

The Chartered Institute of Building

submission to

Department for Business,
Innovation and Skills (BIS);
Department of Energy and
Climate Change (DECC)

on the Government's consultation about

**Meeting the Low Carbon Skills
Challenge**

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BIS/DECC consultation on Meeting the Low Carbon Skills Challenge

Introduction

The Chartered Institute of Building (CIOB) represents for the public benefit the most diverse set of professionals in the construction industry.

Our Mission:

To contribute to the creation of a modern, progressive, and responsible construction industry; able to meet the economic, environmental and social challenges faced in the 21st century.

Our 7 Guiding Principles:

- Creating extraordinary people through professional learning and continuous personal development.
- Promoting the built environment as central to the quality of life for everyone everywhere.
- Achieving a sustainable future, worldwide.
- Advocating exemplary ethical practice and behaviour, integrity and transparency.
- Pursuing excellence in management practice, and technological innovation rooted in evidence based science
- Being socially responsible and working responsibly
- Enabling our members to find an emotional resonance with the Institute; their success is our success.

We have over 43,000 members around the world and are considered to be the international voice of the building professional, representing an unequalled body of knowledge concerning the management of the total building process.

Chartered Member status is recognised internationally as the mark of a true, skilled professional in the construction industry and CIOB members have a common commitment to achieving and maintaining the highest possible standards within the built environment.

The Chartered Building Company and Consultancy Schemes (CBCs) are a vital part of the CIOB, providing the Institute's members with a further business perspective.

The CIOB is also a member of the Society for the Environment and is able to award the Chartered Environmentalist qualification. We currently have over 280 Chartered Environmentalist members and this number is growing daily.

Our submission has been developed for the public benefit and is also informed by feedback from our members. Feedback has been analysed and this submission represents the consensus viewpoint which has subsequently been reviewed by Ambassador members.

General Comments

The Chartered Institute of Building (CIOB) welcomes the opportunity to respond to this consultation.

The UK faces a general skills shortage, and the construction industry in particular has forecast, in the recent past, that it needs at least 86,000 new recruits every year up to 2011. The skill requirements are varied, ranging from electricians and plumbers, to civil and mechanical engineers, to surveyors and project managers. It is also important to bear in mind that traditional trade skills such as bricklaying, carpentry and plastering are currently those in highest demand, as our own recent research into skills has indicated. However, as construction processes evolve, as per the low carbon economy, skills will need to be developed into areas such as renewable wind and marine power, microgeneration, carbon capture and storage, and nuclear sub sectors. The CIOB supports the recent Construction Industry Council (CIC) document entitled '*Building the Future Economy - Manifesto for the Built Environment*' which highlights two areas that construction is paramount - stimulating investment and delivering the low carbon economy.

Responsible for 8% of GDP, the construction industry employs 2.8 million people. This dynamic sector of the economy can be a major catalyst for stimulating economic growth since investment in the built environment spreads the benefits of economic stimulus to all parts of the UK. We will deal with each relevant section of the consultation:

Meeting the Low Carbon Skills Challenge

Against a background and concern that the number of school-age students opting for STEM subjects at GCSE and A-level is falling, the CIOB would like to see a concentrated focus on raising the importance of STEM subjects across all sectors and not just those focused on the low carbon economy. The low carbon sector will need to compete for STEM graduates with industry as a whole and skills, not just in low carbon energy generation, are heavily dependent on STEM skills. The number of teachers teaching STEM also needs to be proactively addressed and the 2005 report by the OECD highlighted that this was an issue in the UK.

There is a clear role for the professional bodies in the construction industry to proactively raise the profile of the industry to young people at school and college. The CIOB and a number of its members actively engage with schools, colleges and universities across the UK in order to provide an array of support. This support ranges from school talks, education packs linked to the national curriculum, and tailor-made site visits for students. These visits help raise the profile of training and career development in the construction industry, and highlight the issues the construction industry faces both now and in the future.

In parallel, the CIOB are actively engaged on the The Gateways to the Professions Collaborative Forum, which is currently looking at the range of issues and barriers faced by talented students from low income families seeking to enter the professions. This voluntary group, consisting of leading representatives from a number of Britain's major professional bodies, has already been instrumental in supporting widening access to the professions and encouraging more effective working between professional bodies, Sector Skills Councils and higher education establishments. The CIOB is a good example of how a professional body has successfully extended access to professions through widening the scope of its intake. This has been achieved without lowering the standards of entry, but by addressing the barriers that exist to obtaining the required qualifications. We believe our experience could be applied to other industries. STEM subjects are key to helping students consider maths and science on a tangible level and develop innovative solutions to practical issues such as those faced in construction, particularly as we move towards the low carbon economy. The successful application of science, innovation and skills will be crucially important in achieving growth in the economy.

While the above indicates the importance of addressing skills on all levels, there needs to be a fundamental environment created in universities for Construction Management to flourish and ensure that a pro-active sustainability brief is developed and is inherent in the curriculum.

Equally, so-called 'traditional' skills should not be neglected as a result of a sole focus on low carbon - the importance of these low carbon skills cannot be ignored. With regards to the construction industry, a recent study from the Royal Academy of Engineering called for educational disciplines to be introduced that promote skills in improving the energy performance of buildings and encourage low carbon design. Greater levels of education, training and qualifications are needed to safeguard the low carbon skills initiatives and to prevent skills shortages that may damage the country's ability to adhere to the legal reduction in CO₂.

The CIOB agrees with the message set out in the consultation that indicates skills from all sectors will be needed to best facilitate the shift to a low carbon economy. In particular, leadership skills that promote innovation towards a low carbon economy are vital – top down development, in other words the action of 'leading by example', is a key measure with regards to the construction industry where executives, project managers and site managers have a strong influence. Those industry leaders who promote innovation and commit to a significant drive towards embracing a low carbon economy will ensure the construction industry is better equipped for tackling the low carbon challenge.

Decarbonising Buildings and Construction

The CIOB believes the approach of the Zero Carbon Hub is a suitable and thorough model for identifying skills needed for a low carbon construction industry, albeit one limited to the house building sector. We encourage the use and expertise of membership-driven organisations such as ourselves, with a vast expanse of qualified professionals working in all sectors of the construction industry, in order to provide input on suitable models for identifying and stimulating demand for skills in parts of the industry other than house building.

Retrofit

Government and industry should encourage both greater participation in retrofitting, and the introduction of further education disciplines. If the targets outlined in the *‘Warm Homes, Greener Home: A Strategy for Household Energy Management’* are to be met, then a higher quantity of retrofitting skills is necessary. The CIOB agrees with this consultation on the numbers of installers needed, though is of the opinion that the actual figure will be closer to 35,000 installers as opposed to 21,000.

With regards to ensuring the personnel retrofitting buildings have necessary skills, the CIOB recommends implementing rudimentary retrofitting skills such as cavity wall insulation, loft insulation, solar panel fitting etc into NVQ qualifications, apprenticeships schemes and other relevant disciplines in order to allow a swift uptake in these skills. However, to avoid poor quality workmanship and a dip in consumer confidence, the schemes and employees should be moderated by the relevant organisation, and those carrying out the work should all be holders of CSCS cards. More specialist skills, such as solid wall insulation, small-scale wind power and microgeneration installation etc. should be introduced at a higher education level, such as up-skilling/re-skilling at community colleges courses, though should still be widely accessible.

Eco-towns

The CIOB is keen to see the dissemination of best practice from the eco-town projects and, where appropriate, ensure that they are supported fully by the CIOB. Indeed, the CIOB would like to see the development of best practice exchange possibly with other regions, including International, to guarantee that information dissemination is generated. This might be aligned to ‘twinning’ or similar activity and the CIOB is already considering how this may be facilitated.