Supporting Economic Development in the Highlands & Islands through Scotland's Universities

A Joint Report by Highlands & Islands Enterprise and the Scottish Funding Council

June 2013 (Draft)

Goal

This report outlines a strategic framework to supportsustainable economic growth in the Highland and Islands through encouraging a coordinated and, where appropriate, collaborative approach to the research activity of Scotland's universities in the region and by their increased engagement with Highland and Islands businesses and stakeholders to exploit opportunities for innovation.

Background

The Highlands and Islands('the region')has a low density of Higher Education activity. The region has thriving sectors of business growth and a number of strategic geographical and sectoral propositions with significant opportunity. Given SFC's overarching role in assisting the Scottish university and college sectors to support economic growth as called for in the Government's Economic Strategy (GES) it is natural for HIE and SFC to come together to consider the issues around demand for, and supply of, university expertise across the region. The joint work described here aimed to identify appropriate actions and frameworks to exploit university research excellence in the support for innovation, jobs and growth.

Initially, HIE and SFC carried out an informal consultation of individual businesses and universities to form a broader picture of how the region, and its businesses in particular, currently interacts with universities in the round, and to identify any particular areas of focus which could inform future actions by our organisations, or indeed, other stakeholders. These conversations have been further informed by HIE's extensive knowledge and experience of how the region's innovation system operates; the demand from businesses for university expertise; the current known interest of universities in collaboration in the region; the needs of stakeholders (such as NHS, the energy corporates); and the requirements of our distinct regional propositions.

On 22nd April, a presentation was given to the Cabinet Secretary for Finance and Sustainable Growth at the Inverness Campus Stakeholder Forum, where the strategic framework to maximise the benefit of Scotland's universities for the Highlands & Islands was well received. This framework is described in the following sections.

Further work is being carried out to expand upon this framework and suggest a programme of activity over the coming 5 years, to be led by HIE and supported as appropriate by the SFC and other stakeholders. This work will be presented to the respective Boards of HIE and SFC in late June.

In summary, this report seeks to inform a wide audience of stakeholders on the position of university engagement with the region and highlight areas for future development. It is hoped that it will underpin future strategic discussions with partners to assist the university sector in responding to the research requirements of the region – its businesses, its communities and its agencies .

Organisational objectives

The rationale for the partnering of HIE and SFC in this joint initiative can best be achieved by describing their respective organisational goals and how they overlap.

Scottish Funding Council
Promoting further and higher education

Strategic Plan Outcomes 2012-151:

1: Efficient and effective regional college structures
2: Access for people from the widest possible range of backgrounds
3: The right learning in the right place
4: High quality, efficient and effective learning
5: A developed workforce
6: Sustainable colleges and universities
7: A research base that is internationally competitive and improving its reputation and standing in the world
8: University/industry collaboration and the exploitation of research

HIE
Highlands and Islands Enterprise
Iomairt na Gaidhealtachd 's nan Eilean

Purpose: To generate sustainable economic growth in every part of the Highlands and Islands

Vision: For the Highlands & Islands to be a highly successful, competitive region in which an increasing number of people choose to live work study and invest

Priorities

: Supporting businesses and social enterprises to shape and realise their growth aspirations

: Strengthening communities and fragile areas

: Developing key sectors, particularly distinctive regional opportunities

: Creating the conditions for a competitive and low-carbon region

It is also important to recognise that, given these objectives, any strategic direction in this report will start from a number of premises:

- HIE and SFC have strategic plans which this strategy will be consistent with, and support the delivery of
- The existing and developing landscape of public and university investments, structures, Innovation Centres, Research Pools, trade bodies and so on must be engaged with in a way which increases coherence and effectiveness
- The creation of what is currently referred asthe Single Knowledge Exchange Organisation for Scotlandwill be consistent with the framework described in this report.

Landscape

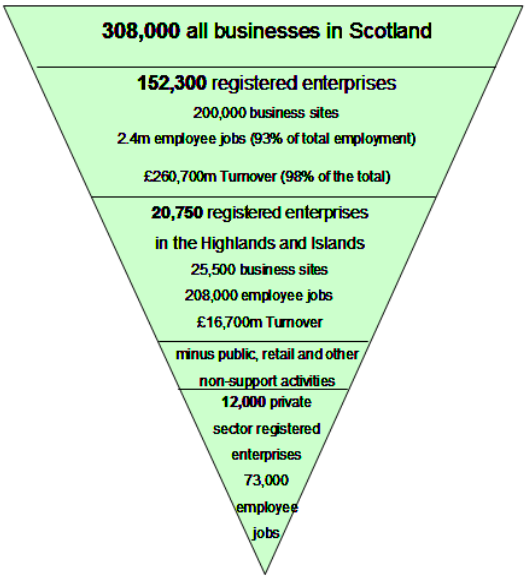
In order to progress our thinking to shape a strategic framework, it is important to be able to describe and assess the current landscape of university engagement, business base, research activity, business-to-academia activity, significant projects and KE activities. This section aims to do this, as well as provide some case studies outlining some exemplar projects which highlight the economic impact already experienced in the region through deeper engagement with academia.

Higher Education in the Region

The most prominent university in the Highland and Islands region is also Scotland's' newest, the University of the Highlands and Islands. Five other of Scotland's HEIs have significant physical presence within the region : Heriot-WattUniversity, the Universities of Aberdeen and Stirling, Glasgow School of Art and Scotland's RuralCollege. The largest research institute in the region is SAMS at Dunstaffnage which employs roughly 80 researchers across the field of marine science. It is estimated that, across the whole region, there are some 300 researchers across a wide range of disciplines, with significant concentrations in marine science, health (diabetes, cardiovascular, lipidomics, rural, digital) and marine renewables.

Businesses in the region

In the Highlands and Islands there are **20,750** registered enterprises (c 14% of all those in Scotland) with **25,500** business sites across the region and the total employment of c **208,000** employee jobs. The vast majority of these enterprises are SME's. Within the overall figure the public sector accounts for 61,400 employee jobs (across c 2,000 sites), or around 30% of the total employment. The retail sector is also a big player accounting for 3,000 enterprises and another 10% of all employee jobs.



By reviewing existing information gathered from across HIE's Innovation, Sectoral and Area Teams, we can get a rough picture of demand for university expertise. This tells us that there are approximately 330 companies across the region which have engaged (or tried to) with university research over the past 3 years. 330 represents 1.6% of our business base. HIE has approximately **500** Account managed businesses across all our sectors, and approximately 80 (16%) of these are amongst the 330 R & D receptive companies on the database.

Of the 330 companies, approximately 40 are larger than 30 employees. Food and Drink, Energy (renewables) and Life Sciences companies are the biggest engagers. Geographically this shows 132 companies in the Inverness and the Inner Moray Firth engaging with university expertise, with approximately 36 companies from each of the Argyll & the Islands, Lochaber Skye and Wester Ross, Moray and Caithness areas.

One way of capturing demand for academic research is by an analysis of enquiries by H & I businesses to Interface. Their presence in the region has seen a significant increase in activity. Since May 2011, the Interface team have supported 241 businesses and organisations. 52 collaborative academic – company projects are underway (to the end of March 2013) –drawing investment into the region from schemes such as innovation vouchers, KTPs etc. This has resulted in £353,971 public/university funding being awarded to industry led projects across the region. In addition £110,143 of cash has been invested by H&Is businesses in collaborative R&D projects. 40 SFC innovation vouchers have been awarded to businesses of which 19 were funded by HIE and 21 by SFC committing a total of £194,329 to supporting businesses in the region. Researchers from 15 different HEIs and Research institutes are collaboratively working with companies in the H&I region on delivering projects embedding new knowledge into the businesses. These are drawn from a wide range of academic disciplines from business schools, engineering, science, technology, social sciences etc.

Unfortunately we are unable to capture the fully picture of Business Expenditure on R & D (BERD) at a regional level, although we know figures for Scotland place us in the fourth quartile between Italy and Turkey, and the Scottish Government is keen to address this. We can therefore assume that, if we disregard one major life sciences company in the region which has an extraordinary R & D spend, our position will be significantly lower than the Scottish one.

HIE's investment in R & D receptive (or active) companies over the last 6 years amounts to £7.5m. This is ALL R & D funded through HIE's state aid scheme, with only 20% of the 62 company project involving a university.In comparison to this, HIE's investment in Research capacity over the past 10 years (largely through UHI) amounts to £15m.

<u>Key Sectors in the Region</u>

The following table lists HIE's key sectors and indicates the opportunity that enhanced university engagement could add to HIE's ambitions for these sectors:

Sector	Ambition
ENERGY: Wave and Tidal	The H & I region has an opportunity "to maintain and extend its reputation as an international centre for marine renewables". Growing our intellectual capital in this space is key in ensuring a legacy for our investment. The knowledge base to underpin the wave and tidal sector will be vital.
LIFE SCIENCES: Digital Healthcare	Here there is the opportunity to grow 'a life sciences "corridor" of health providers, researchers and businesses between Inverness and Elgin, using the combined infrastructure of the Centre for Health Science, Inverness Campus and Moray Life Sciences Centre to develop a strong cluster of innovative life science businesses and research organisations.
LIFE SCIENCES: Marine Science Excellence	Building on Argyll's strong reputation in marine sciences, largely through SAMS, encourage the attraction and creation of more businesses supporting high value jobs. University links will be crucial.
CROSS-SECTORAL: Creating a Digital Region	To use the application of fixed and mobile connectivity to fuel the development of emerging sectors, support communities and remote areas, retain young people and attract new residents. Opportunities exist to measure the impact of this major project and to strengthen the region's skills and ability to utilise the new technology.
COMMUNITIES Sustainable Rural Development	Capturing the economic benefit from the region's strengths, expertise and history in the field of sustainable rural development – growth of a research base; rural economic intelligence, rural policy, cultural tourism. Measuring and monitoring the resilience of our rural communities will be key in supporting policy.
FOOD & DRINK	This is a strong sector in the region offering significant potential for new product development and quality enhancement. Universities can provide expertise to support this.
TOURISM/LIFE SCIENCES: Natural Resources	Where the region has an abundance of resources (ie. water, forestry, peatland, sea lochs, coastal resources, natural products etc), we need to maximise the opportunities to grow economic value through scientific research, contributing to the wider Scottish economy

Stakeholders in the Region

As is the case across Scotland, the Highlands & Islands is host to a number of major organisations, public and private, who share in the goal of creating a strong and prosperous economy in the region. They may have different objectives and measures for doing so, but nonetheless are collectively part of the *solution.* In the context of the region, public sector organisations such as the local authorities, NHS, SNH, Forestry Commission, Scottish Water etc, are all important players for whom research and the growth of knowledge is a component of their strategic plans. Large private sector companies such as Scottish Power Renewables, SSE, LifeScan, BASF, Diagio etc, similarly have a major interest in the knowledge base within the region and how access to good research can help evolve their businesses. In order to advance the region's research 'infrastructure', strategic discussions need to take place with these organisations to determine joint interests and potential collaborative funding opportunities.

Highlands & Islands as a Testbed

In additional to considering the sectoral opportunities for the region, the Highlands & Islands is often described as a 'Living Testbed', offering a multitude of facets attractive to organisations wishing to advance innovation in different fields. The environment, geography, rurality and pockets of population provide many routes for the testing of new products, new methods of delivery etc. A report – *The Highlands & Islands as a Test bed for Digital Health Initiatives* highlighted "the need for an "action-research" test-bed in an area suitable for digital health applications, with the appropriate environment, infrastructure (technical and NHS) and expertise presenting a unique opportunity for the Highlands and Islands to succeed where others have failed. With an engaged community, joined-up NHS structures with engaged clinicians, unique geography and demographics and a large number of digital health initiatives already successfully being tested and implemented, **the region has a first mover advantage and an opportunity to lead** as opposed to follow."

Resilient Rural Communities

University engagement is not only important for our industry sectors. Our Strengthening Communities directorate has challenges that can be addressed through university expertise. The largest proportion of our region's landmass (40%), home to 12.5% of our population (c56,000), is classified as 'Fragile'. With that comes enormous challenges around connectivity, employment opportunities, vital services such as transport, housing and infrastructure. HIE already recognises that the solution to these multiple challenges will require strong collaborative actions with a range of partners, of which Universities can (and do) feature. The UHI, Scotland's RuralCollege and the Glasgow School of Art are already engaged in such activities.

Regionally Significant Investments (RSIs)

HIE has a number of RSIs which would benefit from increased university activity in the region. The following provides an overview:

Alexander Graham Bell Centre

Moray Life Science Centre, known as the Alexander Graham Bell Centre, is intended to become a principle research, education and continuing professional development (CPD) facility for the life science sector in the North East of Scotland.

EuropeanMarineSciencePark

The EuropeanMarineSciencePark in Argyll is one of HIE's current major infrastructure investments incorporating marine science, research and development, education and commercial activity. The project aims to create an international centre of excellence

EnterprisePark Forres

The Enterprise Park Forres provides a unique and inspirational range of high quality business units over 100 acres of beautifully landscaped grounds.

NiggEnergyPark

The Nigg fabrication site on the Cromarty Firth was successfully purchased by Global Energy Group (GEG) in October 2011 with £1.8m funding package from HIE to help transform the largely dormant site into a multi-use modern energy park.

Inverness Campus

Inverness Campus is one of the most important developments proposed for the Highlands and Islands in the next 20 years. Construction is now underway to create a multi-stakeholder academic , research and business park that will deliver significant economic benefits.

European Marine Energy Centre

The European Marine Energy Centre (EMEC) is at the forefront of the development of marine-based renewable energy - technologies that generate electricity by harnessing the power of waves and tidal streams

Mareel Creative Industries

Construction of the £12 million creative industries centre Mareel, based in Lerwick, began in June 2009. The centre could provide up to 53 direct and indirect jobs in Shetland, which is already home to over 200 organisations involved in the creative industries.

Connected Communities

CnES and NHS-Western Isles use the Connected Communities network extensively to provide broadband services to over 90 sites such as schools, council offices, health centres, medical practices and key workers.

Case Studies

In order to give some sense of the opportunity to be gained from working more with the university sector (and show the link to economic development), the case studies in **Appendix 1** feature 3 specific areas where universities have made a difference:

(1) **Heriot Watt in Orkney** : Economic impact in a rural community

(2) **The Centre for Health Science, Inverness** : Collaboration in Health

(3) **Sabhal Mòr Ostaig, Isle of Skye** : Fragile to Resilient Community

National Infrastructure

The academic infrastructure of the Highlands and Islands, though sparsely populated with higher education activity as noted, nevertheless shares with the rest of Scotland a population of existing and soon-to-exist academic structures which must be factored into any new support or activity in order to ensure maximum value is gained. Examples of other existing national infrastructure in the region include:

- Research Pools: Through its academic partners, UHI is a member of MASTS (marine science) Soillse (Gaelic) , SAGES (geo- and environmental science), ETP (energy) and SICSA (informatics)
- Offshore Marine Renewable Catapult Centre. This TSB-funded centre, led from the University of Strathclyde, is very active in the region.
- Innovation Centres. SFC, HIE an SE are developingInnovation Centres, demand-led clusters of business and academia working together in a (sub-) sector to support innovation and economic growth. The first three Centres have been launched and there is involvement in the Highlands and Islands in all three, particularly so in the case of the Digital Health Institute. Up to seven more Centres are to be launched this autumn, many of which will work with businesses and HEIs in the region.
- The Single Knowledge Exchange Organisation for Scotland. The organisation currently known as the SKEO will, from autumn 2013, act as a mechanism supporting simplification of the innovation support landscape in Scotland, as is noted above, this must work equally effectively all over Scotland.

Conclusions

The understanding of the landscape summarised above, combined with feedback from a programme of discussions with universities and with businesses carried out by SFC and HIE, can be summarised in a set of statements about the experience (and challenges) of exploiting innovation in the region.

1. **Most businesses and sectoral groups are not able to describe what they need universities to do.** There was **no clear articulation of demand** for any particular kind of research for the region. Large or knowledge-intensive businesses were able to access their needs from within their company, and others were unable to point at particular areas of expertise. There is an opportunity for HIE, and its partners, to assist businesses and stimulate demand.

2. **HIE has some very special propositions now, and needs to consider how to strengthen the underpinning knowledge base to support these.** RSI's are a natural focus for investment in R & D. Similarly, the growing clusters of digital health businesses and research organisations, and renewable energy actors, are prime opportunities to build upon.

3. **Academic Collaboration is an important theme for the region, as borne out in the Health Case Study.** There are many universities present and active in the region – some for a considerable period of time – but collaboration is not happening spontaneously. We are confident that the appetite is there for a marked increase in both Academia to Academia (A2A) AND Academic to Business (A2B) collaboration, but this needs both intermediary and financial support to bring about the potential dividends.

4. Experiences of businesses have been mixed,with many citing problems linked to:

    a. Geography and distance
    b. Lack of networking opportunities (business to business, business to university)
    c. Being too far away from universities (and sector leaders) in rest of Scotland
    d. Many of our businesses being run by people not experienced in academia
    e. Previous experiences of engagement not delivering for the business
    f. Disagreement over IP ownership
    g. Affordability of academic research
    h. Too complex – many businesses struggling to discuss a project with academics in a manner meaningful to the business
    i. Lack of capacity in the company to identify and frame research opportunities

5. **There exist specific regional challenges for B2A and B2B collaboration around both geography and structure.** National structures to support both B2A and B2B are sometimes less effective, and networking is more challenging. There are no regional groupings of organisations focussing on science, research and innovation.

6. **The region is not maximising strategic partnerships in support of this agenda.** The issue of research and university activity in the region has not been discussed at a senior enough level across a number of stakeholders.

7. **Low density of businesses restricts leadership recruitment**.

8. **Recruitment of locally-trained scientific skills is limited and businesses identify supply problems at school level, FE and HE**. This is not a new issue and, through HIE's North of Scotland STEM project, much has been done to stimulate interest in these skill areas. However, there was a strong view from businesses that this issue was, in many ways, of more relevance to their long-term success than research, and

that, if addressed, could deliver significant economic benefits to the region. Skills Development Scotland is currently undertaking a review of the region's skills base and aims to produce a Regional Skills Investment Plan. This aspect needs to be highlighted.

9. **Demand for HE expertise is very low**. This is not so surprising given the experiences noted above. This is the case across Scotland and the UK, but is particularly low in the region and efforts to stimulate demand must be deployed.

10. **There is scope to significantly increase Scottish universities' activity in the region.** As has been noted above, six universities have physical presence in the region. Other institutions are involvedin relevant research, whether in partnership with business in the region or otherwise. It was clear from discussion with the universities that there is scope to expand the activities of individual universities, drawing more into the region for collaborative research and development work. In particular, the opportunity to increase responsiveness to business by increasing collaboration is recognised and can be leveraged.

11. **Access to funding for research is restricted in the region.** There is strong evidence that suggests businesses are not being successful in their applications to TSB for R & D projects (too small, not specialised enough, not able to compete with rest of UK); that the new University based in the region, which carries out the most research, is not successfully accessing Research Council funding, with some exceptions eg. SAMS. These limitations are not a surprise, but have been highlighted during this work and partly explain the limited growth of the sector and A2B engagement.

Strategic Framework for Action

The questions posed in the previous section have guided the strategic framework suggested below. If agreed, the framework could be used by HIE, SFC and other stakeholders to guide prioritisation of effort and investment to significantly increase the support that Scottish universities can offer for the economy and society of the Highlands and Islands.

(1) Level Playing Field

To what extent are current KE mechanisms fit for purpose in the H & I region?

Evidence shows that the amount of business-academia engagement in the region is extremely small (although growing), suggesting that something transformational needs to happen to change this and reposition the region as 'open for innovation'. Small, incremental steps, resulting in a small number of additional businesses engaging with academic research, will not register. There is a need to increase activity to stimulate demand within the business community.One way this can be enabled is to helping businesses to engage directly with post-graduate researchers.

Actions:

Review existing and planned national KE support mechanisms (Innovation Centres, SKEO) to ensure they are not configured in such a way as to disadvantage activity in the region.

Consider the possibility of an enhanced KTP programme for the region, creating a significant and transformational impact on the number of KTP's.

Consider actions that would encourage enhanced networking (B2A, B2B) and result in stimulation of demand for university research

(2) **Wrap-around research**

How do we ensure effective use of the widest possible expertise of Scotland's universities, focused directly at regional propositions or sectoral clusters? How do we use this expertise to support businesses which are relocating to the region (domestic or FDI), particularly for knowledge-based RSI's?

By concentrating effort on RSI's and key sector clusters in life sciences and energy, the agglomeration of our support can present the highest impact for the region's economy.

Actions:

Engage with Scottish research pools to understand how they can support our objectives.

Consider relationship/engagement funding to provide a bridge for potential inward investors to allow easy access to Scottish-wide expertise, regardless of their location.

Target support at newly developed research clusters such as Digital Health and Renewable Energy.

(3) **Strategic leadership**

(i) *The Need for effective structures*

There is a market failure evident in the region due to a lack of research organisations <u>located</u> in the region. Networking and influencing are more difficult given the geography and business base.

Actions:

HIE to co-ordinate activity through the development of a stakeholder engagement plan to result in enhanced university interactions

A business-led forum of key knowledge-based organisations to be set up to discuss and inform a research strategy for the region

A short-term steering group of interested Universities (14 already confirmed interest) be invited to advise and work towards effective collaborations.

HIE to input to the development of the SKEO to ensure that the region is fully represented in the National Policy Forum and the other aspects of this development.

(ii) *The need for funding*

In order to encourage more university-business collaboration, the public sector needs to intervene and provide some incentivised funding.

Actions:

HIE to consider the development of a 5-year Collaborative R & D Funding Programme, with characteristics similar to that of TSB 'calls', focussed on business, sectoral and regional opportunities.

(4) **Science Education**

Organisations are increasingly struggling to recruit, from the region, individuals with a foundation of scientific knowledge. This situation is going to increase given the projected growth of the knowledge based sectors, particularly Life Sciences and Energy.

Actions:

This information is passed directly to Skills Development Scotland who are leading on a Regional Skills Investment Plan for the H & I.

That HIE leads on a scoping study (in partnership with SDS, Local Authorities, UHI and others) to identify the scale of the problem which will further inform the RSIP. The study could involve a comparative with another region to examine how our regional science provision is (if it is) falling short of need

(5) **EU Funding**

Any investment decisions taken for the region need to be aligned with both the projected structural funding in the region over the coming period, and that of the competitive funding such as Horizon 2020 over the period 2014 – 2020.

Actions:

Promotion and awareness raising of EU funding opportunities to take place across the region, as the detail becomes clearer. A specific focus on Horizon 2020 (FP8) funding, and the development of triple helix consortia in areas of particular relevance to the region, should be targeted.

HIE's future structural funds should be used to support the growth of university-business collaborative activity in the region.

Next Steps:

- Circulate the report widely to engage stakeholders in further discussion to help build the knowledge base and support for regional research investment, thus contributing to HIE and SFC objectives
- Seek endorsement from the respective HIE and SFC Boards to prioritise support as suggested by the framework and progress to, where appropriate, a package of targeted HIE funding.
- Develop a communicable strategy by autumn 2013

APPENDIX 1

CASE STUDY 1 : Heriot Watt in Orkney : Economic impact in a rural community

Background

HeriotWattUniversity established the International Centre for Island Technology (ICIT) at the OldAcademy site in Stromness in 1989 to carry out advanced research, postgraduate training and consultancy in marine resource management and related issues. Its remit includes the development of research, teaching and professional practice relevant to the sustainable economic development of islands and peripheral maritime regions

In Year 1, ICIT had 4 employees and 10 students, and numbers have fluctuated since, with a peak of 30 students and 12 staff in 1993/94, when there were also 8 Environment & Resource Technology (ERT) Ltd and Institute of Offshore Engineering (IOE) staff. By 2006, ICIT had become a specialist arm of HWU's Institute of Petroleum Engineering, and student numbers have built up from 3 to 18 since then. Two post-graduate MSc courses are currently taught at ICIT (with a distance learning option): MSc in Renewable Energy Development, and MSc in Marine Resources Management, and current research projects include Pentland Firth Tidal Stream Modelling and Full Scale Testing of the Dynamic Response of Mooring Lines for Wave Energy Convertors. MREDS (Marine Renewable Energy Development in Scotland), launched in 2007 (with core funding from HIE and OIC), is a major strategic research programme led by ICIT, whose activities have involved UHI and EMEC. The following six work packages have been developed to strengthen the marine renewables sector in Scotland:- Export constraints, externalities and opportunities; Petroleum and renewables; Mitigation, minimisation and management of risk; Hydrodynamics, moorings and foundations; Environmental and ecological impacts; Socio-economic values and responses.

EMEC ORKNEY
The European Marine Energy Centre Ltd

Impact

As a direct result of the decision to establish ICIT in Orkney, 10 spin-out businesses and 88 jobs have been created:

Company	FTEs	Company	FTEs
ScotRenewables	15	Aquatera Ltd	13.5
Xodus Aurora	17.5	Opus Plus Ltd	24.5
Sula Diving/Orkney Hyperbaric	8.5	Scapa Scuba Ltd	3.5

Unit/Trust			
North Isles Environmental Ltd	1	Orkney Cruise Services	0.5
Digitata Ltd/Marram Studio	1	Credo Green	3

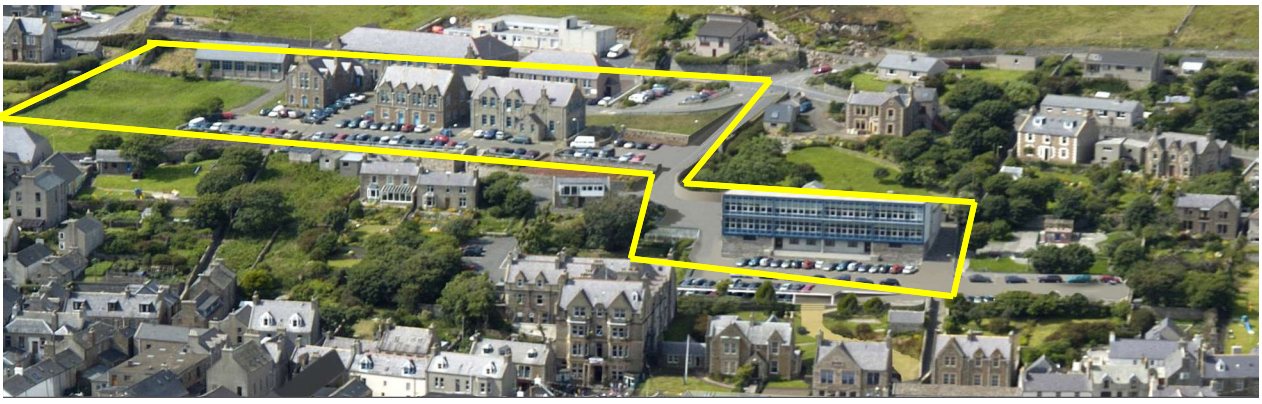
76 of the 88 FTEs are full time. This employment impact would increase to at least 110 ftes in Orkney through adding indirect and induced impacts to the direct impacts. Further impacts are generated by visits to Orkney by clients of the companies, people taking Scapa Scuba's diving courses, etc. Adding ICIT's current staff and PhDs would increase direct ftes to 112, and overall employment impact to around 130 ftes. In addition, many believe that the decision to establish EMEC in Stromness, next door to the HWU campus, may not have happened without the ground work and physical location of ICIT. EMEC employs xxx people and is host to a multitude of international visitors to the region.

Future Plans

HWU, Orkney Isle Council and HIE have partnered together to realise a wider vision for the campus, incorporating an expansion of HWU's activities, relocation of part of Orkney College (UHI)'s marine archaeology unit, development of a wider research partnership (to include Edinburgh, Strathclyde and others), space for EMEC to grow, space for public sector agencies to establish offices (Marine Scotland and Crown Estate) and business/networking space to encourage wider collaboration across the marine renewables sector in Orkney. Discussions also include formalising links with the Environmental Research Institute in Thurso (UHI) to ensure they are built into the wider campus.

Projected impact of the development of an Orkney Renewables Centre/Campus points at 74 additional direct FTE's, excluding consideration of any construction activity linked to the project. However, **the overall impact would be to cement the reputation for the H & I as an International Centre for Renewable Energy**.

Photo-speculation of incorporation of the Primary School within the OldAcademy site (Courtesy Gareth Davies)



CASE STUDY 2 : The Centre for Health Science, Inverness: Collaboration in Health

Background

Completed in 2008 the Centre for Health Science is located in Inverness the capital city of the Highlands and is a regional hub bringing together the public, private and academic sectors to be a focus for excellence in health science research, education, training, patient care and business development.

The Centre was developed and is owned by the regional development agencyHighlands and Islands Enterprise (HIE) and supported by funding from the European Regional Development Fund (ERDF). The reason for HIE being at the centre of this development was its firm belief that the economic future of the Highlands and Islands is closely linked to the creation of a vigorous knowledge economy and that the healthcare cluster is a vital component of this. The development also fitted well with the aspirations of the University of the Highlands and Islands (UHI) and its Health Faculty and the enlarging role of NHS Highland with its new responsibilities for healthcare provision for Argyll and Bute. It also fitted with the increasingly important position that Lifescan Scotland occupies in Inverness as the largest medical device company in Scotland and major player in the world diabetes therapy sector.

The vision for the CfHS was to incorporate all the key players in the local healthcare sectors, as well as to address changes within the marketplace. Its ethos is to stimulate innovation, interaction and growth to achieve increased collaboration, knowledge transfer, improved clinical outcomes, publications and commercialisation.

The Centre quite uniquely contains:

- 4 universities; University of Stirling, Aberdeen, Glasgow School of Art and UHI
- 5 teaching / training centres
- 3 research institutes including the Highland Diabetes Institute a collaboration between NHS Highland, LifeScan Scotland and UHI
- 2 NHS patient departments
- 2 research enabling departments including 1 of only 5 Clinical research facilities in Scotland
- Business units for commercial companies

Impact:

The Centre for Health Science management team formed by HIE has been instrumental in encouraging the many research and innovation collaborations which have taken place in CfHS.

The Centre has been hugely important to the region and has acted as a catalyst to grow a critical mass in the life sciences sector by creating high quality jobs, generating income and offering exciting new opportunities for training and research.

In statistical terms the Centre for Health Science has:

- 8 organisation, 17 departments
- 280 employees
- 98% occupancy
- Over 600 students; undergrad, postgrad, PhD
- More than 250 CPD courses/yr
- GVA - £6.2 million/yr
- Median gross salary was 46% higher than that of Scotland.
- Over 70 research projects have taken place attracting over £6m of funding.
- Encouraged commercial and business spin out activity
- Initial £25m investment has leveraged a further ~£25m from partner contribution to 2008
- Further investment ~ £660k in 2010
- Further investment ~£450k 2011/12

The existence of the CfHS also played a crucial part in LifeScan Scotland locating their entire diabetes research and development into blood glucose monitoring in Inverness.

Future plans

The Centre for Health Science (CfHS) aims to expand on to Inverness Campus with its development plans focusing on key issues facing rural healthcare professionals.

At the core of this new development is a multi-disciplinary health centre that will provide healthcare for the local community and student population with the potential, through time, to include the provision of a sports medicine facility, teaching facilities and healthcare research.

Further research themes are being incubated in the fields of Primary Care, Digital Healthcare and Rural Health and Wellbeing. The use of digital technology in healthcare, both in the prevention and management of disease and in serving rural patients, will be a key focus of interest.

CASE STUDY 3 : Sabhal Mòr Ostaig, Isle of Skye: Fragile to resilient community

Background

Sabhal Mòr Ostaig (SMO) is a Company Limited by Guarantee with Charitable Status. The organisation is based in Sleat, South Skye, and has been operating for 40 years. SMO is internationally recognised as Scotland's National Centre for Gaelic Education and Culture. It is a partner institution in the University of the Highlands and Islands (UHI) with degree courses that include Gaelic Language and Culture, Scottish Culture and Heritage, Media Studies, Gaelic and Traditional Music. In the academic year 2012/13, 188 students attended Higher Education courses and 771 students attended the short course programme. SMO's growth in research capacity has resulted in it leading the SFC/Govt funded research pool, Soillse. HIE has provided significant financial resource to the developments at SMO over the last two decades, recognising its value in the widest sense, in terms of academic, social, economic and cultural advances it delivers.

Impact

SMO is part funded by a range of public bodies and earns a considerable proportion of overall income privately from sales in short courses, accommodation, conferences, and events - total turnover is around £5 million per annum. The new draft economic impact study for SMO highlights impacts including SMO supporting 155 jobs, with an on site average wage of £27k and employment income impact of over £4m pa.

A number of businesses have also grown alongside SMO including Seallahd, a TV production company, and Young Films, a national award winning Film and TV company. The Fàs facility includes a professional television studio in conjunction with MG Alba. It also houses a gaelic childcare facility. The development of Fàs in 2008 has supported a further 33 FTE jobs within South Skye, and around 52 FTE's throughout the area.

In addition to these economic and academic impacts, the development of SMO has resulted in significant community benefits, which support HIE's approach to creating rural resilient communities. SMO has grown successfully and is the main reason that Sleat is now not

considered to be a fragile area. It also plays a key role in helping to support our fragile areas by growing opportunities for Gaelic language development and use, recognising that our fragile areas and our Gaelic speaking communities are very closely aligned. Census data confirms that Sleat's popoluation in 1973 was 452. This has doubled to circa 900 in 2011. Similarly, the Primary school roll in early 1970's was 25, and is now, in 2013, three times that level at around 75.

The 'SMO story' exemplifies how the introduction of Higher Education and knowledge exchange processes and activities can provide benefits not only to the economy of local communities and businesses but also to the overall culture and social wellbeing of the whole place. This has been achieved through the institution itself and its activities becoming embedded in the community frompre-school through to post graduate.

Future Plans

Sabhal Mòr Ostaig, through an innovative partnership with the Clan Donald Land's Trust, Sleat Community Trust and Sleat Community Council, is currently advancing a visionary proposal for the development of a new HighlandVillage for the 21st century. This exciting, iconic and groundbreaking plan offers the opportunity to create a sustainable community development, in a world class environment, driven by the common interests of social, economic, cultural and environmental sustainability and with a first class university campus at its heart. This partnership proposal offers Sabhal Mòr Ostaig an exciting opportunity for strategic and integrated expansion of its own estates and a unique opportunity to further consolidate its position at the heart of the local community. It's future growth will include:

- new job creation in facilities, conference centre and leisure management
- community benefit and social impacts from the creation of new income generating assets – particularly conference, events, cultural, sports, and recreational venues
- community benefit and social impacts from the local Sleat Community Trust (SCT) through newrevenue streams as biomass would be the source of heat - their recent Forest land buy-out wouldhave a further outlet for sales - increasing SCT turnover and supporting their financial sustainability
- social impacts from the growth of student numbers linked to the overall development of UHI and the opportunity to retain a youthful population in this part of the Highlands and Islands

This project is the first phase of SMO starting the long term development of the 33 acre Kilbeg site. The long-term vision is about developing a Community Campus around the existing College buildings. This project therefore starts with installing the underpinning infrastructure - road, utilities, site servicing and levelling, and a new college building, all required to create the conditions for future development. NeighboursClanDonaldLands Trust have sold the Kilbeg site to SMO enabling SMO to undertake this long-term development.

Beyond the phase one underpinning infrastructure, the Kilbeg vision includes a mix of sports facilities, office space, commercial development, conference venue and housing. SMO describe the overall vision as a new "Highland Village for the 21st century", and as an, "exciting, iconic and groundbreaking plan offering the opportunity to create a sustainable community development, in a world class environment, driven by the interests of social, economic, cultural and environmental sustainability with a first class university at its heart'.