

Media Release

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NEW ENGINEERING SUPPLY AND DEMAND REPORT REVEALS SHORTAGES OF ENGINEERING TECHNICIANS AND OPERATIONAL ENGINEERS.

A new report released today by the Engineering and Technology Board (ETB) reveals that, contrary to popular belief, the vast majority of critical industrial skills shortages, are due to lack of technicians and apprentices.

Engineering UK 2008, the ETB's flagship annual report on the state of engineering in the UK, finds that jobs in 'skilled trades', 'plant, process and machine operation', and other 'operative' roles such as engineering technicians, account for 61% of all Skills Shortage Vacancies. The report also demonstrates that these three types of operational vacancy constitute the three main areas of skills shortages in the UK.¹

The report highlights that there will be particular difficulties recruiting skilled technicians and other operational staff in the EU Skills and nuclear, chemical, oil and gas sectors, as represented by Cogent SSC. Within the Cogent sector footprint in particular, research finds an estimated demand for 72,000 technicians and operators by 2022, compared to a mere 31,600 apprentices estimated to go into the sector and fill these roles.²

Throwing new light on the reasons behind UK skills shortages, Engineering UK 2008 also reveals that, unlike Further Education, the Higher Education sector remains buoyant with a 7 % increase in applications to Engineering and Technology University courses over the past 5 years, as well as a 2.3 % increase in students graduating with Engineering and Technology degrees³; but offers a cautious note to all stakeholders to remain steadfast in promoting HE routes and opportunities, particularly in the light of future demographic trends.

Whilst providing clear evidence that skills shortages are more pressing at FE than HE level, Engineering UK 2008 also reveals that nine out of ten engineering graduates who go into full time employment remain in the engineering and technology sectors as opposed to being 'lost' to financial occupations as is commonly believed.

The report concludes that the greatest solution and opportunity to address skills shortages lies not only in Higher Education as commonly thought, but in expanding and developing Further Education and Apprenticeship opportunities.

This assertion is supported by the following Engineering UK 2008 findings from an LSC survey by Ipsos MORI:⁴

- 10% of employers participating in the Apprenticeship Programme, requested additional apprentices
- 25% of learners on the Apprenticeship Programme were not able to find an employer or provider

Other pertinent findings presented in the report:

- There will be a 10% decline in young people aged 16 to 24 by 2020. (from 7.5 million to 6.25 million) meaning skills shortages are highly likely to increase
- The current inflow of non-graduates via FE, Apprenticeship and vocational qualification routes is insufficient to meet replacement demand in processing and technician roles.
- Employers are reporting increasing difficulty finding engineers with team-working, problem-solving and communications skills required in the modern world
- There is a perception among many employers that young people are not always ready to settle down to work on leaving school. Three-quarters of employers that had recruited in the previous three years had not recruited a 16- to 17-year-old, and half had not recruited anyone under 25.
- A stimulation of the renewable energy market would mean hundreds of thousands of current and new Building Services Sector operatives will need to be suitably trained including 170,419 in solar water and heating alone.

Dr John Morton, Chief Executive of the Engineering and Technology Board (ETB), said:

'Whilst the UK does need to maintain and develop an increasingly knowledge-based economy to compete globally, Engineering UK 2008 reveals that our most pressing need is for intermediate skills at an operational level. If we want to remain competitive and ensure our world class knowledge-base continues to evolve apace, we must rapidly expand and develop our Further Education and apprenticeship programmes to ensure that we have enough skilled technicians coming through the system. The new engineering diploma is a great step forward but we must make sure we back it up with support at all levels of vocational education training, as is currently offered by the ETB's Engineers Make it Happen campaign'

Paul Lester, Chief Executive of the VT Group, said:

"Engineering UK is a very useful narrative on the supply and demand issues of the engineering markets and will help inform future policy making"

Notes to Editors

1) The MAC shortlist reveals that the most Skills Shortage Vacancies are in Skilled Trade Occupations (SOC 5) and Plant, Process and Machine Operatives (SOC 8), and Associate Professional and Technical Operatives such as engineering and laboratory technicians.

2) Cogent Forecasts. See 'Skills for Science Industries: Skills at Work' for more information. www.cogent-ssc.com

3) Analysis from data supplied by HESA, the Higher Education Statistics Agency.

4) The Learning and Skills Council (LSC) commissioned research into employers and learners attitudes to the Apprenticeship Programme. www.lsc.gov.uk

5) Engineering UK 2008 was written with the assistance of the following contributing partners:

Bob Windmill – Head of Research – Energy & Utility Skills

Lauren Sadler – Research Advisor – Cogent SSC

Maciej Zwierzanski – Group Market Analyst – Institution of Civil Engineers

Matthew Dixon – Senta Visiting Research Fellow at SKOPE
Mike Hammond – Head of Research – SummitSkills
Rob Wilson – University of Warwick; Institute for Employment Research

5) The Engineering and Technology Board (ETB) is an independent organisation that promotes the vital contribution that engineers, engineering and technology make to our society and inspires people at all levels to pursue careers in engineering and technology. The ETB partners business and industry, government and the wider STEM community: producing evidence on the state of engineering, and inspiring young people to choose a career in engineering, matching employers' demand for skills. For more information about the ETB please visit www.eteachb.co.uk.

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