models of collaborative learning and research that bring together healthcare providers, industry partners, and academic institutions to drive innovation in health and social care.

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## The Complex Challenges Facing Healthcare

Healthcare systems around the world are grappling with significant and growing pressures. An ageing population with increasingly complex medical needs, rising costs of new treatments and technologies, and constrained public resources are straining even the most robust health systems. In the UK, the National Health Service (NHS) faces particular difficulties in managing escalating demands within tight financial constraints.

Despite increased government investment in recent years, projections show that healthcare demands continue to outpace available resources. Health spending in the UK has risen faster than inflation and GDP, accounting for a growing proportion of national income. By the mid-2030s, NHS England spending is projected to increase substantially in real terms.

At the same time, deriving efficiencies and improving outcomes within this complex system has proven challenging. Estimates suggest that a significant proportion of healthcare expenditure may be wasted on inappropriate care or inefficient resource use. Clearly, continuing to increase spending is not a sustainable solution – new approaches are needed to deliver better value in healthcare provision.

In response, there is growing interest in the concept of Innovation Management, which aims to achieve better health outcomes for patients relative to the costs of providing care. Rather than focusing solely on controlling costs or increasing activity, innovation management through paradigms such as Value Based Health and Care (VBHC) seeks to maximise the value derived from healthcare spending.

The contemporary concept of VBHC originated in the early 2000s, with researchers arguing that prevailing models of competition in healthcare were often destroying value rather than creating

it for patients. They proposed reorienting healthcare systems to compete to deliver better patient outcomes per unit of cost across the full cycle of care.

While early work on VBHC emphasised cost containment and efficiency, interpretations have broadened, particularly in European contexts. More holistic frameworks consider not just individual patient value but also population health, equity, and broader societal impacts. This aligns with the context of publicly-funded health systems like the NHS.

## Driving Innovation Through Collaboration

Recognising the potential of innovation and transformation to address mounting pressures, policymakers are increasingly calling for closer alignment between healthcare systems, industry, and academia. In the UK, government strategies emphasise the need for active engagement between the NHS and other stakeholders.

Dr Roderick Thomas, Dr Daniel Rees and their team at Swansea University, have been at the forefront of efforts to develop new models of collaborative learning and research to foster healthcare innovation. Their work with the All-Wales Academy for Innovation in Health and Social Care aims to create an integrated ecosystem, bringing together healthcare providers, life sciences companies, and academic researchers. Supported by the Welsh Government, the aim is to develop a World-class learning, research and teaching base that will equip leaders with the confidence, skills and capability to realise innovation in health, social care and well-being.

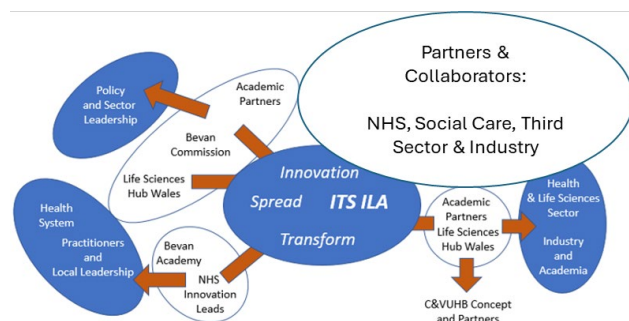
Launched in 2021 to respond to a recognised need for upskilling current and emerging managers across the healthcare system, the Academy received £5.7m in funding from the Welsh Government. It operates as a collaboration between





Swansea University, Vale University Health Board, and the Bevan Commission.

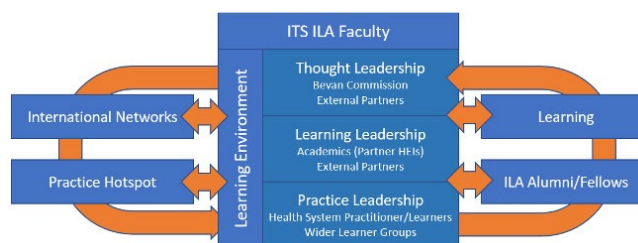
The Academy focuses on three main areas: learning and teaching, research and engagement, innovation and consultancy. This integrated approach aims to develop the skills, knowledge, and networks needed to drive transformative innovation in health and social care.



## Learning and Teaching: Developing Skills for Innovation

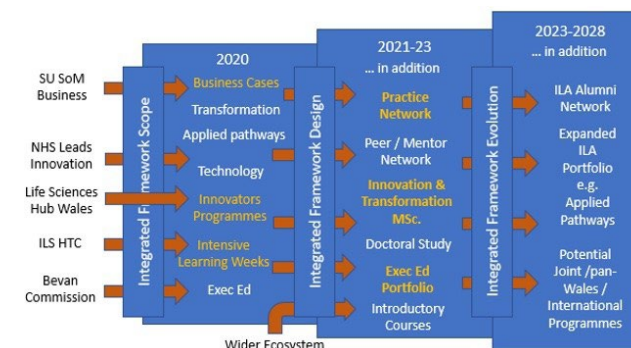
A key pillar of the Academy's work is its portfolio of postgraduate education programmes. Researchers have developed a suite of MSc, Postgraduate Diploma, and Postgraduate Certificate courses in areas such as Advanced Health and Care – Innovation and Transformation, developed in collaboration with the local health boards, Bevan Commission and Welsh Government.

These programmes take a flexible, blended learning approach to accommodate part-time learners who are in full-time employment and consist of asynchronous lectures, virtual seminars and face-to-face workshops. Importantly, they are designed to meet industry needs, with content closely aligned to real-world healthcare challenges. The courses have received triple accreditation from key professional bodies, including the Chartered Management Institute, Faculty of Medical Leadership & Management and the CPD Standard Office, enhancing their value for learners. They are already delivering tangible impacts, with many participants securing new job promotions or promotions within their existing organisation, including retention as a result of their studies. The Academy has also developed innovative experiential learning initiatives, such as the CLIMB programme, to complement traditional academic courses.



In the Master Programme, the educational approach focuses on applied learning and assessment. Much of the assessment is based on learners' own professional contexts, allowing them to directly apply new knowledge and skills to industry challenges. Between 2021 and 2024, there have been 885 successful students following MSc, PGCert and executive education. In addition, the Academy has supported around 60 industry-based research projects led by senior practitioners who are often in leadership

roles within their organisations. These projects are tackling real-world problems and driving innovation from within the healthcare system.



## Research and Engagement: Fostering Research and Innovation

The Academy places a strong emphasis on research and innovation activities and has secured over £2m in additional research funding through various initiatives. One significant project has been supporting 'Method B' PhD research scholarships that allow working professionals to carry out doctoral research on challenging work-related problems within three years. One of the PhD projects has directly informed the development of the health chapter policy in the Welsh Government's new Innovation Strategy, demonstrating the Academy's role in bridging academic research and policy development. With expert mentorship from academic tutors, these projects are driving innovation from within healthcare organisations.

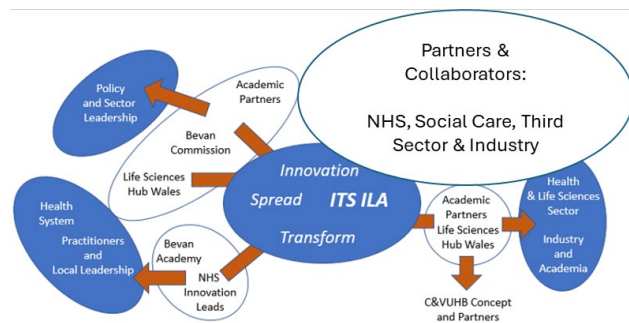






The growing track record of outputs underpins the research activities supporting this project and the ongoing development of the New Innovation Strategy for Wales, which aims to position Wales as a leading nation in innovation.

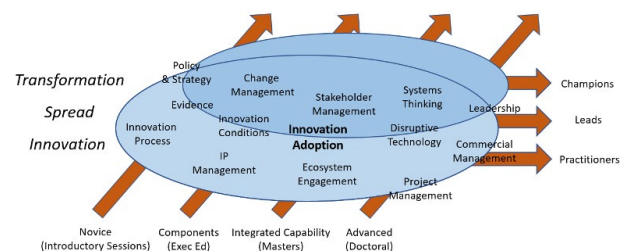
Looking ahead, researchers are focused on evaluating the longer-term impacts of these initiatives. They plan to track a range of metrics, from health outcomes and cost-effectiveness data to measures of collaboration and knowledge exchange across the innovation ecosystem. Dr Rees envisions this work contributing to a broader transformation in how healthcare innovation is conceptualised and incentivised. He argues for moving beyond traditional models where industry and academia operate separately from healthcare providers. Instead, he advocates for deeper, more integrated collaboration throughout the innovation lifecycle.



## Embracing the Challenges and Opportunities Ahead

While the Academy's potential for enhanced collaboration across healthcare, industry, and academia is clear, Dr Rees acknowledges that significant challenges remain. Integrating these diverse sectors in a coherent way presents major structural and cultural hurdles.

Funding constraints also threaten to slow progress, potentially limiting engagement and reducing innovation capacity across the system. Careful consideration is needed to ensure new collaborative models deliver value for all partners.

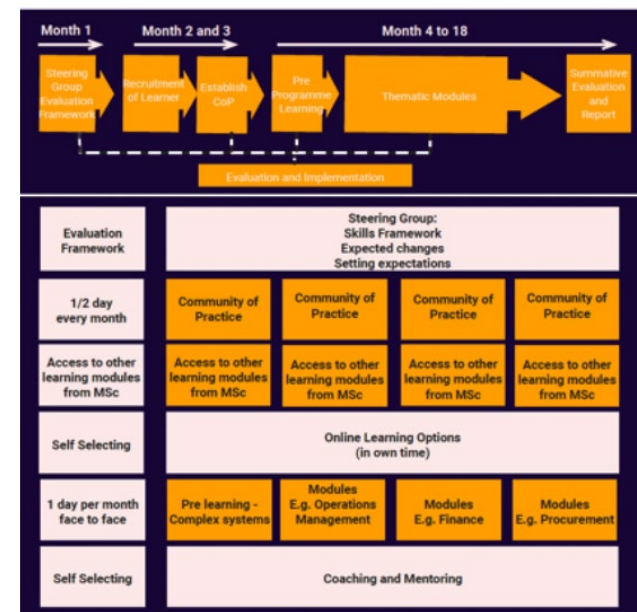


Despite these obstacles, the team remains optimistic about the opportunities ahead. The pressures facing healthcare systems are driving recognition that transformative approaches are needed. There is a growing appetite for new partnership models that can unlock innovation and deliver better value. The COVID-19 pandemic has further catalysed interest in closer collaboration, demonstrating both the urgent need and the transformative potential when barriers are lowered.

As health systems worldwide grapple with mounting challenges, the insights emerging from the Academy's vital work across Wales offer valuable lessons. By fostering the right conditions for

collaboration and developing integrated approaches to learning, research, and innovation, there is real potential to drive a shift towards more value-based, innovative approaches to healthcare provision.

Continued investment in building the evidence base and refining collaborative models will be crucial. But with sustained commitment from policymakers, health system leaders, industry partners, and academic institutions, a more integrated innovation ecosystem could help realise the promise of value-based healthcare – delivering better outcomes for patients and populations while ensuring the sustainability of health systems for the future.



## MEET THE RESEARCHERS

### All-Wales Academy for Innovation in Health and Social Care/Innovation Academy

Swansea University, Wales, UK

The All-Wales Intensive Learning Academy for Innovation in Health and Social Care is part of the Welsh Government Intensive Learning Academy (ILA) Programme. It is delivered in partnership between Swansea University (School of Management), Cardiff and Vale University Health Board and the Bevan Commission. Outlined within 'A Healthier Wales', the long-term plan for Health and Social Care in Wales, the programme is designed to enhance leadership and development within the Health and Social Care workforce through a world-class teaching and research base.

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**Dr Daniel Rees**

Dr Daniel Rees is the REF Impact Case Study Lead for Swansea University's School of Management and Director of the All-Wales Intensive Learning Academy for Innovation in Health and Social Care (Innovation ILA). He is also the Programme Director of the Specialist MSc Portfolio in Advanced Management. Since completing his PhD in molecular neuroscience at Swansea University Medical School in 2017, he has led successful industry-focused research collaborations, engaging with local, national, and international programs. As a practitioner in innovation management, he has worked closely with SMEs and multinational enterprises (MNEs) to drive impactful research and innovation.

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**Dr Roderick Thomas**

Dr Roderick Thomas is a Director of the All-Wales Intensive Learning Academy for Innovation in Health and Social Care (Innovation Academy) and has over 25 years of experience in higher education. A Chartered Engineer and Fellow of the Institution of Engineering and Technology (IET), he plays an active role in IET committees focused on regulation, standards, and academic accreditation. He also serves as a Visiting Professor at North-West University's Faculty of Engineering in South Africa.

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#### FUNDING

Welsh Government Intensive Learning Academy (ILA) Programme



#### FURTHER READING

D Rees, *et al.*, [Using Data Technology Platforms to Deliver Stakeholder Value in Healthcare](#), Technology | Amplify, 2024, 37(6), 37–43.

T James, *et al.*, [Developing a National Research and Evidence Base for the Health and Wellbeing Chapter of the Welsh Government's 2023 Innovation Strategy for Wales](#), *Proceedings of the 18th European Conference on Innovation and Entrepreneurship, Part 1*, 2023, 18, 1. DOI: <https://doi.org/10.34190/ecie.18.1.1810>

T James, *et al.*, [The All-Wales Academy for Innovation in Health and Social Care](#), *Proceedings of the 17th European Conference on Innovation and Entrepreneurship*, 2022, 17(1), 284–289. DOI: <https://doi.org/10.34190/ecie.17.1.829>



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