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BREEAM on the International Stage

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Discussion

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- Rating tools internationally v International rating tools
- BREEAM & LEED differences
- How do they compare – case studies
- So which one is best?

Green Building Councils & their tools

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USA



Canada



Brasil



India



Australia



New Zealand



South Africa



Japan



UK

Has no tool
– BREEAM
already
established

No formal rating tool yet



Mexico



Taiwan



Germany





Emirates

International Rating Tools

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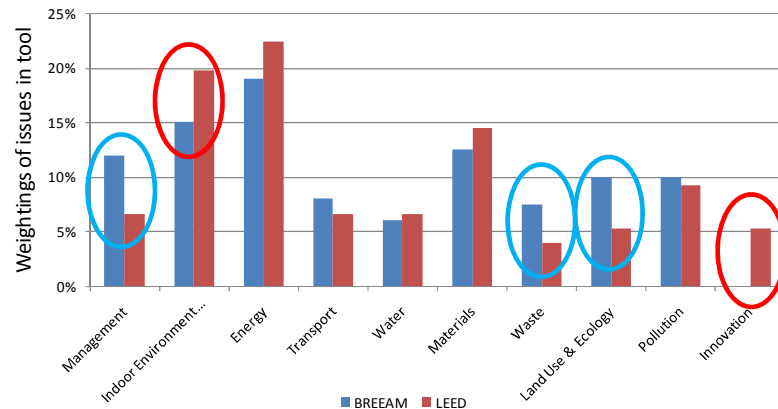
- Tools that can be used anywhere in the world:
- LEED
 - Has been used in many countries worldwide
 - 10 projects registered in UK (1 certified)
- BREEAM International
 - Versions developed for Europe & Gulf
 - Bespoke versions can be tailored to suit

How to choose?

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- Differences in what is assessed
 - 30% difference in credits
- Emphasis placed on environmental issues



How to choose?

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- Availability of information
 - Compliance manuals for both are free pdf downloads
- Suitability to region
 - BREEAM International must be adapted to suit each region (already completed for Europe and Gulf)
 - LEED requires little adaptation (more generic) and is used “straight out of the box”
 - Which approach is better?
- Certification fee to BRE / USGBC
 - BREEAM fee for 10,000m² bldg = €1,300
 - LEED fee for 10,000m² bldg = €3,800
 - But biggest cost is compiling documentation

How to choose?

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- Documentation requirements
 - Assume both are similar (ie lots required)
 - LEED all done via website
- Certification process
 - BREEAM requires Accredited Assessor to prepare rating submission with check and sign-off by BRE
 - LEED rating submitted on-line by any professional with independent review and sign-off by Green Building Certification Institute (on behalf of US-GBC)
- Rating tool credibility
 - Both are internationally recognised
 - Which sets the highest standard (degree of difficulty)?

Comparison of rating tools

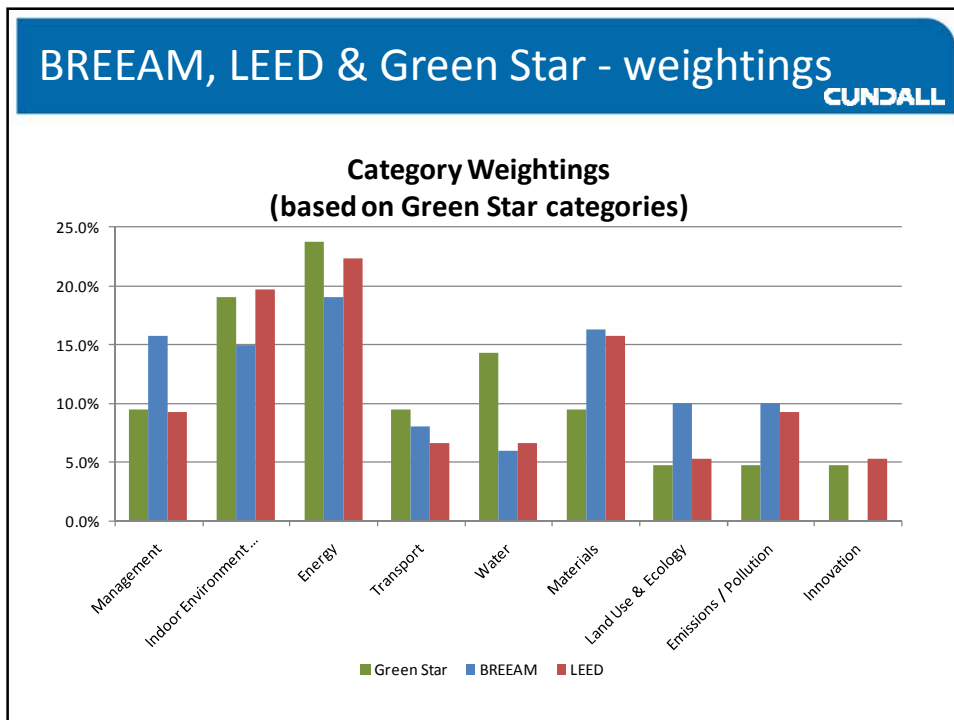
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- Comparisons can be misleading
 - open to interpretation
 - tools assess things differently
 - depends on your point of view
- Case Studies using Australian buildings to compare BREEAM and LEED
 - Green Star rating tool was adapted from both LEED and BREEAM tools
 - Buildings were designed without a bias towards either LEED or BREEAM credits

BREEAM, LEED & Green Star CUNDALL

- **BREEAM**
 - 9 categories
 - Weightings
 - No innovation
- **LEED**
 - 5 categories
 - No weightings
 - Innovation
- **Green Star**
 - 8 categories
 - Weightings
 - Innovation

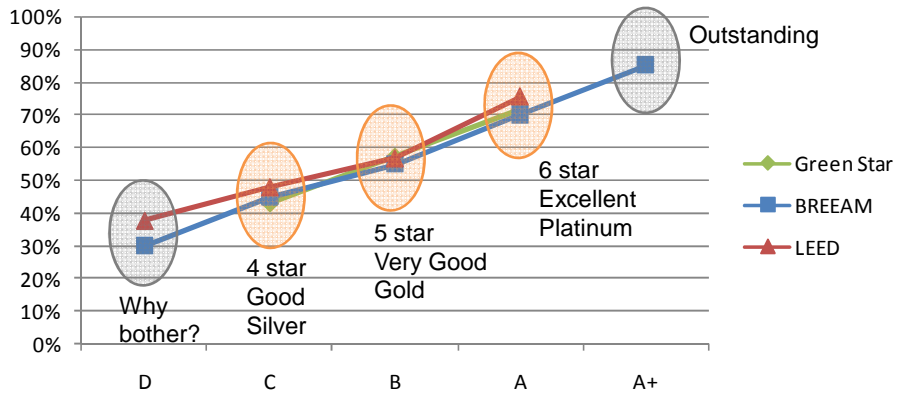
Differences in credit topics covered
 e.g. LEED – heat island,
 BREEAM – sanitary shut off valves



BREEAM, LEED & Green Star - ratings

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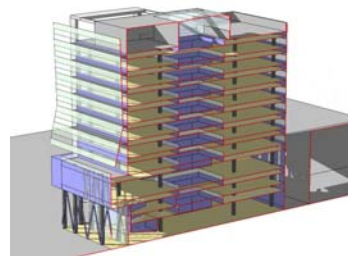
Rating levels as % of total points available



VS1, Adelaide (New Building)

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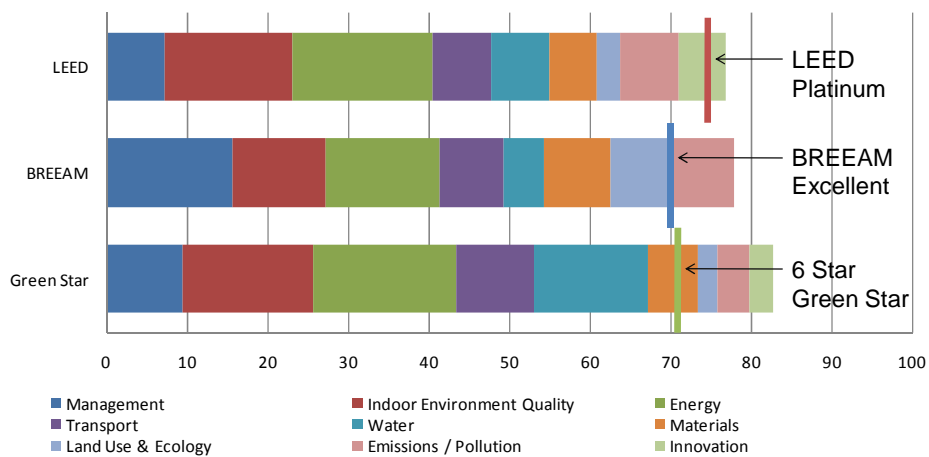
- New building in Adelaide CBD
- 35,000m²
- Tough energy, water & IEQ contract requirements
- 6 star Green Star – Office Design v2
- Highest points score in Australia to date
- 5 star NABERS Energy required



VS1, Adelaide (New Building)

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Points achieved (based on 100 total)



VS1, Adelaide (New Building)


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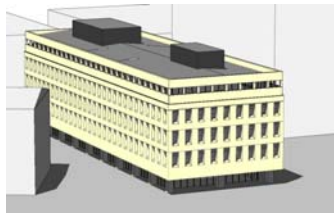
- Excellent = Platinum = 6 star
- Why LEED was harder on this project
 - Difficult to get material credits
 - Specific points for renewable/green power (BREEAM looks at CO2 overall)

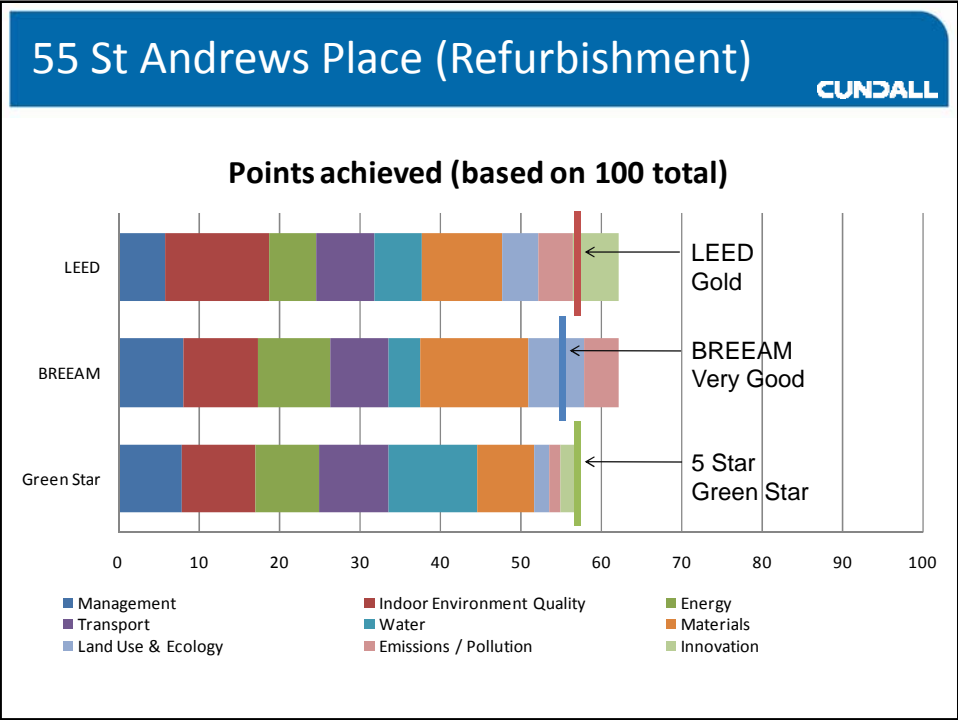


55 St Andrews Place (Refurbishment) CUNDALL

- Refurbished building in Melbourne CBD
- 6,000m² – net lettable area
- BSJ Sustainable Refurbishment of the Year 2007
- Awaiting 4 star Green Star certification
- Focussed on good design not points scoring!
 - Relocate air intake
 - Improve facade
 - Retain ceilings & HVAC
 - Task lighting



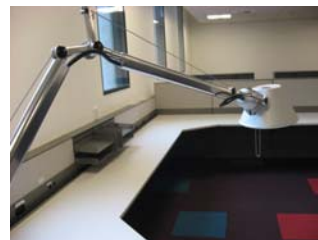




55 St Andrews Place (Refurbishment)

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- Very Good = Gold = 5 star
- 4 Star Green Star tbc
- BREEAM rewards improving existing building stock more than Green Star & LEED
- BREEAM gives more points for energy improvement



Cundall Sydney Office (fitout)

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Cundall Sydney Office (fitout)

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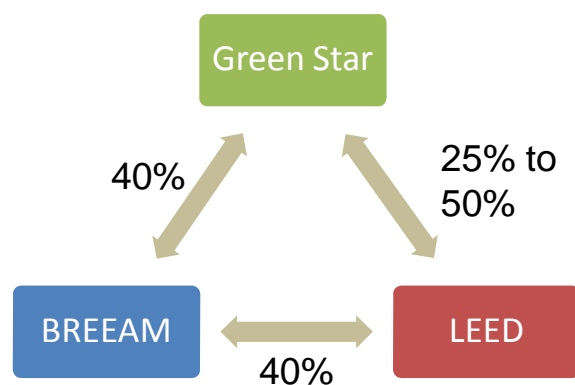
- 400m2 fitout in conventional office building
- First LEED Platinum rating in southern hemisphere



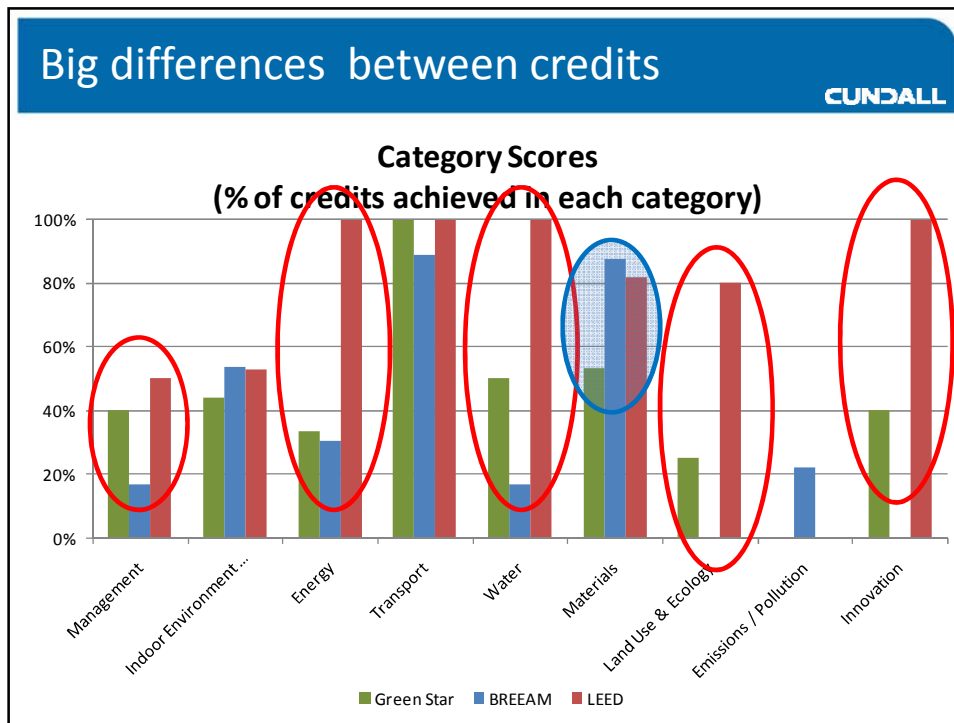
Fitout ratings

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- BREEAM
 - Modified version of building rating
- LEED
 - Separate tool (but similar to New Construction)
- Green Star
 - Totally different credits. Very specific to tenancy issues



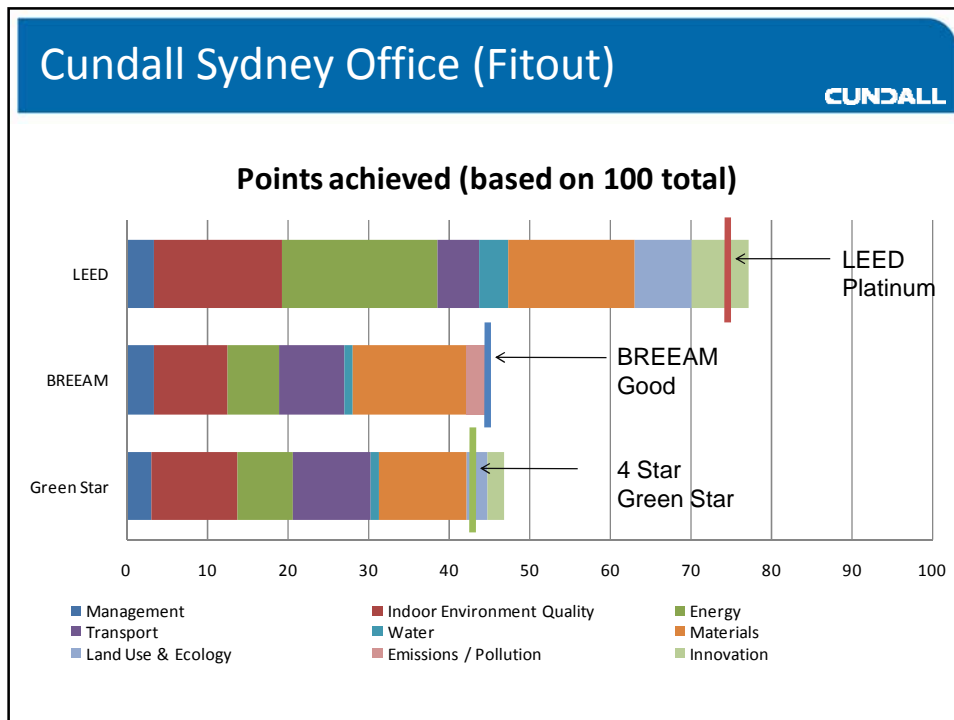
Big differences in credit topics covered



Cundall Sydney Office (fitout)

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- TOTALLY DIFFERENT APPROACHES!
- Green Star has 141 credits, LEED has 44
- Green Star & BREEAM focussed on major tenancies with formal contracts (doesn't suit small do-it-yourself fitouts)
- BREEAM does not address fitout design issues (>80% of points relate to landlord's building)
- Radically different approach to fitout furniture
 - Green Star looks at each type of furniture
 - LEED lumps all together
 - BREEAM doesn't really assess (< 3% of rating)



Cundall Sydney Office (Fitout) CUNDALL

- **Green Star** – too thorough and too much paperwork = expensive. Sets a very high bar.
- **BREEAM** – really just a base building rating and not relevant to fitouts. Low score reflects poor base building not the fitout design / initiatives
- **LEED** – probably not rigorous enough
- **CAN'T REALLY COMPARE THE RATINGS!**

Summary

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- New Construction & Refurb ratings
 - BREEAM, LEED & Green Star are comparable
 - Excellent = Platinum = 6 star, etc
 - The choice of tool influences what design and construction initiatives you will target
 - BREEAM uses local energy regs, LEED uses ASHRAE
- Fitout ratings
 - No comparison between tools
 - BREEAM is not practical tool for fitouts
- So, BREEAM or LEED for international buildings?

Which tool is best?

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breeam

