

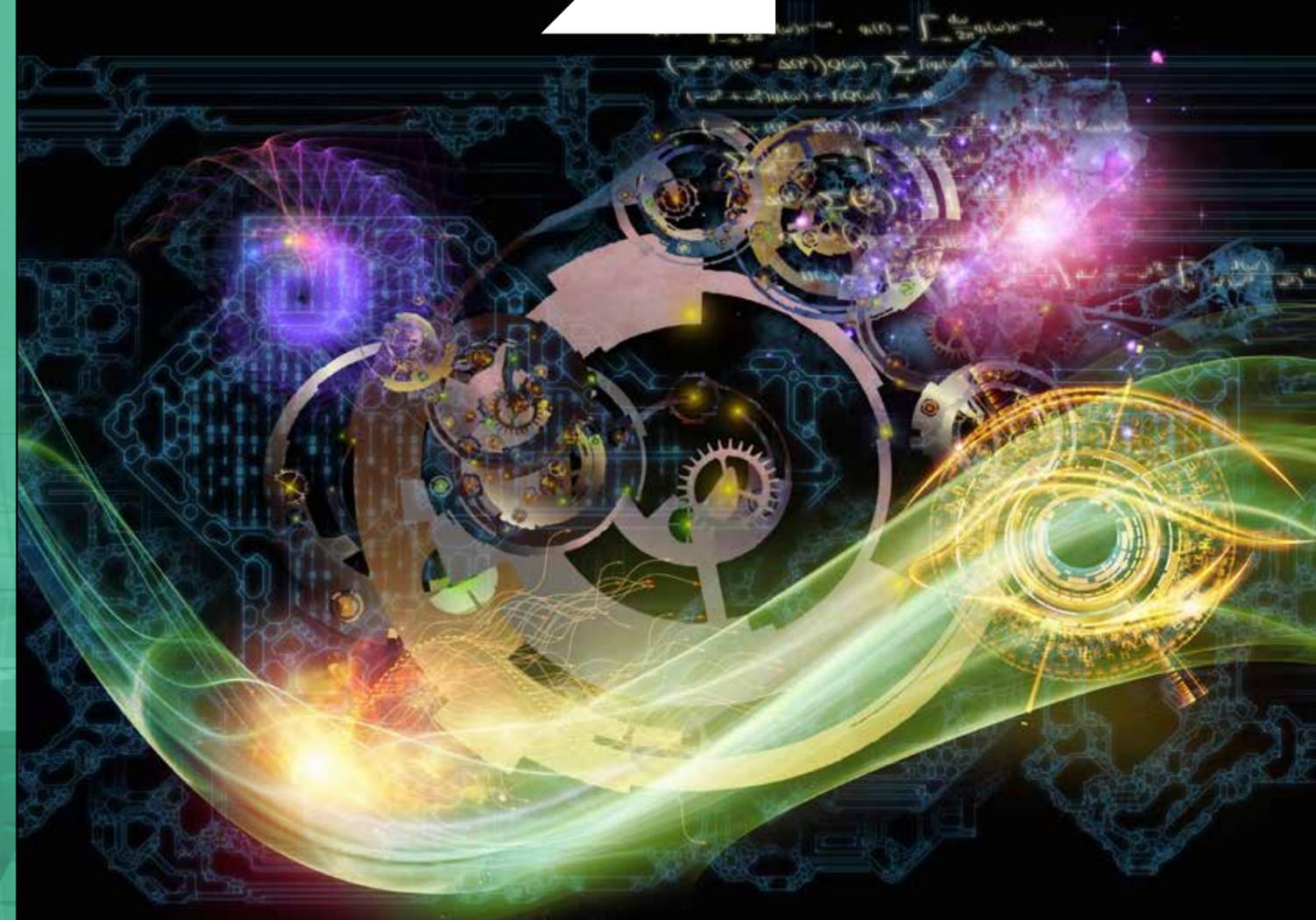
THE NUMBERS ...

- **£13million** new development dedicated to STEM for Plymouth
- **£5.43million** funding from the Heart of the South West Local Enterprise Partnership's Growth Deal
- **£2.7million** from the Regional Growth Fund
- **£4million** from Plymouth City Council
- **Over 12,000** students each year
- **Over 1,450** apprentices trained each year
- **Over 50** regional businesses involved in shaping the facilities, equipment and training offer
- **12** curriculum areas integrating STEM into the student experience
- **100%** focus on student and industry needs



Regional Centre of Excellence for
Science, Technology, Engineering
and Mathematics

**OPENING
SEPTEMBER 2017**



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www.cityplym.ac.uk/STEMCoE

Supported by the
Regional Growth Fund



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OF IT**

City College Plymouth: providing innovative, technical and professional education and training by supporting partnerships for growth, raising aspirations and enabling wealth creation.

www.cityplym.ac.uk/STEMCoE

STEM CENTRE OF EXCELLENCE FOR PLYMOUTH



The Regional Centre of Excellence for STEM is the most significant investment in the City's skills infrastructure for many years. The Centre will have a substantial impact on the training and education of STEM-related subjects for the City and wider region - STEM being a local and national priority.

City College Plymouth will be opening this £13million facility for STEM in September 2017. Our vision has become a reality thanks to financial support from the Heart of the South West Local Enterprise Partnership, Plymouth City Council and the Regional Growth Fund.

With a greater emphasis on STEM, City College is well placed to support the needs of local businesses, which need the next generation of students to be

equipped with STEM-related skills and knowledge. Building on the recent investment in our construction and engineering resources, we will continue to work with the business community to develop employer-driven provision that creates job-ready students. We will proactively promote wealth creation, embedding enterprise, employability and STEM learning in everything we do.

We are investing in Plymouth's future, and supporting the region's strategies for growth and prosperity. With your support, we can create a ladder of opportunity for the wider community, enabling individuals to progress to further learning and into sustained higher-level employment.

Phil Davies
Principal & Chief Executive



Science, technology, engineering and mathematics (STEM) related industries are vital to the UK economy, and the Government has made increasing the quality and quantity of teaching in STEM subjects a national priority.

72% of all UK businesses rely on people with STEM skills.
(CBI 2013 'Ready to Grow')

Yet nearly 40% of businesses have difficulty recruiting staff with STEM skills and knowledge.
(RAE 2012 'Jobs and Growth Report')

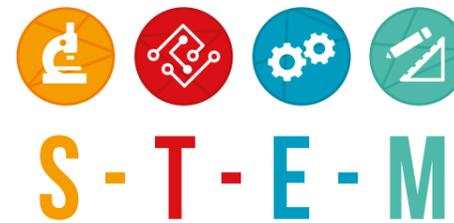


STEM CENTRE OF EXCELLENCE FOR PLYMOUTH



Plymouth City Council, as a co-funder, is pleased to be supporting this project for the development of a Regional Centre of Excellence for STEM (science, technology, engineering and mathematics) - at City

College Plymouth which fits so well with our future vision for the City and the skills needed by our local economy.

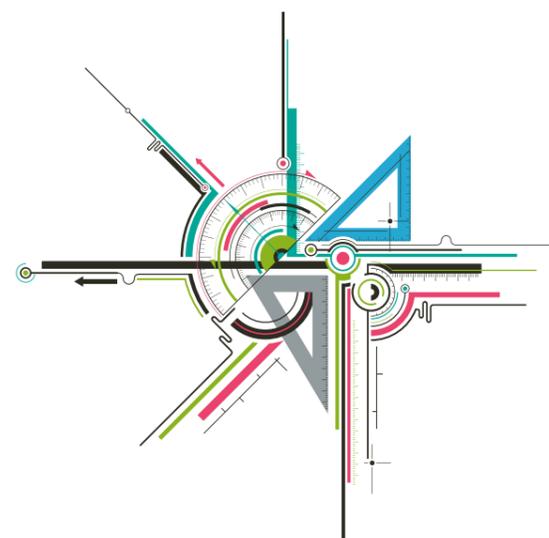


Plymouth's Local Economic Strategy and its Plan for Employment and Skills both highlight the further need to support and develop the City's STEM-related skills which are so crucial for the future success of our economy. In order to keep Britain's Ocean City and its businesses at the forefront of developments in, for instance, science, engineering, advanced manufacturing, medical and healthcare, or our digital and renewables industries, Plymouth needs to focus on training the next generations of skilled workers.

This future workforce will need to be equipped with STEM skills and knowledge that are applicable to a wide range of industries working within the City. Our economy's future success will be predicated upon having strong and innovative STEM industries, not least because they create wealth and jobs for the City. We know, however, that we are facing a real shortage of people with the skills we need to maintain and grow our key business sectors further.

The new Centre will be a fantastic resource; not only for the College but for our wider community and region, and will play a key part in the developments of our City Deal as well as increasing the skills infrastructure that we need. I am confident that the Regional Centre of Excellence for STEM will contribute to Plymouth's ambitions and that is why the City Council are investing in it as we recognise the part it can play in our economic success. Never has there been a better time to develop our current and future workforce or for the College to play its part in creating new learning opportunities and facilities which will create the workforce our industries require.

Cllr Tudor Evans
Leader, Plymouth City Council



STEM IS A LOCAL, REGIONAL AND NATIONAL PRIORITY FOR THE ECONOMY

The Royal Academy of Engineers forecasts that between now and 2020, the UK economy will require 830,000 scientists, engineers and technologists to replace those retiring from these sectors and to fill increasing demand. This equates to over 100,000 new STEM recruits each year. To combat this shortfall in skilled STEM workers, it is vital that as a country we capture and hold young people's interest in STEM subjects from an early age. We must then retain their enthusiasm through to further and higher education. Gaining an awareness of STEM and, more specifically, an understanding of how scientists, technologists, engineers and mathematicians use these subjects to develop professional, well-paid careers is crucial to engaging young people today.

"The subjects to keep young people's options open are STEM subjects - science, technology, engineering and maths. Because the skills gained from studying these subjects will come in useful in almost any job you care to mention; from the creative and beauty industries to architecture. That's why I believe it's so important that young people are aware of the opportunities these subjects bring ... they aren't nearly as popular as they should be."

Nicky Morgan MP, Secretary of State for Education

£105billion

The value of the UK digital sector to the UK economy.

(House of Lords Select Committee on Digital Skills, Report of Session 2014-15, 'Make or Break: The UK's Digital Future', February 2015)

£90billion

The value of the construction sector to the UK economy.

(Born to Build 2014, www.borntobuild.org)

£27billion

The potential annual income from engineering employers to the UK economy from 2022.

(Engineering UK Report 2015)

STEM WILL SECURE PLYMOUTH'S FUTURE

Plymouth's Local Economic Strategy and the Plan for Employment and Skills highlights the need to retain and maximise the City's talent. It articulates the necessity to match labour market skills and demands with the training and education supply, and to upskill the existing workforce. This requirement is also made in the Plymouth and South West Peninsula City Deal, the Heart of the South West Local Enterprise Partnership's Strategic Economic Plan, and in others that address the needs of the wider South West region.

The Regional Centre of Excellence for STEM will be a pivotal part of Plymouth better meeting the needs of our employers for highly skilled, higher-level technicians and apprentices. Substantial investment in new training facilities is essential - new infrastructures and resources, new courses and qualifications, and better-qualified teaching staff.

The STEM Centre aims to create a hub that will drive Plymouth's economy and productivity by stimulating interest in STEM subjects. It will achieve this by:

- involving employers in designing, implementing and delivering the STEM curriculum
- exciting young people to aspire to a career in a STEM-related discipline
- developing a talent pipeline of labour for innovative and knowledge-based SMEs and inward-investing companies
- addressing the ageing workforce issues faced by some employers in key specialist areas
- encouraging the creation of STEM enterprises alongside other incubator initiatives
- promoting Britain's Ocean City and the Mayflower 400 project with live education schemes
- supporting other education and training institutions to develop and further promote STEM
- underpinning the City's developing reputation as a leader in STEM-related activities.



STEM FOR OUR EMPLOYER PARTNERS

With international, national and local support from employers, including Babcock International, the Royal Naval Base, Princess Yachts International, BT and the Plymouth Manufacturers' Group, this Regional Centre of Excellence for STEM has been welcomed as a key requirement for their growth as well as for those companies in their supply chains.

Employers are, and will continue to be, already involved in creating contemporary, state-of-the-art education and training facilities and programmes that will:

- address local and regional skills gaps
- help to create new and sustained private sector jobs in knowledge-based enterprises
- support existing business to expand and innovate
- stimulate further entrepreneurship, and job and wealth creation in STEM-related industries
- improve graduate retention in the City
- tackle youth unemployment with new education and training opportunities, including pre-employment and Apprenticeship initiatives.

"This project will address the issue that has been identified by business in our area as the most significant barrier to growth - skill gaps. We are very positive about the project's ability to maximise economic growth. The Plymouth and Peninsula City Deal has an advanced manufacturing and marine focus, and STEM skills are needed for all our transformational opportunities."

Chris Garcia, Chief Executive, Heart of the South West Local Enterprise Partnership



"Digital skills development is crucial for Plymouth and this project will support Plymouth's vision to establish a Digital Academy. The digital sector in Plymouth has large skills gaps, with a lack of individuals having high level digital skill qualifications, and many people working in the sector having no qualifications to undertake their role proficiently."

Paul Coles, Regional Partnerships Director, BT South West



"The remoteness of Plymouth in relation to other UK cities and marine engineering centres ... can make recruitment difficult, and this is further hampered by the relatively low skilled economy in Plymouth, compared to other cities in the south west of England. This makes access to the higher marine engineering skills Babcock needs to sustain and grow our business very challenging."

Phil Jones, Managing Director, Naval Bases, Babcock



"The new centre will have a number of benefits for Plymouth. Not only will it help make our City a great place to live by creating opportunities for better learning and great investment, with more jobs, it will also drive entrepreneurship and innovation, and match skills with demand."

Steve Gerry, Secretary of the Plymouth Manufacturers' Group



DESIGN AND FACILITIES

Plymouth's Regional Centre of Excellence for STEM will provide a flexible learning environment that simulates 'real work' scenarios with industry-standard workshops, laboratories and studios, equipped with high-tech resources to support a broader and more relevant STEM curriculum.

Situated in a prominent location at the front of City College, the external and internal design of the STEM Centre demonstrates the City's commitment to driving the productivity of the key priority sectors related to STEM, and significantly boosting the local and wider region's economy.

The Centre's cutting-edge design includes the use of robust, durable and low maintenance materials. For instance, there will be large areas of glazing in the façade to provide high levels of natural light internally and views toward the cityscape and coastline. An atrium will be at the heart of the Centre, to facilitate a social and collaborative learning experience, plus break-out spaces for smaller group activity. The new fit-for-purpose facility will also be highly energy efficient and create a focal feature at the entrance to the College

The new provision will include a range of full and part-time courses from entry level to higher education and professional qualifications, as well as pre-employment and new Apprenticeship frameworks. In addition, STEM subjects will be embedded throughout the existing course portfolio.

As a hub of STEM education and training, the Centre will be home to:

- health, sports medicine and performance training labs
- digital media and virtual technology studios
- computing and future technology labs
- advanced and marine technologies labs
- The Science and Industrial Research Centre.



City College Plymouth works in partnership with employers, training providers and other organisations based in the local area. If you would like to get involved in further developing our provision and shaping our new curriculum for the Regional Centre of Excellence for STEM, please contact Pauline Hands, Director of Marketing, Corporate Relations & Enterprise on **01752 305026** or e-mail phands@cityplym.ac.uk.

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