

Edge Commission of Inquiry on Future Professionalism

Summaries of Evidence Sessions

Session 1: 5.3.14

The Environment: Should it be a professional requirement to address environmental issues, including responsibility for long term performance and reporting?

Keynote speaker: Keith Clarke - Atkins

The Role of the Professional; Professionalism and the Environment

The role of professional institutions falls broadly into two major areas:

- To ensure a level of professional competency that society can look to and trust in regard to the specific field being practiced.
- To raise standards, spread knowledge (which a lot of small practices, and even large or leading practices, don't have the time to do) and educate clients, peers and society in the area of your professional skill.

Professional bodies are also social networks: people who know and trust each other and speak their own language, so it's quite important that they are looking to progress that too.

Ensuring a level of professional competency is essentially 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 judgment 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 is not an ethical issue: it is 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.

Where there has been considerable debate in the past is where the boundaries for professional responsibility when looking at the broader society remit should end, and the answer lies in the relevant competence. An example of where a built environment professional's skill is not relevant might be the housing mix on a particular project, as opposed to the environmental performance of those buildings.

Often these debates have also 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 professionals would engineers or architects be the appropriate group to argue for population control to mitigate the effects of climate change?

The science is there. It's not for us to judge any more than we should judge how a surgeon behaves on a brain tumour. We don't have that skill. We know the science is there and there is lots of research going on in academia.

So what do we do as professional bodies? We watch. We support, but we do not participate. Instead, we should take that science and look at the effect on the work that we are doing now, in decarbonising the economy. We should get involved with development (the D in R&D); be ahead of government and let the policy chase us; and convince our clients that

the right action is actually morally correct, socially correct, and economically correct and future proofs their business. Increasingly we see people worried about climate change as a risk to their business models.

Taking a broader role in the effect of our projects upon society and the environment beyond those required by the relevant laws, means this 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 realities 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, that 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, performing at a different level in the built environment, with both money and resources and a new design parameter, which is CO₂E.

Additional points made in response to questions from the panel or the floor:

On whether an institution take a position on climate change and expect certain behavioural standards of its members in pursuit of that science.

Firms should work with clients who aren't engaged with climate change – because professionals can win them round. I advised the Qatari government - the most climate intensive country in the world - and I do it with a clear conscience that as an advisor we've managed to delay £70 billion worth of infrastructure which they don't need. The carbon impact of that is pretty considerable: it pays for my flight. That is an engagement which sometimes fails, but if you don't engage and you don't argue attractively with knowledge you are not a professional. You might lose, but that's not the problem.

On whether the institutions should lobby for legislative change (for example in response to professionals turning a blind eye to working conditions in Qatar), and make their stand public. As to legislation, absolutely not. It's a cop out to get Government to change the rules. Saying it's all about rules is not professionalism. There are plenty of people who do lobbying better than we do.

There are a lot of discussions going on with that government - but privately, because that is their culture, which does not respond to people looking in from the outside. You cannot apply western values to other cultures and expect the government to play the same. That's not the same as saying that they should have a different way of behaving, but if you expect the decision-making to be the same around the world as it is in London then you absolutely don't understand the world.

There is a role if you want to influence people where you engage. You can and say nothing should ever happen, say for example that there should be no immigrant workers; but the UK economy wouldn't work on that basis.

The question is how you do it ethically and treat people decently. Asking for the government to give you a better rule is a cop out for professionals.

If we're lobbying the government to make rules for us to make building more efficient, shouldn't we lobby for the next carbon budget to be a reduction not of 30%, but 50%? Is that viable? Instead, it would be better to try as an industry actually to produce the stuff that will get it to 30% - actually get on and talk to manufacturers differently. Because we're not doing it now.

On whether the separate institutions have a responsibility to collaborate to address the challenge of climate change, given that it calls competencies beyond the scope of any of them individually.

Yes. Intellectually what's so exciting about climate change, if you ignore the effects of it, is that it is the most exciting professional revolution since the industrial revolution. It is more interesting than the digital revolution because it brings in all disciplines - economist, psychologist, politics, technology, organisational theory. You name it, it's in that pot and you can't do anything without most of those people. That's why it's so exciting - although it's a pretty risky journey, and it's going be full of glorious mistakes.

On whether the built environment professions could/should be done for mis-selling buildings that supposedly work but actually they don't.

Yes. If you've made a commitment to performance criteria which are never met, you should clearly be done for mis-selling

Today

CIBSE membership is 21,000 in 109 countries, 30% of it overseas.

The Institution sits at the cross-roads of Engineering and the Built Environment, with an agenda across construction and property covering energy, balancing demand/supply; low carbon with Climate Change; and "normal engineering" - that is, designing, building and operating a building that performs for the client and occupier.

CIBSE is currently undertaking a review of the changes and challenges that it faces today and in the foreseeable future

What needs to be fixed

- **Industry** – Current UK construction 280,000 businesses, 3 million jobs, £90 billion gross domestic product (7% of national GDP) which 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. The general view is that if UK construction does not sort itself out, then foreign competition will.

- **Predicted shortfall in UK Engineers:** 450,000 more SET technicians by 2020, double engineering graduate output from current 51,000 pa (*Engineering UK 2014 & Perkins Report*, November 2013).
- **Strategic leadership void**
 - Engineering – RAEng role – Professional Engineering Committee
 - Construction – despite the role of the CIC, CBI, trade bodies and PEIs, there is still no effective leadership
 - Board/ active members are no longer the bosses of big companies. Now they are people who work for themselves."
- **Institutional collaboration** - Institutions need to be interlinked and working together. There's talk of collaboration, but is it hot-air ("Turkeys voting for Christmas") or a real option? To bring about institutional change, "balance sheet" pressure appears to be the sole catalyst. So is co-habitation the only realistic next step to achieve better alignment for "back office" - and if that is the case, what happens to the "front office"?

Conclusion

Many professional institutions are no longer fit for purpose. Yes, they are still doing some exciting things, and can modernise and become fit for purpose; but we must create a shared vision, with an agreed agenda and outcomes.

Government, industry and other stakeholders have not delivered for our diverse sector thus far, so surely the Professional Bodies have to lead if we want to survive and prosper as a sector, in the way demonstrated by the oil/energy/defence/automotive industries, for example.

Additional points made in response to questions from the panel or the floor:

On whether an institution should take a position on climate change and expect certain behavioural standards of its members in pursuit of that science.

There is no point in having a professional body unless you are prepared to make a stand for what you believe is morally right, and occupying the moral high ground as best as you can with the evidence available is incredibly important. If the evidence changes and you have to say 'I'm sorry we made a mistake' then I think that's absolutely explainable, but if we sit by and make no statement, then we are not earning our rations, and there is no point in it. The issues we are facing, as a sector and as an engineering profession, are severe. Climate change is one of them but not the only one.

On lobbying Government

There is no question, we are not allowed to lobby. What we are allowed to do is articulate and inform the view that carries the collective agreement of the sector

On future demand for resources.

Currently we are predicting that we need to double the number of engineers that this country produces from 51,000 to over 100,000 to meet the needs by 2020. We need to train an additional 450,000 technicians to meet the need. I don't see any of the professional bodies coming together and saying this is an important issue and what are we doing about it?

On how the professional bodies can take on the role of developing standards that go beyond legal compliance, and the potential for collaborating on this.

I'm absolutely clear that the professional bodies need staff that can engage in the regulatory framework, have the confidence of whichever officials they are dealing with and be able to call upon the advice of their members. I think that works quite well at CIBSE but I'm perhaps biased.

On whether the built environment professions could/should be done for mis-selling buildings that supposedly work but actually they don't.

Yes.

On what ethical strictures might be applied to a professional that wouldn't equally apply to a plasterer, a steel-fixer, a carpenter, or somebody who is behind the counter at Wickes or B&Q – given that one of the things that really annoys people is when professionals strike ethical positions as if they know what they are and others don't.

I can't sign up to that. My experience of life is that most people know when they're doing a good job and when they're doing a bad job. What you need to do is create an environment where someone who knows that the job is not going well, for whatever reason, is brave enough to put up their hand and say I am not doing my best work, and actually have the organisation to cope with that.

Chris Blythe, chief executive CIOB

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 bringing 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 owned electric companies, gas and water works, and used the profits from these to provide libraries, parks, roads swimming baths etc.

Likewise the new professional bodies were given 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 charters are 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, fixed pricing - and when things went wrong they 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 affects the way professions work. The Competition laws got rid of set fees for work as 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 what actions work.

If you go back to the question, should it be professional requirement to address environmental issues, I'd say it's a resounding yes. But I also doubt whether it can actually be done, for a number of reasons. We have within our responsibilities to carry on our professions for the public good. My own charter at the CIOB is very explicit. It says to promote the science and practice of building and construction for the public good. The Charter doesn't actually mention a single word about members. And I sometimes think that we get too

obsessed with the members. It's the members who are there to deliver the public good, and work towards the public good.

Too often we become an organisation about membership services, but in this modern world, it becomes a very difficult proposition for professional bodies to keep that focus on the public good, because people are looking for more of a transactional relationship with their professional body than one that is built on the ethos of when they were originally set up.

Professional bodies like the Law Society have far less power than they used to have, and why is that? It was because the professions were inward looking and too interested in serving themselves rather than that broader public interest.

The world is moving on so much faster now, that I really do question the capacity of professional bodies to be able to keep up with the changes that society demands, and if we go back to our role of being there for the public good, our track is to follow that broader public good. And that's not decided necessarily by the professionals: it's decided by governments and what society at large puts forward as a consensus as to what our role is.

Professional bodies are very wide-ranging now and have members that cover all aspects of profession. I suspect you will see people in RIBA who do very much the same roles as people in the CIOB, so it is very difficult to come to a consensus across all those occupational areas and all those different special interests; and, as Stephen alluded to, the make-up of people who get involved in professional bodies now is quite interesting, and not what it was. CIOB members used to be owners of firms. Now it's way down the pile. And when you get into the one man bands and the like, you can get very special interest groups and there is a tendency at times to see almost extremism. And how the professional body keeps on top of all of that and avoids being hi-jacked in one direction or another is actually quite a challenge. So there are some big challenges for professional bodies in making that go.

Society requires us to address environmental matters. Whether professional bodies can do it, and do it to the level required, I doubt. And I think that the only professional bodies that survive will be those that stay really relevant to the needs of society, more so than the needs of members. And that's a really big ask when we're in the 'what's in it for me', and members looking at a transactional relationship with their professional bodies. A more altruistic relationship which was there at the start is more relevant now than it ever has been.

Additional points made in response to questions from the panel or the floor:

On the management of institutions

Professional bodies have been run by amateurs in the past – their members – rather than professionals. That is changing. The great danger with amateurs is that they want the professional body to stay where it was when they joined, but professional bodies have to develop to stay relevant.

On collective lobbying of Government

The reason it's hard to lobby through the professional bodies is that collectively they have been tarnished by the rampant self-interest they displayed in the past, and that makes it very hard to get to the policy makers. I think that comes back to the fact that we still have a lot of amateurism in the professional bodies and we do need to shift that further and make it more professional

On whether the built environment professions could/should be done for mis-selling buildings that supposedly work but actually they don't?

Yes – and I agree that we need a shift from output to service. Take the example of the A380 - essentially a building that goes at 500 miles an hour. It's all about outcomes, and it delivers.

On what ethical strictures might be applied to a professional that wouldn't equally apply to a plasterer, a steel-fixer, a carpenter, or somebody who is behind the counter at Wickes or B&Q – given that one of the things that really annoys people is when professionals strike ethical positions as if they know what they are and others don't.

I am horrified by it. Claiming a higher code is the antithesis of the humility one might expect from a professional. Someone working at the till in Tesco might well have a much higher level of ethics: if someone left their purse behind what would they do, put it in their pocket?

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.

A Statement of Ethical Principles was drawn up some years ago by the Royal Academy of Engineering, which has been adopted by the Engineering Council and is now jointly branded.

The SEP was used to develop a Guide for Engineers on Engineering Ethics in Practice (*Engineering ethics in practice: a guide for engineers*, Royal Academy of Engineering, August 2011) 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; and the role of institutions is to help guide and support people through that thought process. The dilemma posed in the question is never faced by an institution, but by an individual in a given situation; and they have to take a decision and live with the consequences.

So for me this is really all about equipping professionals with the skills to deal with ethical dilemmas. We need to talk a lot about skills and what we can do not only to deal with ethical issues, but frankly to recognise them in the first place.

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.

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."

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; and the Edge Commission may wish to refer to the University for further information.

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.

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, building on UK experience and using the SEP as a base document, would be the development of a national or international standard that might be deployed within a contractual relationship in a supply chain, through clients who want to demonstrate their commitment to higher levels of ethical performance.

A key advantage of this approach is that it would require full stakeholder engagement and open public consultation; and this would help build trust and confidence in professionals and public expectations of their performance.

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.

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.

Additional points made in response to questions from the panel or the floor:

On whether an institution can/should take a position on climate change and expect certain behavioural standards of its members in pursuit of that science.

In my view, institutions should make public the policy position used to guide the professionals they represent. Institutions need to take a bit more risk in this area, but they also need to be careful to stick to principles, rather than detail, in any guidance. It would be unethical for the institution to take a highly detailed position on a particular project, for example.

On how the professional bodies can take on the role of developing standards that go beyond legal compliance, and the potential for collaborating on this.

Codes and guidance on many issues are already developed by the professional bodies and are valuable to many professionals in their daily work. Using such codes and guidance material as base documents for the development of voluntary consensus national or international standards is entirely feasible, and it can be undertaken through the well-established channels for standards development at national or international level, which are led (in the UK) by BSI, in its role as the national standards body.

On what ethical strictures might be applied to a professional that wouldn't equally apply to a plasterer, a steel-fixer, a carpenter, or somebody who is behind the counter at Wickes or B&Q – given that one of the things that really annoys people is when professionals strike ethical positions as if they know what they are and others don't.

Everyone is likely to be exposed to ethical dilemmas in their working environment at some point. Although the scale and complexity of the ethical challenge and the consequences of an action may vary widely from situation to situation, the ethical strictures on both the skilled worker and professional are surely the same. The 'ethical code' by which the skilled worker and the qualified professional are expected to work will be one and the same. That said, it is reasonable to expect that a qualified professional will have a higher level of training and awareness of ethical considerations and is also more likely to be carrying the responsibility for the consequences of any decision or action in a given situation. How the professional uses that knowledge in communications with other people to maintain their trust and respect is another matter altogether.