

Green building as good as gold in the long run



ROD ORAM

DO YOU want to increase your productivity? Begin by improving the physical conditions in which you work.

That's the core principle businesses such as IAG, BNZ, NZ Post and ICT innovators at Canterbury University are applying. Knowing that where people work determines how they work, they have recently moved into fit-for-purpose buildings.

In IAG's case it wanted to change its business culture by breaking down silos within and between NZI and its other insurance operations. But it couldn't when they were spread around four buildings in Auckland's CBD.

So it worked with Newcrest, a property developer, and architects Jasmox on the NZI Centre at the corner of Fanshawe St and Market Pl. Some 700 staff have been in the building only a couple of months but they are working more effectively and efficiently, IAG says.

BNZ is experiencing the same benefit with its move into the Deloitte Centre on Queen St, as is NZ Post in its new Courier Post sorting facility in the Highbrook Business Park, South Auckland, and Canterbury University's ICT innovators are in their new NZi3 building.

These are all recent moves so it will take a while to produce detailed before-and-after productivity comparisons. But the anecdotal evidence so far shows they will at least match experience overseas.

In Melbourne, for example, when tenants of 500 Collins St moved within the building to refurbished floors, they experienced a 39% reduction in sick leave; a 9% increase in typing speed; and a 7% increase in billable hours. A wide range of US studies demonstrated productivity increases of 6-11%.

The common theme through all

these examples is the buildings' sustainability rating such as Green Star or equivalent. For example, Courier Post's new place is the first four-star industrial building in New Zealand and NZi3 is the first five-star educational building.

The US property sector pioneered green building standards some 15 years ago. It began by focusing on driving greater efficiency in the use of electricity, water and other resources. In addition to reducing operating costs and increasing the value of the buildings, they found that better lighting and ventilation made for healthier, happier and more productive staff.

Prompted by these valuable people benefits, sustainability disciplines quickly evolved to focus more on the quality and effectiveness of workplace design and materials.

Achieving these productivity, financial and environmental outcomes does not necessarily make a building more expensive to build. A four-Green-Star building can cost the same as one that doesn't meet the standards, Dean Riddell of Davis Langdon, the global construction consultants, told the Green Building Summit in Auckland last week. And such a building can typically deliver a 10% reduction in operating costs.

Yet in New Zealand the property sector has focused historically on just construction costs rather than analysing operating costs, productivity benefits and other factors that determine the true investment and economic value of buildings.

"The cost of cheap" is very large, Adam Murchie of Drapac, an Australian company that runs a sustainable building investment fund. He told the conference such buildings are under-performing green ones in investment terms and the gap will only grow as tenant expectations, energy and water costs and other drivers ramp up.

This need to "future-proof" buildings is paramount in investment decisions, said Nick Edgerton, a research analyst in Sydney with AMP Capital. There are abundant opportunities to do so by refurbishing buildings rather than investing only in new ones, he said.

These sustainable investment, design and construction disciplines are more complex than traditional ones so they require good working relationships between developers, tenants, architects, contractors and other professional services.

This more integrated approach, which breaks down silos in the property sector, is generating significant increases in construction productivity, said Peter Gomm, chief operating officer of Mainzeal, a leading NZ construction company.

"Green buildings are simply the way we do business in New Zealand," Connal Townsend, chief executive of the Property Council, told the conference, which was co-organised by his association and the NZ Green Building Council.

"Clipping on sustainability mechanisms to leases is one of the

Better lighting and ventilation made for healthier, happier and more productive staff.

big goals we have set ourselves. They are also very positive in terms of landlord-tenant relationships."

The number of buildings rated by the Green Building Council has risen from three 18 months ago to 30 currently, with another 60 buildings, including 13 academic buildings, undergoing certification. The council has more than 400 members from across the property sector.

Yet, the National-led government "looks slightly askance, shall we say", at any mention of sustainability, Townsend said. "We need to indoctrinate them into more sensible thinking."

For example, the Australian government is committed to at least 4.5-star offices, even though the average standard across the country's stock is 2.5 stars; the US federal government owns or leases one in three of the LEED (Leadership in Energy and Environmental Design) -rated office buildings in the US; and the Singapore government has committed to all its new buildings meeting the highest sustainability standards.

Governments are taking leads in other ways. For example, the energy consumption rating that's mandatory for all houses in the ACT is being rolled out across Australia to help buyers make better informed decisions on operating and upgrade costs; and it is being extended to all commercial property; Singapore plans to have 80% of all buildings in the country meet green standards by 2030; and the EU has mandated a 30%

increase in energy efficiency of new buildings by 2020.

The government and property sector in these and many other countries are driving sustainability disciplines hard. They know efficiency is vital because resources for constructing and operating buildings will only get scarcer and more expensive.

Moreover, cities are responsible for some 75% of all greenhouse gas emissions, thanks to the construction and operation of buildings, transport and other activities. With the world's population urbanising fast, the pressures will only intensify.

So it matters hugely what, where and how we build. These are very complex sustainability issues, involving not just the attributes of individual buildings but the well-integrated development of districts and the spatial and infrastructure plans for regions.

Dockside Green in Victoria, the capital of British Columbia, is an example of world-best practice for highly sustainable redevelopment of a district, including its own plants for sewage treatment and biomass gasification to generate domestic heat and hot water. Joe van Belleghem, managing director of Windmill West, the developer, gave the conference a detailed presentation. You can get a flavour of the community of 2500 people at www.docksidegreen.com.

There are a few rays of hope here. One is the Hobsonville development of Housing New Zealand in the upper Waitemata Harbour, although it is not planning the local energy and waste systems that are likely to become key sustainability features.

But whatever Hobsonville achieves towards sustainability will be swamped by some other developments on the waterfront under way by councils and government. For example, they are bringing no sustainability disciplines to redeveloping Queen's Wharf. In fact they'll probably throw up a cheap temporary structure for the world cup then have to spend money to re-develop it after.

Developments like these will make Auckland in the future as cheap, ugly and inefficient as it is now. That's not just a sustainability issue. It is an economic one.

■ Rod Oram chaired two panels at the conference and is helping the NZ Green Building Council write a discussion paper on these issues.