

Universities  
Scotland



# made it happen

**Enterprise & entrepreneurship education  
in Scottish higher education**



**PROFESSOR ANDREA NOLAN**  
Convener of Universities Scotland

“Three years ago, in 2015, the sector published *Making It Happen*: our action plan for all 19 higher education institutions. We were inspired by the growing culture of entrepreneurship taking hold within our staff and student community. We wanted to accelerate it so we gave ourselves a challenge: eight actions that universities could take over three years to build on this enterprising spirit.

Three years later, I am delighted to introduce *Made It Happen*. The sector has not only delivered on the actions but in some instances, universities and our graduates have exceeded them beyond our expectations.

We’ve also caught up with some of the student entrepreneurs first featured in *Making It Happen* to see how their ventures have grown or pivoted in that time. Their success is remarkable and it’s heartening that they see their time in higher education as central to what they are doing now and that so many still have a very close relationship with their universities.

Our graduates are a huge asset for Scotland and for the growth of our economy; they are ambitious and motivated. Higher education helps to prepare people for so many possible futures and most importantly it helps develop the skills, support and inspiration people need to create their own.”

We are very grateful to Ceri Nursaw and the National Centre for Entrepreneurship in Education (NCEE) whose as yet unpublished data, from a survey of university Heads of Enterprise across the UK, features heavily throughout this report. The NCEE expects to publish the findings of its UK study in early 2019 but has allowed us to feature the Scottish data in *Made it Happen*.



# INTRODUCTION

Student and graduate entrepreneurship has really accelerated since 2015. Three years ago, it was clear that universities were building real momentum behind their enterprise agendas. *Making it Happen* was a commitment, by universities, to a set of eight actions to drive this forward. *Making it Happen* also profiled a cohort of 17 student and graduate entrepreneurs who were in the very early days of launching their ventures at that time.

This report provides a check-in on progress, or an entrepreneurial scorecard of our work after three years. Universities have exceeded many of the eight ambitious goals that we set ourselves and have taken big steps forward on others. Collectively, our university communities have played a substantial role in supporting Scotland’s wider goal of becoming a “Can Do” nation. We’re proud to have delivered progress at a national level but prouder still of the success enjoyed by the graduate entrepreneurs we first featured three years ago. You can catch up on their achievements in summary on pages 6 and 7 and in more detail for some of them throughout this report.

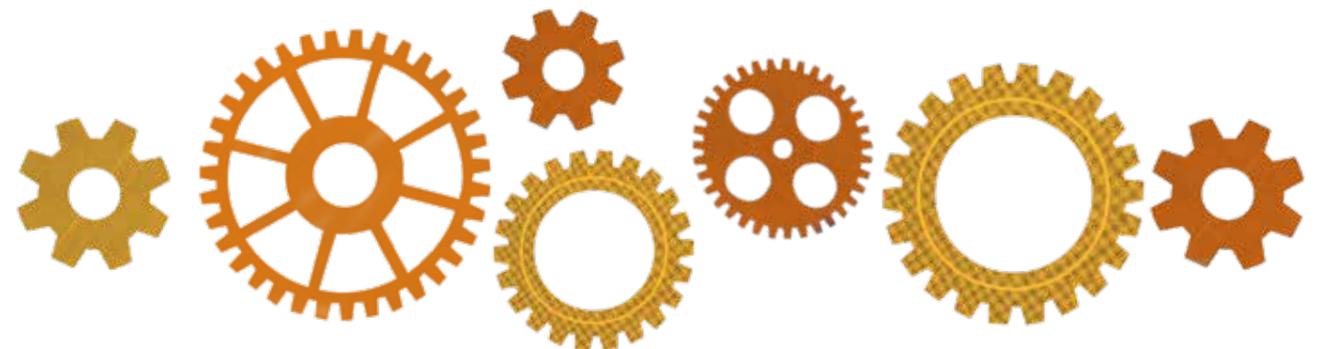
There are some common themes running through the collective success of our cohort of graduate entrepreneurs, no matter the venture or sector they have launched into:

1. The first is how many of them are already exporting as part of their business model and are working internationally.
2. Second, is a theme of social enterprise and the common good as the motivation behind their success.
3. We see examples of the need to pivot, to change direction or find new challenges after a successful buy-out. The need for reinvention whether through success or failure is part of the life of an entrepreneur. Both offer valuable lessons. Increasingly, reinvention will be an important skill for everyone, whether employed or self-employed, with the pace of change affecting the future of industry and employment.
4. Last, and a source of pride and affirmation for our work, is the extent to which the graduate entrepreneurs see their time at university as instrumental to their ability to have started and grown their enterprise. Many are still actively connected to their universities and are now providing advice and support for students.

Graduates increasingly see entrepreneurship as a viable path. A 2018 independent study found that 8.6 per cent of UK university students have a business concept and actively intend to run that business as their career after graduation.<sup>1</sup> This compares to 5.1 per cent of the wider UK population who are actively trying to start a business.<sup>2</sup>

Our goal was never that every graduate should become an entrepreneur. The goal is to ensure that every graduate has developed the entrepreneurial and enterprising attributes of creativity, drive and resilience, amongst others, during their time at university so they are well prepared to thrive in whatever they do, in whatever sector they choose to work throughout their careers.

The evidence in this report confirms there’s every reason to be confident that our graduates are developing these attributes in Scotland’s universities.



# OUR ACTIONS FROM 2015

In 2015, Scotland's 19 higher education institutions committed to take eight actions to do all we could to support enterprise and entrepreneurship in our student and staff community. The eight actions were:

## 1

We will review the curricula we teach to further embed enterprise and entrepreneurship. We have asked QAA Scotland to work with us and to spend 2016-17 focusing on a cross-sector project on enterprise and entrepreneurship in higher education.

## 2

We commit ourselves to a 25 per cent increase in the number of student start-ups over the next three years.

## 3

We commit ourselves to a 25 per cent increase in the number of students and staff taking part in enterprise and entrepreneurship workshops and similar activities over the next three years. This would bring the total to over 14,000.

The culture in our institutions is important. We will drive further cultural change by:

- Exploring how collaboration might increase access to incubation services and mentoring. This should include innovative ways to ensure our students living in rural and deprived areas can benefit.
- Working with our alumni and other networks to identify more entrepreneurs who can support our plans, including their contribution to the enterprise training we can offer Scottish businesses.
- Bringing together those who train postgraduate research students in Scotland in a Forum hosted in January 2016 to ensure that enterprise and entrepreneurship is a part of the training that early-career researchers receive.

## 4

We will work with our partners across the public agencies to explore how we can host more national and local business creation services. In doing so universities can enhance their role as hubs for entrepreneurship and innovation support in their communities.

## 6

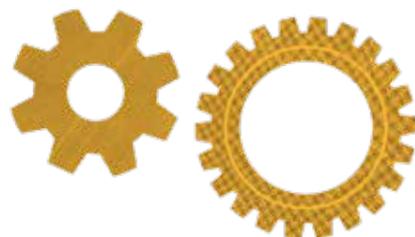
We will offer every student an opportunity for work-related experience during their degree programme including placements, mentoring, enterprise opportunities, field trips and case studies.

## 7

Where universities offer work placements to students we will ensure it is fair work; either paid and/or credit bearing as part of the curriculum. This will take some time but we want to get there.

## 8

We will provide the Innovation Scotland Forum and Scotland Can Do with regular updates on our achievements.



# MADE IT HAPPEN:

an entrepreneurial scorecard of higher education's acceleration of enterprise.

## 1

**89%** of Scottish universities now embed enterprise & entrepreneurship in the curriculum.<sup>3</sup>

## 2

Student start-up numbers have grown by **53%** since 2015, to **661** active companies, far exceeding our target growth of **25%** over three years.<sup>4</sup>

## 3

**17,000** staff and students took part in enterprise and entrepreneurship workshops in 2018, which beats our goal of **14,000**.<sup>5</sup>

## 4

4a.

- 83%** of all Scottish universities have an on-campus incubator for graduate and staff start-ups.<sup>6</sup>
- Since 2015, we have identified **8 new** incubators in Scotland, created by universities either alone or in partnership.<sup>7 8 9 10</sup>

4b.

- All but one of Scotland's universities involve their alumni in their entrepreneurial plans.<sup>11</sup> The remaining institution plans to start doing so.
- 78%** of Scotland's universities deliver entrepreneur-led events.<sup>12</sup>

4c.

- 86 companies** with **high-growth potential** have been formed by postgraduates over a three year period working through Enterprise Campus.<sup>13</sup>
- From 2015 – 2018 there were **250 applications** from postgraduate students to Converge Challenge, Scotland's leading higher education company creation competition. Postgraduates make up **30%** of all competition applications.<sup>14</sup>

## 5

Universities are hosting at least six new business creation or support services since 2015.

## 6 & 7

- 100%** of Scotland's universities organise work placements for their students.<sup>15</sup>
- Over **1,000 people** are now studying and working towards graduate apprenticeships, which are both paid and credit-bearing, and are delivered by **12 universities**.

## 8

"Universities Scotland has been an active and helpful contributor to the development of innovation policy in Scotland..." Scotland Can Do.



# GRADUATE ENTREPRENEURS, TAKING ON THE WORLD

In 2015 we featured 17 entrepreneurial students and graduates in Making it Happen. Three years on and their success is off the chart. We're very proud to share an update on their achievements.



**Christopher McCann**, studied at the University of Dundee. He founded & is now CEO of Snap40, wearable artificial intelligence to help manage patient healthcare.

**Company growth:** The company still has wearable, wireless health monitoring devices as its central product but has expanded to focus on what happens after a patient is discharged as well as monitoring clinical trials. Snap40 raised £8 million in funding in what is thought to be the largest seed round ever for a Scottish start-up and now works with some of the world's top medical centres. Headquartered in Edinburgh, Snap40 has opened an office in New York and doubled its staff over 2018 to 18 people.

**James McIlroy & Matthew Bracci**, graduates from the University of Aberdeen, founded EuroBiotix, a social enterprise focused on helping sufferers of C. diff.

**Company growth:** EuroBiotix registered as a community interest company to serve their vision as a company with a primary aim to support patients suffering from microbiome mediated conditions. Eurobiotix raised £500,000 in an oversubscribed seed round of investment, and the EuroBiotix team has expanded to seven. James won the title of Scotland's Emerging Entrepreneur in the 2017 BQ Live awards and got his medical degree in 2018.

**Victoria Hamilton** of VH Innovation Ltd & Recoil Kneepads has successfully grown the same business she launched in 2015. She is featured on page 8-9.

**Michael Tougher** launched Spark & Rocket in 2015, which now trades as Soundbops. Michael is featured on page 28.

**Abesh Thakur & Varun Nair** are graduates of the art school at the University of Edinburgh and they established Two Big Ears, with the support of Launch.ed, to offer immersive and interactive audio applications and tools.

**Pivot:** Two Big Ears was bought by Facebook in 2016 for an undisclosed sum. Abesh now works as a Product Manager at Facebook. The buy-out means the software is freely available to designers.



**Ry Morgan** was running Yomp in 2015, an employee-engagement platform which aimed to 'gamify' healthy behaviour.

**Pivot:** Yomp was acquired by Reward Gateway, a Software as a Service company, for an undisclosed sum in 2016. Ry took the role of Head of Wellbeing Technology with Reward Gateway for a while before co-founding his latest venture, Unmind, a B2B mental health platform which offers clinically backed tools and training. Unmind is now a 19-strong team which raised £300,000 in angel funding in 2017 and completed a £1.4m seed round in early 2018.



In late 2015 **Omar Tufayl** launched a campus-based social app called Nom Yap whilst still a third-year student at the University of Glasgow.

**Pivot:** He has since changed direction and is now focused on developing a social enterprise to help those from disadvantaged backgrounds to access nature, with an emphasis on positive mental health. He is a Forestry Commission Scotland Volunteer Community Champion and won a top accolade in the 2017 Ethnic Minority Impact Awards for his commendable work in the local community.

**Chidozie Obi-Okoye** has pivoted his business model from his first app, All Things Music, in 2015 to running FingersFingers, a company offering web and mobile solutions. Chidozie's journey is featured on page 29.

**Claire McKenzie and Scott Gilmour** launched Noisemaker on graduation and have taken their writing partnership international. Their success is featured on page 14-15.

**Agata Jagodzinska and Michael Grant**, graduates from Queen Margaret University, launched Raw Films in 2012, the same year that Agata won a Bafta New Talent Award.

**Company growth:** Raw Films goes from strength to strength with a client base across the public, private and third sectors. The company specialises in documentary-style films that tell someone's story. Highlights include working on the 500 Miles in Malawi fundraising campaign.



**Nicola Pitticas** founded Title IX, in Glasgow Caledonian University's incubator, to promote opportunities for female athletes to study and compete in the States. She won New Entrepreneur of the Year at the 2015 Business Women Scotland Awards. Nicola is now Director of Summer in the City Kids Camp, operating in Glasgow & Croydon. She still runs Title IX Tigers as a consultancy.



**Maggie Mazoleka** launched her range of MaRobert's Tanzanian cooking sauces in 2014. The company emerged from Maggie's fundraising work with SASHITA, also founded by Maggie to help rural Tanzanian communities gain access to clean water.

**Company growth:** Maggie is still trading as MaRobert's and has a loyal customer base and close relationships with high-quality retailers and food markets across Scotland helping to make the sauces a well-loved household brand.

# PROFILE

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**Name:** Vicky Hamilton, graduate of the University of Strathclyde.  
**In 2015:** I had just launched **VH Innovation**.  
**In 2018:** Managing Director of Recoil Kneepads (VH Innovation Ltd).

## What has changed for you in the past three years?

We now sell our product internationally with sales in US, Canada, Australia, Norway, Israel, to name a few! We are also now a team of six. Three full time staff and three part time staff. We have set up our manufacturing in-house and operate from an industrial unit in the north east of Glasgow.

## What advice would you offer to students and staff currently thinking about starting their own business?

Starting a business while at university or even just after graduation is a perfect time! It's the ideal opportunity to put what you have learned from uni into real life practice and to do so while still in the safety of a university environment. In the best case scenario you develop a successful business, in the worst case scenario, the business doesn't work, but you learn a lot of skills, grow your networks, and develop greatly as a person, just from having given it a go.

## How did university help prepare you?

My business started as my final year product design project when at Strathclyde. I was fortunate that during that final year I was able to utilise the university facilities to develop and produce 3D models to develop the design, connect with biomedical engineering experts for advice, and access the university entrepreneurial network

to work on the business plan. I would say university prepared me most for developing skills such as presenting, problem solving, and teamwork and also developing a network of connections that enabled me to pursue the product and business after university.

## Do you still have a relationship with your university?

Yes – I still have a fantastic relationship with Strathclyde. The enterprise hub has been extremely supportive and even helped us out with some short-term office space while we were between offices! I still maintain a relationship with my department, Design, Manufacture and Engineering Management, too and regularly work with groups of their students on industrial or individual projects. I also like to pop back in every now and again for a catch up, or to present to their students to encourage more to pursue their business ideas.

## What are your ambitions for the business in the next three years?

Our next goals involve developing our product offerings, recruiting and growing our team and growing into bigger premises. We want to be the market leader in knee protection worldwide.



*Starting a business while at university or even just after graduation is a perfect time! It's the ideal opportunity to put what you have learned from uni into real life practice and to do so while still in the safety of a university environment.*



# ACTION 1

We will review the curricula we teach to further embed enterprise and entrepreneurship. We have asked QAA Scotland to work with us and to spend 2016-17 focussing on a cross-sector project on enterprise and entrepreneurship in higher education.

- **89% of Scottish universities now embed enterprise & entrepreneurship within degree programmes.<sup>16</sup>**

**WHY THIS WAS IMPORTANT:**

We were ambitious to see enterprise become integral to learning in higher education so that all students can benefit, rather than take this agenda forward as optional or bolt-on activity.

Two projects have been significant in helping to embed enterprise and entrepreneurship in higher education teaching since 2015:

- The Quality Assurance Agency for higher education supports universities to continuously build on the student learning experience. It developed new guidance on teaching enterprise and entrepreneurship in higher education, which was launched in January 2017. A series of webinars, supported by Universities Scotland, throughout 2017 helped extend the reach of the new guidance to staff in 14 Scottish universities.
- Enterprise and entrepreneurship is now embedded within Scotland's process of Enhancement-Led Institutional Review, which is the uniquely Scottish approach for assessing quality and excellence in university teaching. Now, when the student learning experience in any Scottish university is being evaluated, the institution's work to support student enterprise and entrepreneurship forms an explicit part of this review.

**CASE STUDY:**  
Abertay Enterprise Framework

The Abertay Enterprise Framework (AEF) is a business and enterprise education programme which considers enterprise in the broadest sense and integrates business awareness into programmes of study.

Business skills, such as marketing, human resources management and leadership, are integrated into degree programmes to prepare students for the world of work. Abertay created an elective module on business creation which has become the third highest performing in the University. Building on the lessons and insights gained through the Framework, the University is taking a fresh approach to student enterprise. From 2018/19, Abertay is encouraging the development of enterprise skills and entrepreneurial behaviour among our students through a range of actions such as the creation of Bell Street Ventures, a space for student enterprise on campus. Bell Street Ventures is not a post-study incubator or accelerator, but a place where all students will be welcome to work on their ideas and fledgling businesses in a safe and supportive environment.

**CASE STUDY:**  
Introduction to Scientific Enterprise at the University of Dundee

Life Sciences has been identified as a growth sector for the Scottish economy, therefore it's important that science graduates are prepared with the skills to capitalise on Scotland's competitive advantage. The University of Dundee has developed a module for first year Life Sciences students called Introduction to Scientific Enterprise (ISE) to help them get ready for the graduate market through personal development, active topic research and an understanding of the business side of science.

The ISE module, taught by tutors and invited guest speakers, encourages students to take part in lectures, group activities and interactive employer engagement sessions covering two key tracks: enterprise and career development. The module helps develop creativity and enterprising skills, encourages students to articulate and defend their own ideas, and builds transferable skills such as team working, critical thinking and presentation skills. Students are assessed through an individual skills audit and a range of group-based assignments. The skills audit helps students appreciate the skills they have achieved in a way that employers will recognise.

After the successful introduction of ISE, a follow-up Level 2 (2nd year) module titled Developing Scientific Enterprise was introduced in 2017/18. Students that are engaged with ISE are strongly encouraged to further develop their business ideas by linking with the Centre for Entrepreneurship at the University of Dundee and participating in external venture competitions. This helps to foster entrepreneurial spirit institution-wide.

## ACTION 2

We commit ourselves to a 25 per cent increase in the number of student start-ups over the next three years.

- The number of student-led start-up companies has grown by **53%** since 2015, far exceeding our target of **25%** growth.<sup>17</sup> This is a total of **661** active start-ups created across Scotland since 2015.

**WHY THIS WAS IMPORTANT:**

Start-up company creation is a measure of how many graduates are taking the bold step into creating fledgling companies. Start-ups help increase the economic activity levels of a nation.

- Additional business performance indicators suggest that the early stage start-up companies created by our graduates are in robust health and growing as businesses. The total number of student start-up companies has grown by **53%**, but over the same period the number of staff they employ has grown by **83%** and total turnover by student start-ups has increased by **84%**.<sup>18</sup>

## ACTION 3

We commit ourselves to a 25 per cent increase in the number of students and staff taking part in enterprise and entrepreneurship workshops and similar activities over the next three years. This would bring the total to over 14,000.

- Scotland's universities have exceeded the goal of **14,000** and have seen at least **17,000** students and staff participating in enterprise and entrepreneurship workshops.<sup>19</sup> In truth, the number is likely to be considerably more than that as a vast number of events are not measured or recorded centrally in this way.
- Over three-quarters of Heads of Enterprise in Scotland said the volume of entrepreneurship activity delivered in their institution had increased over the past three years.<sup>20</sup>

**WHY THIS WAS IMPORTANT:**

We wanted to expand the reach of enterprise education within our immediate community. Such workshops and activities provide dedicated time for students to experience entrepreneurship and have the opportunity to be inspired and learn about alternative career paths.

# PROFILE

- Name:** Scott Gilmour and Claire McKenzie, graduates from the Royal Conservatoire of Scotland.
- In 2015:** Had just set up **Noisemaker** and been commissioned by the Conservatoire to write two shows: Forest Boy and The Girl Who.
- In 2018:** Over the past three years, Noisemaker has become a multi award-winning partnership, including being named Unique Business of the Year at the Scottish Business Awards in 2018. We have worked with organisations such as National Theatre of Scotland, Dundee Rep Theatre, New York Musical Festival, Northwestern University Chicago, Crucible Theatre and Goodspeed Musicals Connecticut.



## What has changed for you in the past three years?

We became the first Scottish writers to be chosen for the prestigious JMF Writers Colony at Goodspeed Musicals in Connecticut. This venture has led to the development of our latest piece, Ben, which will be a transatlantic co-production between Noisemaker, Dundee Rep and Goodspeed, premiering in the USA next spring. The biggest shift, however, is that we now make our living solely from the work we do as Noisemaker. This was a scary step to take but it's been hugely rewarding.

## What advice would you offer to students and staff currently thinking about starting their own business?

It is important to anyone interested in starting their own business to acknowledge the field they're intending to go into: what is it missing or lacking? We're a Scottish writing partnership who work primarily in musical theatre; that's our niche. The best piece of advice we ever received was a mentor describing a song we'd written as "hitting an invisible target"; the idea of aiming for something that no one has thought of yet, a bullseye that nobody else was looking for.

## How did university help prepare you?

As students we were encouraged to explore as many different elements and facets of performance and theatre-making as possible, regardless of our chosen discipline. More than its technical training, RCS made it very clear that regardless of what sector you work in, it's managing and interacting with others that allows an idea, and a business, to flourish. We were encouraged to explore and try out other art forms not just to expand our knowledge, but to allow us a chance to see the different kinds of individuals we'd need to collaborate with in the future. Having a respect and interest for other people's work, having patience for it and a willingness to learn about it, has probably been the most impactful lesson either of us learned as students.

## Do you still have a relationship with your university?

We do! We've led masterclasses there, developed new ideas with them, done readings of new work, and even taken shows to the Edinburgh Festival Fringe in partnership with their MA Musical Theatre programme. The most recent of these was a piece called Atlantic which was an international partnership with the American Musical Theatre Project at Northwestern University in Chicago. Atlantic received a coveted Herald Angel Award and was the fourth show we've produced in collaboration with RCS.

## What are your ambitions for the business in the next three years?

For us, being allowed to continue doing what we do - making new stories in new places - remains our ambition. Pragmatically, we've begun to develop a number of new projects in America which we will expand on, whilst trying to keep established relationships and collaborations in place in Scotland.



*Having a respect and interest for other people's work, having patience for it and a willingness to learn about it, has probably been the most impactful lesson either of us learned as students.*

# ACTION

The fourth action from 2015 was focused on culture change and sub-divided into three actions to drive culture change further including:

**4a Exploring how collaboration might increase access to incubation services and mentoring. This should include innovative ways to ensure our students living in rural and deprived areas can benefit.**

- Since 2015, Scotland's universities have created **8 new incubators and accelerators across Scotland either alone or working in partnership.**<sup>21 22 23 24</sup>
- Scotland has **11% of all UK incubators. 39% of all Scotland's incubators rely solely on university and public funding.**<sup>25</sup>
- The catchment<sup>26</sup> areas of the new incubators and accelerators associated with Scottish universities reach at least **73% of all of Scotland's 'accessible rural' areas and 57% of all Scotland's 'remote rural' areas.**<sup>27</sup>
- **56% of Scottish higher education institutions deliver enterprise events for students with a specific widening access focus, compared to 30% of institutions across the rest of the UK.**<sup>28</sup>
- **94% of Scottish HEIs provide entrepreneurship training to staff and graduate start-ups.**<sup>29</sup>
- **94% of Scottish HEIs provide business advice to staff and graduate start-ups.**<sup>30</sup>

## WHY THIS WAS IMPORTANT:

We wanted to increase access by exploring whether partnership approaches could lead to more business creation and support services, with a wider geographic spread across Scotland. We wanted to make sure that universities made best use of their wide geographic footprint across Scotland to make services available in as many regions as possible. We don't believe that rurality and deprivation should be a barrier to accessing start-up support.

## CASE STUDY:

Glasgow Caledonian University's UHatch Accelerator

UHatch provides an open plan space on campus to give individuals and teams a location to seriously consider their start-up potential. UHatch has been open to students, staff and alumni of Glasgow Caledonian since January 2015 and has taken a highly collaborative approach, partnering with a wide range of sectoral support agencies such as Converge Challenge, Scottish Institute for Enterprise, The Edge Fund, RSE Unlocking Ambition and Business Gateway to deliver workshops. In its three years of operation, UHatch has seen 50 start-up companies register across a variety of sectors. Currently there are 23 companies registered with UHatch with a combined collective turnover of £1 million and a multitude of awards between them.

UHatch ran twenty workshops last year, with a focus on practical matters such as finance, marketing, crowd funding, legal issues and intellectual property. More recently, UHatch has recently formed a group called "Enterprise Ambassadors" to provide guidance, mentoring and networks for the individual UHatch companies and to support the running of UHatch itself. UHatch also provides its companies with opportunities to apply for funding and other resources. Santander Universities' Enterprise Enabling Fund has been an important resource.

Margaret Gibson OBE, Deputy Chief Executive at the EY Foundation, says of UHatch: "UHatch is a really important resource for both students and staff at GCU. It can often be daunting to work through a business idea, especially if you are concerned about overheads or lack of impactful advice and support. The facilities and opportunities to network and meet other likeminded people are excellent. It is a real benefit to have the time and space to fully develop business ideas."

## CASE STUDY:

Rural entrepreneurship at The Open University in Scotland

Academic entrepreneurship isn't exclusive to university campuses. The Open University has developed a free online course: Rural Entrepreneurship in Scotland that allows accessible learning on entrepreneurship and business start-up in rural parts of Scotland. The thirty-hour course, which is available on the OU's free learning platform OpenLearn, aims to help rural learners understand how rurality can affect their business goals, explore the feasibility of their ideas, develop a business strategy, and plan for their resource needs.

Since it was launched in 2015, the course has attracted over 2,500 learners. The course is constantly developing. The OU uses data analytics to identify which elements are of most interest to learners, leading to changes to content and presentation. For example, the analytics suggested there was a high interest in learning about business idea generation and development. In response, the OU added additional course content from another credit-bearing module. The OU has done outreach work with Scotland's National Parks and the Scottish Crofting Federation which led the Federation to include links to the course into its "Access to Crofting" toolkit for new and aspiring crofters.

Lucy Beattie, Training and Development Manager, Scottish Crofting Federation: "Rural entrepreneurship in Scotland was a great fit for the new entrants' course we were developing. Many crofters want to know how to set up and run a business."

## CASE STUDY:

Robert Gordon University and North East Scotland College collaborate to launch the first funded start-up accelerator in the North East

The new Startup Accelerator is a partnership between the University and College to support entrepreneurial teams of students, staff and recent alumni in further and higher education to create new businesses in industries including healthcare, technology, education, energy, retail, food and beverage, transport, fashion and consumer products.

The Accelerator programme was launched in autumn 2018 and the first cohort of entrepreneurs will start their six-month Accelerator programme in January 2019, with evening and weekend sessions planned to fit around study and work. Thirty teams who make it through judging will receive up to £10,000 of funding each, opportunities to meet investors, access to RGU's highly experienced team and free co-working office space during the incubation period. The Accelerator follows a best practice model of mentor-led, lean start-up methodology and uses key international models for start-up development. A new mentor group is being established to support the rapid development of these start-up teams.

**CASE STUDY:**  
Catalysts to help students and staff turn ideas into reality at SRUC

In January 2018, a dozen members of staff at SRUC graduated from a programme with Entrepreneurial Spark as fully-fledged entrepreneurial “Catalysts”. Based at the College’s six campuses and offices across Scotland, the Catalysts will be on hand in a mentor capacity, to offer advice on how students and staff can bring their business ideas to fruition.

Mike Stephens, Head of Strategic Projects at Entrepreneurial Spark, said: *“Our accelerator methodology has equipped the Catalysts with the right entrepreneurial mindset and tools to create, validate, grow and scale innovative ideas within SRUC. They have been trained to inspire and enable others as well as pursuing their own innovative projects.”*

Sonny van Loef, one of the new Catalysts, said: *“The programme has been eye-opening and informative and we all came out of the workshops really enthused and looking forward to putting our training into action.”*



**CASE STUDY:**  
Bright Red Triangle at Edinburgh Napier University

Bright Red Triangle, an incubator at Edinburgh Napier University, offers a one-stop shop for enterprise activities and is open to students, staff, graduates and local business and community organisations. Offering free business advice, mentoring and facilities for those looking to start or grow their own ventures, Bright Red Triangle has helped over 350 businesses start so far. Notable start-up successes include Martina Zupan, whose company Afterwaste has developed a brand-new biodegradable and compostable eggshell material and is currently progressing plans for sustainable packaging that will help tackle plastic pollution.

Another entrepreneur, Sydney Chasin, created a healthy snack called lil’POP using a crop called sorghum to produce an alternative to popcorn. Sydney graduated from Edinburgh Napier with a degree in financial services with entrepreneurship in 2016 and has been working out of Bright Red Triangle since then to bring her product to market. Sydney says: *“Every organisation I’ve worked with has contributed to me getting to this point but the team at Bright Red Triangle has been there from the very start.”*

**CASE STUDY:**  
Modual: Kickstarter from The Glasgow School of Art, the Royal Conservatoire of Scotland and the University of the Arts London

Modual: Kickstarter is a programme to develop the enterprise skills of artists and creative industries students. The 2018 programme was a joint venture involving the School of Art and Conservatoire in a partnership led by UAL. 60 participants in Scotland and another 30 based in London took part in the programme with the need for digital collaboration, across the different locations, using platforms such as Fuse and Slack, made a specific aspect of the learning.

The 2018 Modual programme was produced in collaboration with Kickstarter, the world’s largest funding platform for creative projects, as this added a real-world dynamic into the programme, creating projects with a crowdfunding strategy and launch date. Over the course of the programme, participants explored their inner creative purpose, developed cross-disciplinary collaborative skills and created innovative Kickstarter campaign projects, alongside regular mentorship from leading industry experts. At the end of the second week, participants presented their Kickstarter projects to a live audience of creative industry leaders, peers and investors offering valuable experience of pitching and receiving feedback.

A final element of the Summer School, delivered by GSA, began and ended with participants reviewing their individual goals, values and choices, and looking to their personal creative career ambitions. This development week was facilitated by high level industry experts who supported the participants to find new ways to prepare for becoming a professional practitioner.

**4b Working with our alumni and other networks to identify more entrepreneurs who can support our plans, including their contribution to the enterprise training we can offer Scottish businesses.**

- **All but one Scottish university involves their alumni in their entrepreneurial plans.<sup>31</sup> The remaining institution plans to start doing so.**
- **78% of Scotland’s universities deliver entrepreneur-led events.<sup>32</sup>**
- **All Scotland’s universities provide short bespoke courses for businesses on campus.<sup>33</sup>**
- **89% provide short bespoke courses for businesses at their premises.<sup>34</sup>**

**WHY THIS WAS IMPORTANT:**

Role models are known to be very important in enterprise and entrepreneurship. Those who have taken an entrepreneurial route can be really important in inspiring others. Universities have the capacity to extend the reach of their enterprise education beyond their staff and students into their business networks, who may already be connected into institutions through knowledge exchange or commercialisation activity.

**CASE STUDY:**  
Using alumni to support student entrepreneurship at the University of Edinburgh

Student entrepreneurs are helped by Edinburgh Innovations (EI), which connects the student with a large pool of alumni and business mentors. From initial introductions at “Pitch ‘n’ Mix” events, where students present their ideas to a group of mentors, entrepreneurs move onto “Pitching for Mentors” where industry experts support and advise the most promising projects. EI also helps establish ‘virtual boards’ of directors, often from amongst the University’s alumni, to give entrepreneurs access to focused expertise. Alumni advisors are people like Dr Julie Nixon, an Associate at law firm, Morton Fraser. Originally a molecular genetics student, Julie has been both a mentor and member of virtual company boards for many students as well as being involved in the full range of services run by EI.

Dr Nixon says: *“It is so important that students and staff who are inclined towards a commercial*

*venture understand that there is support from EI to further these ambitions. Being an undergraduate or postgraduate of the University equips graduates with many transferable skills, and I see my role as helping EI “clients” understand this as well as providing straightforward legal advice.”*

One of the successful entrepreneurs who has received the benefit of Julie’s time is David Hunter, founder and CEO of Shot Scope Technologies. He says: *“Julie’s willingness to engage with founders, fully understand the business opportunity and provide excellent advice instantly influenced my decisions. Her extensive experience and understanding of technology helps significantly during negotiations. She continues to influence important decisions at Shot Scope.”*

**CASE STUDY:**  
Lunch with a Leader at the University of Stirling

Established in 2015, 'Lunch with a Leader' facilitates engagement between students and Scottish businesses, creating a chance for tomorrow's business leaders to hear first-hand from those who have made their mark developing new products and services within Scotland. Up to three interested students are selected to attend a lunch with a Scottish business leader, with a short programme of meetings taking place monthly, over a five month period.

Previous participants have included influencers from a cross-section of Scotland's business community, from social enterprises such as Lingo Flamingo, start-ups such as Turtle Pack, and business umbrella groups, such as the Chartered Management Institute. Many of the leaders taking part have established business initiatives that respond to some of the greatest challenges facing society, from efforts to improve public health, to improving quality of life for those with dementia. Placed alongside University teaching and research focusing on these challenges, students have the opportunity to hear first-hand how enterprise can play a role in making a difference. More than 30 students have participated in the scheme, with entry open to students studying on every degree programme.

Cameron Reid, BA (Hons) Politics, Philosophy and Economics:  
*"Lunch with a Leader has helped me redefine my idea of entrepreneurship by thinking about it in terms of behaviour change. Our Leader offered practical and real advice on where the next step is in my career. This is definitely an opportunity not to be missed if you are interested in, or even starting to think about, entrepreneurship."*

**CASE STUDY:**  
Enterprise Week 2018 at the University of St Andrews

The University of St Andrews' location in the rural northeast corner of Fife means that its students have to use their enterprising and entrepreneurial capabilities to bring events and activities to town. Students focused activities into one 'Enterprise Week' to have maximum impact, tapping into local networks and the goodwill of alumni. Last year's Enterprise Week involved ten events, nine entrepreneurs and reached 350 students. Events included a roundtable discussion on student start-ups, a chance to see the entrepreneurs, a keynote event with the St Andrew Business Club, a skills workshop with Fife Chamber of Commerce and 'Hatch4Good', and a two-day competition to generate business ideas.

Evelyn Simpson, an Investing Women Angel and angel investor says: *"Enterprise Week is a great way of facilitating students' engagement with entrepreneurs and the broader entrepreneurial ecosystem. It helps them gain knowledge and understanding of the opportunities and, equally importantly, the realities and challenges of starting and building a business."*

**CASE STUDY:**  
University of Strathclyde and the Growth Advantage Programme

The University of Strathclyde runs the Growth Advantage Programme for existing SMEs with a minimum of £1 million in turnover and ambitions to grow significantly. The business accelerator programme is pitched at founders, managing directors and chief executives and those with ownership interest. It brings together executive education, peer learning and the support from Santander Commercial. Launched in 2015, with 20 senior business figures on each programme, it meets a need for scale-up education in Scotland. Academics and 50 companies have taken part in the Growth Advantage Programme to date, across three programmes, and have had an average of over £2M annual revenues and 20 employees at the start of the programme. The businesses come from all over Scotland, from a wide range of sectors and include companies started from scratch, bought and multi-generation family businesses with the ambition to grow. The Programme has had a substantial impact on each cohort – with average annualised growth in employment and sales across the cohort exceeding the OECD high growth threshold of 20%.

Sherry Coutu, Chair, ScaleUp Institute: *"The Growth Advantage Programme is nothing short of brilliant."*



**4c Bringing together those who train postgraduate research students in Scotland in a Forum to be hosted in January 2016 to ensure that enterprise and entrepreneurship is a part of the training that early-career researchers receive.**

- **The Forum brought together researcher development staff in universities, academic experts, Innovation Centres, Research Pools, Interface, Converge Challenge, Scottish Government, SFC and Scotland's enterprise agencies to discuss how to develop an entrepreneurial culture for researchers. The Forum identified some key activities to inform how individual universities work to support and encourage entrepreneurship amongst their researchers.**
- **86 companies have been formed by postgraduates over a three-year period working through Enterprise Campus, which focuses start-up support on postgraduates.**<sup>35</sup>
- **From 2015 – 2018 there were 250 applications from postgraduate students to Converge Challenge. This represents 30% of all applications to Scotland's largest entrepreneurial competition.**<sup>36</sup>

**WHY THIS WAS IMPORTANT:**

Our postgraduate and early career research staff are hugely talented. As they progress through more focused research paths the potential for research discoveries with commercial relevance, increases. We want to ensure that they start their academic careers with a fully-rounded skill set and have one eye to the commercial potential of their research.

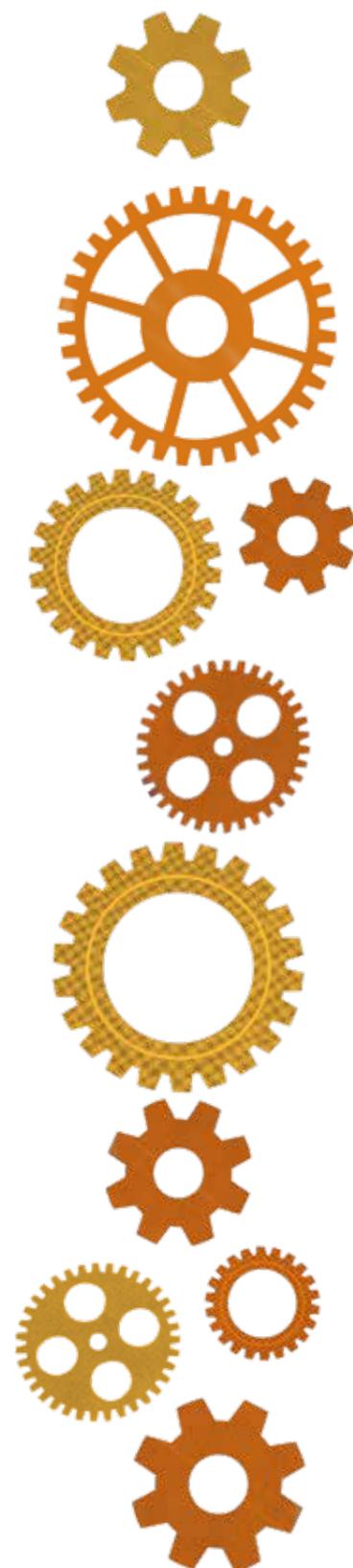
**Research Development Managers at three universities discuss the lasting impact the 2016 Forum had on the approach their institution has taken to enterprise activity for this section of the university community.**

**KIM STUART,**  
Head of Research and Knowledge Exchange Development Unit, Queen Margaret University.

*"The Forum was instrumental in driving momentum in our response to Making it Happen. It helped us embed entrepreneurship and enterprise into our Researcher Development and Doctoral Training programmes by implementing a programme of activity which is bringing about a step-change in the entrepreneurial culture within QMU. This included delivery of bespoke training by our on-campus Business Gateway Service to our Graduate School and post-doctoral researchers on SME /industry translational skills and enterprise education."*

**BRIAN MCNICOLL,**  
Head of Centre of Entrepreneurship, University of Dundee.

*"In terms of Entrepreneurship 2016 was a really important year for the University of Dundee. The Forum came at a crucial time providing an opportunity to discuss and set objectives based on the foundations that were being put in place for the University to achieve its strategic ambition of being recognised as the most entrepreneurial university in Scotland. One of the most important tasks was to plan and roll-out a new Centre of Entrepreneurship department along with a physical public-access facility (with accompanying accelerator programme) that was to open in 2017 in partnership with Elevator. The actions that were identified during the Forum kept us on track resulting in a re-vamped, university-wide business ideas pitching competition with accompanying £25,000 prize fund, with specific categories for researchers, an entrepreneurial symposium to discuss and effectively communicate the proposed approach, and the announcement of a university wide Entrepreneurship Week. These are clear outputs, amongst others, that have cultivated an entrepreneurial environment at the university where researchers, staff and students are encouraged to spot opportunities, and are provided with a clear pathway of support in order to help them achieve their entrepreneurial ambitions."*



**DR ELIZABETH ADAMS,**  
Research Development Manager at the University of Glasgow.

*"Fifteen years ago, when we held our first enterprise and entrepreneurship for researchers' workshop, entrepreneurship was barely on researchers' radars. Today, the picture is very different. We are seeing increasing numbers of researcher-led businesses coming through. Perhaps they are prompted by talk of the 'impact agenda' trickling down from supervisors, but also because of increased visibility of entrepreneurial alumni and student businesses. Our workshops fill up due to word of mouth and a growing sense of awareness that, when it comes to career-planning, it pays to think entrepreneurially. We put careful consideration into the types of entrepreneurial activity researchers are likely to become involved in, having diverse role models and the language that people connect with (or switch off at) when it comes to talking about entrepreneurship."*

*"Attending the Universities Scotland Forum in early 2016, I was struck by how complex the enterprise landscape is in terms of support agencies, training courses, competitions, funding and other initiatives. No wonder the average PGR might feel tempted to stick their head in the sand and focus solely on the PhD. The reality is that we need researchers to feel empowered to come forward, ask for advice, network, and make connections. Some of that is about building skills and confidence and helping researchers to carve out that time to think creatively about their career, in the midst of everything else that might be happening for them. I'm just back from two glorious days on our new Ingenious Women programme for researchers which aims to do exactly that, taking researchers both out of their comfort zones and out of Wi-Fi signal to hone their leadership skills and think about the future. Another discussion that really stuck with me*

*from the Forum was around 'failure' and how this just isn't something we are prepared for in academia. This is a topic we have begun to embed as a recurring theme in careers events."*

*"The fact that many of the researchers I work with would like to stay in Scotland post-PhD - and are starting to realise that they have to be more entrepreneurial in creating their own opportunities to be able to do this - suggests that the Scottish university sector as a whole has really lifted the bar in the support that we offer to PGRs in all areas of career development."*



# PROFILE



**Name:** Lara Findlay and Josh Carson, Founders and Directors at **GearedApp**.

**In 2015:** We founded GearedApp in 2013 as students at Edinburgh Napier University and we were initially based in the University's incubator.

**In 2018:** Since then we have expanded to cover all digital solutions and grown to a team of 11, we have since moved offices twice, and we are now in our own space with room to grow.

**What has changed for you in the past three years?**

A lot! Three years ago we were a team of four based at the Edinburgh Napier business incubator, Bright Red Triangle (BRT). We have worked with some brilliant customers over the last three years, and have evolved from building simple apps and websites, to now building large digital platforms for scaling start-ups, enterprise and healthcare providers.

**What advice would you offer to students and staff currently thinking about starting their own business?**

Look for support from local start-up networks, and your university or college. Most universities offer some form of start-up support, whether that's pointing you in the direction of support and funding, free office space or peer-to-peer support networks. You can learn so much from those around you.

**What did university teach/prepare you most for?**

University life and business life are very different, however university did give us the foundations of how to approach digital projects and our first taste of working together to solve problems for potential clients. The GearedApp co-founders met during a group project module that worked really well for us, and that experience was a huge learning opportunity for us.

**Do you still have a relationship with your university?**

Yes we do, as not only do we like to give back, but it is also beneficial for us to keep those connections. We are in regular contact with the Napier BRT and some of the lecturers from the computing school, who first provided us with support and access to the incubator space. This summer we entered the Bright Red Sparks competition and won the WildCard Award. We regularly mentor Napier Computing students through the third year group project modules. We also take on interns from Napier University every year. As a result, aside from the co-founders, four of our team either went to Napier or are still completing studies.

**What are your ambitions for the business in the next three years?**

We have big plans. We plan to double our team and aim to become one of the UK's leading digital platform development companies. In the last year we have taken on international clients in the USA, Europe and the Middle East. We would like to expand further into these markets, and really showcase Scotland as a world-class tech ecosystem.



*We have big plans. In the last year we have taken on international clients in the USA, Europe and the Middle East. We would like to expand further into these markets, and really showcase Scotland as a world class tech ecosystem.*

# ACTION 5

We will work with our partners across the public agencies to explore how we can host more national and local business creation services. In doing so universities can enhance their role as hubs for entrepreneurship and innovation support in their communities.

- Since 2015, Interface has co-located with four higher education institutions.
- Since 2017, University of Strathclyde has hosted the Scottish Chambers of Commerce in its Business School and the University of the West of Scotland has hosted 30 Scottish Enterprise staff at its Paisley campus.
- Queen Margaret University Edinburgh has hosted the Business Gateway since 2015. The impact of this collaboration has grown significantly from three new start-ups in the joint Business Innovation Zone in 2015, to 16 in 2017.

**WHY THIS WAS IMPORTANT:**

Hosting services like this is part of universities' role as anchors in their towns or cities, delivering benefits more widely and increasing the chance of greater and deeper innovation partnerships between university and business. Bringing business services onto campus also helps make business creation more visible and accessible for students.

**CASE STUDY:**  
Business and university working together at University of the West of Scotland

Universities are often an 'anchor' institution in many towns and cities as so it's proven in Paisley with Scottish Enterprise (SE) having a team of up to 30 people working at UWS's Paisley campus. SE's role in Paisley is to provide assistance to high growth businesses in the region in order for them to grow and benefit the local economy. These objectives align with the University's, so it made sense for SE to locate themselves at UWS since the summer of 2017.

Since the move, SE is committed to providing UWS students with access to its business clients to develop a range of employability opportunities such as mentoring, placements and projects. Part

of the reason for the co-location was to provide opportunities for academic staff to interact with SE's high-growth business clients to foster knowledge exchange and higher levels of business research and development locally. Two high-growth spin out companies: Novosound and Albasense have been successfully spun-out from UWS in 2018.

Jerry Headley, Director of Estates at UWS observed: "Locating SE at UWS sends out a strong signal that UWS is proactively supporting Scotland's overall economic agenda. This move helps us work together to help develop high value businesses and jobs in Paisley."

**CASE STUDY:**  
Heriot-Watt University working to create entrepreneurial communities

Heriot-Watt was awarded a grant from Santander Universities in July 2018 to develop an Entrepreneurial Communities Programme. Heriot Watt plans to use its three campus sites across Scotland to promote and create a culture of enterprising and entrepreneurial skills in locations where access to these types of services and programmes is often out of reach. As well as Edinburgh, Heriot-Watt has two rural campuses; the Scottish Borders campus is based in Galashiels and the Orkney Campus is based in Stromness.

The Santander Universities Enterprise and Entrepreneurship Fund is designed to support universities in delivering large-scale projects benefitting over 5,000 people so the new Communities Programme will have significant reach in these locations.

Matt Hutnell, Director at Santander Universities said: "We are delighted to award this grant to Heriot-Watt University, which will not only develop entrepreneurial ambitions amongst students, but will also support and connect entrepreneurs and start-up businesses within communities across Scotland."

**CASE STUDY:**  
Centre of Entrepreneurship at the University of Dundee

In 2016 the University of Dundee established a partnership with Elevator, a prominent business support service, to provide the Centre of Entrepreneurship, a new facility on campus which would bring together the University, the city and entrepreneurial ecosystem. The Centre addressed feedback that the University's entrepreneurial activity had previously been too dispersed, which made it difficult to navigate. The on-campus accelerator programme is inclusive and open to anyone in the region.

The facility uses a design-led approach to guide start-up and scale-up businesses. Dozens of events have already engaged hundreds of students, staff and the wider community. 42 businesses have completed the Elevator programme within the last year and are already contributing to the regional economy. Events have included Entrepreneurship Week, masterclasses with leading entrepreneurs, including Josh Littlejohn MBE, and interdisciplinary student challenges.

Andy Campbell, Dundee Accelerator Manager for Elevator says: "The unique partnership between the University of Dundee and Elevator has seen the creation of the Centre as a focal point for all things Entrepreneurial in the city and beyond. We are already seeing a number of positive indicators that the partnership and the facility is delivering. From product design to medical applications using augmented and merged reality, the potential coming from the University at this early stage is very promising."

**CASE STUDY:**  
CREATE as a wide-reaching regional hub led by Inverness College, UHI

Inverness College UHI runs CREATE as a centre for enterprise for the region. The last three years have seen CREATE grow in scale and scope and its impact extends far beyond the University partnership. As well as an annual business competition for UHI students and those aged over 16 in the area, CREATE delivers enterprise services for schools and local businesses. CREATE developed a new enterprise programme called the "Enterprising Educator" to support the professional learning of primary and secondary teachers working as part of Scotland's Enterprising Schools framework, which started in 2015, and which has over 1,500 teachers as members. The programme has now been accredited at masters level and is to run as a national pilot across Scotland in 2019.

CREATE also supports small but ambitious businesses through a new Catalyst programme. So far 40 small business leaders have been through the programme, which includes tailor-made modules available online or in the classroom. Catalyst has been developed for online delivery as a Postgraduate Certificate in Global Entrepreneurship and successful entrepreneurs living and working in the Highlands and Islands act as role models for the businesses taking the course.

"The quality of the resources and teaching has been first class and it is extremely humbling when I see how much time and effort has been put into making Catalyst happen. I've really been equipped for life and only wish I had been able to access a Catalyst programme years ago so thank you."

# PROFILE

**Name:** Michael Tougher, a graduate in product design engineering at the Glasgow School of Art.

**In 2015:** Director of Spark and Rocket Ltd, a design and invention company.

**In 2018:** Same, but now trading as **Soundbops**.



### What has changed for you in the past three years?

I have now launched our first product, Soundbops, a starter musical instrument designed for children as young as three to learn and play music.

### What advice would you offer to students and staff currently thinking about starting their own business?

Do it! It's a lot of fun. For students especially, you don't have much to lose and it's an excellent learning experience. If you do it, then try and build a team early and test your solutions as early as possible.

### What did higher education most prepare you for?

The design and problem solving skills but also the hard work and drive needed to keep going.

### Do you still have a relationship with the Art School?

Yes, I am still designer in residence at the Glasgow School of Art and have had a lot of support and guidance from them.

### What are your ambitions for the business in the next three years?

Our plan is to grow the product so that more children can experience the joy of music. To do this I will grow the team and the product line.

# PROFILE

**Name:** Obi-Okoye Chidozie, graduate from the University of the West of Scotland.

**In 2015:** Founded **Fingersfingers Ltd** and started trading after graduation.

**In 2018:** Still founder and now Product Manager of Fingersfingers, based in Glasgow, which offers web and mobile solutions.

### What has changed for you in the past three years?

We have grown as a company, with two full time employees and we have received a grant of £99,000 from Scottish Enterprise. The company's focus has changed from an investment seeking start-up business to a revenue and income focused company. We were pleased to be endorsed by the Tech City UK Exceptional Talent in the Exceptional Promise Category.

### What advice would you offer to students and staff currently thinking about starting their own business?

Make sure you have a business or service that people are willing to pay for and will continue to pay for in the long-run before you venture fully into business.

### How did university help prepare you?

It taught me the importance of research for a business.

### Do you still have a relationship with your university?

Yes, I'm currently the face of the University's recruitment marketing materials! I also run an online student recruitment agency for the University.

### What are your ambitions for the business in the next three years?

For the business I'd like to create services and products which can be automated and scaled globally with minimal human attention needed. For myself, I'd like to learn new programming technologies and get embedded in a larger global tech company to gain insight and experience on how to run and scale tech services on a global scale.



*Make sure you have a business or service that people are willing to pay for and will continue to pay for in the long-run before you venture fully into business.*

# ACTION

Actions 6 and 7 focused on the availability and accessibility of work placements. They were:

- We will offer every student an opportunity for work-related experience during their degree programme including placements, mentoring, enterprise opportunities, field trips and case studies.
- Where universities offer work placements to students we will ensure they are fair work; either paid and/or credit bearing as part of the curriculum. This will take some time but we want to get there.

- **100% of Scotland's universities organise work placements for their students.**
- **79% of Scottish higher education institutions offer placements or internships with entrepreneurs and small businesses.**<sup>37</sup>

#### WHY THIS WAS IMPORTANT:

Students and employers attach a great deal of significance to work placements during study. They're a great opportunity for students to develop a deeper understanding of different industries, apply their skills and build confidence. We believe these opportunities should be paid, or credit-bearing so that hard work is rewarded and placements are accessible to the greatest number of students, regardless of background.

#### GRADUATE APPRENTICESHIPS

Launched in 2017, Graduate Apprenticeships have really taken off in higher education with 12 universities now offering apprenticeships in 11 different subjects. Graduate Apprenticeships are a very close partnership between a university and an employer, facilitated by Skills Development Scotland. The apprentice spends about 80 per cent of their time working at the company, whilst also working towards a degree. It's an excellent example of work-based learning that is both paid (by the employer) and credit-bearing (by the university). Universities are keen to expand this model and would like to see more places available across a wider range of subjects. In 2018 universities bid to deliver 70 per cent more apprenticeship places than could be made available. Currently Apprenticeships are available in the areas of IT, cyber security, engineering, business management and construction.

#### CASE STUDY:

Work placements at Abertay University

Business Management students at Abertay University are offered the chance to undertake work placements locally, within Tayside, since 2011. The scheme has grown from nine students participating to 70 last academic year.

Before the students join a company, they prepare by crafting a CV, taking briefings on health and safety regulations, expectation-setting as well as training the students to recognise the attributes and employability skills they are likely to develop whilst on placement. At the end of the module, students showcase their learnings together at an event with businesses and university staff which has helped to build and maintain relationships with employers.

The placement module enables students to gain meaningful work experience, develop employability skills in preparation for the graduate market and to participate as professional within a realistic environment. Several students have gained employment with their placement provider either on a permanent or temporary basis.

The feedback the university receives from its partners speaks volumes.

The value of placements to employers is demonstrated through the following quotes:

Adecco: "I have found Abertay students to be well informed, focussed and driven to achieve while in branch and with the agency. They have provided insightful forethought and when asked, advice about market activity, technology platforms and alternate approaches to what we sometimes see as 'the norm'. They have had an opportunity to truly influence real-world business activity and have not let me down in their reporting or recommendations for improvement."

#### CASE STUDY:

Business Community Engagement & Student Learning at University of Aberdeen

Aberdeen University offers a third-year course called Working Together: Employability for Arts & Social Sciences, which integrates transferable and workplace skills development into the curriculum. Forty students from a wide range of arts and social science degree programmes complete the course, which combines employability workshops with a work-based project hosted by local start-up businesses, SMEs and third sector charities. The combination of workshops and work-based projects provides undergraduates with the opportunity to both learn about and put into practice the enterprise and project management skills crucial to today's labour market.

The workshops which underpin the project work cover a range of topics, from professionalism and project management through to creative thinking, problem solving and innovation. The workshops draw upon expertise from across the University, including the Business School, School of Social Science and the Careers Service, as well as from external partners in the form of the Scottish Institute for Enterprise.

Working in small project teams to solve real world problems, the course models the pressures of working within a team to deadlines, and also requires that students continually reflect upon their strengths and areas for development. Previous projects have included, devising a marketing strategy, developing a corporate social responsibility policy, and conducting research for a musical memories project. Students have found the skills and experience they acquired during the course invaluable when applying for graduate positions in their final year.

Clive Smith, Managing Director, Turbinate Technologies Limited said: "As a start-up business, it is important for us to test ideas and market perception of the product we intend to develop. The analysis the students undertook has fundamentally changed our target market and their fresh input and perspective has been extremely beneficial for our organisation."

**CASE STUDY:**  
The success of the Santander Internships Scheme at the University of St Andrews

The University of St Andrews' Careers Centre boasts a number of paid internships within small and medium sized enterprises (SMEs) across the UK. Lasting between one and ten weeks, the scheme offers unique opportunities for students who want to spend their winter and summer breaks exploring industries, developing new skills, and making a lasting contribution to an SME's journey.

*"The internship involved a great amount of hands-on action that I don't think I grasped the extent of prior to the work I did. This was probably the best part for me because, due to the small nature of the company, I received really personalised guidance with regard to communicating to clients, and this helped exponentially to grow my confidence and independence."*

Students are introduced to a wide range of personal and professional development materials, in the form of logbooks, bullet trackers, and action plans. The success of the scheme is that it delivers for the student and the company benefits from the outcome of a substantial project, led by the intern. Sarabeth Murray, a student who completed a winter internship with Grub Club, speaks of the responsibility she held as a member of the SME's small team. Sarabeth says:

Many Santander interns secure a graduate role with an SME as a result of their internship. This offers benefits to the student and the small company; with many SMEs operating with tight margins, internships offer tried and tested guarantees when it comes to recruiting talent.



Credit: Marcel Kovacs, for University of St Andrews

# ACTION 8

We will provide the Innovation Scotland Forum and Scotland Can Do with regular updates on our achievements.

- The Innovation Scotland Forum received updates on our progress with Making it Happen from 2015, including in the final report when the Forum concluded its action plan in December 2017.
- The Innovation Scotland Forum report was sent to the CAN DO chairs and our Convener, Professor Andrea Nolan continues to sit on the forum ensuring that the voice of universities is heard.

**WHY THIS WAS IMPORTANT:**

It was important to us that our work was joined-up to other strategies for enterprise and innovation across Scotland. In 2015, the Innovation Scotland Forum led a shared strategy to improve the effectiveness of support for business growth through innovation. Enterprise was a thread of its action plan. The Forum has since evolved into Scotland Can Do Innovation Forum.

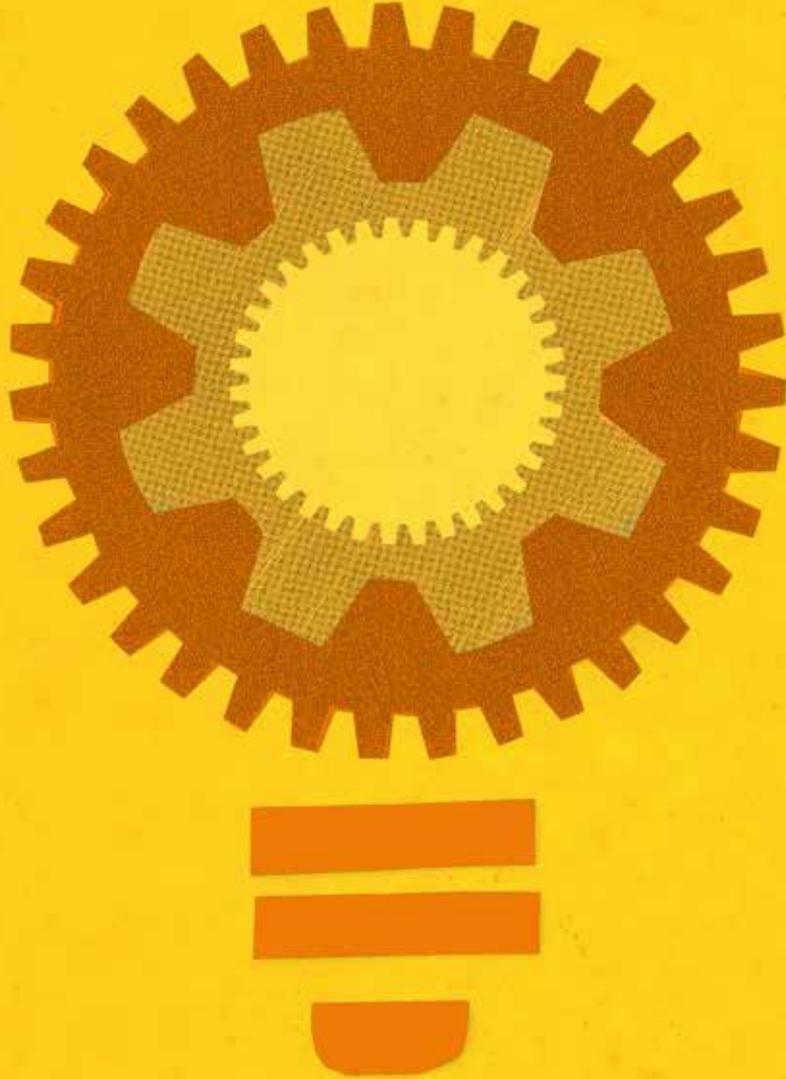
**SCOTLAND CAN DO**  
IT'S TIME TO MAKE HISTORY

*"Universities Scotland have been an active and helpful contributor to the development of innovation policy in Scotland, not least through their membership of the Scotland CAN DO Business Innovation Forum. Their work in facilitating greater engagement with enterprise and entrepreneurship by the staff and students of Scottish HEIs is also warmly welcomed. We look forward to continued close working with Universities Scotland on the CAN DO agenda in future."*

**Scotland Can Do**

# END NOTES

- <sup>1</sup> Research conducted by YouthSight for Santander Universities (2018). Figure produced by Universities Scotland working with YouthSight data based on a sample of UK undergraduate students.
- <sup>2</sup> Hart, Bonner, Levie. (2016) Global Entrepreneurship Monitor United Kingdom 2016 Monitoring Report, table 6. P.22. using the figure of 5.1% for nascent entrepreneurs as a comparator.
- <sup>3</sup> The National Centre for Entrepreneurship in Education (NCEE) surveyed Heads of Enterprise across the UK. The final report will be published in early 2019 but NCEE has kindly shared some of the key Scottish findings with Universities Scotland ahead of publication.
- <sup>4</sup> Data from Higher Education Statistics Agency, 2015-2018, *HEBCI Part B Table 4 – Intellectual Property (IP)*, analysed by Universities Scotland.
- <sup>5</sup> Based on member feedback to Universities Scotland, September 2018.
- <sup>6</sup> Higher Education Statistics Agency, 2018, *HEBCI Part A*.
- <sup>7</sup> UK Government, *Business incubators and accelerators: UK directory*, April 2017.
- <sup>8</sup> Robert Gordon University, *RGU, supported by the Wood Foundation, launches £1.6 million initiative to find the next generation of university startups and entrepreneurs*, 8 May 2018.
- <sup>9</sup> University of Edinburgh, *Wayra UK and University of Edinburgh to launch new AI and Blockchain Accelerator*, June 2018.
- <sup>10</sup> Insider.co.uk, *Edinburgh Business School launches first Business Incubator*, 10 July 2018.
- <sup>11</sup> Based on member feedback to Universities Scotland, September 2018.
- <sup>12</sup> NCEE survey of Heads of Enterprise, 2018.
- <sup>13</sup> Enterprise Campus final report, personal communication, November 2018. Enterprise Campus was a collaborative venture led by three universities in the north, east and west of Scotland to encourage postgraduates from any Scottish universities to start high-growth business start-ups.
- <sup>14</sup> Converge Challenge, personal communication, November 2018.
- <sup>15</sup> Higher Education Statistics Agency, 2018, *HEBCI Part A*.
- <sup>16</sup> NCEE report due for publication 2018.
- <sup>17</sup> Data from Higher Education Statistics Agency, 2015-2018, *HEBCI Part B Table 4 – Intellectual Property (IP)*, analysed by Universities Scotland.
- <sup>18</sup> Data from Higher Education Statistics Agency, 2015-2018, *HEBCI Part B Table 4 – Intellectual Property (IP)*, analysed by Universities Scotland.
- <sup>19</sup> Based on member feedback to Universities Scotland, September 2018.
- <sup>20</sup> NCEE survey of Heads of Enterprise, 2018.
- <sup>21</sup> UK Government, *Business incubators and accelerators: UK directory*, April 2017.
- <sup>22</sup> Robert Gordon University, *RGU, supported by the Wood Foundation, launches £1.6 million initiative to find the next generation of university startups and entrepreneurs*, 8 May 2018.
- <sup>23</sup> University of Edinburgh, *Wayra UK and University of Edinburgh to launch new AI and Blockchain Accelerator*, June 2018.
- <sup>24</sup> Insider.co.uk, *Edinburgh Business School launches first Business Incubator*, 10 July 2018.
- <sup>25</sup> UK Government, *Business incubators and accelerators: the national picture*, April 2017.
- <sup>26</sup> UK Government, *Business incubators and accelerators: the national picture*, April 2017.
- <sup>27</sup> Data from *Scottish Government Urban Rural Classification 2016* and *online mapping tool*, analysis by Universities Scotland based on Research by NESTA, commissioned by the UK Government, which finds that budding entrepreneurs will travel up to 35 miles to access incubator support and 61 miles to access the support of an accelerator.
- <sup>28</sup> Ibid.
- <sup>29</sup> Higher Education Statistics Agency, 2018, *HEBCI Part A*.
- <sup>30</sup> Higher Education Statistics Agency, 2018, *HEBCI Part A*.
- <sup>31</sup> Based on member feedback to Universities Scotland, September 2018.
- <sup>32</sup> NCEE survey of Heads of Enterprise, 2018.
- <sup>33</sup> Higher Education Statistics Agency, 2018, *HEBCI Part A*.
- <sup>34</sup> Higher Education Statistics Agency, 2018, *HEBCI Part A*.
- <sup>35</sup> Enterprise Campus final report, personal communication, November 2018.
- <sup>36</sup> Converge Challenge, personal communication, November 2018.
- <sup>37</sup> NCEE table.



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