

#### **CASE STUDIES**

Innovate and generate: modern universities supporting local businesses

#### INTRODUCTION

Local business partnerships are very much at the heart of what modern universities do. Indeed, they have always been a vital component in which these institutions engage with their surroundings and contribute towards their local economy. When surveyed, 97% of modern universities identify the development of **local partnerships** as one of the principal ways in which they contribute to the local economy. Many modern universities play a role as an anchor institution in their town or region, providing infrastructure and services to local businesses, as well of being a hub of expertise and translational research.

In 2019-20, modern universities provided services to 21,585 Small & Mediumsized Enterprises and 93% of modern universities provided bespoke courses for business on their campus.

The history and location of many modern universities is important to understanding why this is such a key part of their identity as institutions. Modern universities are often found in more marginalised parts of the country and form a vital part of the local economy, meaning they are significant in terms of their place. Furthermore, the emergence of many modern universities in the 1990s also coincided with periods of deindustrialization that were experienced in areas of the country. As such, modern universities have always had a key focus on interacting with local businesses and have built up relationships with local partners that span over decades.

As the economy begins to recover from the experience of the pandemic, modern universities should be recognised as a key asset that can be utilised to support innovation and growth around the country. It is vital that funding is made available to support partnerships between universities and businesses. Modern universities hold massive potential to help the government achieve its ambition to "level up" the country due to their wide geographical spread. The government's intention to raise research & development (R&D) spend to 2.4% of Gross Domestic Product (GDP) will not be coherent with "levelling up" if this expansion in funding is too concentrated in certain types of institutions, or in those geographical locations that have traditionally dominated.

The case studies that follow demonstrate the innovation, investment and economic impact generated through these partnerships.

### PROJECT ACADEMY FOR SELLAFIELD



Originally established in 2016, the Project Academy for Sellafield is a collaborative commercial relationship between the University of Cumbria and Sellafield Ltd.

The Project Academy for Sellafield is the first of its kind in the UK, providing specialist education, training, and professional qualifications necessary to deliver the complex and challenging projects on one of Europe's most complex nuclear sites. The Academy delivers project management short courses, professional qualifications, and degree programmes to prepare and educate employees for the changing landscape of project management. The Project Academy is an integrated pathway of education, training, development, and professional qualifications. This approach means candidates can begin qualifications at various entry points, determined by their existing experience and qualifications – and to build on this to

enhance their skill set. There are currently over 40 offerings available in the form of continuous professional development, professional qualifications, and higher education from Level 4 (HNC) to Level 8 (PhD). Project Academy has engaged with over 50 companies and charities who have benefitted from over 70,000 hours of training and education.



## THE CENTRE FOR SME DEVELOPMENT (CSMED)



#### CSMED facilitates engagement of SMEs across

the university with academics, business support projects, research, students/ graduates as well as shaping government response to productivity challenges in the Region in a cyclical manner enabling impacts for all.

CSMED has built a membership base of 1,000 SMEs in Lancashire, supporting them through access to the whole university business offer. CSMED builds peer networks through business breakfasts, twilight sessions, member knowledge exchange sessions and good practice networks (all of which are delivered online since Covid-19). CSMED is a gateway to The University of Central Lancashire's internationally recognised research centres, the expertise of staff, students and graduates, and the outstanding facilities UCLan has to offer.

Through delivery of its own ERDF projects and signposting SMEs to business support projects across the university, 1,744 enterprises have been supported

by funded (ERDF/ESF) business support projects and, in these enterprises, 488 new jobs have been created. This equates to a gross annual GVA contribution of £15m, based on the average level of GVA per FTE in the Lancashire economy. CSMED is dedicated to making an impact by creating tangible connections in the local social and economic ecosystem and brokering collaborations between the university and SMEs.



### KNOWLEDGE BITES FOR BUSINESS



To support businesses and individuals as they deal with the economic challenges of Covid-19, the university launched RGU Knowledge Bites for Business, a free online resource providing insights and expertise from the university community.

The platform, comprising of free-to-access short videos, articles, mini-courses and live interactive webinars, is designed to provide practical support for businesses now, as well as sharing how RGU's services can support in the future. RGU Knowledge Bites is an important tool to ensure the university continues to support and engage with the business community both regionally and internationally, despite lockdown. Since the launch in only August this year, 15 Knowledge Bites for Business webinars and resources have been delivered, with bi-weekly webinars scheduled for the rest of the year and in to 2021. Topics to date have included: Learning from your Data (AI),

Online Branding for Businesses, Keeping yourself Safe Online, an Introduction to Intellectual Property, Crisis Communication and Covid-19, Future Talent Management in Uncertain Times and Planning a Digital Event. As well as being delivered live, recordings of the webinars are made available on the RGU website, for businesses to access any time. Over 750 participants engaged with the platform, providing the opportunity for these businesses and freelancers to connect with RGU in the future.



#### KNOWLEDGE TRANSFER PARTNERSHIPS THROUGH THE SCHOOL OF ARCHICTECTURE AND BUILT ENVIRONMENT



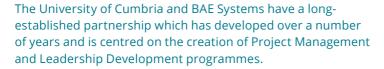
The School of Architecture and Built Environment has had sustained success in the operation of Knowledge Transfer Partnerships (KTPs), particularly through the implementation of new digital design, manufacture and construction processes.

The work has involved working with business to implement new methods of working and emerging high-end technology such as BIM. Virtual Reality and Augmented Reality to support a step change within the construction sector towards a digitally driven industry. In particular, the work focused on technology implementation underpinning the Government strategic area of deploying digital techniques through the Construction Sector Deal (2019) and the UK Industrial Strategy. As technology has advanced within the sector, project focusing on the implementation of Virtual and Augmented Reality (VR/ AR) have opened up new opportunities

and new markets for companies. Building on Postgraduate and PhD level research in the university KTPs in this field have been at the cutting edge of the sector and have impacted areas such as health and safety and productivity of construction operations. With new international markets opening up based on the new methods our collaborating companies have in some instances realised an increase of 30% in annual profits and a 20% increase in new staff employed.



#### **BAE SYSTEMS**





Working directly with BAE Systems and other academic partners, the University is at the forefront of supporting the organisation improve its staff and processes. Delivered in partnership with Furness College, this programme combines both academic and work-based learning, allowing learners to achieve a BSc (Hons) in Project Management and a Higher-Level Apprenticeship at the same time. This allows learners to develop the knowledge, skills and behaviours required to be a successful and accredited Project Manager.

Among those embarking on the 24-month long programme of study is Continuous Improvement Manager Mark Hughes who says the course is already proving thought-provoking: "I love it. It's brought me into contact with people from across the business who I can now look forward to collaborating with, not just on the course but in daily work too ... We've been encouraged to explore contemporary business and management principles and learn how to apply them to genuine situations, using real-world case studies."



### INGAME: INNOVATION FOR GAMES AND MEDIA ENTERPRISE



InGAME: Innovation for Games and Media Enterprise is an £11.5m R&D Centre based in the heart of the Dundee videogames cluster. Led by Abertay University, InGAME delivers innovative research, R&D support and services to games companies in the city and beyond.

InGAME is part of the Creative Industries Cluster Programme, funded by the Arts & Humanities Research Council and part of the Industrial Strategy. It also receives significant funding from the Scottish Funding Council. The primary purpose of the project is to increase the value and scale of the cluster. The project uses creative experimentation involving mixed teams from enterprises and academia to develop prototypes and proof of concepts utilising new and emerging game technologies. Engaging across the sector InGAME seeks to develop solutions to enhance opportunities for incremental innovation. InGAME offers a range of

opportunities to the access resources from events, workshops, technology test beds and hotdesking in lab space. At the heart of the offer is the InGAME Voucher Scheme, an independently assessed application for R&D Support, which offers organisations the chance to utilise the talent, technology and knowledge available through the InGAME Partnership.



## SUSTAINABLE ADVANCED MANUFACTURING PROJECT



The Sustainable Advanced Manufacturing (SAM) Project is a knowledge exchange programme built on the underpinning research within University of Sunderland, supporting the implementation of product and process development and the introduction of technology within the SME manufacturing base in the North East.

Manufacturing SMEs (or those intending to manufacture) enrolled onto the project benefit from up to 15 days' worth of fully-funded Technical Research and Development and access to five microfactories housed within the university's Institute for Automotive and Manufacturing Advanced Practice. The micro-factories comprise over £1m worth of industry-leading equipment and machinery, including 3D printers, I4 rigs and VR/AR equipment and software to encourage SME engagement with advanced technology. The project has delivered 2,661 interventions totaling over 6,000 hours of support to manufacturing SMEs to a gross grant equivalent value of over £650,000. Since lits inception in early 2018, SAM Project has over 280 manufacturing SMEs registered on the programme. SAM's support has resulted in over 100 additional jobs being created in manufacturers to date and 28 companies have been supported in implementing new processes or products to their firm. When COVID-19 hit, SAM Project adapted its delivery model to better support manufacturing SMEs. SAM Project used its technical research

and development staff, and state of the art kit, to design and manufacture an Intensive Care Unit grade Face Shield in collaborate with consultants in North East hospitals. The Hulse Sunderland Face Shield, together with other innovations such as contactless door openers, were manufactured in response to the pandemic.



### INVESTMENT READINESS PROGRAMME

University of Central Lancashire

The University of Central Lancashire offers a free investor-led Investment Readiness Programme, offering unique insights into what is needed to secure equity investment for business.

Led by experienced investors, the programme helps new and early-stage SMEs raise venture capital and business angel investment by ensuring they are properly prepared and understand the process. The programme works principally with Lancashire-based businesses employing fewer than 250 full time people, showing an annual turnover of less than £40m and/or an annual balance sheet total of less than £35m and receiving less than €200,000 of publicly funded support in the last three fiscal years. The businesses trade or plan to trade business to business not just business to consumer.

The programme has been funded by the European Regional Development Fund. In the wider economy only 1-2% of companies that apply for equity investment secure it. Whereas with the Investment Readiness programme, results show that 66% of companies that go through the programme are either offered or accept investment. To date, 200 businesses have engaged with the programme and collectively secured £4m of investment, and 17 jobs have been created.



### COLLABORATION WITH AMAZON WEB SERVICES

# In summer 2019 the University of East London (UEL) entered into a ground-breaking collaboration with Amazon Web Services (AWS).

As part of its mission to become the UK's leading careers-focused university, UEL will adopt AWS cloud technology. By migrating to AWS, away from the traditional datacenter operations UEL will realise significant cost and operational savings, allowing UEL to allocate resources where they matter most: providing an outstanding learning experience for students and further investment in research and development. One aspect of the collaboration, the Future Digital Career Zone, will assist students with graduate careers including access to expertise and guidance on cloud technology from AWS experts. UEL School of Business and Law will incorporate a new industry research institute, supported by AWS with a focus on technology-informed business skills

required to deliver success in a constantly changing environment. AWS's knowledge in areas such as artificial intelligence, and digital and cloud skills will inform UEL's curriculum development at both postgraduate and undergraduate level. This will include the launch of the Cloud Associate Degree to prepare students for jobs in cloud computing.

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### **MillionPlus**

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