

green buildings green future

The first in a series of industry forums, the Green Buildings Green Future forum was held on August 12, 2010. The major discussion points and outcomes of the event are tabled in this paper.

Introduction

The Buildcorp Group has hosted the first in a series of research and discussion forums to engage the property and construction industries in sharing knowledge and maintaining momentum towards progress and improvements in sustainability.

The “Green Buildings – Green Future” boardroom lunch was held at Buildcorp’s head office at Camperdown on 12 August 2010, with an agenda that included a keynote presentation and an open forum discussion. The topic of the forum is one that generates much debate in the industry and one that Buildcorp believes is our logical and inevitable future.

The intent of this report is to communicate the issues discussed that impact on the property industry’s journey to becoming more efficient and resourceful. To ensure a broad range of perspectives were heard, participants in the forum were sourced from across the property industry.

This report prioritises five major issues which the forum identified as needing immediate attention and where the most impact would be achieved.

Accordingly, this is an initial step within a multiple stage, collaborative research initiative that Buildcorp proposes to undertake with a focus on developing realistic and relevant resolutions to the issues arising from the discussions.

This report will serve as a useful resource for a wide range of audiences, including construction and property industry personnel, policy makers, regulatory authorities and researchers.

Participants

The program and participants selection were designed to ensure representation from stakeholders across the construction and property industry. This was critical to the success of the open discussion and provided the opportunity for various stakeholders to present, share and discuss their views on key issues relating to green buildings at present and predictions for the future.

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Open Forum

To initiate thinking and provoke ideas, thought points were distributed to participants prior to the event. The open forum generated a great deal of debate and participants made valuable contributions to the discussion.

As with any research project, defining a scope is a fundamental factor. Accordingly, the intent of this first gathering was to generate debate and through it, develop a clear outline of key obstacles and issues that exist for our industry in its journey towards improvements in sustainability.

The following points summarise the open forum discussion.

- ▼ We have large stock of existing buildings that will soon require major refurbishments or retrofits to keep them viable and efficient.
- ▼ There is a commercial disconnect between base buildings and tenants. Tenancy issues are highly contentious and are a cause for many challenges in commercial buildings.
- ▼ The industry faces major challenges in the way buildings are operated and maintained. Facility managers do not understand or are not trained sufficiently in the way a building is designed to work. In addition, staff turnover contributes to further knowledge loss.
- ▼ What is the incentive for building owners to have their buildings run efficiently (referring to energy efficiency), especially when they don't pay energy bills – their tenants do?
- ▼ It was suggested that the Building Energy Efficiency Disclosure Act 2010 and its mandatory disclosure requirements (the Act commenced in July 2010, but the energy efficiency disclosure obligation does not commence until November 2010), may resolve some of the issues relating to building owners' incentive to improve their buildings. Without a good energy rating (NABERS star rating) building owners may see tenant retention favouring buildings with higher NABERS ratings.
- ▼ Reliability of works done during refurbishment activity and potential for disruption is a risk to financial tenants. For example, such tenants usually require base building's adaptability and flexibility to allow 24 hour operations. Accordingly, news of a proposed upgrade or a refurbishment can cause alarm bells to go off and in some cases where the risk to their business activities is great, new tenancy in another building may be considered. This is because even a small power shut down could have catastrophic effects on business activities. To such a business, the incentive for the building owner is in fact to do nothing.
- ▼ An alternative situation would be where tenants and building owners work together to achieve a common outcome. For example, the NAB House project at 255 George St, Sydney has NAB as the major tenant in this building and in fact the retrofit/efficiency upgrade project, that is now reaching its final stages, was a combined tenant and building owner initiative. NAB, who like other financial institutions has highly sensitive business activities, requiring the project implementation to be carefully planned and thoroughly coordinated. NAB remained in the building throughout the entire project and apart from some minor challenges, the upgrade was completed successfully.
- ▼ The fact remains that many of the property industry's current building stock is outdated and in need of major repair or at least some level of upgrade. The way forward is to approach building upgrades with tenant comfort as a priority. To not disillusion tenants and to ensure a smooth transition between the stages of upgrade work, building owners must treat the comfort level of tenants as equally important (if not more) than the energy efficiency upgrade works.

- ▼ Sharing of knowledge and a change in traditional processes and procedures, is what's needed to drive our industry to achieve greater efficiency. Green leases are one example. We've heard about them but what do they look like and what do they essentially do? Tool and documentation, such as templates for Green Leases, obtainable by the industry through the Property Council or other similar forums would assist not only disseminating knowledge and information but also help achieve consistency.
- ▼ The industry needs to make refurbishment or retrofit projects more attractive. This is an issue of incentive.
- ▼ Legislation and government support is necessary, however legislation encourages lowest common denominator thinking. The industry needs a much larger push than that.
- ▼ Green Star and its benchmarking system has been an effective way for our industry to maintain progress in this arena. Green Star will be releasing its Green Star - Existing Buildings and Green Star - Custom rating tools in the near future. These tools will provide a higher level of recognition for retrofit and other building upgrade projects. Green Star's development of such tools is in direct recognition of the fact that existing buildings present greater potential in terms of energy efficiency, cost effectiveness and overall sustainability when compared to new buildings.
- ▼ Integration of all stakeholders in the industry and greater collaboration on projects will mean that less of the knowledge and information is lost, greater input is given at the most significant periods of a project and overall, better outcomes are achieved both at the project level and across the industry.

Summary

As mentioned, one of the desired outcomes of the day was to define a scope for further research. The following five points summarise the general accord of the forum and pave the way for further development of realistic & tangible solutions.

Both the forum and this paper are considered stage one of Buildcorp's collaborative research initiative around the topic of sustainability. Subsequent stages will involve further industry engagement, research and development of plausible solutions.

The five dominant green building issues listed below are captured at stage one and focus on issues and challenges that a solution to would have the greatest impact.

▼ Integration and Collaboration

Our industry often works in silos and various stakeholders have input at specific times. Better outcome in design, modelling and cost analysis, with fewer impediments to ESD, could be effectively achieved by utilising an integrated approach, working collaboratively and ensuring input from all industry stakeholders at early stages of a project. Greater collaboration also encourages knowledge sharing. Many of our project stories and details of the journey are lost in our industry, meaning that we are at risk of repeating the same mistakes. We need to find better and more collaborative methods of managing projects, communicating with our peers and to sharing our knowledge.

▼ Tenant related issues and tenant comfort

We need to ensure that in the process of building efficiency upgrades or retrofits, tenant comfort is not neglected and is at the forefront of decision making. The best outcomes are achieved when building owners and tenants have either aligned interests or at the very least tenants are engaged in discussion regarding the project.

▼ Incentives for all parties to move forward and maintain momentum

The main focus of any incentive for further uptake of green building projects needs to raise benchmarks and encourage advancement in the industry. Government leadership is required, as is ongoing reference and continuous benchmark development by institutions such as the Green Building Council and the Property Council.

▼ Back to Basics

With less financial resources available due to the global financial crisis, a new level of realism has entered ESD. In engineering terms, this translates to more thoughtful reliance upon natural systems such as ground source heating, solar energy, natural light, natural cooling, water capture and so forth. We need to ensure that our buildings are designed with less dependence on high capital technological solutions but more on natural resources.

▼ Sustainability and Mixed-use Developments

Urban density is on the rise and mixed use development is an effective response to this trend. This presents us with exciting opportunities for increasing the level of sustainability in building services engineering design. Essentially we can design systems for the reuse of one building's energy waste for another building's energy resource. One example is utilising heat waste of one building to supply required heat to another. We are yet to tap into the true value of such sustainable solutions in building services. This is generally due to the fact that there are limitations on the sharing of energy resources across boundaries and titles. The value