



KESS2 – Rationale for a ‘cohort’ approach to KESS2 projects with NHS partners in South East Wales

Background to demand for KESS2 projects from the NHS in South Wales

The South East Wales Academic Health Science Partnership (SEWAHSP)¹ is an alliance of the Health Boards, Trusts and Universities formed in 2012. They aim to integrate high quality research and education and enhance the region’s outputs in developing and applying improvements, innovations and health technologies to benefit the health and wealth of the population of Wales. SEWAHSP Partners include: Aneurin Bevan UHB; Cardiff and Vale UHB; Cardiff Metropolitan University; Cardiff University; Cwm Taf UHB; Public Health Wales; University of South Wales; Velindre NHS Trust and Welsh Ambulance Service Trust.

SEWAHSP’s remit is to support high quality research and innovation, and they have an enviable track record in coordinating and leading successful grant applications, facilitating collaborative health research and innovation across the region and Wales. As part of their operations they regularly engage widely with Industry and third sector organisations.

The SEWAHSP team have, at the requests of their partners, embraced the KESS2 scheme as an excellent opportunity to enable their commercial contacts and NHS partners to explore new possibilities in working with partner Universities. Supporting PhD and masters level student projects will allow the NHS to develop a higher-level skills base that fits their needs and facilitates a strategic approach to Clinical Innovation. SEWAHSP partner Health Boards and Trusts have been encouraged to apply as public sector partners in KESS2, in accordance with KESS2 eligibility guidance.

The level of demand has been higher than was initially expected from this sector, reflecting the NHS partners’ need to embrace new technologies and innovative solutions to ensure a sustainable future.

Benefits of KESS2 NHS partnerships to West Wales and the Valleys

Many of the projects SEWAHSP are supporting with Health Boards and Trusts either involve a commercial partner directly, or have a commercial or technology focus which the Health Boards and Trusts would benefit from (and hence the NHS partner’s wish to sponsor the project directly). These latter include examples where the technology in question is not currently produced by an eligible company (within the WWV region), or where the company is not in the position to sponsor a project, but where the technology will bring a clear benefit to Wales. This willingness and ability to engage

¹ <https://sewahsp.wordpress.com/>

with such projects by NHS Wales is also a valuable inducement for companies considering moving to Wales or basing a subsidiary here.

NHS organisations are also keen to sponsor and support KESS2 scholars as a cost-effective way to boost their research and skills base in the region. The approaches to addressing research challenges presented by KESS2 will transfer into the NHS workforce, making these organisations a more innovative, rewarding and attractive place to work, which will over time, support recruitment and staff retention across NHS Wales. The immediate effect is to increase the output of high quality research within NHS, supporting the University status of the Health Boards and creating positive metrics for research and innovation in Wales.

The proposed KESS2 NHS projects explore the use of new technologies or processes in an end user/clinical setting, and will draw on data or needs of patient populations and clinical practice in West Wales and the Valleys. In addition to increasing the quality and quantity of research and clinical innovation within NHS Wales, these projects have significant potential to improve health and wellbeing for future generations of patients, clinicians and the public.

Justification for 'repeat' KESS2 projects with the same NHS partner

The NHS is a multi-billion- pound organisation and employs 72,000 staff, making it Wales' biggest employer. It covers an enormously broad range of specialist services, and the range of project possibilities within the NHS are correspondingly diverse (from modelling patient flow to trialing new diagnostic test regimes to developing non-invasive imaging technologies, to give just a few examples)

KESS2 project applications with an NHS partner are considered on a case-by-case basis and assessed on the benefits that individual projects will bring. Projects are frequently cross-departmental or multi-disciplinary, working with specialisms outside of 'medicine'. Wherever feasible, a range of private or third sector partners will be included on KESS2 projects, as noted above.

Efforts are also made by SEWAHSP to connect individual KESS2 project supervisors and scholars *across* projects, with other NHS users, third sector and industry / commercial partners, as part of SEWAHSP's wider remit.

Added value training opportunities for NHS-facing scholars – a 'cohort approach'

The European Commission, UK Research Councils and UK charitable funders award their PGR funding through 'training partnerships/networks', delivered to cohorts of students who receive coordinated and structured programmes of subject-specific skills training. These partnerships are often underpinned by strategic collaborations between academia and industry focussed on a particular subject-need or research challenge, and are considered an effective way to deliver PGR skills that match research and innovation needs.² KESS2 presents an opportunity to build capacity in Welsh

² See for example in the healthcare/medical domains: [Marie Curie Initial Training Networks](#); [MRC Doctoral Training Programmes](#); [Wellcome Trust Doctoral Programmes](#).

institutions around this approach through collaboration with the NHS, with potential to build towards funding applications to these schemes in future.

In order to further support postgraduate projects - both within the NHS organisations and those SEWAHSP has facilitated with companies - SEWAHSP hope to be able to form a cohort approach to enhanced skills training for NHS-facing scholars. Activities will offer opportunities to meet and interact with their peer group, to present their work, to attend relevant training (complementary to the KESS2 skills training) and offer mentoring opportunities.

KESS2 scholars would attend the annual NHS Research and Development conferences which each of the Health Boards and Trusts hosts in the region (four per year in total across South Wales). Conferences include poster sessions, giving scholars the chance to display their work to larger specialist audience throughout their studies.

SEWAHSP could also promote bespoke training for the cohort provided by external speakers and in-house experts within their fields, relevant to working in clinical innovation and the NHS. Topics covered might include, for example: clinical practice; methodologies in the conduct and analysis of research within the NHS and with external partners in Industry and academia; research management; ethics and governance; policy, leadership, media and presentation and publication, working with NHS data (ethics, patient confidentiality and 'big data' management); Writing a research protocol; Publishing and presenting your research outside academia – reaching a clinical/ practitioner audience; Innovation funding; Developing your career both in the NHS and more widely.

SEWAHSP recently designed and ran a successful and very well-received internship programme for Cardiff University Business School students to undertake a project with the NHS called 'Business of Health' where the interns were embedded within an NHS organisation and worked with them to write a business plan for a planned or potential future activity. The programme included training and mentoring as well as first hand experience. We would look to replicate some of the aspects of this as relevant for the proposed KESS2 cohort.³

SEWAHSP would also look to work with the Bevan Exemplars⁴ to arrange appropriate mentoring with current or previous holders of Bevan Commission Innovation, Health Technology Exemplar or Fellow funding. These will be individuals who have first hand experience of working collaboratively between industry and academia.

SEWAHSP will also organise a range of workshops and events, which could be tailored to support the needs of the KESS2 NHS-facing cohort, making the most of the links we've developed with the Welsh Government, 3rd Sector, Industry Partners and the Life Sciences Hub. Our events would focus on research innovation and involve many commercial and private sector organisations with which we liaise through our industry engagement activities. This would give the scholars to opportunity to meet and interact with a range of organisations and also to build their own network of potential future collaborators or employers, giving them a base for continuing their professional life in the region.

³ <https://sewahsp.wordpress.com/intern-project/>

⁴ <http://www.bevancommission.org/bevan-commission-exemplars>

Involvement of the NHS in research and innovation

The Welsh Government wish to encourage more involvement from NHS organisations in research and engagement with industry, academia and other external organisations to explore new technologies which could lead to improvements or cost efficiencies in delivering healthcare. The challenge is often in encouraging NHS organisations to commit funding and support to research activities. The KESS2 funding structure, although initially designed to be attractive to industrial partners, is also particularly compatible with the Activity Based Funding structure within the NHS making this an attractive scheme for NHS to engage with. It would seem counterintuitive to dissuade the NHS from engaging with a scheme which works well with their needs. The Innovation Strategy for Wales⁵ advocates a partnership approach “The public sector including local authorities, the NHS, the Welsh Government and universities need to work together to encourage innovation” and highlights the need for funding schemes to be flexible to support this.

The role Health Boards and Trusts as the largest employer and a very large organisation with a high level of skilled workers make them economically important. KESS scholars who have placements with the NHS will gain vital skills both for the further work within the NHS but also for any companies wishing to work with and/or sell to the NHS, an understanding of NHS structures and processes, patient pathways and clinical requirements will be extremely valuable. Gaining such skills would make the cohort highly employable and will be an asset for companies in transferring this knowledge.

Resources

SEWAHSP would welcome an exploration of potential approaches to training support with ‘KESS Central’. Facilitating this support programme across the KESS2 Programme would cost a minimal amount for administration (e.g. partial staff FTE) and expenses for speakers and catering (SEWAHSP have free access to University and NHS venues across the region).

⁵ <http://gov.wales/topics/science-and-technology/innovation/innovation-wales-strategy/?lang=en>