



## Advanced Engineering and Manufacturing Fact Sheet

Plymouth benefits from a thriving and varied advanced engineering sector, which includes medical, defence, transport, pipeline, composite and marine technologies.

### Sector Overview

#### Advanced Manufacturing & Engineering

- 4,060 FTE Advanced Manufacturing & Engineering (2021)
- £328m GVA Advanced Manufacturing & Engineering (2021)

- £80,880 GVA per FTE Advanced Manufacturing & Engineering (2021)

#### Manufacturing

- 16,215 FTE manufacturing jobs (2021)
- £1,052.4m GVA (2021)
- £64,900 GVA per FTE (2021)

## Specialist Companies

- Babcock International
- BD (Becton Dickinson)
- Bombardier Transportation
- Burts
- Collins Aerospace
- Fine Tubes
- Hellermann Tyton
- Kawasaki Precision Machinery
- Mars Wrigley Confectionary
- MSubs
- NOV Fiber Glass (formerly Pipex px)
- Plessey
- Princess Yachts International
- Rittal-CSM
- Schneider Electric
- The Barden Corporation
- ViSpring

## Organisations

### Plymouth Manufacturers' Group (PMG)

The Plymouth Manufacturers' Group (the "PMG") is a membership network of over 50 manufacturing businesses from across Plymouth and surrounding areas. Amongst the group are household names such as Mars Wrigley Confectionery, Burts and Kawasaki PM. Major local employers such as Babcock International, Princess Yachts and BD (Becton Dickinson) are also members. Together PMG Members employ 13,000 people and have a turnover of £2.7 billion.

### South West Manufacturing Advisory Ltd (SWMAS)

SWMAS design and deliver programmes of support that enable ambitious businesses to increase their productivity, improve operational efficiency, develop skills and reach their growth potential. SWMAS work directly with manufacturers, on the shop floor delivering improvement programmes and at board level developing and refining strategy. It provides consultancy services, runs public funded programmes, deals with complex funding arrangements and supports businesses to leverage UK and European funding for growth and innovation.

## Skills

### University of Plymouth

#### The School of Engineering, Computing and Mathematics (SECaM)

SECaM has a mission to build upon the University's existing reputation for world-leading research across marine renewable energy, coastal engineering, autonomous marine systems, structures and materials, while developing new commercial partnerships and research collaborations. The School delivers across 6 subject areas:

- Electrical and electronic engineering and robotics
- Mechanical, marine and materials engineering
- Civil and coastal engineering
- Navigation and marine science
- Computing
- Mathematical sciences

The School is home to a range of research facilities, such as the Coastal, Ocean and Sediment Transport (COAST) Laboratory, the Plymouth Electron Microscopy Centre (see below), High Performance computing facilities and the Analysis and Materials Characterisation Suite. Its academic programme accommodates around 1,300 students with a view to growing this.

#### New Babbage

Opening in September 2023, the new engineering and design facility will provide a state-of-the-art space to inspire creativity, innovation and collaboration from our engineering and design pioneers of tomorrow. Housing contemporary specialist equipment and laboratories, it will bring engineering, science and the arts together, enabling holistic and creative approaches to problem-solving to address some of the world's biggest issues.

#### Materials and Structures (MAST) Research Group

The University of Plymouth has conducted research into composite materials and structures since 1967, and for more than 30 years of that, has conducted knowledge transfer and provided continuing professional development under the Advanced Composites Manufacturing Centre (ACMC) banner. Now renamed MAST, the group has wide-ranging specialisations, including: composites manufacturing, especially resin infusion processes; engineered nanomaterials and nanotechnology applications; marine



composites; materials characterisation by destructive and non-destructive techniques; and medical implants and biomaterials.

### **Plymouth Electron Microscopy Centre (PEMC)**

PEMC has been offering expert and specialist support to industry across a range of sectors for more than 30 years. A comprehensive range of light microscopes, electron microscopes, imaging processing and analysis software enables the facility to support industrial R&D alongside academic research.

### **Digital Fabrication and Immersive Media Laboratories**

Based within the Faculty of Arts, Humanities and Business, the Labs offer access to cutting edge technology such as motion-capture, augmented and extended reality and a wide array of digital fabrication tools which enable users to develop and prototype new products, services and experiences.

## **City College Plymouth**

### **STEM Centre**

The College's Regional Centre of Excellence for STEM provides state-of-the-art facilities for the advanced manufacturing sector. Working closely with industry partners, the College runs apprenticeships and university-level courses in mechanical design and manufacture.

### **Centre for Higher Technical Innovation and Maritime Skills**

City College Plymouth is home to the Centre for Higher Technical Innovation and Maritime Skills. A dedicated maritime skills centre located in Oceansgate, fully kitted with modern engineering and manufacturing equipment to ensure learners gain hands on experience in the learning environment and are fully prepared to take this learning to the workplace.

## **Places**

### **Plymouth Science Park (PSP)**

PSP is a world-class office, research and laboratory environment that provides the space, flexibility and support for technology, digital and science-based businesses to accelerate their growth and success. PSP is now home to the Advanced Digital Manufacturing

and Innovation Centre which houses two advanced 3D printers with capabilities to print in titanium and steel.

## **Initiatives**

### **Plymouth and South Devon Freeport**

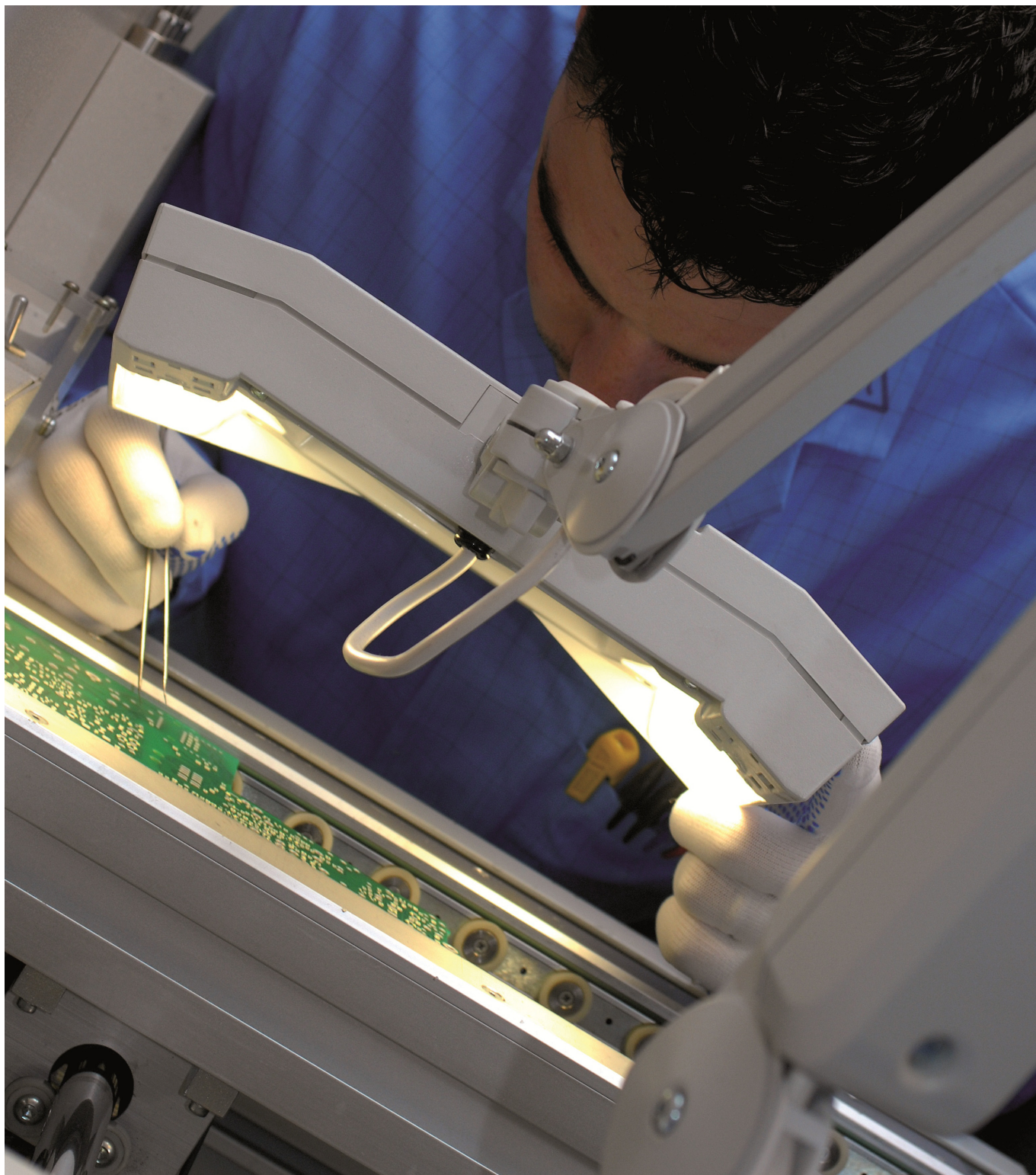
Working with the Department of Business and Trade, a dedicated team of experts will showcase the Plymouth and South Devon Freeport to global investors and businesses who fit the criteria to expand or relocate to the region. Businesses that are part of the Freeport can take advantage of a range of tax and customs benefits and incentives to support growth, innovation and investment in the South West. The Plymouth and South Devon Freeport will:

- Enable new employment land to be bought forward at the three sites of South Yard, Langleague and Sherford
- Establish a Freeport 'campus' utilising the region's state-of-the-art assets and facilities in marine and defence innovation
- Provide a major expansion plan for Princess Yachts
- Include £29m investment from local councils
- Leverage £250m private sector investment
- Deliver over 3,500 jobs

The South Yard tax site is the centrepiece of the Freeport's innovation hotbed and builds on state-of-the-art marine and defence assets and facilities available within Plymouth and the wider area rapidly making the Freeport a global centre of excellence for the testing, development and manufacturing of latest technology and specific sub-sector specialisms. With a strong net zero focus, these include Marine autonomy and decarbonisation, Digital oceans, Smart ports and shipping, Maritime cyber-security, Offshore renewable energy support solutions, Defence mission modules and small satellite fabrication.

### **Plymouth Makes**

An interactive map and website developed by the PMG to ensure the manufacturing sector of Plymouth is accessible and to showcase the breadth of talent, skills and expertise present in the sector in Plymouth.



## Take Action

To find out more about what Plymouth offers the manufacturing sector, or to discuss how our business support service can help meet your business needs, please contact:

### **Enterprise and Inward Investment Team**

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**Invest in manufacturing**