Edge Commission on Future Professionalism

Speakers' Notes : Session 1 – The Environment

5th March 2014

Keith Clarke CBE
The Role of the Professional
Professionalism and the Environment

The role of professional institutions falls broadly into two major areas. One is to ensure a level of professional competency that society can look to and trust in regard to the specific field being practiced. This is essentially is a quality threshold that allows members to be expelled for failing to reach that minimum level of performance. It also has an additional function of a professional being required by the very nature of being a responsible person giving advice and judgement to both his client and to society as a whole. This means he or she is looking to perform beyond the level required by law. Compliance with environmental, health and safety standards, etc are not an ethical issue, they are a legal requirement and therefore requires no role of the professional body other than to expel members in extremis for failing to comply with the laws of the society they are performing in. Unless the practice of the professional strives to go beyond that legal minimum and engage society in producing a built environment of a standard that seeks to illuminate issues relating to the profession being practiced – an example where it is not relevant as a professional is arguably the housing mix on a particular project as opposed to the environmental performance of those buildings.

Where there has been in the past considerable debate is where the boundaries for professional responsibility when looking at the broader society remit should end – often these debates have ignored the fundamental work being done by the professional – for example, which professional body argued for the Climate Change Act and for zero carbon housing and which argued for accelerating those standards rather than commenting solely on their implementation? To fulfil a true professional's role we should not be looking to boil the ocean and become the arbiter of all social, economic and equality issues. These are things we may well choose to pursue in our personal life but as a professional would an engineer or an architect be the appropriate group to argue for population control to mitigate the effects of climate change?

Taking a broader role in the effect of our projects upon society and the environment beyond those required by the relevant laws, means an engagement with clients, who by definition have less of an appreciation of those issues than we as a group would have. For clients already engaged in a transition to a low carbon economy, we are fortunate to be in a position of being led by the converted. The key role for the professional is to educate more clients in the realties and science of climate change and the consequential urgent need for a transition to a low carbon economy with an 80% reduction from 1990 in the levels being achieved by 2050. This engagement with the uneducated client is the true role of the professional and it must be accepted that these are journeys upon both the professional groups – and they are in all instances multi-disciplinary professional groups – need to go in a series of rapid but significant steps. Achieving these steps also requires a different attitude to learning and the cycle time of knowledge, which under the current process where there is information being gathered it cannot feed back into the design process in anything remotely like the timeframe needed for the rate of progress required. This will require a different relationship with academia by the professional bodies and this is an issue the ICE is exploring in its current draft of the State of the Nation.

The reality is however, the engagement of the professionals in an articulate way with their client groups is helping to define a more complex question than has ever been defined before. It is reasonable to think this, in reasonably short order, will change design stages and fees, together with the relationship between professional groups at each design stage.

Discussing whether we should be measuring performance of buildings is an interesting but relatively minor issue compared with scoping the initial projects and indeed, to perform at a different level in the built environment, with both money and resources and a new design parameter which is CO2E.

Chief Executive, Chartered Institute of Building Services Engineers

Today

CIBSE sits at the cross-roads of Engineering and the Built Environment; energy, balancing demand/supply; low carbon with Climate Change and "normal engineering" of being able to design, build and operate a building that performs for the client and occupier – construction & property. Membership 21,000, 30% International in 109 countries

Review of the changes and challenges that CIBSE faces today.

Action In-Hand

Review of actions we are taking now and in the foreseeable future

What needs to be fixed!

Industry – Current UK Construction 280,000 business, 3M jobs, £90 billion gross (7%GDP) effectively pays for the Institution and other bodies – in a segmented sector how do you achieve consensus on strategic direction? Commercial forces do not appear to serve the sector well in preparing it for the future. View is that if UK Construction does not sort its' self out, then foreign competition will.

Predicted shortfall in UK Engineers– 450,000 more SET technicians by 2020, double engineering graduate output from current 51K pa. Engineering UK 2014 & Perkins Report Nov 13.

Strategic leadership void

    Engineering – RAEng role – Professional Engineering Committee

    Construction - role of CIC, CBI, trade bodies and PEIs; still no effective leadership

Institutional Collaboration (hot-air or a real option?) "Turkeys voting for Christmas" Institution change –"balance sheet" pressure appears to be sole catalyst, therefore is co-habitation the only realistic next step to achieve better alignment for "back office" but what of "front office"?

Conclusion

We must create shared vision, agreed agenda and outcomes; government, industry, stakeholders have not delivered for our diverse sector thus far surely the Professional Bodies have to lead…c/f Oil/Energy/Defence/Automotive industries… if we want to survive and prosper as a sector.

Chris Blythe, Chief Executive – CIOB

"**Should it be a professional requirement to address environmental issues, including responsibility for long-term performance and reporting?**"

Professional bodies have amongst their responsibilities to carry on their profession for the public good.

Certainly as far as the CIOB is concerned, our Charter explicitly states that. "To promote the science and practice of building and construction for the public good"

Therefore the underpinning responsibility to society does mean that the agendas for professional bodies and professions needs to change as the needs of society change.

Back in the 19th Century, when professions were forming, the obligations were more about bring some sort of order to what could have been chaos with a government more concerned with its imperial activity.

Much was delegated in those days- the cities that developed were not some central government creation but done by local people who made a business out of it. Local authorities own electric companies, gas and water works and used the profits from these to provide libraries, parks, roads swimming bathes etc.

Likewise the new professional bodies were give the job of bringing some sort of order, proving the means to collaborate share knowledge and begin to develop a common way of doing things be it in accounting, engineering, design, law etc.

At the heart of most chartered are a) the privileges which come from the profession but equally the responsibilities to society that need to be discharged.

In the latter half of the 20th Century the major professions somewhat lost the way on the second part of that equation, and professions were seen to be more about having the privileges, a monopoly, a closed shop, price fixing and when things went wrong closed ranks.

The result has been that many of the so called top professions are not as self-regulating as you might think; certainly not the case in medicine, law, accountancy, architecture. These all have supra bodies dealing with either conduct or registration on top of the professional bodies.

In other areas statutory activity affect the way professions work. The Competition laws got rid of set fees for work a sort of price maintenance.

To restore the role of professions, the professional bodies and their members need to work to reflect the needs of society, the broader public interest.

As time passes what is seen to be in the public interest varies and so professional focus will flex to reflect the aims of society.

Currently environmental matters are very high on society's agenda so environmental issues need to be part of the professional portfolio both collectively and individually. On the basis that what gets measured get done then words are not enough. It needs action and measurement to see whether that actions work.

I agree with the proposition

Dr Scott Steedman CBE FREng, Director of Standards, British Standards Institute - RAE

The following points reflect my personal understanding of the Academy's activity and interests in this area and are offered in good faith solely for the purposes of discussion on 5 March 2014.

1. The Academy has been active in promoting the importance of ethical considerations in engineering for some years, drawing on the expertise of Fellows with experience in this area.
2. A statement of ethical principles1 (SEP) was drawn up some years ago, which has been adopted by the Engineering Council and is now jointly branded.
3. The SEP was used to develop a Guide for Engineers on Engineering Ethics in Practice2 with case studies on the four fundamental principles of accuracy and rigour, honesty and integrity, respect for life, law and public good, and responsible leadership.
4. The principle of respect for life, law and public good covers respect for (and the protection of) the natural environment, and the reputation and dignity of the engineering profession.
5. The Foreword and Introduction to the Guide for Engineers states that, "The publication of both of these documents is part of the ongoing process of providing support to professional engineers in the development of their ethical skills, such as their ability to recognise the ethical aspects of engineering decisions, and to fulfil the ethical expectations of the general public. The primary elements in these skills are the abilities:
   • to identify the different, and sometimes competing ethical concerns they face,
   • to analyse the issues that might underlie those concerns, and
   • to respond effectively to those concerns."
6. The Academy has since been supporting work at Leeds University to promote the teaching of engineering ethics, including the use of ethical dilemma case studies that have been used by universities and some employers as part of their training. The Edge Commission may wish to refer to Kathryn Blythe for further information (K.Blythe@leeds.ac.uk).
7. The Academy's policy work provides a channel to promote the importance of ethical issues for the engineering profession. Ethical considerations are built into the Academy's own advice by way of recommendations for best practice, sustainable approaches, systems thinking and a commitment to open dialogue with the public.
8. In my role as Director of Standards at BSI responsible for the UK National Standards Body, I would add that a further channel to promote the consideration of ethical principles to the engineering profession would be the development of a national or international standard building on UK experience and using the SEP as a base document. A key feature of this approach is that it would require full stakeholder engagement and open public consultation.
9. Whilst the Academy is not directly involved in the professional qualification or development of engineers, this being the primary responsibility of the engineering institutions, it does work closely with the institutions under the 'Engineering the Future' alliance.
10. It is my understanding that the Academy would be pleased to host or act as convenor, through the Engineering the Future alliance, of a future initiative with the engineering institutions in this area, as it did with a report on adaptation of infrastructure to climate change and also with a report on lessons learned from nuclear new build, both joint pieces of work completed with the institutions.

1 Statement of Ethical Principles, Royal Academy of Engineering and the Engineering Council

2 Engineering ethics in practice: a guide for engineers, Royal Academy of Engineering, August 2011 (in abridged and full versions)