

Significant Marine Specialisation (TTWA)

Source: BRES (2011)

Specialisation	Employees	LQ
Building of ships & floating structures	4,500	40.5
Building of pleasure & sporting boats	2,300	42.9
Repair & maintenance of ships & boats	200	5.4
Sea & coastal passenger water transport	200	4.5
Service activities incidental to water transport	400	3.7

NB Location Quotient (LQ) compares share of employment in Plymouth TTWA to the GB average. Figures above suggest specialisation in the local economy.

Supported by High Value Manufacturing

Source: BRES (2011)

Specialisation	Employees	LQ
Manufacture of instruments & appliances for measuring & testing navigation	400	1.6
Manufacture of fluid power equipment	300	8.4
Manufacture of bearings, gears, gearing & driving elements	500	9.2
Manufacture of non-domestic cooling & ventilation equipment	300	2.5
Manufacture of electronic components	100	1.7

Skilled Occupations

Source: NOMIS (2011)

Occupation	Plymouth City		LQ
	Employees	%	
Science & Technology Professionals	3,000	2.1	1.2
Teaching & Research Professionals	8,600	6.2	1.2
Science & Technology Associate Professionals	2,200	1.6	0.9
Skilled Metal & Electronic Trades	6,000	4.3	1.2

Specialist Companies

Ocean Electric Power	Argans Ltd UK
Babcock Marine (Devonport) Ltd	ADPS Ltd
Princess Yachts International Plc	Seawind Ltd/Seawind Marine Ltd
Plymouth Marine Laboratory	Atlantas Marine Power Ltd
PML Applications Ltd	National Marine Aquarium
Marine Biological Association	Manuplas Ltd
Msubs Ltd	

Plymouth University

- Operates a dedicated oceanographic research vessel, Falcon Spirit. This 13m vessel has capacity for 14 crew members, can work up to 60 miles from port and has experience conducting research at the Wave Hub site
- Plymouth has significant underwater exploration capacity through its state-of-the-art Remotely Operated Vehicles which can explore, film in HD and conduct operations at depths in excess of 500m, it also operates its own dedicated diving and marine centre (DMC) in Plymouth Sound
- 2,600 students enrolled in marine-related undergraduate and post graduate studies

Marine Institute at Plymouth University

- Brings together scientists, business professionals, leading edge analytical facilities and collaborative research opportunities from the University's Faculty of Science and Technology and the Plymouth Business School
- With expertise in supporting emerging and existing technologies through its experience in a broad range of marine renewable energy activities as well as conducting engagements with local, regional, national and international stakeholder groups
- Supported by over 400 project scientists, specialists and other university staff, this institute has the broadest portfolio of marine expertise in Europe

Marine Sciences Building at Plymouth University

- £19 million marine building, housing state of the art research facilities, positioning Plymouth as a global centre for marine energy research
- Housing the most advanced wave tank and testing facilities in the country including a hydrodynamic test facility with tidal and wave test basins, ship simulator and Electronic Chart Display and Information Systems labs
- Dedicated technical support and office facilities for up to 150 marine institute researchers and technology developers



Peninsula Research Institute for Marine Renewable Energy (PRIMaRE)

- University of Exeter and Plymouth University are the founding members of PRIMaRE
- The centre of excellence delivering world-class research and technology transfer in marine energy
- Accelerating growth in the Marine Renewable Energy industry and in support of Wave Hub
- Helping the South West to become a region of international significance by offering renewables testing, wave energy device arrays, marine renewable energy components and much more

University Technical College Plymouth

- Opening in Sept 2013 (14-19 year olds)
- Sponsored by local business
- Specialising in science, technology, engineering and mathematics
- Specialising in marine engineering and advanced manufacturing sectors with strong focus on enterprise and innovation

Marine Academy Plymouth

- The First of its kind in the UK
- Opened in 2010, for 11-18 year olds
- Specialising in the marine environment, encompassing science and engineering
- Focuses on employment pathways which are integral to a marine environment

City College Plymouth

- Over 4000 F/T and 14,000 P/T students
- Provides apprenticeships to foundation degrees in Engineering related subjects, including Marine Engineering, Electrical Engineering and Renewable Energy & Engineering

South West Marine Energy Park

- First of its kind in the UK, private-public sector partnership backed by Government
- Brings together exceptional physical, commercial, supply chain and R&D assets to develop and grow marine energy sector (wave, wind and tidal)
- Mechanism to encourage commercialisation of the sector and attract inward investment

Growth Acceleration Investment Network (GAIN)

- To accelerate growth and investment in high quality businesses and ideas to create wealth and jobs in the South West peninsula
- Builds upon and adds value to the existing range of business services, assets and facilities by joining them all up, making them focused and accessible
- Providing access to new business and growth opportunities, finance and investment, and world class knowledge and research facilities and equipment
- Reduce risk and maximise growth by finding the best businesses and ideas and helping the businesses to become investment-ready

Plymouth - Britain's Ocean City

making waves in marine energy

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Plymouth Marine Laboratory (PML)

- › PML is an independent marine research laboratory with a 35 year track record of innovative and world leading science
- › It provides capability for observing, modelling, understanding and forecasting marine ecosystems, to underpin evidence-based environmental solutions to societal challenges
- › Clients include Research Councils UK, government departments and agencies, European Union, space agencies, industry and international agencies
- › PML's long term objective is the sustainability of the marine ecosystem as climate regulator; a source of food, water, renewable energy, and livelihoods; and a contributor to human health and prosperous human societies
- › It also puts a strong emphasis on applying its research to ensure that work undertaken is of benefit to society through dissemination activities, including providing information and advice to policy-makers, engaging the public and identifying commercial possibilities
- › The organisation is a National Capability Delivery Partner for the Natural Environment Research Council, providing a strategic research capability in marine science and Earth observation for the UK

National Marine Aquarium

- › The UK's largest aquarium attraction with over 70 sharks from more than ten different species
- › The National Marine Aquarium is a charity dedicated to conservation, research and education
- › Its mission is to drive marine conservation through engagement



PML Applications Ltd

- › Strives to develop applications from marine (& aquatic) science bringing to market the next generation of innovation and products
- › PML Applications' vision is to become a leading provider of relevant and excellent environmental science applications and solutions, in the UK and internationally
- › Customers vary at the R&D and commercialisation stage such as research councils, healthcare and pharmaceutical companies, environmental managers/bodies, the shipping and renewables industry
- › PML Applications Ltd was set up in 2002 and is a wholly owned trading subsidiary of Plymouth Marine Laboratory

› Marine Energy Potential:

Offshore wind could support over 30,000 jobs in the wider South West region by 2030



Plymouth is committed to growing its world leading marine energy sector building upon its considerable marine, academic and R&D strengths.

Sector Overview

Ship and boat building/repair, marine engineering, marine construction, environmental technologies, communications, ship management, agency and freight forwarding, port operations, marine leisure and marine science activities.

Total employment (2011)

› Marine industries: 7,500
(5.4% of city employees, supported by over 1,600 in high value manufacturing)

Wider marine sector: 13,600 jobs

Economic contribution (2009)

› Approx. marine industries GVA: £280m
(6.6% of economy)

Plymouth Overview

- › Population (2011) 256,400
- › Employees (2011) 102,600 (139,100 TTWA)
- › Gross Value Added (2011) £4,327m
- › Businesses (2011) 5,870

Median gross weekly wage (2012)

- › Plymouth £454.4
- › UK £505.9

› Take Action

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

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