

CAREERS INFORMATION ADVICE AND GUIDANCE

Institution of
**MECHANICAL
ENGINEERS**

To drive economic growth, build the next generation of infrastructure projects and meet our 2050 carbon reduction obligations, the UK urgently needs more people to choose careers in science and engineering. This choice begins with a greater emphasis on studying Science, Technology, Engineering and Mathematics (STEM) in schools.

The Institution of Mechanical Engineers is concerned that the proposed changes to careers information, advice and guidance (CIAG) will not provide the level of service that young people or the economy need in science and engineering.

Schools are the key site for providing CIAG. Yet the funding, expertise and incentives to support effective delivery are being cut at a time when it is needed most, given youth unemployment rates. The creation of the all-age career service is welcomed. However the emphasis on those aged 19 and over, particularly the lack of an entitlement to face-to-face career counselling until the age of 19, is a retrograde step.

Employers and professions need to take greater responsibility for providing Labour Market Information (LMI) through a variety of routes, including engineering-specific and jointly produced careers materials, as the Institution of Mechanical Engineers is currently doing through Education for Engineering.

The Institution of Mechanical Engineers, along with similar organisations, is committed to helping inspire tomorrow's engineers and our 100,000 members are key to this, individually, with their employers and through appropriate third-party activity providers.

The key issue is that we need to use people who have careers and are creating careers to give advice to those that seek them. On the basis that it 'takes one to know one' we need to improve the motivation and strengthen the ties between education and employment in science and engineering.

The Institution recommends that:

1. All secondary schools should have access to transparent national and local Labour Market Information to provide 14 to 19-year-olds with a greater understanding of national and local labour market and employer needs. Where possible, schools should also establish an advisory panel of local and regional employers.
2. Careers advisory agencies should each have a professional specialist in engineering and technology careers with an entitlement to Careers Profession Alliance Continuing Professional Development when developed.
3. STEM teachers throughout the UK should be entitled to develop continuously their understanding of STEM careers, allowing them to advise students better on the up-to-date potential for employment.

CAREERS INFORMATION, ADVICE AND GUIDANCE

BACKGROUND

It has been estimated that the UK needs at least another 514,000 science and technology professionals by 2017^[1] if we are going to be able to renew our infrastructure, start to meet our 2050 climate change obligations and develop our manufacturing sector – an area which has the potential to grow our economy. To do this, the UK needs to encourage more people into science and engineering, and demonstrate that these careers can offer long-term, secure employment.

Almost all students have access to careers information, advice and guidance (CIAG). This service aims to provide young people with information about potential careers and help them make thoughtful and well-informed choices about future education, training and employment.

The need for more people to choose a career in STEM means that careers advisers must fully understand engineering and be able to advise students about possible engineering careers and opportunities, what they offer as a career choice and how to pursue them. Unless we achieve this single goal, the UK will not attract enough young people into this critical sector.

CHANGES

The market for CIAG is complex and largely unregulated. Services are provided by public, private, voluntary and community organisations^[1]. Statutory provision of CIAG in the UK varies depending on the UK country of domicile^[2]. Within each country, local authority choices on service provision can vary significantly^[3]. According to Ofsted^[4]:

- The quality of service provided varies considerably, and can be 'perfunctory' in some schools; and
- Information, advice and guidance about career options available to students at the age of 16 are not always sufficiently impartial.

From this base, and in response to Government policy changes and the austerity measures, changes are taking place in CIAG provision in England. In particular^[5]:

- The new National Careers Service is operational from April 2012 but principally serves adults;
- Face-to-face CIAG for young people will no longer be provided by local authorities;
- Schools will not be required to provide careers *education* but they will be required to provide careers *guidance* to young people, resulting in less awareness of the workplace, a situation that will be compounded by the loss of Key Stage 4 work experience.

SCHOOLS

Young people up to age 16 develop an understanding of careers, including engineering, in a variety of ways. These include peer groups, parental influence and schooling. Schools help pupils make informed decisions by providing access to independent information about education and training options and the qualifications that employers most value^[6]. Schools are also important, as the site of much enhancement and enrichment aimed at inspiring young people to consider an engineering career.

In April 2012, schools will have to fund services they previously received free of charge (except for schools with substantial pupil-premium funding)^[7]. This has reallocated an estimated £200m in careers funding to existing school budgets^[7]. Support from Connexions, Aim Higher and the Education-Business Partnerships is being lost, as is support from employers who engaged in Key Stage 4 work experience.

To meet their career obligations, schools may choose to provide services through a third party, probably a careers company. This will place additional pressure on school budgets, potentially leading to other services being reduced or eliminated.

In a recent survey^[8], schools indicated that they were likely to 'buy' a reduced service level. Even more concerning is the potential for schools to provide no support but simply point pupils towards websites. CIAG in schools is likely therefore to vary even more than at present and move from the existing 'patchwork' service to a 'postcode lottery'.

Schools may also increasingly rely on teachers to provide CIAG. STEM teachers throughout the UK should, therefore, be provided with Continuing Professional Development (CPD) to develop better understanding of STEM careers, including engineering. Seventy per cent of teachers believe that CPD would make them more enthusiastic about offering careers information and advice^[8].

Overall, even with the new obligations, schools will still have no useful measure of their CIAG delivery effectiveness. They will continue only to be measured only on the qualification achievements of their students, not on the transitions they then make into their careers. High-performing schools tend to lead to high employment, but this desired outcome is not incentivised.

Careers Education v CIAG

Careers *education* consists of programmes and activities of learning to help people to develop the skills necessary to manage their career and life pathway. These include accessing and making effective use of *career information and guidance*.

Source: Institute of Careers Guidance
Careers Education Committee

ENGINEERING'S CONTRIBUTION

Labour Market Information

Labour Market Information (LMI) is essential for effective CIAG^[9]. The labour market continuously changes, making it difficult for advisers to stay up to date with local market conditions and employment potential. Employers, as 'end-users' of the informed and motivated young person, can help them in this task.

Employers can help provide high-quality local and national LMI regarding job vacancies, employment trends, job roles, career structures and earnings^[1]. Such information should be impartial, current and comprehensive, in formats that suit students^[10]. Sector Skills Councils already provide LMI advice and guidance on careers within their footprints, although they are not tasked with providing an information service to individuals.

The Institution welcomes the National Careers Service's work to make LMI more accessible and helpful to individuals, through better use of new and emerging technology that shows data in different ways to suit personal preferences. This must be done in a way that makes the information accessible to young people as well as adults, and that provides suitable contextualisation so that the data is meaningful.

The engineering community is taking a lead in providing CIAG to young people. The Education for Engineering (E4E) partnership, of which the Institution of Mechanical Engineers is part, is working to provide engineering-specific careers materials for students aged up to 16. These materials will showcase engineering 'in the round' rather than by discipline, and will include high-quality LMI in a form that is accessible to students and those who advise them.

Employers

Successful partnerships between schools and employers can bring learning to life, help raise motivation to learn and provide professional development for teachers and the employees of partner organisations. High-impact careers education and work-related learning can be significantly enhanced by employer-supported activities, such as^[10]:

- Activities that put students in contact with the world of work, adapted to suit individual needs; and
- Access to role models for career motivation.

The Institution of Mechanical Engineers contributes to both of these through its members, who are committed to helping inspire the next generation of engineers. Institution members, as engineering role models, promote engineering to young people through enhancement and enrichment activities which are, where possible, curriculum-linked. These activities offer a broad appeal and a wider educational value, thus helping to engage teachers as well as children. The support provided to members includes key CIAG to enable them to inform teachers and their pupils.

Institution of Mechanical Engineers members are encouraged to initiate and develop support from their employers for such activities, as they add to a young engineer's personal development, create positive PR for the company and can contribute to corporate and social responsibility programmes.

CAREERS PROFESSIONALS

In January 2011 the Careers Profession Alliance (CPA) was formed as a single authoritative voice for the profession in the UK, bringing together six careers professional bodies. The CPA aims to create a careers profession comparable with other chartered professions, both in public standing and in the rigour of its supervision of members.

The Institution of Mechanical Engineers welcomes CPA's intent^[11] to:

- Include 'particular emphasis' on science, technology, engineering and mathematics (STEM), information and communications technology (ICT) and LMI when reviewing *the initial training available within the careers profession*;
- Consider including CPD for STEM as a specialism when reviewing Continuing Professional Development available to careers professionals.

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CONCLUSIONS

To drive economic growth, create future infrastructures and deliver our carbon reduction obligations, the UK needs more young people to choose STEM careers. The Institution of Mechanical Engineers is concerned that the planned changes to the CIAG service will not provide the service that young people or the economy need.

Although not the only site for CIAG provision, schools are an important part of the picture. Yet the funding, expertise and incentives to support effective delivery are being cut at a time when it is needed most. The creation of the all-age career service is welcomed. However the emphasis on those aged 19, particularly the lack of an entitlement to face-to-face career counselling until the age of 19, is a retrograde step.

Employers and professions need to take greater responsibility for providing LMI through a variety of routes, including engineering-specific and jointly produced careers materials. Importantly, they also need to provide people with science and engineering expertise to work with CIAG professionals to ensure their full understanding of the opportunities available.

The Institution of Mechanical Engineers, along with similar organisations, is committed to helping inspire tomorrow's engineers and our members are key to this, individually, with their employers and through appropriate third-party activity providers.

RECOMMENDATIONS

1. All secondary schools should have access to transparent national and local Labour Market Information to provide 14 to 19-year-olds with a greater understanding of national and local labour market and employer needs. Where possible, schools should also establish an advisory panel of local and regional employers.
2. Careers advisory agencies should each have a professional specialist in engineering and technology careers with an entitlement to Careers Profession Alliance Continuing Professional Development when developed.
3. STEM teachers throughout the UK should be entitled to develop continuously their understanding of STEM careers, allowing them to advise students better on the up-to-date potential for employment. them to advise students better on the up-to-date potential for employment.

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