

Green Building Rating Tools

Comparison, evolution and future

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www.cundall.com.au

- Rating tools how do they compare – case studies
- Green Rating Tool Evolution
- The future Green Rating Tools!

Green Building Councils & their tools

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USA



Canada



Brasil



India

LEED



green building council
australia

Australia



New Zealand

Zealand



GREEN BUILDING COUNCIL
OF SOUTH AFRICA

South Africa

Green Star



Japan



UK

Has no tool
– BREEAM
already
established



Mexico

SICES



Taiwan

EEWH



DGNB

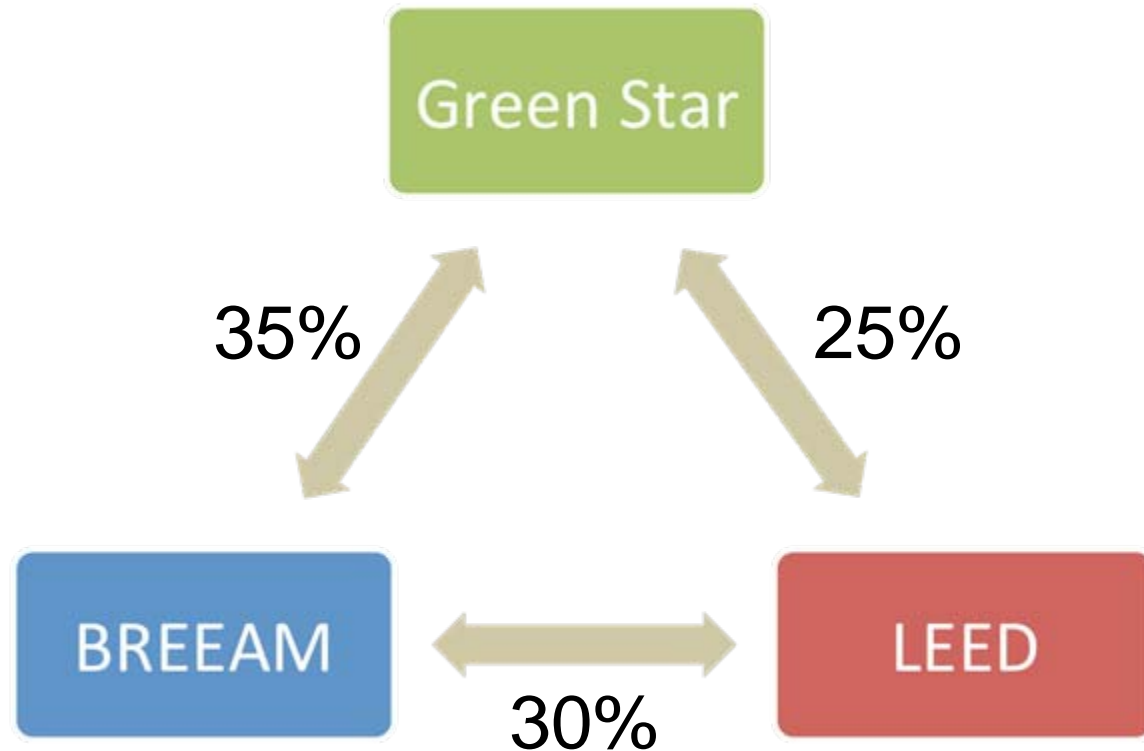
Deutsche Gesellschaft für nachhaltiges Bauen e.V.
German Sustainable Building Council

Germany



Emirates

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



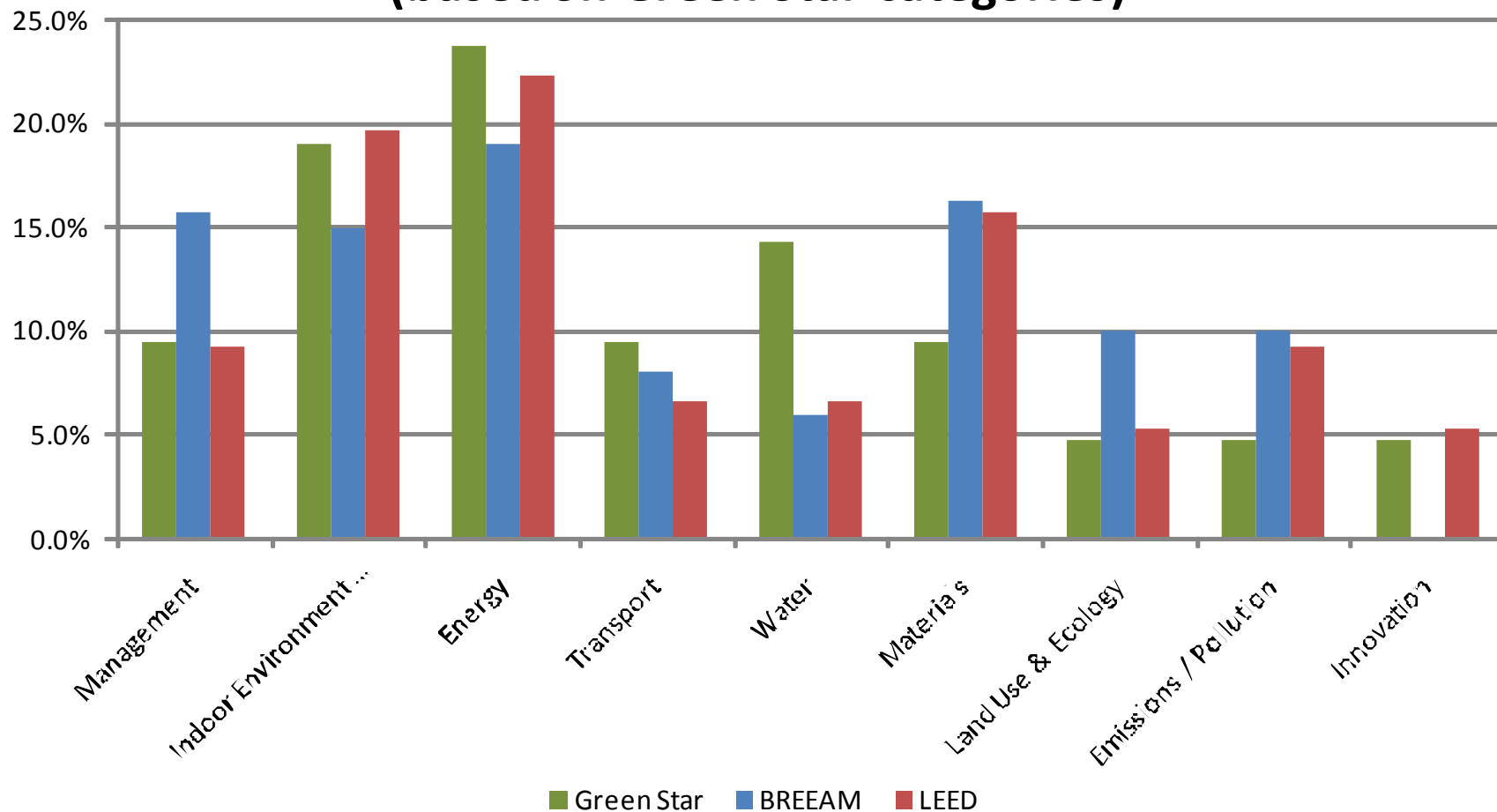
Differences in credit topics covered

e.g. LEED – heat island,
BREEAM – sanitary shut off valves

BREEAM, LEED & Green Star - weightings

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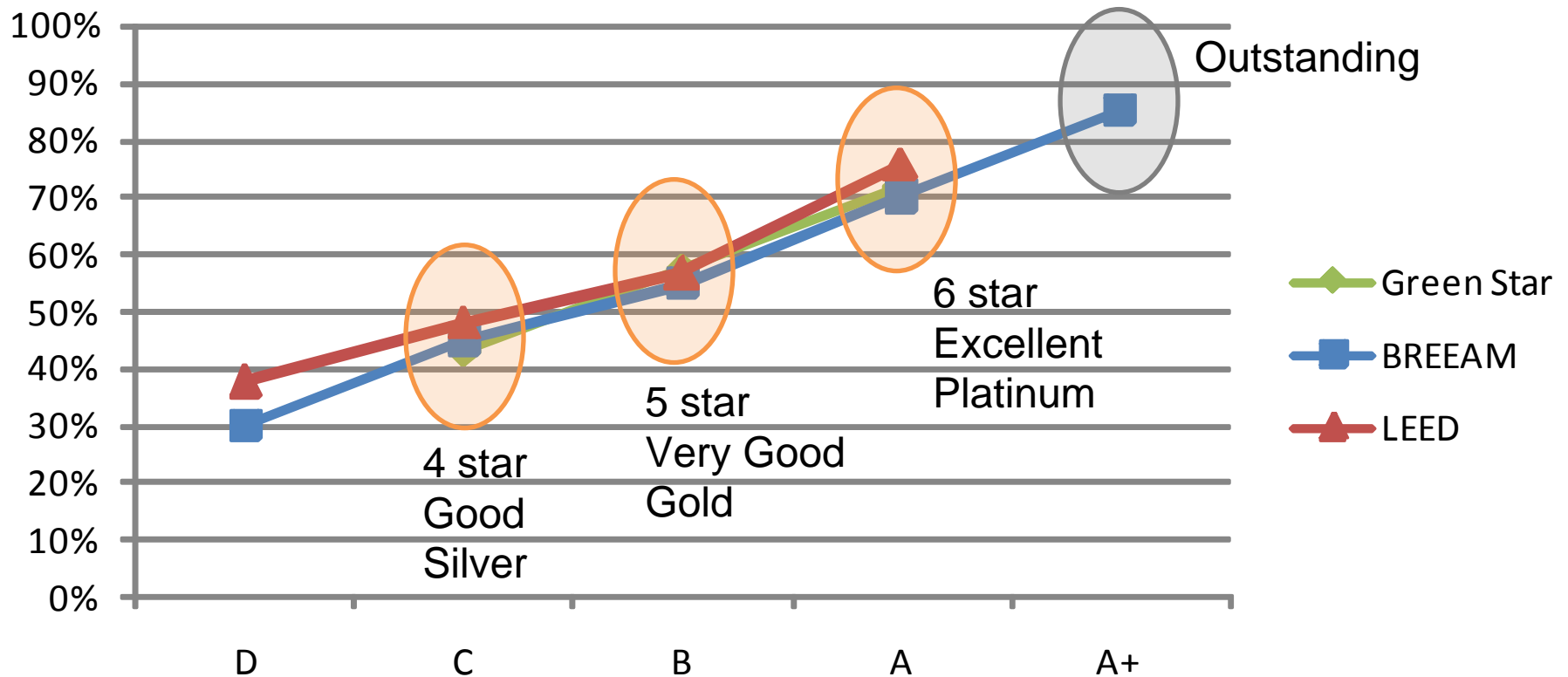
Category Weightings (based on Green Star categories)



BREEAM, LEED & Green Star - ratings

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Rating levels as % of total points available



VS1, Adelaide (New Building)

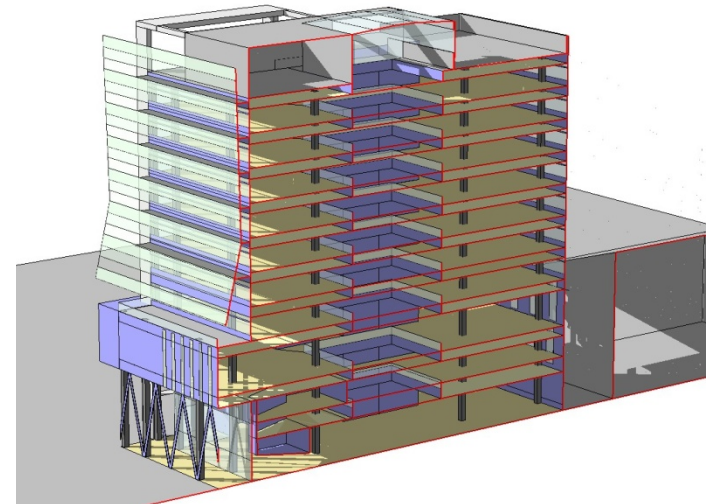
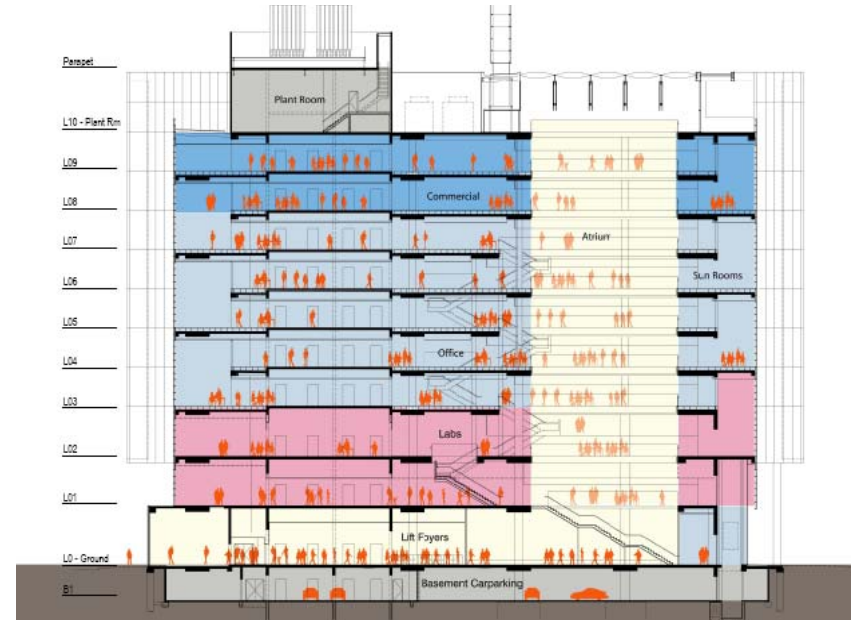
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VS1, Adelaide (New Building)

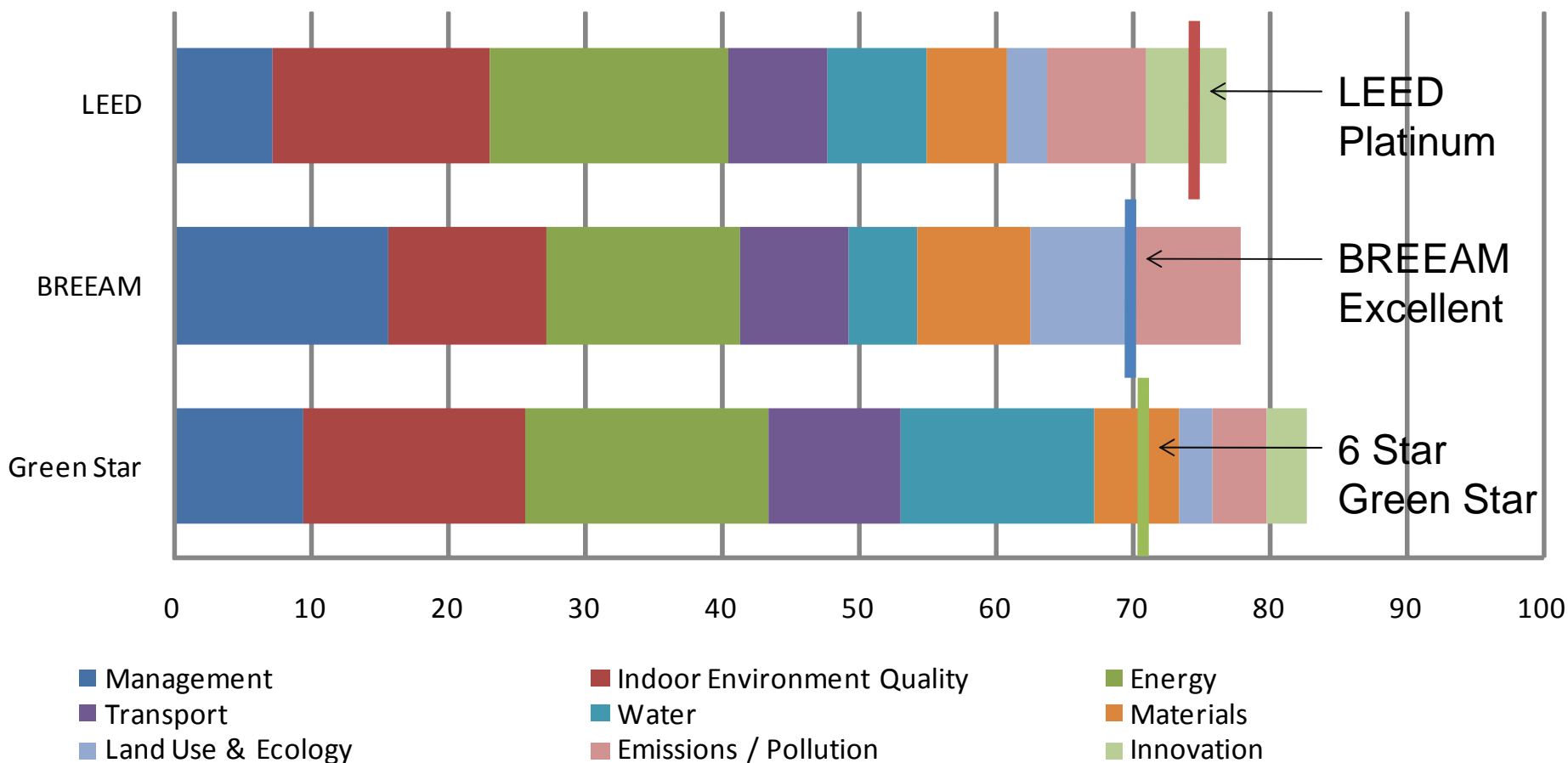
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- New building in Adelaide CBD
- 35,000m²
- Tough energy, water & IEQ contract requirements
- 6 star Green Star – Office Design v2
- 5 star NABERS Energy required



VS1, Adelaide (New Building)

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)

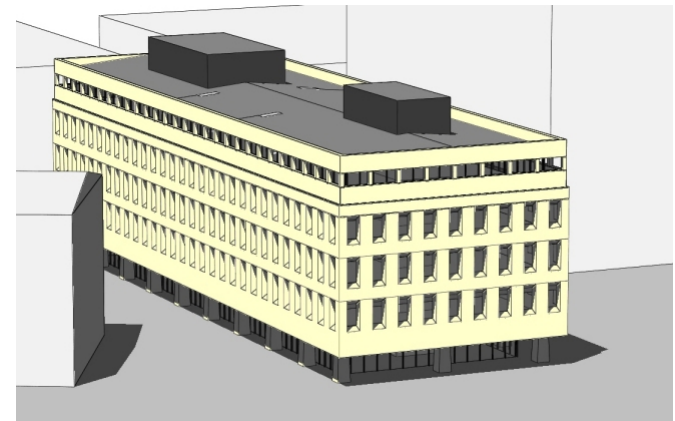
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55 St Andrews Place (Refurbishment)

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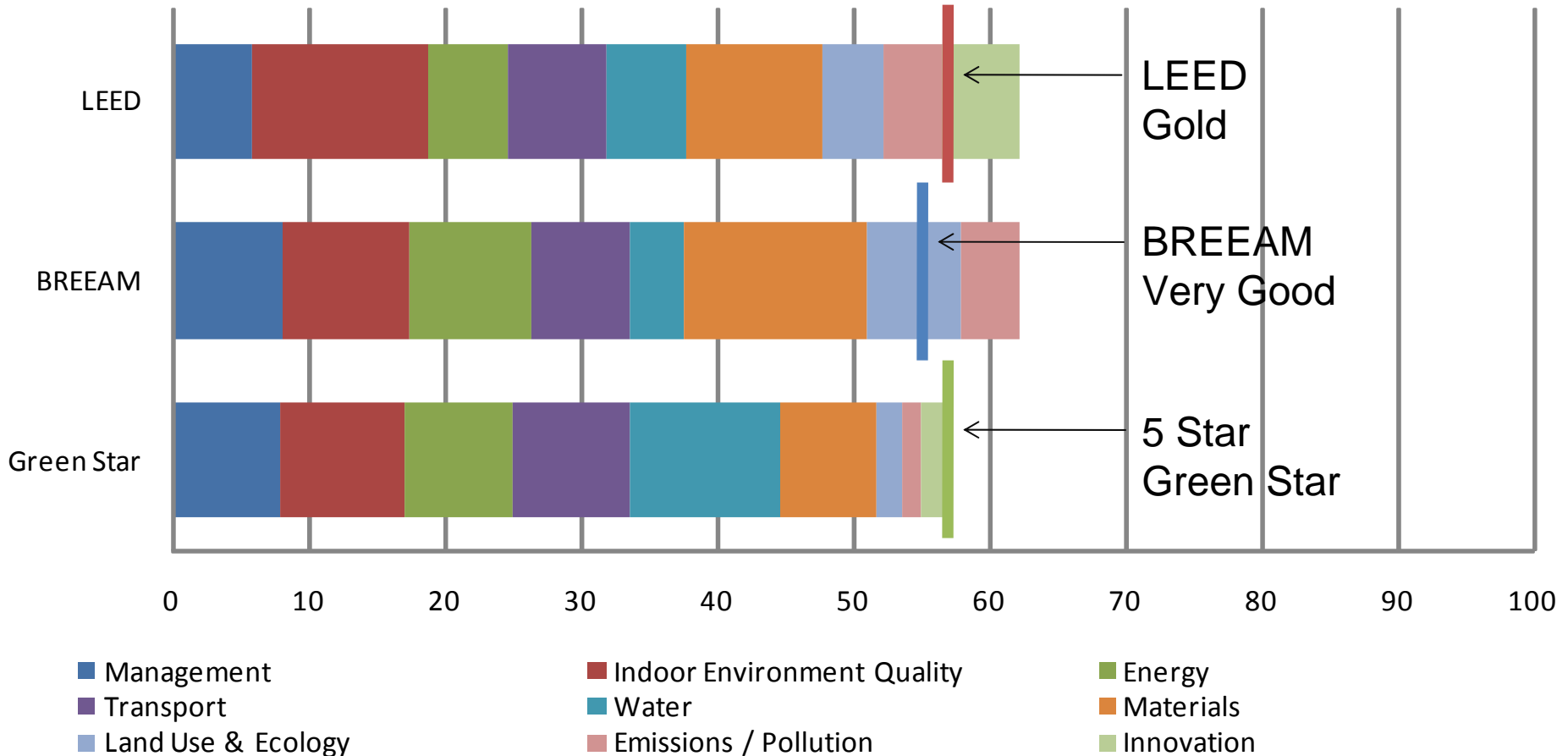
- Refurbished building in Melbourne CBD
- 6,000m² – net lettable area
- BSJ Sustainable Refurbishment of the Year 2007
- Awaiting 4 star Green Star certification
- Focussed on good design not points scoring!
 - Relocate air intake
 - Improve facade
 - Retain ceilings & HVAC
 - Task lighting



55 St Andrews Place (Refurbishment)

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Points achieved (based on 100 total)



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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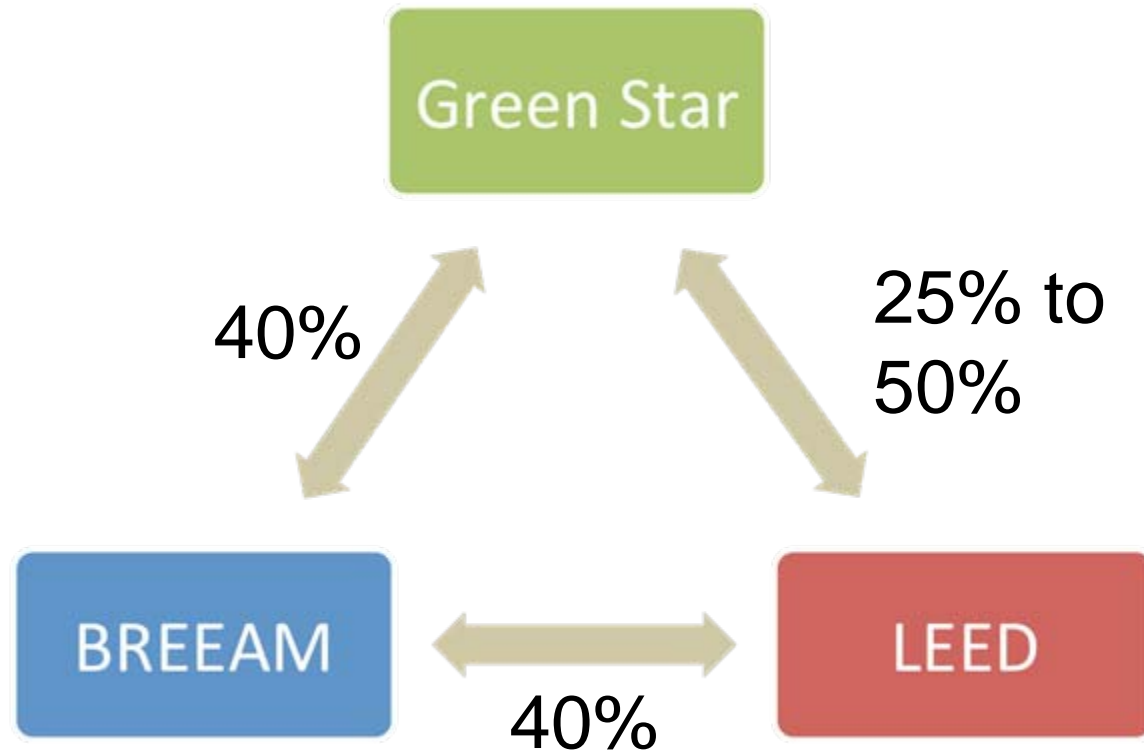
Cundall Sydney Office (fitout)

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



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

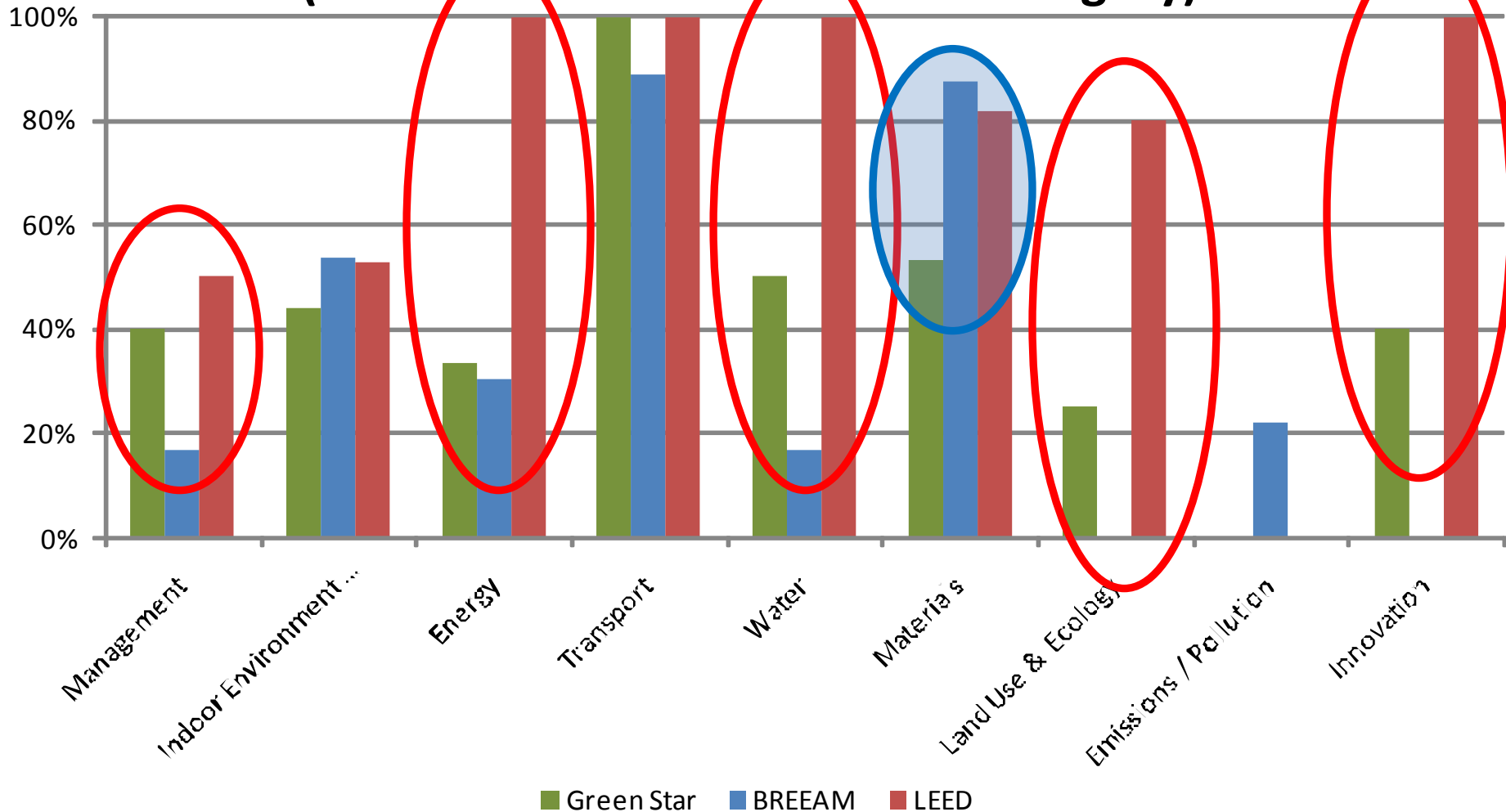


Big differences in credit topics covered

Big differences between credits

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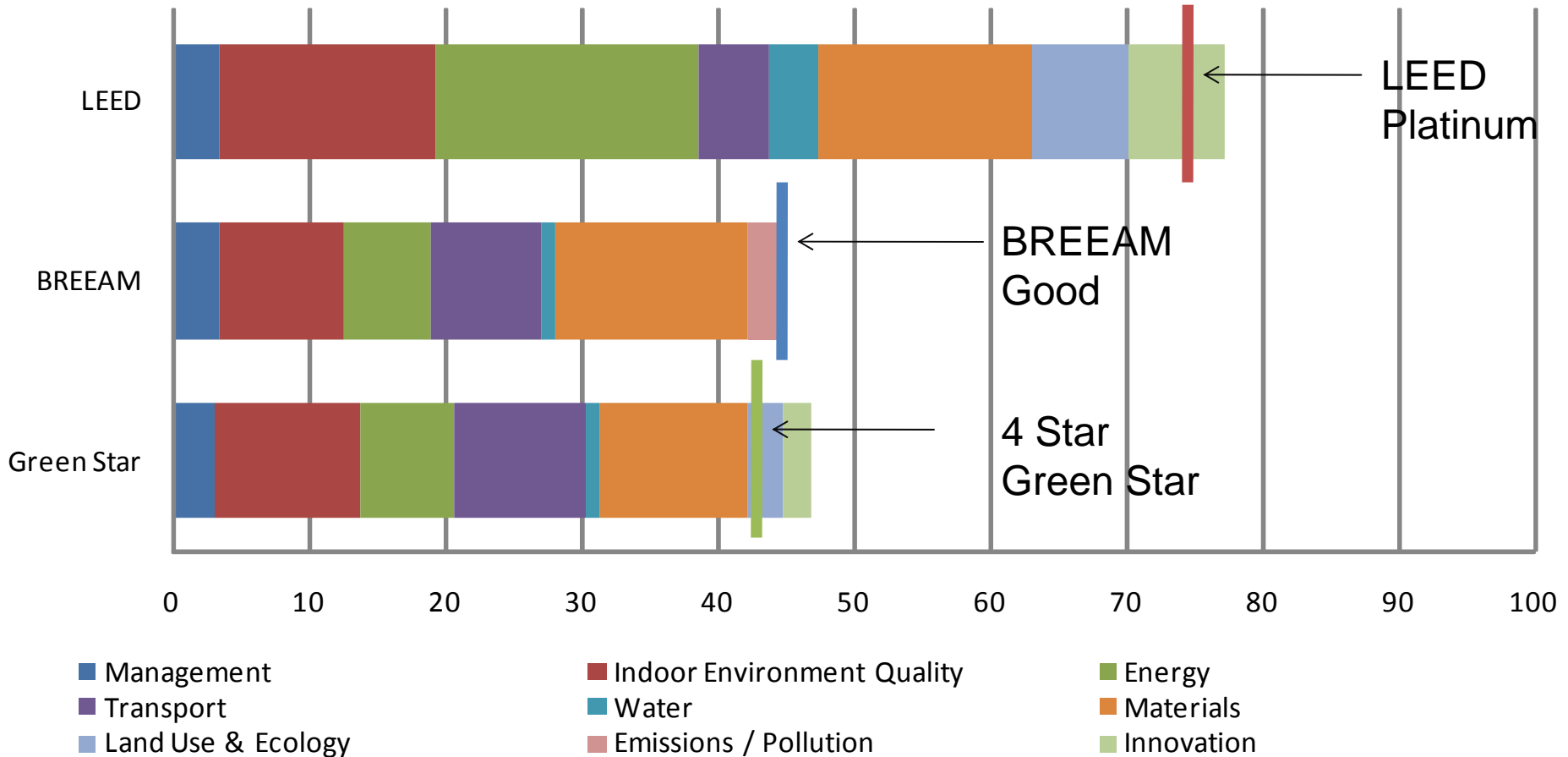
Category Scores (% of credits achieved in each category)



Cundall Sydney Office (Fitout)

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Points achieved (based on 100 total)

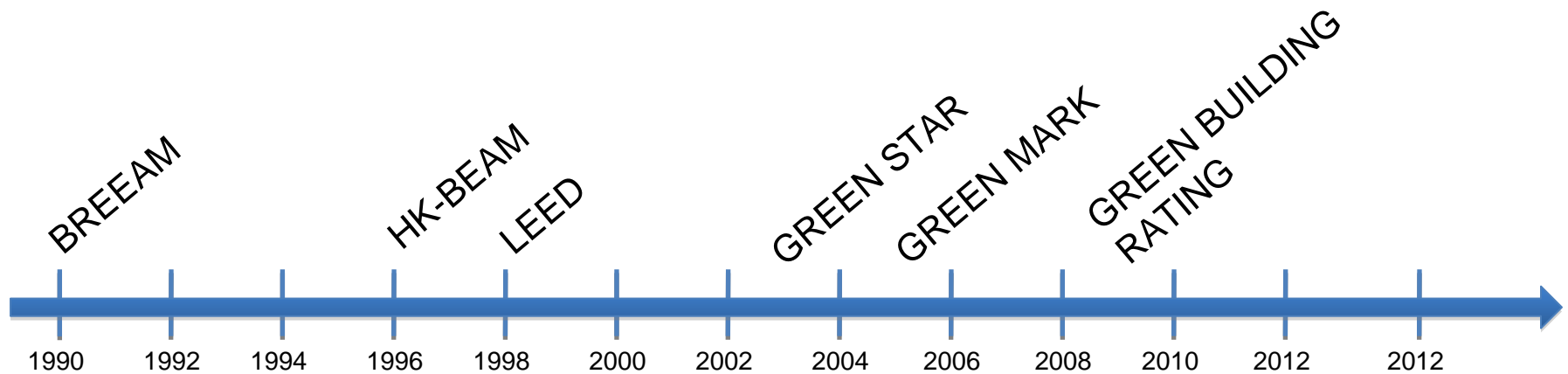


- TOTALLY DIFFERENT APPROACHES!
- Green Star has 141 credits, LEED has 44
- Green Star & BREEAM focussed on major tenancies with formal contracts
- BREEAM does not address fitout design issues (>80% of points relate to landlord's building)
- Radically different approach to fitout furniture
 - Green Star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

- Rating tools how do they compare – case studies
- **Green Rating Tool Evolution**
- The future Green Rating Tools!

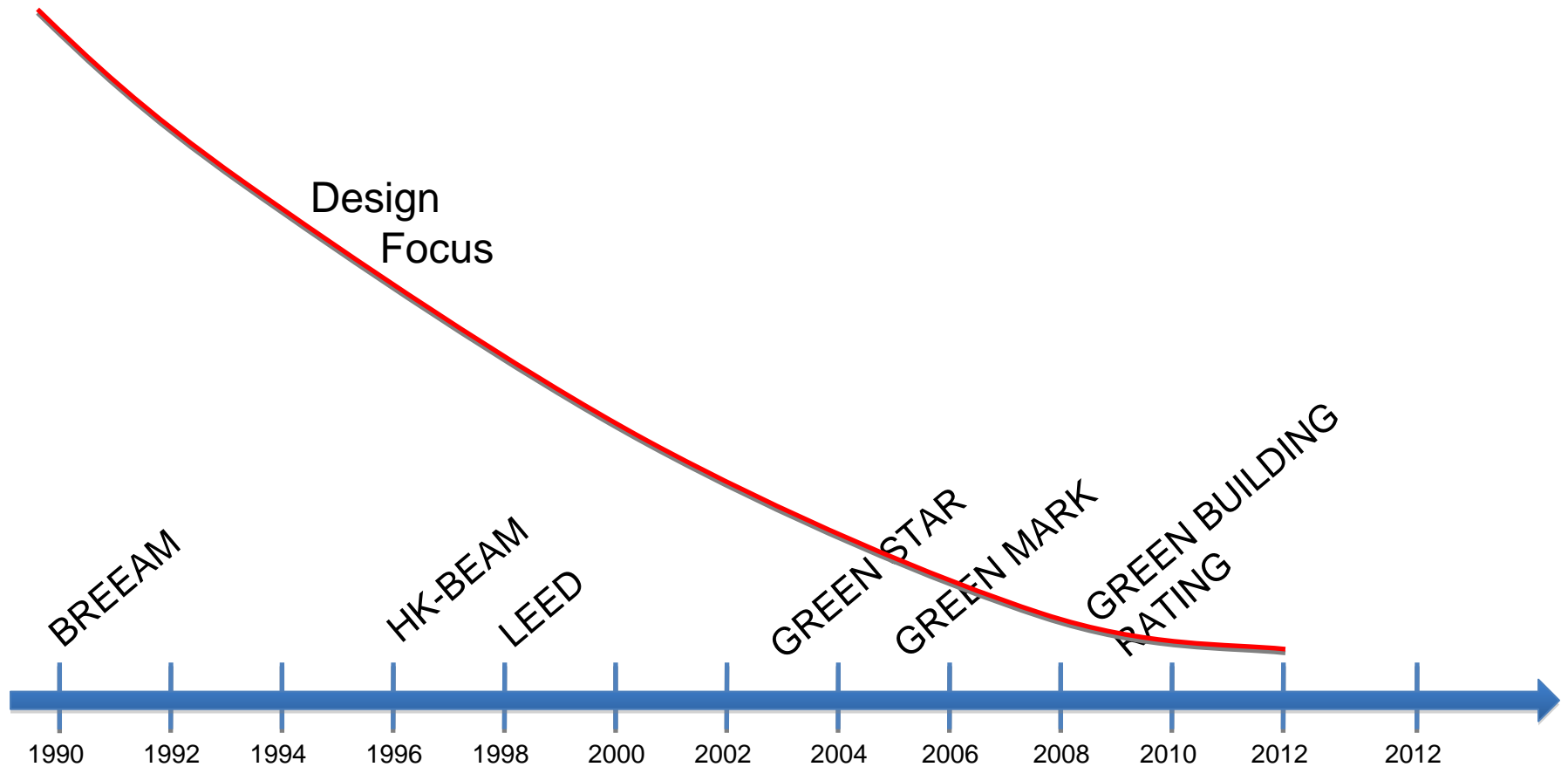
Green Rating Tools Evolution

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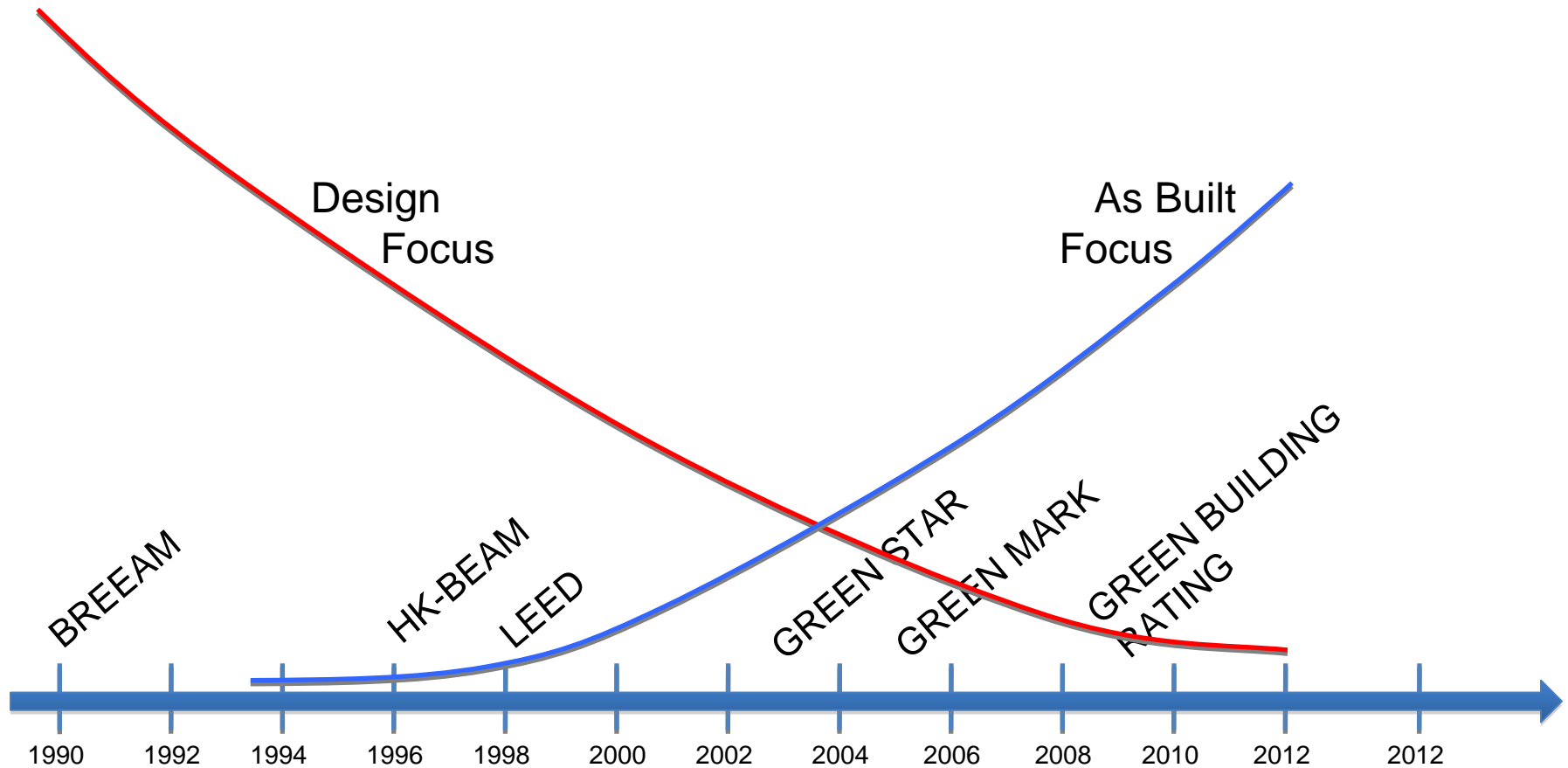
Green Rating Tools Evolution

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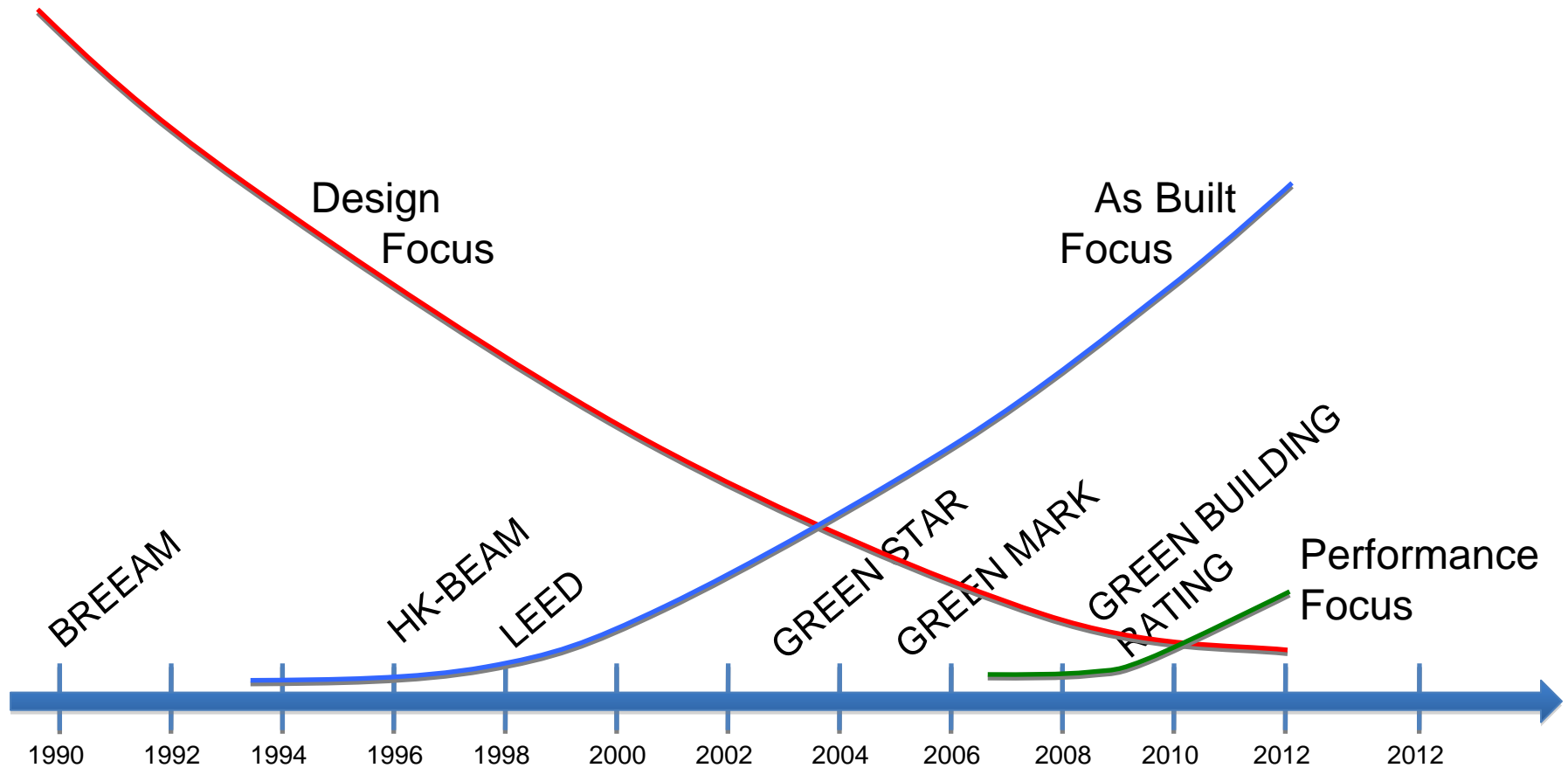
Green Rating Tools Evolution

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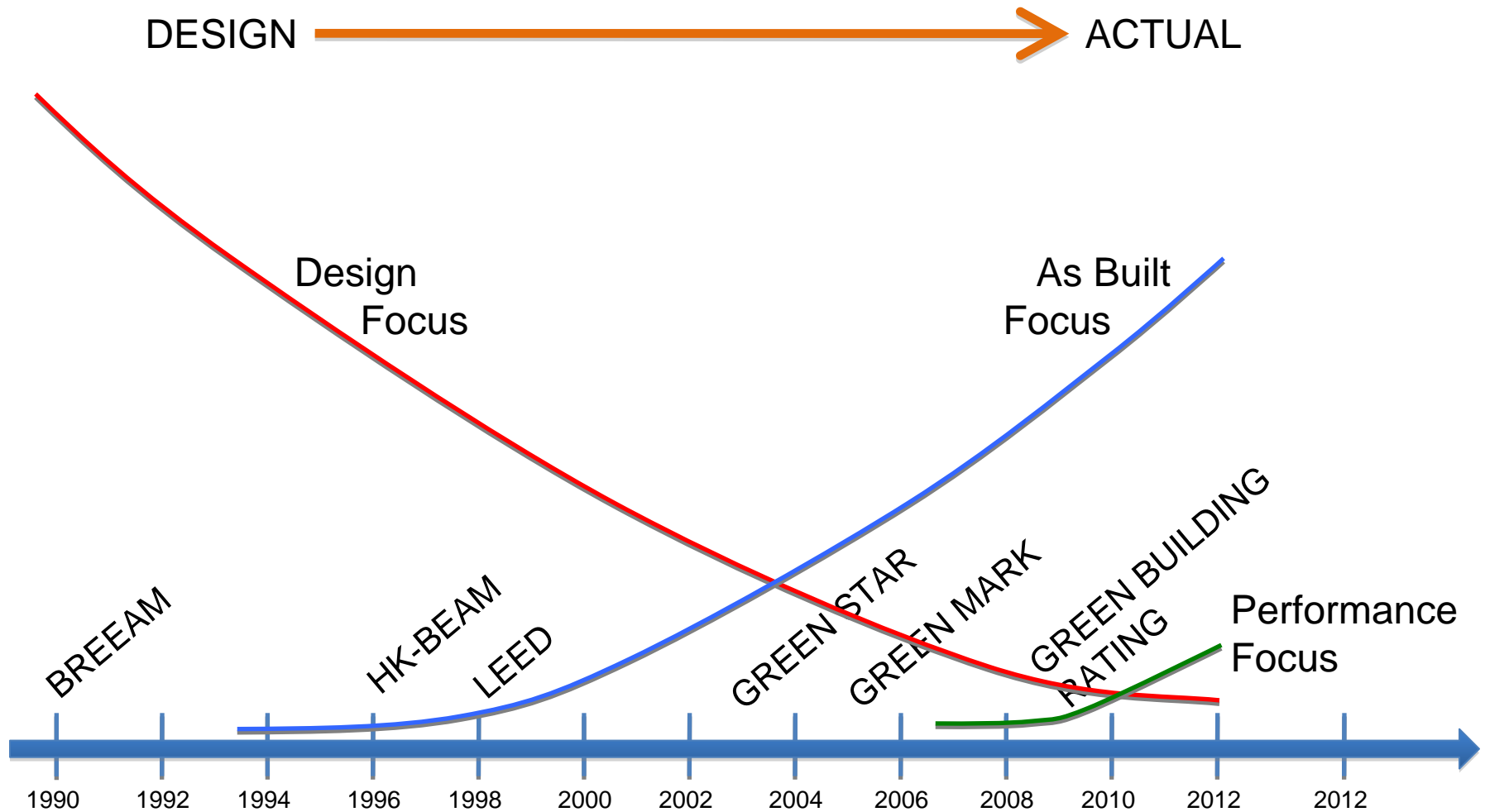
Green Rating Tools Evolution

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Green Rating Tools Evolution

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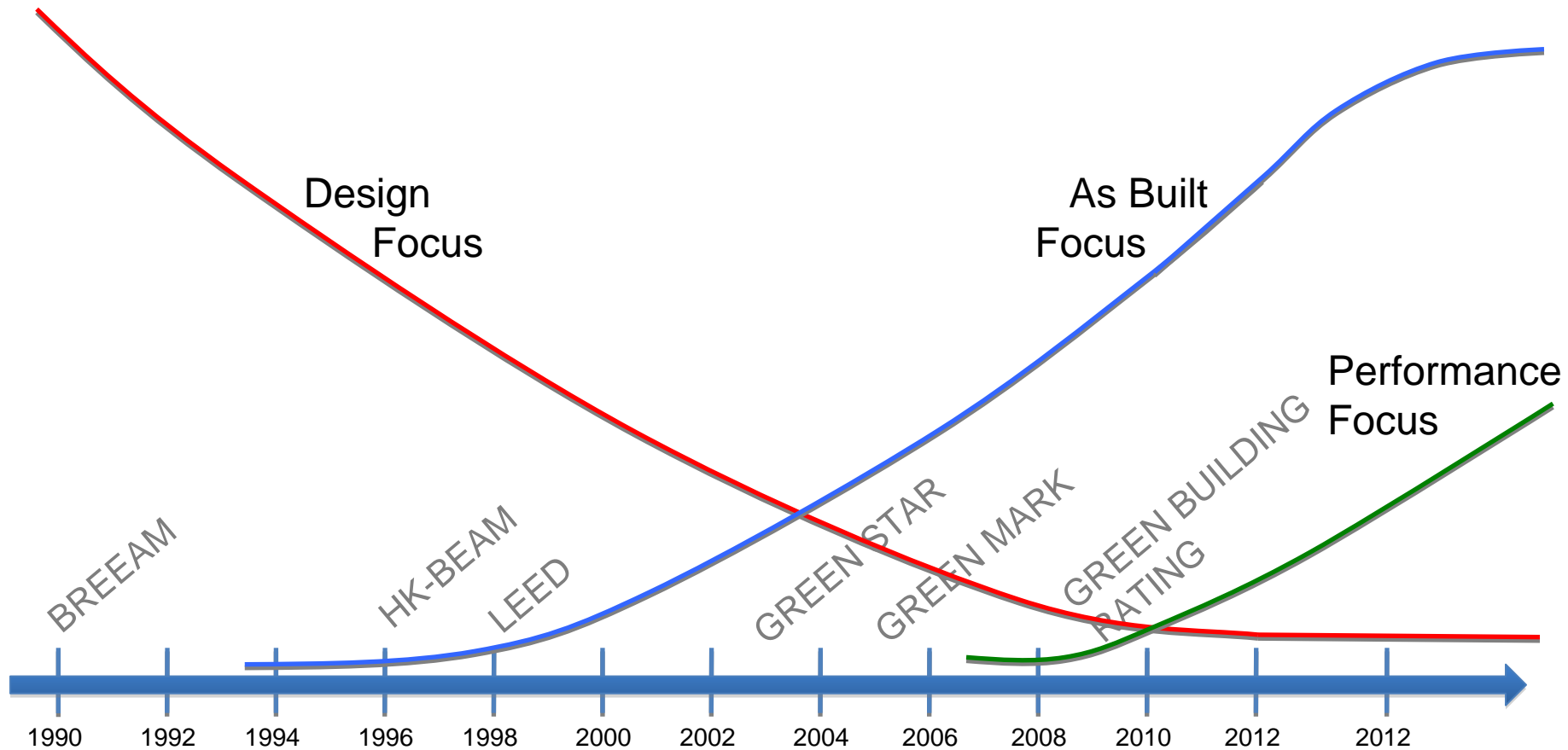


- Rating tools how do they compare – case studies
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Continued Evolution

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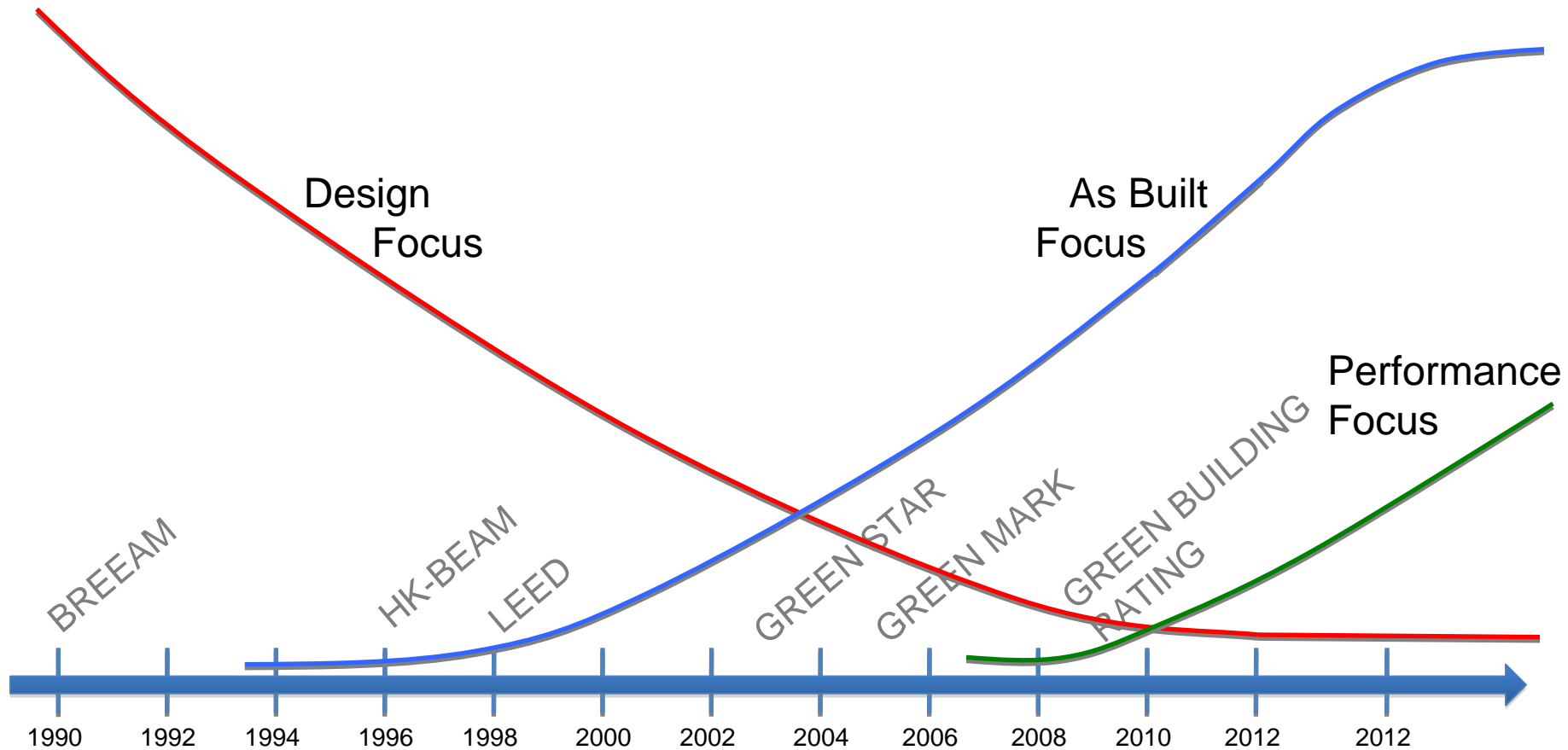
DESIGN  ACTUAL



Continued Evolution

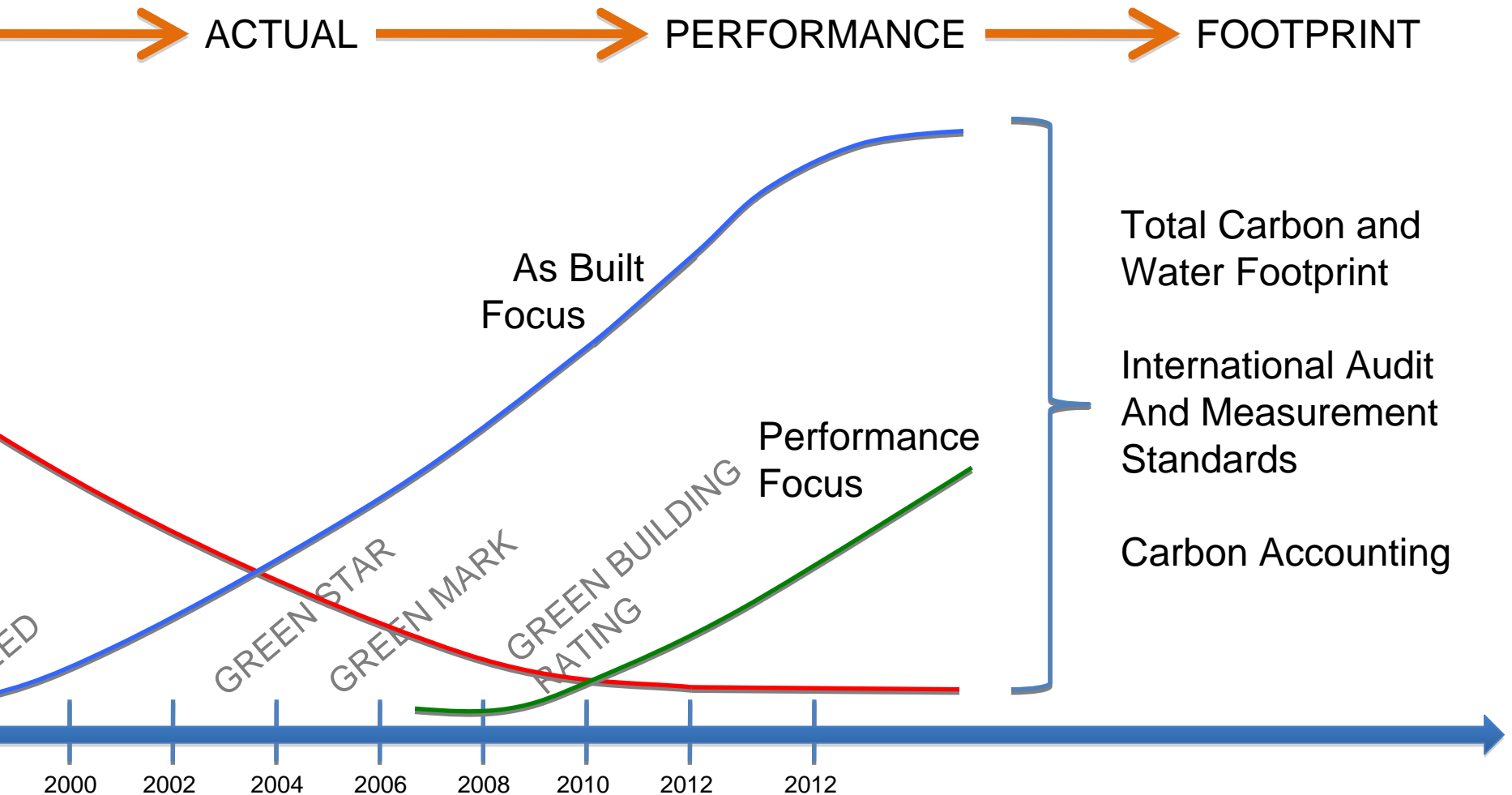
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DESIGN → ACTUAL → PERFORMANCE



Total Accountability

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- Rating Tools cant be compared directly, particularly with fitout
- As rating tools have evolved the focus has moved from design to actual
- The near future focus will shift from actual to performance
- The next evolution will be full carbon and water accounting
- With greater accountability!