

What links reindeer tracking and 3D printed textiles?

College innovation!

Innovation Vouchers are available to fund collaborative projects between Scottish businesses and colleges. Here we learn about some of those projects

In the academic year 2017-18, Scottish Funding Council Innovation Vouchers valued at more than £24,000 were awarded to fund five individual collaborative projects between Scottish businesses and colleges.

One of these was between independent fashion designer Karen Hamilton and Dundee and Angus College. Karen wanted to produce a prototype using different printing filaments which would allow her to print unique lace designs that can be used

as a textile. Her pioneering idea was that the lace fabric would be printed in a single piece and not printed in component parts that are then joined together.

This is a new innovative use of an established printing technique, as no other company or designer is using the technology to produce textiles, with the potential to transform the industry. Therefore, support was required to access the specialist equipment and resources.

Karen was able to collaborate with the

Learning Lab at the College, which is a space promoting the use of innovative technology through hands-on learning, after £5,000 was awarded to the collaboration. She was provided with guidance, expert knowledge and practical supervision of the use of equipment as she endeavoured to develop innovative lace fabric using 3D printing.

Brian Riley, Business Advisor, Dundee and Angus College, said: "From the perspective of the College, this is an example of cutting-edge research and development activity within commercial fabric design and construction and depending on outcomes, could inform future curriculum content and afford student project opportunities.

"The project has provided an excellent



Image © Alex Smith, Cairngorm Reindeer Herd

opportunity to engage in applied research – something not normally associated with the college sector – using internal resources and academic staff with expertise in digital and related areas of work activity. It represents a fine example of commercial and academic partnership and will serve as a good model for future such collaborations.”

Innovation Vouchers have helped to fund several other industry-led collaborative projects, including three with City of Glasgow College.

City of Glasgow College is collaborating with Altitude Thinking to develop, construct and test a prototype of a programmable drone that will be used to navigate Scottish waterways while producing accurate, real-time reports on pollution levels and water conditions.

The £5,000 Innovation Voucher will allow the partners to look at engineering development for subsequent drones with enhanced capabilities to remove litter and other pollutants from waterways using suction pumps.

Douglas Morrison, STEM and Innovation Lead at City of Glasgow College, said:

“The Innovation Voucher Scheme has opened up new opportunities to support the College’s SME (small to medium sized enterprises) partners in realising productivity gains and improved performance through innovation. We are currently working with three companies on projects aiming to enhance water quality and reduce water bound refuse, to reduce the time taken to survey historic buildings using thermal imaging drone inspections, and to connect communities through virtual reality conferencing.

“The scheme rightly recognises the vital role that colleges play in supporting local businesses to develop their workforce and introduce new products and services. Our academic teams are also finding these collaborations incredibly valuable, with learning from project activity being integrated into curriculum delivery for our students.”

New College Lanarkshire and charity New Rhythms for Glasgow (NRG) also received £5,000 through the scheme to develop an online service platform for disadvantaged and excluded people who wish to either use or contribute to the creative industries in the local deprived area.

The charity in North Glasgow provides music and arts workshops and opportunities for people living in areas of high deprivation who experience a range of barriers to accessing creative industries.

John McNair, Head of Regional Business Development at New College Lanarkshire, said: “This is a great opportunity for the College and NRG to collaborate and co-create a targeted digital technology solution that supports the charity’s aim of providing a more sustainable and innovative service.”

A very different kind of collaboration between The Reindeer Company Ltd and Inverness College UHI is that of the Secret Lives of the Cairngorm Reindeer. This project, which has recently been granted a £5,000 Innovation Voucher, will use cutting-edge tracking technology to enhance reindeer management and the experiences of people visiting the reindeer herd in the Cairngorms as well as the online experience. The collaboration is in its early stages, so it is a case of “watch this space”.

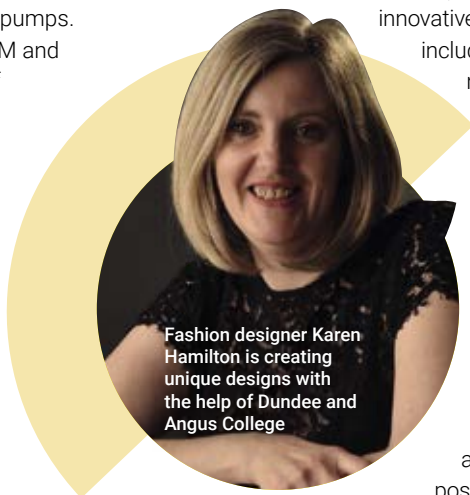
James Frew was awarded an Innovation Voucher to collaborate with West College Scotland (WCS) to develop a new innovative training planning process, including monitoring certification renewals, developing individual training plans and measuring the impact of training through Achievement Measurement Indexing.

Andrew Fogarty, Head of Energy and Engineering, West College Scotland, said: “The Innovation Voucher has allowed James Frew and WCS to collaborate positively to implement business improvements and develop more

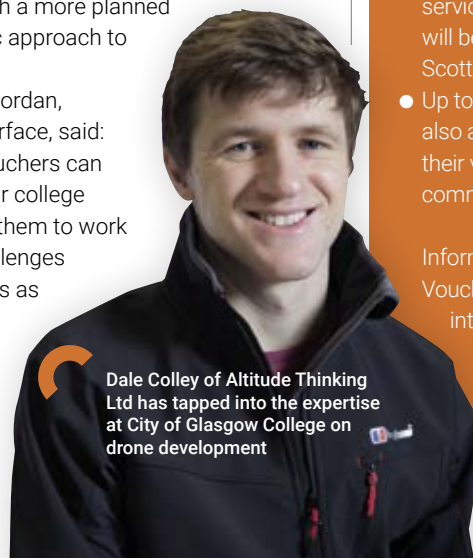
meaningful relationships that are mutually beneficial. In doing so, our staff at the College have been able to use this knowledge to work with other organisations to help them improve and enhance the products and services that they offer.”

It is envisaged that whilst improving the relevance of training interventions, significant cost savings and improved efficiency will be realised through a more planned and systematic approach to training.

Dr Siobhán Jordan, Director of Interface, said: “Innovation Vouchers can be beneficial for college staff, enabling them to work on real-life challenges with businesses as they research and develop products, services and processes.”



Fashion designer Karen Hamilton is creating unique designs with the help of Dundee and Angus College



Dale Colley of Altitude Thinking Ltd has tapped into the expertise at City of Glasgow College on drone development

Funding for innovation

Did you know that funding is available for colleges to work with businesses and organisations for research and development activity? Up to £5,000 of funding aimed at encouraging first time partnerships between a company and further education college is available through Interface, which administers the Scottish Funding Council’s Innovation Voucher Scheme.

The main highlights of the Scheme are:

- The value of a Standard Innovation Voucher is between £1,000 and £5,000, which covers the staff project costs and is paid directly to the college.
- The company contributes an equal value in cash or in kind (such as staff time, materials or equipment) or a combination of both.
- All SMEs (from sole traders up to 250 employees max), social enterprises and third sector organisations with main company operations in Scotland can apply for a voucher to partner with a Scottish college.
- Businesses are eligible to apply for one Standard Innovation Voucher with a college partner. Follow-on Innovation Vouchers are available to continue the relationship.
- Projects must be innovative (a novel/pioneering idea) and lead to new products, services or processes that will benefit the company and Scottish economy.
- Up to four businesses can also apply together to pool their vouchers to solve a common issue.

Information on Innovation Vouchers can be found at: interface-online.org.uk/how-we-can-help/funding/standard-innovation-vouchers