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DOGGER BANK WIND FARM

Evaluation of the Dogger Bank Wind Farm Community Fund

A Final Report
November 2023

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Executive Summary

Community Commitments/Aim

Dogger Bank Wind Farm (DBWF). has developed a set Community Commitments which are central to their corporate social value objectives:

- To support the developments of the communities living near our sites
- Take a responsible approach in the areas we operate
- Understand that every country and every community is different
- Develop a tailored package of support based on the local need

Project Inputs

AREA	FUNDING ALLOCATION
Redcar and Cleveland	£100,000
East Riding of Yorkshire	£240,000
South Tyneside	£200,000
Scholarship Fund	£325,000
Operational Fund	£100,000
Sponsorship	£25,000
Impact Report (this report)	£10,000
Total	**£1,000,000**

Impacts to date

The DBWF Community Investment Programme has:

- Strengthened employer/educational engagement for pupil and community benefit
- Developed a tailored approach to STEM learning based on local need
- Broadened young people's horizons and raised aspirations
- Increased STEM capacity within schools
- Raised awareness of female role-models
- Developed DBWF's reputation as a community focused
- Removed the debt burden of studying for 62 HE students
- Provided an accessible community grants scheme to support local projects

Next Step and Future Delivery

Recommendations for future delivery include:

- Enhancing levels of employer engagement to allow time for more interaction and site visits to see in work practice
- Widening the geography of employer engagement to reflect travel to work patterns
- Enhancing the scholarship offer to meet students needs
- Ensuring a marketing and promotion budget is available to extend reach and impact
- Improving monitoring systems to measure the impacts of the programme in more detail

These are the identified next steps for the programme:

- Extend the programme period and refresh local priorities to build on success and evolve the programme of activity to meet changing requirements
- Evolve the programmes to continue to enthuse young people about STEM as they progress through education
- Raise awareness of how major investment in renewables can drive community investment and embed evaluation in delivery

1. Introduction and Scope

Introduction

ekosgen was commissioned by SSE Renewables to evaluate the activities of the Dogger Bank Wind Farm Community Investment Programme over the period 2020/21 to 2022/23. SSE Renewables are part of a joint venture partnership currently constructing a new wind farm at Dogger Bank in the North Sea off the North Yorkshire Coast which includes partners Equinor (40%) and Vårgrønn (20%). Together the partnership is known as Dogger Bank Wind Farm (DBWF).

Construction of the Dogger Bank Wind Farm commenced in 2019 and as part of their ongoing commitment to support the local communities in which they operate, DBWF invested £1 million (during wind farm construction) of their Offshore Community Fund into supporting Science, Technology, Engineering and Mathematics (STEM) education projects in three local authority areas: Redcar and Cleveland, East Riding of Yorkshire and South Tyneside. The programme went live in 2021 with each local authority area receiving an allocation of funding over a period of 2-3 years depending on their own delivery timescales.

Table 1.1: Funding allocation by area

AREA	FUNDING ALLOCATION
Redcar and Cleveland	£100,000
East Riding of Yorkshire	£240,000
South Tyneside	£200,000
Scholarship Fund	£325,000
Operational Fund	£100,000
Sponsorship	£25,000
Impact Report (this report)	£10,000
Total	**£1,000,000**

Fund Overview

DBWF committed £1m to the Community Investment Programme in November 2019. The roll out of the programme was subsequently delayed due to the pandemic resulting in delivery commencing at the end of 2020. The investment programme was initially intended to run for a three-year period, however the Programme Board are currently considering an extension to the community benefit fund over the lifetime of the windfarm (30 years). The windfarm will be operational from 2023 and is split into three phases. Phase 1 (Dogger Bank A) – 2023; Phase 2 (Dogger Bank B) – 2024, and Phase 3 (Dogger Bank C) – 2025.

The programme aims to provide inspiring STEM activities to schools across the three identified local authority areas. DBWF has developed a set Community Commitments which are central to their corporate social value objectives and outline their intent to support the communities in which they are working. The Community Commitments are:

- To support the development of the communities living near our sites;
- Take a responsible approach in the areas in which we operate;
- Understand that every country and every community is different;
- Develop a tailored package of support based on local need.

Linking back to these commitments, the focus of the programme for DBWF's development in the North East and North Yorkshire area of the UK is to enhance access to STEM opportunities within the learning environment, with each of the identified areas choosing their own approach to embedding STEM learning opportunities in response to locally identified need.

In addition, 62 scholarships have been made available through the Scholarship Hub (a charitable organisation that has now been formally acquired by Blackbullion social enterprise) for young people looking for support with their higher and further education costs in addition to ongoing financial advice and guidance.

Furthermore, the Dogger Bank Wind Farm Operational Fund provides small grants to grassroots community projects to help enhance the quality of life for local residents; contribute to vibrant, healthy, successful and sustainable communities; and/or promote community spirit and encourage community activity.

Programme Development

The geographical areas covered by the Programme were identified based on the strength of their connection to the wind farm, both during its construction and when the wind farm becomes operational. Relationships with the three local authority areas were developed early in the concept stages for the development of the windfarm and have strengthened over time, with each local authority engaged to support the delivery of the investment programme within their local area.

At an early stage in the process, it was determined that DBWF did not wish to be prescriptive as to the approach by which the STEM support offer would be delivered in each area. They felt strongly that the fund should be used to fulfil a local requirement and respond to the different needs of the three localities.

Based on this approach, each education and skill stakeholder in the identified localities sought to determine the STEM needs within their area. Each submitted a proposal to DBWF for review and approval with a funding allocation provided to finance their proposals over a 2–3-year period. As part of the process each local area has worked with a STEM delivery partner to assist them in delivering their intended programme of STEM learning activity based on their locally defined need

Community Commitments/Aim

Table 1.2 provides an overview of the adopted approach and allocation in each of the three areas:

Table 1.2: Programme overview by geographic area

LOCAL AUTHORITY AREA	COMMUNITY FUND PROGRAMME OVERVIEW	FUNDING ALLOCATION
Redcar and Cleveland	• Embed career advice into each primary school. • Deploy a career specialist to work with every primary school in the LA area. • Each school to identify a teacher to be upskilled to become the STEM lead. • Every school gets a partnership with a local STEM employer providing young people with the chance to experience the real world of work.	£100,000
East Riding of Yorkshire	• Every primary school given the opportunity to go through a STEM quality award (Primary Science Quality Award PSQM). • Procured a specialist partner to provide STEM related Continued Professional Development (CPD) support schools/teachers.	£240,000
South Tyneside	• Focused their programme on raising awareness of STEM related careers by organising planned career events to allow students to make more informed decisions about their future career choices. • STEM attainment focused on girls and the barriers they faced when looking at STEM related career options. • A programme of Little Inventors aimed at primary school children has been developed to highlight how STEM subjects can help to solve problems.	£200,000

Table 1.3 provides a breakdown of the remaining budget allocation of the fund, not specific to the tailored approach in each local authority.

Table 1.3 Remaining programme overview

BUDGET AREA	COMMUNITY FUND PROGRAMME OVERVIEW	FUNDING ALLOCATION
Scholarship Fund	• 62 scholarships made available for young people looking for support with their higher and further education costs. • The scholarships are open to all and based on distance from core points (postcode in each local authority) to ensure those closest to the development are the ones who are benefiting.	£325,000
Operator Fund	• Initially developed to support local charities and groups to sustain their activities both during and after the covid-19 pandemic. However, demand remained strong resulting in the partners increasing the total funding available to £100,000. • Initially, funds up to £500 were available, however, in October 2022 the grants were doubled to £1,000 for community groups in its key communities in recognition of increasing costs and financial pressures.	£100,000
Sponsorship	• Sponsorship to ensure that the benefits of DBWF and the Community Fund are known to all who it may benefit.	£25,000
Impact Report	• Impact report to evaluate the STEM Investment Programme (this commission)	£10,000

Programme Management

The overall programme was managed by DBWF, with local authorities and the procured service providers providing updates and performance monitoring information to them on a monthly basis. Consultations with the local authority leads and the service providers outlined that good working relationships had been developed with the programme management team, with regular meetings and updates provided to ensure progress was reported and any issues identified early to find effective solutions.

At the local level, it was advised the DBFW had supported the delivery partners with the sourcing of employers that could be partnered up with schools accessing the programme. These employers had typically been part of DBWF's supply chain and had offered support as part of their ongoing social value commitment to the local area. The employer engagement has been a successful aspect of the programme

Evaluation Objectives

The purpose of this report is to understand the contribution that the Community Investment Programme has made during its first years of operating and to explore what difference it can make to STEM attainment going forward. Key research questions included:

- Do stakeholders feel the Programme has enhanced STEM provision in the local area?
- Has the Programme performed well?
- Does the Programme align with local and national STEM education priorities?
- What innovative and strong delivery practices has the investment secured?

This evaluation will inform whether the Programme should continue, and in what format within the existing geography. It will also inform whether the Programme could be emulated in other investment locations across the UK and internationally as an exemplar for how social value commitments arising from major investment in renewables can drive local community benefits.

Evaluation Objectives

The following diagram summarises the study approach.

Figure 1.1: Study methodology

2. Context and Rationale

Introduction

This chapter sets out the policy context for STEM in England and across the UK. It discusses the challenges relating to engagement, participation and achievements in STEM education by taking into consideration the education, skills and employment profile of the region.

Defining STEM

STEM stands for Science, Technology, Engineering and Mathematics. Each of these separate disciplines can be defined in the following way:

Figure 2.1: A definition of STEM

Engineering and Mathematics can be defined as follows:

- Science enables us to develop our interest in, and understanding of, the living, material and physical world and develop the skills of collaboration, research, critical enquiry, experimentation, exploration and discovery.
- Engineering is the method of applying scientific and mathematical knowledge to human activity and Technology is what is produced through the application of scientific knowledge to human activity.
- All of STEM is underpinned by Mathematics and equips us with the skills and approaches we need to interpret and analyse information, simplify and solve problems, assess risk and make informed decisions. Mathematics and numeracy develop essential skills and capabilities for life, participation in society and in all jobs, careers and occupations. As well as providing the foundations for STEM, the study and application of mathematics is a vast and critical discipline in itself with far-reaching implications and value.
- Digital skills also play a huge and growing role in society and the economy as well as enabling the other STEM disciplines. Like mathematics, digital skills and digital literacy in particular are essential for participation in society and across the labour market. Digital skills embrace a spectrum of skills in the use and creation of digital material, from basic digital literacy, through data handling and quantitative reasoning, problem solving and computational thinking to the application of more specialist computing science knowledge and skills that are needed in data science, cyber security and coding.

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The STEM Education Policy Context

The ever-growing significance of STEM is apparent in numerous policy papers and initiatives dedicated to its advancement, as demonstrated below in Table 2.1.

Table 2.1: Table of Relevant Policy Documents

POLICY	STRATEGIC FIT
National Priorities	
UK Science and Technology Framework (2023)	Sets out goals and the vision for science and technology in an enduring framework to 2030. This includes a focus on talent and skills, including those in STEM, and outlines the aim that by 2030 there will be an "agile and responsive skills system, which delivers the skills needed to support a world-class workforce in STEM sectors and drive economic growth". As well as continued increases in "recruited and retained high-quality FE and school teachers in STEM-related subjects" and the creation of "proactive career advice programmes which establish links between STEM training or education at 16 and well-paid jobs".
Offshore Wind Sector Deal (2020)	Outlines the UK's global leadership position in offshore wind and seeks to maximise the advantages for UK industry from the global shift to clean growth, consistent with the Clean Growth Grand Challenge. It outlines a variety of ways of achieving this, including committing to increased UK content to 60% by 2030 and increasing the representation of women in the offshore wind workforce to at least a third by 2030.
UK Industrial Strategy (2017)	One of the pillars of this plan focuses on skills, with help being imperative in order to aid people and businesses to thrive by ensuring everyone has the basic skills needed in a modern economy. This involves "building a new system of Technical Education to benefit the half of the population who do not go to university, boosting STEM skills and numeracy, and raising skill levels in lagging areas".

Source: Scottish Government (2017) STEM Education and Training Strategy

The focus and acknowledgement of the importance of STEM is well acknowledged by the Scottish government. Key policies such as the STEM Education and Training Strategy, Good Practice Principles for Community Benefits from Offshore Renewable Energy Developments provide exemplars for other parts of the UK to emulate and has informed activity by DBWF in the north of England.

The Case for Intervention

The rationale for intervention in STEM education provision in the three target geographic areas includes:

- A lack of quality STEM education provision and defined routes into STEM employment
- Strong sector growth requiring STEM skills anticipated
- A lack of high-skilled and high-paying employment in the target areas
- A need to retain and attract talent of working age

In addition to clean, renewable electricity generation, the project partners are delivering significant investment and good quality jobs in local areas across the UK. These projects contribute considerable economic benefits to their respective areas through their development, construction, operations and maintenance. In addition, wider socio-economic benefits are secured from the wind farms' community investment programmes which are provided over their operational lifetimes.

There are a number of market failures which the Programme sought to address:

- Lack of Information / Information Asymmetry: Incomplete knowledge and provision of STEM education and employment opportunities and the routes into them. Pupils lack the information they require to make informed decisions and fail to appreciate the benefits they could gain from STEM education and employment. This programme will support pupils to make more informed decisions by improving STEM education and increasing awareness of the many and varied opportunities through STEM related sectors.
- Coordination Failures: As multiple partners need to come together to successfully share expertise and ideas, it can be challenging to secure full involvement to support successful delivery. The Programme will further support the establishment of relationships between STEM businesses, local schools, teachers and students to build a network enhancing both education and employment opportunities. These beneficial relationships will be deepened through delivery of the project and its activities.
- Hidden Potential of Education: people do not realise the true benefit of education, in this case, the benefit of improved STEM education and links between schools and employers for the area. The project will support pupils to enhance their STEM education and facilitate progression pathways to STEM related employment. In the long term, this will support the retention of talent in the area, and support access to highly skilled and productive employment.

STEM Skills Challenges

STEM employment currently accounts for approximately 25% of total employment in each of the three constituent authority areas. This is under-represented relative to the regional and national average of 29% and 30% respectively.

Figure 2.2 STEM Employment Breakdown

England	**30%** in STEM Employment **27,407,000** Total Employment
East Riding of Yorkshire	**25%** in STEM Employment **136,000** Total Employment
South Tyneside	**26%** in STEM Employment **43,500** Total Employment
North East	**29%** in STEM Employment **1,120,500** Total Employment
Redcar and Cleveland	**25%** in STEM Employment **39,500** Total Employment

Recent and planned investment opportunities in the area are closely aligned with STEM activity and there is a need to equip local residents and workers with the skills required to access these opportunities.

Defining features of the local skills landscape in the target geographies are summarised in Figure 2.3. This baseline position underscores the rationale for intervention via the STEM Programme.

Figure 2.3

	Low qualifications profile, with an above average proportion or residents holding no qualifications and a below average proportion of NVQ Level 4+ qualifications relative to the national average
	Above average participation in apprenticeship, however there is a gender divide, with less females participating in apprenticeships overall and a widening disparity when considering STEM apprenticeships
	Below average enrolments in higher education, with many students choosing a provider close to home

3. Redcar and Cleveland

Background to the Fund

Redcar and Cleveland Borough Council based their approach on a previous programme that they had successfully delivered and wished to continue further. They hoped to strengthen the impact of the intervention, focusing on upskilling and creating capacity and capabilities within the teaching resource. Redcar and Cleveland Borough Council identified a series of major investment opportunities and wanted to develop a programme that connected young people to careers within the borough, now and in the future. The 'Building our Future' programme sought to:

- Raise awareness of local career opportunities and the diversity on offer from an early age;
- Demonstrate how maths and science in the curriculum is used in the real world;
- Develop softer skills such as social interaction and team work;
- Raise awareness and aspirations amongst parents to upskill and aspire to quality employment opportunities.

A pilot programme ran initially, working with Year 5 pupils in two schools with an employer leading the construction of the new Regent Cinema. This was delivered over a 6-week period with employer participation aimed at introducing the project, exploring children's understanding and perceptions, interactive activities associated with design and construction, identifying job roles, and engaging with parents.

The Department for Education (DfE) have expressed the importance of career education with the appointment of a new national lead for Careers Education within primary schools who will focus on how career-based learning can be embedded from the beginning of the education process. DfE have cited Redcar and Cleveland as good practice example of how a whole authority approach to embedding career education can work in practice.

Activity programme

The funded programme of activity in Redcar and Cleveland started in the 2022/23 academic year and will continue in 2023/24 with the possibility of an extension.

Redcar and Cleveland Voluntary Development Organisation (RCVDA) are the lead partner working with the council to deliver their programme of STEM learning activity. RCVDA have employed a career specialist to work with every primary school in the area of which there are 44. There programme of activity is as follows:

- Each engaged primary school has identified a teacher to be upskilled to become the STEM Lead for their school with the aim that they will deliver STEM learning activity going forward as well as playing a role in upskilling other members of the teaching team.
- Identified teachers partake in a 6-8 week learning module entitled 'Building our Futures'. The training module focuses on building both teachers and pupils awareness of STEM related careers and how employment in a STEM industry might be achieved. It aims to support teachers with their Continued Professional Development (CPD) in this area as well as alerting primary aged children to the prospect of a career in STEM.
- Each school that joins the programme also benefits from a partnership with a local STEM employer (typically from the DBWF, their supply chain, or a Council contractor) who will provide the pupils with the opportunity to experience the real world of work. This includes allowing pupils to visit local sites and work with a range of staff.
- Building our Future also offers wider support to schools including STEM curriculum resources and activities, visits to local colleges, literacy materials, and National Careers Week career events.

Programme Performance

Figure 3.1: Redcar and Cleveland Year 1 programme performance

Outputs

20	Primary schools worked with including 2 SEND providers
45%	Of target achieved to date (44 schools total)
560	Young people engaged to date
22	Employers actively involved
40+	Employers in wider network

Outcomes

- Broaden horizons and raise aspirations
- Develop soft skills
- Strengthen employer and education engagement

Wider Impacts

- Support successful transition at key stages, including increased participation in education, employment and training
- Raise aspirations amongst parents to support upskilling and employment
- Capacity building amongst schools to support sustainable activity in the long term

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The programme in Redcar and Cleveland has worked with 560 young people over two academic years. Of the 44 primary schools in the local authority area RCVDA has worked with 20 schools to date with a view to bringing the remaining 24 into the programme in 2023/24. Consultation with RCVDA highlighted that this had been a positive start and that word of mouth within the local teaching community was assisting in spreading the positive feedback from the support to those schools yet to engage. The Council identified there is a waiting list of schools keen to participate and a bank of some 40+ employers from within the STEM sector keen and willing to be involved.

Those schools that have joined the programme have benefited from industry involvement with employers visiting the school to work with pupils raising awareness of STEM career opportunities and working with them to set a STEM related challenge:

> *"The 'Building our Future' programme is all about inspiring the next generation of engineers which aligns with my own principles and those of Sweco where we plan and design the sustainable cities and communities of our future ...it is really important to me personally to be able to work with our future generations so they better understand how diverse a career in engineering can be and this is exactly what the fantastic Building our Future programme is all about."* (Stuart Wilson, Technical Director, Sweco)

*Note: Output data for the figure above and in the section that follows has been provided by RCVDA and represents feedback obtained in Year 1 of delivery.

It is hoped that these employer relationship with the schools will continue with mutual benefits achieved for both the companies (as part of their commitment to social value) and for the schools/pupils who benefit from a deeper understanding of how they can access new opportunities that may come forward in their local area.

Feedback received from the pupils following their involvement in the programme to the RCVDA and shared with the evaluator highlighted the following:

Figure 3.2: Pupil feedback received from RCVDA

- Confidence in making future career decisions has increased from **71% to 85%**
- Feeling positive about the future has increased from **77% to 90%**
- Young people who have held a career conversation has increased from **55% to 96%**
- Awareness of who supports and organises Careers in their school has increased from **40% to 70%**
- All Building our Future young people understood that they explore jobs and careers at school, and this is mainly through classroom activities (**59% to 85%**) and when visitors come to school (**69% to 80%**)
- More than **91%** of young people can tell a teacher their career aspiration compared with **55%** at the start of the programme

The feedback shows the positive contribution the programme has made on the pupils supported so far. It shows that:

- Pupils' awareness of the career opportunities open to them have increased
- There has been a noticeable improvement in pupils understanding of how and where to access career related information within the school environment – which may open them up to alternative career ideas that they may not have considered previously.

The feedback received is useful in highlighting young people's understanding of career opportunities and where and how to access information, however it does not link back to the aims of the programme, which were to raise awareness of STEM careers. Survey questions issued to the pupils relating to the overall aims and objectives of the programme would better demonstrate the impact of the support and training provided. Further monitoring with the identified STEM leads would also add to the overall understanding of the impact of the programme and how this was affecting teachers confidence in developing STEM learning within the school and their thoughts on the impacts on the pupils, especially following the employer led sessions.

Beneficiary perspectives

An e-survey was distributed by the evaluators to all teachers that have been involved in the wider programme of activity across the three local authority areas during September 2023. The following results provide perspectives from teaching staff from the Redcar and Cleveland programme.

Figure 3.3: Redcar and Cleveland beneficiary perspectives

- **100%** of teachers found support from a career specialist very effective and **83%** found participation in a 6-week career programme very effective.
- **100%** of teachers said their students experienced improved career progression and increased understanding of STEM related careers and how to design lessons.
- **75%** of teachers said the programme increased their confidence to lead STEM activity and increased levels of CPD undertaken.
- **75%** of teachers said the programme improved links with industry and the development of STEM led activities going forward within the school.
- **100%** of students experienced a greater understanding of careers linked to STEM education and **65%** has increased engagement with STEM subjects.
- **50%** of students has increased enjoyment of STEM subjects and **33%** had increased confidence in using STEM related language

Respondents were asked which element of the support they felt was most beneficial to themselves and/or their school. The responses show that that the teachers valued the shared knowledge of the trainer and the ability to work with an employer to highlight STEM related career options.

> "Children got to speak to (and work with) a professional working in a STEM career. Children understood the range of diverse careers that are available in STEM."

> "Career Specialist supported us to organise a Careers Week, without this help I would have struggled to provide the effective opportunities to liaise with employers and provide our pupils with different experiences."

Respondents suggested an improvement to the support would be to physically visit some of the employers on site. It is considered that this would be a positive step forward for the future of the programme. Viewing work in practice would alert young people to the opportunities that are available to them:

> "To aim to develop links with more local industries to help raise the aspirations of our children. Visits to or from local employers."

> "We would love to participate in visits outside of school to meet with local STEM employers".

> "More employer encounters through local STEM businesses and organisations. Increased awareness of STEM approaches to learning and developing opportunities for pupil enterprise within the curriculum."

Challenges encountered

Minimal challenges have been encountered so far in the delivery of the programme. Consultation with the delivery partner did however identify that despite support from the Council and DBWF, securing ongoing industry engagement to work with each school was quite difficult to achieve given the need for them to be working within the Redcar and Cleveland administrative boundary. Whilst they had met all of their commitments for the schools engaged thus far, RCDVA were concerned that the same level of buy-in may not be achieved in the following academic year.

Given the success of the programme this far, RCVDA and Council are keen to extend the programme beyond the two-year programme already funded. This will require funding commitment and capacity to extend support to each school.

4. East Riding of Yorkshire

Background to the offer

In East Riding of Yorkshire, each school has been offered the opportunity to participate in one or more strands of the programme:

1. **STEM Learning** – CPD and leadership development;
2. **Primary Science Quality Mark** (PSQM);
3. **Career Mark** – Career and work-related learning.

The programme sought to:

- Address knowledge gaps that exist in the STEM curriculum to deliver a more comprehensive STEM learning programme and support skills development.
- Deliver increased confidence, capacity and quality in the delivery of career education.

Activity programme

STEM Learning

STEM Learning aim to enable young people to achieve highly in STEM related subjects. In order to support this aim STEM Learning focused on:

- Supporting teachers within primary schools to improve their own skills and experience of delivering STEM related subjects to their pupils. The support is offered as part of teachers CPD activity and is centred of the requirements of each school/identified teacher.
- Provision of a Senior Advisor and four Advisors to work alongside the engaged schools and teachers to support their development. They offer a three-year programme to support teaching staff within the school with the development of their STEM knowledge and skills.
- Establishment of the Enthuse Partnership that works in collaboration with the PSQM hubs that have been established to offer well-rounded support to teaching staff looking to develop their STEM skills and STEM opportunities for their pupils.

Primary Science Quality Award (PSQM)

East Riding of Yorkshire has 123 primary schools. PSQM engaged with 34 primary schools in the academic year 2022/23 and have a further 44 looking to partake in the programme for 2023/24. The overall aims of the accreditation process are to:

- Increase levels of engagement in STEM subjects that are linked to careers of the future.
- Increase levels of educational attainment in STEM subjects.

It was considered by both the local authority and PSQM that in order for participation in STEM subjects to improve at a higher level (GCSE upwards), engagement needed to take place at a primary level to embed interest and enthusiasm for the subject areas at a young age. It is anticipated that this will then follow through into secondary education. With this in mind PSQM developed a programme of activity to support primary schools in East Riding of Yorkshire to achieve a recognised science led accreditation.

In addition, teachers have access to a virtual learning area and a knowledge sharing hub, whereby a PSQM Hub Leader would work with a small group of engaged schools, bring them together on a regular basis to share ideas, challenges and lessons learned in an informal setting. Achievement of the award would take each school a year to complete.

Career Mark Primary

Career Mark (CM) is a nationally acknowledged accreditation which focuses on developing and embedding career related learning and world of work experiences. This activity was initially delivered with eight pilot schools which had seen great success as reported by the local authority. At the primary level, it was acknowledged that careers education is at the bottom of the list for many schools with a number of competing elements of the curriculum to accommodate. Furthermore, it is not a subject teachers feel overly confident in delivering. This has made it a hard sell but has highlighted the need for further support in this area.

The Community Investment programme has allowed the settings to embark on their own improvement journeys linked to STEM careers with the process being embedded in the engaged schools securing its continuation once the funding is no longer available.

Programme Performance

Figure 4.1: East Riding of Yorkshire Year 1 programme performance

Outputs

34 Primary schools worked with in 2022/23

28% Primary schools engaged to date (123 total)

44 Primary schools joining the programme from 2023/24

Outcomes

- Increased participation in STEM education
- Raised attainment in STEM subjects
- Greater understanding of the value of STEM education by pupils, parents and teachers

Wider Impacts

- Support successful transition at key stages, including increased participation in education, employment and training
- Raise aspirations amongst parents to support upskilling and employment
- Capacity building amongst schools to support sustainable activity in the long term

The programme experienced a slow start due to COVID-19, with schools' capacity to engage in new initiatives very limited. A key challenge was identified as getting schools to understand how important STEM curriculum and careers is, and the benefits participation can yield to pupils and teachers. Whilst the funding pays for the awarding bodies, schools needed to invest staff time and leadership commitment.

At the time of reporting 34 schools were engaged with working towards the PSQM accreditation with a further 44 joining from September 2023. The providers feel that now that the offer has become more established more schools will come on board with word-of-mouth marketing between teachers acting as a powerful tool in promoting the benefits of obtaining these accreditations and participating in the programme. At the time of the evaluation no schools had received the quality mark but were working towards the assessment.

Consultation with the delivery partners revealed that in order for a school to engage in the offer, the importance of STEM and science needed to be seen as a priority within the school, advising that it often required a designated teacher to take the lead in driving the achievement of the accreditation forward. Where this has not been the case, the provider has continued to promote the benefits of the accreditation and encouraged those on the programme to spread the word to others in their network.

Beneficiary perspectives

The teacher e-survey was responded to by a small number of teachers (only 2 teacher responses from this area) in East Riding of Yorkshire. Given the activity programme delivered in this area, the results outline that respondents have found the support with CPD and from the career specialist the most effective which is reflective of the activity delivered.

"This has been really beneficial as we have been able to continue to develop our Careers Mark programme and ensure our pupils are extending knowledge in this area."

"Meeting with career specialist to receive guidance and through the CPD sessions."

The respondents were asked about the impacts their pupils have experienced as a result of the support, both suggested that they had greater understanding of careers linked to STEM education and increased engagement in school by families/carers. One suggested that there was increased enjoyment of STEM subjects.

Both respondents suggested that they felt more confident introducing STEM learning opportunities into the school curriculum following the support received. With one respondent articulating their intention to:

"further develop links to businesses who can support school".

Challenges encountered

One of the key challenges faced by STEM Learning was the lack of capacity and funding with the school budgets to allow teachers the time to access the support provided. Some of the primary schools in the area had expressed interest in the programme, and although the support was free of charge, they were unable to take time away from the classroom to dedicate to the training and accessing the peer networks. This is due to a lack of resources within schools to cover teaching time when time is required outside of the classroom.

This challenge had been echoed by PSQM, who had outlined that most schools wished to improve their STEM learning offer but were unable to allocate sufficient time and resources to allow a member of staff to develop their skills, and lead the school toward the quality mark. They stated that the only way the programme works is if there is high level buy-in from the senior leadership team who view STEM as a priority learning area for their school.

In East Riding of Yorkshire, there was some initial confusion about the role of the strategic and delivery partners which caused some tension. This was resolved upon flagging and has resulted in a strong and positive partnership arrangement. Providing clarity on the roles of funders, strategic partners and delivery partners at the outset with a supporting terms of reference would mitigate this risk in the future.

5. South Tyneside

The programme in South Tyneside focuses on helping schools prepare their students for future work. South Tyneside Council undertook a careers audit which included a SWOT analysis of each school and identification of the support they would benefit from. The careers audit identified underpinning challenges including education attainment, attendance and behaviour. The audit found that weak points in STEM related learning were present at the primary to secondary transition stage with a further dip at latter stages of secondary school, highlighting the need to enthuse young people from Years 4-8 as to the benefits and opportunities that can be realised as a result of studying STEM related subjects.

A further area of focus for South Tyneside has been the barriers faced by girls and non-binary young people when looking at STEM related career options, with preconceptions that careers in these areas are typically male jobs.

South Tyneside Council contracted two delivery partners to support their activity in South Tyneside:

- Little Inventors have developed a programme of activity aimed at raising awareness of STEM related careers for pupils in years 4 and 5 of primary school.
- Stemettes have been tasked with working with young women and non-binary young people in years 7 and 8 to break down barriers and stereotypes surrounding STEM subjects and careers.

Activity programme

Little inventors

Little Inventors has been working with a number of primary schools across South Tyneside focusing on Years 4 and 5 as follows:

Year 4: Work with the class to develop and invention harnessing the power of wind.
Year 5: Focused on kinetic energy and how movement can be used to generate renewable energy.

Each year group goes through a period of learning about the topic area and is subsequently set a challenge to develop their own invention. Each student has a form to fill in outlining their invention and how it will work. Each form is reviewed by a panel of adjudicators (made up of members of the council, staff from DBWF and representatives from Little Inventors) with a select few going on to work with a designer to bring their inventions to life. At the end of the year an exhibition is held showcasing all of the entries and the developed models for pupils to showcase their work to their families and members of the community. Pupils also get the opportunity to meet the inventor that developed their idea.

Stemettes

Stemettes offers a suite of programmes and events tailored to girls and non-binary individuals to assist in addressing inequalities in STEM subjects and careers. The programme has been specifically developed for South Tyneside based on the requirements of the local authority to meet an identified need. The offer has included four events:

- 2 x Leadership Academies: a day long workshop focused on career skills. Female workers from DBWF have provided positive role models and guest speaking opportunities.
- 2 x STEM Goals events: Centred on an offshore renewables theme and delivered as a panel event with a number of influential women in STEM guest speakers attending the event to answer any questions and break down misconceptions surrounding STEM careers.

The aim of Stemettes is to break stereotypes around women working in STEM by providing fun and accessible events and workshops that showcase the achievements of women in the field.

Programme Performance

Figure 5.1: South Tyneside Year 1 programme performance

Outputs

21	Primary schools worked with out of 49
45%	Girls and non-binary individuals participated
100%	Increased their awareness of STEM career
100%	Increase STEM knowledge
95%	Increased confidence in STEM activities
30%	Stated they wanted to pursue a career in STEM after the event

Outcomes

- Broaden horizons and raise aspirations from new role models
- Develop of new ideas and increased presentation skills
- Greater engagement with the value of STEM from parents as well as pupils

Wider Impacts

- Support successful transition at key stages, including increased participation in education, employment and training
- Raise aspirations amongst girls and NB people to pursue a career in STEM due to increased representation and role models
- Capacity building amongst schools to support sustainable activity in the long term

Little Inventors has engaged with 21 of the 49 primary schools in South Tyneside. A promotional video has been sent to all schools to showcase the activities available and the links the programme has to the local area and the development of the windfarm. All resources are provided to each school engaged with the programme to ensure there is limited impact on teachers' time in partaking. Teaching resources are also available to access throughout the programme period.

Little Inventors felt that the programme has been particularly beneficial to those pupils that had won the opportunity to have their inventions developed. The pupils got to see firsthand how their idea was to be developed by working closely with the designers and having the opportunity to present their idea at the exhibition. Furthermore, it has been important to engage the pupils' families in the process, by inviting them along to the exhibition to view the work produced with the opportunity to share ideas and stories regarding their involvement in past and present industries that operate in the area.

*Note: data provided in the figure above has been provided by Stemettes and Little Inventors and covers work undertaken in academic year 2021/22 and 2022/23. https://southtyneside.littleinventors.org/challenges/powering-the-future-south-tyneside-and-beyond

Stemettes have held four separate events during the last academic year. Events were held in a centrally located venue with participation voluntary from any interested girls and non-binary individuals wishing to attend. It was advised that Stemettes had hoped for attendance to be higher and thought that it would work better if they were able to engage with each school directly to build up relationships to promote the benefits of the offer to the teaching staff and the students.

Stemettes were able to provide feedback collected from two of the events that they have hosted in South Tyneside:

Event 1: STEM Goals 4th of May 2022 – Topic Offshore Wind

- 31 girls and non-binary individuals attended the event from two secondary schools in South Tyneside.
- 100% of the attendees were between 14-15 years old.
- 27% were eligible for free school meals, 41% had parents that did not work in STEM and 36% has parents that had not been to university.
- 100% increased their awareness of STEM career options, 100% had increased their STEM Knowledge and 91% had increased their confidence in their STEM abilities.

Event 2: STEM Goals 28th of March 2023 – Topic Carbon neutrality

- 14 girls and non-binary individuals attended the event from one secondary school in South Tyneside.
- 100% of the attendees were aged 16.
- 40% were eligible for free school meals, 60% had a parent that did not work in STEM and 50% had parents that had not been to university.
- 20% can from an under-represented ethnic background.
- 100% had increased their awareness of STEM career options, 100% had increased their confidence in STEM and 100% had increased their knowledge of STEM.
- 30% stated that they now wanted to pursue a subject/career in STEM following the event.

Some key quotes obtained from the Stemettes feedback reports demonstrate the impact of the events on the attendees:

"I mostly enjoyed talking to the volunteers. It was really eye-opening about all the different types of jobs to do with STEM"

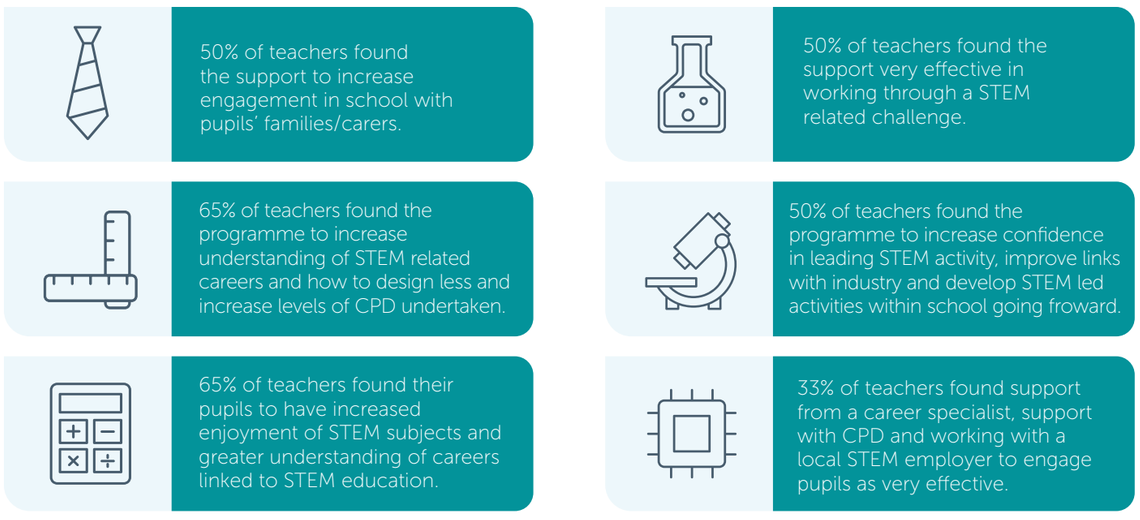
"I looked forward to meeting female role models from my local area and getting to know their career paths".

The feedback shows and increased awareness of STEM subjects and careers as a result of the event attended. The most valued element that comes across in the responses has been to opportunity to talk to other women working in the field and the positive influence this has had on the young people that have attended in terms of their future aspirations.

Beneficiary perspectives

Teachers were asked to provide feedback on the support received through and e-survey. Respondents were asked to assess the effectiveness of the programme, the results of which are summarised in Figure 6.1.

Figure 6.1: South Tyneside beneficiary perspectives



Respondents were asked which element of the support they felt was most beneficial to themselves and/or their school:

"Resource packs with curriculum links"

"The CPD so far"

All respondents felt that the programme had impacted on all of the areas outlined with most people stating that it had increased their levels of CPD and improved their levels of understanding in STEM careers and how to develop this into lessons going forward.

The respondents were asked whether they felt more confident introducing STEM learning opportunities into the school curriculum following the support received, 5 of the 6 answered yes with 1 unsure. There were a couple of improvements suggested by respondents:

"Opportunities for site visits and/or visitors into school."

"It would be great if we could have easier access to the companies willing to support events taking place in school"

Challenges encountered

Feedback from Stemettes and Little Inventors outlined that attendance at the events and take-up of the activity programme had been lower than they had hoped. There are 13 secondary schools in South Tyneside and at the point of evaluation Stemettes attendees to the events hosted came from four of those schools. Stemettes hoped to work with more in this coming academic year but felt that they may have more success if they were able to engage directly with each school rather than the sessions been promoted through the local authority.

They felt that they might better convey the purpose, key messages and impacts of the work they undertake to be able to generate more interest in the sessions and increase the impact of the programme if they had been able to build up the relationship with the school and key personnel.

6 Scholarship Programme

A further strand to the DBWF Community Fund is the Scholarship Programme. DBWF have made 62 scholarships available for young people looking for support with their higher and further education costs. The Scholarship Hub was originally appointed as the delivery organisation to administer the funds, but this charity has subsequently been taken over by Blackbullion who operate an online platform to help students manage their finances whilst they study. The also administer a number of scholarship programmes throughout the UK.

The Scholarships are open to all and based on distance from core points (postcode in each local authority) to ensure those closest to the development are the ones who are benefiting. Eligibility criteria include:

- Proximity to where DBWF is operating – those closest to it will benefit more. Need to be either from that area or living there as their primary home address;
- Undertaking a STEM based course;
- Eligible for UK tuition;
- Have refugee status in one of the three geographical areas covered.

Blackbullion have supported DBWF in the development of their scholarship application form and also supported young people wishing to apply. Blackbullion acts as the main contact for the payment of the scholarship to successful applicants. The scholarship will pay £5,000 directly to the student loans company to pay towards fees and reduce the amount owed by students as a result of their studies.

Blackbullion undertake an initial review of applications based upon the criteria outlined, forwarding those that are eligible for support onto DBWF to award the chosen successful beneficiaries.

Of the 62 students that have been successful all are studying a subject that falls under STEM as follows:

- 30% are studying traditional STEM subjects;
- 40% are studying 'other' subjects such as medicine, nursing, psychology etc;
- 15% are studying some form of computer science;
- 15% are studying some form of business study such as accounting, finance, economics etc.

This shows a broad range of subjects covered that link to the core STEM areas.

In addition, those that receive scholarship funding are provided with the opportunity to access short paid work placements or summer internships. So far 12 students have accessed this opportunity, with Blackbullion looking to promote this offer further over the coming year.

Blackbullion is a large social enterprise with a significant student membership. Thay have used this level of interaction with students to promote the offer available through DBWF to their eligible members. They have further promoted the opportunity though their website and social media channels.

Beneficiary perspectives

An e-survey was circulated to all beneficiaries of the scholarship funding. Of the 22 respondents to the scholarship recipient e-survey, 41% were from South Tyneside, 27% from East Riding of Yorkshire and Redcar and Cleveland respectively, and 5% from 'Other' which referred to Tyne and Wear. The results are presented in Figure 7.1.

Figure 7.1: Scholarship student perspectives

41% of students went onto study for a BSc qualification, with the next highest being MSc (**14%**).

50% of students applied due to wanting to undertake a STEM related subject and **45%** due to difficulties in affording tuition fees.

64% of students found the funding support very helpful and **27%** found it somewhat helpful.

100% of students said an impact of the funding would be completing their course with lower levels of debt.

68% of students applied due to concerns of potential debt following course completion and **64%** were worried about the cost of living whilst studying.

43% of students said the programme has taken away worries of affording to live whilst studying and reducing their family's worries as to the cost of studying.

The respondents were asked to outline their thoughts on the scholarship programme. The majority explained the positives of the scholarship, there were however a handful of slightly less positive responses detailing how the scholarship could have better benefited them. Below are some selected key quotes from respondents.

"The money didn't go directly to me, it went to the student loans company to pay off my loans which yes may help in the future but it didn't help me with my current studies as I still had to get a job to help pay with rent, bills food etc. which meant my full efforts hasn't gone into my studies."

"With the help of this scholarship, it has been able to ease the burden of student debt that I will accumulate over my degree. It does also help that it makes me more determined to achieve a higher grade as I would hope to be working on the wind farm once I graduate"

"This opportunity has alleviated some financial stress that comes with attending university. Knowing I have help towards the cost of my tuition is a great relief and inspires me to work very hard on my STEM degree"

A number of improvements to the programme were suggested by the students:

"It would be better if it could be used for living costs as well as tuition fees."

"A scholarship to cover the cost of living as this is a bigger concern than tuition fees"

Challenges encountered

Consultation undertaken with Blackbullion identified some challenges with the administration of the scholarship funding. Firstly, they had found the scholarships difficult to allocate due to the small geographical reach for those that might be eligible. Whilst the reasons for ensuring that the scholarships benefited those residing closest to the wind farms operational bases were understood, it was felt that it limited the scope of the support by setting a narrow field. They suggested that the Scholarship programme should extend its reach from Tyne and Wear southwards to North Yorkshire to widen the benefits and link to the wider reach of the windfarm in terms of catchment area of the potential future workforce. However, it was reported by DBWF that the scholarships are already oversubscribed, so extending the geography would not be worthwhile.

Feedback received from both Blackbullion and the beneficiaries of the support highlighted that financial support would be better managed by the student themselves as opposed to the funding being given directly to the student loans company. Most students had accepted the fact that they needed to use a student loan to pay for their tuition fees, but it was the cost of living whilst at university that they struggled with (i.e., accommodation costs, food, bills, socialising etc.). It was considered that a more beneficial approach would be to provide the funding directly to the student – potentially broken down by semester – so that they could better manage their finances over the academic year and use the support to fund their living costs. This is something that DBWF cannot commit to due to their own financial regulations, but could potentially be explored further with Blackbullion going forward.

Blackbullion further identified that it was difficult for them to fully assess the impact the funding had had on the students. As the students never saw the funding it was hard for them to appreciate the benefits it was having on them, other than they would have less debt on completion of their studies.

Evaluation of the Dogger Bank Wind Farm Community Fund

7. The Operator Fund

The Operator Fund was initially established as an Emergency Fund of £35,000 intended to help small local groups near to the Dogger Bank construction and operational sites in Port of Tyne, South Tyneside, Cottingham, and East Riding of Yorkshire. The fund was initially developed to support local charities and groups to sustain their activities both during and after the Pandemic. However, the demand for the fund remained strong resulting in the partners increasing the total funding available to £100,000. These grants are to be used for community focused or charitable activities which:

- **Enhance quality of life for local residents;**
- **Contribute to vibrant, healthy, successful and sustainable communities; and/or**
- **Promote community spirit and encourage community activity.**

Since the project fund started, 87 different projects have been supported and almost £99,000 has been awarded to help local people recover and rebuild from the pandemic and to enhance local community assets.
The funding decisions are made by a panel with representatives from wind farm joint venture partners Equinor and SSE Renewables, as well as independent participant Caroline Lofthouse from NOF. NOF is a not-for-profit business development organisation helping to make connections between national businesses and the energy sector. The panel meet on a monthly basis to determine the successful applicants.

Successful applicants receive one up-front payment, with the fund designed to support communities quickly and effectively to meet an immediate need.

The partners would like to continue with the fund in the coming years. They feel that there is a demand for small amounts of easily accessible funding designed to respond to immediate needs in local neighbourhoods. An established process is now in place to allow the fund to continue with promotion of the fund being advertised through newsletters, the local press, through the partners and local authorities.

8. Programme Benefits and Impact

This section of the report focuses on the overarching benefits and impacts of the programme to date, recognising this reflects an interim position.

The benefits and impacts realised at the point of evaluation have been varied and have highlighted that the synergy between education and industry, even at the primary school level, can have a positive contribution on the local community, the capacity of teachers, and the enthusiasm from young people to engage in STEM subjects and eventual careers.

Broadening young people's understanding of potential careers (not just in STEM but in all sectors), can allow them to appreciate the subjects and knowledge required to fulfil their career ambitions at an early stage, laying the foundation for their educational journey.

Benefits of the programme to date

The following benefits from the programme have outlined as part of the evaluation process:

Levering social value: DWBF has played an important role in leveraging social value from local supply chains to benefit local communities. This has strengthened engagement and built relationships between education providers and employers.

Employer engagement has been key to the success in primary schools: The pupils and teachers have enjoyed the challenges set by industry and have welcomed employer involvement in lessons to convey the links between the subjects learnt in school and potential career opportunities. Teachers have outlined that they would like to do more of this going forward possibly incorporating a site visit to their place of work to provide an insight into 'real world' experiences of different job roles and functions.

Pivotal role played by the delivery partners: the expertise and capabilities of the delivery partners has been a key contributor to the success of the programme to date. In particular, their ability to engage with employers, their knowledge of careers and appreciation of the policy landscape (Gatsby) and quality standards (Ofsted) has provided invaluable knowledge, skills and experience to the programme. Whilst the programme seeks to embed knowledge in teaching staff to support sustainability, the delivery partners recognise that without a funded coordinator/advisor positions this programme will have a different offer, momentum and impact. This requires careful consideration to support continued success following the withdrawal of funding, highlighting the need to local experts to be working on the ground within educational settings.

Targeting the support at the primary school level: the delivery partners agreed that in order to raise awareness of STEM related subjects and careers, interventions need to take place at the primary school level in the first instance to enthuse young people about the subjects and how they are utilised in the real world. Targeted support for both primary school teachers and pupils is felt to be the most impactful approach to supporting progression into studying STEM subjects at a higher level and advancing into STEM careers.

Celebrating success: The Primary Science Quality Mark has been identified as a particular success story for the programme, with the creation of a new Early Years Quality Mark for Science which is being piloted in the East Riding of Yorkshire on the back of this programme. If successful it will be rolled out globally. Showcasing this success is key to driving further interest and appetite for engagement in the programme starting with an event being held in 2024, but should continue through other promotional avenues.

Aligning with the curriculum has proved positive for take up: delivery partners have aligned their activity programme with the STEM curriculum for the age ranges covered. This has allowed them to 'sell' the proposition to the primary schools more easily by outlining to teachers that the work undertaken is not additional but will support the curriculum activity already taking place in school.

Positive reputation for DBWF within local communities: the commitment of DWBF to the area was noted, with references given to their enthusiasm, understanding and ambition which was very welcome. DWBF were considered to be very open, engaged and visible and have provided a positive role model inspiring other businesses to deliver CSR and community wealth building agendas.

Removed the burden of debt from students: The students who have received the scholarship funding advised that the support had assisted them in taking away the burden of debt, allowing them to focus more on their studies. This aspect is particularly important for those young people coming from more deprived communities where debt is view negatively and something to be avoided.

Impacts realised to date

Strengthened employer/education engagement: Across the programme, the engagement with employers has been cited as the most beneficial element of the support offer. Providing young people, their families and teachers with the opportunity to explore the variety of STEM careers available and how they work in practice has been invaluable. Young people have been enthused by undertaking practical STEM challenges, with their minds broadened regarding potential future career options. Families involved in the process have a deeper understanding of the opportunities available with teachers feeling more confident in their ability to link learning with practical examples of how they are implemented in the real world.

Broadened horizons and raised aspirations: the programme has deepened young people's understanding of STEM careers and the importance of STEM subjects in obtaining their career goals. For those young people involved in the Stemettes programme the support has had a positive influence on their educational choices as they progress through higher education, by exposing them to positive female role models working in STEM careers locally.

Developed capacity within schools: through the teaching support offered, increased capacity has been developed within schools. New STEM leaders have been identified and supported through a CPD programme to increase their knowledge and ability to lead STEM learning in their schools. This has assisting in raising the profile of STEM within educational setting and teachers confidence to teach these subjects (especially science at the primary level) has increased as a result.

Evolving the programme of activity: Now that the programme is established delivery partners have a lot of ideas about how the programme could be expanded going forward. For example, resources to support investment in capital equipment to support STEM learning would increase outcomes and impact. Resourcing this requires further discussion and investigation.

Small accessible amounts for the Operational Fund have a big impact: demand for the funding has been steady throughout with a good number of local communities and local groups benefiting from the funding. Applications are straightforward to complete with funding allocated each month, making it an accessible process that can make a big impact at a local level.

9. Conclusions and Recommendations

Conclusions

The STEM Community Fund has performed well across the varying strands of activity with the focus being on the delivery of STEM learning objectives in the three identified geographies. This has been supported by scholarship opportunities for young people and a small grants programme to provide financial assistance to local community groups and charities local to DBWF. The following overarching conclusions from the evaluation respond to the research questions set:

- Do stakeholders feel the Fund has enhanced STEM provision in the local area?
- Has the programme has performed well?
- Does the programme align with local and national STEM education priorities?
- What innovative and strong delivery practices has the investment secured?

Enhanced STEM Provision

Teachers have gained confidence in STEM leadership: An important element of the Fund (particularly in East Riding of Yorkshire) has been the additional support for teachers in delivering STEM with their schools. As a result of the support provided teachers surveyed stated that they had an increased awareness of STEM careers, were more confident leading STEM activity in schools and felt better prepared to adapt lessons to include links to STEM careers within subject areas.

Young People awareness of STEM and STEM careers has increased: As part of the support provided in all three areas, teachers surveyed indicated that pupils' awareness of STEM had increased as had their enthusiasm and enjoyment of the subject. In some cases, pupils awareness of STEM career opportunities had also increased along with an understanding of the skills required in achieving those positions. In South Tyneside, the Stemettes programme had helped girls and non-binary individuals to break down misconceptions surrounding STEM, resulting in a raised awareness of STEM employment opportunities.

Strong programme performance

The programme has made an encouraging start: Performance has been positive in all local authority areas, with a good number of schools engaged in the activity provided. For those schools and teachers that have engaged with the programme, they have recognised the difference that the support has made in their understanding of STEM and its application in the real world. With the offer now established in the three areas, promotion of the activity through word of mouth and existing networks will see the offer grow in the next academic year.

Good working relationships have supported progress: throughout the evaluation process the good working relationships that have been developed with all parties have been cited as supporting the delivery of the activity. Deliver partners welcomed the regular meetings with both the local authority and DBWF, to help drive progress, support with promotion and mitigate any issues. Most of the delivery partners were previously known to the local authorities and had used this connection to develop a bespoke approach based on local need.

The Scholarship Fund has supported students to leave University with less debt: The fund has supported 62 young people with the financing of their further and higher education. It has helped them to complete their studies with less debt, which is something surveyed students were concerned about. Furthermore, it has supported young people from more deprived neighbourhoods to access STEM related careers through their education and potential placement opportunities.

Alignment with STEM priorities

Alignment with primary curriculum has supported engagement: Schools and teaching staff have stated that the programme of activity has aligned well with their existing STEM offer. Teaching staff could easily see how the support could add to their existing teaching plans rather than requiring additional resource.

Focus of females and non-binary individuals is bridging a gap: The work undertaken in South Tyneside is helping young women and non-binary individuals to breakdown stereotypes and misconceptions surrounding male and female job roles. Talking to other women in the sector and developing a greater understanding of the variety of opportunities available has alerted them to potential career options.

Time will be required to assess the true impact: STEM priorities are focused on encouraging more young people from the identified areas to take up STEM subjects and eventually move into STEM careers. It was felt that this needed to begin at the primary level, to enthuse young people about those subjects and opportunities that they will then carry through as they progress through their education. However, whilst this is a sensible approach, the impacts of this are too early to realise. Ongoing monitoring of the situation will identify if this has been achieved in the longer term.

Innovative practices adopted

A localised approach has worked well: the delivery of the community fund has been led by local need with each of the three local authority areas developing their own programme of activity to support STEM learning. This has been a successful approach that has been welcomed by the local authority partners and the delivery agencies who felt that the activity should be delivered in line with gaps in provision that were evident at the local level, rather than a top-down standardised approach across all areas.

Working with industry has been the most beneficial elements of the community fund: For those areas that have had the opportunity to work with industry partners, the impacts have been more significant. Teachers consulted have highlighted the importance of local STEM employers visiting their students to raise awareness of STEM subjects and how they are applied to a real-world scenario. Furthermore, the interaction had supported teachers with their confidence in understanding STEM career options and how to adapt lesson to enthuse their pupils in the relevant subjects.

The Operational Fund has met a key local need: The operational fund has seen a good level of demand. The increase in funding allocation has allowed more local organisations to benefit from larger sums to support their ongoing operations in the aftermath of Covid-19. The funding is easily accessible with a quick determination date ensuring that funding is provided quickly to meet a priority local need.

Recommendations

Ensure a marketing budget is in place: the programme of funded activity did not include a budget for marketing and awareness raising. Given the need to support awareness of how important STEM learning and careers accreditation is to secure buy in and participation from schools, there is a need for a time/budget allocation to support this awareness raising activity.

Evolving the programme of activity: delivery partners have a lot of ideas about how the programme could be expanded going forward. For example, resources to support investment in capital equipment to support STEM learning would increase outcomes and impact. Resourcing this requires further discussion and investigation.

Widening the geography would assist with industry engagement: The programme sought to engage employers operating within the local area, however it has been a challenge at times to secure the required level of resource to facilitate these criteria. Extending the reach of the employer engagement to surrounding travel to work areas such as the Tees Valley, Durham, Darlington, North Yorkshire may help to support the programme and make young people aware of other STEM related opportunities that are within a short distance from where they live.

Improved monitoring systems would better determine impact: A more consistent approach to monitoring performance across the Fund would better demonstrate the impact and provide supporting evidence as to if aims and objectives have been met. Going forward, especially for support provided at secondary school level and higher, it would be prudent to monitor changes in take-up of STEM subjects at further and higher education, and progression rates into STEM employment in the longer term.

Enhanced employer engagement: for those that have experienced it, employer engagement has been the most impactful element of the provision. Based on feedback provided, thought should be given to undertaking site visits to the employers' place of work to show how STEM can support real world activities and the employment opportunities available.

Improve the scholarship offer: DBWF is one of the biggest wind farms in the world. The employment opportunities generated by the development will expand far wider than the three local authorities identified for support. Many areas of the north-east have experienced a loss of traditional industries which has left long term effects on the regional economy. Extending the reach to a wider geography would provide a greater longer-term benefit to the region. Furthermore, students have highlighted the importance of receiving the funds directly, rather than the going straight to the student loan company. They said that they required more support with living costs at university rather than with paying their tuition fees. Lastly, recognition of the granting of the scholarship would be useful for students to add to their CV's going forward. A certificate should be provided to each successful applicant to celebrate their achievement.

Adopt a more formalised review process: South Tyneside Council reflected that a more formal contract review process with DBWF on a quarterly basis would be welcome and provide a more structured approach to sharing feedback and performance.

Networking and Joint commissioning would benefit delivery: All local authorities indicated that they would welcome the opportunity to spend time with other local authorities to share experiences, good practice and lessons learnt, and explore opportunities for joint commissioning. This is recommended as good practice and should be established going forward.

Continuation of the support and future roll out

The DBWF Community Fund programme has proved to be worthwhile and impactful. Thought should be given to extending the programme period, working with the local authority leads to revisit priorities and evolve the support required.
Thought should be given to the lessons learnt from the programme so far and the recommendations outlined in this report. Furthermore, there is a need to ensure that the work undertaken thus far is not lost and STEM learning follows those young people through their education journey.

A message for industry

It is acknowledged that this evaluation is one of the first to be undertaken in the sector, making DBWF a market leader in demonstrating social value commitments through a community benefit fund, and committing time and resource to ensuring that their investment has been spent wisely and delivered tangible benefits. This provides an exemplar of good practice which renewable energy investors, developers and operators should emulate, both in terms of delivering community benefit locally and evaluating performance and impact to ensure that local benefits and impacts are realised as a result of their social value contributions.

It is important that evaluation insight is shared to support learning, inform how success can be measured, and identify the wider impacts that community benefit investment can make to the communities they serve.

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