

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

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Abstract: This paper presents the case of the All-Wales Intensive Learning Academy (ILA) for Innovation in Health and Social Care (IHSC), established in the context of the broader Regional Innovation System (RIS) (Braczyk et al., 1998, Pino and Ortega, 2018). Developing capacity and capability for innovation in the Health and Social Care sectors in south west Wales has been a longstanding endeavour alongside efforts to revitalise the region's economy. Welsh Government's recent initiative to establish Intensive Learning Academies to support development of senior leaders and managers within the Health and Social Care is a further endeavour within the RIS. The IHSC ILA in particular has relevant to this agenda, operating across Health & Social Care, with further engagement of private and third sectors. Delivered by a partnership of Swansea University, Cardiff & Vale University Health Board and the Bevan Commission, the initial phase of the IHSC has involved three of its core offerings being launched, engaging just over 200 learners. While the initiative is still in its early stages, this case study provides an initial examination of its activity exploring its potential to support the RIS through consideration of *Region, Innovation, Network, Learning, and Interaction*. As this work continues, it offers potential learning for future phases of IHSC, and to other post-industrial regions grappling concurrent challenges relating to population health and economic development.

Keywords: health, social care, innovation, Wales

1. Introduction

The south west Wales region is home to just under 700,000 people, mainly in the urban conurbations of Swansea and Neath Port Talbot, though with notable communities spreading westwards into the more rural counties of Carmarthenshire and Pembrokeshire. Combined, this region also accommodates 302,000 jobs and 22,000 businesses (SU, 2018) across the Swansea Bay City Region (SBCR). This geography broadly reflects the combined 'Swansea Bay and Western Valleys' and 'Pembrokeshire' regions originally defined within the 'fuzzy boundaries' of the Wales Spatial Plan (WAG, 2004), aligning with the areas of the University Health Boards covered by Swansea Bay and Hywel Dda within the ARCH (A Regional Collaboration for Health) initiative (ARCH, 2017).

The region has over recent decades been undergoing the transition to a post-industrial knowledge economy. Efforts have been made by Welsh Government to mobilise academia and industry to support this transition with emphasis on innovation (WAG, 2003) (WG, 2014), particularly in targeted sectors (WG, 2013). This ambition links with the concept of Territorial Innovation Systems, described initially at a national level by Lundvall (1992) and Nelson (1993), with subsequent consideration at regional level (RIS) (Cooke, 2001b), including specifically the case of south west Wales (Cooke, 2001b; Davies et al. (2018)). In parallel, it has worked to overcome population health challenges exacerbated recently by the Covid-19 pandemic, including existing engrained health inequalities (Brunt et al., 2017).

This paper examines one of the efforts to support this transition, the Intensive Learning Academy for Innovation in Health and Social Care. The following sections introduce the Academy concept and its activities, through the five key, linked concepts within RIS identified by Cooke (2001b) of *Region, Innovation, Network, Learning, and Interaction*.

2. Southwest Wales Health and Social Care innovation ecosystem

The Health and Social Care sectors are significant within the Swansea Bay City Region, and are aligned to the Life Sciences sector which have been the focus of prior work (Davies et al., 2018). They represent a notable part of regional employment with the University Health Boards alone (i.e. the major parts of the public health systems) of Swansea Bay and Hywel Dda employing over 17,000 people. This is in addition to the General Practitioners and pharmacies of the primary care system or the employment of Social Care providers (ARCH, 2017).

The longstanding regional focus on Life Sciences and Health sectors stretches back to the turn of the century when Cooke (2001a) noted a mini-agglomeration that UK government had also identified as an early-stage cluster (DTI, 2001). More recently, the cluster was recognised in the 'South Wales Crucible' audit of regional knowledge economy strengths (SU, 2018), though not featuring as strongly in other studies during the intervening period (McKinsey, 2014) (SQW, 2014).

This regional cluster exists within the Welsh Regional Innovation System, with Cooke (2001a) highlighting the opportunity of the National Health Service (NHS) in Wales being a major potential resource. NHS Wales is an integrated health system which differs to the fragmented nature of the US system described by Herzlinger (2006), or even by comparison NHS England. It does however present barriers of substantial regulation, a rigid business model (dominated by NHS) (Hwang and Christensen, 2008), public procurement constraints and stringent regulation of patient information (Uyarra et al., 2014).

The importance of skills within health systems to support innovation has been well-established (Lämsäalmi et al., 2006) (Bevan, 2010) (Parmar et al., 2021), including the role of managers (Bevan, 2010), with focus on senior managers (Birken et al., 2012). Within this context, the role of business and management schools to deliver leadership and enterprise training has been an emerging theme (Bell 2017). However, while significant efforts have been made to develop R&D activity and associated infrastructure across SBCR, there has been limited regional focus upon innovation skills. This is explored in the following section examining notable initiatives undertaken within the ecosystem.

3. Capability and capacity building initiatives

South west Wales has benefitted from both pan-Wales and regional initiatives to support innovation, both generally and in targeted sectors including Life Sciences and Health. An historic summary of a range of initiatives is included in (Davies et al., 2018). Notable recent major initiatives within the region operate around the focus of the Institute of Life Sciences (ILS) attached to Swansea University's Medical School. ILS has provided a hub for technical and service innovation, including spin-out and technology transfer into the regional ecosystem. It is being joined by ambitions for further major infrastructure in the form of the Campuses and Villages City Deal projects supported through the joint UK/Welsh Governments' City Deal portfolio (SU, 2017).

Recently, efforts have extended to expanding the scale of innovation activity, notably through identifying and supporting project opportunities. Within SBCR, an '*Innovation Forum*' has been created by ARCH to connect challenges and ideas across the clinical and wider innovation community. Integration of pan-Wales initiatives such as Accelerate (through the local Healthcare Technology Centre) provide connection with the national ecosystem. However, there has been limited activity to address the translational skills deficit noted within the region by the RLSP (2013), and more widely in a Healthier Wales (WG, 2018). This presents the question as to how these initiatives within the ecosystem may relate to Policy goals presented in the next section along with an introduction to the ILA. Notably, this relates to the challenges of interdependency described by Marjanovic (2020) as to how "*effective leadership and skills and capability-building go hand in hand*".

4. Intensive learning academy for innovation in health and social care

An important gap in skills hindering the needed economic and health system transformation was noted by Welsh Government in the *Healthier Wales* (WG, 2018). The policy, which aims to integrate and transform Health and Social Care called for establishment of Intensive Learning Academies to support development of existing and aspiring senior leaders in the sectors. Central to this ambition is the intent to ensure the sectors become better-equipped to provide leadership of innovation activity. Despite the immediate challenges presented as the world emerges from the worst of the Covid-19 pandemic, this upskilling agenda is also positioned as a long-term endeavour. As such, it is notable that the Academies themselves are framed in the context of the *Well-being for Future Generations Act* (NAW, 2015) goals. These expressly target long-term support for improved health, economic development and inclusivity across Wales, resonating with the more localised SBCR ambitions. Following a process of Expressions of Interest and Business Case development, Academies were established in *Innovation & Transformation* (IHSC), *Value-based Health & Care*, *Digital*, and *Prevention & Behaviour Change*. Each ILA offers academic award-bearing programmes and Executive Education/Continuing Professional Development short courses.

The focus of this paper, the IHSC ILA, launched in Spring 2021 involving a partnership between Swansea University, Cardiff & Vale University Health Board, the Bevan Commission and Cardiff University. The research aim of this study is to examine how the ILA relates to the broader RIS, with particular regard to the learning connections established through the IHSC activities delivered in south west Wales. The region is of particular interest as its requirements for innovation skills in related sectors was identified in the ‘Skills for Life’ Regional Learning and Skills Partnership report (RLP, 2013). While the Report focused on industry needs, the capabilities and capacity of the health system workforce to engage in innovation emerged as an important theme.

The IHSC currently offers a Virtual Learning Environment/Knowledge Hub, accredited and non-accredited courses, and a growing cohort of doctoral-level research students (Fig.1 below). The ILA delivery phase commenced with recruitment of the first cohorts against core offerings. Initial programmes include the *Advanced Management in Health and Social Care Innovation MSc.* from Swansea University, the *Spread & Scale* innovation diffusion initiative led by partners in Cardiff & Vale University Health Board, and the *Intensive Learning Week* delivered by the Bevan Commission. The following section outlines initial progress in their delivery to date.



Figure 1: IHSC offerings

Spread & Scale Programme: 120 participants from across Wales joined the first of these immersive training events intended to support teams in expanding innovations across their organisations, Wales and further afield. Delivered over three days with support from the Billions Institute, the programme builds upon longstanding international engagements (Cooper et al., 2015)

Advanced Management in Health and Social Care Innovation MSc.: Delivered through blended online sessions and weekend workshops, the programme offers funded and fee-paying places for professional learners. Just over 70% of MSc scholarships were awarded to learners working within the Health sector, while 22% went to Social Care participants, and the remainder to individuals from the third sector (charity/independent non-profit). Through case-study learning the MSc. along with aligned postgraduate research opportunities aims to deliver against the management and entrepreneurship training that Bell (2017) called for in his review undertaken for UK Government.

Intensive Learning Week: Delivered online by the Bevan Commission due to Covid-19 restrictions the first instance of this week-long interactive attracted 85 participants over the full five days. The week builds upon the Commission’s successful ‘Exemplars’ Programme (Rich, 2019) including the international perspective of the Commissioners themselves. It is intended that future delivery will be in-person to allow greater interaction between participants.

5. Analysis

This paper examines this role of the ILA through the five key, linked concepts within RIS identified by Cooke (2001b) of *Region, Innovation, Network, Learning, and Interaction.*

Earlier (Autio et al., 2014) and more recent (Tödtling and Trippl, 2011) RIS models present 'Educational Institutions' as part of 'knowledge generation and diffusion systems' connected across the wider system. Somewhat differently, the ILA aims to operate in both the Generation/Diffusion and Application/Exploitation componentry of RIS. Therefore, this study takes a step back from these models to reflect upon the ILA context within RIS, and whether/how the initiative relates to the concept. Noting the difference between conceptual and real systems, the study starts at a higher level with Cooke's (2001b) key concepts, aiming to explore the initial ILA context. As the work of the Academy progresses, this would allow subsequent consideration of the Academy's position and engagement within the RIS structure using models such as that of Tödtling and Trippl, (2011).

The analysis is based upon the sources of the IHSC Business Case, monitoring information collated by the ILA, and bibliographic review of associated academic and sector literature. This allows exploration of both the nature of the activities, the participants involved, and the level of IHSC integration with local and national ecosystems. This includes drawing insight that is intended to inform development and delivery of further phases of the IHSC. The paper also provides initial insight for the monitoring and evaluation work for both the IHSC itself and further academies, in support of both policy and practice by Welsh Government, and for potential interest of other regions/practitioners engaged in similar endeavours.

Region: The IHSC ILA operates pan-Wales as part of its broader consortium, as part of a network of four ILAs with Welsh Government oversight, thus providing one geographical context. In parallel, the IHSC ILA also has focus upon the geographies of NHS University Health Boards, including Swansea Bay and Hywel Dda in the south west as part of the 'ARCH' region, as well as Cardiff & Vale in East Wales. As such the ILA itself is only indirectly and loosely linked to the City Regions (SU, 2017). However, this does present a strengthening of connection between regional governance and the Health sector at a regional level, for it was omitted as a sector in the previous Wales Spatial Plan agenda (WAG, 2004). The recognition of combined potential for economic development and population health benefit appears to have been part of this change, with innovation skills for both now appearing as a common thread.

Innovation: The practice-based and applied nature of the IHSC ILA offerings present well to support innovation, while connection with practitioner initiatives (e.g. Accelerate) offers direct involvement with application of innovation management knowledge and skills. In parallel, working with teams such as AgorIP taps into a network of technology transfer and Intellectual Property management expertise, representing a further specialist skillset (Mom et al., 2012). In terms of practice within the ILA partners, it is also noteworthy that both the Spread & Scale and Bevan Commission elements are themselves well-established, having demonstrated positive evaluation of the return delivered by their approaches (Cooper et al., 2015) (Rich, 2019). Crossover with other themes has been demonstrated through the ILA's initial activity, which includes AgorIP developing tailored training materials for University Health Boards. Such behaviour shows a step towards the potential and ambition shown in the NESTA (2013) report examining potential for deeper collaboration to support public sector innovation in Wales.

Network: Each of the IHSC ILA partners is a node within the local and wider ecosystem, providing connection across the Smart Specialisations noted by the EU (2017) and the Science and Innovation Audit (SU, 2018). Partners such as the Health Technology Centre and AgorIP provide connection through to private sector, while the Bevan Commission offers a depth of engagement across the Health and Social Care sectors, creating a network of networks. In a further operational context, aligning with the *Innovation* element noted above, the NHS Innovations Leads Group, bringing together key practitioners from across NHS Wales bodies offers further connection for the ILA. As such, the ILA integrates by virtue of its partnership into deep, if somewhat complex, networks. As the work develops, there is potential to map the ILA alumni and how they provide deeper engagement across the sectors. The continued dominance of public sector actors for R&D in Wales will mean effective and open networks remain important to attract and develop opportunities, whether it is for spillovers (Jaffe, 1986) or targeted brokering (Youtie and Shapira, 2008).

Learning: The fundamental purpose of the ILA is to promote institutional learning through the participants in each of the programmes. For example, within the initial MSc. cohort, there are fifteen organisations represented which offers potential for shared learning. As further cohorts join, there is scope for an alumni network which carries further into the ecosystem, though this will depend upon the medium to longer-term ILA performance. Learners on the MSc. programme for example have already reported application of analytical tools and core

concepts into their practice. For example, one senior civil servant noted how they had shifted their consideration of Business Cases to focus far more on validating the challenge involved rather than the proposed solution. This they found was already helping them think more broadly in identifying and appraising options, approaching the business case as more of a 'process' than a 'pitch'.

The case-based approach adopted by the ILA, uses existing local and international cases and new insight drawn from original research undertaken by the Academy with its *Network* partners. An example of this is the Covid-19 Innovation Study undertaken in collaboration with the ILA which provides learning cases ranging from telehealth technology through to workforce wellbeing (Doneddu et al., 2021).

Interaction: The ILA is in its early days of delivery, though activities such as Intensive Learning Weeks are starting to create interactions of the nature described by Cooke (2001b). Industry participation is also linking in through connection with regional activities such as the Health Hack. Notably, within the MSc. Programme, many of the guest speakers are from industry backgrounds providing private sector perspective to predominantly public sector learners. In terms of ongoing interactions to support innovation, the ILA base within a university does provide potential for the forms of knowledge spillover to support the joint ambitions of improved health outcomes and economic development (Leyden and Link, 2013), as targeted by a Healthier Wales. There are already though examples of this interaction producing tangible outcomes. For example, one University Health Board has commissioned change management support from the University to help deliver a major digital transformation initiative.

6. Conclusion

In a sector where innovation can take some time it is early days for the ILA in its operation and potential impact. The south west Wales ecosystem presents an ecosystem offering much relevant infrastructure and a sizable workforce, along with the wider potential across Wales and beyond. The IHSC ILA responds in part to the RLSP call for non-STEM skills, though scope remains to expand industry engagement and scale its activity to support the RIS. How the ecosystem can be orchestrated to maximise its Innovation and deliver effectively will be a major challenge for WG and the IHSC partners. The longer-term, and meaningful targeted impact of the ILA will come from delivery of learner's current projects, and their ability to apply and add to their learning over the years to come. This can include more detailed consideration of how the ILA activities impact upon the Knowledge Exploitation components of RIS presented in models such as that of Tödtling and Trippel (2011), though this will need to build upon real-world context-specific structural mappings such as that developed in Davies et al. (2018). However, with over 200 participants in the first year of operation this provides a foundation for the IHSC ILA to start filling the gap within the RIS for the Health and Social Care sector, as identified in a Healthier Wales (WG, 2018).

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