

Examples from the North East's universities showing how they are working with the region to support its economic recovery:

Durham University

Supporting the local economy and working with businesses

[Intensive Industrial Innovation Programme \(IIIP\)](#)

- The IIIP is led by Durham with Newcastle and Northumbria universities.
- It pairs PhD researchers with local businesses to help develop new products and services. There are currently 57 university researchers working in North East of England SMEs, in sectors such as life sciences, digital, surface, and energy.
- 30 new opportunities have recently been announced as part of the third phase of the project.
- Case studies can be found [here](#).

[Durham University Enterprise Zone](#)

- We are investing £1.5m from Research England to support the development of an enterprise zone at NETPark, one of the UK's leading science parks.
- The enterprise zone will provide a home for university spin outs, student start-ups and other technical firms who wish to locate close to the university and access the expertise available to them.
- The enterprise zone will also include knowledge exchange space and a regular programme of events will be hosted alongside the business accommodation offer on site.

[Northern Accelerator](#)

- Northern Accelerator is a collaboration between Durham, Newcastle, Northumbria and Sunderland Universities.
- It aims to drive a step change in the commercialisation of research to help address regional imbalance and strengthen the North East knowledge economy.
- Facts and figures can be found [here](#) (these cover the programme as a whole and not individual HE providers).

[Durham Internships and Collaborative Enterprise \(DICE\)](#)

- DICE is a collaborative initiative between Durham University and Durham County Council supporting student enterprise, start-ups and internships in local businesses led by Durham University.
- The programme has accessed £600k ERDF funding alongside investments from both partners to deliver a programme worth over £1million in the County Durham area.
- Successful case study [here](#).

[Durham City Incubator \(DCI\)](#)

- Durham University is one of four partners of the DCI, supporting early-stage businesses that are less than one year old. It works with current

students and alumni of Durham University and New College Durham, a further education provider.

- DCI supports business to develop their ideas and concepts, and entrepreneurs to grow and scale-up. It acts as a feeder for entrepreneurs who have taken part in the DICE programme (see above).
- Successful case study [here](#).

Students working with business

- Up to 50 MBA Strategic Business Projects (SBPs) undertaken annually with a range of businesses including local SMEs providing solutions to business problems.
- Up to 50 business analytics projects undertaken by MSc Business Analytics Students making sense of data to benefit businesses and their objectives.
- Placements/internships supporting businesses across a range of functions e.g. Finance, Marketing both in the region and further afield.

Centre for Innovation and Technology Management (CITM) report/advice

- Durham University Business School's research centre, CITM, reviewed over 1.7 million businesses in the Midlands and the North of England across 99 different sectors.
 - Report predicts that almost a third of these are at high risk of collapse due to COVID-19 impacting on their supply chain.
 - CITM is now offering free consultations that can help them not only survive but compete in the post COVID-19 environment.
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Newcastle University

Supporting the local economy and working with businesses

Newcastle Helix

- £350M innovation hub in the centre of Newcastle
- Continuing to attract inward investment, retain innovation in region, and enable business and growth
 - Homes England – [up to 300 jobs moving to Newcastle](#)
 - [New hotel on site](#)
- Home to high growth, innovative organisations. Recent examples include:
 - [Atelerix](#) – Newcastle University spin-out.
The *Atelerix* technology provides an innovative solution for storing and transporting cells and tissues at room temperature
 - [Changing Health](#) – Newcastle University spin-out which has been appointed by NHS England to develop programme for 3.4 million people living with Type 2 diabetes in the UK.
 - [Biosphere business awarded funding to fight Covid-19](#)

- Helix is a partnership between Newcastle University, Newcastle City Council and Legal & General

Three National Innovation Centres

- [Data](#)
 - Recent workshops with: TruePotential, Gateshead Health NHS Foundation Trust, Huma, and Sage
 - With Datajam North East and Analysts Network North East, delivered webinar for 38 public and private sector organisations on the 'Improved use of Health data in a COVID and post-COVID world.'
 - Successful Case Studies here: [NICD case studies](#)
- [Ageing](#)
 - Along with Newcastle Building Society have teamed up with tech-for-good company, onHand, to explore app technology to connect volunteers with older people needing support or assistance with minor tasks. [More info.](#)
- [Rural Enterprise](#)
 - Announced in May 2020, this new National Centre will support enterprise, resilience and innovation among rural firms and unlock the untapped potential of rural economies across the UK. Led by Newcastle University, the National Innovation Centre for Rural Enterprise is a partnership with Gloucestershire and Royal Agricultural Universities and University of Warwick, and opens on 1st Sept 2020.

Arrow

- Free innovation support for North East SMEs. [Introductory video.](#)
- £3.4m ERDF-supported programme aims to translate University research and innovation projects into operational business innovation programmes and services
- [Successful case study](#)

Joint Research Office with Newcastle upon Tyne Hospitals NHS Foundation Trust

- 13 COVID-19 related projects running
- Including running part of the Oxford search for an effective vaccine
- Other projects include drug discovery and trials, psychological impacts of the uncertainty we all face, and the impact of COVID-19 on children and expectant mothers.

Driving the Electric Revolution

- Lead for a £30M UK network to establish UK as a world leader in Power Electronics, Motors and Drives
- Planned base in the North East given over to be a Nightingale Hospital

Institute of Coding

- A multi-university national partnership (25 in total), the Institute of Coding also works with industry partners
- Consortium in the North East between Newcastle, Northumbria and Sunderland Universities
- Been providing webinars to businesses through lockdown
- Degree Apprenticeships designed to aid experienced professionals or recent graduates further develop their skills and knowledge in either data analytics or cyber security, helping to reduce the digital skills gap.

Company Creation

- 7 companies created last year
 - Companies are growing jobs and attracting investment here in the region
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Northumbria University, Newcastle **Supporting the local economy and working with businesses**

The Business Clinic

- The Business Clinic provides free consultancy advice to SMEs, multi-nationals and not-for-profit organisations who are looking to grow through diversification of income, new opportunities or tackling challenges.
- It is led by undergraduate and postgraduate students, with supervision by experienced academics. Success stories [here](#).
- Northumbria also recently secured Government funding to explore the development of a digitally-enabled service offering free student-led consultancy to SMEs.

Centre for Doctoral Training for Renewable Energy North East (ReNU)

- Led by Northumbria, in partnership with Newcastle and Durham Universities, ReNU will create a new generation of specialists that are capable of tackling the biggest challenges and new opportunities in Renewable Energy and sustainable Distributed Energy.
- The specialists will also be equipped with the business and innovation skills to drive forward UK innovation in the Clean Growth area.

Northumbria Centre for Innovation, Regional Transformation and Entrepreneurship (iNCITE)

- The UK faces considerable economic inequalities regionally, in terms of access to employment alongside effective public services, regional development, governance and leadership.
- iNCITE is a research centre at Northumbria University which seeks to understand and develop future ways in which innovation and entrepreneurship contribute to wider societal benefits and to assist in the creation of more effective governmental policy.

- The centre works with local and regional stakeholders, national and international governments as well as civil society organisations.

COVID-19 Response Workforce Development

As a leading provider of workforce development programmes in the region, Northumbria supports businesses in reskilling and upskilling staff in order to take on the challenges of the future. Recent examples include:

- In response to the need to prepare additional frontline staff to care for patients with COVID-19, Northumbria's experts in healthcare education teamed up with NHS Health Education England to develop and deliver a range of online training sessions to over 700 participants.
- Managing Return to Work Safely and Legally - Experts from Northumbria's School of Law and Faculty of Health and Life Sciences are delivering a series of free [webinars](#) which address the key challenges associated with re-opening and operating during the Covid-19 pandemic.
- See our [COVID-19 Business Advice Hub](#) for more information.

Creative Fuse North East (CFNE)

- CFNE is a joint collaboration between Durham, Northumbria, Sunderland, Teesside and led by Newcastle. CFNE, in its second phase, is a 3 year funded programme which aims to unlock the potential of the North East's creative, digital and IT sector.
- In Phase 1 the consortium delivered innovation support and expertise to 277 SMEs and provided innovation grants totalling £340,000 to 30 businesses in the form of academic/business Innovation Pilot Projects. Report [here](#).
- CFNE Phase 2 seeks to expand its reach to focus on the methods and mechanisms for innovation support to SME's, sole-traders and micro-businesses.

Purposeful Health Growth Accelerator

The Purposeful Health Growth Accelerator is a major new initiative backed by Research England to help North East businesses grow or expand into the health, wellness and social care delivery sectors.

- The initiative sees Northumbria join forces with NEL Fund Managers to offer practical support, advice and growth capital investment worth more than £1m in total to up to 200 North East firms.
- The programme will build on the product, process and service innovations implemented by many regional firms in response to COVID-19, as well as wider commercial opportunities within the relevant sectors.

Newcastle Living Lab, Newcastle Business School

- The Newcastle Living Lab at Newcastle Business School enables organisations to innovate their relationships with employees, partners and customers.
- By analysing fundamental interactions, the Lab can help to identify inventive approaches to 'wicked' problems and better ways of getting

things done. This support has become even more crucial as businesses navigate through the COVID-19 pandemic restrictions such as distancing, workflows and interactions.

Advanced practice

- In addition to traditional internships and placements, we have groups of Master's students available to work on 12-week business projects through our 'Advanced Practice' programme.
- Students can tackle a wide range of engineering, construction, sustainability and project management challenges to add real value to companies.
- Projects require minimal input from businesses and participation is free to local organisations. Further details available from [Anne Macdonald](#), Advanced Practice Manager.

Secretariat to the national Counter Fraud Professional Accreditation Board (CFPAB)

- Fraud costs businesses and individuals in the UK [£130 billion each year](#), with fraud costs for NE residents and businesses totalling £31.4m during 2018/19.
- The CFPAB brings together organisations such as HMRC, NHS, City of London Police, Department for Work and Pensions and private training providers to identify and combat increasingly sophisticated approaches to fraud.
- As secretariat to the CFPAB, experts from Northumbria's School of law are working to combat fraud, including growing levels of COVID-19 related financial crime, which poses a barrier to economic recovery for many businesses.

Northumbria Digital Disruption Centre

- The Digital Disruption Centre at Northumbria University helps organisations meet the challenge of the next digital revolution by performing collaborative long-term, high-impact research with tangible outcomes.
- Partners include Home Group, Hedgehog Labs, Sage, PROTO The Emerging Technology Centre, Pocketmoney Games, Digital Catapult NETV, Newcastle Council, Sunderland Council.

The International Centre for Connected Construction (IC3)

- Led by Northumbria University, IC3 is a centre of excellence driven by a cluster of innovative North East academic, industrial and government organisations co-creating positive transformation in the global construction industry.
- Through demonstrator projects, research and innovation, business acceleration and career spanning education reform, IC3 addresses key challenges in *Procuring for Value, Assurance and Traceability* and *Improving Performance*.
- More [information on IC3 here](#).

University of Sunderland

Focused its resources on supporting the NHS in its fight against Covid-19:

- Donated specialist equipment, including its own [training ambulance](#)
- Hundreds of students from the University's Faculty of Health Sciences and Wellbeing joined the frontline
- [40-strong graduating cohort of nurses](#) began working at hospitals across the North East, supporting the NHS as it faced unprecedented pressures
- [Vice-Chancellor, Sir David Bell](#), added his support to key workers.

Sustainable Advanced Manufacturing Project (SAM) / Institute for Automotive and Manufacturing Advanced Practice (AMAP)

- Developed the 'Hulse Sunderland Face Shield', in conjunction with ICU Clinicians at Newcastle RVI. [The Intensive Care grade face shield](#) received BSI and kite mark certification and is being widely used in hospitals and care home in the region.
- Designed and produced a simple but [effective door opening device](#) to reduce contact with the virus for people working in all kinds of care settings and key businesses. The 3D-printed and laser cut door handle device allows doors to be opened with a forearm and portable personal hook to open handles with respectively.
- The ERDF-funded SAM Project rolled out two new grant funds for manufacturing SMEs:
 - 1. To support the manufacturing of PPE for frontline healthcare
 - 2. To support capital investment for companies to adapt, be more resilient to and overcome challenges faced due to Covid-19.

Knowledge Transfer Partnerships

- Emily Mason of Fontus, a University of Sunderland Knowledge Transfer Associate, moved from her original project to develop and bring to market a new hand sanitiser. The product is now available to buy at www.northumbriahealth.com and Fontus have gifted batches of the hand sanitiser to local care homes and nearby work places.

ERDF Internship Scheme

- Revised and improved to provide even more support for employers, enabling 230 graduates to be placed into regional SMEs.

Work Based Learning

- Health Education England (HEE) commissioned a masterclass on ['Management of the Respiratory System'](#) for those working in the NHS or who might be called up to work in the Covid-19 wards. Over 600 learners attended the two-hour sessions, from many different fields

within the NHS including Mental Health Nurses, Dentists, GPs and pharmacists.

- Launching in July - a unique masterclass to support graduates, trainees, newly qualified teachers (NQTs), teaching assistants, career returners and recently retired teachers in applying to become tutors supporting the government's recently-announced 'Covid Catch up and Recovery Strategy'.

Managed Premises/Tenant Support

- The University supported its [business tenants](#) during this difficult period by providing work from home support, a rent free period and essential access to managed premises.
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Teesside University:

Teesside University's £22.3 million National Horizons Centre (NHC), which officially opened in October 2019, is a national centre of excellence for bioscience that brings together research, teaching and enterprise. The NHC was established to directly address the potential of the bio-economy.

Within days of the World Health Organisation declaring a global pandemic, the NHC supplied tens of thousands of pounds of specialist kit and equipment to North Tees and Hartlepool Hospitals NHS Foundation Trust to help them scale-up testing for Covid-19.

In addition, the university has offered lab and bench space, as well as specialists within the NHC to help run the tests and supplied consumables that are in short supply, such as gloves and pipettes to other NHS Trusts.

It also provided County Durham and Darlington Foundation NHS Trust with specialist PCR machines to run the current tests and offered other equipment, such as the Illumina MiSeq system, for high-throughput sequencing of the virus.

Beyond its immediate response, the NHC is part of a study working with clinicians from local NHS Trusts to understand the clinical course of Covid-19 cases in the region. This study has collected clinical data from coronavirus patients which staff at the NHC are analysing to identify risk factors associated with patient survival that could guide future treatment strategies. In parallel, staff are developing biological studies to investigate several aspects of Covid-19 and underlying conditions such as respiratory disease.

One such area NHC staff are investigating is the "Cytokine storm", which is associated with Covid-19 disease severity and is a common complication, not only of Covid-19, but also other respiratory diseases caused by coronaviruses such as SARS and MERS.

Teesside University and TWI Ltd have recently collaborated to launch two new Innovation Centres which will help companies to reduce the impact their operations have on the environment.

The Industrial Decarbonisation and Hydrogen Innovation Centre will focus on the development of cost effective, low-carbon technologies to support industry's drive for clean energy growth. The Circular Economy and Recycling Innovation Centre will address the advancement of new disruptive technologies designed to help reduce industry's reliance on finite resources and eliminate waste.

Teesside University and TWI Ltd previously worked together to establish the Healthcare Innovation Centre in early 2017 which utilises complementary strengths to deliver excellence in new healthcare technologies.

The Industrial Decarbonisation and Hydrogen Innovation Centre will look at solutions to harness hydrogen, seen as the fuel of the future but cost prohibitive, for wider use. It will seek to identify novel technology concepts which can be applied to energy intensive industries associated with manufacturing, refining and other carbon dioxide emitting processes, all of which contribute to global warming.

Research and development activity within the Circular Economy and Recycling Innovation Centre will examine areas such as recycling, re-use and re-manufacturing, with the aim of conceiving break-through systems and/or processes which will inform the closed-loop approach of the circular economy. Similarly, by concentrating on new techniques that have less environmental impact, the two Centres will also help operators of plant, machinery and equipment extend the life-span of their assets through new opportunities for recovery, repair and repurposing.

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