asset management

the role of green buildings

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NZGBC NEW ZEALAND GREEN BUILDING COUNCIL

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*

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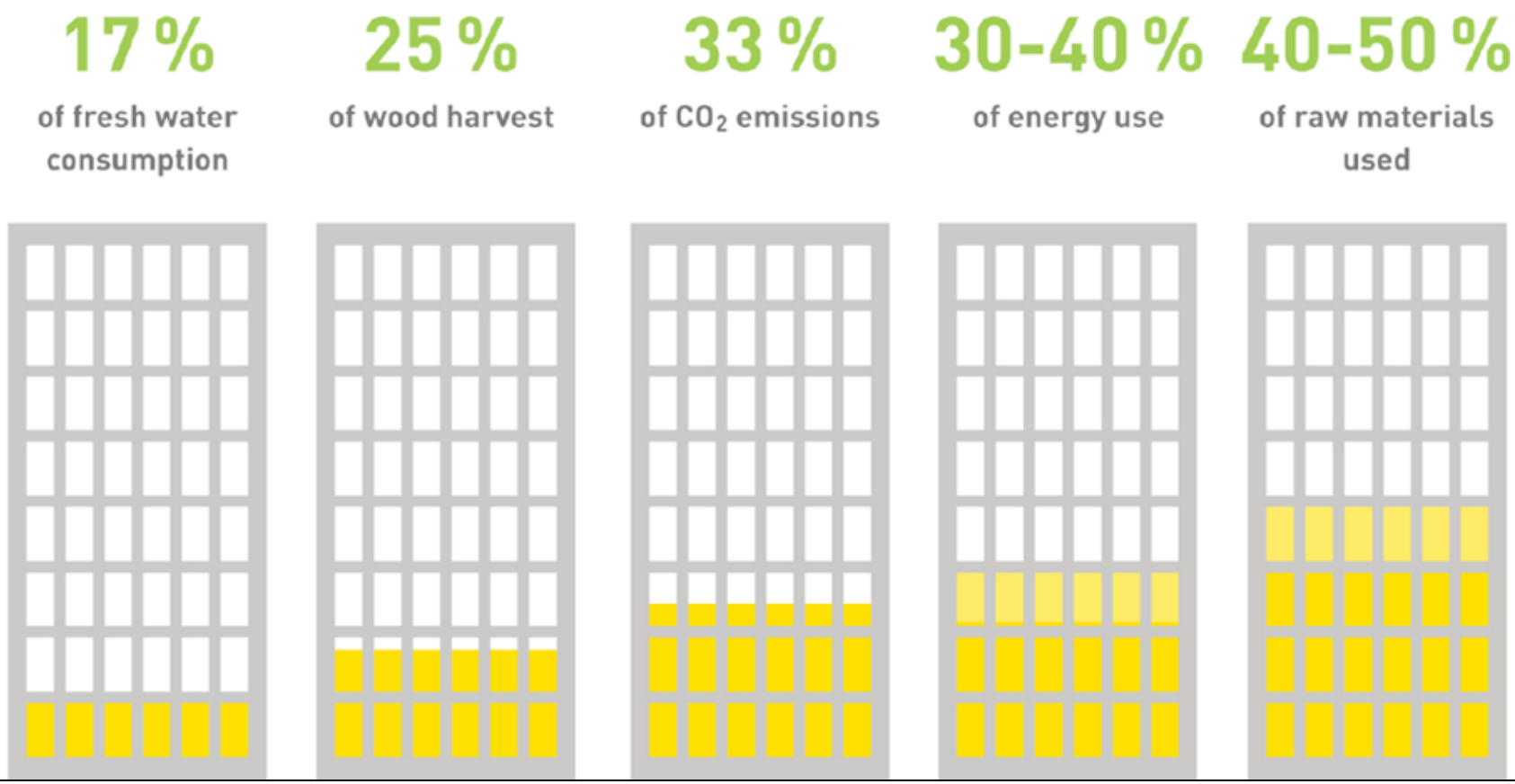
New Zealand Green Building Council

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.*

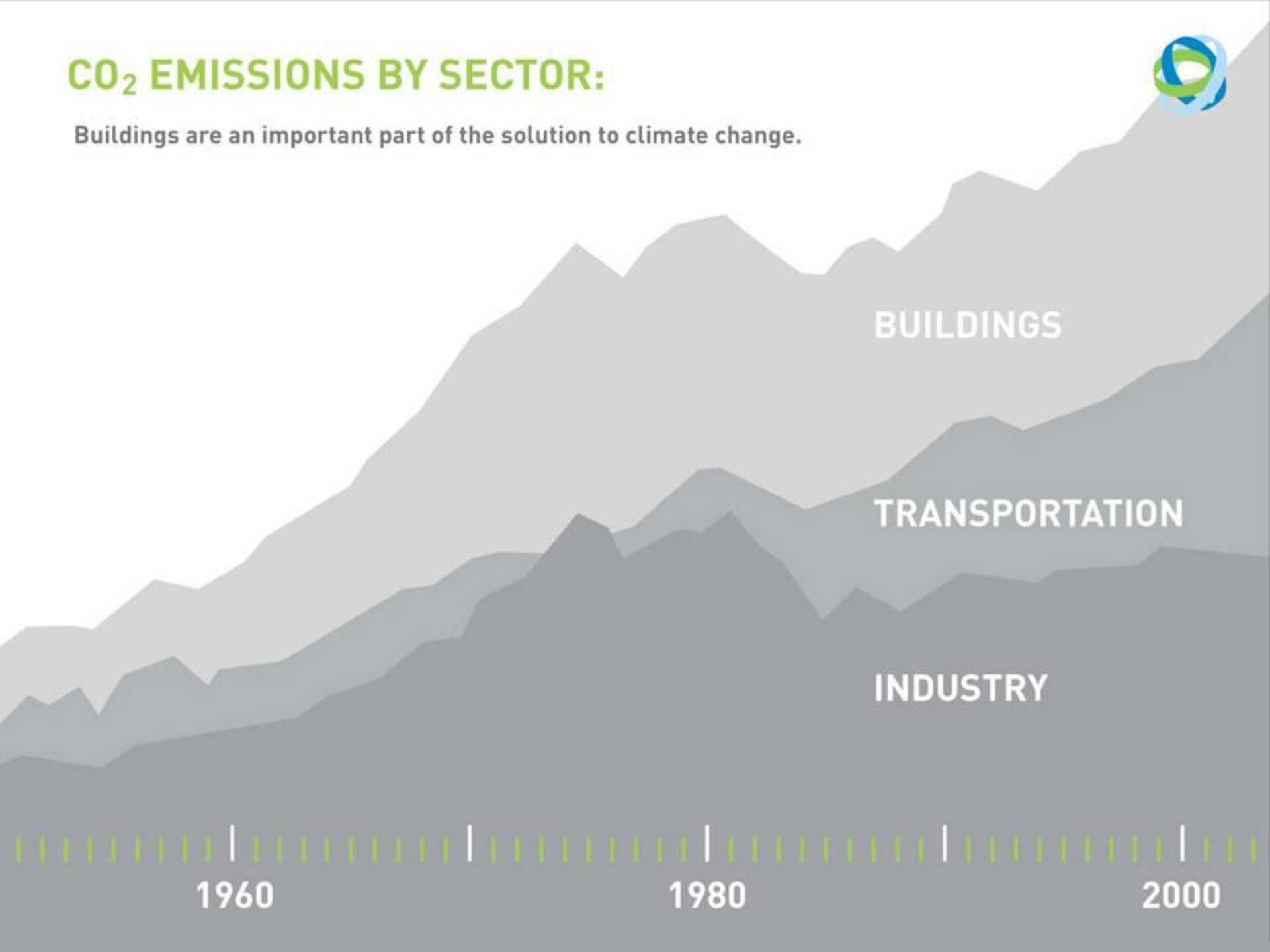
WORLDWIDE, BUILDINGS ACCOUNT FOR:



Source: Annex 31 project "Energy-Related Environmental Impact of Buildings" (www.annex31.org).

CO_2 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*

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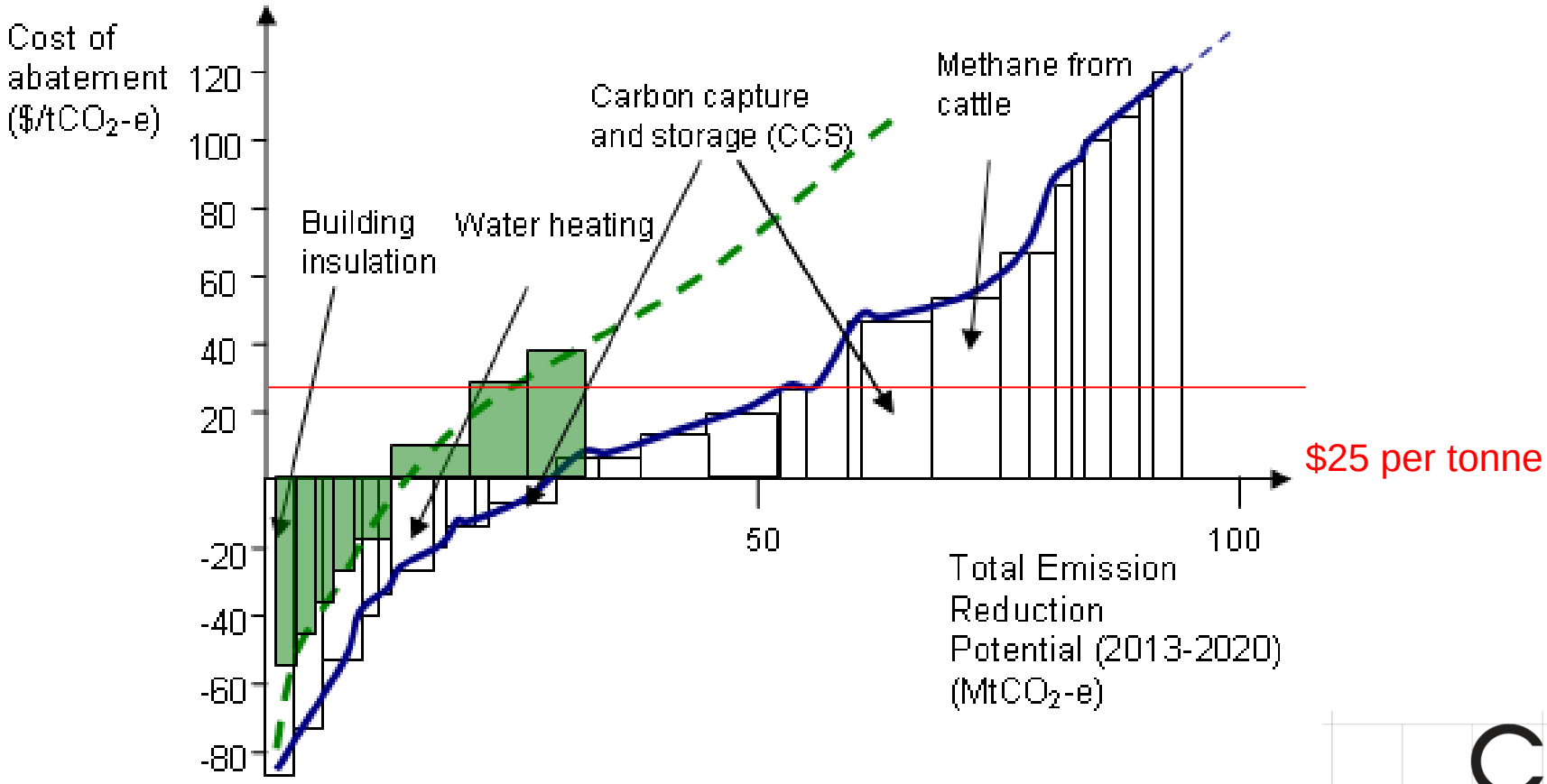
Marginal abatement cost curve



Source: New Zealand Ministry for the Environment website <http://www.mfe.govt.nz/publications/climate/conceptual-framework-climate-policy-nov07/html/page5.html#figure12>

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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*

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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

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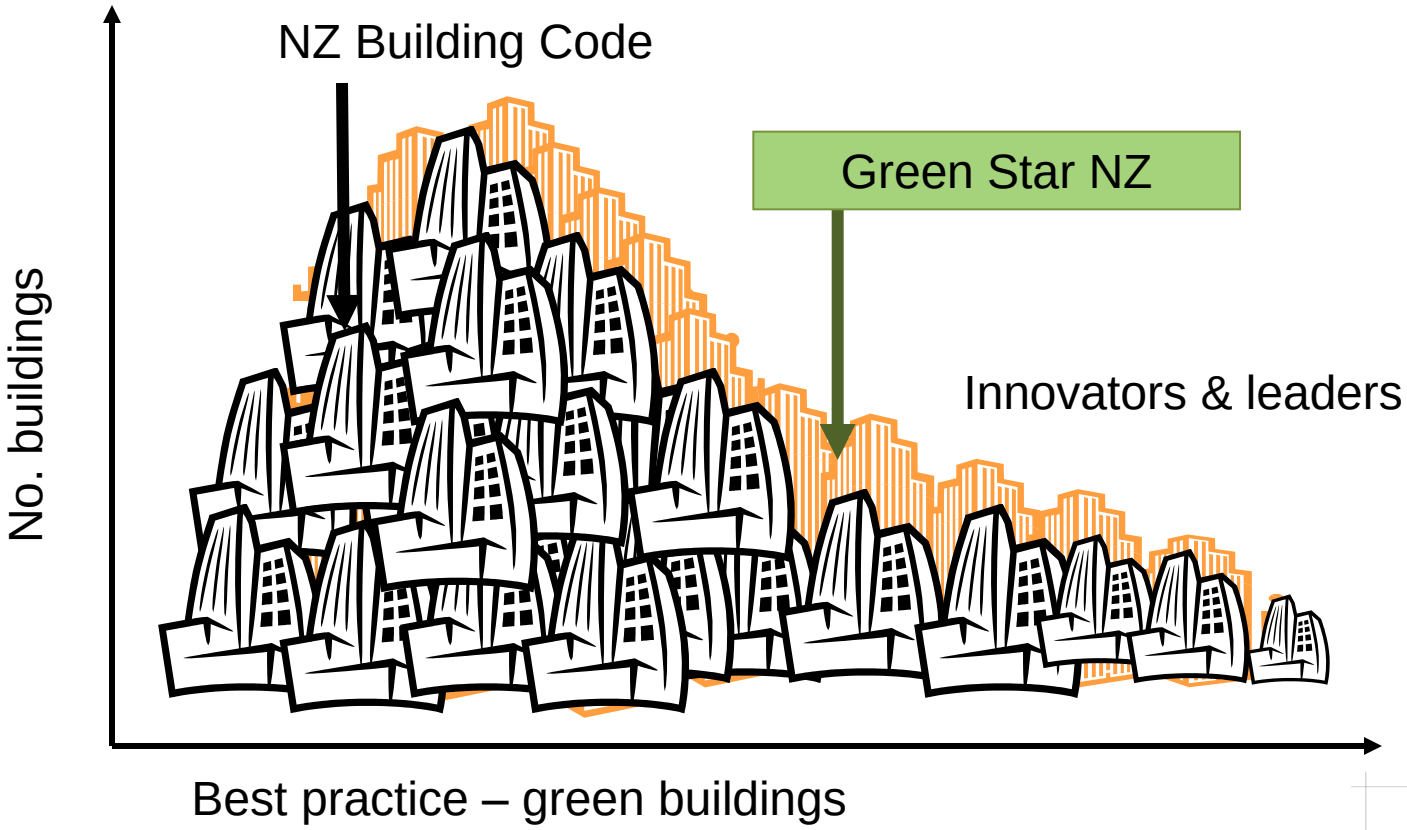
Rewarding best practice



Key projects

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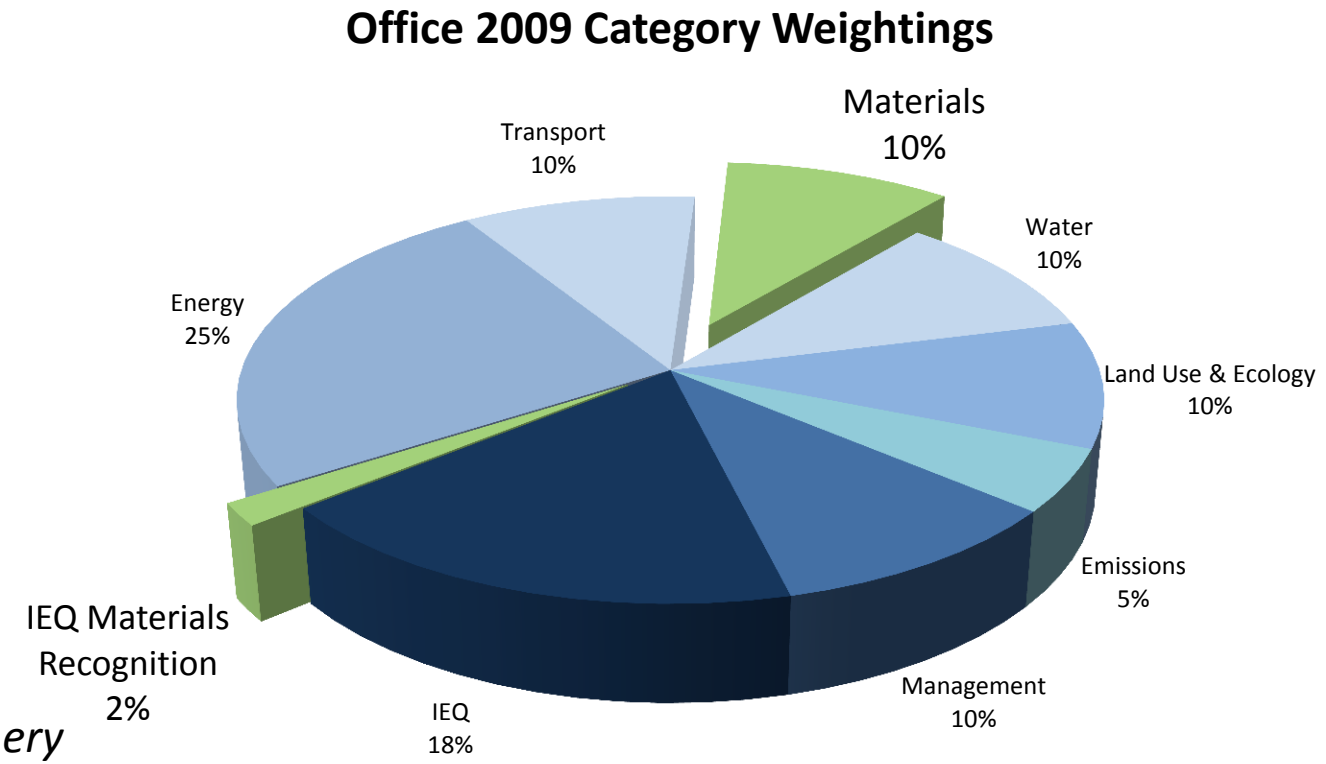
Building components considered

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



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Issues addressed

base building tools = structural materials

fitout tools = furniture & fittings

- *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*

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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."

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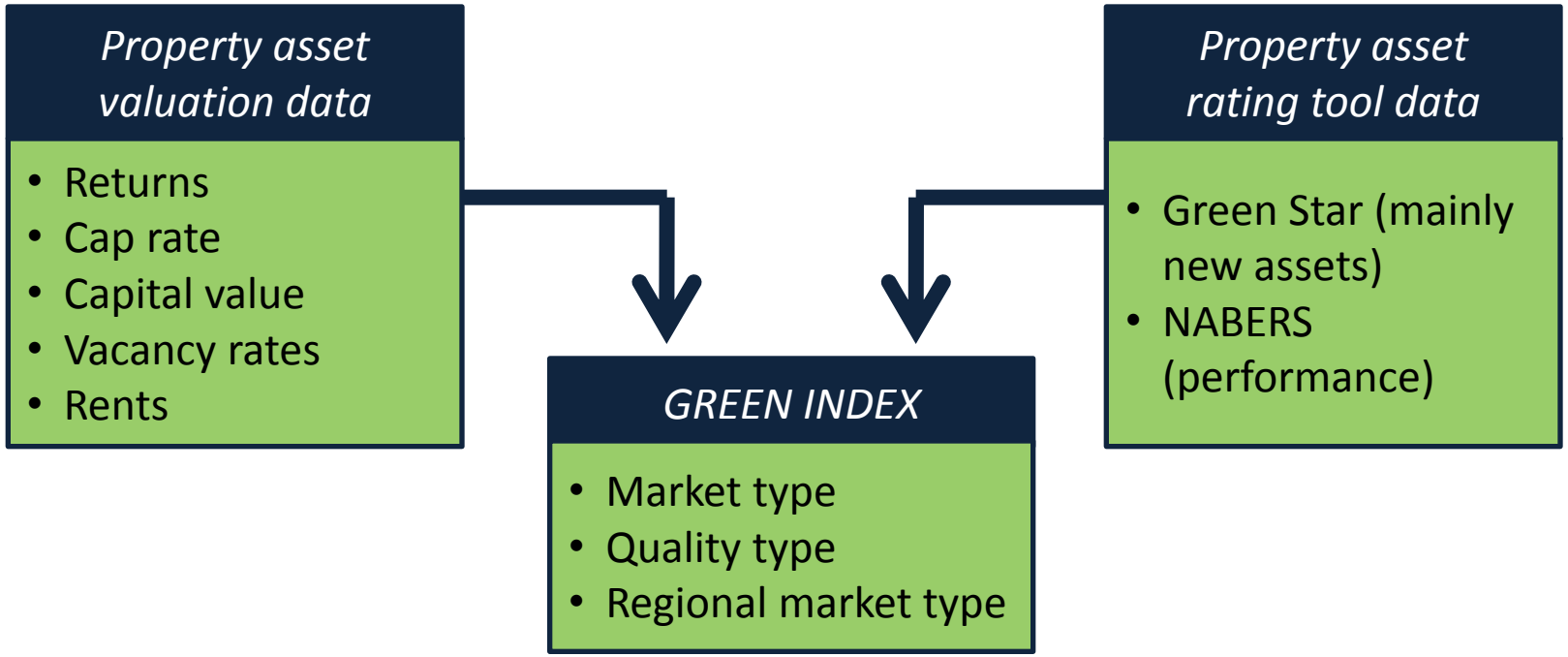
PCA/IPD Green Investment Index



- *Measures investment returns for buildings*
- *Tangible metrics*
- *Benchmark analysis*
- *Transparency in the market*

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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*

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planning
design
construction
acquisition
operations
maintenance
renewal
rehabilitation
depreciation
cost of finance
replacement
disposal

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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*

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Unanticipated costs

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

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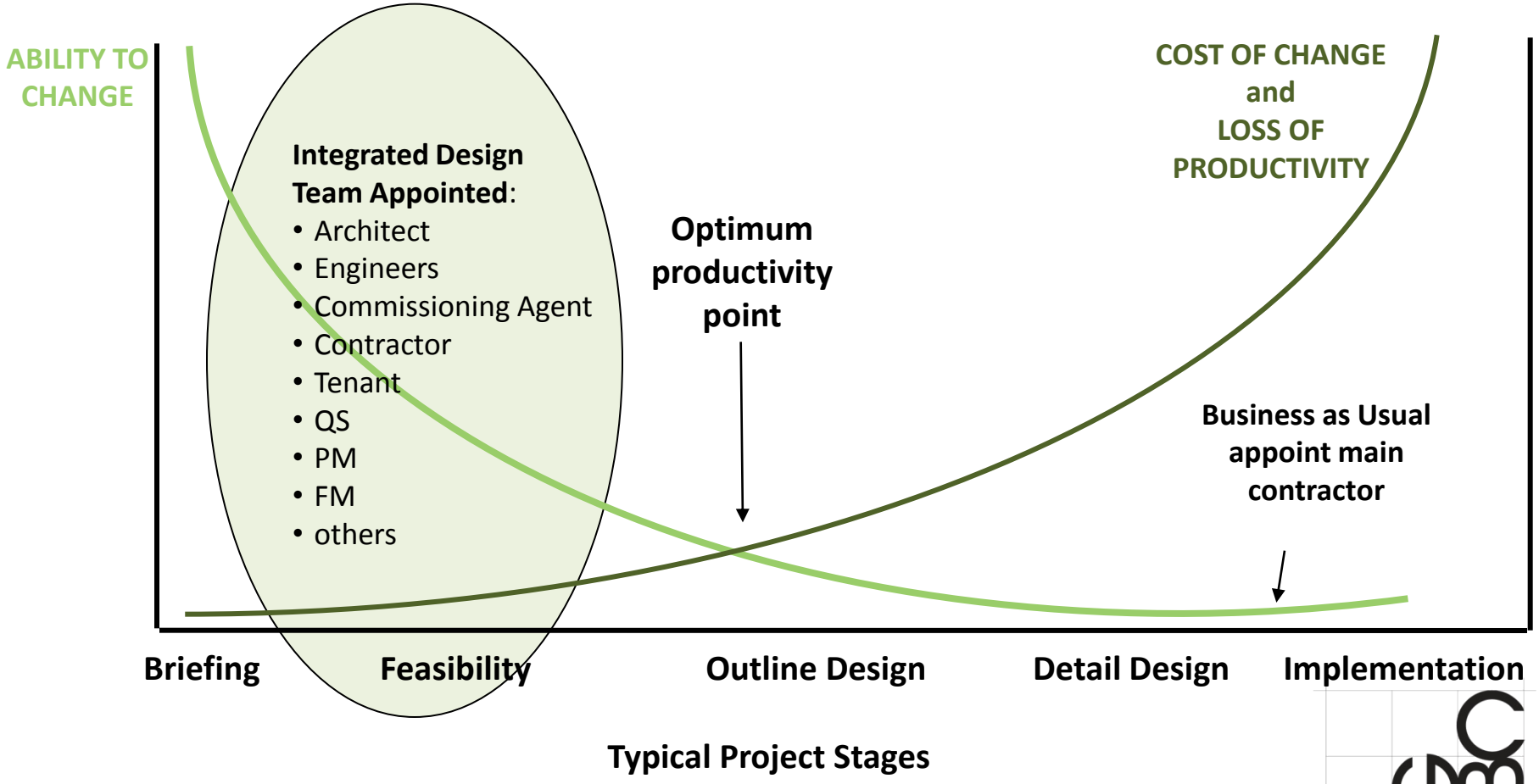
Opportunity costs



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Strategy to address whole of life costing

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

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Next steps

- *Predict carbon output in design/performance - calculate a carbon footprint*
- *Factor the cost of carbon into all decision-making*
- *Consider whole of life costing*
- *Incentives/programs to bring forward investment in existing stock*
- *Streamline internal sustainable procurement practices*
- *Enhance understanding of prospective tenants*
- *Target, measure and report – Performance tool*

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Thank you

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