Stimulating mainstream improvement in the environmental performance of building materials -

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“Clean and Green” ?
THE IMPACT OF BUILDINGS

- "Adaptive model" compared to ASHRAE Standard 55

- FLIR image showing temperatures

- 3D simulation or model

- Thermal image with temperature readings
"Tesco goes green" and is sponsoring the Oxford University Centre for the Environment to the tune of £5m to collate the information required to carbon-label the 70,000 products stocked in the typical Tesco store.
Drivers for the Building Industry and its supply chain:

- NZGBC – Green Star NZ
  Rating tool for buildings. Investigates use of materials

- MFE – GOVT3
  Green procurement
CAN NZ BE IN THE LEAD?

- International counterparts are already well down the track
THE NZ ADVANTAGE

- Small and manageable economy – quick turnaround times.
- Early stages with the formulation of sustainable housing strategy so can make use of “lessons learnt” from abroad to fast-track best practice and reduce cost of learning curve.
HOW TO BEST WORK THE BUDGET?

- Sustainability costs money
  → it’s an investment!

- Cost of action vs inaction?
  → Remember Kyoto = $NZ 717 Million.

→ $280/year EACH?
So what does this mean for building products and material manufacturers?
Materials affect the environment at all stages of their life:

- mining/extraction/harvesting
- manufacture
- construction
- use
- End of life = demolition/disposal/recycling

+ Transport
PRODUCTS BECOME SYSTEMS

or

comparison
MINIMISING THE IMPACT

- Avoid non-renewable feedstock where possible
- Maximise recycled content where appropriate
- Implement Energy Reduction Strategy
- Water harvesting, Grey water recycling
- Design for disassembly
- Co-ordinate with your supply chain!
RESPOND TO MARKET DEMAND

- Government
  - Build it right first time, Minimise impact throughout life-cycle
  - Budget of $7.4m for sustainable procurement and eco-verification

- NZGBC
  - Government buildings already committed, others following fast

- Consumers
  - General growth in eco-awareness (organic food market, green leases)
THE INFORMATION VOID

- Architects/Specifiers need environmental information on building products
- Only a handful of manufacturers are able to supply that information
- Need evidence-based information to provide sound decision making.
How can we therefore ensure that we choose environmentally sustainable building materials?
EMERGING INITIATIVES

- LCA
- Eco-Labels
- EPD with third party verification
BUT...THIS IS ALL VERY CONFUSING

- LCA is complex and results are only as good as quality of inputs

It’s easy to get lost!!!
BUT...THIS IS ALL VERY CONFUSING

- Eco-labels...too many on International scale? How to know what they refer to? Are they all applicable in New Zealand?
So what needs to be done?
CREATE A ONE-STOP SHOP

- Bring all the information together
- Organise, classify it
- Communicate the results in an easily understandable manner

**Coordinate:** information suppliers (manufacturers) + information assessors (eco-labels) + Information users (specifiers)
Introducing the GreenBuild Project...

...GreenBuild is the building industry’s national building products database. It represents the portal for all detailed technical and environmental information on building products and materials - helping New Zealand build a sustainable future.
GreenBuild is a joint venture between Building Research, Construction Information Ltd (the owners of Masterspec) and Green New Zealand Ltd.
WHAT DOES GREENBUILD DO?

- GreenBuild brings together all the Eco-labels and environmental information together

- It provides advice to architects on products that can help design buildings to Green Star requirements

- It provides advice to product manufacturers/distributors on the best way forward

- It can act as third party assessor of building products
GREENBUILD EPD FRAMEWORK

- Based on LCA principles
- Independent Vetting Panel of experts
- Stepping stone for environmental certification
- Results communicated according to 5 meaningful impact categories

Product Life Cycle
GREENBUILD ASSESSED EPD

5 IMPACT CATEGORIES

- ENERGY (Minimises energy use)
- HUMAN HEALTH (Safe to produce and use)
- POLLUTION (Doesn’t destroy the earth)
- RESOURCE EFFICIENCY (Recycled?)
- NATURAL HABITATS AND LAND USE (Protection)

4 LEVELS OF ACHIEVEMENT

- BEST PRACTICE
- ADVANCED
- IMPROVED
- BASIC COMPLIANCE
Products with best technical and environmental performance rise to the top of the grid.

The aim
### Carpeting

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Cork Floor Tiles

Cork tiles, from Cork Concepts, offer the ultimate combination of warmth, luxurious colour and the traditional durability and acoustic qualities associated with cork. Cork floor tiles are a natural product. The cork oak tree grows in Portugal where it is stripped every 9 years for the manufacture of wine stoppers. Cork floor tiles are made from the cork which is left from this production.

Company: Cork Concepts
Address: 30 D Ponsonby Road
Wellington Valley
Auckland
New Zealand
Telephone: 00-44-33-134
Fax: 00-44-33-137
Email: sales@corkconcepts.com
Website: http://www.corkconcepts.com

Please note: The information on this page was provided by the product supplier; it has not been assessed or verified by Greenbuild.
WE NEED YOU!

- If you are an architect/specifier, ask product manufacturers to list with GreenBuild

- If you are a Product manufacturer/distributor, ask GreenBuild how they can help you

- Please provide feedback on the website so we can improve in the future

www.greenbuild.co.nz
THANK YOU
Climate change

positive proof