Institution: University of the Highlands and Islands

1. Context and mission

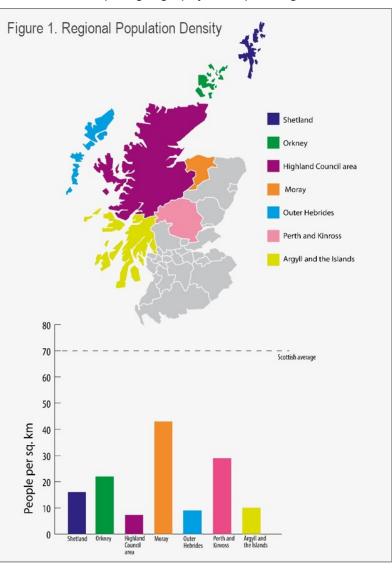
The University of the Highlands and Islands is an innovative, dynamic, and highly distinctive institution encompassing further and higher education, research, and knowledge exchange. Established in close partnership with the regional development agency, Highlands and Islands Enterprise, and national and international in outlook, the University's core objective is to have a transformational impact on the economy and communities of the Highlands and Islands. <u>Our region</u> is unique in the United Kingdom, in terms of its size, demographic profile, cultures, languages and heritage. The University was established to iterate with this uniqueness.

The region has the lowest population density in the UK (**Figure 1**) and one of the lowest in Europe. It has over half of Scotland's landmass - roughly equivalent to the size of Belgium - but has less than 9% of Scotland's population and a complex geography, incorporating the UK's

highest mountains, a fjord-like coastline, and around 100 inhabited islands.

Our ambitious research strategy focuses on achieving outstanding research impacts, including those of direct benefit to the Highlands and Islands region. It also encompasses significant research activity at national and international levels, especially iterating with regions with similar characteristics to our own distinctive region.

According to the 'Times Higher Education' Quality League Table following the 2014 REF, the University of the Highlands and Islands was the 3rd fastest rising university in the UK for overall quality. Illustrating the scale of our ambition, and growth, there has been ongoing sustained investment in people in key leadership posts in core research areas. The results of this are an expanding base of colleagues



producing research and impact of the highest standard, reach and significance, and the provision of an excellent environment for our research degree students. The <u>2019 PRES results</u> showed we were 5% above the UK sector average for student satisfaction and in the top quartile of UK Universities for virtually every PRES measure.

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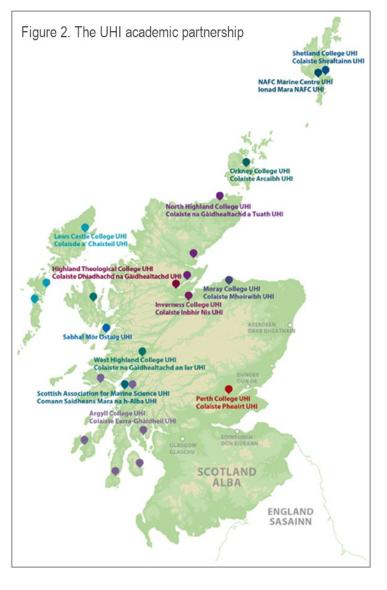
We have submitted seven Units of Assessment for REF 2021.

- Unit 3 Applied Heath Professions, Dentistry, Nursing and Pharmacy.
- Unit 7 Earth Systems and Environmental Science.
- Unit 15 Archaeology.
- Unit 23 Education.
- Unit 25 Area Studies.
- Unit 26 Modern Languages and Linguistics
- Unit 28 History.

The decision to submit in these Units reflects our research strengths - broadly land and water based environmental science, marine, health, a wide range of disciplines within humanities, and education. Whilst environmental science is our most established discipline and health research has seen particularly rapid expansion over the last six years, our work in humanities has increased over the last twenty years in sync with our overall development. Across all Units there are strong elements of interdisciplinarity, reflecting both the foci of our international research work and the deeply interconnected nature of the Highlands and Islands economy.

This deep interconnectedness with the socioeconomic backdrop of our region also continues to drive the main elements of our ambitious <u>strategic plan</u>. Focussing on three main themes; 'our students'; 'focused research' and 'the University for all of our region' our plan is underpinned by three key cross-cutting themes: 'enterprise, internationalisation and recognition, reputation and brand'.

Structurally, the University is an academic partnership; an integrated network of Colleges and specialist research institutions anchored within, but spread across, the whole of the Highlands and Islands region, some in urban centres, but most in rural areas and island communities. Academic partners (Figure 2) are bound constitutionally and financially to the University, forming a cohesive institution.



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Figure 3. A selection of UHI Academic Partner Campuses

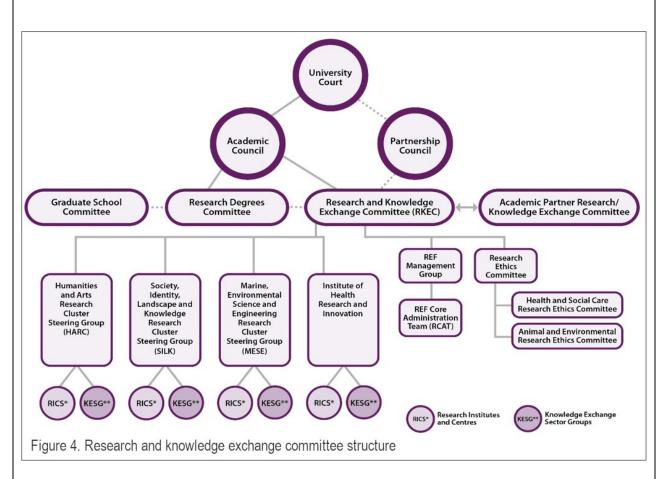
Two academic/research units sit within the University's Executive Office, the School of Health, Social Care and Life Sciences and the Centre for History whilst the others reside within one or more of our academic partners.

The University's Research Office has responsibility for developing our research policy framework and our Graduate School serves all research students. Four <u>research clusters</u> and seven <u>knowledge exchange sector groups</u> facilitate meaningful interdisciplinary activity by staff and research students from across the academic partnership.

The University has two faculties and six subject networks operating at regional level, providing focus for curriculum development and research-teaching linkages.

Overall, the balance in our activities is about 20% research and enterprise and 80% teaching – including our Further and Higher Education provision. In 2019/20 there were 7309fte students on undergraduate and postgraduate taught programmes and 130fte research students.

Our well-developed structures provide a strong sense of internal cohesion, as reflected in our committee structure for research and knowledge exchange (Figure 4). Restructuring in 2017 both encouraged interdisciplinarity and brought research and impact even more closely together through the creation of a refreshed Research and Knowledge Exchange Committee (RKEC), to which research clusters and academic partner Research Committees iterate. University Court is the overarching governing body for the University. Academic Council is the senior deliberative committee for all Higher Education academic matters and policy and Partnership Council is the pan-regional senior executive committee; both are chaired by the Vice-Chancellor.



2. Strategy

Our ambitious strategic approach to research and impact is documented at high level in our institutional strategic vision and plan, (University of the Highlands and Islands 2015) which emphasises impactful research at international, national, and regional levels. Our approach commits to continual investment in areas of research excellence, including research leadership, embedding knowledge exchange as a key component of impact, and progressing a strongly interdisciplinary approach. Bolstering this further, is our bespoke research, knowledge exchange and impact strategy (RKEIS) and a robust approach to research integrity, research ethics and governance, open access, due diligence arrangements, research metrics, and academic regulations for research students.

Our RKEIS has eight core objectives:

- 1. To secure an increased proportion of research output deemed to be internationally excellent and world leading.
- 2. To strengthen emerging areas of research.
- 3. To develop an enhanced international profile for our research activities.
- 4. To secure enhanced commercialisation of research and knowledge exchange output.
- 5. To diversify research and knowledge exchange income.
- 6. To secure greater cohesion in areas of research and knowledge exchange strength across the Highlands and Islands.
- 7. To grow the University's Graduate School.
- 8. To continue to nurture a strong culture of scholarship and research.

Research and knowledge exchange strategy key performance indicators focus on income and research student numbers, as confirmed in our outcome agreement with the Scottish Funding Council. Our indicators demonstrate significant growth in research and knowledge exchange



activity throughout the assessment period and are high level indicative measures of the impact of our work on the socioeconomic landscape of the Highlands and Islands. (Figures 5 and 9)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Research postgraduate students. (FTE)	62	49	73	108	122	130

Figure 5. Postgraduate research student numbers

Future plans will further build on achievements to date and reflect our civic obligation to contribute to the regeneration of the economy in the Highlands and Islands post COVID-19, as well as our ongoing commitment to research within international contexts, especially where there is clear iteration with our research strengths and the characteristics of the Highlands and Islands region:

- 1. We will extend our contribution to acknowledged societal challenges, through maximising the impact of our research on innovation, and on social, environmental, and economic sustainability, including climate change.
- 2. We will further enhance our engagement with place-based research to support the economy in the Highlands and Islands region.
- 3. We will continue to invest in established research areas but will also seek to support selected emerging research areas, including the creative economy.
- 4. We will support researchers and scholars, enabling them to achieve their full potential, including those on teaching only contracts who wish to explore a more scholarly approach to their work.
- 5. We will extend our engagement with UKRI, including in relation to major research calls relating to, for example, the Industrial Strategy.
- 6. We will proactively develop our profile with other universities and stakeholders in key priority areas, including environmental science, health, and humanities.
- 7. We will broaden the portfolio of the Graduate School to include more MRes students, whilst retaining an unrelenting focus on the quality of the student experience.
- 8. We will progress our ambitious international strategy for research and will look to mitigate the adverse effects of BREXIT and identify significant new opportunities, including ongoing engagement with Horizon Europe and the Shared Prosperity Fund.

The creation of four interdisciplinary <u>research clusters</u>; Marine, Environmental Science and Engineering (MES'E); The Institute of Health Research and Innovation; Humanities and Arts Research Cluster (HARC); and Society, Identity, Knowledge and Landscape (SILK) has been key to implementing the strategic plan for research, knowledge exchange and impact.

Clusters have responsibility for; developing an extensive interdisciplinary network across cognate academic areas; an imaginative annual programme of seminars and events for staff and students; identifying opportunities for research funding; and contributing to an environment where research and knowledge exchange are fully integrated. Seven <u>knowledge exchange</u> <u>sector groups</u> reporting to the research clusters operate pan-regionally with responsibility for delivering activity against the University Innovation Fund monies. The knowledge exchange sector groups are aquaculture, creative economy, energy, Scottish rural health partnership, sport and fitness, tourism, and water quality innovation. In February 2021, the University confirmed its



commitment to the core principles in the 'Concordat for the Advancement of Knowledge Exchange in Higher Education'.

We have a wide range of industrial and community partners in each Unit of Assessment, derived from the <u>University's Centres and Institutes</u>, which have high profile with key sector stakeholders, and from our knowledge exchange sector groups, each of which has income targets related to the provision of services and support to promote innovative practice.

Supporting vitality and maximising impact, we have substantial involvement in a wide range of external networks in the sector. These include Scotland's Research pools: We are active members of the Marine Alliance for Science and Technology for Scotland (MASTS), the Energy and Technology Partnership (ETP), the Scottish Alliance for Geoscience, Environment and Society (SAGES), Soillse, the Gaelic language and culture research pool and The Scottish Informatics and Computer Science Alliance (SICSA). For both <u>SAGES</u> and Soillse, members of staff are Directors, and the Vice-Principal (Research and Impact) Chairs the Boards of both Soillse and MASTS.

Additionally, we are active members of the Scottish Graduate School for Arts and Humanities (SGSAH) and the Scottish Graduate School of Social Sciences (SGSSS). We are members of two Doctoral Training Programmes (DTPs) in Scotland, the first overseen by the SGSAH, and the second by MASTS. Both DTPs ensure that we have access to UKRI funded PhD studentships.

We engage closely with several innovation centres, including the Digital Health Institute (DHI), Construction Scotland Innovation Centre (CS-IC), the Scottish Aquaculture Innovation Centre (SAIC) and the Industrial Biotechnology Innovation Centre (IBioIC). The University also enjoys membership of the Scottish Industrial Biotechnology Development Group, which assesses how the Scottish National Industrial Biotechnology plan is implemented.

Internationally, our research collaborations involve a wide range of well-established global partners and, over the course of the last 15 years, our researchers have collaborated with researchers from 83 different countries and 3178 external organisations.





Figure 6. International Research: selected indicators of our global reach and impact

Building on this existing collaborative activity, we have expanded our research work in the international context; for example, strengthening our engagement with Overseas Development Agency (ODA) funded research, including the Global Challenges Research Fund (GCRF). This work is underpinned by a three-year growth and development strategy. An example of this is the <u>GlobalSeaweed STAR project</u>, a GCRF project, led by the University and valued at £6.2M.

The <u>Bryden Centre</u> and the Eastern Corridor Medical engineering Centre (<u>ECME</u>) are further examples of University engagement beyond the UK. The Bryden Centre focuses on advanced marine and bio-energy research and is led by Queens University, Belfast. Likewise, ECME – which focuses on developing models for heart disease care - is a cross border research project.

Our research, knowledge exchange and impact strategies are underpinned by a robust policy environment covering topics such as: research integrity and research ethics, research data management, open access, due diligence arrangements, data management and data protection, Intellectual Property guidelines, and a code of practice for research students.

Our open access policy complies with the Concordat on Open Research Data. A 'Green' open access publication route is the preferred default position, but provision is made for 'Gold' open access where necessary, for example where the preferred academic journal for publication is only available through the gold route.

We undertake ongoing critical reflection and policy enhancement to ensure our policy environment reflects the national policy landscape. Two examples illustrate this:

- Values Framework the University has progressed a dialogue about its institutional values, and how these relate to its decisions about the kind of research subjects it will and will not support. A values framework was approved in January 2020.
- **Research Metrics** The University's research metrics policy reflects our unique characteristics and includes a clear position on the use of research metrics for research assessment at institutional level. We are a signatory to the San Francisco Declaration on



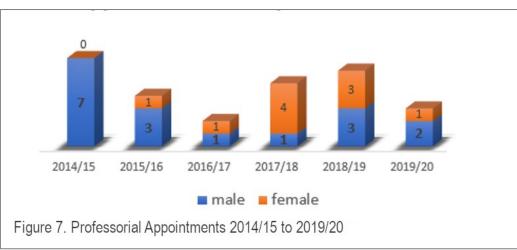
Research Assessment (DORA) principles, and the research metrics policy aligns explicitly with this.

We are fully compliant with the `Concordat to Support Research Integrity'. In 2017/18 a systematic review of our arrangements regarding each of the criteria was undertaken and adjustments made where necessary. Further consideration was given to compliance with the amended concordat in 2019/20. Reflecting our aptitude for continuous improvement, a stringent online system is in place for dealing with research ethics applications across all activities from undergraduate research projects to major funded projects. <u>Research ethics</u> is overseen by our Research Ethics committee (REC), which is responsible for systems and policy development, and for approving applications. REC has two sub-committees: Animal and Environmental Research Ethics Committee and Health and Social Care Research Ethics Committee.

3. People

Sections one and two articulate our core purpose: to progress research which is nationally and internationally relevant, and research which impacts on the economy and society in the Highlands and Islands region. Our ambitious staffing strategy foregrounds enhanced research leadership as the cornerstone to this.

In 2014 the University appointed several 'new blood' leadership posts at professorial level in key existing research disciplines (such as energy) and new research areas (such as education). Complementing this strategy, through our Academic Titles Review Board, we awarded a significant number of personal Chairs and Readerships to internal staff. This approach further strengthened academic leadership in our major research disciplines. **(Figure 7)** Our research clusters are led predominantly by academics at professorial and readership levels and our knowledge exchange sector groups by sectoral experts, with a mixture of internal and external appointments.



Growth in leadership capability has also impacted positively on the breadth of professional development opportunities available for researchers. We are committed to the 'Concordat to Support the Career Development of Researchers' and our investment in staff development aligns with its principles. Additionally, our membership of VITAE ensures sector wide good practice is reflected in our arrangements for researchers' professional development. For example, we hold an innovative biennial research conference. Open to research staff and students, it provides an opportunity for researchers to engage with the external environment, to understand internal policy development, to network, and to disseminate research findings and studies in a truly inter-disciplinary environment. The <u>2018 conference</u> attracted nearly 250



delegates, and keynotes were drawn from sector leaders, from UKRI and the Scottish Funding Council. Our annual one day research forum provides a further professional development opportunity for the university's researcher leaders.

Expansion in research leadership capacity also relates to our flourishing mentoring programme, supporting the career development of research staff, and especially early career researchers (ECRs). <u>Research mentoring</u>, where an experienced member of research staff engages in a mentoring relationship with a mentee for up to a year, focusses on progressing the mentee's specific research objectives. Three initial mentoring strands covered Higher Education Academy fellowships (ALPINE), learning and teaching, and research: and each strand shows significantly higher uptake by women (**Figure 8**), which may account in part for our rapidly closing pay gaps. A fourth strand 'scholarship' was created in 2019/20 and is designed to support staff new to scholarship and research.

		%			
F	М	Unstated	TOTAL	F	М
73	43	6	122	63%	37%
24	13	1	38	65%	35%
47	10	4	61	82%	18%
11	5	0	16	69%	31%
	73 24 47	F M 73 43 24 13 47 10	73 43 6 24 13 1 47 10 4	F M Unstated TOTAL 73 43 6 122 24 13 1 38 47 10 4 61	F M Unstated TOTAL F 73 43 6 122 63% 24 13 1 38 65% 47 10 4 61 82%

Figure 8. Mentoring schemes: gender breakdown 2016-2020

Professional development arrangements are underpinned by various annual funding streams providing all research staff with the opportunity to access ongoing professional development.

- Paid research sabbaticals support the development and further embedding of a research and scholarship informed culture. Typically, 4-5 sabbaticals are supported per annum, each sabbatical lasting 3 months full-time.
- Our research travel and conference fund provides the opportunity to attend research conferences of national or international standing, enabling staff to enhance both their individual research profile, and personal networks.

Our research degree student numbers – PhD and MRes – have grown significantly in recent years, from 62fte in 2014/15 to 130fte in 2019/20. External quality assessments, which include the 2014 REF, the Postgraduate Research Experience Survey (PRES), and Quality Assurance Agency (QAA) Scotland reports all demonstrate that the research environment in which our research degree students' study is among the very best in the UK. Our <u>2019 PRES results</u> reveal that the overall satisfaction of respondents at UHI was 85%. This was 4% higher than for all participating institutions, 4% higher than participating Scottish institutions, 5% higher than for Post-92 institutions and 7% higher than for MillionPlus Group institutions.

Responsibility for the training and development and for progress monitoring for research students is split between the University's <u>Graduate School</u> and local academic partners. There is hence a comprehensive system of care and development internally including supervisor training and updating, research student induction and development needs planning, and the biennial postgraduate research student conference, support for mental health and wellbeing, and social



activities. Training and development, both internally and across Scotland, is also provided through the University's close involvement in the two Scottish Graduate Schools, and the MASTS SuperDTP. The student body is represented through membership of senior University Committees and routine meetings of the PGR student representatives with the Dean of Research and Graduate School Office staff.

In 2017 the University was granted research degree awarding powers (RDAPs).

Significant institutional investment in Equality and Diversity (E&D), has resulted in several exciting achievements and prospects including the appointment of a full-time, specialised E&D advisor (2019); inception of a senior E&D committee (EDICT, 2019), a national award for our UHI-EQUATE STEM-Femmes (2020), together with the achievement of bronze Athena Swan accreditation in 2017. E&D is an intensive area of staff-development with our enhanced research leadership driving funding for 21 women staff to participate in Advance-HE's Aurora programme since 2018, one of whom has since been promoted to interim Dean of Science, Health and Engineering. Additionally, building on previous unconscious bias training, WISE facilitated training for research and other leaders in autumn/ winter 2020 and a 'train the trainer' session developed our internal capacity to deliver unconscious bias training.

Understanding that low ethnic-diversity in rural areas can obscure appreciation of the impact of racism in society, we are also exploring a reciprocal relationship with Centre for Hate Studies (University of Leicester) allowing us to adopt their suite of e-learning, and helping them develop research on hate crime in remote and rural contexts.

With E&D considerations fundamental to ensuring all staff and students are treated equitably, they are reflected fully in HR policies across the University's partnership. For example:

- Academic partners collaboratively designed and adopted a single <u>EDI policy</u> (2018-19) This included additional contextualisation of social, legal, and physical trans/ genderdiverse contexts, as well as clearer legislative signposting.
- All academic partners commit to the <u>University's Equal Pay Policy</u>. Regular Equal Pay Reviews and biennial Gender Pay Gap reports help ensure fairness and transparency. Our data reflects equal pay for work of equal value contributed to a 22% mean pay gap in favour of men in 2019, down from 32% in 2017. The median pay gap is also down from 23.3% to 13.7%, meeting the HE sectoral average. Our most recent <u>Gender Pay Gap</u> report provides more detail.
- We have a remote and flexible working policy, including a detailed maternity framework. A period of sabbatical is provided for returning mothers who are researchers, ringfencing time to reconnect with their research post-maternity-leave.

Evidence that our strong commitment to E&D is effecting tangible change is visible in our STEMM academic staff profile, which shifted from (M/F) 68%/32% in 2016/17 to 55%/45% in 2019/20. Whilst clearly representing significant progress, we are still committed to further enhancement, and this will be reflected in our Athena SWAN and SFC Gender Action Plans (2020). As part of our ongoing commitment to E&D, we have also created a team of paid student champions and staff champions to inform our equality objectives.



REF 2021 preparations have embedded a considered and inclusive approach to our processes throughout, as documented in our <u>Code of Practice</u>. This includes ensuring diversity of representation on output selection panels, where our E&D Advisor was involved in ensuring as balanced a panel as possible, without overburdening minority staff.

4. Income, infrastructure and facilities

The ambitious research strategy articulated in section 2 above has led to a dynamic and growing portfolio of impactful research activity has seen us experience a growth rate in research income of 9.4% over the full period, whilst knowledge exchange income grew by 6.2% between 2014/15 and 2018/19. Both research and knowledge exchange income were impacted by COVID in 2019/20. Our total university income for 2019/20 was £136,877k, our research income was £16,261K and our knowledge exchange income was £11,641K

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Research Income £000s	14,858	12,738	14,431	18,029	17,113	16,261
Knowledge Exchange Income [*] £000s	11,734	9,142	10,223	10,535	12,465	11,641

Figure 9. Research and Knowledge Exchange Income 2014-15 to 2019-20 *Knowledge exchange income includes a proportion of research income as required by the annual return to the Scottish Funding Council.

Our ability to deliver impactful research has benefitted from significant investment from European sources (£39,229k), from Highlands and Islands Enterprise (£9,865k) and the Inverness City Region deal (£1,156k) over the last ten years.

In relation to recurrent funds, our Research Excellent Grant (REG), University Innovation Fund (UIF) allocation, core Global Challenges Research fund (GCRF), and the BEIS capital research fund amounted to c. £3.5M in 2019/20. These funds were distributed across the academic partnership according to agreed internal formula based in REF 2014 performance furthering the development of our vibrant research environment.

These growing and varied income streams have successfully underpinned our expansion of research and knowledge exchange. Looking to the future, a number of strategies are already in place to ensure replacement funds for research following BREXIT, including strategic engagement with UKRI and with the national Shared Prosperity Fund discussions, the Industrial Strategy, and involvement in regional growth deals. Within the graduate school, the portfolio for research students has already been diversified to include new MRes awards.

There are a number of ways in which the generation of research income is facilitated at institutional level. For example, this is supported by our Grants and Contracts team, individual academic partners, the knowledge exchange team, and the research clusters. Between 2015/16 and 2019/20, grant applications processed by the University rose from 157 in 2015/16 to 232 in 2019/20 and the success rate climbed from 56% to 63%. A recent review of the Grants and Contracts team enhanced their capability for environment scanning, and an Industrial Strategy Liaison officer appointment has also further bolstered engagement. The university has

Institutional level environment template (REF5a)



implemented unconscious bias training for researchers and working within its equality and diversity framework, adopts a stance of equal access to opportunities to research funding.

Funded by the Universities Innovation Fund, the core knowledge exchange team provides an enhanced institutional level resource enabling us to meet, and exceed, national expectations. Income targets are agreed with each knowledge exchange sector group and the achievement of these is supported by the core team. At national level, we lead on the SME demand stimulation strand cluster across Scotland.

Large scale investment in facilities and equipment across a wide range of disciplines over the last ten years has resulted in a vibrant and stimulating physical and virtual research environment across the Highlands and Islands region.

Health has seen significant expansion of estate adjacent to the main hospital for Highland region and the School of Health, Social Care and Life Sciences secured funds from Highlands and Islands Enterprise (£4M-:2016-2020) and the Inverness and Highland City-Region Deal (£9M-;2017-2026). The Department of Nursing and Midwifery transferred from the University of Stirling in 2017 and is now fully integrated into the University's School of Health, Social Care and Life Sciences.

In relation to environmental science, purpose-built, bespoke, facilities, including two <u>UK national</u> <u>facilities</u>, allow research staff to undertake their work in modern, well-equipped surroundings in multiple locations across the region, providing effortless access to the outstanding natural laboratory of the Highlands and Islands.

Humanities has also undergone impressive expansion and upgrading of research facilities as illustrated by the <u>Centre for History</u>, <u>Institute of Archaeology</u>, <u>Institute of Northern Studies</u>, and developments at <u>Sabhal Mòr Ostaig</u>. Within education, the new <u>Learning Lab</u> in Inverness provides access to high quality facilities to support educational research.

Additionally, we continue to invest in core research support services. The Research Office provides high-quality support to our research community. It oversees the implementation of agreed <u>policy</u> and also supports the preparation of our REF submission as well as maintaining primary research systems, including the research management information system, PURE, and the utilisation of Research Professional. In relation to the University's research data management policy, for example, comprehensive advice and support is provided to enable researchers to produce research data management plans.

Our <u>library service</u> provides bespoke support for research students and staff providing ready access to a comprehensive library facility delivered online to research staff and students worldwide. Specialist support and guidance is provided for open access publishing and bespoke libraries guidance is also available. Provision is made for access to specialist journals through a substantial, annually updated, list of subscriptions to key academic journals and publications, and to facilitate access to the British Library. We hold several important, unique, academic collections across the Academic Partnership, and maintain close links to the Highland's Archives, numerous museums, and other collections of relevant research material. We are also developing a full research data archiving service in partnership with Arkivum.

Institutional level environment template (REF5a)



As longstanding advocates of advanced technology-based communications, we have sophisticated facilities for <u>video conferencing</u>. These ensure that researchers can communicate effectively with each other across our large geographical area, and with dispersed external stakeholders. This adds to the sense of a unique research community which has access to both contemporary physical facilities, but also to an outstanding 'virtual' research environment.

The overwhelming strength of the University of the Highlands and Islands lies in its people, and the ways in which they work together to reflect its mission, which has evolved from our exceptional region. It is self-evident that staff work towards achieving our mission with passion and dedication, creating real, tangible, impact, whatever their field of interest. This impact is however not just limited to the communities and businesses of the Highland and Islands region. Our work reaches far beyond our geographic borders into societies and communities across the globe and our research community is recognised institutionally as being something truly special. Dedicated, innovative, focused, and resourceful, they are unquestionably making a very real, often transformational, difference.