

# Case study: Blyth STEM Hub and Blyth Partnership of Schools

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## **Can we address the significant knowledge gaps in parents/ carers (and school staff) around employment opportunities and skills requirements in a locality?**

### **Introduction**

The communities in and around Blyth have some of the most disadvantaged lower super output areas (LSOA) with associated low levels of educational attainment, relatively low employment, high income deprivation and relatively poor health outcomes. Despite progress in raising the attainment of children and young people in Northumberland overall, there is a significant gap between the most and least advantaged areas in education, employment and health indicators.

Energy Central is concerned with the economic regeneration of the North of Tyne Combined Authority (NTCA) geography in general and South East Northumberland/Blyth, in particular through business growth associated with offshore and renewable energy and engineering. A significant number of new, high value jobs are expected to be created in the short/medium term relating to the engineering, manufacturing and digital technology needs of these businesses.

More recently, the potentially transformational investment in a Giga Factory – building the next generation of electric car batteries – by British Volt in Blyth itself confirmed the need to establish long-term, sustainable pathways to employment into these sectors and industries.

### **Aims and objectives**

Given the intractable levels of multiple deprivation that are a feature of many localities in the area, it is imperative that children (and their parents/carers) are:

- aware of these opportunities and
- prepared for progression into them should that be their career choice.
- This project contributed to the overarching task to ensure that:
  - children in our education and training system are equipped to deal with the employment and skills landscape that is emerging for our region and that
  - parents, carers and educators are well informed about those developments and can better support young people in their career choices.

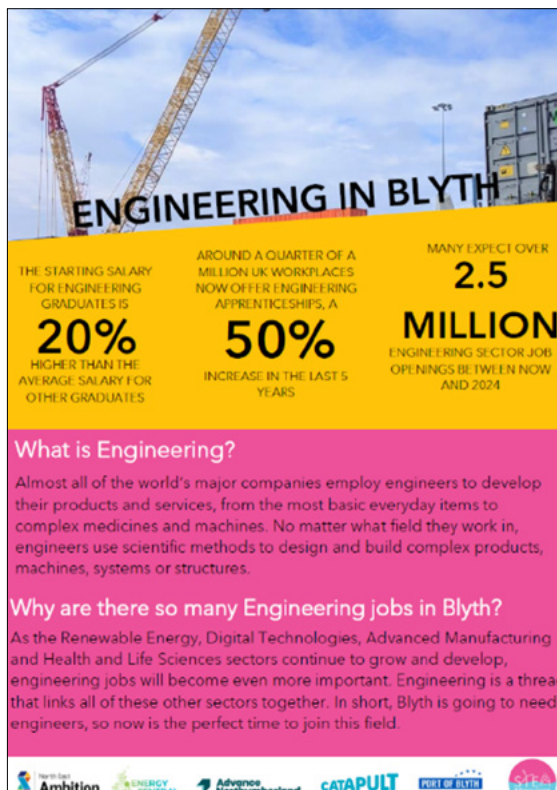
## Working with Partners

The Blyth Partnership of Schools concluded that no one organisation or sector could successfully address these issues alone. Consequently, a whole system model of CEIAG, involving children, young people, parents/carers, staff, employers and wider stakeholders was agreed. In practice, the approach was essentially collaborative without losing sight of the significant importance of employer involvement in programme and materials development.

The following organisations were involved in the project - Blyth Partnership of Schools; ORE Catapult; Port of Blyth; TEXO; Royal IHC; Jacobs; Advance Northumberland; STEM Ambassador Hub; Greenpower Foundation; Friends of LV50; HT Media.

The key outputs of the project completed to date include:

- Short introductory videos highlighting developments in Renewables and Engineering
- Sectoral IAG resources providing insight and LMI associated with key sectors for the locality (see below)
- "My child is interested in..." digital and print resources focusing on specific occupational areas (see below)
- A parent portal on the Blyth STEM Hub website
- Remote support of STEM interventions based around the Greenpower electric car programme accessed via the portal
- Remote learning tour of the Lightship LV50 with associated resources for the primary curriculum accessed via the portal and directly



### ENGINEERING IN BLYTH

THE STARTING SALARY FOR ENGINEERING GRADUATES IS **20%** HIGHER THAN THE AVERAGE SALARY FOR OTHER GRADUATES

AROUND A QUARTER OF A MILLION UK WORKPLACES NOW OFFER ENGINEERING APPRENTICESHIPS, A **50%** INCREASE IN THE LAST 5 YEARS

MANY EXPECT OVER **2.5 MILLION** ENGINEERING SECTOR JOB OPENINGS BETWEEN NOW AND 2024

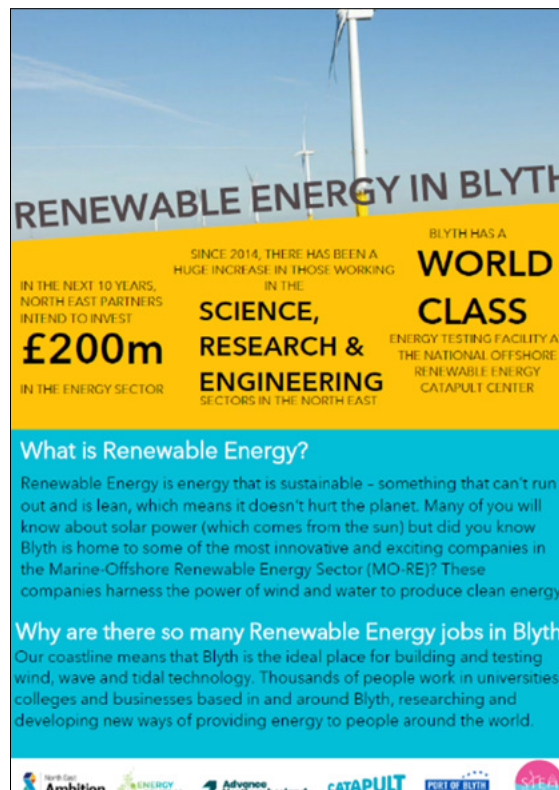
#### What is Engineering?

Almost all of the world's major companies employ engineers to develop their products and services, from the most basic everyday items to complex medicines and machines. No matter what field they work in, engineers use scientific methods to design and build complex products, machines, systems or structures.

#### Why are there so many Engineering jobs in Blyth?

As the Renewable Energy, Digital Technologies, Advanced Manufacturing and Health and Life Sciences sectors continue to grow and develop, engineering jobs will become even more important. Engineering is a thread that links all of these other sectors together. In short, Blyth is going to need engineers, so now is the perfect time to join this field.

Logos: North East Ambition, ENERGY CENTRAL, Advance Northumberland, CATAPULT, PORT OF BLYTH, CEIAG



### RENEWABLE ENERGY IN BLYTH

IN THE NEXT 10 YEARS, NORTH EAST PARTNERS INTEND TO INVEST **£200m** IN THE ENERGY SECTOR

SINCE 2014, THERE HAS BEEN A HUGE INCREASE IN THOSE WORKING IN THE

SCIENCE, RESEARCH & ENGINEERING SECTORS IN THE NORTH EAST

BLYTH HAS A **WORLD CLASS** ENERGY TESTING FACILITY AT THE NATIONAL OFFSHORE RENEWABLE ENERGY CATAPULT CENTER

#### What is Renewable Energy?

Renewable Energy is energy that is sustainable - something that can't run out and is lean, which means it doesn't hurt the planet. Many of you will know about solar power (which comes from the sun) but did you know Blyth is home to some of the most innovative and exciting companies in the Marine-Offshore Renewable Energy Sector (MO-RE)? These companies harness the power of wind and water to produce clean energy.

#### Why are there so many Renewable Energy jobs in Blyth?

Our coastline means that Blyth is the ideal place for building and testing wind, wave and tidal technology. Thousands of people work in universities, colleges and businesses based in and around Blyth, researching and developing new ways of providing energy to people around the world.

Logos: North East Ambition, ENERGY CENTRAL, Advance Northumberland, CATAPULT, PORT OF BLYTH, CEIAG



My child wants to be a.....



## Wind Turbine Technician

Potential apprenticeship salary: £23,000 - £42,000

It has been predicted that in the next ten years there will be a growth in demand for Wind Turbine Technicians, with older wind farms being replaced or refurbished as they come to the end of their working lives. Blyth currently has five turbines, that have the potential to power up to 36,000 homes. Many more wind farms and turbines are on the way. Blyth also has large test sites for new and emerging offshore technologies and Newcastle and Northumberland Colleges have based their Wind Turbine Technical Training Centers at the Port of Blyth.

### Qualifications:

To become a Wind Turbine Technician, your child will need to complete a college course in Offshore and Subsea Engineering, or similar. The entry requirements are usually GCSE's grade 4 or above including Maths, English and a Science subject. Alternatively, they could undertake an apprenticeship with a Renewable Energy business already established in Blyth. The entry requirements for an apprenticeship will be similar to those of a college course.



It was very important that the Project developed resources that emanated from the locality in order that the opportunities that were being discussed were seen as real and immediate as opposed to distant and without context. To this end the Project tried to ensure that:

- Everything that was developed started from a Blyth context or viewpoint
- Videos and materials aimed to excite, engage and inform parents and teachers as well as children
- All materials and videos used predominantly Blyth industry examples
- Materials utilised Blyth employer brands (Jacobs research)
- "Talking Heads" and personal testimonials were from Blyth employees and employers
- The narrator in all sectoral videos had a female regional accent to reinforce the message that these industries were as much an opportunity for females as males



## Impact Measures

As a result of the pandemic, some of the key summative activities (e.g. Parental briefings and activities; Parent Governor conferences) will now take place in the first half term of the academic year 2021-22). This document will therefore be updated at the end 2021.

Evaluative activities to date include:

- Quantitative measures including initial and end point parental questionnaires
- Parent focus groups
- Blyth Partnership STEM Lead Teacher review and feedback
- Parent-Governor online events

### Additional impacts include the following:

- Social media contact and videos of learning/messages from staff have been well received.
- Google Forms sent by text messages have been used very effectively to promote direct parental feedback
- Parents more responsive when receiving more personal and positive feedback about their children, rather than solely being contacted when things not going well.
- Parents engage with aspects such as CEIAG when embedded in a school event they are attending anyway, not as a stand-alone activity

For more information and to access the resources mentioned above, visit the Blyth Stem Hub website using the following links:

**Home Page:** <https://www.blythstemhub.org.uk>

**Parent Zone:** <https://www.blythstemhub.org.uk/parent-zone/>