

North East
Energy Catalyst



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Energy for Growth

Case study: Northumbria University Fabrication (NU-FAB)

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The North East Local Enterprise Partnership (LEP)'s [Energy for Growth](#) strategy sets out areas of opportunity where the North East can contribute towards national energy and net zero goals at scale, while driving economic growth and delivering more and better jobs in the region.

The Energy for Growth programme is focussed across three key workstreams, led by the LEP's energy for growth team: supporting growth in energy sectors such as electrification, batteries, offshore energy and low carbon heat; uniting the region's energy innovation and demonstration assets via the North East Energy Catalyst; and accelerating delivery of regional energy projects at scale, such as heat networks.



Supporting regional energy projects

Through the Local Growth Fund, the North East LEP's Energy for Growth programme was able to support cross-sector partners to develop and deliver a pipeline of projects in these areas of opportunity via grant funding.

In 2019, funding was made available via an open call for projects which aligned to the Energy for Growth strategy, particularly focussed on offshore energy, innovation and demonstration, and low carbon heat.

Over £1.2m was ultimately made available via:

- **Energy for Growth grants:** Grants of up to £150,000 to support capital projects, or revenue support of detailed project development and feasibility studies.
- **Energy Innovation Challenge:** Run by the North East Energy Catalyst, a series of three challenges for SMEs aimed to identify solutions to energy issues which can be scaled up nationally or globally, leveraging the strengths of North East businesses. The programme supported 35 SMEs to bring forward new products or services which have the potential to help solve energy challenges on a global scale.

The total value of the Energy for Growth LGF programme has reached over £6m, including public and private match to the LGF grant funding. The programme is expected to support the creation of more than 200 jobs, provide over 100 enterprises with non-financial support, catalyse nearly 50 engagements between enterprises and research institutions, and over 3,500 SME engagements.

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Background

NU-FAB is a new, open-access, rapid-prototyping facility for the demonstration of low-cost, scalable energy materials and devices at Northumbria University. Regional businesses will be able to access NU-FAB to achieve proof-of-concept R&D without charge, supporting them to develop and bring to market new sustainable energy products.

Investment into new equipment

A £56,500 Energy for Growth grant matched with £56,500 from Northumbria University meant that the University could add two pieces of equipment to NU-FAB: an inkjet printer and photonic curing tool. The two pieces of equipment are complementary and, together, they offer a robust, open-access prototyping resource. These facilities also complement significant recent investments by Northumbria University to support the EPSRC Centre for Doctoral Training in Renewable Energy Northeast Universities.

Outcomes

The equipment is now fully commissioned and in use, and outputs from these activities have been used to directly secure £986,000 of UKRI funding to Northumbria University for a new programme of Adventurous Manufacturing research. This research will focus on achieving the manufacturing breakthroughs needed to enable a design-led approach to photovoltaics (PV) manufacturing, which will ultimately create significant commercial opportunities for the UK. This award has also created two high-skill jobs at Northumbria University and one at Loughborough University.

Funding received: **£56,500 Energy for Growth grant**

Number of enterprises receiving non-financial support: **3**

Number of enterprises assisted to cooperate with research institutions: **3**

Number of higher education opportunities created: **1**

"The Energy for Growth fund provides a great opportunity for Northumbria University to support regional businesses via the provision of key R&D services that have the potential to create new revenue streams."

Neil Beattie,
Professor of Energy Innovation,
Northumbria University

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