

Committee: **Regeneration Scrutiny Committee**
 Date of meeting: **3rd November 2021**
 Report Subject: **STEM Facilitation Project**
 Portfolio Holder: **Councillor Dai Davies, Executive Member
 Regeneration and Economic Development**
 Report Submitted by: **Richard Crook, Corporate Director Regeneration and
 Community Services**

| Reporting Pathway | | | | | | | | |
|-----------------------------|---------------------------|--------------------------|-----------------|-------------------------------|--------------------|---------------------|---------|----------------------|
| Directorate Management Team | Corporate Leadership Team | Portfolio Holder / Chair | Audit Committee | Democratic Services Committee | Scrutiny Committee | Executive Committee | Council | Other (please state) |
| | 07.10.21 | 21.10.21 | | | 03.11.21 | 10.11.21 | | |

1. Purpose of the Report

- 1.1 The purpose of this report is to provide members of the Environment, Regeneration Economic Development Scrutiny Committee information on the performance of the Science, Technology, Engineering and Mathematics (STEM) Facilitation Project.

2. Scope and Background

- 2.1 In response to the anticipated employment and associated skill requirements created as a result of Tech Valleys there is a need to ensure local residents (including children and young people) within Blaenau Gwent are equipped and positioned to benefit. In response to this challenge, and as an early and proactive intervention, the STEM Facilitation Project has been developed.
- 2.2 The project establishes a co-ordinated programme of support, centred on “industry in schools STEM facilitation” within a cluster of Blaenau Gwent based schools, raising aspiration and preparing children for their journey into the world of work, whilst remaining complementary to the school curriculum.
- 2.3 The project seeks to raise awareness of opportunities amongst children, young people and the wider community in order to positively engage them and ultimately increase aspiration and attainment.
- 2.4 The project is not intended to duplicate existing initiatives as it is designed to enhance the current offer; with a specific focus on understanding the specific needs of individual schools and clusters, responding to those needs by providing resource to coordinate a programme of support and address any identified gaps.
- 2.5 The project is also seeking to support and develop a sustainable relationship between local businesses and schools, via the industry liaison element of the role. In the first six months the project has engaged with thirty-one

businesses and twenty-nine have pledged to support where possible. The topics covered by

Of the twenty-nine businesses that have engaged there is a wide range of industry sectors covered including manufacturing, a range of aspects of Engineering, Environmental, Renewable Energy and Chemistry within Science.

All businesses committed to supporting the project have provided innovative ideas for provisions. Some of these companies already have education outreach programmes developed which include delivery of a wide range of STEM learning opportunities. Other businesses have offered to develop bespoke STEM provisions to deliver based on the school and industry needs and requirements and have already suggested ideas to be developed. These businesses include Continental Teves, NDEC, Castleoak and Griffiths Construction.

Details of business offerings are summarised in Appendix 1, Table 2.

- 2.6 Initially a pilot project that will operate through to March 2023, focused on the Ebbw Fawr cluster; reflective of the outcomes achieved and the impact made, further funding will be sought to continue and broaden the reach of the project across Blaenau Gwent. The team are aware of wider STEM in school activity operating across Blaenau Gwent and are will actively share information they have available that may benefit the Blaenau Gwent school community.

3. **Options for Recommendation**

3.1 Option 1

Endorse the project progress made to date.

Option 2

Endorse the project progress made to date and to provide comment on future delivery.

4. **Evidence of how does this topic supports the achievement of the Corporate Plan / Statutory Responsibilities / Blaenau Gwent Well-being Plan**

4.1 Corporate Plan

This project supports various points within the Outcome Statement of “Support a fairer sustainable economy and community”:

- Support all learners to achieve improved outcomes.
The STEM Facilitation project is working with learners across seven primary schools, one mainstream secondary, one special needs school and one school that caters for learners with social, emotional and behavioural difficulties. STEM interventions are planned for learners across all ability levels and key stages.

- To improve pupil outcomes, progress and wellbeing. Personalised plans have been developed with each school to allow interventions to work alongside their existing curriculum and to help improve specific STEM outcomes identified in each school.

- To improve skills and promote digital participation. Business engagement has allowed the project to identify skills that need development and interventions will focus on improving these. Digital skills have been identified as a key area and are forming the basis of a transition project across the cluster.

4.2 Blaenau Gwent Well-being Plan

The Blaenau Gwent Well-being Plan 'The Blaenau Gwent We Want' has two objectives that are supported by this project:

- **Best Start in Life**
This project works with EAS to monitor education standards within the cluster of schools in Blaenau Gwent. This ensures there is a strong focus on investing in the current and future generations.

- **Forge New Pathways to Prosperity**
This project works with local businesses, the college and providers to ensure learners have the right skills for the future. It also helps learners to have the aspirations to fulfil their potential and to place a high value on education and development.

4.3 Employment and Skills Plan

This project helps work towards three of the priorities in this plan:

- **Business and Enterprise**

To facilitate growth in local industry, the project has identified skills gaps within local businesses and is using this to inform the development of interventions for schools.

- **Learning and Skills**

A high percentage of employers expect problems in recruiting for STEM related positions in the future so this project is fully focussed on strengthening links between industry and schools. This allows the next generation to have the opportunity to develop relevant skills during their education.

- **Education and Schools**

The project aims to add relevant interventions to schools which will help raise attainment in STEM related subjects. Key priorities are also to work on addressing the disparity between males and females in STEM, through use of STEM ambassadors, and to prepare children for advancing technology,

through linking with relevant local businesses and external providers. Building up relationships with local businesses and providers will also help encourage work readiness skills in young people.

5. Implications Against Each Option

5.1 ***Impact on Budget (short and long term impact)***

The project is one hundred percent externally funded by Tech Valleys with outcomes agreed. The project is initially funded for 2 years through to March 2023. The funding supports staff costs, implementation of activities (where required) and development of school resources to support participation.

5.2 ***Risk including Mitigating Actions***

The risk of schools not understanding the aim of the project, or not prioritising STEM in their plans, could hinder progress for their learners. This can be mitigated by demonstrating the associated impact of the activities being delivered in other schools in the cluster.

A further risk is the project and schools not aligning to the future skills needs of local industry. The proactive engagement of local, regional and national businesses as part of the project will mitigate this risk.

5.3 ***Legal***

There are no legal implications associated with this report.

5.4 ***Human Resources***

There are two full time staff allocated to deliver this pilot project.

6. Supporting Evidence

6.1 ***Performance Information and Data***

Performance information and data against Welsh Government targets is included in appendix one.

6.2 ***Expected outcome for the public***

The expected outcome is that learners in the cluster of schools involved will understand STEM in more detail. This will also mean they understand the skills needed for STEM-related careers and then have more aspirations and ambitions to succeed in achieving local STEM-related jobs.

It is hoped that this in turn will position children and young people to pursue further education and/or secure better paid employment opportunities, including those available locally.

6.3 ***Involvement (consultation, engagement, participation)***

The interventions are delivered in collaboration with a range of partner organisations as outlined below:

| Organisation | Outcome | Further Activity |
|--------------|---|--|
| EAS | Overview provided of all schools in the cluster and | Regular updates provided to EAS and guidance on areas of improvement provided. |

| | | |
|---------------------------|---|---|
| | assistance in carrying out a self-evaluation. | |
| NDEC | Clear aims and objectives for a transition project. | Development of resources for transition project. |
| Technocamps | Clear aims and objectives for a transition project. | Development of resources for transition project. |
| Coleg Gwent | Information on existing engagement with schools and plans for interventions in primary and secondary. | Plans for primary interventions are on-going. Plans with secondary schools to be developed. |
| External Providers | Meetings with a range of external providers have been recorded to help support schools. | Liaising with providers to compliment curriculum plans within the cluster. |
| Local Businesses | Identified skills gaps and future needs. Discussed the development of interventions in schools. | Regular review of skills gaps and future needs. Evaluation of school interventions. |
| Careers Wales | Clear distinction and where appropriate alignment of initiatives. | Representation on the STEM Facilitation steering group. |

6.4 ***Thinking for the Long term (forward planning)***

This project has been created to align with the agreed priority themes for regeneration. Consideration has been given to each of the outcome statements in the Corporate Plan 2020/22, Well-being Plan and Employment and Skills Plan.

The project will have a long term impact as it will help to raise attainment levels in STEM-related subjects and to encourage local aspirational learners to work in their local area, securing higher skilled and better paid employment, as opposed to leaving the area.

In line with the priorities of the Tech Valleys Strategic Plan, the long term aims are to engage learners from Foundation Phase to inspire them to be part of the regeneration of their area. The project also aims to develop existing skills but also uses business engagement to forecast future recruitment gaps and new skills that will be required in the next generation (i.e. robotics, cyber security, programming skills).

The project aligns to wider aspirations relating to employment and skills including the Aspire Shared Apprenticeship Programme (SAP), the HiVE Centre (former Monwel) and Immersive Classroom experience.

6.5 ***Preventative focus***

The project aims to work in a proactive way, rather than a reactive way, so that future skills gaps and knowledge are identified in advance to allow this knowledge to influence the development of relevant interventions in schools. This will happen through regular interaction with the businesses that have pledged their commitment to the project.

The project also aims to tackle the lack of aspiration across all levels of learners, not just those aiming for higher-skilled STEM jobs. This will be achieved by working with learners across all abilities and backgrounds.

6.6 ***Collaboration / partnership working***

The interventions are delivered in collaboration with a range of partner organisations as outlined below:

- EAS
- NDEC
- Technocamps
- Coleg Gwent
- External providers
- Local businesses
- Welsh Government
- Careers Wales

6.7 ***Integration (across service areas)***

The project liaises with Aspire, Education and the Employment and Skills Team regularly as many priorities are shared across the service area; all teams are fully engaged in the STEM Facilitation Project and share knowledge as necessary.

This project will also be involved with the next Blaenau Gwent STEM Inspiration Event. Businesses and providers that were at the last event formed the basis of the mapping exercise at the start of this project. The number of businesses and providers involved with the project has grown, and continues to do so; this success can be used to enhance the next STEM Inspiration Event even further.

6.8 ***Decarbonisation and Reducing Carbon Emissions***

The delivery of the project does not impact this area directly. However, within the teaching of STEM across the cluster, and with interventions from businesses and providers, skills and knowledge related to decarbonisation and reducing carbon emissions are taught and emphasised.

6.9a ***Socio Economic Duty Impact Assessment***

The project is available to all learners across the cluster of ten schools, regardless of background or ability. This allows all learners to have the opportunity to have access to STEM role models who can inspire them and broaden their horizons, showing them that their background does not need to determine their future and allow them to have increased ambitions to achieve a local higher skilled job.

The project also has a target of addressing the disparity between males and females in STEM. This will be achieved by the use of female STEM role models from local businesses, as well as using STEM learner ambassadors from the secondary school to engage with primary school activities.

6.9b. ***Equality Impact Assessment***

This report has no identified impact on the protected characteristics.

7. **Monitoring Arrangements**

- 7.1 Summarised updates are sent to Welsh Government on a monthly basis. Reports and presentations are delivered to the Tech Valleys Advisory Group and Steering Group on a quarterly basis.

Personalised STEM plans for each school will be reviewed on a termly basis and RAG rated. Once each provider/business has completed an intervention, the delivery team, teachers and learners will be asked to provide feedback which will be analysed and used to inform future planning. Learner focus groups are also being used in each school, including a cross-section of learners, to provide in-depth feedback to the project.

Annual performance will be reported to scrutiny moving forward.

Background Documents /Electronic Links

- Appendix 1 – Performance Information against Welsh Government Targets