

The evolution or revolution of GREEN BUILDINGS

Australia is one of the leading countries around the world in Green Buildings and the standardisation of environmental sustainability of existing and new buildings, writes James Bouteris.

A new report by the Green Building Council of Australia called 'A Year in Green Building 2012' indicates Australia achieved over 400 Green Star certified projects between 2003 to 2011 with another 541 projects coming online and another 85 being processed.

The story doesn't end here, it's just beginning. Some of the challenges that lay ahead for Australia and the world involve addressing the following issues that affect Green Buildings and Environmental Sustainable Developments (ESD):

1. How all three levels of government: Federal, State and Local Governments provide clear, accurate and consistent vision and leadership.
2. How we stimulate the retrofit or improvement of existing buildings.
3. How we 'Green Up' our education and healthcare facilities.
4. How we take the Green Building Revolution to our communities and cities, our next challenge; Green Communities and Green Cities.
5. How we invest into Green Skills through industry training; this forms part of our national conscience to invest into Research and Development in creating new technologies and industries.



James has Master's Degree in property development and a seat on the Board of Directors of The Australian Valuers Institute (AVI). He is the Director of NSW Valuation Services. www.nswvaluationservices.com.au

Green Leases are available to all commercial tenants however they are limited to those buildings offering the ESD features either through a retrofit or new green building. Green Leases can be implemented at the design phase and provides the landlord/developer the opportunity to customise the building to suit the tenant's requirements

whilst achieving the desired ESD rating results or goals i.e. Green Star, National Australian Built Environment Rating System (NABERS) or Australian Building Greenhouse Rating (ABGR).

The cost of a new green building or retrofitting an existing building may be higher compared to more conventional office buildings, however Green Leases offer real savings for both the tenant and the landlord by expressing how the costs, benefits and ongoing maintenance will be apportioned.

Corporations around the world are no different to Australian organisations whereby they have to demonstrate their corporate social responsibilities by way of protecting the environment, employees and the community. As each new generation enters the workforce they bring with them new beliefs including greater consciousness of their environment and social responsibility. This why organisations in Australia and around the world are attracting employees with common values and retaining employees with long term commitments and therefore improved business continuity.

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New research shows a link with improved productivity and quality indoor environment in offices. This can be measured by the 'before and after affect' with the number of employees taking sick days during a year. Absenteeism costs businesses a huge amount of money and

loss of productivity every year. Offering ancillary services to the business like childcare facilities, public transport, cafes, stress free rooms, massage services, dry cleaning services, etc. positively influences employee's workplace environment.

The quality of the indoor environment also influences employee's productivity levels. This can be critical for the organisations internal interaction between employees, management and the end customer. Modern design of the indoor environment has evolved over time , however workplaces with open and flexible layouts encourage informal interaction, which has been linked to improved organisational learning.

The basic principal applies; the more informal, safe and risk free the indoor environment the more productivity and better well-being for all concerned.

Green Leases offer any organisation the opportunity to save operational costs, provide an excellent indoor environment for employees and management to function more effectively and, lastly, improve the organisation's corporate social image in the greater community.

Let's review some facts and figures. According to the report, 'A Year in Green Building 2012' , 85% of Australia's office stock is more than 10 years old. This represents an average age of a commercial office building in Australia over 27 years old while around 14.5 million square meters of office stock is more than 20 years old. Most of these buildings were built between 1960 to 1980 with little consideration for the environment or energy efficiency.

Upgrading or retrofitting these buildings is economically, socially and environmentally friendly compared to demolishing these structures, which is impractical and counterproductive when the embodied energy is taken into account. The upgrade or retrofit of these buildings over 20 years old could eliminate approximately 1 million tonnes of greenhouse gases entering into the atmosphere each year.

The Green Building Council of Australia report goes on to highlight that Australian commercial property sector is only the tip of the iceberg. Australia has approximately 9,500 schools and universities, 1,300 hospitals, 1,300 shopping centers not to mention other buildings, Libraries,

Law Courts, Town Halls and Industrial facilities.

Our greatest challenge for the next decade is how we reduce the environmental impact from the built environment from our existing buildings. We collectively need to continue the focus on benchmarking performance for existing buildings and widen existing rating tools to encompass existing buildings.

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Benchmarking performance of existing buildings enables building owners, facility managers, tenants and governments at all levels to undertake self-assessment either on an individual property or collective portfolios basis. Benchmarking performance for existing buildings sets targets; therefore improved building management, indoor environment quality, energy, transport, water, materials, land use and gas emissions are then rated for each property. This will allow each property owner to take stock of their assets and promote best practice. **TGR**

