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# REFORMING 16-19 VOCATIONAL QUALIFICATIONS

RESPONSE TO THE  
DEPARTMENT FOR EDUCATION CONSULTATION



GATSBY

## INTRODUCTION

- 1 Gatsby is a foundation set up in 1967 by David Sainsbury (now Lord Sainsbury of Turville) to realise his charitable objectives. We focus our support on the following areas:
  - Plant science research
  - Neuroscience research
  - Science and engineering education
  - Economic development in Africa
  - Public policy research and advice
  - The Arts
- 2 In Science and Engineering Education our particular focus is on the technician workforce – people working in practical occupations at qualification levels 3 and 4 in science, engineering and technology-related (SET) sectors.
- 3 The UK has a shortage of technicians. In its 2010 National Strategic Skills Audit, the UK Commission for Employment and Skills highlighted an urgent need for technicians within sectors of high economic importance, including manufacturing, oil, gas, electricity, chemicals, pharmaceuticals, automotive, engineering and broadcasting. The Technician Council also calculates that growth and an ageing workforce will increase the demand for technicians in the economy, and that up to 450,000 technician jobs will need to be filled in the next eight years.

## TECHNICIAN EDUCATION

- 4 Analysis of the technician workforce reveals that the proportion of technicians trained through a vocational route has declined, whilst the graduate share of technician employment has increased. Evidence from employers also shows there are now too few technicians in the labour market with the practical skills and experience needed by employers.
- 5 There are a number of problems causing this shortage that Gatsby and others are seeking to solve, not least problems arising from the low status currently accorded to technicians in the UK. However, there are also particular problems relating to vocational qualifications that prevent young people from progressing into technician occupations:
  - The vocational qualifications landscape is too complicated. The sheer number of qualifications and the shifting educational landscape mean that technician qualifications are not well understood by employers, policymakers or the public.
  - This complexity means there is a lack of clear, user-friendly information available to young people, their parents and education providers about technician occupations, and what skills and qualifications are needed to pursue a career as a technician.
  - There are too few incentives in the system to ensure that colleges and other training providers offer courses that will lead to the technician roles that employers desperately need and yet are struggling to fill.
- 6 Government proposals to reform vocational qualifications may help to address these problems. However there also needs to be an aligned strategy that ensures colleges and other training providers are in a position to offer valued technician qualifications. In particular:
  - current funding of technician qualifications is insufficient to ensure that the facilities and equipment where vocational education takes place match the expectations of employers; and

- training providers often do not have staff with the necessary subject expertise and industrial experience to teach technician qualifications. This needs to be addressed through a proactive national strategy to improve recruitment and professional development, in a similar way to that which has taken place to recruit and train specialist staff in shortage areas in schools.

## **PROFESSIONAL REGISTRATION AND VOCATIONAL QUALIFICATIONS**

- 7 England needs to develop a stable system for vocational education that is genuinely responsive to the needs of individuals and employers. Professional registration provides an independent and stable set of standards that enables a dialogue to take place between employers and training providers about how learners can be supported in meeting these standards.
- 8 In the past, professional bodies (the learned societies such as the Royal Society of Chemistry, Institute of Physics, Institution of Mechanical Engineers, etc) played a significant role in the development and accreditation of vocational qualifications, particularly at technician level. This engagement ensured access to the highest levels of the professions via a vocational route. However in recent decades the engagement of the professional bodies in vocational education has gradually eroded. This erosion needs to be reversed and the contribution of professional bodies – working in partnership with the Sector Skills Councils – harnessed for the benefit of FE and the UK economy more broadly.
- 9 Professional registration provides a mechanism for ensuring that vocational education is employment focused and high quality. The professional standards used for registration are set and updated by the profession itself and are strongly focused on the needs of employers. Indeed, the business model is built on the value registration has with employers. Administering the registers is only financially viable for professional bodies if enough individuals choose to register and pay their registration fees. And individuals will only choose to register and pay their fees if being registered is valued by employers and provides better employment opportunities and wage premiums.
- 10 The Engineering Council and the Science Council license professional bodies to assess applicants for registration. Individual professional bodies then decide, in the context of their particular disciplines, which qualifications are acceptable as evidence for meeting the entry standards.

## **CLASSIFICATION OF QUALIFICATIONS**

- 11 Using professional registration to determine the outcomes of vocational programmes would result in programmes of study that develop a more rounded individual than some of the more narrow vocational qualifications currently on offer. The knowledge and skills enshrined within the professional standards reflect the demands of the workplace, but are broader than those that would be assessed through NVQs or other occupational qualifications. This breadth is vital to ensuring technicians have the transferable knowledge and skills that will enable them to respond to changes within their industries.
- 12 We hope the development of proposed new performance table measures, and the recently announced Tech Bacc, will encourage more students to follow broad vocational programmes that develop the full range of competences recognised by professional registration.
- 13 However, it is important to emphasise that all occupations at level 3 and above will require underpinning knowledge, and some occupations will additionally require technical skills. In some apprenticeships and in UTCs, learners will be expected to take occupational qualifications as well as more theory-based qualifications (technical certificates or in some cases A-levels). Whilst we can see no immediate threat to these modes of delivery coming from the Government's proposals, we would urge the DFE to undertake pilot work which models the data collection and reporting to ensure that these modes of delivery are not penalised by the proposed categorisation. As part of this modelling

exercise, we would also suggest that baseline data on the uptake of individual vocational qualifications is collected and monitored to ensure the impact of these reforms does not penalise valuable individual qualifications.

### APPROVED QUALIFICATIONS

- 14 The standards for Registered Engineering Technician (EngTech) and Registered Science Technician Standard (RSciTech) are broadly similar in terms of the level and nature of competences required. Potential registrants have to provide evidence for the following:
- (a) Underpinning knowledge to QCF level 3
  - (b) Competency in five key areas:
    - application of knowledge and understanding
    - personal responsibility
    - interpersonal skills
    - professional practice
    - professional standards
  - (c) Continuing Professional Development (assessed on an ongoing basis)
  - (d) Commitment to established codes of conduct
- 15 The Engineering Council currently holds a database of qualifications that have been approved by the professional bodies. This means that the holder of a qualification on the database will have met some or all of the EngTech standards. In a similar way, with support from Gatsby, the Science Council and the Royal Society of Chemistry are about to map qualifications to the standards for RSciTech.
- 16 A key element of the proposed reforms to performance measures is to identify high quality qualifications and promote their use through inclusion in performance tables. The professional body qualification approval process should play a key role in the identification and development of high quality vocational qualifications. In particular:
- any qualification that has been approved by the professional bodies should be included within performance tables; and
  - when new vocational qualifications are developed, professional bodies should be consulted to ensure the new qualifications meet as many of the professional standards as possible.
- 17 Over the coming years, Gatsby will continue to develop its work to support vocational education. We would welcome the opportunity to discuss with the Department suggestions for where Gatsby can work in partnership with DFE and others to deliver our shared vision for all young people to have access to world-class qualifications which meet both their needs and those of employers.
- 18 Questions regarding this response should be directed to:
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