

## Solent Local Growth Deal

### Project Title

**Centre of Excellence for Composites and Advanced Manufacturing**

### Full Business Case

**submitted by the Isle of Wight College**

**on 14 November 2014**



Homes &  
Communities  
Agency



**Gurit** (UK) Ltd.



Culvertronic Limited



**Gurit** Automotive Ltd



The logos used on the cover page represent some of the employers/stakeholders that support this proposal.

## VERSION HISTORY

Version	Date issued	Brief summary of change	Owner's name
Draft	14/11/14	Version 1	David Loudon

College Contact Information	
<b>College:</b>	Isle of Wight College
<b>Principal:</b>	Debbie Lavin
<b>Address:</b>	Medina Way, Newport, Isle of Wight, PO30 5TA
<b>UPIN:</b>	108517
<b>Contact name:</b>	David Loudon
<b>Job title:</b>	Head of Projects (New Buildings)
<b>Contact telephone:</b>	01983 550649
<b>Contact email:</b>	david.loudon@iwcollege.ac.uk

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## Glossary of Abbreviations

ESF	European Social Fund
NEET	Not in Education, Employment or Training
NET	Not in Education or Training
OU	Open University
OJEU	Official Journal of the European Union public procurement rules
SMEs	Small and medium sized enterprises
FE	further education
HE	higher education
BCIS	Building Cost Information Service
RCIS	Royal Institution of Chartered Surveyors
SFA	Skills Funding Agency
HCC	Hampshire County Council
IAG	Information, advice and guidance
LEP	Local Enterprise Partnership
STEM	Science, technology, engineering and maths
GVA	Gross value added
HCA	Homes & Communities Agency
NPV	Net present value
iESE	Improvement and Efficiency South East construction framework
BREEAM	Building Research Establishment Environmental Assessment Method



## Executive Summary

### Objective

To provide the existing and future workforce of the Isle of Wight with the skills local employers tell us they need in order to grow and prosper in the modern economy, and to encourage new businesses to locate and invest on the Island. This will be achieved through the building of a new employer led training facility co-located with local industry at the Island Technology Park, Whippingham, Isle of Wight.

### Project summary

- **New Build:** To build a 2,950m<sup>2</sup> Centre of Excellence for Composites, Advanced Manufacturing and Marine Technology on the Isle of Wight led by GKN Aerospace (based on the CEMAST model). This new training facility would accommodate 447-547 learners, be located at the Island Technology Park, Whippingham (adjacent to GKN Aerospace Research and Development facility) and would be completed by January 2017.
- Robust costings have been developed to include inflation by using the fourth quarter of 2015 of the Building Cost Indices (BCIS) produced by the Royal Institute of Chartered Surveyors (RICS). The purchase of Plot C of the Island Technology Park has also been included in the cost model produced.
- The total cost of the proposed 2,950 m<sup>2</sup> building is £11.39m which is £3,861 per m<sup>2</sup>, of which 1,850 m<sup>2</sup> will be workshop space and the balance of 1,100 m<sup>2</sup> of traditional learning space.
- The building will have a mainly glazed concourse of which will be:
  - Four traditional, one computing and two technical classrooms
  - E-Learning Centre and café sharing an open planned social learning space
  - Main reception, staff room, server room and plant room
  - Changing and locker facilities with showers and toilets
  - Access to two open plan industry standard workshops, one area dedicated to composites and the other marine and advanced manufacturing:

List of facilities in the workshops

Bench Fitting	Electrical Installation
MIG and TIG Welding	Outboard engine testing
Turning & Milling	Inboard Engine bays
Composite process equipment	Marine Engineering Simulators
Boat Construction and Design	Cabin and Galley fit out Jigs
CNC Programming, Milling and Turning, 3D Printing	Marine Electronics and Navigation Lab
Measurement NDT and Dimensional Control Lab	Yacht Plumbing
Electrical/Electronic Lab	Marine Hydraulics, Marine auxiliaries
Fabrication	Marine Drive Systems

## Section 1: Rationale and Scheme Description

### Rationale

To enable the Isle of Wight College to achieve its 'Delivery Priorities', as set out in the college's Strategic Plan 2014-17, a three month engineering employer consultation was undertaken January to March 2014.

#### Delivery priorities:

1. Delivering an outstanding learner experience and achieving high success rates (strategic aim 1)
2. Increasing learner numbers in key markets (strategic aim 2)
3. Meeting the demands of learners and the needs of employers (strategic aims 1 & 2)
4. Enabling progression which meets learners' aspirations and employers' needs (strategic aims 1 & 2)
5. Ensuring efficient and effective systems and processes that prioritise learning and learners (strategic aims 3 & 4)

During the consultation it soon became apparent that employers wanted some form of transformational change to enable them to:

- Recruit apprentices/employees that will have the basic educational skill-sets to enable them to complete an apprenticeship.
- Recruit apprentices that will have the core engineering competence of the Modern Apprenticeship Framework. Small employers reported that the increase in cost of their insurance prohibited employing staff that were not classified as competent. Another financial barrier to employing staff was the loss of production of a trained member of staff to supervise and train a new employee that was not competent at the basic level.
- Recruit high numbers of apprentices/employees to meet the needs of their manpower planning requirements. GKN Aerospace has recently secured large contracts from Boeing and Bombardier and need to expand to facilitate the increase in production.
- Up-skill existing staff or recruit new staff to replace an ageing workforce.
- Improve employer engagement with primary and secondary schools.
- Have an input to the review and updating of Apprenticeship Frameworks and the development of Higher Apprenticeship Frameworks. The majority surveyed felt that the current Apprenticeship Frameworks did not meet their current or future needs.
- Have an island based facility that would enable them to complete a level three apprenticeship as most small employers found that they did not have the range of work nor the facilities to enable practical completion of the tasks required within the Modern Apprenticeship Framework.
- Ensure these facilities and qualifications are available on the island.
- Have a Higher Education facility on the Isle of Wight that would prevent them from losing staff when they complete a Degree. It was unanimously reported by employers that they were apprehensive about sending staff to the mainland to undertake Higher Education as



quite often when they completed their course they did not return to the island and sought employment on the mainland.

It was coincidental that about this time the Solent Local Enterprise Partnership (Solent LEP) announced the Local Growth Deal had been launched. The college, in partnership with the employers, developed a draft bid based on what the employers had reported. The outline proposal was then circulated to the employers and followed up with a face to face discussion to hone the bid to meet their requirements.

The announcement by Vestas Technology at the Renewable UK Conference on 12<sup>th</sup> November 2014 about the return of wind turbine blade manufacturing to the Isle of Wight increases the importance and necessity of this project. Vestas aims to start serial production of 80 metre blades in the second quarter of 2015, which will be used for the new 8MW turbine that has provisionally been chosen for Dong Energy's Burbo Bank extension project in Liverpool Bay. Chief executive Jens Tommerup said: "The Isle of Wight is a world class R&D Centre for developing and testing blades." The official MHI Vestas Offshore Twitter account stated: "The wider strategy is expected to result in £200m worth of economic impact including creating or safeguarding up to 800 jobs in the UK."

## **The six Strategic Priorities of the Solent LEP**

### **1. *Supporting new businesses, enterprise and ensuring SME survival and growth.***

- One of the key objectives of this proposal is to provide the facilities, skilled workforce and support mechanisms to the business community that will enable SMEs to succeed and grow. Building on the existing strong employer/education links across the island with partners such as HEIs, Chamber of Commerce, Federation of Small Businesses, Education Business Partnership, Prince's Trust, employer groups and business hubs, the new Centre of Excellence will provide the following focus:
  - continuing support for SMEs by hosting networking events and working with partners to deliver management training programmes for SMEs that allow them to develop and enhance the leadership and management skills of their staff
  - provide an enhanced programme of training and support for people wanting to set up their own business
  - support high growth business start-ups and offer peer-to-peer self-help networks and business mentoring to promote business innovation
  - forge stronger links between young people and employers in order to streamline the process of businesses taking on pre-apprentices, trainees and apprentices.
  - develop an enterprise culture for young people by working with the voluntary/community sectors and with island employers to deliver events such as college enterprise week (first one was delivered in March 2014), work experience opportunities and inputs into new programmes of study that will re-engage 16-24 year old learners in particular.
- The project will support new growth clusters in priority sectors, such as 'low carbon economy' and 'renewables' by:
  - providing one purpose built, self-contained, state of the art learning facility for renewable technologies. There are a growing number of island SMEs in renewable technologies industries and they are clear that there is a growing

demand for qualified electricians, particularly with the growth of 'green technologies' such as solar panels, heat recovery systems, etc. These trades complement curriculum planned for the college's new STEM Centre and support the local economy and Eco-island strategy.

- expanding the current renewable technology training facilities and range of courses in renewables and supporting local contractors and small businesses to install and maintain low carbon systems. This will ensure that there is local provision saving employers critical time and money travelling off-Island. The college is guided by labour market intelligence from employers, the local authority, the Solent LEP, and other strategic bodies and is a member of the National Skills Academy for Renewable Technologies and the British Marine Federation.
- working with HEIs and employers, develop higher level local expertise in the delivery of skills in areas such as solar PV, solar thermal, biomass, ground source heat pumps, rainwater harvesting, tidal and off-shore energy, thus allowing employers to train their staff locally. Strong partnerships with employers such as the Construction Training Group ensures that training programmes designed to meet local economic and labour market needs can be identified and quickly developed.

**2. *Enabling infrastructure priorities including land assets, transport and housing, reducing flood risk and improving access to superfast broadband.***

- As this proposal's intention is to build an industrial training centre, led by GKN Aerospace, at Island Technology Park, Whippingham, it will enable this site to be opened up to other development opportunities. As the training centre is designed to support the LEP's priority industry sectors of marine, composites and advanced manufacturing this would naturally lead to further inward investment and business start-ups.
- Access to super-fast broadband will be provided through the e-learning centre and the computer classroom.

**3. *Establishing a single inward investment model to encourage companies to open new sites in the region, supported by effective marketing.***

- This proposal would support inward investment by ultimately improving the skills pool on the island thereby improving the local economy and making the Isle of Wight a more attractive place to locate new businesses. This would be achieved by creating a pipeline of engineering/STEM students through the college's new STEM Centre, scheduled to be completed in March 2015, with a progression pathway to the new Centre of Excellence.

**4. *Investing in skills to establish a sustainable pattern of growth, ensuring local residents are equipped to take up the jobs that are created and businesses can source local skills and labour to underpin growth.***

- Improve the proportion of island people gaining level 2 and level 3, particularly in STEM subjects, in order to secure the level of skills the island economy will require in the future.
- Create a centre of excellence for composites, marine and advanced manufacturing that is a partnership between the employers, the college, HE and other stakeholders.
- Work in partnership with the Solent Marine & Maritime Working Group, UKSA, Marine South East and British Marine Federation to establish a marine hub on the island to service the following industries: boat building, marine leisure, marinas, boatyards, shipyards, sailing clubs.

- Following in-depth discussions with a wide variety of employers it has become apparent that there is a high demand for the following STEM curriculum provision:
  - Competence based trained pre-apprenticeship courses in engineering to prepare students for an apprenticeship. This would include contextualised English and maths, 100 hours of work placement and work preparation training focused on the needs of the students
  - Pre-apprentices: a two year multi skilled pre-apprenticeship will be offered. To help prepare the students for the world of work, the attendance pattern would be five days per week with five weeks holiday over the year. Throughout the two years the course will contain a strong applied mathematics bias alongside the appropriate contextualised functional skills. The employer partnership will have a very important role in the pre-apprenticeship program, for example in giving guest lecturing sessions and also providing at least 8 weeks work experience per year
  - Craft and Advanced/Technical Apprenticeships: these apprenticeship pathways would include the existing employed apprentices and any new apprentices employed after the pre-apprenticeship program commences (as above). It is important that a regular review of the existing qualifications offered is undertaken to ensure that they meet the current and future needs of island employers. Level 3 maths would be embedded within these programmes
  - Management and Supervisory Training: the range of courses offered would include off-the-job and on-the-job training and assessment.
  - Higher Education: the training facility would offer HNC and HND engineering awards, depending on demand.
  - Degree and post graduate courses: in partnership with local universities and the Open University. Furthermore, a six month bridging course would be offered for those candidates wishing to progress to a degree level course.
- Increase proportion of population with higher level skills on the island, particularly related to STEM subjects:
  - Increase the number of higher apprentices in composites, marine and advanced manufacturing through development of curriculum pathways in liaison with employers, Hampshire local authority and schools
  - Distance learning, e-learning and blended learning would be offered in partnership with the Open University to increase the number of level four and above qualifications achieved on the island.
  - Recruit more local residents onto HE programmes through: extending the range of HE programmes offered; securing robust progression/articulation agreements with local HEIs; working with HEIs to market courses effectively and to support local delivery
- Improve attainment levels of island young people at KS3 and KS4:
  - Support improvements to information, advice and guidance (IAG) for island young people to ensure that they have access to accurate and reliable information about the full range of career options and opportunities available to them on and off the island.
  - Promote the use of a STEM passport to record a student's IAG, qualifications, work experience and STEM enrichment activities
  - Continue to host an annual Careers Fair on behalf of the local authority that provides students with opportunities for independent IAG
  - Work with employers, who have pledged 120 days per year, to engage with school pupils and college students in raising the awareness of STEM and the potentially exciting career opportunities that exist.

- In partnership with the employer's STEM commitment the Centre of Excellence would develop a cohort of student STEM Ambassadors which would strengthen the Isle of Wight STEM Ambassador Network
  - These STEM Ambassadors would have an island wide remit to help the primary and secondary schools understand the importance of STEM subjects to the world of work through making STEM subjects enjoyable, understandable and relevant. This would be achieved through fun practical activities, competitions and challenges, whilst at the same time relating these activities to an appropriate level of understanding of the STEM element underpinning the activity.
  - Through the college's new STEM centre they would work in partnership with primary and secondary schools to develop the pupil's STEM subjects, business awareness, work readiness and entrepreneurship, and to promote engineering to female students.
  - The key objectives of providing practical STEM facilities for all primary and secondary schools on the island is to expose pupils to the appropriate levels of STEM subjects but presented in a way that is both educational and fun. This would be achieved through the use of Active Robots, robot wars, Lego Mind -Storm and Education, culminating in challenges and competitions. Supporting the provision and relating it to engineering and employment would be STEM Ambassadors and managers/ supervisors from the employers.
  - This practical experience of STEM subjects would complement the provision that will be offered at the college's new STEM building due to be completed in March 2015.
  - Work in partnership with other initiatives such as Solent Jobs Pilot and the Wight STEM Skills Partnership/Internships to create a pipeline of STEM graduates to meet the needs of the future workforce
  - The Solent LEP Skills Strategy, December 2013 recommends that the Solent should build on the pre-apprenticeship development on the Isle of Wight in which 16 and 17 year olds were paid the minimum apprenticeship wage whilst on a work placement.

**5. *Developing strategic sectors and clusters (interconnected groups and businesses) of marine, aerospace and defence, advanced manufacturing, engineering, transport and logistics businesses, low carbon and the visitor economy – establishing the area as a business gateway, at both local and international levels and developing local supply chains***

- The steering group of the new training facility, a strategic sector-based cluster of employers from the priority industry sectors (marine, aerospace, engineering, advanced manufacture and composites), will ensure that:
  - The curriculum meets the needs of this island based cluster from pre-apprenticeship to degree and post graduate levels
  - The environment is created that is conducive to inter-sector knowledge exchange
  - They work in partnership with local universities to support R&D and Innovation
  - There is support for all of the Island's strategic sectors through utilising the e-learning centre to provide access to a high speed business gateway to local and international markets.
- The construction department in the college will be able to expand its provision through the removal of the engineering workshops from the main campus. This will enable the

college to meet the growing demand for trained construction workers and the domestic renewable industry.

**6. *Building on our substantial knowledge assets to support innovation and build innovative capacity in the Solent area to stimulate growth in Solent businesses and in new high growth sectors, particularly linked to our HE excellence.***

- Work with local R&D companies and HEIs to ensure that more local employers can access the expertise, facilities and support available through their research and knowledge to facilitate innovation and promote knowledge exchange
- Expose young people to business and innovation on taster days.

## **Alignment with the Solent LEP growth targets**

- ***In addition to current forecasts, create an additional 15,500 new jobs in the Solent LEP area.***

The project will create:

- an estimated increase in the number of students gaining employment by 50 per year from 2017 onwards (150 by 2020)
- 200 temporary construction jobs for 18 months
- 11 full time additional permanent jobs

- ***Achieve GVA growth of 3% and:***

- ***In addition to current forecasts, increase GVA per capita by an additional £3,000 per head Increase employment rates to 80% from the current 78% and improve economic activity rates from 80% to 81%.***

- By creating a skill rich environment, contributing to growth in the local economy and supporting businesses on the island, the project will contribute positively to the GVA growth target
- The creation of a pipeline of 50 pre-apprenticeship students and 100 STEM skilled apprentices per year will contribute to a shift in the economic balance on the island away from dependency on the public sector to the private sector.
- Over the medium term, skilled apprentices will progress to the higher level jobs, thereby increasing GVA and GVA per capita
- The project would directly contribute to reducing unemployment rates on the island, improving skill levels of individuals, which are low on the island, raising the economic activity rates particularly in high value industries.
- The project will increase the number of people undertaking STEM subjects at higher levels and therefore have a direct impact on their ability to get employment in highly skilled positions in these priority sectors thereby directly increasing the GVA per capita

- ***Raise the business birth rate from 3.6% to 4.1% (and create 1000 new businesses)***

- ***Improve the business survival rate from 61.4% to 62.5%***

- Building on the success of the Isle of Wight Expansion Fund, the partnership with the Chamber of Commerce will provide support for SMEs through management training, networking opportunities and mentoring which will improve both birth and survival rates for businesses
- The e-learning centre (high speed broadband) will create the environment to enable businesses to flourish through improved access to digital technology which will speed up communications and open up marketing opportunities for island businesses nationally and internationally

- **Raise the proportion of the population with Level 4 and above skills to 36% of the working age population from the current 32%**

In 2011, at 33% a lower than average proportion of the Solent LEP's workforce was qualified to level 4 and above, against a national average of 34% (Solent LEP Skills Strategy, December 2013), the island average was only 27%. Also, the proportion of young people from the Solent area who progress into higher education is lower than the national average with the Isle of Wight being 8% below. The island also lags behind the national average significantly on the proportion of young people attending Russell Group universities (see table below).

	All UK HEIs	Russell Group
<b>Isle of Wight</b>	<b>40%</b>	<b>5%</b>
Hampshire	42%	9%
England	48%	8%

- In liaison with our HEI partners, the project will provide the facilities, resources and expertise to increase opportunities for island people to remain on the island to study STEM related subjects at level 4 and above by 30 a year from 2018
  - In collaboration with the Isle of Wight local authority's 'Wight STEM Skills Partnership Project', the college will increase the number of students progressing to universities to study STEM subjects by 25% a year from 2018
- **Support the raising of education attainment rates to above the UK average.**

	English		Maths		Science	
	Level 5	Level 6	Level 5	Level 6	Level 5	Level 6
Hants	86%	57%	84%	63%	86%	54%
<b>IoW</b>	<b>82%</b>	<b>44%</b>	<b>81%</b>	<b>55%</b>	<b>81%</b>	<b>46%</b>
England	86%	55%	84%	62%	85%	56%

- The table above (Solent LEP Skills Strategy, December 2013) shows the level of education attainment at KS3. Attainment of island pupils at level 5 is lower than the national average and Hampshire, but the gap widens significantly at level 6. This poor attainment continues into KS4 and against a national average of 58.6% of pupils achieving 5 or more GCSEs at A\*-C, the island has 48.5%. This poor performance is also reflected in STEM related subjects as seen in the table below (Solent LEP Skills Strategy, December 2013):

	Maths	Entered English Bacc Science	Gaining English Bacc Science
Hampshire	72%	74.1%	54%
<b>Isle of Wight</b>	<b>62.9%</b>	<b>45.1%</b>	<b>29.6%</b>
Solent LEP	69.8%	69%	48.1%
England	71.2%	65.3%	48.4%

- This project will support the government directive through working with the Hampshire County Council in raising these poor attainment levels at KS3 and KS4 as this is where the biggest impact can be achieved to rectify the skills pipeline problem
- Providing access for 1500 school pupils a year in the STEM Centre to experiential learning in STEM will trigger motivation to take up these subjects at school and because

they see the relevance to employment opportunities to engineering and other sectors, they will attain higher grades

- Support the IoW STEMNET Forum in conjunction with Winchester Science Centre to increase the awareness of the relevance of STEM subjects at KS3 and 4
- The project will improve access to independent information advice and guidance for school pupils and ensure that they are better informed on potential career choices
- The table below shows attainment of adults at level 2 and 3 (Solent LEP Skills Strategy, December 2013). Partly due to the low attainment of pupils leaving island schools at KS4, the proportion of adults attaining level 2 and 3 on the island lags behind both regional and national attainment levels. This is already affecting the availability of an appropriately skilled workforce on the island and unless rectified, this will have a significantly detrimental impact on the future because the skills level required by employers are known to be increasing.

	Level 2 19+	Level 3 19+
Hampshire	85.6%	61.4%
<b>Isle of Wight</b>	<b>79.9%</b>	<b>48.8%</b>
National Average	83%	56%

- The Steering Group will support improvement of attainment of adults at level 2 and level 3 by:
  - Raising of educational attainment rates on the traineeship, pre-apprenticeship and other associated programmes. Throughout these foundation level programmes, maths, English and science will be contextualised to make them more relevant to students and thus increase attainment
  - Providing work placement opportunities for students on traineeships, pre-apprenticeships and full-time students on level 2 and 3 STEM related courses
  - Providing guest lecturing and site visits
- Extending the range and level of STEM related apprenticeship programmes and ensuring that the content of the modern apprenticeship frameworks are appropriate to meet the needs of the future workforce
- By involving the Sector Skills Councils and Awarding Bodies in the review of the existing qualifications. If a qualifications gap is identified, use will be made of the Innovation Code
- The Isle of Wight has 16 of the 34 wards with the highest unemployment rates in the Solent region with 50% of the wards with an unemployment rate of over 7% and the highest ward with 8.2%. Youth unemployment rates are also high on the island. The project will:
  - Upskill the existing workforce and offer employment training for the long-term unemployed, including a growing number of 16-24 year olds, the project will have a direct effect on improving island unemployment rates and education attainment through its offer of full and part time courses in STEM subjects
  - The project will adopt a socially innovative approach to much of its European Social Fund (ESF) activity through alignment with the Solent Talent Bank, which will use the leverage available through procurement to secure best economic value. This will create opportunities for work experience, traineeships, apprenticeships and supported employment under the Solent Jobs Pilot via public authority tendering and contracting procedures
  - Work with referrals from the Job Centre and the Prince's Trust

- ***Increase inward investment into Solent attracting at least 5% of FDI projects entering the UK.***
  - The project will contribute to creating a pool of skills talent on the island which will provide an environment conducive to improved inward investment through increasing supply chains and new businesses
- ***Improve productivity (GDP per head) closer to the South East average.***
  - By working in partnership with employers from the priority sector groups, providing them with the appropriate qualifications, creating an environment for growth and investment, this project will improve the productivity of GDP per head on the island by employers employing more highly skilled engineers and staff with higher level management skills
  - By increasing the proportion of the island workforce in gainful employment and the skills of the existing workforce, the project will have a direct impact on the productivity of the priority industries and therefore a direct correlation to increasing GDP per head

## Scheme Description

### Proposal:

- **New Build:** To build a 2,950m<sup>2</sup> Centre of Excellence for Composites, Advanced Manufacturing and Marine Technology on the Isle of Wight led by GKN Aerospace (based on the CEMAST model). This new training facility would accommodate 447-547 learners and be located at the Island Technology Park, Whippingham (adjacent to GKN Aerospace Research and Development facility) and would be completed by January 2017.
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- The total cost of the proposed 2,950 m<sup>2</sup> building is £11.39m which is £3,861 per m<sup>2</sup>, of which 1,850 m<sup>2</sup> will be workshop space and the balance of 1,100 m<sup>2</sup> of traditional learning space.
- The building will have a mainly glazed concourse, from which there will be:
  - Four traditional, two technical and one computing classrooms
  - E-learning centre and café sharing an open planned social learning space
  - Main reception, staff room, server room and plant room
  - Changing and locker facilities with showers and toilets
  - Access to two open plan industry standard workshops, one area dedicated to composites and the other marine and advanced manufacturing including a variety of engineering disciplines.

To ensure that the new training facility meets the needs of Isle of Wight employers and prospective students, it is imperative that a strong coherent partnership drives and monitors the design, facilities, equipment, educational provision and qualifications offered. This will be facilitated through a Steering Group led by GKN Aerospace and composed of employer representatives from the composite, marine and advanced manufacturing industries on the



Isle of Wight, as well as representatives from the Solent LEP, the Open University, the local authority, the IoW Chamber of Commerce and the college. Although this Steering Group has already met, its focus has primarily been on the producing the design, facilities and equipment brief. There have also been several sub-group meeting to focus on specific requirements of the marine, advanced manufacturing and composites sectors with more scheduled for September 2014.

- The Governors of the college have formally approved the formation of the steering group and are amending the college's constitution to include the Centre of Excellence Steering Group.
- A Trade Working Group will be established in the near future with representatives from the employers that have an in-depth understanding of what skill sets and knowledge is required in their industries. This group will meet with lecturing and supervisory staff from the college and universities to discuss the qualifications, pathways and progression offered to ensure they meet the need of the industries.
- The training centre will replicate an industrial environment and it is important that the plant and equipment is similar in scale and operation to that found in the workplace. This will be facilitated by the employers approaching their equipment /plant suppliers to arrange donations of equipment/plant similar to that supplied to the employers.
- The negotiations with the land owners Homes and Community Agency (HCA) are proceeding well and agreement has been reached on the Heads of Terms. Originally it was hoped that the HCA would donate the land that was valued at £750,000 before nearly £1M was spent by the HCA on putting in the main services. The college has been instructed by the HCA to submit the figure of £500,000. The HCA have also furnished the college with all of their technical information about the plot which has been passed on to the building consultants.
- The college has undertaken a very productive series of meetings with the planning department and the HCA with the architect in attendance, where the draft design drawings were presented and the design brief discussed. This has resulted in the college receiving a letter from the Isle of Wight Council Planning Department stating "The design and layout currently shown is considered to be acceptable in principle."
- Following approval from the college's Capital Committee in July 2014 the college has signed the Partnership and Access Agreement with Hampshire's iESE Construction Framework. A mini contractors' competition has been scheduled for 17<sup>th</sup> November 2014 enabling the college to appoint the main contractor for the project.
- One of the major concerns expressed about the projects submitted to the Solent LEP has been about deliverability. When the college was required to re-submit a revised business case, it asked its architects and building consultants Pick Everard to carry out an extensive evaluation of the projects and to confirm in writing their confirmation of deliverability. Please see below an extract of their letter.

*"We have carried out an extensive evaluation of the project parameters and consider that this project is deliverable within the two alternative timescales you have specified and within the total project cost of £11.39m."*

## Section 2: Business Case – Summary Information

**Project Title:** Skills for Jobs and Economic Growth on the Isle of Wight

**Location:** Plot C, Island Technology Park, Whippingham, East Cowes

### Outline of the college's commitment to the project

- Project management support to include: project management expertise; administrative support; curriculum design expertise; data collection, analysis and reporting and expertise on IT infrastructure
- Provide employers with access to high speed broadband through installation of two fibre optic cables.
- Employer donation of equipment and time.
- New centre will be led by employers delivering a curriculum designed by employers to fulfil the skills requirements of the island for marine; composites; advanced manufacturing and engineering advanced crafts
- To address current and future local skills gaps in engineering; construction; visitor economy; leadership and management; renewable energies; maths and English
- Improve proportion of people gaining HE qualifications
- Work in partnership with the LA and island schools to expose their pupils to exciting and innovative experiential learning in STEM subjects
- Support Hampshire County Council in raising attainment

### Our ask of central Government

Provide funding to support:

- Building of a world class island training centre for 447-547 of which 280 are full-time learners (including pre-employment students) and 167-267 apprentices

### Finance

**Total project cost:** £11.39m

**Local public contribution:** paid by the college £180k (cost of broadband to 2020)

**Local private sector contribution:** £30k pa time and £500k equipment donated by employers

### Local and private sector contributions confirmed?

Yes, contributions in kind for time (1 day a month plus 10 Board meetings a year) and equipment donations have been agreed with 22 supporting employers to date.

### **Jobs and Deliverability**

<b>New jobs: Direct:</b>	An estimated increase in the number of STEM students gaining employment by 50 per year (150 by 2020); 200 construction workers - short term; 6 additional college full time teaching staff – permanent jobs.
<b>New jobs: Indirect:</b>	5 full time administrative staff
<b>Safeguarded jobs:</b>	11 full time existing staff
<b>New FE floor space (m2):</b>	2,950m2 of new FE floor space for industrial skills training

### **Deliverability**

<b>Delivery Start Date:</b>	October 2015 construction start
<b>Delivery Completion Date:</b>	January 2017 construction completion
<b>Delivery Body:</b>	Isle of Wight College

#### **Narrative on ability to deliver / commence delivery in 2015-16**

- The College has an excellent track record of managing multiple building projects and delivering on time and to budget.
- In January 2014 the College employed an experienced Project Manager whose focus is to project manage the college's new builds.
- The college has appointed Pick Everard as their architects and building consultants. They have been working on the building designs in consultation with the college, employers, HCA and the local planning authority.
- The college Governors have approved the appointment of Hampshire's iESE Construction Framework which allowed the signing of the iESE Access and Partnership Agreement.
- The iESE mini competition to appoint the main contractor is scheduled to start on 17<sup>th</sup> November 2014.
- Relevant consents in place:
  - Heads of Terms for land purchase agreed.
  - Homes and Communities Agency approval of the sale of land and letter supporting the Centre of Excellence proposal.
  - Letter from Isle of Wight Council Planning Department - agreement in principle.
  - Governor's approval to work at risk until 1<sup>st</sup> April 2015.
  - Completed BREEAM Registration of the Project.

## Strategic Case for Investment

The project will create a centre of excellence for composites, marine and advanced manufacturing that is a partnership between employers, Isle of Wight College and the Open University. To provide an employer led training facility to ensure that the island has a future skilled workforce that will meet the needs of employers and create an environment for inward investment.

The proposal will make a major contribution to the Solent LEP's strategic objectives for enterprise, skills, infrastructure, inward investment, strategic sectors and innovation and to the following strategic sectors: marine and maritime, aerospace; advanced manufacturing; engineering, low carbon and visitor economy.

### Addressing the Skills Agenda

The project is seeking to address the following:

- To improve poor attainment of island pupils at KS3 and KS4
- To improve skills of island workforce to create an environment to facilitate inward investment by up-skilling the existing workforce and potential new entrants
- To meet skills needs of employers in local and LEP priority sectors
- To improve employability skills of NEETs, NETs and job seekers
- To act as a catalyst for improved partnership working between schools, colleges and employers and other key stakeholders
- To work collaboratively with local universities and the Open University to facilitate and increase HE provision on the island
- To maximise current opportunities to take action: signs of economic recovery; island employers are wanting to take on more apprentices; Navitus Bay renewable energies project; employers willing to collaborate and work in partnership with schools and college; Hampshire supporting school improvement; gives young people a viable vocational alternative to staying on at school at 17
- To improve the lack of high level skills. Without radical action, this will constrain the island's future growth ambitions
- To address the shortage in the pipeline of skills which is a product of the fact that attainment levels of young people on the island are significantly below the national average leading to future skills deficiencies

### Addressing Local Objectives

- Raising of low attainment and aspirations which are low on the island at L2, L3 and L4 for adults and KS3 and KS4 for young people
- Local current and future skills gaps in hospitality, construction, maths and English, leadership and management, renewables
- High unemployment levels, particularly amongst young people aged 18-24
- Improving Information Advice and Guidance (IAG) in schools

## **Outputs achieved by the Project**

The project will:

- provide state of the art engineering facilities for 447-547 full time learners and apprentices
- increase start-up and survival rate of SMEs
- enabling SME growth by providing a skilled workforce and managers qualified to the appropriate level
- increase the proportion of students progressing to HE, particularly in STEM subjects in liaison with local universities and the Open University both on and off island
- creation of e-learning centre for students and SMEs
- increase number of school pupils undertaking STEM subjects by exposure to experiential learning in conjunction with the local authority project 'Wight STEM Skills Partnership'

## **Impact of NOT delivering this project**

Consequences of not delivering project would be:

- island workforce would not meet the needs of employers resulting in:
  - reduced GVA
  - loss of key employers from the island
  - higher unemployment
  - lack of inward investment
  - increase in business failures
  - lack of a skilled workforce on the island
  - major employers would become less competitive
  - inability to recruit families with young children due to poor school attainment
- college would become less attractive to students and employers resulting in declining numbers despite high quality teaching and learning
- decline in number of students progressing to HE
- no increase in number of school pupils taking STEM subjects thereby leading to future skills gaps
- stagnation in SME economy due to lack of management skills and skilled workforce

## **Alternative options that have been considered**

- Completing the build earlier would enable the college to meet the needs of the Island's largest employer, GKN, and meet its manpower planning needs for 2016 onwards.
- Siting of the training centre on the college campus. Although there were potential cost savings in this option, it was agreed that an employer led facility should be sited off campus to encourage better employer engagement

- Locating the build on a split site land given to the college by the Isle of Wight Council. As the site had no services it would have cost more to locate the build there compared to the Island Technology Park. Furthermore, discussions with the planning department raised some serious concerns over the car park being on one plot and the main build on another as a road separated the two plots. In May 2014 the college commissioned Pick Everard to undertake a site selection appraisal to ascertain which site provided; the best value for money, and meet the needs of the students and the college.

## **Constraints and Dependencies**

### **i) Constraints and Mitigations**

The main constraints that were identified early in the preparation of this bid were as follows:

#### Site selection and availability of land

- Site selection was quite quickly resolved as the alternative sites were removed as options either based on additional financial cost or unsuitability. Construction on the existing college site was considered but was rejected by employer and would have had disproportionately restrictive effect on the college's Estate Strategy and Estate Master Plan. This constraint was removed when the site selection investigation concluded that the best value for money would be achieved through the purchase of Plot C, Island Technology Park at Whippingham.

#### Agreeing Heads of Terms with the land owners (HCA)

- Following lengthy negotiations with HCA and their lawyers we have now agreed Heads of Terms and have HCA's approval and support of land sale.

#### Planning Authority restriction of use of the site

- Following a series of meetings which were attended by the following:
  - The Isle of Wight Council's Economic Development Department
  - Homes and Community Agency
  - Pick Everard's architects, structural engineers and designers
  - The college Principal and Head of Projects (New Builds)

The Planning Department have issued the college with a letter giving 'agreement in principle' of the draft plans submitted.

#### Existing services provision on plot C of the Island Technology Park and depth of water table

- Several meetings and discussions between HCA and Pick Everard's Civil Engineers have taken place to develop a workable solution for the Surface to Underground Drainage System (SUDS) due to the site having a water table depth of only 0.8 metre.

#### Availability and skillsets of college staff to undertake such a project

- To ensure that the project was managed effectively, efficiently and delivered in good time and on budget the college identified the necessity to employ a Project Manager that was experienced in project managing new college builds. A new Head of Projects (New Buildings) was appointed by the college in January 2014.

## **ii) Dependencies**

Since March 2014 the college and Pick Everard has undertaken an assessment of the internal and external dependencies related to this project and have taken steps to either remove the dependency or have in place an agreement; e.g. Heads of Term agreement with the land owners HCA or an agreement in principle e.g. letter from Isle of Wight Council Planning Department.

The only outstanding dependencies that are out-with our control is as follows:

- Solent LEP support for the project,
- Agreed phasing of funding methodology
- Funding Agreement from Portsmouth City Council is not in place.

## **Stakeholders and engagement**

The following is a list of stakeholders that have been engaged in the development of this project: Employers and employer groups based on the island and on the mainland, Solent Local Enterprise Partnership, Higher Education Institutions including the Open University, Hampshire and the Isle of Wight local authorities, governors, students, staff, Chamber of Commerce, British Marine Federation, Education Business Partnership, Island based Trade Unions and island residents.

### **Stakeholder engagement through**

- Steering Group meetings
- Meetings with employer groups
- Direct visits to employers and other external stakeholders
- Face to face meetings with staff and students
- Principal's Briefings with staff
- Numerous consultations with class groups of students
- Open evenings
- Staff briefings
- Bulletins and emails
- College website
- Strategic and operational meetings
- Telephone calls
- Press articles

## **Project measurement**

The college will measure the project through the following performance indicators:

- Build a new training facility at the Island Technology Park on time, to budget and to specification
- Increase progression to universities in STEM subjects by 25% by 2018
- Raise awareness of STEM in the community by offering 1500 tasters to primary school pupils.
- Implement a two year STEM pre-employment programme in September 2015, at the main campus, with an initial intake of approximately 50 learners. This will create the pipeline of students with the appropriate academic qualifications and employability skills to progress onto the Centre of Excellence.

- Increase the number of full-time STEM learners including pre-apprenticeships by 80 per year from January 2015.
- Increase the number of STEM apprenticeships by 50 per year from September 2017.
- Increase the number of island learners studying HE qualifications in STEM subjects by 30 a year from September 2018.
- Support SMEs through bespoke programmes including business start-up and survival and leadership and management training. This supports the LEP target of increasing employment rates to 80% and improved Gross Value Added (GVA).
- Improve the percentage of the island population qualified to level 4, currently 27.4%, to close the gap between regional and national averages, which are 36.8% and 34.4% respectively.
- Increase number of students studying STEM subjects at level 3/4 from 369 in 12/13 to 500 by 2019.
- Increase success rates for STEM related subjects from 75% to 80% by 2018.
- Increase the percentage of learners meeting or exceeding their target grade in level 3 STEM subjects (including A level, sciences and engineering) by 7% from 58% to 65% by 2018.
- Increase the volume and range of apprenticeships offered at level 2/3/4 for 16-18/19-24 year olds through broadening the curriculum to include pathways/training in specialised areas e.g. composites, marine and advanced manufacturing.
- Increase the number of apprentices who progress to permanent employment following completion of their apprenticeship or higher level study by 8% from 82% to 90% by 2019.
- Increase the percentage of engineering companies actively engaged in training from 32% to 45% in 2018, 97% of whom will be SMEs.
- Provide a central hub to host employer events, allowing the college to showcase the facility with a view to increasing the level of STEM employer engagement.
- Increase progression for apprentices to promoted posts as learners will secure skills which are in high demand.
- Increase the number of 19+ unemployed learners accessing engineering pathways at all levels by 25% from 20 to 25 by 2018 which will support LEP target of increasing employment rates to 80%.
- Build on existing STEM staffing expertise and attract and retain additional key capability by providing a stimulating, innovative work environment.
- Improve satisfaction levels of engineering students by 6% from 84% to 90% by 2018.
- Improve employer satisfaction rates by 4% from 91% to 95% by 2019.

## Section 4: Economic Case



## **Value for Money Assessment**

Value for money has been assessed by using the Skills Funding Agency's (SFA) investment appraisal tool, which shows a positive net present value (NPV) of 0.55 and the sensitivity analysis indicates that the project will still maintain a positive NPV with:

- a. an increase of 40% in capital cost
- b. a 20% decrease in revenue income
- c. an increase in revenue expenditure of 40%

## **Option appraisal**

Since March 2014 the college has thoroughly investigated the following options:

- Building the Centre of Excellence on the car park of the existing college site. However this was rejected following feedback from employers and the Isle of Wight Council Planning Department. This option was rejected by employers on the basis that they preferred the location benefit of the Island Technology Park and availability of parking. The Planning Department's concern was likewise the reduction in car parking spaces at the college if the Centre of Excellence was built on the existing car park.
- Building on an alternative split site, available from the Isle of Wight Council, was considered. Investigations proved that it would have cost more to install services to this site than it would to purchase the plot at Island Technology Park. Planning also anticipated some difficulties and serious concern with this alternative location due to it being a split site. With the car park being on one site and the main building being on the other and a busy road between them Planning were concerned about pedestrian safety and traffic management. With the traffic management issues identified and our building consultant's investigations estimate the costs of installing the services and upgrading the sub-station would be £570,000 ex VAT it was clear that Plot C of the Island Technology Park was the better option by providing better value for money.
- Since inception of this project we have been appraising two construction options; option A with practical completion in July 2016 and option B with a later practical completion date of January 2017. We are currently working to option B.

## **Direct and Indirect Employment**

The college predicts a conservative estimated increase in the number of STEM students gaining employment by 50 per year (150 by 2020). It also predicts an additional 6 full time permanent teaching staff and 5 full time permanent administrative staff. This project will also safeguard an additional 11 existing college staff.

Furthermore it is estimated that 200 construction workers will be employed through the duration of the build with an additional 8 to 10 people employed in the associated construction industries.

## **Section 5: Financial Case**

### **Summary of Financial Information**

Total Project Capital Cost            £11,389,566

### Annual and Monthly Expenditure Profile

As the college has expenditure in 2014/15 we have added a column in the table below to clearly show the actual annual expenditure profile. However, as the first tranche of funding is not available until 1<sup>st</sup> of April 2015 we have added the 2014/15 spend into the 2015/16 request for capital contributions.

Total capital costs	2014/15	2015/16	2016/17	2017/18	Total
2,950 m <sup>2</sup> New Build	161,917	3,115,852	7,400,094	211,702	10,889,566
Land Purchase		500,000			500,000
<b>Total capital costs</b>	<b>161,917</b>	<b>3,615,852</b>	<b>7,400,094</b>	<b>211,702</b>	<b>11,389,566</b>
<b>Local private capital contributions</b>			500,000		-500,000
<b>Request for capital contributions</b>		<b>3,615,852</b>	<b>6,900,094</b>	<b>211,702</b>	<b>10,889,566</b>

The table below shows the monthly expenditure profile based on the fiscal year and with the employer/private capital contribution removed. As above the expenditure in 2014/15 has been rolled forward into the first quarter of 2015/16. The resulting figures are the predicted expenditure profile payments from the Solent LEP in Local Growth Deal funding.

Fiscal Year	Quarters				Total for Year
	Q1	Q2	Q3	Q4	
<b>2015/16</b>	£343,062	£163,144	£916,592	£2,354,972	<b>£3,777,770</b>
<b>2016/17</b>	£2,269,905	£2,255,409	£1,822,808	£551,972	<b>£6,900,094</b>
<b>2017/18</b>	£40,688	£27,323	£20,640	£123,052	<b>£211,702</b>
					<b>£10,889,566</b>

### Capital Project Monthly Expenditure (Fiscal Year)

As the Solent LEP and their accountable body Portsmouth City Council operate in fiscal years the college has complete a month by month analysis of the predicted expenditure profile for the construction of the Centre of Excellence.

### Building cost breakdown analysis

A building cost breakdown analysis has been completed for the proposed Centre of Excellence.

## **Status of local contributions**

GKN Aerospace has confirmed that they are willing to donate an automated composite laying machine that will meet the agreed local contribution element of £500,000. This donated equipment will be installed in the Centre of Excellence and become an asset of the Isle of Wight College.

## **Isle of Wight College Financial Plan**

### **Executive Summary and Financial Plan**

This commentary is provided to inform the understanding of the financial plan prepared for the Centre of Excellence bid, covering the years 2014/15 to 2019/20.

The two year financial forecast (prepared for the SFA in July 2014) forms the basis for this plan. 2015/16 has been rolled forward for each future year, and this has then been overlaid with the capital spend for the GKN Aerospace bid, and associated income and expenditure.

The capital spend on the project totals £10.9m, received in two tranches:

- £3.8m from 1<sup>st</sup> April 2015 to 31<sup>st</sup> March 2016
- £6.9m from 1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2017
- £212k from 1<sup>st</sup> April 2017 to 31<sup>st</sup> March 2018

There is also a £500k equipment donation included in the plan.

### **Financial Results**

- Income and operating costs have been built into the plan, in accordance with the investment appraisal.
- The pay and non-pay costs are in line with expected college costs.
- The GKN Aerospace build is assumed to generate a small surplus from 2017/18 onwards. (A surplus is necessary, to ensure that the Income and Expenditure Bank Covenant is not breached.)
- The inclusion of these results gives the college a financial health category of Good from 2014/15, rising to Outstanding in 2019/20.

### **Bank Covenants**

The five bank covenants have been tested against the Centre of Excellence bid, to confirm there would be no breaches.

### **State Aid Implications**

The college has comprehensively investigated the State Aid implications of this project through BIS, Isle of Wight Council's Economic Development Department and Competition Lawyers in Bond

Dickinson LLP. The question of whether or not this project falls within State Aid have become more complex with the introduction of the new General Block Exemption Regulations on 1<sup>st</sup> July 2014 as part of the State Aid modernisation programme.

The college believes that this project is exempt from the State Aid regulations and has asked Bond Dickinson to investigate the following arguments:

*Is state funded education exempt under the argument that its activities are not “economic”?*

Even if the activity of the Isle of Wight College, in creating the proposed Centre of Excellence and offering modern apprenticeship training provision to all employers, was deemed to be ‘Economic Activity’; it could also be argued that there is no State Aid implications as the employers would be paying the normal going rate for the delivery of goods or services.

We have received a very positive response from David Harrison, Legal Director, Bond Dickinson LLP from which the following is an extract:

“On the assumption that the proposed grant for the new Centre of Excellence for the Isle of Wight College does not, indirectly, lead to selective benefits being provided to external “undertakings” through a form of leakage it should, therefore, not qualify as State aid.”

## Section 6: Commercial Case

### Contracting and Procurement Strategy

Following a review of the college's options regarding the best procurement strategy for the construction of the Centre of Excellence the college and Pick Everard investigated the construction frameworks available in the region in order to avoid the lengthy procedures of the OJEU process. A shortlist was established and through a process of elimination the Governors of the College were given a presentation with a question and answer session from iESE. Following the approval of the Governors and Ben Willis of Bond Dickinson, the college lawyer that reviewed the documents, the Access and Partnership Agreement was signed on 30<sup>th</sup> July 2014 to allow the college access to the iESE Construction Framework.

Following the submission of the Access and Partnership Agreement Pick Everard submitted an iESE Project Notification on 17<sup>th</sup> October 2014 with the following dates for the mini competition:

**Current Cost Forecast** : Total Project budget £11.39m. Construction cost forecast £6,650,787

Forecast cost ; Base date Q2 2015

Full Funding approved : Formal application under consideration by SLEP

**PROGRAMME** : Estimated pre-construction and construction elapse times

Current Stage : RIBA AB

Mini competition Part 1 Out 17<sup>th</sup> November

Mini competition Part 1 Back : 24<sup>th</sup> November 2014

Mini Competition Part 2 Out : 1<sup>st</sup> December 2014

Mini Competition Part 2 Back : 15<sup>th</sup> December 2014

Contractor Selection Due : 15<sup>th</sup> January 2015

Start on Site : Programme A May 2015 Programme B Oct 2015

Anticipated Completion : Programme A July 2016 Programme B Feb 2017

A mini competition will commence on 17<sup>th</sup> November 2014 to select the most appropriate main contractor using the information available to select a company on the basis of preliminaries, overheads and profits. The college and Pick Everard are in discussions with Nigel Midmer from iESE to develop the details of the procurement and to establish the level of interest from the eight contractors on their list. As per the guidelines in the SFA's Further Education Schemes Cost Model 2014 the college will be following a two stage tendering process.

Using the iESE guidelines and following discussions with our building consultants and college lawyers and taking on-board their advice the college has decided to use the New Engineering Contract 3 (NEC3) as the contractual instrument for the main contractor of the Centre of Excellence.

## **Building Research Establishment Environmental Assessment Method (BREEAM) and Sustainability**

### **i) BREEAM**

The design proposals for the Centre of Excellence building will be the subject of a BREEAM Pre-Assessment undertaken by the Pick Everard's BREEAM assessor using the BREEAM 2011 New Construction Scheme guidance for which the project was registered on 30<sup>th</sup> June 2014 (Reference number BREEAM-0055-7744).

This initial design work and cost plans show that all mandatory criteria and minimum requirements can be met, thus the targeted rating of BREEAM Excellent is achievable. This will include the requirement for the building to achieve a further 25% Co<sup>2</sup> emissions reduction on Part L2A 2010.

The current pre-assessment shows a score of 73.1% and suggests that the required BREEAM rating of Excellent can be achieved. The college has instructed Pick Everard's BREEAM Assessor to increase the targeted score to 75% to account for any design or construction alterations which may result in a reduction in the final assessment score.

The design proposals, together with associated management of site operations and construction activities should allow all targeted credits to be awarded.

### **ii) Sustainability**

The College has a history of being very proactive in the area of sustainability and was one of the first to work with the Carbon Trust under the FE Carbon Management Programme and it considers the reduction of its carbon foot print to be an obligation that saves money and reduces the impact on the environment. In 2010, the environmental committee agreed that the college would aim to reduce carbon emissions from all activities by 20%, working from a baseline of 1,595 tonnes Co<sup>2</sup> (tco<sup>2</sup>) by 2019. Twenty projects were identified that could be introduced to support this target. To date the College has implemented and completed 6 of these projects resulting in an annual saving of 55.9 tco<sup>2</sup>.

Some examples of successful projects are:

- In 2012 fitted voltage optimisers were fitted in two main electrical sub stations with the support of a Salix loan. These have resulted in a reduction in the electricity usage in these buildings by an average of 10% per annum
- The introduction of compacting waste skips has reduced collections from 5 per week down to 1
- Carbon production is down by 3%, from 1,628t to 1,579 t
- Co<sup>2</sup> production per student is down by 8% to date

Currently many of the college's buildings are 'carbon positive' with inefficient heating, insulation and lighting.

In line with its Waste Management Policy, the college aims to recycle as many waste products as possible. General waste is compacted before being collected. Glass, aluminium, animal waste, brick rubble, wood, metal, food waste, clothing and waste cooking oil are all collected separately to minimise the waste sent to landfill.

Waste paper is collected by students with learning difficulties as part of their 'realistic working' project, this is then sent for recycling.

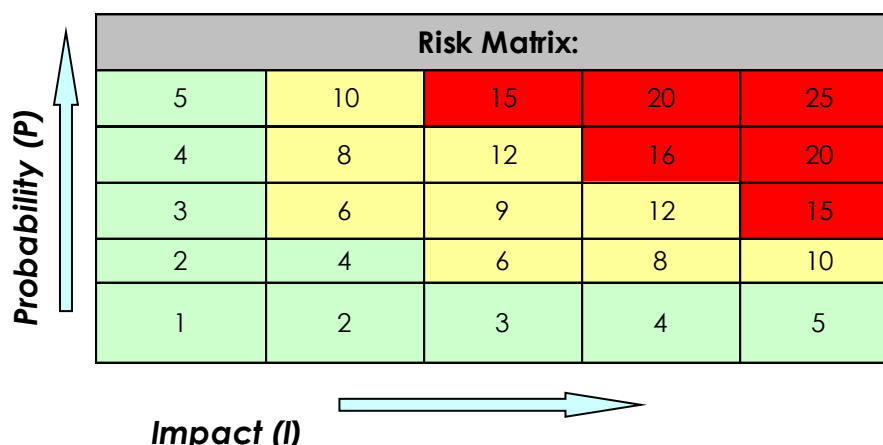
Sustainability measures will be incorporated during construction. These include:

- Sustainability measures will be incorporated from construction, through to the management and operation of the development.
- Engagement– Consultation exercises will ensure the facility is appropriate for all building users. Aftercare support will be provided to the facilities management and building users. Recycling facilities will be provided within the development and steps taken to reduce the quantity of waste.
- Construction – Responsible practices will be adhered to, including minimising construction waste and measuring environmental impacts of the site. Systems within the building will be commissioned and the sourcing and life cycle cost of major building materials will be considered.
- Internal Environment – The project is designed to provide a safe, comfortable, enjoyable learning environment for occupants.
- Energy and Carbon emission – Energy consumption and carbon emissions of the building will be controlled through the specification of passive design measures, efficient building services, low energy lighting and the use of renewable technologies.
- Transport – A transport plan will be implemented that promotes the use of alternative modes of transport. Facilities will be provided to encourage the use of bicycles or walking to the site.
- Water – Water conservation measures will be implemented, including the specification of low water use fittings and the installation of water recovery systems where appropriate. Pollution prevention measures will reduce the risk of any detrimental effects on the surrounding water courses.

## Risk Assessment and Mitigation

Since June 2014 the College and Pick Everard have undertaken several risk workshops to produce a risk register and establish mitigation measures which have been updated on a regular basis. This process has allowed a financial assessment of the risks to be made and included within the project's cost plan.

The following table shows some of the high scoring key risks identified and the mitigation measures that have been put in place. Scoring is based on the follow matrix:



Risk Matrix:				
5	10	15	20	25
4	8	12	16	20
3	6	9	12	15
2	4	6	8	10
1	2	3	4	5

Table of High Scoring Key Risks and Mitigation Measures

Risk ID	Description	Mitigation Measures	P	I	Residual Risk
E03	Delay in obtaining planning consent	Hold stakeholder consultations. Meet with LPA. Re-programme and redirection of resources. Early meeting have resulted in letter from LPA agreeing in principle the design concept	3	4	12
F02	Accessibility of IoW	clear instructions to main contractor and sub-contractors about ferry weight restrictions, island events and necessity to book slots	3	4	12
E01	Project sign off delayed pending need to make affordability savings	Regularly cost plan production. Liaison from outset with contractor on 2 stage process.	3	3	9
G03	Returned tenders in excess of monies available	Value engineering exercises to be undertaken. Costs to be regularly updated. Close liaison with contractor pre-contract sum finalisation (2 stage tender approach). Issue to be resolved prior to contract award.	3	3	9
E10	Delay in SLEP approvals	College to maintain close liaison with SLEP. Resources redirected. Contract signed after confirmation of funding.	2	4	8
F01	Delay in appointment of contractor	IESE advised of work. Contractor to be briefed in good time. IESE to meet College team. Mini competition	2	4	8



		scheduled for November 2014			
F02	Unavailability of suitable subcontractors	Contractor to have a well-established local supply chain that has recently delivered projects on the IoW. Sub-contract responses have been difficult to obtain on other projects. Cost implications built into contract sum	2	4	8

### Isle of Wight College estate

The Isle of Wight College is a further education college located centrally in Newport. Other than the sixth form, the art block and learning resource centre (LRC), many of the college buildings date from the early 1950s and are inflexible, of poor quality and inefficient in terms of space and energy consumption. The college lies within an area whose dominant use is industrial and retail warehousing and the overall quality of the environment and hard landscaping is poor.

In 2004, a major building project undertaken by the college was, in part, funded by the disposal of some of its site for retail warehouse development, enabling the college to invest in a new two storey art teaching block, a three storey learning resources centre, a modified entrance/reception, a day nursery, greenhouses, roadway infrastructure and car park.

In 2007 the college engaged Tribal to complete an extensive feasibility study into the potential of a relocation of the college campus. Ten different sites around the island were examined and all were rejected as unsuitable. The governors agreed to adopt the recommendation from that report to remain on the current site.

In 2010, the college developed a new campus master plan that consists of 11 phases, each designed to cost around £6.5m, providing a long term strategy designed to take advantage of funding as and when it became available. The first phase of this master plan, a new sixth form teaching block, was a 1,800 m<sup>2</sup> building opened in 2010, costing £5m and funded via a bank loan.

The current college building stock consists of 23,017 m<sup>2</sup>, 44% of which is classed as category C (i.e. operational). Many of the older buildings require significant and costly maintenance, as identified in the condition survey undertaken in 2008. For example:

- Asbestos – many areas have identified areas of low risk asbestos
- Electrical works – many areas have a mixture of old and new electrics.
- Roofing – many buildings have old felt flat roofs that need replacing
- Heating – all the buildings to be demolished are connected to the original 1950s heating plant; much of the pipe work is in urgent need of repair
- Walls – a number of areas have damaged brickwork
- Window sills and headers – many of these are in very poor condition
- Insulation – none of the buildings have cavity wall or roofing insulation

The current energy certificate shows the older buildings in the college to be category D (i.e. unsatisfactory) and all have high running costs. The annual running cost of a new build is estimated

at £45/m<sup>2</sup> against the existing value of £55/m<sup>2</sup>, so this project is estimated to deliver an annual saving of £77,000.

In December 2013 the Skills Funding Agency (SFA) agreed to fund a new Science Technology Engineering and Mathematics (STEM) project will complete phase 2 and 2a of the campus master plan. Construction has started of this new 2,065 m<sup>2</sup> teaching block on the college car park with a scheduled completion date of March 2015. Demolition of three 1960s buildings is also planned as part of STEM submission at a total project cost of £6.59 million. This will reduce category C stock by 3,089 m<sup>2</sup>, which is 13% of total floor space and release 3 leased premises accounting for 991 m<sup>2</sup>. This would also provide a saving on rent and rates of £73k pa.

In terms of space utilisation, at 18.07m<sup>2</sup>, the college is currently operating 10% above the upper SFA guidance limit of 14.5m<sup>2</sup>. The college is continually striving to improve the efficient use of space, but significant improvements will prove difficult whilst the constraints of inefficient and inflexible old buildings remain. The college is working towards a maximum target of 14.3m<sup>2</sup> per Minimum Number of Workspace (MNW) by the time the master plan is completed and space utilisation will improve as each phase is completed. The STEM building phase would reduce the gross internal area (GIA) of the College to 21,993 m<sup>2</sup> and bring the space utilisation down to 17.23m<sup>2</sup>.

The new STEM building will provide large flexible learning spaces, industry standard workshops and high tech resources to support a broader, more relevant curriculum in STEM subjects to meet the needs of learners, local employers, the LEP and other stakeholders. This new dedicated building will provide:

- exciting, new working environments for learners
- increased room utilisation
- a new flexible engineering and computing section
- a greatly improved overall image of the college
- a focus for maths and English provision to provide synergy and more cohesive delivery
- a focus for all college STEM related activity which employers such as GKN Aerospace feel will provide a new synergy and encourage innovation

The proposal to build a Centre for Excellence for Composites, Marine and Advanced Manufacturing will enable the STEM building to be a feeder to the Centre of Excellence and provide dedicated pathways enabling young and unemployed people to progress into employment/apprenticeships.

## Current and Future Student Numbers

Based on the 2013 student data the following table shows the increase in student learner numbers the first year post construction and the anticipated increase in student learner numbers by 2025.

	Learner Numbers before the project	2018/19 Post Project Learner Numbers increase	By 2025 Post Project Learner Numbers Increase
14 – 16	167		
16-18 Apprenticeships	231	90	175
16-19 EFA	1936	180	240
19+ Apprenticeships	247		80
24+ Loan	76		
Adult Skills Classroom Based	2537		132
Adult Skills Workplace	100	20	130
Higher Education	147		142

## Section 7: Management Case

### Project Management

The Isle of Wight College will manage the project in liaison with GKN Aerospace with the support of Pick Everard acting as building consultants, the role to which they were appointed in 2009. This historic partnership has a proven, successful track record of managing major building projects.

The college property strategy includes a feasibility study report into all the various options that have been considered in developing the overall master plan for the site.

#### Project Team appointments

Project Manager: Pick Everard (Taunton)

Architect: Pick Everard (Taunton)

Quantity Surveyor / Cost Consultant: Cyril Sweet (Southampton)

CDM Co-ordinator: Pick Everard (Taunton)

Structural Engineer: Pick Everard (Taunton)

Electrical Engineer: Pick Everard (Leicester)

Mechanical Engineer: Pick Everard (Leicester)

BREEAM Accredited Professional: Pick Everard (Leicester)

In addition, through sub-consultancy arrangements, Pick Everard has also appointed a landscape architect, acoustician and ecologist.

Pick Everard were involved with the sixth form centre project in 2010, the STEM construction in 2014 and the earlier whole campus redevelopment scheme in 2008. They have also recently developed an updated master plan with the college.

### **Governance Framework**

The Centre of Excellence Steering Group would be led by GKN Aerospace and composed of employer representatives from the composite, marine and advanced manufacturing industries on the Isle of Wight, as well as representatives from the Solent Local Enterprise Partnership, Southampton Solent University, the Isle of Wight local authority, Chamber of Commerce and the Isle of Wight College.

The Chair of the Steering Group will report to the College Board of Governors.

The Governors have already approved that the college's constitution be amended to show the Steering Group as a subcommittee of the board.

The Corporation has a Capital Committee sub group that meets regularly to monitor progress and make decisions on capital projects such as the recent sixth form new build. Reporting and approvals would go through this group for ratification by the college Corporation.

The internal proposed reporting and approval process for this project is as follows:

- Project manager reports to Deputy Principal and GKN Aerospace
- Deputy Principal reports to Capital Committee of Corporation
- Capital Committee reports to the Corporation at monthly meetings
- Corporation makes final decisions and approvals based on recommendations of the Capital Committee
- Progress reports will be submitted according to Solent LEP/Portsmouth City Council's requirements  
(See Monitoring and Evaluation Framework Proposal below)

### **Key Targets**

Desired targets/outcomes that will be achieved through the construction of the Centre of Excellence for Composites, Marine and Advanced Manufacturing:

- Increase start-up and survival rate of SMEs
- Enabling economic growth by providing a skilled workforce and managers qualified to the appropriate level
- Provide state of the art engineering facilities for 447-547 learners
- Increase number of school pupils studying STEM subjects by exposure to experiential learning in conjunction with LA project 'Wight STEM Skills Partnership'
- Increase the proportion of students progressing to HE on and off island, particularly in STEM subjects in liaison with local universities and the Open University
- Creation of e-learning base for HE students and SMEs

## Monitoring and Evaluation Framework Proposal

Below are the proposed Monitoring and Evaluation Frameworks that the Isle of Wight College intend to implement to ensure that our monitoring and evaluation can support the wider monitoring and evaluation of the Solent LEP Local Growth Deal. The framework is developed around the three phases of:

- Construction; reporting mechanisms during the construction of the Centre of Excellence
- Project Completion; final reconciliation of expenditure and invoice checks
- Post Occupancy Evaluation; structured evaluation of the process of delivering the project, as well as to demonstrate how the project has impacted on educational provision, property/estate issues (including space and cost) and the organisation's financial health

### Construction Phase

At the end of every quarter we would propose to submit the following forms:

- Monthly Expenditure Form; this form shows actual total monthly expenditure against planned expenditure.
- Quarterly Invoice Listing; this spreadsheet provides the Solent LEP with a list of all invoices paid and apportionment against the building cost elements (as shown below) over the previous quarter.
- Capital Project Quarterly Update; this update provides an Executive Summary and a photographic record of the current and future status of the project.
- Interim Use of Funds Statement; this document confirms that the grant funding they have received from the Solent LEP has been spent in accordance with the terms and conditions of grant.

### Project Completion

Shortly after project completion we propose to submit a Post Occupancy Evaluation – Elemental Cost Breakdown Form that will show the actual expenditure against each of the building cost elements:

0	Demolition
1	Substructure
2	Superstructure
3	Internal Finishes
4	Fittings and Furnishings
5	Services
6	External Works
7	Preliminaries
8	Contingencies
9	Equipment
10	Professional Fees
11	VAT

Final Reconciliation and Use of Funds Statement.

## **Post Occupation Evaluation**

It is good estate management practice to evaluate the outcome of major capital projects, including acquisition and disposals where applicable. Evaluation is an essential performance management and continuous improvement tool and adopt it as best practice. It is essential that the Solent LEP is able to access this information to help inform future funding bids and capital investment policy.

It is recognised that organisations will need to have occupied and benefited from the completed project for a period of at least 12 months to be able to provide sufficient detail to make the evaluation worthwhile. As the project completion date is January 2017 which is mid-way through the academic year we propose to commence the evaluation period from September 2017 to July 2018 with Post Occupancy Evaluation submission in December 2018. Therefore we propose to provide a Post Occupancy Evaluation Form, to include functional performance 18 months from occupation, when the impact that the project has on educational delivery, finances and estates performance is known. The evaluation should also include an assessment on overall project delivery, taking on board final project outturn costs as approved by the Governing Body.

## Section 8: Prioritisation Framework

### Prioritisation Matrix

The following section has been completed with summary comments from the bid to show alignment with the Solent LEP's Prioritisation Matrix:

Prioritisation Element	
<b>Strategic Fit</b>	<p>As can be seen in Sections 1 to 3 of this submission, which details the contributions the project will make to LEP strategic objectives and growth targets, the project would make a contribution to:</p> <ul style="list-style-type: none"> <li>all LEP strategic objectives and a major contribution particularly to Enterprise, Skills and Strategic Sectors</li> <li>LEP priorities for the following strategic sectors: marine and maritime, aerospace; advanced manufacturing; engineering, low carbon and visitor economy</li> <li>all LEP growth targets whether directly or indirectly</li> </ul>
<b>Deliverability</b>	<p>Capital is deliverable because:</p> <ul style="list-style-type: none"> <li>The college has 22 employers representing all the major LEP priority industries across the island already signed up to the partnership and several major employers with GKN Aerospace willing to lead the project</li> <li>Excellent historic track record of delivering major capital projects in partnership with Pick Everard, all of which have been delivered on time, to budget and to specification</li> <li>Outline planning permission for the Island Technology Park was granted in 2011 and planners have recently given agreement in principle to concept designs</li> <li>College corporation has given approval for the submission of this project bid</li> <li>The project is based on the successful CEMAST model in Daedalus</li> <li>The SFA cost model has been used as a basis for ascertaining both size, space and costs for the project, therefore the college believes that the finance case is robust</li> <li>In consultation with Pick Everard, the college is confident that this project is deliverable within the timescales given provided that funding is released early enough to commence preliminary works and to prepare the planning application</li> <li>The deliverables of these capital buildings will continue to show a return on investment over a period that exceeds 2020 verified by annual returns to the LEP as requested</li> </ul>
<b>Start Dates</b>	<p>Start on site for the new build would be approximately 6 months from the date funding is approved. Pick Everard have already been instructed to commence preliminary design work and costing which have been submitted to the Solent LEP.</p>
<b>Private Sector Leverage</b>	<p>22 employers have already agreed in principle to supply equipment worth £500k for use in the new training facility</p> <p>22 employers have also agreed to give time to the project (on average 1 day a month from each employer) for activities including Steering Group meetings, Trade Group meetings and contributing to the STEM Ambassadors Programme</p>
<b>Jobs</b>	<p>The project would create:</p> <ul style="list-style-type: none"> <li>an estimated increase in the number of STEM students gaining employment by 50 per year from 2016 onwards (150 by 2020)</li> <li>14 full time permanent teaching and support jobs</li> <li>200 temporary construction jobs for 18 months</li> </ul>
<b>Homes</b>	N/A

<b>Skills</b>	<p>Delivery of skills outcomes by the project:</p> <ul style="list-style-type: none"> <li>• Delivering a new flagship initiative to support the improvement of STEM skills on the island</li> <li>• In partnership with employers, implementing a programme of STEM traineeships and pre-employment programmes in the priority sectors</li> <li>• Working collaboratively with employers to deliver an innovative pre-apprenticeship scheme to supply the STEM skill needs of local employers</li> <li>• Increasing the proportion of island people with level 4 qualifications in STEM subjects to reduce the future skills gaps</li> <li>• Creation of an environment that will enable employers to work effectively with schools to raise the aspirations of young people and their understanding of how STEM subjects relate to future employment</li> <li>• Working in partnership with universities to deliver a range of e-learning/ distance learning and traditional qualifications which can be studied on the island</li> <li>• Supporting the Solent Employer Ownership of Skills programme the college will work in partnership with employers and other key stakeholders to ensure that it provides the appropriate skills to meet the needs of island employers</li> </ul>
<b>Additionality</b>	<ol style="list-style-type: none"> <li>1. The extent to which a site's benefits will be realised without the funding: <ul style="list-style-type: none"> <li>• Island economic activity would stagnate and some areas would decline due to lack of a skilled workforce</li> </ul> </li> <li>2. The impact of the funding on the speed of delivery of the economic benefits: <ul style="list-style-type: none"> <li>• If not implemented quickly the current opportunities to meet the needs of employers would be missed. A good example is the two large contracts that GKN Aerospace have won and the additional workforce required</li> <li>• Major benefits of the new centre would start impacting on the island economy in 2018</li> </ul> </li> <li>3. The extent to which the funding will shift economic activity from other areas: <ul style="list-style-type: none"> <li>• The establishment of a centre of vocational excellence on the island will make the college a much more attractive and viable proposition for many employers and for learners who currently travel off island to undertake studies with mainland providers</li> </ul> </li> </ol>
<b>Wider Economic Impact</b>	<ol style="list-style-type: none"> <li>1. The wider impact on the economy of the Solent LEP area (i.e. will it help unlock or bring forward other development sites or economic activity: <ul style="list-style-type: none"> <li>• The proposed centre on the Island Technology Park would unlock the potential of that site and attract further inward investment</li> <li>• By working in partnership with employers and providing them with an appropriately skilled workforce, economic activity on the island would increase</li> <li>• Creating a pool of skilled talent will attract other inward investment to the island</li> </ul> </li> <li>2. Will it help grow the priority sectors and the knock-on impacts to other companies in a supply-chain): <ul style="list-style-type: none"> <li>• The focus of the whole project is to create world class training facilities on the island for the priority sectors of marine, composites, engineering and advanced manufacturing to support growth in these sectors with a direct knock on to the supply chain</li> <li>• By creation of all these jobs, money is being put back into the island economy thus contributing to higher GVA</li> </ul> </li> </ol>



<b>Social Impact</b>	<p>The extent to which the project will have wider social or environmental benefits to the Solent (e.g. providing employment opportunities in deprived city areas, supporting people into work through apprenticeships and other access to employment routes):</p> <ol style="list-style-type: none"> <li>1. Social impact <ul style="list-style-type: none"> <li>• The island has considerably higher than average unemployment figures, so the project has the potential to reduce these significantly, particularly in the most deprived wards of which the island has 16 of 34 in the Solent region</li> <li>• The project will provide additional pathways to support the long term unemployed back into employment</li> <li>• Increasing attainment in KS3 and KS4 through this project's initiatives, partnerships with employers and other key stakeholders will have huge social impacts for the island and encourage people to move to the island</li> <li>• Increasing the profitability of island employers will have a direct socio-economic impact on the island</li> <li>• If all islands schools improve GCSE outcomes, attainment will rise and 16-24 unemployment figures will fall</li> </ul> </li> <li>2. Environmental impact <ul style="list-style-type: none"> <li>• The project will further encourage the growth of renewables technology industries on the island by providing them with a skilled workforce</li> </ul> </li> </ol>

## Section 9: Implementation Plan

### Summarised Implementation Plan

The following is a summary of the proposed project extracted from a Gantt chart implementation plan

<b>Proposal</b>	<b>New Build:</b> To build a 2,950m <sup>2</sup> Centre of Excellence for Composites, Advanced Manufacturing and Marine Technology on the Isle of Wight (based on the CEMAST model). This new training facility would accommodate 447-547 learners and be located at the Island Technology Park, Whippingham (adjacent to GKN Aerospace R&D facility).
<b>Summary</b>	To create a centre of excellence for composites, marine and advanced manufacturing that is a partnership between employers, IW College, local universities and the Open University.
<b>Outcome and Outputs</b>	<p>The project will:</p> <ul style="list-style-type: none"> <li>• Provide state of the art engineering facilities for 447-547 full time learners and apprentices.</li> <li>• Increase the proportion of students progressing to HE, particularly in STEM subjects in liaison with local universities and the Open University both on and off the island</li> <li>• Creation of e-learning base for HE students and SMEs</li> </ul>

	<ul style="list-style-type: none"> <li>• Increase start-up and survival rate of SMEs</li> <li>• Enabling SME growth by providing a skilled workforce and managers qualified to the appropriate level</li> <li>• Increase number of school pupils undertaking STEM subjects by exposure to experiential learning in conjunction with Local Authority project 'Wight STEM Skill Partnership.'</li> </ul>
Milestones	<ul style="list-style-type: none"> <li>• Project approval – (releasing funds for preliminaries and preparation of full planning permission)</li> <li>• Planning permission granted</li> <li>• Site preparation and commencement of building</li> <li>• Complete new building by January 2017</li> </ul>
Resources	<p>Project funding - £10,889,566</p> <p>Equipment donated by employers to value of £500k</p> <p>Time commitment from employers (1 day a week on average) to value of £30k</p> <p>Access to high speed broadband in the Business &amp; HE Hub - £180k to 2020</p>