asset management
the role of green buildings

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Outline

- NZGBC vision & mission etc.
- Value case for green building
- Advent and role of rating tools in NZ
- The sustainability context
- Procurement process
- Whole of life costing
- Questions
New Zealand Green Building Council

**Vision:** That New Zealanders work and live in healthy, efficient, productive and environmentally sustainable buildings, today and into the future.

**Mission:** To accelerate the development and adoption of market based green building practices.
Investors

- Increased return on investment (ROI)
- Enhanced marketability
- Lower risk assets as they are built to last

“Rated assets deliver better returns on performance than non-rated assets, consistent across various market segments.”
PCA/IPD Green Investment Index

- Measures investment returns for buildings
- Tangible metrics
- Benchmark analysis
- Transparency in the market
Developers and owners

- Compressed schedules
- Increased sales prices
- Access to capital
- Asset protection
- Lower operating costs
- Tenant attraction/retention
- Higher lease rates
- Reduced liability and risk
Role of rating schemes

- Developing a common language
- Setting voluntary targets
- Recognising and rewarding leaders of best practice
- Robust certification process
- Gaining value chain alignment
- Materiality approach
- Not prescriptive
Green Star

Green Star is a comprehensive, national, voluntary environmental rating scheme that evaluates the environmental attributes and performance of New Zealand’s buildings using a suite of rating tool kits developed to be applicable to each building type and function.

A Green Star NZ Certification represents commitment and leadership to green building practices and environmental performance.
Rewarding best practice

NZ Building Code

Green Star NZ

Innovators & leaders

Best practice – green buildings
Key projects
Building components considered

- Paint
- Sealants
- Engineered Wood
- Furniture
- PVC
- Insulation
- Timber
- Façade
- Structure
- Concrete
- Steel
- Floor Coverings
- Walls Partitions Joinery
- Ceilings
- Landscaping Materials

Office 2009 Category Weightings

- Materials 10%
- Energy 25%
- Transport 10%
- Water 10%
- Emissions 5%
- Land Use & Ecology 10%
- IEQ 18%
- IEQ Materials Recognition 2%
- Management 10%
- Office 2009 Category Weightings
Issues addressed

- Reuse
- Recycled content
- Durability
- Demountable
- Product Stewardship
- Volatile Organic Compounds
- Minimisation
- Ozone Depletion Potential (ODP)
- Third party certification:
  - Recognised ecolabel
  - ISO14001 or Enviromark
  - Chain of Custody
WORLDWIDE, BUILDINGS ACCOUNT FOR:

- **17%** of fresh water consumption
- **25%** of wood harvest
- **33%** of CO₂ emissions
- **30-40%** of energy use
- **40-50%** of raw materials used

CO₂ EMISSIONS BY SECTOR:

Buildings are an important part of the solution to climate change.
Carbon and buildings in New Zealand

• The built environment contributes 17% to New Zealand’s overall emissions profile

• New Zealand’s Emissions Trading Scheme (ETS) does not directly include the built environment, the industry will be subject to flow-on costs

• Opportunities for emissions reduction in the built environment are at negative cost
Marginal abatement cost curve

Getting started

• Calculate a carbon footprint
• Factor the cost of carbon into all decision-making
• Identify easy wins
• Consider whole of life costing
• Prepare internal sustainable procurement practices
• Enhance understanding of prospective tenants
• Green Star – Performance tool
Designing a building

- Predict carbon output in design
- Measure carbon output in use
  (Performance tools)
- Set reduction targets, implement programs
- Possible tradeable credits
- Incentives/programs to bring forward investment in existing stock
Whole of life costing

“Total cost of ownership over life of asset”

• Improved awareness of total costs
• More accurate forecasting profiles
• Performance trade off against capital cost
Unanticipated costs

- Energy price rises
- Earthquake losses
- Increased labour costs
- Consumer awareness
- Resource cost increases
- Change management and staff costs
- Business disruption
- Disposal
Opportunity costs

Typical Project Stages

- Briefing
- Feasibility
- Outline Design
- Detail Design
- Implementation

ABILITY TO CHANGE

COST OF CHANGE and LOSS OF PRODUCTIVITY

Optimum productivity point

Integrated Design Team Appointed:
- Architect
- Engineers
- Commissioning Agent
- Contractor
- Tenant
- QS
- PM
- others

Business as Usual appoint main contractor
Strategy to address whole of life costing

- Integrated design
- Value management engineering
- Analyse future trends
- Set targets and track performance
- Report
Building and construction

- Tangible benefits in this sector
- Advantages to green building
- Common sense and principles
- New technologies
- NZGBC growth
- Certification uptake plateau
- Market adapting
Thank you

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