'The Investment Implications of Environmentally Sustainable Real Estate'

International Land Policy Forum:

Ministry of Land, Infrastructure, Transport and Tourism

Tokyo, 14th October 2009

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Agenda

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- PRUPIM – one slide) introduction
- Property – a key part of the problem and the solution
- Will responsible real estate outperform?
- Low cost, no cost and economic actions
  - A case study of economic improvement – Griffin Park, Southampton
- Evaluating Different Approaches to 'Responsible Property Investment'

PRUPIM:
a leading, UK property fund manager

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NOTE: PRUPIM is an indirect subsidiary of Prudential plc, incorporated in the United Kingdom and not affiliated in any manner with Prudential Financial Inc, whose principal place of business is in the United States of America.

- **A global property investor**
  - Over £15 billion of property under management worldwide
  - Employing 270 property specialists in London
  - Involved in real estate investment for more than 140 years
- **Fully integrated approach to fund, asset and property management**
  - Unusual in the UK context
  - Scale of the business provides advantage

Property – a key contributor to climate change

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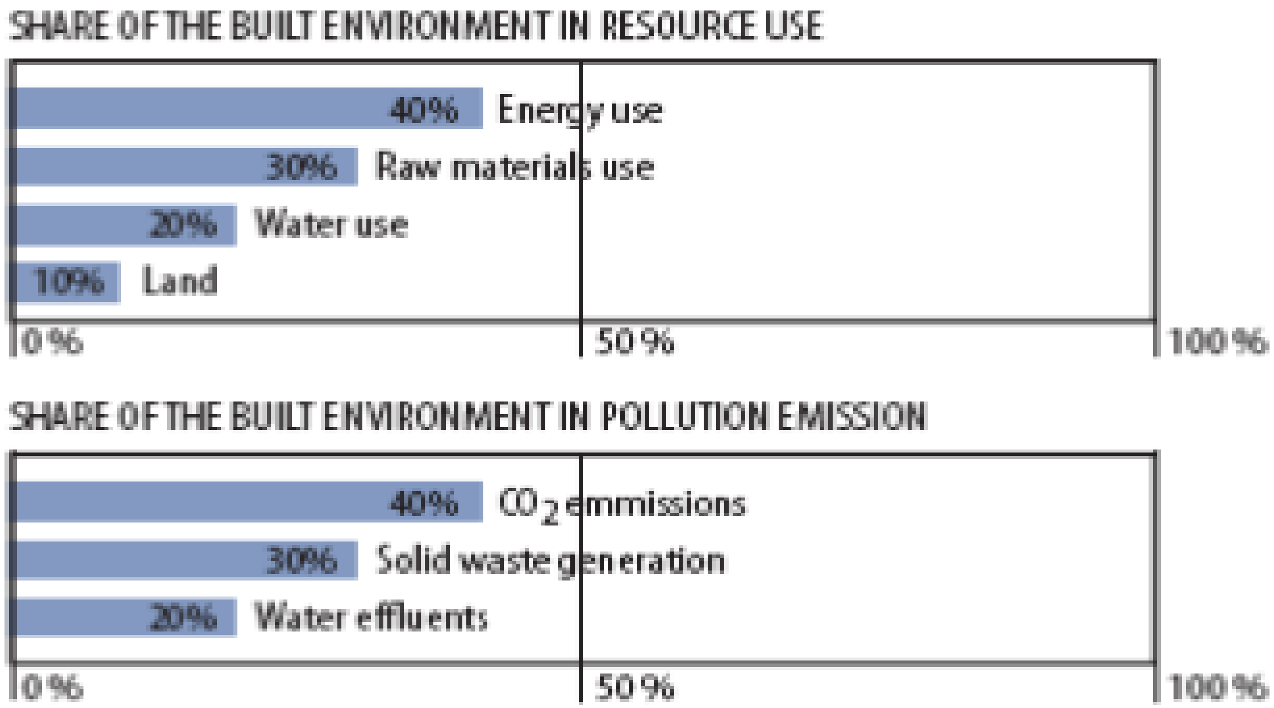

Source: UNEP SBCI, 2006

Property – a key contributor to climate change mitigation

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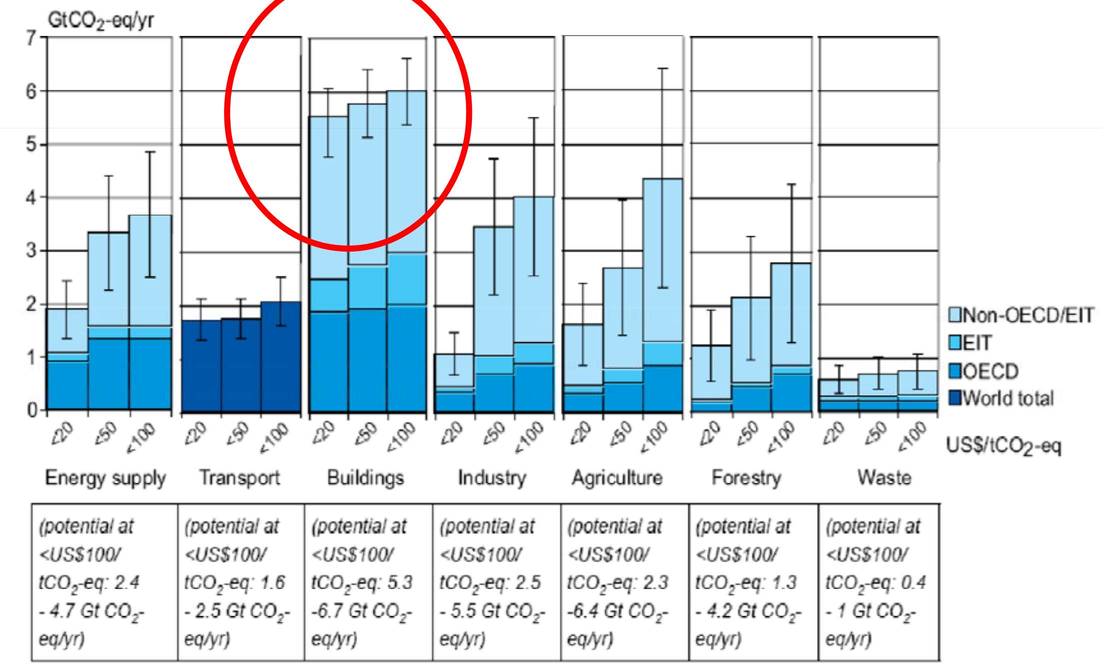

Figure SPM.6: *Estimated sectoral economic potential for global mitigation for different regions as a function of carbon price in 2030 from bottom-up studies, compared to the respective baselines assumed in the sector assessments. A full explanation of the derivation of this figure is found in Section 11.3.*

"…(S)ubstantial reductions in CO2 emissions from energy use in buildings can be achieved over the coming years using existing, mature technologies for energy efficiency that exist already and have been successfully used.

There is also a broad array of widely accessible and cost-effective technologies and know-how that can abate GHG emissions in buildings to a significant extent that has not as yet been widely adopted. "

Source: IPCC, 2007

The changing context for property….

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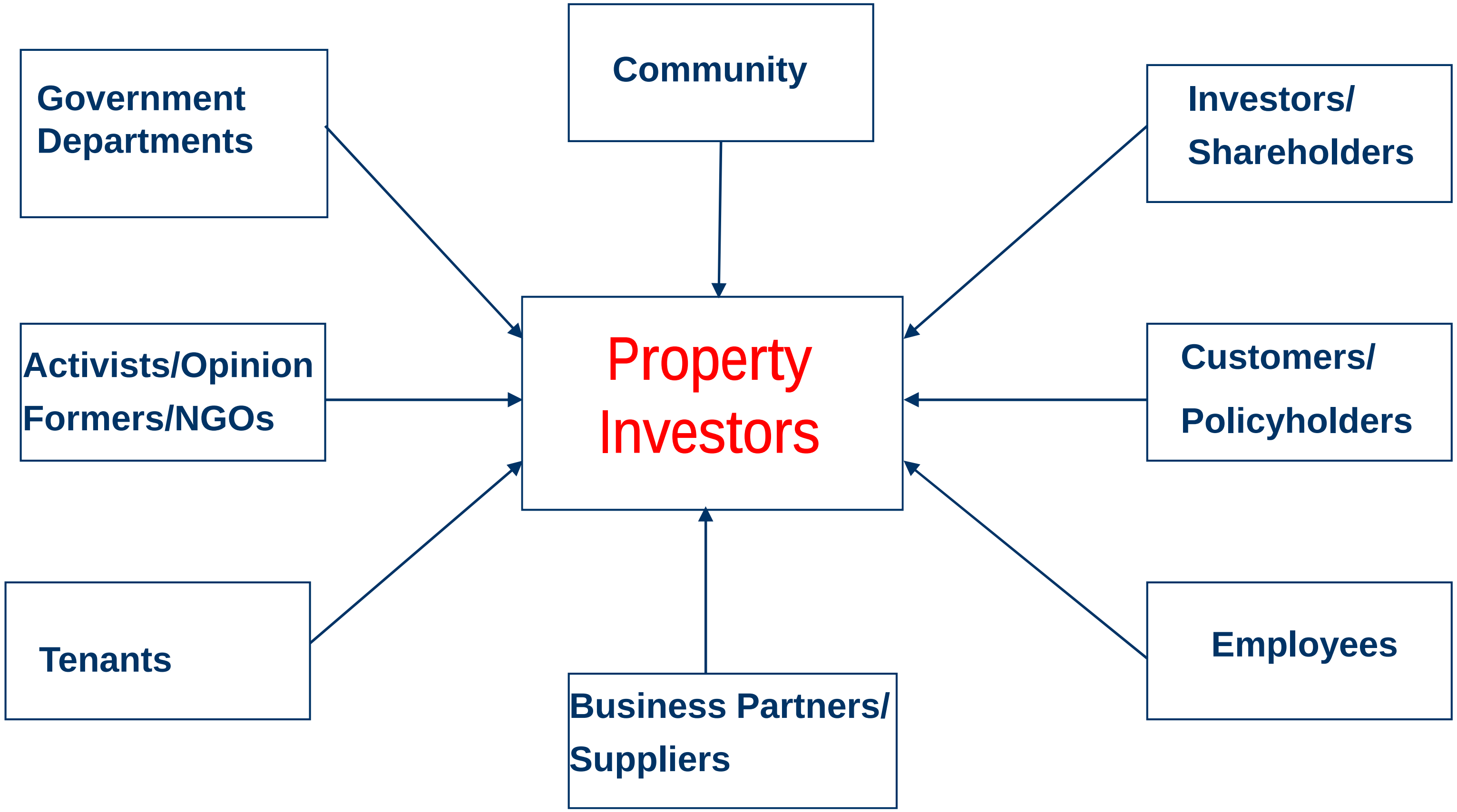

Twin paradoxes

- ***98% of what gets discussed about 'responsible property investment' relates to 2% of the problem***
  - Development is a <u>small</u> part of property investment activity
  - c2% of new stock added each year in mature markets
- ***Those with the knowledge don't have the power, and those with the power don't have the knowledge***
  - Property fund managers have seen climate change issues for property as technical rather than investment issues – as such they have 'sub-contracted' them
  - Only recently have strong investment arguments been developed

Need to focus on investment arguments relating to existing stock

Consider three possibilities….

Behaving Responsibly **Enhances Fund Performance**	Behaving Responsibly **Has No Effect on Fund Performance**	Behaving Responsibly **Harms Fund Performance**
Fiduciary Duty to act this way	**"Moral" Duty to act this way**	**Dilemma**
Can we find a logic for this?	Can we invert this logic and do things that do not affect fund performance?	Sadly, many start here…

A need to move understanding along the spectrum

Behaving Responsibly Enhances Fund Performance

Fiduciary Duty to act this way

Behaving Responsibly Has No Effect on Fund Performance

“Moral” Duty to act this way

Behaving Responsibly Harms Fund Performance

Dilemma

‘Lo-cost’/ No-cost Improvements

The changing context for property investment

Moving beliefs

Will responsible real estate outperform?

A logic for enhancing performance through behaving responsibly ?

Behaving Responsibly Enhances Fund Performance

Fiduciary Duty to act this way

Behaving Responsibly Has No Effect on Fund Performance

"Moral" Duty to act this way

Behaving Responsibly Harms Fund Performance

Dilemma

Can we find a logic for this?

How investors think about "worth"

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- **What (else) can I get for my money?**
  - Baseline/ Minimum – **Risk Free** Government Bond (**Rf**)

- **How much risk is there to my enjoyment of returns: how certain are my returns? (Rp)**
  - The higher the risk, the higher the **Risk Premium**, the lower the price

- **How might the income from my investment change over time?**
  - The greater the rate of **income growth** over time, the higher the price (**G**)
  - Markets rise and fall but all buildings **depreciate** (**D**), the faster the depreciation, the lower the price

Anything that affects Rp, G or D affects capital values and asset performance

RPI can have a positive effect on property values and returns

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Setting aside the risk of unanticipated Government regulation…..

Factor	Investment Implications	Underlying effects
Tenants prefer green buildings	▪ Rental differentials emerge between green and non-green buildings ▪ Green assets quicker to re-let	▪ Rental growth higher, depreciation lower ▪ Shorter interruptions to cash-flow, lower risk premium
Green buildings are cheaper to run	More money available for rent	Rental growth higher
Other investors prefer 'green' buildings	Green properties quicker to transact	Greater liquidity, lower opportunity cost and risk premium

- Green assets likely to have lower yields, higher values over time
- As differences in value emerge, green assets should outperform

The more it matters, the more values and performance will be affected

Early evidence of possible benefits

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Results for buildings with Energy Star ratings	
Variable	Impact of being 'green'
Rent per square foot	+3%
Effective rental income (adjusted for prevailing occupancy levels)	+6%
Sale prices	+16%

- Total sample of 9,998 office buildings throughout the USA – 893 "green"
- 1,816 offices sold between 2004 and 2007 – 199 "green"
- Rental information on 8,182 – 694 "green"

Source: Eichholz P, Kok N and Quigley J (2009) Doing Well by Doing Good? Analysis of the Financial Performance of Green

Implications for Value and Asset Performance

- Sustainability will affect the evolution of asset values in the medium term and will, therefore, affect performance

- Sustainability may not be affecting pricing now, but will do in the future
  - (…which means it should be in 'fair value' now)

- The more it "matters", the greater the impact on worth

Does acting on this knowledge mean you are a responsible investor?

- Sustainability is clearly changing the entire context for property investment

- ***Successful investors*** will understand how sustainability will affect asset pricing and prospective performance and act upon this

BUT

- ***Responsible investors*** will go further and look for economic ways to work with assets and tenants to improve the environmental and social credentials of assets and, thereby, protect or enhance future returns

Low cost, no cost and economic actions

Consider three possibilities….

Behaving Responsibly Enhances Fund Performance

Fiduciary Duty to act this way

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"Moral" Duty to act this way

Can we invert this logic and do things that do not affect fund performance?

Behaving Responsibly Harms Fund Performance

Dilemma

‘Low and No cost’: PRUPIM’s (internal) Improver Portfolio

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- What can we achieve without any threat to fiduciary responsibilities - through low and no added cost property management?
- Mixed portfolio of c£500 million of typical assets taken and low and no cost measures used to lower their environmental footprint
- Used binary ‘benchmark’
  - Provide competitive returns with the relevant IPD benchmarks
  - Exhibit diminishing environmental impacts against a Day 1 benchmark
- Use learning to inform property and asset management across the other £20billion of property we manage

Low and no cost - high impact actions (Shopping Centre example)

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	Low Cost	Medium Cost	High Cost
High Impact	• Waste management for landlord • Apply an Energy Management System • Water conservation for landlord • OPR for landlord • Energy management M&T for landlord • Apply ISO 14001	• Waste Management scheme for tenant • OPR tenants area • Water conservation for the tenant	• Energy management M&T for tenant • Fully inclusive leases • Renewable on-site energy generation
Medium Impact		• Renewable energy bought in for landlord • Tenant selection and use • Tenant security and safety • Alienation provisions reviewed – bar on assignment to unwanted tenant types • Green travel plan • Standard traditional lease	• Renewable energy bought in for tenant • Tenant education • Catering • Suppliers
Low Impact	• Landscaping materials • Cleaning materials • Hardstanding	• Cycling facilities • Engage with local community	• Tenant morale and welfare • Business travel data

A case study of economically justified action: Griffin Park, Southampton

The Asset: Griffin Park, Southampton

- 30 years old, secondary, multi-let,15,000 sq.m.
    - Steel portal frame; asbestos roofs
- Refurbish 4 units
- Desire to differentiate product and achieve:
    - Earliest letting
    - Best rental / lowest inducements
    - Longest lease term
    - Best quality of tenant

Case Study: The Plan

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- **Plan**:
  - Un-refurbished units Energy Performance Certificate (EPC) **rating 'E'**
  - Best competing units locally: EPC rating of 'D'
  - Works put in place to gain EPC rating of 'B/C'
- **Improvements**:
  - Asbestos removed, roof insulated, sky light provision increased (to 15%)
  - Double glazed window units for offices,
  - Internal paintwork lightened and reflective to enhance natural lighting
  - Low flush toilets
  - T5 low energy light fittings
- **Other considerations**:
  - All materials sourced locally with suppliers travel distances pre-assessed and monitored
  - Recycled carpet fibres, timber from renewable sources
  - Water based internal and external paintwork

Case Study: Before and After

Before → *After*

Case Study: Outcome

- Premises marketed during refurbishment mentioning 'sustainability' and the ambition for an EPC 'B/C' rating

- Multi-national tenant took a 10 year lease on 3 of the units prior to completion, specifically because:

    - The unit met tenant's corporate requirement for a minimum EPC 'C' rating
    - Tenant could occupy during daylight hours without artificial light*
    - Anticipated energy savings of £4,000 per annum (equal to £0.24 p.s.f.)

Case Study: Estimated Financial Outcomes

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- "Basic" refurbishment: **EPC = 'E'**
- (£10psf)
- Rent psf £5.50
- 2 x (3 yr lease,+ 2yr void)
- 9 months rent free, each term
- Capitalisation Rate 8.50%
- Value c£926,000
- IRR 2yrs -29.40%
- IRR12yrs 1.20%

- Improver Upgrade: **EPC = 'B'**
- (£30psf)
- Rent psf £6.00
- 10 yr lease, no void
- 6 months rent free
- Capitalisation Rate 8.25%
- Value c£1,380,000
- IRR 2yrs -10.69%
- IRR 12yrs 4.61%

Rental premium = c9%; Value premium = c49%; 12 year IRR improvement of 3.37%

Estimated probability of void; if un-refurbished, c100%; basic refurbishment, c50%

Market performance over same 2yr period c -14%

Evaluating Different Approaches to ‘Responsible Property Investment’

Part of the M&G Group

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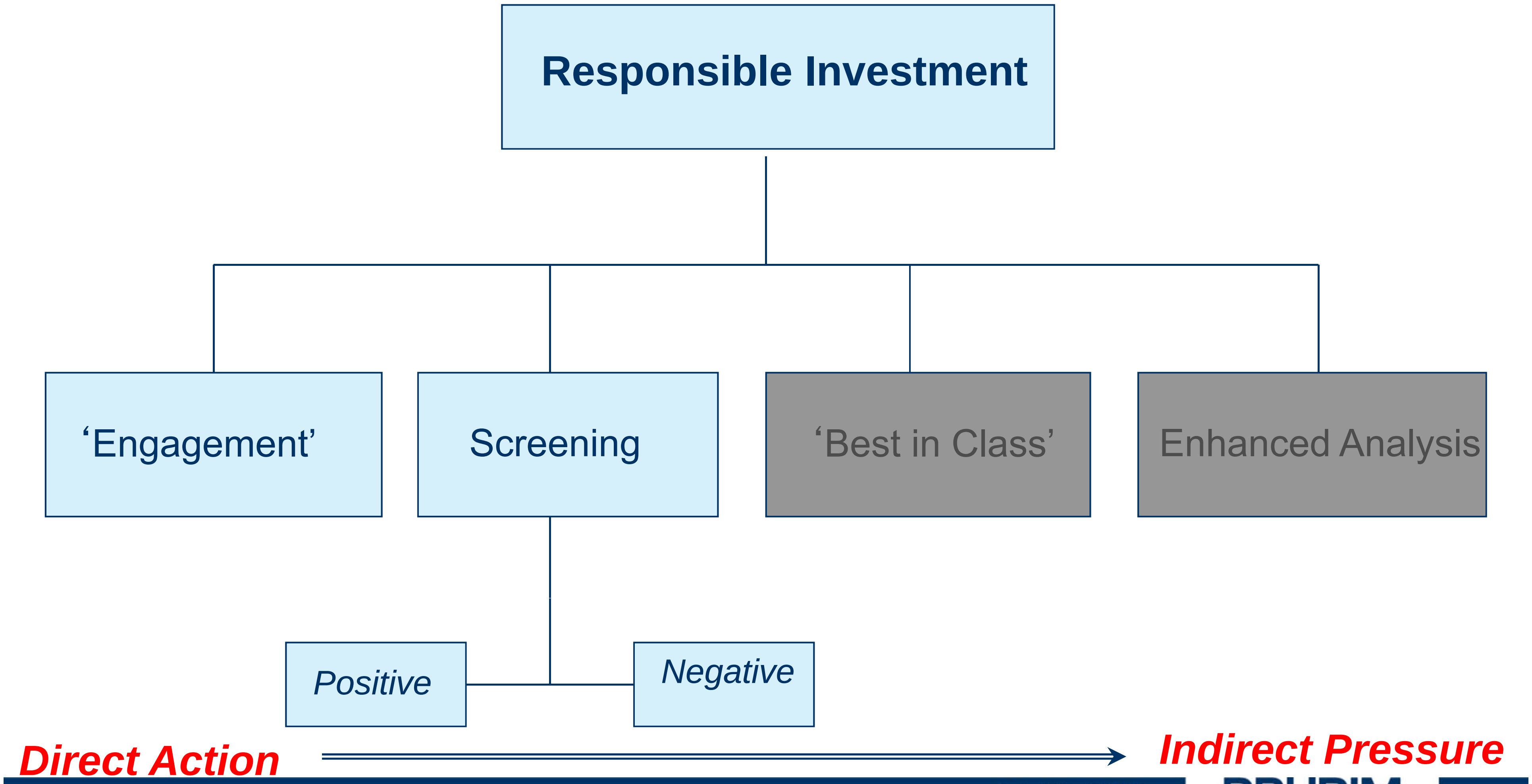
Forms of Socially Responsible Investment



Forms of Responsible Property Investment

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There are a number of <u>worthy</u> approaches – which is best, environmentally and economically?

Green Development [SCREENING]	Intrinsically risky, better at specific stages in the property cycle, and merely mitigates the impact of new additions to stock. Ensures problems are not made worse, contributes little to solving existing climate change issues.
'Dark Green' [SCREENING]	***Positive screening*** to green buildings occupied by green tenants leaves a minute (and therefore, risky) investment universe. Investing in such assets contributes little to solving existing climate change issues whilst ***negative screening*** out of 'polluting' buildings leaves existing problems untouched.
Improver [ENGAGEMENT]	Can potentially buy <u>any</u> assets and, by improving them, make a positive contribution to solving climate change issues in the built stock. This is the most environmentally active and least risky approach to SRPI

Engagement through improvement seems the least risky and most active form of RPI

Conclusions

- Property is a major element of both the problem of, and the solution to, increasing CO_2 emissions
  - A very major user of resources generally and conduit for CO_2 emissions…
  - …but the lowest cost per unit impact on the problem

- Not surprisingly, the social and policy context for property investment in property is, therefore, changing rapidly
  - Property fund managers need to understand these changes and their likely impact on value
  - These influences are not yet fully recognised in asset pricing currently

- Intelligent investors will profit from this knowledge; responsible investors will strive to **'*do well by doing good*' –** especially through **improving existing stock**