



*Diversification in  
Architecture*

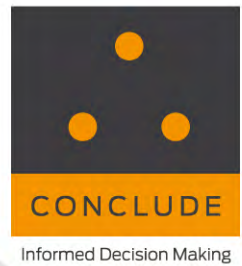
Professor M. Bacon  
RIBA FRSA

The Conclude Consultancy Limited

# Drivers for diversification

- In our work on 21<sup>st</sup> Century Architectural Education we recognised substantial challenges facing the professions – new technologies – challenging expectations – aggressive commercial environment...
- In the UK, HM Government is challenging its supply chain to deliver substantial improvements in what it delivers: Low carbon outcomes and integrated building information.
- BUT – we also see an architectural profession in the UK facing substantial challenges: declining markets, greater competition resulting in declining workload combined and eroding fee scales.

# So we need to diversify...



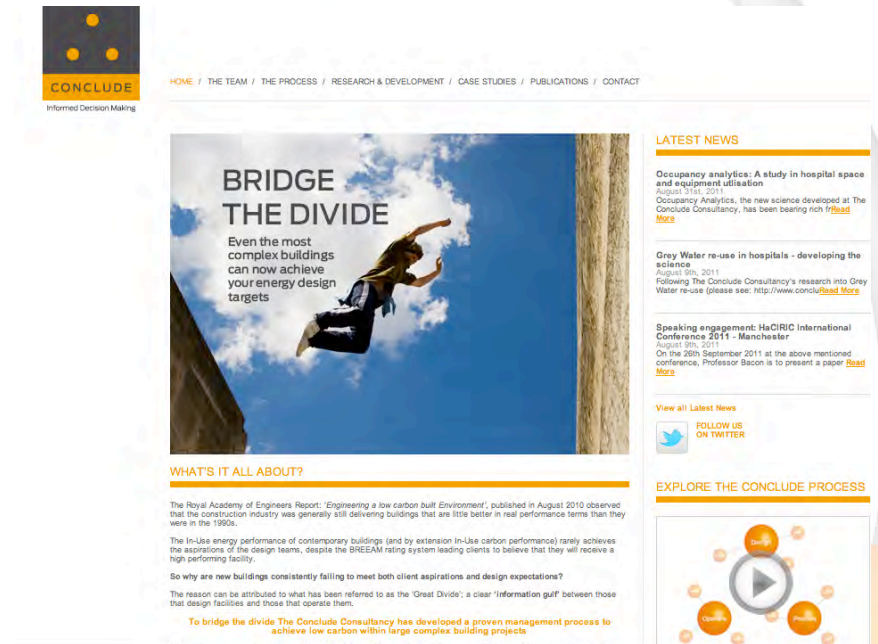
- To meet these challenges.
- To understand the new services that are required.
- To create a new model of practice.
- To enable society to achieve its aspirations for quality and sustainability.

In reflecting on these challenges and aspirations I decided to create a new business – one that could be an exemplar of a new model of practice....*The Conclude Consultancy Limited.*

# Bridging the Divide...



- To be research led. To develop innovative new solutions that to drive towards low carbon outcomes.
- To be evidence based, so that solutions are driven from what we know – and when we do not know – we seek to find out.
- To constantly challenge, and seek out new answers..
- To bridge the divide between design/ delivery, and In-Use operations
- To use sophisticated technologies to drive out complexity in decision making and readily assimilate complex data.

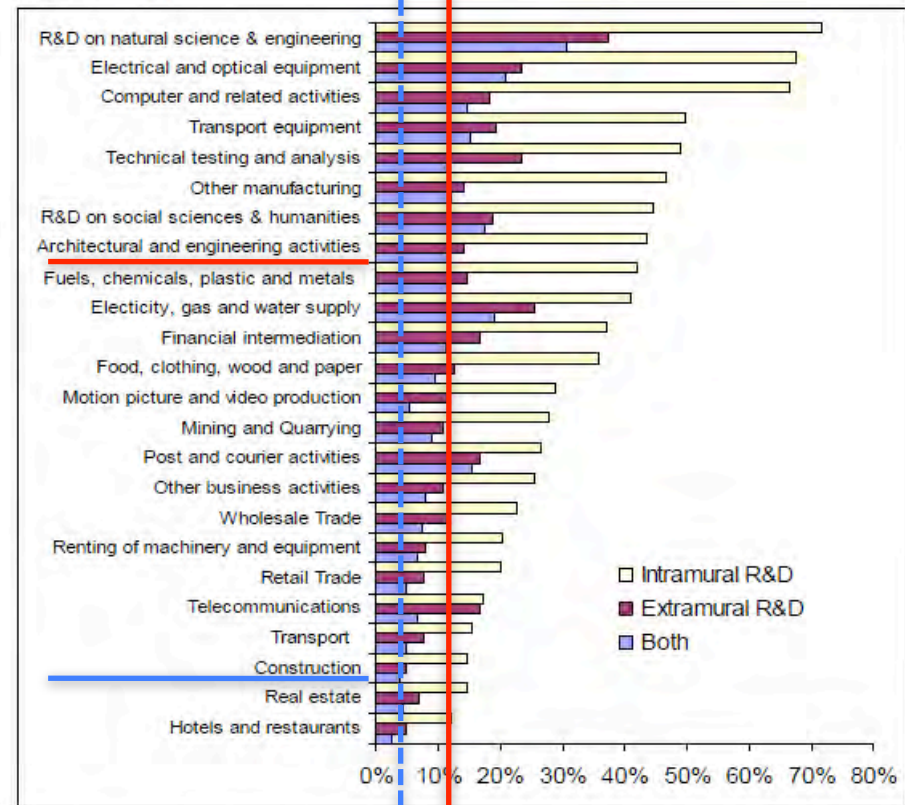


# Research led

“The theory of economic growth postulates that innovation is a primary source of a country’s long run productivity growth. Innovation is the outcome of firms’ efforts to produce new or improved products, introduce more efficient productive processes and implement organisational or managerial changes or new marketing and design processes.”

Source: *Business Innovation Investment in the UK, 2007*

Figure 26: Percentage of firms performing intramural and extramural R&D by industrial sector



Source: UK Innovation Survey, 2007

# Evidence based

- Background context

- *“To achieve genuine step-change improvements, procuring clients, design and building teams, users and managers will all need to engage much more closely with achieved performance. Better transparency between intentions and outcomes will release drivers towards better assumptions, better predictions, better design, better implementation, and better management of both the procurement and the product.”*

*Energy Performance of Non-Domestic Buildings: Closing the Credibility Gap’ W. Bordass*

- Research provides the evidence – reflective practice identifies the gaps in our knowledge and inspires innovation.

# Seek out new answers...

- Examples:
  - Why do buildings consistently fail to achieve the design team's aspiration of performance?
    - What can we do address these failings?
  - Why do standards lead to over-engineered – under performing facilities?
    - What can we do to challenge these standards?
  - Why are not users more engaged in the briefing and design processes?
    - How do we need to change the process to achieve this?
  - Why are we so poor at collecting and analysing In-Use data?
    - How can we use In-Use data to inform the way that we need to design sustainable facilities?

# To bridge the divide...

## ...between design/ delivery and In-Use...

Designers: *“We did not appreciate that it was going to be used like that”*

Users: *“We did not understand that it was designed to be used like that”*

- This is the ‘divide’ that inspired me to develop a new science called: ‘Occupancy Analytics’ and a new way of using technology: ‘Whole Facility Energy Modelling’. It is where we study:
  - how buildings need to be used.
  - how they will be occupied and to directly correlate that use with carbon performance outcomes.
- To use this knowledge to drive the design process...it is where we connect designers and users in one process...where we focus on outcomes...



# Our vision...



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*The vision is for an integrated design and operational strategy founded in a new scientific basis for energy efficient hospital design.*

*It is one where users understand the carbon impact of different operational processes and where design and operational strategies mutually inform the other.*

*It is one where outcome-based performance targets are informed by In-Use performance data assimilated at functional level, and aggregated at facility level.*

*It is one where the facility is continuously optimised for low carbon performance, and where simulation technologies support skilled facility engineers in arriving at informed decisions concerning system optimisation and so continuously drive to improved low carbon*

# Diversification in architecture

- The traditional role of the architect needs to be adapted to the changing needs of society. Architects need to diversify...
  - They will be able to do this, by understanding and reflecting on these changes. To be willing to adapt to new roles – roles that are only now just becoming to be understood...
  - To embrace new technologies and to leverage data and existing knowledge to create new knowledge – knowledge that has both commercial value and that leads to a benefit to society...
  - To do what architects have always been good at – to challenge the status quo, to create and innovate.