



The value of a sustainable built environment

Alex Cutler
New Zealand Green Building Council

*Te Mirumiru, Kawakawa, 6 Green Star Built
Photo supplied: Simon Devitt*



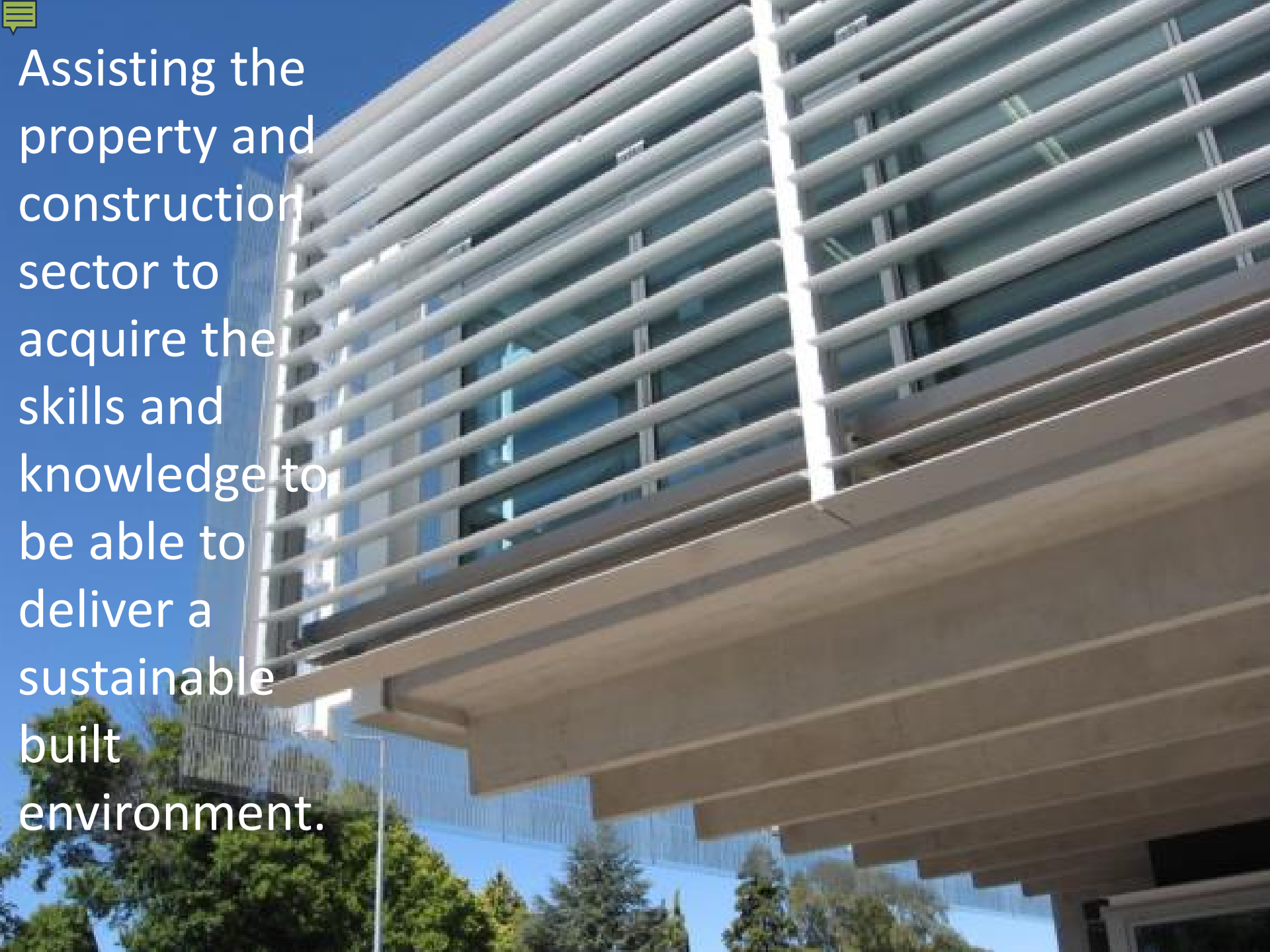
NZ **Green** **C**
NEW
ZEALAND
GREEN
BUILDING
COUNCIL



Promoting the benefits of sustainable buildings by creating a common language and demonstrating the value.



Assisting the property and construction sector to acquire the skills and knowledge to be able to deliver a sustainable built environment.





Motivating and recognising the sustainable development and operation of buildings across New Zealand.



What is a sustainable built environment?

OPEN 7 DAYSSM - 7am - 5pm



Choice



**Use
Beauty
Cost
Durability**

Sustain- ability



**Need
Use
Materials
Labour
Ergonomics
Durability
Beauty
Cost
EoL**

Cradle to grave



**Need
Use
Material
Labour
Ergonomics
Durability
Beauty
Cost
EoL**



Cradle to cradle



Need
Use
Material
Labour
Ergonomics
Durability
Beauty
Cost
EoL





New building design



Environmental sustainability



Land Use & Ecology
Transport
Management
Materials
Energy
Indoor Env Quality
Water
Emissions
Innovation



greenstar

6

6 Star Office Interiors (2009)

AWARDED TO

CHRISTCHURCH CITY COUNCIL

FOR

CHRISTCHURCH
CIVIC BUILDING

MARCH 2013

A. J. Cutler

CHIEF EXECUTIVE

NEW ZEALAND GREEN BUILDING COUNCIL

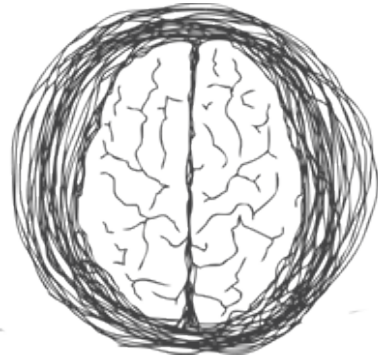
INTE



Health, Wellbeing & Productivity in Offices

Sponsors





'The Innovation Series'

Innovation

The University of Melbourne
Faculty of Architecture, Building
and Planning Development
Melbourne

green building council australia

6 greenstar

Education Design v1 2014

Performance





PERFORMANCE LEASING GUIDE AND MODEL CLAUSES

BETTER BUILDING PERFORMANCE THROUGH TENANT-LANDLORD COLLABORATION



Sustainable community

Governance
Design
Liveability
Economic prosperity
Environment
Innovation



Brisbane Airport
Brisbane QLD

green building council australia

4 green star

Communities PILOT 2014



Curtin University
Perth WA

green building council australia

5 green star

Communities PILOT 2015

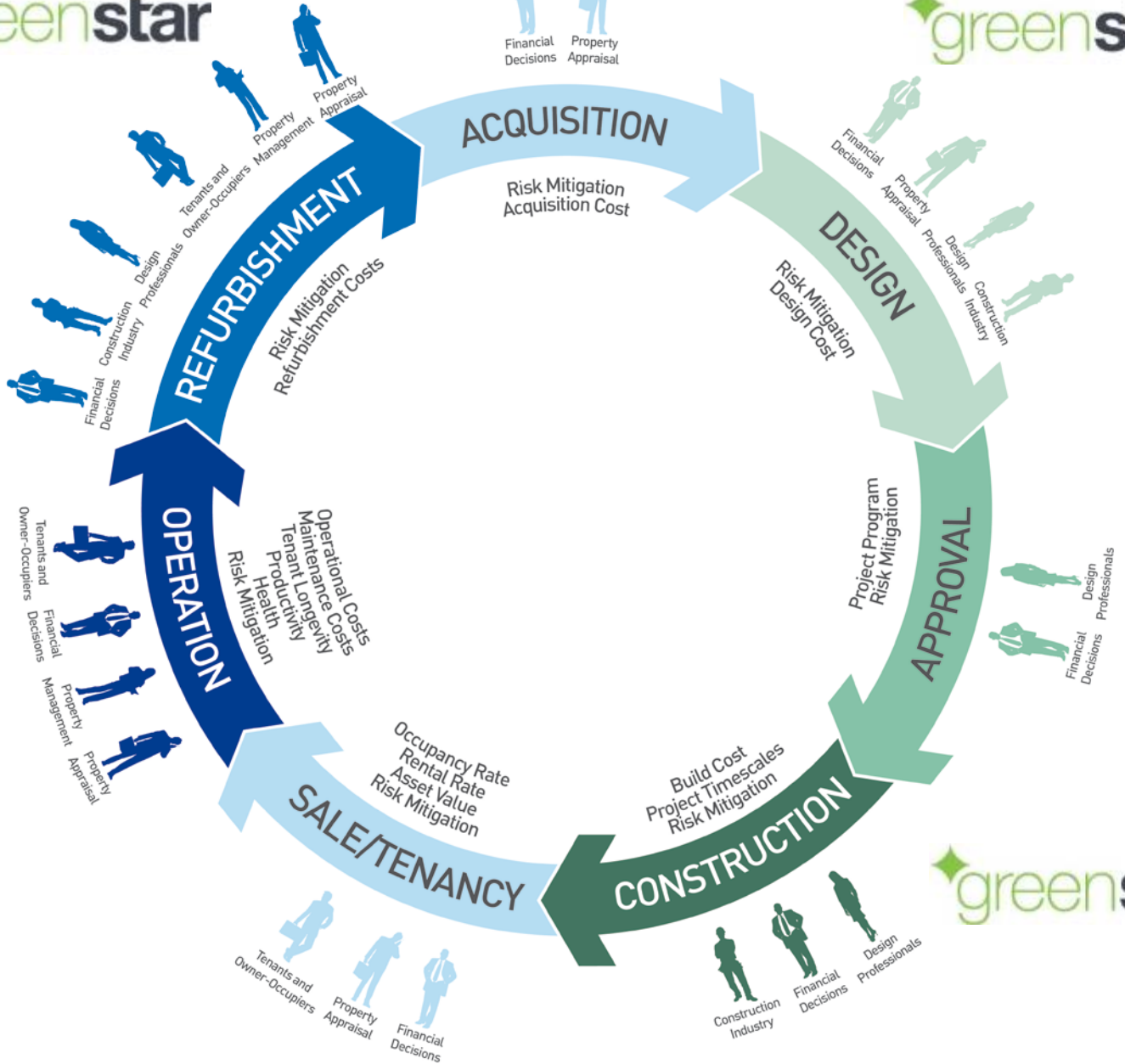


“ Without metrics and accountability, our initiatives are nothing more than marketing. ”

Johan Karlström
CEO, SKANSKA

Transparency



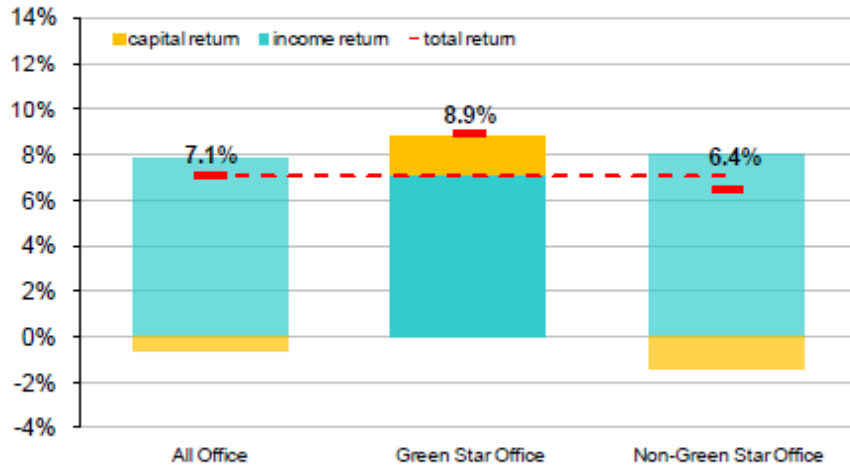




Monetisation

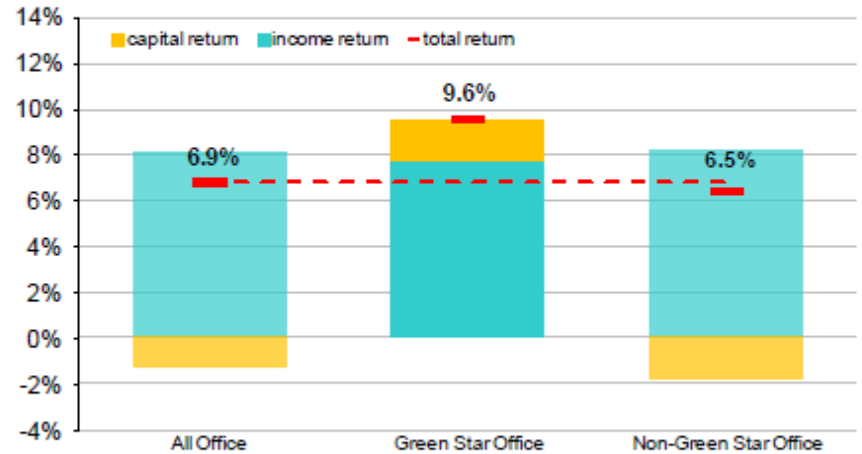
Green Property Index

Green Star: returns for NZ office
annualised 1 year returns to September 2012



Source: NZGBC & IPD Research.

Green Star: returns for NZ office
annualised 2 year returns to September 2012



Source: NZGBC & IPD Research.

- Outperformance in Green Star buildings driven by positive capital growth

\$10 bn in 2013
\$100 bn in 2015

133 Castlereagh Street
Sydney NSW 2000

T 02 9035 2000
F 02 8988 2552

www.stockland.com.au



24 October 2014

ASX/Media Release

STOCKLAND ISSUES FIRST AUSTRALIAN CORPORATE GREEN BOND

Stockland has successfully priced the first green bond issued by an Australian corporate¹, confirming the Group's commitment to long-term environmentally sustainable, accretive development across its portfolio.

The green bond is a EUR300 million 7 year Issue under Stockland's Euro Medium Term Note program. The Notes were priced at a Euro fixed rate coupon of 1.5 per cent which Stockland has swapped into Australian Dollars at a total cost of BBSW +153 basis points. The notes will be listed on the Singapore Stock Exchange.

Stockland's green bond is a debt instrument where the proceeds are used to fund eligible environmentally sustainable projects. This will include funding the development and



Asset tracking



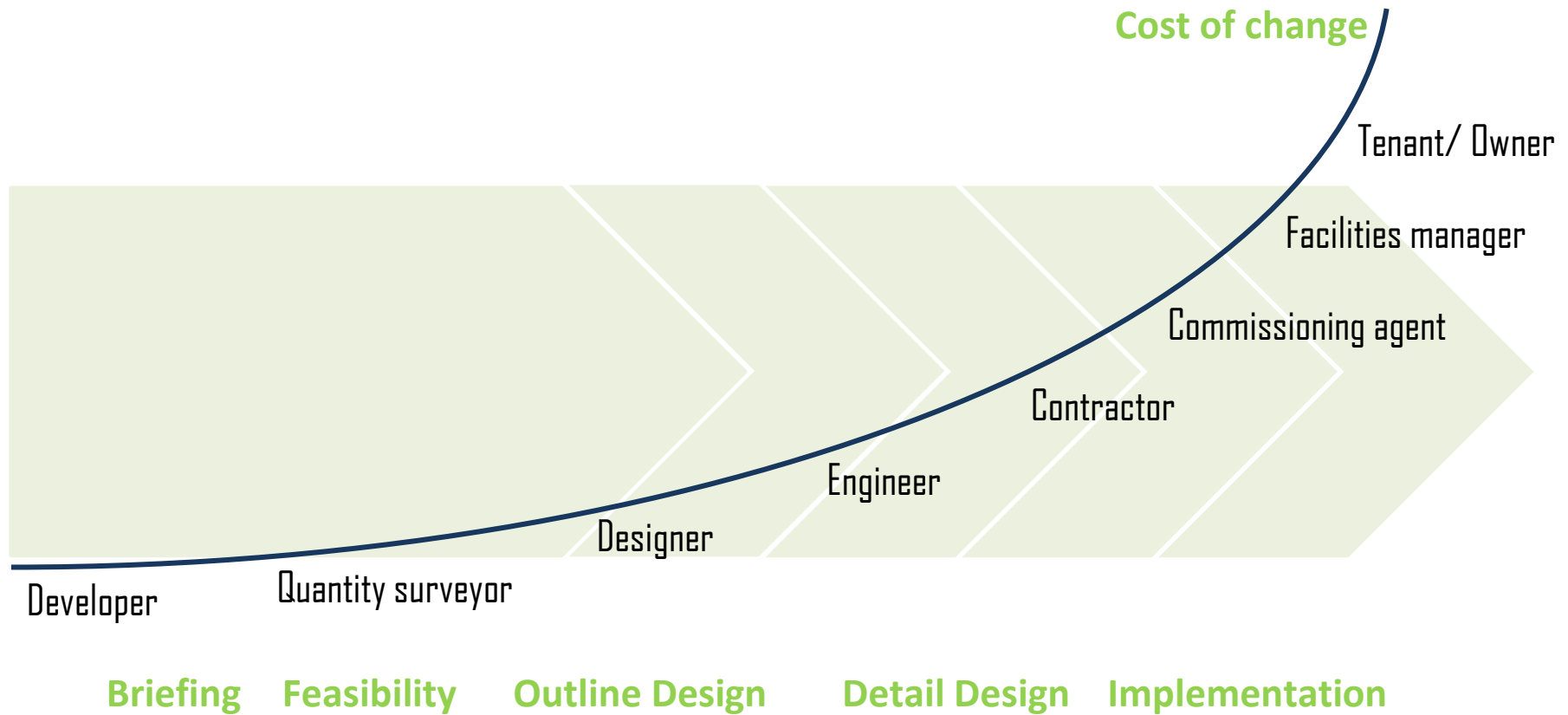
Technical Study

Design for Deconstruction



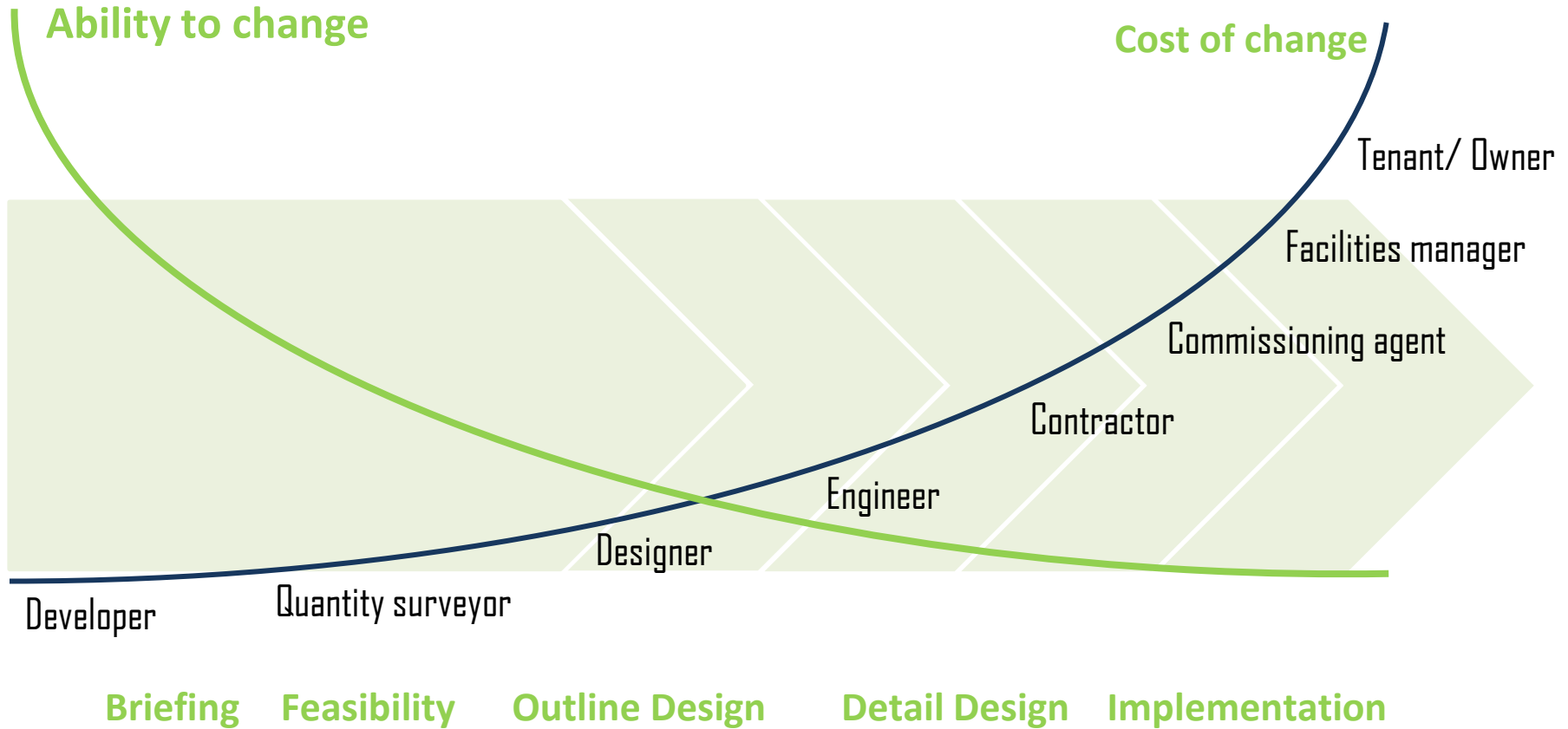
Design for deconstruction encompasses what I believe to be an important facet of ecological architecture; waste. By pro-actively anticipating changing future demands for space and structure, designs can accommodate a certain degree of flexibility and ultimately allow for a reconfigurable or recycle-able by-product post-deconstruction.

Linear procurement



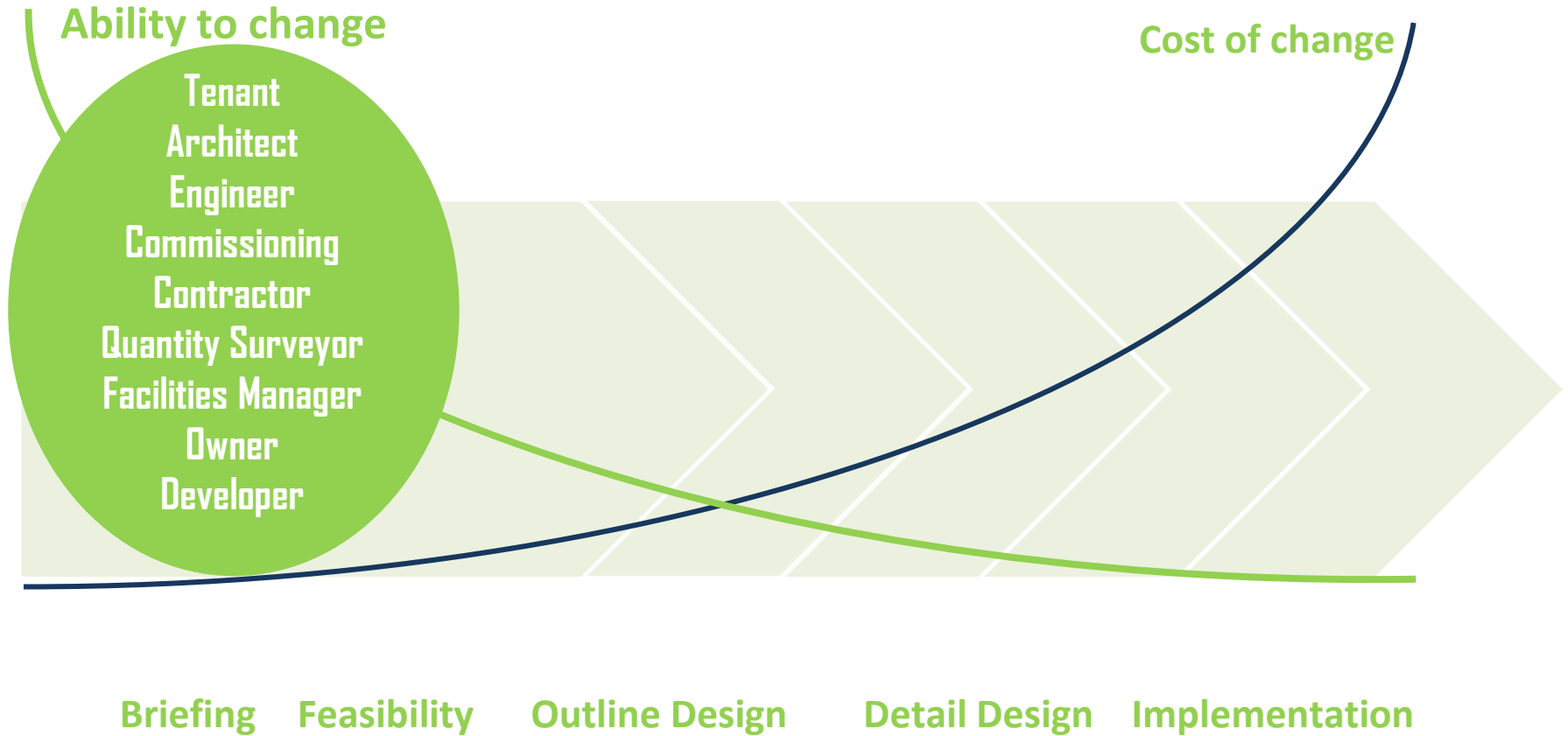
New Zealand building and construction sector

Cost/ability to change



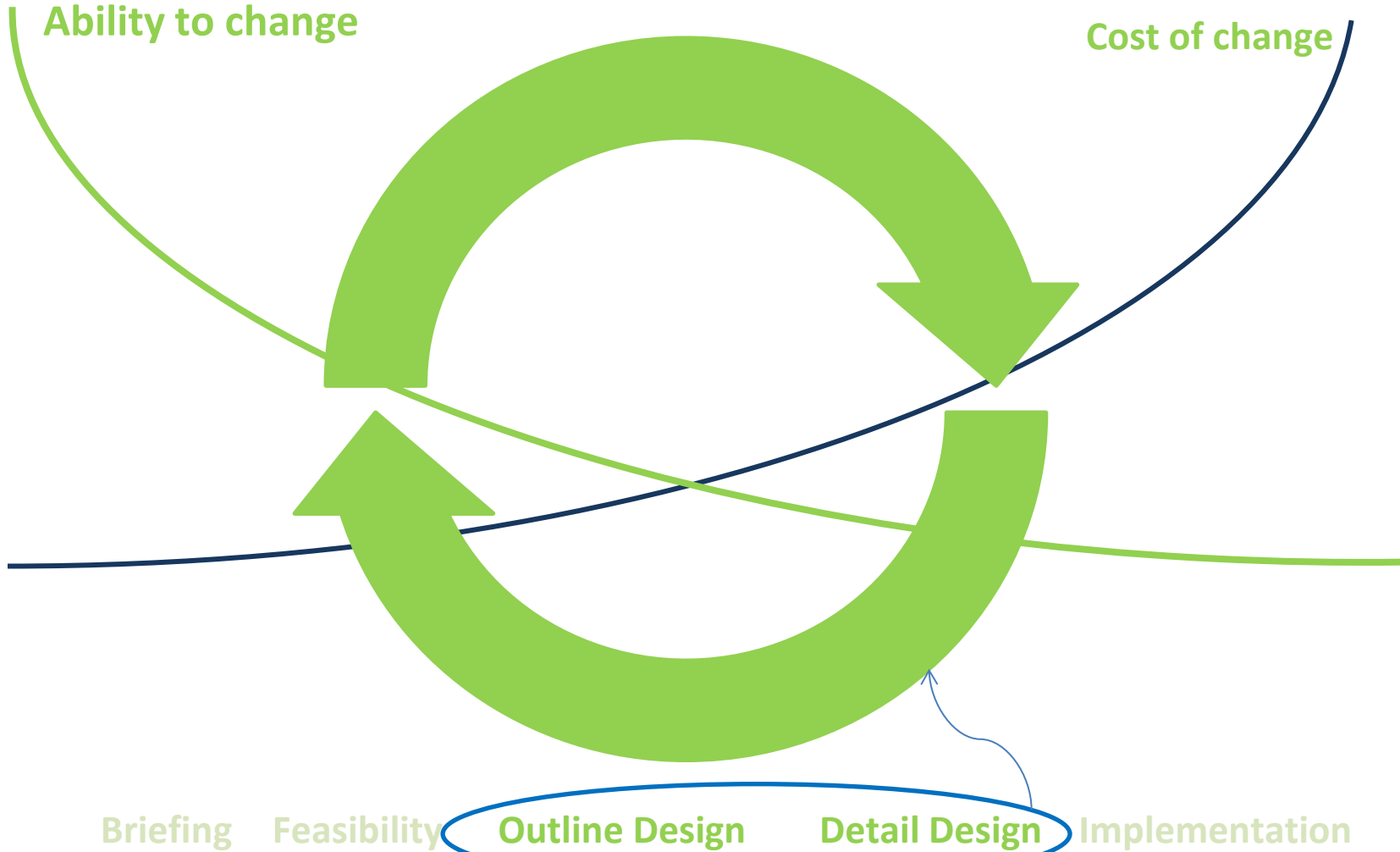
New Zealand building and construction sector

Integrated design



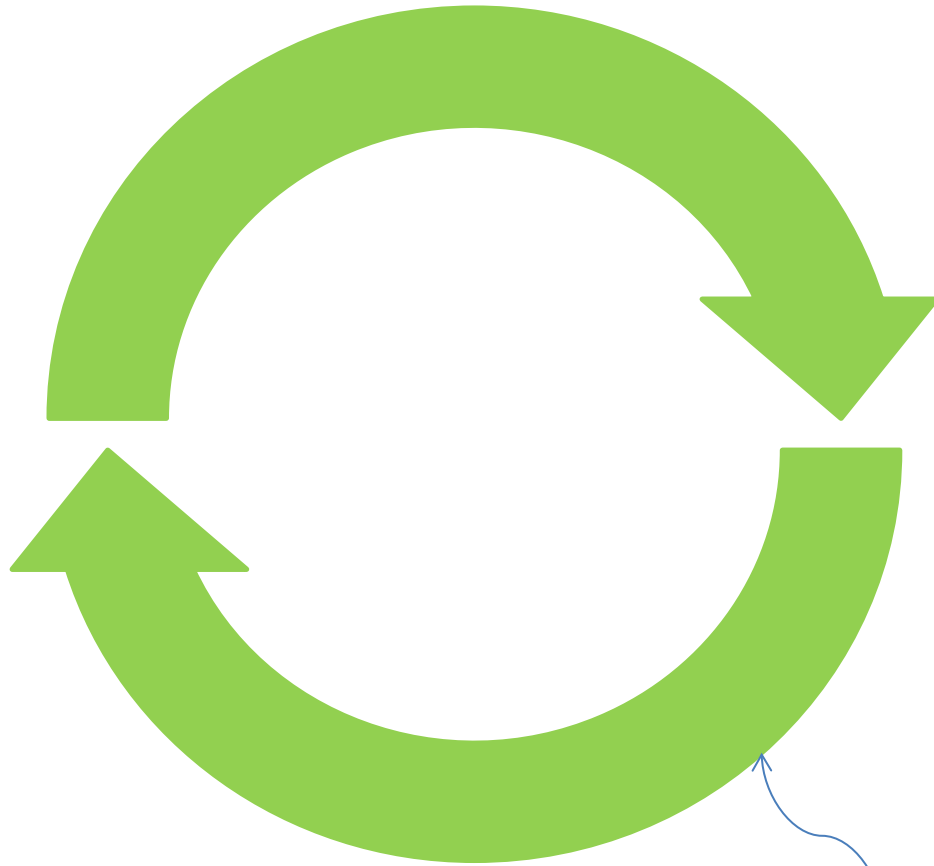
New Zealand building and construction sector

Closed loop



New Zealand building and construction sector

Circular design



Briefing Feasibility **Outline Design** **Detail Design** Implementation

New Zealand building and construction sector

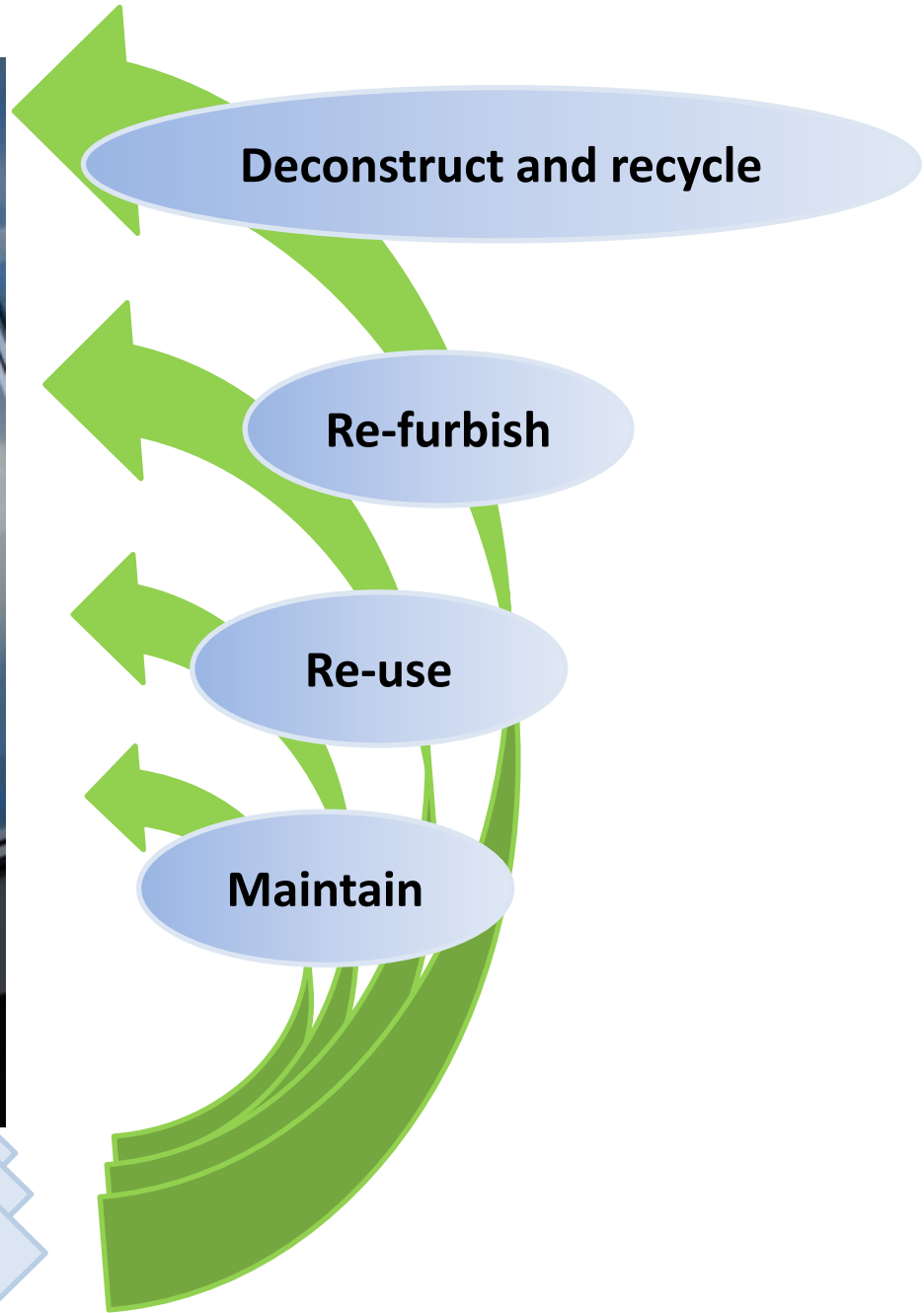


Deconstruct and recycle

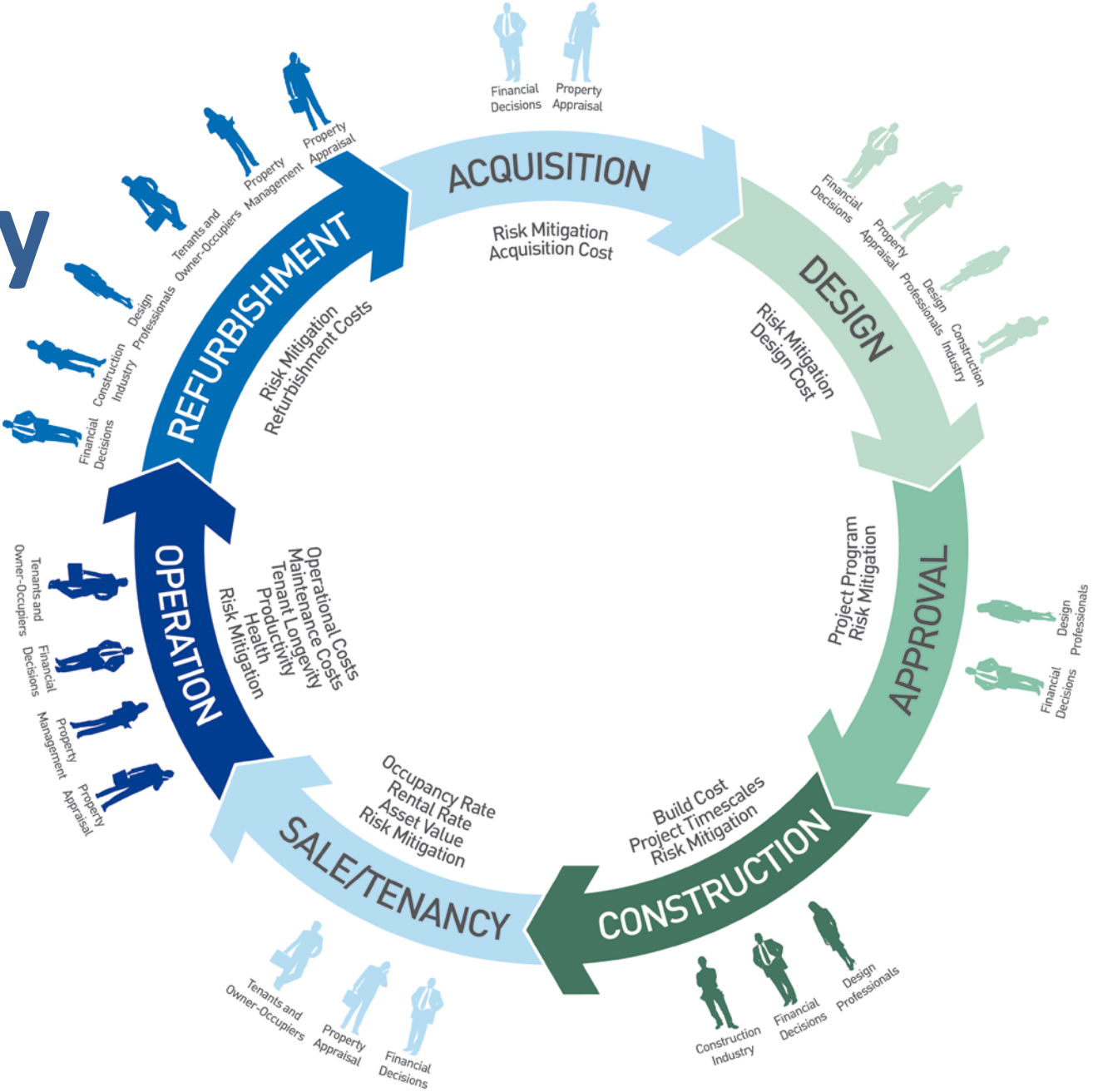
Re-furbish

Re-use

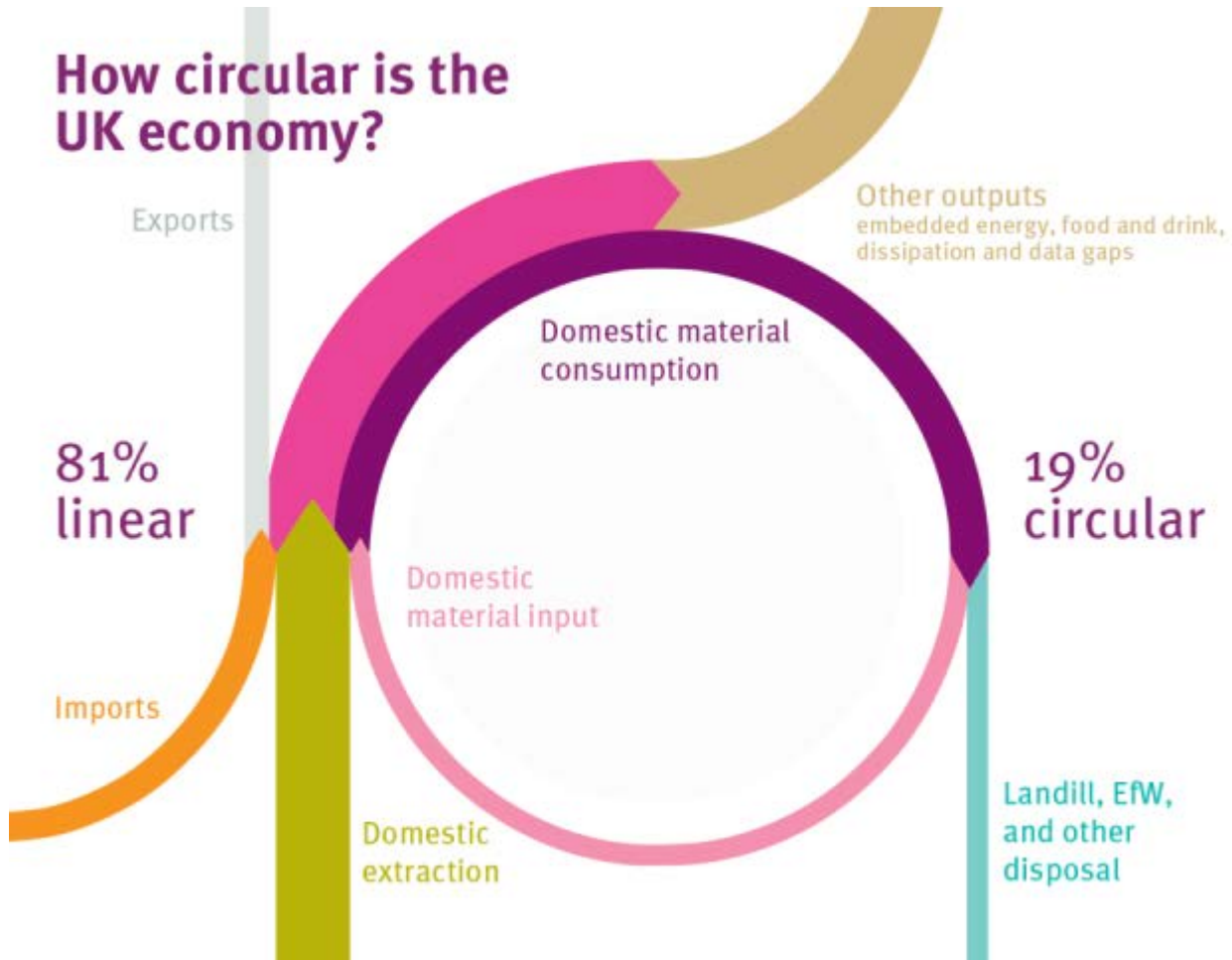
Maintain



Circular economy



How circular is the UK economy?



How circular is the UK economy?

Exports

81%
linear

Other outputs
embedded
dissipation

Domestic material
consumption

19%
circular

Domestic
extraction

Landfill, EfW,
and other
disposal

and New Zealand?

