The value of a sustainable built environment

Te Mirumiru, Kawakawa, 6 Green Star Built

Photo supplied: Simon Devitt
Promoting the benefits of sustainable buildings by creating a common language and demonstrating the value.
Assisting the property and construction sector to acquire the skills and knowledge to be able to deliver a sustainable built environment.
Motivating and recognising the sustainable development and operation of buildings across New Zealand.
What is a sustainable built environment?
Choice

- Use
- Beauty
- Cost
- Durability
Sustainability

- Need
- Use
- Materials
- Labour
- Ergonomics
- Durability
- Beauty
- Cost
- EoL
Cradle to grave

- Need
- Use
- Material
- Labour
- Ergonomics
- Durability
- Beauty
- Cost
- EoL
Cradle to cradle

Need
Use
Material
Labour
Ergonomics
Durability
Beauty
Cost
EoL
New building design
Environmental sustainability

Land Use & Ecology
Transport
Management
Materials
Energy
Indoor Env Quality
Water
Emissions
Innovation
6 Star Office Interiors (2009)

AWARDED TO
CHRISTCHURCH CITY COUNCIL

FOR
CHRISTCHURCH CIVIC BUILDING

MARCH 2013

A. D. Carter
CHIEF EXECUTIVE
NEW ZEALAND GREEN BUILDING COUNCIL
Health, Wellbeing & Productivity in Offices
‘The Innovation Series’
Innovation

The University of Melbourne
Faculty of Architecture, Building and Planning Development
Melbourne
Performance

NABERS NZ™

Building with glass walls and people in the background.
PERFORMANCE LEASING GUIDE AND MODEL CLAUSES

BETTER BUILDING PERFORMANCE THROUGH TENANT-LANDLORD COLLABORATION
Sustainable community

Governance
Design
Liveability
Economic prosperity
Environment
Innovation
“Without metrics and accountability, our initiatives are nothing more than marketing.”

Johan Karlström
CEO, SKANSKA
Transparency
Green Property Index

- Outperformance in Green Star buildings driven by positive capital growth
24 October 2014
ASX/Media Release

STOCKLAND ISSUES FIRST AUSTRALIAN CORPORATE GREEN BOND

Stockland has successfully priced the first green bond issued by an Australian corporate1, confirming the Group’s commitment to long-term environmentally sustainable, accretive development across its portfolio.

The green bond is a EUR300 million 7 year Issue under Stockland’s Euro Medium Term Note program. The Notes were priced at a Euro fixed rate coupon of 1.5 per cent which Stockland has swapped into Australian Dollars at a total cost of BBSW +153 basis points. The notes will be listed on the Singapore Stock Exchange.

Stockland’s green bond is a debt instrument where the proceeds are used to fund eligible environmentally sustainable projects. This will include funding the development and
Asset tracking
Design for deconstruction encompasses what I believe to be an important facet of ecological architecture; waste. By pro-actively anticipating changing future demands for space and structure, designs can accommodate a certain degree of flexibility and ultimately allow for a reconfigurable or recycle-able by-product post-deconstruction.
New Zealand building and construction sector
Cost/ability to change

Ability to change

Cost of change

Tenant/Owner
Facilities manager
Commissioning agent
Contractor
Engineer
Designer
Quantity surveyor
Developer

New Zealand building and construction sector
Integrated design

New Zealand building and construction sector
Closed loop

Ability to change

Cost of change

Briefing  Feasibility  Outline Design  Detail Design  Implementation

New Zealand building and construction sector
Circular design

New Zealand building and construction sector
Maintain

Re-use

Re-furbish

Deconstruct and recycle

Maintain

Re-use

Re-furbish

Deconstruct and recycle
Circular economy
How circular is the UK economy?

81% linear

19% circular

Exports

Imports

Domestic material consumption

Domestic material input

Domestic extraction

Other outputs: embedded energy, food and drink, dissipation and data gaps

Landfill, EfW, and other disposal
How circular is the UK economy?

and New Zealand?