

Executive Summary

Project Name: ENGINEERING ICT PROJECT

1. What opportunity or barrier will this investment unlock? (approx. 300 words)

Building upon the success of the FAB KIT Project within our Engineering Centre in Walsall, we wish to develop our learning offer further to deliver engineering ICT based qualifications and courses. The basis of this bid is from consultation with local employers. In economic terms, technological change equals economic growth and growth has powerful implications for the future of both local and national competitiveness and economic health.

The consultation has led to the conclusion that local businesses need additional skills to those currently offered by PTP in the Engineering and manufacturing sector.

A priority is the use of ICT which is needed to increase the speed at which estimates and quotations can be compiled accurately and therefore allow the businesses to stay relevant to the market place. To quote the MD of one company;

“If after all the efforts we put in up front marketing we cannot respond to our customer’s needs for a quotation within 24 to 48 hours then all that effort has been wasted.”

Our offer in terms of Apprenticeships and short courses will be extended to include:

- *ICT based Estimating and quotation systems.*
- *Stock control/MRP systems.*
- *Additional CNC modules for the sheet metal and fabrication industry to improve speed of programming, efficiency of material usage, improved cutting times. Press-brake forming modules to check viability of tooling and press set ups.*

We will use the centre to increase the scope of our delivery to:

- *Schools.*
- *Traineeship programmes to include more hands on programming activities.*
- *Work with STEM based organisations to increase the level of awareness of engineering companies both through Apprenticeships (L2, L3 and L4 through Trailblazer changes to the curriculum) and short courses.*

We will remove barriers by engaging with employers to address the lack of investment in staff development:

- *Encourage employers to address the lack of investment in training, a particular emphasis on managers and other key staff, giving managers the skills to analyse data, make accurate projections and use current online services to identify opportunities which is paramount for continued success.*
- *Provide opportunities for training outside of working hours – (one of the reasons given for lack of training was that they were too valuable an asset to let go in working hours)*

2. Which of the BCSEP growth objectives and Measures of Success does this project address? (approx. 300 words)

Our project will have a positive impact upon the BCSEP growth objectives within the People Theme:

- *The delivery of accredited qualifications through Apprenticeships and other funded routes will contribute to the reduction of the number of people with no qualifications (reduction of 40,000 required).*
- *The courses and training that we will be able to offer will raise skills in engineering for those entering the industry, growing the population entering the sector, and upskilling the current workforce to deliver efficiencies. P1 of the BCSEP identifies skills for the supply chain ensuring the labour market have the right skills to meet business needs. We will offer bespoke interventions and meaningful support for local companies having researched their needs. Companies we have spoken to are:*

| Organisation | Area of Need |
|--|---|
| <i>Muller Precision</i> | <i>CNC Machining systems, training for setters and operators. Take on L3 Apprentice</i> |
| <i>Alloy Wire</i> | <i>2D CAD and PMO Apprenticeship</i> |
| <i>TRS Engineering</i> | <ul style="list-style-type: none"> • <i>Estimating, planning, CNC programming, 2D and 3D CAD, post processor, welding, sheet metal work</i> • <i>Apprenticeships in estimating, planning and materials ordering.</i> • <i>Courses in FANUC/Heidenhain programming.</i> |
| <i>Steel Processing (Midlands) Limited</i> | <i>CNC programming, robot welding and forming. 3D CAD, forming of materials and production engineering planning.</i> |
| <i>Lichtgitter</i> | <i>CAD to be planned in as part of an Apprenticeship</i> |
| <i>EWL Engineering Limited</i> | <i>Apprenticeships covering materials/metallurgy Stock control, estimating and planning</i> |
| <i>Beckett Abrasives Limited</i> | <i>Stock control</i> |
| <i>Laser Processing Limited</i> | <ul style="list-style-type: none"> • <i>Estimating, planning, CNC programming, 2D and 3D CAD, post processor, sheet metal work</i> • <i>Apprenticeships in estimating, planning and materials ordering.</i> |
| <i>Carver Group Limited</i> | <i>Manufacturing systems, welding, machining and fabrication</i> |
| <i>TRS Limited</i> | <i>Estimating, planning and quotations. CNC Programming, welding and sheet metal work</i> |

The majority of these organisations are looking for support with ICT based system for materials ordering, stock control and CNC programming. This project will fund the additional software and hardware required to train on this system and its wider applications.

- *Changes are happening worldwide in engineering, technology is moving at an ever faster pace but adoption of it will be the key to success. Small companies can start up now and overtake existing companies. One of the things holding back entrepreneurship in engineering is the amount of people trained in the new technologies. Things that prevents a company from being competitive is having skilled people and the right tools to perform effectively.*
- *Speed of technology is exponential, the skill set of knowledge workers, to be relevant to today's fast paced industry have to be in line with technology that enables them to meet deadlines quicker. By 2020, 20% of all jobs that exist will have been automated away. A lathe operator in 5 years time will need to know CNC programming, how to estimate and manage stock control.*

- *This project will support the aim within P1 of the BCSEP to engage young people within STEM subjects coming through the system to help replace an ageing workforce into HVM, progressing through to Level 3 and 4 qualifications. Delivering the skills required by organisations within a new technological phase in engineering.*

3. How will this project unlock the specified BCSEP growth objectives (approx. 200 words)

The Black Country LEP EU SIFG has identified under the “People” theme that the area is underperforming having:

- Barriers to growth due to low skill levels
- High levels of unemployment
- Lack of investment in training
- To improve the life chances of residents

With some of the needs for fabrication skill sets being met by our current offer, in our recently extended Walsall based Engineering centre, we now have to look at the areas in which ICT can enable those skills to be used, e.g.:

- Computer Aided Drawing (CAD)
- Computer Aided Manufacturing (CAM) and
- Computer Aided Engineering (CAE) to assist in speed and accuracy of quotation, key areas for mainstream fabrication and machining, and processing of CAD data to optimise sheet layouts for fabricating blanks/profiles.

To offer a wider experience of CAD, CAM and CAE we wish to expand those skill sets into the fabrication arena. Then extend them further by integrating in the processes that will enable local companies to compete effectively.

This offer will allow us to assist an increased number of businesses and will increase apprenticeship starts as we can offer a specific level of training on core areas identified by organisations themselves.

We intend to work with the Job Centre to develop Sector Based Work Academies for those employers who have vacancies in these skill areas, having successfully completed these previously for companies in other sectors such as Retail and Hospitality, working with Primark and Premier Inn, supporting unemployed clients into work and into jobs.

4. What are the expected tangible Outputs/Outcomes to be realised? (please ask the Programme Office for Output/Outcome definitions)

| Outputs/Outcomes | Metric | 2015 / 16 | 2016 / 17 | 2017 / 18 | 2018 / 19 | 2019 / 20 | 2020 / 21 |
|---|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Employment – Jobs Created | no. | 1 | 1 | | | | |
| Employment – Jobs safeguarded | no. | | | | | | |
| Business assisted (financial support) | no. | | | | | | |
| Business assisted (non-financial support) | no. | 5 | 20 | 30 | 30 | 30 | 30 |
| Skills – Learners assisted (exc. Apprenticeships) | no. | 6 | 20 | 30 | 30 | 30 | 30 |
| Skills – Apprenticeship starts | no. | 5 | 15 | 15 | 15 | 15 | 15 |
| Skills – Apprenticeship achievements | no. | | | 4 | 12 | 12 | 10 |
| Place – New Housing Unit starts | units | | | | | | |
| Place – New Housing Unit Completions | units | | | | | | |
| Place – Land remediated | Hectares | | | | | | |
| Place – New floor space constructed (learning) | Sq mtr | | | | | | |
| Place – New floor space constructed (commercial) | Sq mtr | | | | | | |
| Place – Refurbished training/learning space | Sq mtr | | | | | | |
| Other (please specify) | | | | | | | |

For the outputs included above, please state whether they are direct outputs or indirect. If indirect, explain how the project is enabling the delivery of these outputs.

These are direct outputs.

For Learners Assists/Apprenticeships please specify the course offering and the level of learning supported

| Course Details | Level of Learning Supported |
|--|-----------------------------|
| CAD / CNC courses | Level 2 / 3 |
| Extended Diploma in Engineering Technologies | Combined Level 2 / 3 |
| Bite size short courses | To suit client needs |

5. Expected TOTAL Project Cost & Source of CAPITAL Funding £m

| | % of Total Cost | Approved? Y/N | 2015 / 16 £m | 2016 / 17 £m | 2017 / 18 £m | 2018 / 19 £m | 2019 / 20 £m | 2020 / 21 £m |
|--|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Total Project Cost | 100% | | | | | | | |
| Applicants own funds | % | | | | | | | |
| Other Public funds (Specify) | % | | | | | | | |
| Private sector funds | % | | | | | | | |
| Funding requested from Black Country LEP | % | | *£40,000 | | | | | |

*This represents 1/3 of the project costs as the bid is related to our original project (FABKIT – PTP).

Some of the 2/3 costs will be taken from our over spend on the original project.

For the **BCLGF element of the funding only**, please specify the projected costs using summary spend areas. What will the grant be spent on?

| Projects costs | 2015/16 £m | 2016/17 £m | 2017/18 £m | 2018/19 £m | 2019/20 £m |
|----------------------------------|----------------|---------------|---------------|---------------|---------------|
| PC CAD Workstations and Hardware | £8,780 | | | | |
| RADAN Software Suite | £12,600 | | | | |
| HD Projector and accessories | £700 | | | | |
| Classroom Furniture | £5,460 | | | | |
| Laser Cutter | £6,560 | | | | |
| Hi-Speed Network and Equipment | £4,500 | | | | |
| Robot Kits | £1,400 | | | | |
| Total | £40,000 | | | | |

6. Main Issue (s) likely to derail the Project.

There are no main issues likely to derail the project as the main infrastructure is in place within the Engineering Centre. We have a proven track record of delivering a project within timescale and agreed outputs. We have researched the most appropriate training required and skills gaps with our local employers and we are confident that our proposal meets the needs of the market.

7. Main Risks the Project will need to manage.

The main risks to manage are the implementation of the software systems.

8. Please indicate how your project complies with State aid Regulations without contravening the State Aid Legislation.

We will be within our State Aid maximum. Within De Minimis.

9. Any other Significant Constraints to delivering the Project not mentioned above.

The Apprenticeship levy and changes to the funding for SMEs will have an impact in 2017 on the way organisations access Apprenticeships. It is an immediate concern that organisations are offered good quality training provision and able to compete in a fast moving market place.

Document Status

REVISION HISTORY

| Revision Date | Version No. | Summary of Changes | Author / Editor |
|---------------|-------------|---------------------------|-----------------|
| | v0.1 | Initial draft | |
| | V0.2 | Project team input | |
| | V0.3 | Programme Office feedback | |
| | V1.0 | Final Version | |

DOCUMENT LOCATION

This document is only valid on the day it was printed or revised.

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