The South of Scotland is to benefit from an investment of just over £6.6 million pounds as part of plans approved by the South of Scotland Economic Partnership (SoSEP) to enable the creation of a digital learning platform and infrastructure that aims to provide access to learning opportunities for individuals of all ages, irrespective of location. The investment will see a partnership between Dumfries & Galloway College and Borders College to develop a network of Science, Technology, Engineering and Maths (STEM) Hubs across the South of Scotland, to address the immediate skills gaps in areas such as Energy and Engineering, Construction and Care. These will be accessible to school and college students and employers wishing to try the latest technologies or upskill their current workforce. A number of digital spokes, located across the South of Scotland in schools, community venues and in local business premises provide inclusive access. Lessons delivered elsewhere will be open for others to participate in, along with online learning resources. Through this investment, the colleges will collaborate to develop their offer within their respective regions, especially at higher levels, and grow their online flexible learning provision over the next five years.

Commenting on the announcement, Carol Turnbull, CEO of Dumfries & Galloway College, said:

“A key role of colleges is to support inclusive economic growth through vocational, professional and technical education and training, and by supporting business innovation. This investment will enable Dumfries and Galloway and Borders Colleges to transform their educational delivery to meet the needs of learners, industry and communities, and to support business innovation through the use of technology.”

Angela Cox, CEO of Borders College, said:

“I am delighted that the SOSEP recognises the importance of skills in supporting our businesses to improve productivity. This project gives us a platform to transform how we provide learning opportunities for everyone within the Borders Region. I look forward to collaborating with Dumfries & Galloway College and other educational providers as we develop and expand our curriculum offer, and see this as the start of a long-term transformation of our educational delivery.”
THE PROJECTS

Care Career Academy development

As part of the ambitious plans Borders College and Dumfries and Galloway College will see a significant investment in their respective Care Career Academies. These were set up to encourage individuals to consider the Health & Care sector as a career choice and support programme. The creation of enhanced facilities allowing for greater flexible learning opportunities utilising digital technologies via the planned learning hubs, and the adoption of the latest technologies will prepare the current and future workforce to adopt new techniques and practice. This innovative partnership between Borders College and Dumfries and Galloway College will allow for the sharing of knowledge and expertise between the two organisations through the utilisation of digital platforms, which will allow training to be provided remotely to users and broaden the training offer from foundation to degree level.

STEM Hubs

Collaborative working between Borders College and Dumfries and Galloway College will see the two organisations addressing the skills shortage and accessibility of innovative technologies within the Construction and Engineering sector. Borders College will lead on Construction and Sustainability whilst Dumfries and Galloway College will lead on Engineering and Renewables, bringing to local employers the latest technologies that are transforming these industries.

Borders College in Hawick will see the campus reconfigured to provide an enhanced provision for the innovative STEM Hub in Construction and Renewables. Once in place the Hawick Campus will promote training and development of new and emerging technologies in the construction and renewables industries. This exciting and essential Hub will become a key element for both local and national companies, along with schools and communities, in the upskilling of both the current and future workforce.

The development of the Hub in Dumfries and a mini Hub in Stranraer has seen support given from not only the Energy Skills Partnership but also local and national businesses, with the potential for the Stranraer Hub to open up links with Ireland.

Engineering and Renewables is a much needed and developing sector across the South of Scotland. The facilities will provide cutting edge renewable techniques supported by innovative learning approaches. Accessibility across the South of Scotland will be enabled by both hubs being virtually connected.
Scottish Borders Council, SBCares, Borders College and NHS Borders have come together to support the delivery of the integrated health and social care partnership by creating the Borders Care Career Academy, which provides a range of flexible training opportunities. This will enable individuals across the Borders to learn while they earn, develop a range of skills and offer progression onto their chosen career pathways.

The focus is to develop learning and skills opportunities in the work place, on demand, and to provide portable access to learning using digital technologies.

Health and Social Care integration is underpinned by legislation to have a Health and Social Care partnership for every NHS Board in Scotland.

What the academy will look like
The Care Career Academy will involve the redevelopment and enhancement of the Borders College campus in Galashiels. It will see internal works on classroom space, creating a suite of practice-based learning environments that include a home area and a hospital bedroom. The two training rooms will consist of a clinical skills lab equipped with Simtech Mannequins, a simulated hospital acute bed space area and a simulated home environment, including a kitchen, bathroom and an outdoor space, all equipped with the most current digital home health care solutions.

With this in mind, Borders College is already working closely with NHS Borders in the development of our new clinical skills lab, and are working closely with SBCares in establishing our new home care training area.

We are also in liaison with Dumfries and Galloway College in the planning of our new training areas and training provision.

As a result of this positive collaboration, we have now established our equipment requirements, we are now working through the procurement process, and will be purchasing our new equipment in the near future.

Future ambition
As principal providers of health and social care training in the Scottish Borders, the future ambition is to create a Hub that provides excellence in training and education that reflects the changes to service delivery, where less people will go into hospital and more people will be looked after in their own home and local community. The training and education of the current and future workforce is essential in taking forward these objectives. Staff and carers will learn how to look after people at home, how to use equipment and technology to stay independent and how to use and give health checks to inform positive interventions.

As people are living longer there will be more people accessing health and social care services but there will be less money to provide these services. Different training and education providers need to work together more effectively and efficiently to make services better for everyone.

For further information, visit the Borders College website or to discuss the BCCA provision contact Jayne Gracie, Assistant Principal – email jgracie@borderscollege.ac.uk or call 08700 50 51 52.
INNOVATION STEM HUB, HAWICK – BORDERS COLLEGE

Innovation STEM Hub, Hawick

**Vision**
Our vision for the College, and the South of Scotland region as a whole, is for the area to have the best-connected, future-proofed learning systems in the country. This means that every child and potential student can access a wide range of learning within their own community.

**What will the Hub do?**
The STEM Hub will give businesses access to state-of-the-art technology, including 3D printing, virtual reality and Business Information Modelling (BIM) software, as well as a focus on sustainable energy provision. The Hub will complement and support the STEM Hub centred in Dumfries and Galloway. The Hub will enable opportunities for upskilling and re-skilling to the current and future workforce, improving the competitiveness and productivity of South of Scotland businesses. Industry training programmes will be offered, the curriculum offered to College students will be adapted and enhanced to include use of the technologies and innovations. The College will work with the Region’s schools to deliver STEM masterclasses as part of our school academy programmes.

**What will the Hub look like?**
The Hub will involve redevelopment and enhancement of Borders College’s current Centre for Business Development, based in Hawick. It will see internal works to extend the upper floor of the Centre, creating flexible space for businesses and individuals to meet. The Hub will give businesses and communities access to technologies that are transforming our industries, including 3D printing, virtual and augmented reality, BIM software, analytical software and drones.

The Hub will include the extension of the College’s current partnership with Worcester Bosh, allowing access to renewable technologies in the provision of heat and power. Added to this will be an “ECO room”, allowing access to the latest technologies in low-carbon and sustainable construction.

Included within the Hub will be three classrooms and linked to the ECO room there will be workshop space available for studying and testing renewable technologies, such as air tightness, insulation and thermal imaging.

**What is our future ambition?**
The Hub will allow increased capacity to deliver a wider range of training to businesses and individuals, and a wider curriculum offer to our students. This has the potential to widen further to include access to degree level qualifications in the Borders. The shared access with Dumfries and Galloway will have potential to extend further geographically, attracting income to the region for commercially available training.

**Where are we now?**
Tenders are currently out with potential contractors and are due back in by the 18th January. The successful contractor has a completion date of the 16th August to ensure that we are up and running for the next academic session.

For further information, please contact Davie Lowe, Assistant Principal – email dlowe@borderscollege.ac.uk or call 08700 50 51 52.
Digital Hub and Spoke Project update

The College has identified a set of rooms and spaces across Borders College campus sites that will be redeveloped as ‘Digital Hub’ rooms. Digital Hub rooms are modern video conferencing enabled spaces on campus sites. The included sites are Scottish Borders Campus, Newtown St. Boswells, Tweedbank and Hawick.

- Initial ‘Digital Spoke’ rooms are planned for Eyemouth, Earlston, Peebles, Selkirk and Kelso High Schools. Digital Spokes are modern video conferencing enabled spaces on sites other than Borders College campuses.
- Digital Hub and Spoke specifications have been finalised. These include High Definition touchscreen displays, high specification conference video cameras, advanced microphone arrays and updated learning spaces. This equipment will combine to enable an outstanding remote or on-site learning and working experience for staff and students.
- New online and remote delivery courses currently undergoing planning/resource building including – Higher Psychology, NPA Health and Social Services, PDA Acute and Community Care, NPA Events, HNC Electrical Engineering and NPA level 6 Software Development.

**Ongoing/upcoming work:**
- Installation work for Spoke/Hub room equipment is planned through March/April.
- A demonstration and pilot of a the VScene web-based video conferencing system is planned with external partner Ajenta and Dumfries & Galloway College.
- A demonstration of an innovative automated laptop loan locker system with LapSafe Products is currently planned. This will allow the College to look at options for automating the deployment of mobile devices and a BYOD (Bring Your Own Device) approach for the new learning spaces in the Digital Hubs and across the wider College.
- Continued course development and collaboration between Scottish colleges.
- Planning is underway for a staff pilot of a new video conferencing system as part of future training and testing.

**Proposed Digital Hubs**

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<th>1.007 Computing Suite</th>
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<td>Hawick</td>
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**For further information**, please contact Conor Bradley, E-Learning Manager – email cbradley@borderscollege.ac.uk or call 08700 50 51 52.
Dumfries and Galloway College overview

STEM Hub Dumfries – good progress has been made, and drawings remain on schedule. Contact has been made with SEPA around the permits required for a new composter and rainwater harvesting system. Onsite surveys have taken place over the past week and no issues have been raised at this point. Telephone discussions have taken place with RSP with regards to the use of renewables within the build process to incorporate the HD development.

Mini STEM Hub Stranraer – An issue has been identified with the build process at Stranraer, where a major power cable is in the way of the proposed build. This is in the hands of RSP at this time to progress.

Care Academy progress – Progress continues to be made and final drawings have had good input from service users.

Digital Technology – VSscene have given the college some equipment to trial, and this has proved successful. Some minor issues have been discovered and resolved. The trial period was extended to the 15th December, but there have been successful connections to VC units, PCs Laptops, Ipads and Phones. Visits around Scotland have taken place to witness the latest and best technology being used in teaching. This included visits to Barony for digital classroom experience, Inverness to observe UHI teaching and to the Western Isles to observe the teaching of Gaelic in schools and colleges.

Staff development – is taking place with key individuals being approached to assist with the development of both staff and materials. The role of e-learning technologist is progressing well and the College has identified staff who may take on this role. Discussions are ongoing with two staff members who may be in a position to work with curriculum staff to transfer current learning material into electronic resources which can be delivered across the hub and spoke network. In line with this, the College has started the process of staff development to ensure that curriculum staff have the necessary skills to deliver digitally. The Head of HR has completed an ICT skills audit. Results of this are being examined and appropriate training will be sourced to meet needs.

Curriculum development – Courses have been identified for delivery commencing in August 2019. Academic staff are currently working on developing a three year rolling curriculum plan for delivery through the project:

- Care staff will be developing an SQA National Progression Award (NPA) in Health and Social Care: Promoting Re-ablement (which is an SCQF level 6 award) course over the next two academic blocks and will offer this course from
South of Scotland Skills & Learning Network (SOSEP) PROJECT UPDATE

DUMFRIES AND GALLOWAY COLLEGE OVERVIEW

August. This will be complemented by HN in Social Services, which is being developed by Borders College.

• Engineering – Good progress is being made by our engineering department on the provision of an HNC in engineering to be delivered digitally. Units within the course may well also be used in short courses for “upskilling”. As with the care course, this will be developed over the next two academic blocks and is scheduled for delivery in August 2019.

• Renewables – Dumfries and Galloway College also plans to offer our 12 weeks CREST course through this project, and again, good progress on developing this course has been made.

• Short courses / upskilling – The Head of Service for short courses, open learning and work-based learning has produced a new curriculum plan and is currently deciding upon a small number of courses to offer via the project.

Video conferencing technology
Meetings have taken place with Ajenta to discuss VC requirements for the hubs / spokes. It has been agreed in principle that both Borders and Dumfries and Galloway Colleges use the same equipment. A number of other colleges and universities are planning to migrate to this technology.

What is Vscene?
Developed specifically for the research and education sectors, Vscene removes geographical barriers and enables remote conferencing and collaboration. Vscene is a video conferencing service that has evolved out of education and research to deliver a seamless and intuitive service that meets the needs of its users. It allows you to establish links with other organisations or campuses, record lectures / classes, facilitate group work, assessments and feedback sessions or simply have a video conference.

Vscene facilitates new opportunities in teaching and learning as, when used as a virtual classroom environment, remote students or those with mobility difficulties or other impairments are able to participate in learning using the Vscene platform. Ajenta and Jisc are working in partnership to bring the next evolution of Vscene. Ajenta are responsible for the management and development of the service whilst ensuring that it remains competitive and innovative. Ajenta have exciting plans to enhance the Vscene service to better meet user needs over the next 12 months.

Staff development visits
Visits have taken place to E-Sgoil and UHI Inverness to support staff development. A brief account of these visits is as follows:

Development Visit: UHI Inverness, Inverness
Calum Rodgers, ICT Services Manager

As part of the fact-finding for the Digital Hubs and Spokes, we visited the An Lòchran building situated on the Inverness campus of UHI. This is a purpose-built facility that houses Highland and
DUMFRIES AND GALLOWAY COLLEGE OVERVIEW

Island Enterprise, the research and development departments of UHI, and the research and consultancy divisions of SRUC. The partnership aims to encourage young people to get more involved in STEM-based subjects.

The two main rooms of interest with regard to the SOSEP project were the digital display room (#hellodigital) and the STEM Hub. The digital display room has a large matrixed screen made up from nine smaller screens that can be used to display any multimedia desired. It features screen casting, allowing any device to connect to it without the use of wires. It also has video conferencing facilities allowing remote meeting attendance from anywhere in the world.

The STEM Hub is a flexible space that can be used for events. It features mobile CTouch interactive displays, which can be positioned anywhere in the room and can connect wirelessly to the UHI network. Floor boxes are placed strategically in the room to provide power and data as required. After seeing both of these rooms it allowed me to have some good ideas for our Hub spaces and I have already been looking into mobile screens and multimedia walls. These will give us the necessary technology to deliver STEM in the best way possible.

Development Visit: E-Sgoil, Stornoway, Isle of Lewis
Michael Youd, Head of Human Resources
Laura Webster, Head of Curriculum

E-Sgoil was established in August 2016 as a result of a number of different geographic, demographic, talent and workforce management issues experienced by the Education Service within...
the Western Isles to primarily focus on the Gaelic medium. E-Sgoil has 200 pupils within the Western Isles and 500 in total, not including adult returners. One further impetus for change was the historical issues for school pupils of attending college who had high drop-out rates, travel distances and poor online resources, which were not student-focused with historically low attainment, particularly around Christmas.

■ E-Sgoil makes use of the latest in Web and Cloud Technologies, which have been developed over the past decade via the Scottish Schools Digital Network (SSDN), which was brought about by the Scottish Government, Education Scotland and partner stakeholders including Local Education Authorities.

■ E-Sgoil now delivers across Scotland and also around the world, not just in Gaelic. Delivery takes place across Scotland from Shetland in the north, Aberdeen City in the east, and Argyll and Bute in the south-west. E-Sgoil also delivers internationally to New Mexico, Thailand and Canada. It is run as a business by charging for delivery to other local authorities at a charge of ‘cost plus 10%’. The model has been so successful that the Welsh government have replicated and Highland Council are now under e-Sgoil.

■ E-Sgoil clearly have a model which works, and Dumfries and Galloway College can take significant learning from the experiences. There are possible options for collaboration with e-Sgoil, which we should pursue to allow staff to develop and learn digital and remote delivery methods, and establish a collaborative relationship.