

Investment in skills key to manufacturing in the city



INVESTING in skills is critical in ensuring the future of manufacturing in the city, the Plymouth Employment and Skills Board (ESB) have announced in the run up to **National Manufacturing Week**, which runs 1st – 5th March. Many firms in Plymouth have been badly hit by the recession, some even disappearing from the city completely. Companies that have looked inwards and used the time to invest in skills and training have given themselves the best possible chance of coming through the economic downturn. From apprenticeships and graduates, to shop floor development, managerial and communications skills, engineering must adapt and upskill according to the Plymouth ESB.

The Barden Corporation, world leader in the design and manufacture of super precision bearings, was one of the companies hit by the recession. Managing Director, Dr Graham Stirling, explained that after 17 years of growth year-on-year, orders started to dry up, almost overnight, in December 2008. Dr Stirling said: "The first half of 2009 was a major concern with most of our markets showing a dramatic downturn. The magnitude of the downturn did catch us by surprise because Barden are a high tech niche player operating at the top end of the market. Although this does not make us recession proof it has, in past recessions, given us some resilience to fend off the worst."

During the first half of last year the company was reluctantly forced to release employees to align resources with market demand, but being a highly skilled business was nervous doing this. Dr Stirling continued: "We also took the opportunity to revisit all the business fundamentals to maximise profit on a lower revenue base and make us more flexible to respond to customer needs. We used the slow down to train, retrain and equip our employees in readiness for the turn around. Our markets started to improve in June and have shown a steady recovery every month since then. "In the last three months order intake has been quite strong and gave us sufficient confidence to start recruiting again. We managed to get back some of the skilled people we released and have also been able to offer some positions to employees leaving Gleason's, our next door neighbour. "There will be some challenging periods ahead but we are confident we have seen the worst and we have sufficient new programs in the pipe line to get back to the 2008 level of business by early next year."

Plymouth City Council has identified Advanced Engineering, Marine industries and Medical and Healthcare as priority sectors for the city – areas of economic activity that can be developed and expanded to ensure a robust future for the economy once impact of the downturn has receded. Sector diversity brings greater economic security and by looking at the skills and strengths Plymouth already has, and combining them with new relationships – eg with the University and Peninsular Medical School, the city can promote itself to the world as an attractive location for new investment. Cabinet member for Planning, Strategic Housing and Economic Development, Councillor Ted Fry said: "I am delighted to see these companies invest their time and expertise in training up the next generation. These are the areas that will be crucial to ensuring the city's long term prosperity and I am pleased to see industry joining forces with the university. We look forward to seeing these relationships flourish."

Graham Morris, Project Director of Plymouth ESB said: "It has been a difficult time for the sector, no question of that, but National Manufacturing Week is a time to celebrate the best of UK engineering. For Plymouth this means we need to shout about the advanced skill levels of our workforce and the continuing development of expertise and new thinking that we can offer to companies who consider investing in the city. "Engineering is a very open and diverse sector particularly here in Plymouth. It is a profession where shop floor or apprentice level entry is no barrier to developing a rewarding, lucrative and exciting career in many fields. Similarly, graduate entry is encouraged bringing fresh perspectives and the latest thinking on sector development, efficiency and innovation."

For the employer, when practical experience meets new thinking, combined with a team approach, new developments are inevitable. Engineering students are encouraged to look at how diverse disciplines can be harnessed to benefit new projects and production methods. Team members whose career progression has come up through working on the shop floor are quick to see practical issues, and all work together to bring evolution to company processes. Firms such as **Kawasaki Precision Machinery** are developing the integration of new technology into existing manufacturing. Their latest innovative project, which has been awarded South West Regional Development funding, brings together graduate expertise with shop floor knowledge.

Stephen Clarke, who joined Kawasaki as a production engineer through the **University of Plymouth's Knowledge Transfer Partnership (KTP)** has now become a controls engineer through his experience on the shop floor. Chris Mason has progressed his career from shop floor assembly to IT developer through in house training. As part of a wider team, they have integrated software development with precision machinery to ensure this project has the most accurate cutting, measuring, quality monitoring and tracking system available.

Employing a graduate via KTP means that firms can access up to the minute knowledge. The national scheme, funded jointly through the government and the individual company, unites a graduate Knowledge Transfer Associate like Stephen with a firm to manage a specific project. Mentored by both the company and university academics, the benefits work both ways. The company gains new skills and can access the latest research while the University can integrate the practical outcomes of these projects into future undergraduate development and attract the best students.

Speaking about the company's commitment to skills investment, Kawasaki Precision Machinery General Manager and Director, Steve Cardew said: "In order to stay competitive, it is vital that we remain innovative through continuous improvement. Integrating technology and engineering processes together means we remain at the

forefront of sector developments. "Precision engineering requires an extremely skilled workforce. We have 13 apprentices and a comprehensive in house training system, which not only covers engineering and technical development but also focuses on the need to develop project management, team work and managerial skills that are vital to a forward thinking company." Steve continued "It is difficult for the UK to compete with other manufacturing sectors around the world in terms of a low cost economy, so we have to stay ahead in terms of how we deploy and utilise new technologies. This increases our efficiency, our competitive advantage and means that we give our customers a better product."

Modern engineering workforce development not only covers the innovative, technical and vocational but also so-called 'soft' skills like communications and management.

Bandvulc Group, the tyre production and management company, has recently seen 16 employees gain Level 2 NVQs in Team Leadership, illustrating a commitment to continual improvement that makes the firm one of the city's most successful.

Plessey Semiconductors Ltd, in Roborough, continued to invest in a variety of levels of staff training throughout the downturn. Working with the Institute of Management and Cornwall College, Plessey provided staff with the opportunities to earn NVQ Level 5 Diplomas in Management training, Level 3 NVQ in first line management and English language courses for workers for whom English is not a first language. There was also continuous training in technology development and in specific electronics research areas. Plessey employs a number of post-graduate scientists and engineers at the doctoral and masters level. Looking ahead, Plessey are investing in Apprenticeships and graduate work placements. They are also working with Universities to develop undergraduate placements for either sandwich courses or summer employment. As a high-tech manufacturing company, Plessey Semiconductors believes that the retention and training of their skilled workforce in semiconductor design and manufacture is key to the future. Their customer base includes those operating in the defence, space, aerospace, medical, automotive and industrial sectors who require high-performance and high reliability designs and products. Only through a well-trained and highly skilled workforce is Plessey able to compete and sell products throughout the world, including into China, Korea, Japan, throughout Europe and into the Americas.

Plymouth ESB is encouraging employers in the engineering and manufacturing sectors to look again at how they can benefit from apprenticeships, in house training and graduate placements. According to the National Apprenticeship Service, 1,125 apprentices completed apprenticeships in businesses and organisations in Plymouth last year – an increase of 48 per cent on the previous year – with manufacturing one of the most popular subject areas. South West Director of the **National Apprenticeship Service (NAS)** Dr John Chudley said: "In an increasingly competitive world, no business can afford not to invest in skills training and apprenticeships are one of the very best ways for employers to grow their own talent. As significant numbers of manufacturing employers in Plymouth are discovering, it just makes good financial sense." Apprenticeships can take between one and four years to complete depending on the level of apprenticeship, the apprentices' ability and the industry sector. In most cases funding is available to help with training costs – 100 per cent if the apprentice is aged 16 to 18.

The NAS runs apprenticeship vacancies, which allows individuals to search and apply for live vacancies online and enables employers to advertise their vacancies to a wide audience free of charge. For more information, employers and potential apprentices can visit the website www.apprenticeships.org.uk

Mr Morris continued: "Investing the time and effort in training pays off, for individual firms, for the sector and for the Plymouth economy. "Attracting and maintaining international firms like Barden, Kawasaki and Plessey and investing in our priority sectors means that Plymouth retains the specialist skills needed to create economic growth. Plymouth is a marine city, and it can use that to its advantage in terms of presenting itself as a vibrant place to live and work. "What we need to do now is build on the skills and expertise already present in the city, in partnership with the University and NAS, to ensure that Plymouth retains the knowledge and enthusiasm to make next year's Manufacturing Week one that we all can celebrate."