RIBA

RIBA Constructive Change:

A strategic industry study into the future of the Architects' Profession

Summary

December 2005

Acknowledgements

This study was commissioned by the RIBA Practice Committee and produced by the RIBA Constructive Change Group (a sub-committee of the RIBA Practice Committee, chaired by Bob White). The study report was submitted to the RIBA Council on 15 December for consideration and action by the RIBA and wider architects' profession.

This study has been guided by a steering committee comprising Jack Pringle, Robin Nicholson, John Worthington, Richard Brindley, Adam Williamson, Dennis Lenard, Simon Foxell, Bob White and Beth Morgan. It has been supported by Constructing Excellence.

Particular thanks to John Worthington, DEGW for contributing the future scenario model; Dennis Lenard, Constructing Excellence for chairing the workshops; and Simon Foxell, The Architects Practice, Will Hughes, the University of Reading and Andy Jobling, Levitt Bernstein for presenting at the early workshops.

Bob White and Beth Morgan have led this study and produced this report.

NOTE: The views and perceptions expressed in this report are those of the participants of the study; they may not reflect the policy, views or current activities of the RIBA.

Foreword

Constructive Change was set up by the RIBA in 1999 to lead the profession's response to industry change and, in particular, the reform agenda driven by Egan's *Rethinking Construction*. Some seven years after *Rethinking Construction*, the wider industry has made significant progress: by adopting Egan principles, client satisfaction, productivity, and time and cost predictability have all improved and driven an average increase in company profitability of 4%. Today, new change agendas are emerging for the industry. Sustainability and the need to create real social and economic value for our clients and society are imperatives for the built environment. We must continue the drive to produce better buildings more efficiently.

This study is based on the expert opinions of some 50 senior industry figures, combined with observations drawn from industry reports including *Rethinking Construction* (Egan, 1998) and *The Professionals Choice* (Building Futures, 2004). It presents a vision of the future of the construction industry and the opportunities and challenges this future presents for the architectural profession.

Many of the views expressed here may be familiar, however I hope you will also find this study brings new insights and makes practical recommendations. Importantly, this report presents perceptions rather than facts. The observations expressed here have been gleaned from over 200 hours of consultation with experienced industry individuals: such perceptions arguably represent reality.

Surprisingly, the new mantra of sustainability – of creating social, economic and environmental value – received relatively little debate in the workshops. Perhaps this indicates a need for the industry to become better versed in this area. It has also become evident that we need to do more work in futures thinking across the supply chain: how can clients, contractors, suppliers and product manufacturers respond proactively to the future vision defined here?

I strongly believe there are great opportunities for architects to contribute significantly to the future success of the industry. For this reason, I agreed to take on chairmanship of Constructive Change and lead this study. Nothing we have discovered during the course of this study has altered my view that the future holds many opportunities for architects. As architects and representatives of the RIBA, I ask you to give serious consideration to the messages presented in this report and to act upon them.

Bob White, Chairman of Constructive Change

Summary

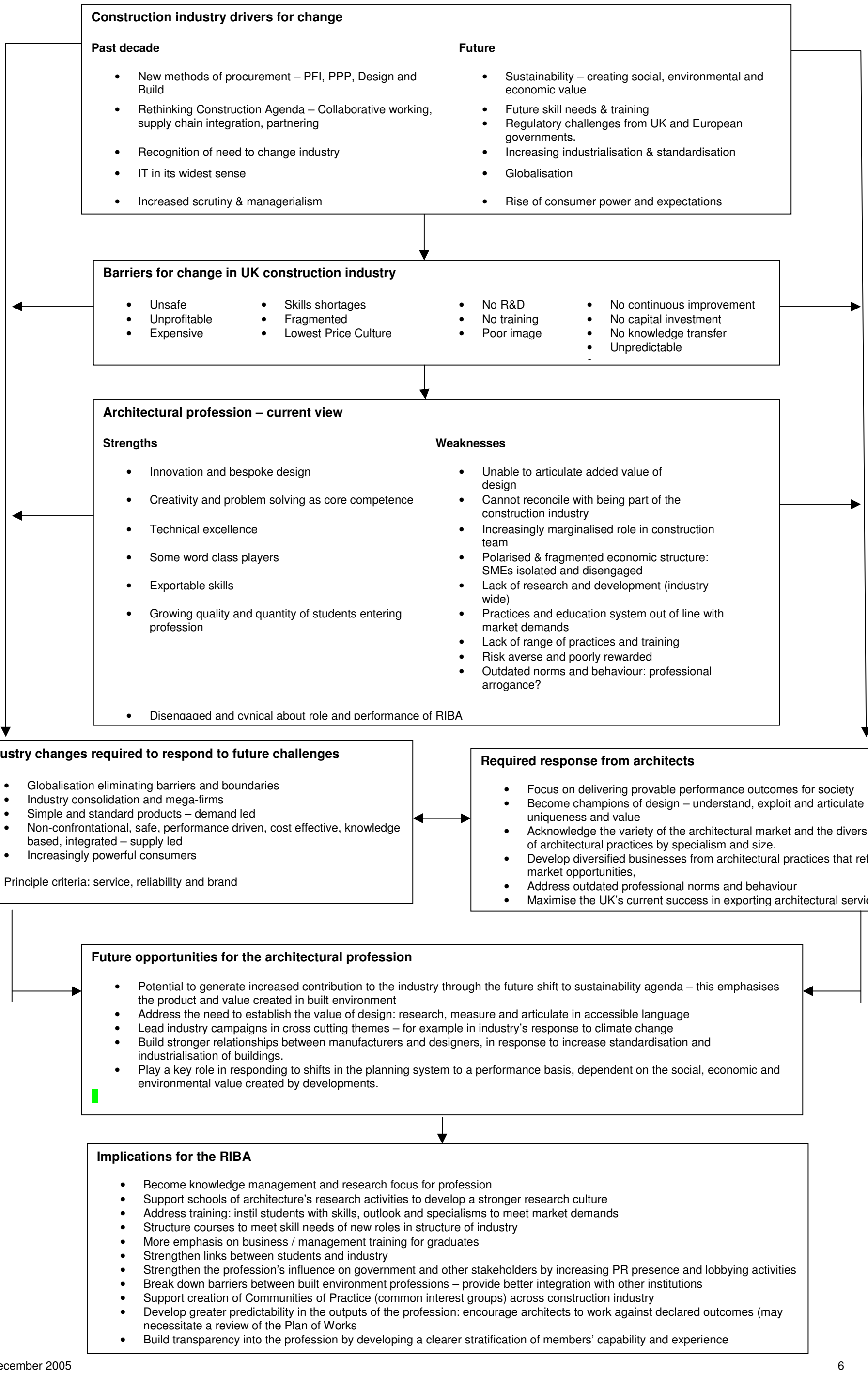
This report presents the findings of the RIBA's Constructive Change Strategic Industry Study into the Future of the Architects' Profession, commenced in early 2005. The aim of this study is to enable the architectural profession to respond strategically and proactively to future opportunities and threats in the wider construction industry. It draws on the views of senior industry figures to identify factors likely to drive change in the future and their implications for the architectural profession. The findings presented here are based largely on expert opinion and are intended to represent industry perception.

The study has been conducted in two main phases. Its first phase established a shared vision of the future for the construction industry in the UK. A scenario model was then developed to illustrate a range of possible proactive and reactive responses to these future themes (see Appendix 2 for details). The study's second phase built upon this future scenario to explore roles for the architecture profession and the RIBA. Four workshops were held in total, eliciting the views of some 50 senior figures in the built environment industry. The interim findings from this study were presented to RIBA Council in September 2005. The observations made by RIBA Councillors at their meeting and their subsequent individual comments have been incorporated in this report.

The starting point for this study was a recent review of professional futures undertaken by Building Futures, a group co-sponsored by the RIBA and CABE. The resulting future scenarios described in *The Professional's Choice* (Building Futures, 2004) provided valuable input for this study and the outputs are intended to build upon them.

The remainder of this summary presents findings from these two phases and the consultations with RIBA Council. It also outlines key recommendations arising from this study for consideration by the RIBA. An overview is shown in Figure 1.

Figure 1: Future of the UK construction industry and the architectural profession



Key findings

Phase 1: Construction industry drivers for change

New methods of procurement and construction process improvements promoted through *Rethinking Construction,* are seen as key factors that have driven change in the past decade. In the future, the *Sustainable Communities* programme - with its emphasis on creating integrated built environment solutions focused on meeting social needs - will be the political agenda most likely to drive industry change.

Sustainability and the need for the industry to create perceptible social, environmental and economic value will be the most influential factors affecting the industry's future. The impact of accelerating climate change and the depletion of natural resources are of particular significance.

Technological innovations have enabled substantial industry change in the last decade. In addition to IT developments (particularly in the area of Building Information (object) Modelling) in the future, technological factors impacting the industry relate to greater industrialisation and standardisation of buildings. Increasingly demanding and powerful consumers will also form a significant driver for future change. Growing global competition will drive industry consolidation and increase the need for the industry to deliver higher quality buildings more efficiently.

A key supply side factor that will influence the construction industry's ability to meet these changing market demands relates to the skills, education and continuing training of its workforce. Equally the fragmented economic structure of the industry – with a large number of small practices and a small number of large firms that dominate industry turnover – may restrict its ability to respond.

Past and future drivers for change (five most commonly mentioned)

Rank	*Drivers for change in last decade*	*Future drivers for change*
1	New methods of procurement – PFI, Design & Build	Sustainability / Social responsibility – social, environmental, economic.
2	Rethinking Construction Agenda – collaborative working, supply chain integration, partnering	Future skill needs and training
3	Recognition of need to change industry	Increased standardisation and industrialisation
4	IT – in its widest sense	Globalisation
5	Increased scrutiny and managerialism	Rise of consumer power and expectations

The future industry drivers for change identified in this study are similar to those identified in recent similar studies by CITB-ConstructionSkills (2004) and Constructing Excellence (2005).

There was, however, little convergence in the views and experiences expressed by individuals from the construction industry and those from the built environment professions. The only shared view between the two groups is that sustainability will be the most influential driver of change in the future. This differing outlook may indicate the lack of a commonly shared view of the future between the architectural profession and the wider industry.

Phase 2: The future of the architectural profession

A scenario model for the construction industry and built environment professions (Worthington, 2005) guided discussion at the second phase of this study. This model describes the implications of industry change drivers for both strategists

and implementers and potential proactive and reactive responses for each of these groups.

This approach illustrates the choices the architectural profession and the RIBA must make between acting proactively or reactively when faced with future change. Arguably by making proactive changes, the profession will increase its value in the built environment industry, however by responding reactively it risks further marginalisation. Like any profession or industry, architecture faces a changing future, however it does have choices over how it views and responds to this future. The success of the profession and its practitioners relies partly on their approach to the future: they are well placed to take advantage of future opportunities but must act proactively to do so.

Views of the architectural profession

The core competency of the architectural profession is seen as its practitioners' creativity and problem solving skills, as embodied in the design process. However, in reality, this valuable capability forms a minimal part of architects' role in the project team, as management and regulatory issues become increasingly significant in the building process. The profession is perceived as having failed to capitalise on its core capability by not creating the range of skills needed to meet the demands of the modern construction industry.

The norms or culture of the profession are seen as increasingly at odds with the modern construction industry. For example, the profession is noted for its introverted perspective where architects are often driven by their own achievements and peer group recognition rather than responding to client and market needs. Consequently, architects are rarely seen as 'team players' interested in interdisciplinary working. The tradition of the architect as the 'struggling artist' is still evident - particularly amongst the profession's many sole practitioners – creating tension with the role of architectural practices as businesses creating value and meeting their stakeholders' needs. Architects are

viewed as being risk-averse, unwilling to take responsibility and therefore the risk and reward for their work. (There are notable exceptions when organisations are seen sharing risk in projects - such as Arup's role in the Channel Tunnel Rail Link - or products - such as Cartwright Pickard's work with manufacturers developing MMC solutions.)

Professional education and training for architects is seen as a key area of weakness, discussed widely and frequently during the workshops. Architectural education initiates and enforces certain negative behaviours and attitudes amongst young architects: the profession's introverted perspective is instigated during education; architects are not educated to meet industry and wider market needs; and the education system often lacks sufficient exposure to other built environment sectors.

While the increasing quality and quantity of students entering the profession is seen as encouraging, the quality and quantity of graduates completing professional architectural education and entering practices appears to be falling, largely because they are not equipped with skills needed for modern industry. Notably, the education system is currently firmly focused on preparing students for work on new buildings: in reality, refurbishment and recycling of existing buildings stock is of increasing importance in the built environment industry.

Generally, the current university-based education system is seen as having failed to produce practitioners with the range of skill profiles required for today's built environment industry. Both schools of architecture and practices are viewed as responsible for this situation. In particular, it was suggested that architectural practices may have abdicated their responsibilities in educating and training young architects to the universities. However, the ability of practices to contribute more to the education of architects is often restricted by many practices' economic situation and the economic pressures of the current higher education system in the UK.

New modern procurement methods such as PFI and prime contracting have served to marginalise the role of design and therefore the architect in the building process. By responding reactively, architects' have furthered this disenfranchisement from the industry. Due to the way the procurement system is currently set up, PFI and PPP presents particular challenges and barriers for small and medium sized architectural practices.

The lack of investment in research and development across the architectural profession is also a failing that is seen as both symptomatic and contributing to a lack of innovation and strategic thinking in the profession. This trend is reflected in some schools of architecture, many of whom compete unsuccessfully to win Research Council funding. One cause of this may be the academic 'marginalisation' of architectural research and schools lack of engagement in wider research agendas. In particular, the lack of research evidence as to the value created by design, lies at the heart of architects' inability to articulate their value-add. Evidence-based design offers significant opportunities in addressing this issue. (It should be noted that this lack of R&D investment prevails in the wider industry.)

Some participants saw the profession as lacking leadership, both within the profession and in its ability to influence the wider industry and government. It was queried why so few architects play leading roles on the boards of main contractors, which tend to be populated by engineers and surveyors. The RIBA has an important role in addressing both of these aspects of leadership. However it is criticised for the perception of being out of touch with its members and the wider industry. A number of comments illustrated a lack of engagement between the RIBA and its members. Whilst these frustrations may not accurately reflect RIBA's current activities, they nonetheless indicate a lack of awareness of them.

All of the issues outlined here contribute to the economic situation currently facing the profession: generally, practices are unprofitable and often struggle for survival and individual architects are typically paid low salaries, particularly in comparison with other professions.

Future opportunities for the architectural profession

- **Agenda for change:** The wider shift in the construction industry from the *Rethinking Construction* change agenda to one driven by sustainability has the potential to increase architects' industry contribution. While *Rethinking Construction* is focused on construction process improvement, sustainability embraces wider built environment and societal issues. The perspective of creating social value and design quality is already inherent in the architectural profession: it looks to serve not just one client but all clients and the wider society who all benefit from the design of our built environment.

- **Sustainability**: sustainable development is at the heart of changes to the planning system, which is becoming performance based, dependent on the social, economic and environmental value created through developments. Architects – particularly those undertaking masterplanning activities – could potentially play a key future role and become instrumental in setting performance objectives for developments.

- **Value:** there is an opportunity and need for architects to lead the process of establishing evidence-based design solutions that create demonstrable social, economic and environmental benefits. By articulating the value of design, in language easily understood by clients and the wider public, architecture should become more highly valued by clients and society. Research has been undertaken in this area, for example *The Value of Good Design* (CABE, 2002) and Be Valuable (CE, 2005). However, significant opportunities for research and measurement exist in this area.

- **Leadership:** leadership is seen to be generally lacking in the construction industry at an industry level. While the notion that architects and other built environment professions should necessarily strive for the leading role in projects was dismissed as a "Victorian concept operating in the 21st century", an opportunity exists for architects to take a leading industry role by starting and leading debates, championing causes and campaigning. The RIBA and other institutions should act collectively to increase their influence on government. In the past, the architectural profession should have led national debates that have been picked up by other organisations such as CABE. Existing opportunities for the profession to lead industry's response to wider issues include the wider sustainability and value agenda, climate change and Sustainable Communities.

- **Standardisation**: increases in standardisation and industrialisation of buildings create opportunities for the architectural profession. Far from being a threat to the value and skill of design, standardised building components, industrially produced will enable the industry to deliver quality at a reasonable price and radically improve the performance of the industry. For architects, Modern Methods of Construction create the potential to build stronger relationships between manufacturing and design. It presents an opportunity for architects to be included again in the building delivery and component design process, from which they have become increasingly excluded. Those few architecture practices that are exploiting this opportunity are seeing significant gains in this area.

Recommendations

Based on the current view of the profession and its future opportunities, the following recommendations are made to the profession and the RIBA:

Recommendations & future opportunities for the architecture profession:

1. Address the sustainability agenda by focusing on delivering measurable performance outcomes for society.
2. Champion design in order to promote an understanding of the added value of design amongst the wider industry, clients and other stakeholders.
3. Acknowledge the range of markets for architectural services by encouraging specialisation and the emergence of different types and sizes of architectural practices and individuals. In particular, ensure that the profession supports and promotes the different services and skills provided by, and markets served by, its wide range of SME and large practices.
4. Develop diversified businesses from architectural practices that reflect market opportunities and support news ways of working and new skills groups demanded by the modern built environment industry.
5. Discourage professional norms and behaviours that are perceived as outdated – for example the introverted design perspective of architects, and their lack of integration with other members of the construction team.
6. Maximise the UK's current success in exporting architectural services internationally by recognising and fully exploiting the opportunities created by increasing globalisation. (This requires the ongoing support from the RIBA in terms of developing Mutual Recognition Agreements that enable UK architects to practice freely overseas.)

Recommendations for the RIBA:

1. Become the knowledge management, market intelligence and research focus for the architectural profession.
2. Develop evidence based research framework for demonstrating the social, environmental and economic value of design. Support such research initiatives in architecture schools and with research funders to develop a research culture and abilities that will attract a steady stream of funding.

3. Refocus architectural education and training to:
    - reflect market demand and opportunities by educating and training architects in a flexible and wide range of skills;
    - equip students with skills required for refurbishment and recycling of existing building stock;
    - provide more business and management training for students;
    - strengthen links between students and the industry;
    - encourage greater involvement from practitioners during education;
    - provide more cross disciplinary (built environment professions) modules; and
    - identify, train and invest in the profession's future leaders.
4. Lead industry campaigns in order to influence policy and engage Whitehall and Europe. Monitor and seek to influence future relevant legislation and regulatory changes.
5. Consider leading the development of new procurement methods.
6. Communicate the institute's current activities and policies to architects, clients and the wider industry in order to address the 'perception gap' identified in this report.
7. Break down barriers between built environment professions and other parts of the construction industry. Greater integration between industry and its institutions will increase the industry's power and influence.
8. Develop and support cross industry communities of practice by encouraging new groups to form related to industry change and initiatives (for example in such existing groups as The Edge and Building Futures). This will enable the RIBA to encourage innovation in the profession and relates to a criticism that in the current RIBA structure, significant interest groups don't have appropriate forums to air their views.
9. Consider the potential for the RIBA to represent all aspects of design in the Built Environment (and to reflect this in the education process.
10. Develop greater predictability in the outputs of the profession by encouraging architects to deliver against declared outcomes. This may

lead to a review of RIBA's Plan of Work that is an outmoded model for new forms of procurement. Instead, the RIBA could develop an updated process, based on the principles of evidence-based design, that encourages architects to focus on declared and easily understood outcomes.

11. Develop clarity in describing and promoting the range of capabilities available in the profession by recognising the different categories (size and type of architectural practice) and their focus on different markets.

    - reflect market demand and opportunities by educating and training architects in a flexible and wide range of skills;
    - equip students with skills required for refurbishment and recycling of existing building stock;
    - provide more business and management training for students;
    - strengthen links between students and the industry;
    - encourage greater involvement from practitioners during education;
    - provide more cross disciplinary (built environment professions) modules; and
    - identify, train and invest in the profession's future leaders.

Appendices

Appendix 1

Workshop participants (attending one or more workshops)

Adam Williamson	RIBA
Andrew Carpenter	Forticrete
Andrew Edkins	UCL
Andy Jobling	Levitt Bernstein
Andrew McNaughton	Balfour Beatty
Andrew Thomas	CCI
Anne King	BSRIA
Anton Jansz	Woods Bagot
Chris Amesbury	Davis Langdon
David Walker	David Walker Architects
Dennis Lenard	Constructing Excellence (Chairman)
Derek Robinson	Ruddle Wilkinson
Graham Francis	Sheppard Robson
James Bell	Skanska
John Bushell	KPF
John Turzinsky	Arup
James Pickard	Cartwright Pickard
John Newman	DTI
John Worthington	DEGW
Julian Lipscombe	Bennetts Associates
Keith Priest	Fletcher Priest
Mark Whitby	Whitby Bird
Megan Yates	Techniker
Nick Terry	BDP
Peter Cunningham	Constructing Excellence
Peter Head	Arup
Peter Morris	University College London

Richard Brindley	RIBA
Richard Petrie	BAA
Rodger Evans	Constructing Excellence
Richard Saxon	BDP / CBE
Robin Nicholson	Cullinan Architects
Roger Zogolovitch	Lake Estates
Selina Mason	CABE
Simon Foxell	The Architects Practice
Steve Hindley	Midas Group
Sunand Prasad	Penoyre & Prasad
Tanya Ross	Buro Happold
Terry Wyatt	Hoare Lee
Tony Poole	Sheppard Robson
Will Hughes	University of Reading

Appendix 2: 2015 Scenario

Themes	Values Strategy Problem Definers, Solution Designers, Integration		Implementation Process Managers, Constructors, Maintainers	
	Reactive	Proactive	Reactive	Proactive
Environmental change (global warming)	Following government directives grudgingly	Articulating the issues. Sharing best practice. Setting standards.	Focus on 'green' building. Itemised approach.	Focus on 'lean thinking' and intensification of use of space and time. Holistic approach.
Consumerism	Standard packages, with a price tag. Adapt to market demand, new range.	Individual attention. Long term relationships. Continuous feedback and improvement.	Design and build. Devolving risk. Delivering a building.	Partnership, sharing risk. Meeting business requirements.
Diversity	Choice through playing the market.	Design advisers select most appropriate solution.	Wide range of standard products.	Wide range of procurement routes.
Standardisation	Standard tools, applied rigidly to meet demands on time and cost.	High standards applied flexibly.	Standard products.	Focus on continuous building programmes. Continuous improvement.
Globalism	Standard global solutions applied locally.	Local firm, part of global network of experience.	Global sourcing of products.	Local sourcing of products, learning from global experience.
Accountability	Part of a system of checks + balances – work being audited (continuation of today).	Respected board advisor (part of client's success).	Increased regulatory controls.	Self regulation of building standards.

Scenario by John Worthington, DEGW