

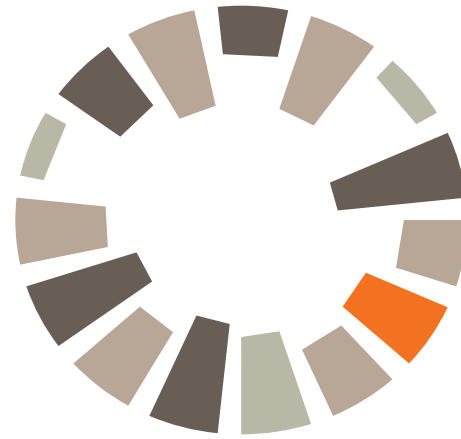
# Real Estate Lending and Sustainability: The Opportunities Beyond Risk Management

*With thanks to*

**TH** Real Estate

9th November 2016

#sustainablelending



G R E S B<sup>®</sup>  
REAL ESTATE DEBT

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## 2016 DEBT ASSESSMENT RESULTS



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+1 202.742.3277 – o

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# GRESB Assessments

Powered by a common mission and platform

## GRESB Real Estate

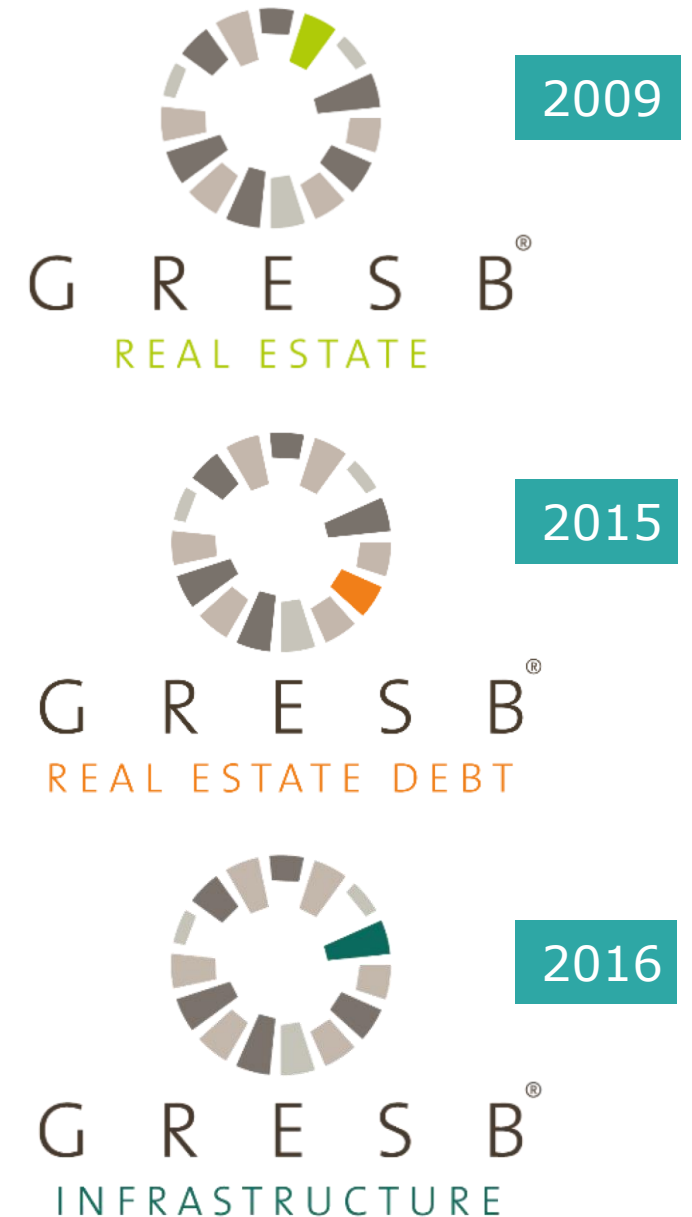
Assesses the ESG performance of property companies, fund managers and developers

## GRESB Real Estate Debt

Assesses ESG performance of real estate lenders

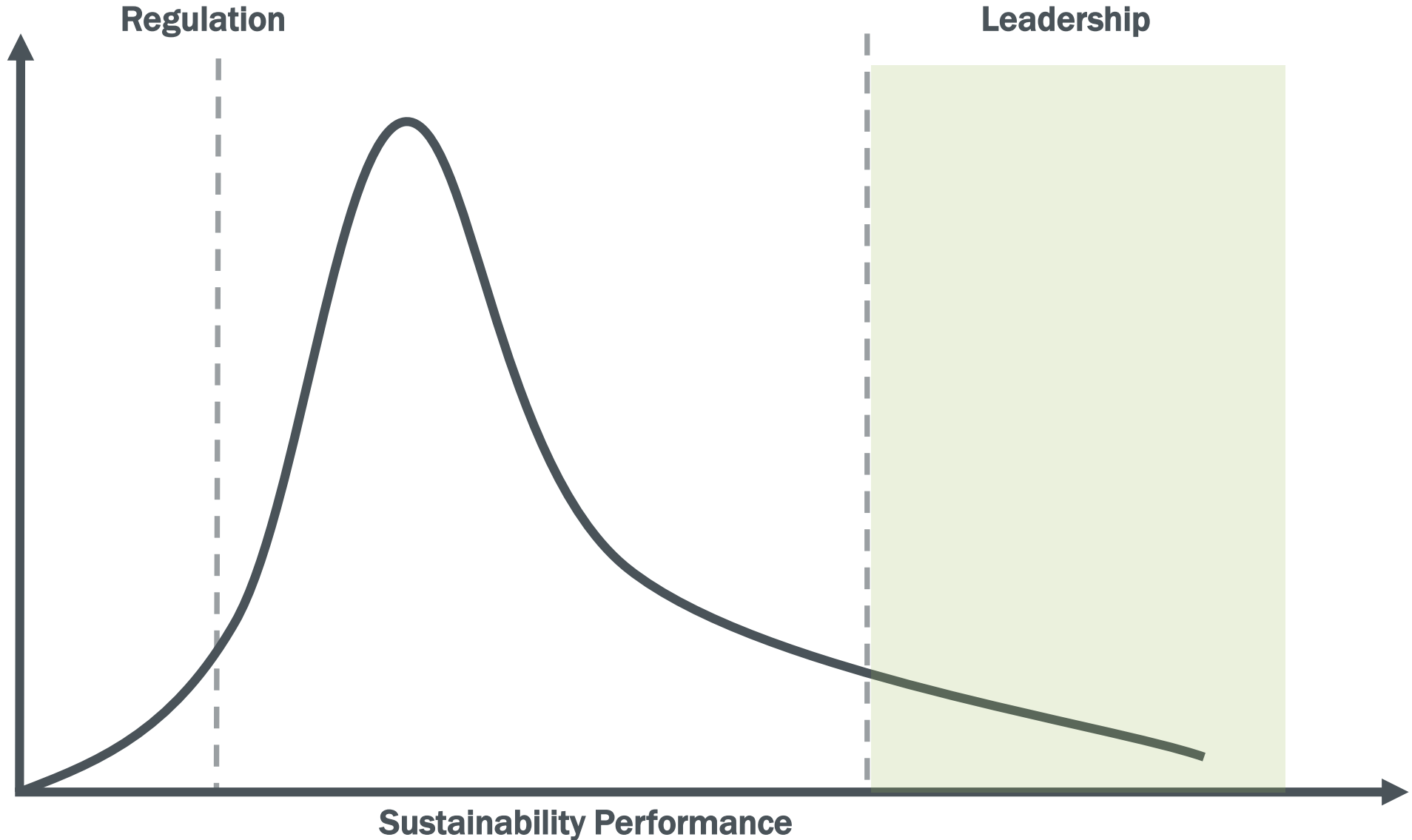
## GRESB Infrastructure

Assesses the ESG performance of infrastructure assets and portfolios



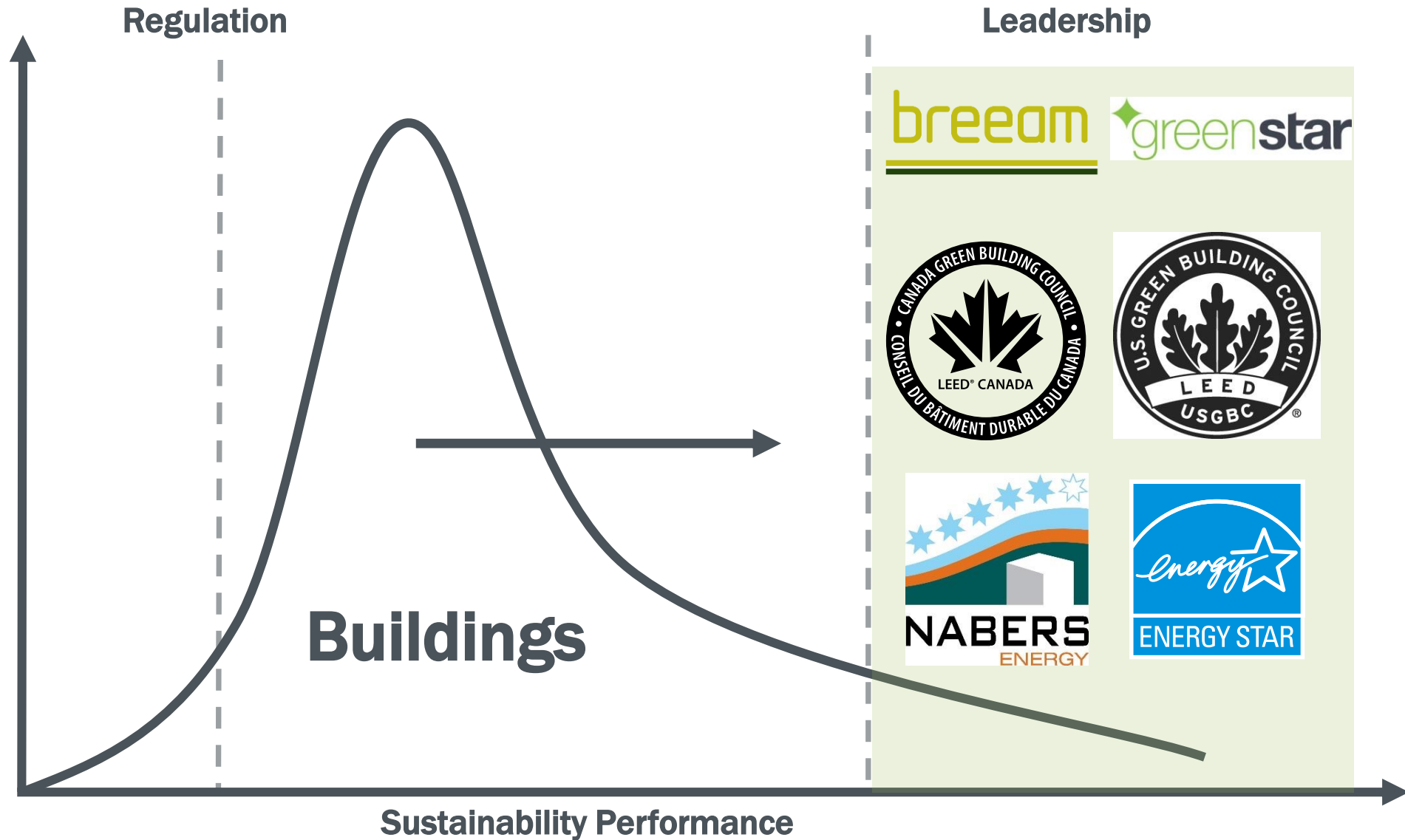
# Distribution of Market Behavior

Economic sectors | business activity | industry classification



# Real Estate Assets

Economic signaling | transparency

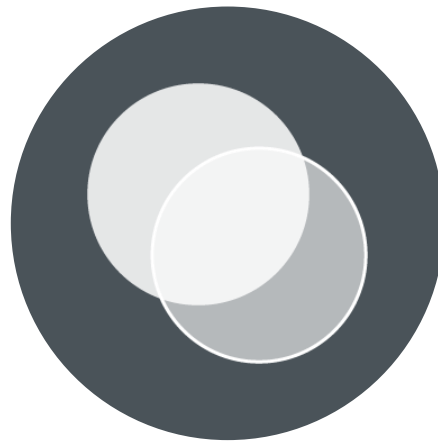


# Capital Market Efficiency

Reducing information asymmetry



**OPPORTUNITY**



**TRANSPARENCY**



**RISK**

# Institutional Investor and Bank Members

Integrate ESG data | utilize GRESB analytic tools

 Founding Members

Aberdeen

ABN-AMRO

actiam

AEGON  
Asset Management

HERMES  
INVESTMENT MANAGEMENT

HESTA  
An Industry Superfund

KAMES  
CAPITAL

KEMPEN & CO  
Merchant Bank

FÖRSTA  
AP-FONDEN

Andra AP-fonden  
Second Swedish National Pension Fund - 2012

AP3 Third Swedish National Pension Fund

AP  
FJÄRDE AP-FONDEN

LOCAL  
GOVERNMENT  
SUPER

MAJID AL FUTTAIM  
مجد الفطيم

mirova  
Responsible Investing

MN

apg

ARCADIS PENSIOENFONDS

AustralianSuper

AVIVA  
INVESTORS

NORGES BANK  
INVESTMENT MANAGEMENT

AN OMERS WORLDWIDE COMPANY

OXFORD

TEACHERS'™  
PENSION PLAN • RÉGIME DE RETRAITE  
DES ENSEIGNANTS ET DES ENSEIGNANTES  
ON TARIO

stichting bedrijfstakpensioenfonds voor de detailhandel

Blue Sky Group

BMO  
BMO Global Asset  
Management

BNP PARIBAS

Bouwinvest

PGGM

PRESIMA

NN

ROBECO  
The Investment Engineers

cath<sup>olic</sup>  
super

CBRE  
CLARION  
SECURITIES

CBRE  
GLOBAL  
INVESTORS

COHEN & STEERS

SEB  
TRYGG LIV

spp

TRS

THE CROWN  
ESTATE

DBJ

GEPF

Grontmij | Capital Consultants

HOOPP  
Healthcare of Ontario  
Pension Plan

TOWNSEND GROUP

TKP  
Investments

LINAV RETIREE  
Medical Benefits Trust

UBS

CalPERS

ING

cbus  
super fund

USS

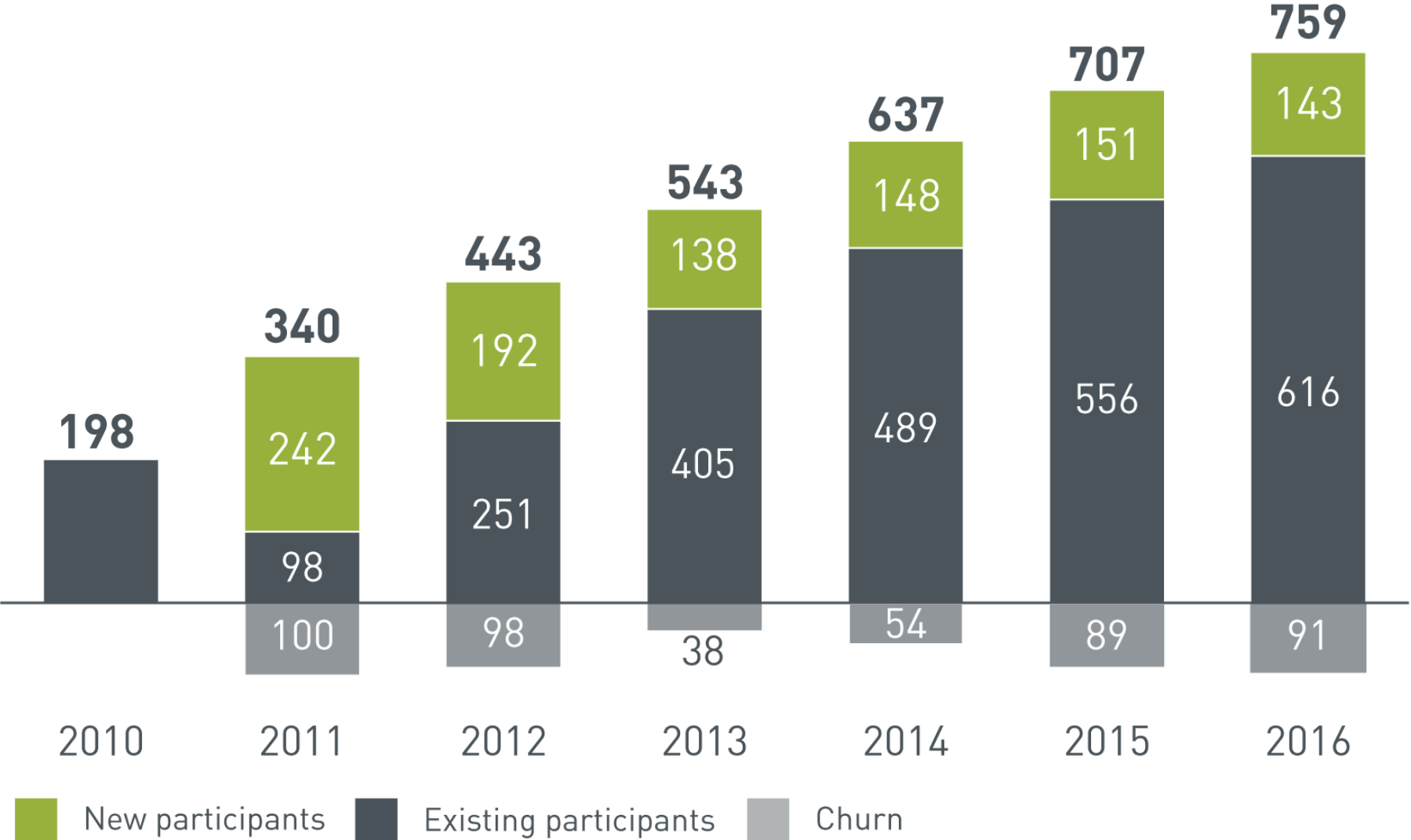
VPMC  
Vermont Pension Management Corporation

WELLINGTON  
MANAGEMENT®



# GRESB Real Estate

Participant growth year-on-year



# 2016 GRESB Participants

Comparative business intelligence | gap analysis | management introspection



Aberdeen Asset Management  
AEW Capital Management  
AEW Europe  
Alberta Investment Mgmt  
American Realty Advisors  
AMP Capital Investors  
Avison Young  
Aviva Investors  
AXA Investment Management  
Bentall Kennedy Group  
BlackRock  
Blackstone  
BNP Paribas REIM France  
Bouwfonds Investment Mgmt  
Bouwinvest REIM  
British Land  
Brookfield  
Canary Wharf Group  
Carr Properties  
CBRE Global Investors  
CIM Group  
Clarion Partners  
Colony Capital, Inc.

CommonWealth Partners  
Cordea Savills Investments  
Cornerstone Real Estate  
Credit Suisse  
Crown Estate  
Deutsche Asset Management  
DEXUS Property Group  
DivcoWest  
DTZ Investors Ltd  
Europa Capital LLP  
Exeter Property Group  
Federal Capital Partners  
Fidelity International  
Fortius Funds Management  
Frasers Property Australia  
Goodman Group  
Grainger Asset Management  
Greystar  
Grosvenor Fund Management  
GTIS Partners  
GWL Realty Advisors  
Harrison Street

Heitman  
Hermes Real Estate  
Internos Global Investors  
Invesco Real Estate  
Investa  
Ivanhoe Cambridge  
J.P. Morgan Asset Management  
Jamestown Properties  
Jonathan Rose Companies  
KingSett Capital  
LaSalle Investment Management  
Legal and General Property  
Lendlease  
MacFarlane Partners  
Madison Marquette  
Majid Al Futtaim Properties  
Manulife / John Hancock  
MetLife Investment Management  
Minto Group  
Moorfield Investment  
Management  
Morgan Stanley  
National Real Estate Advisors

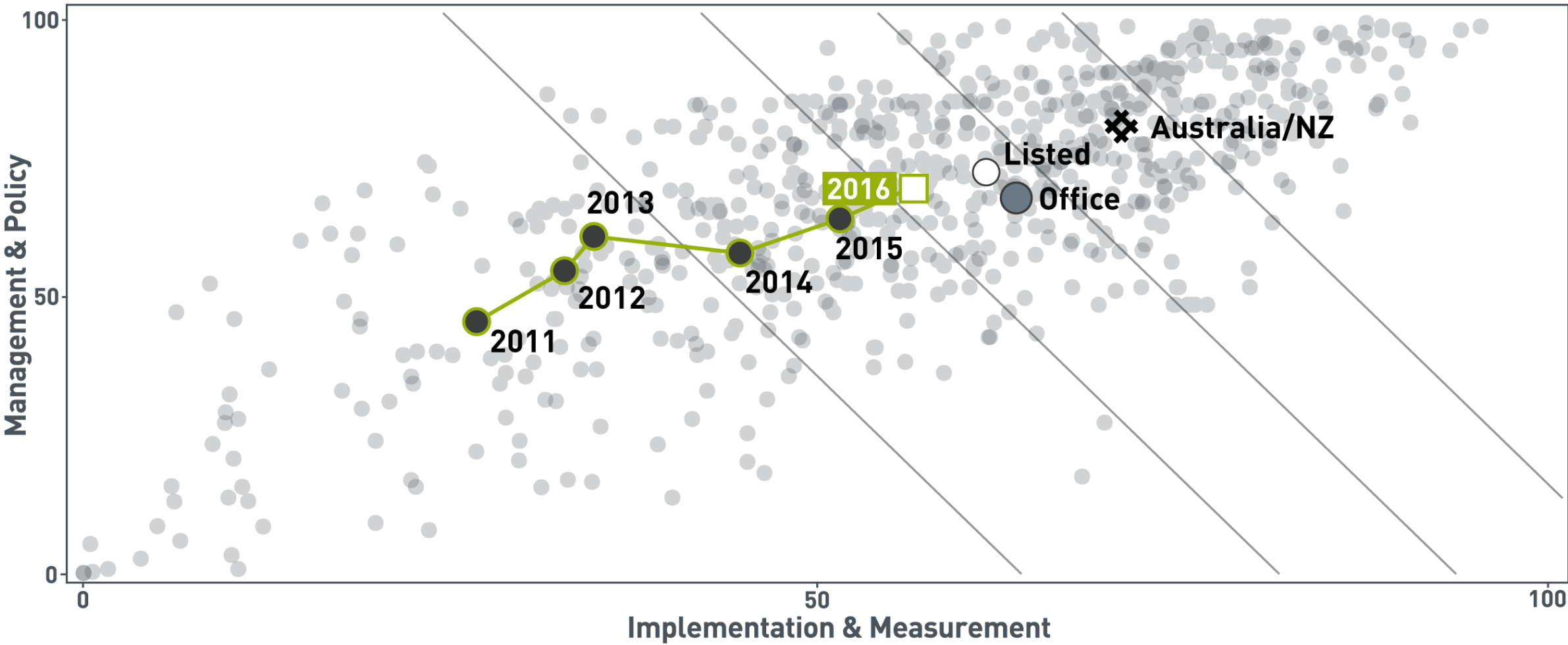
NBIM  
Nomura  
Nordic Real Estate Partners AB  
Normandy Real Estate Partners  
Ontario Teachers' Pension Plan  
Oxford Properties Group  
PGIM Real Estate  
Pine Tree  
Principal Real Estate Investors  
Prologis  
Rockefeller Group  
Royal London  
RXR Realty  
Schroder Real Estate  
Sentinel  
Shorenstein Properties  
Standard Life Investments  
Syntrus Achmea  
TA Realty  
TIAA | Henderson Real Estate  
Tishman Speyer  
Trinity Real Estate

Triovest  
Tristan Capital Partners  
UBS Global Asset Management  
Universities Superannuation  
Scheme  
USAA Real Estate  
Vasakronan  
Vesteda Investment B.V.  
Xander Investment Management

217 private equity firms  
190 listed companies

# Industry Progress

Benchmarking ESG performance of private equity firms / listed property companies



# GRESB Debt

ESG integration by CRE lenders | private equity debt funds



## 1. GRESB Debt Assessment

- Benchmark sustainability engagement and ESG performance for lenders

## 2. GRESB Real Estate ESG data access

- Provide lenders with ESG profiles of borrowers for underwriting / monitoring

## 3. Green Bond Working Group

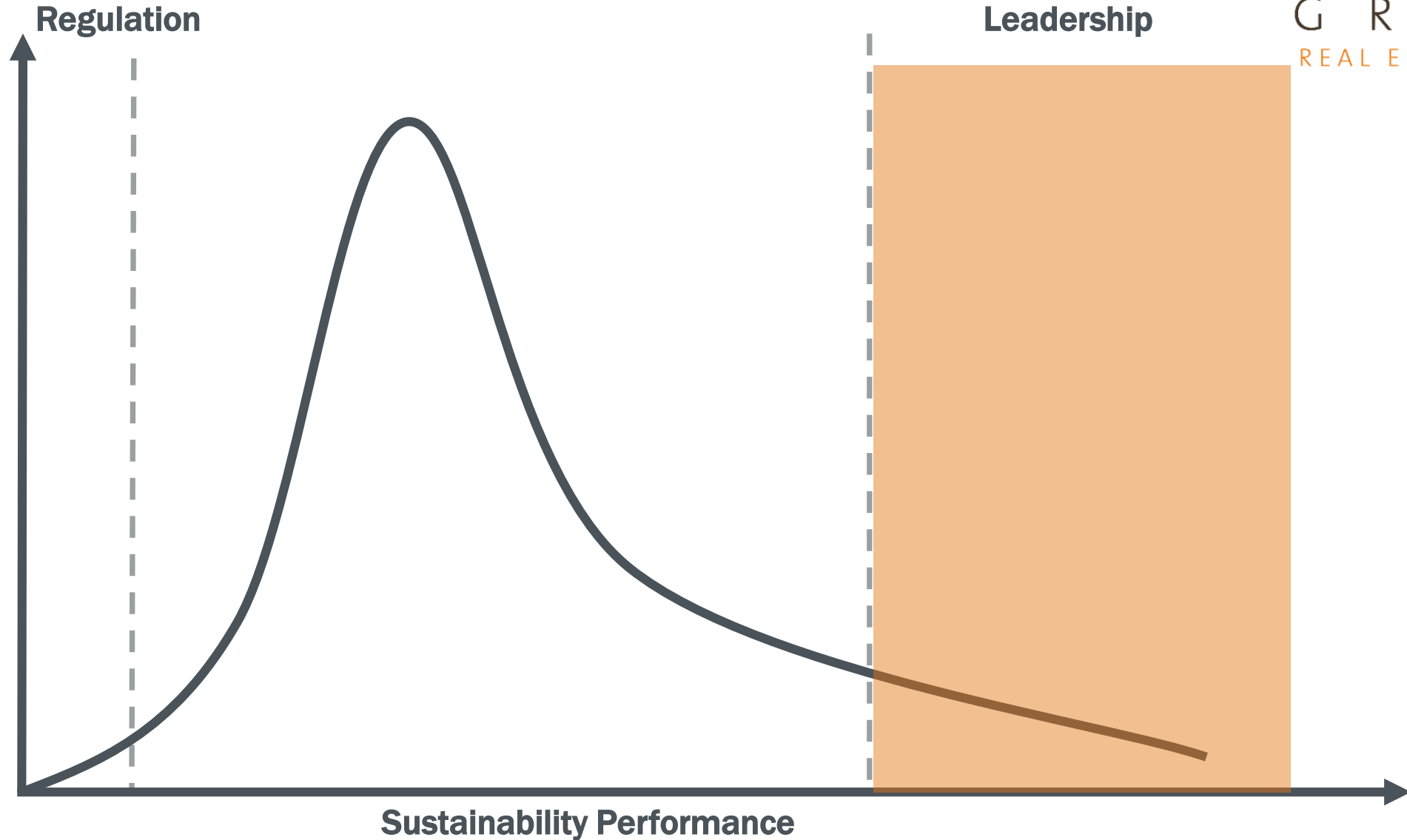
- Evolve best practices to stimulate green property bond transactions

# Market Behavior: Real Estate Lending

Risk Assessment | Underwriting | Loan Products | Portfolio Monitoring



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REAL ESTATE DEBT



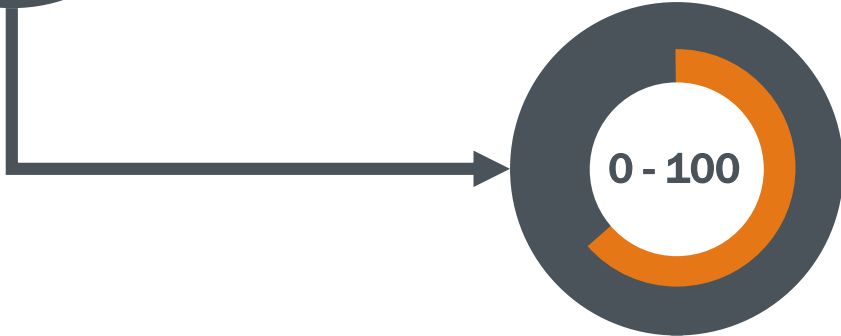
# GRESB Debt Assessment

## Objectives



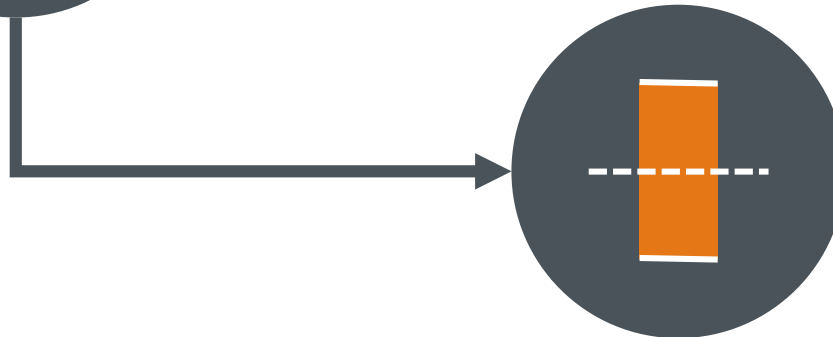
### Systematic assessment

primary lenders / real estate  
debt funds [all capital stack levels]



### Objective scoring

environmental, social and  
governance performance

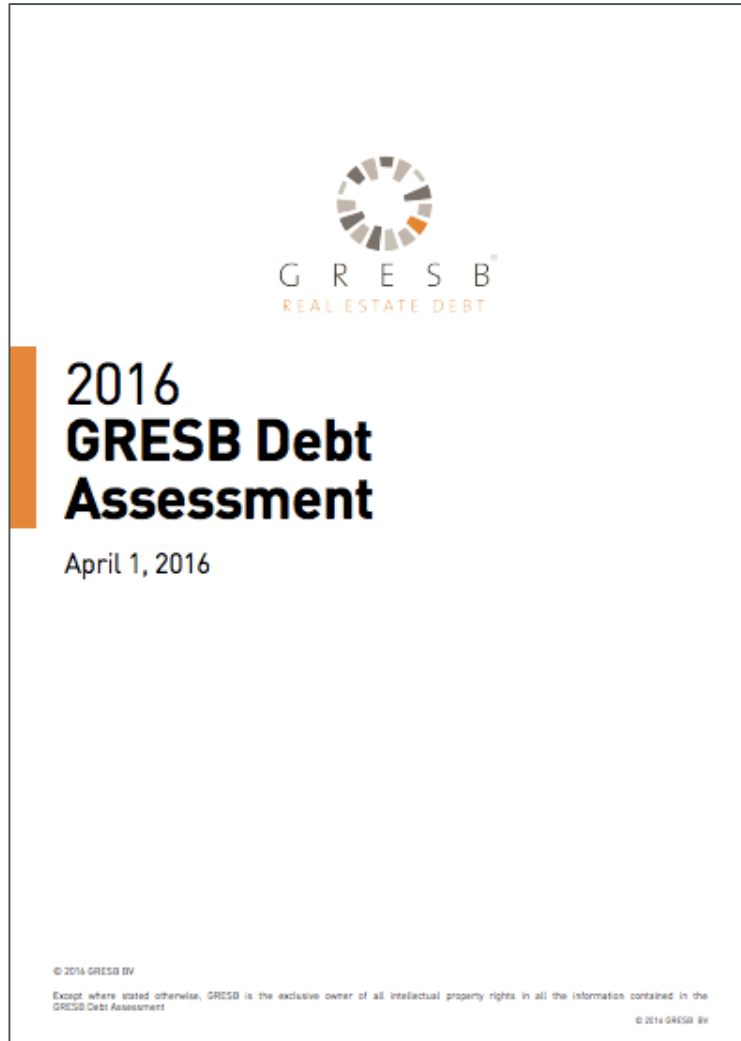


### Peer benchmarking

differentiate market behavior

# GRESB Debt Assessment

## Market progress



## Participation

- Real estate finance units of banks
- Real estate debt funds
- Insurance companies [applicable]
- Mortgage REITs [applicable]

## Indicators

- Five categories | 29 specific aspects
- Individually validated
- Specific scores and weights

## Results

- 2015 | 2016 Assessments provided base level of industry intelligence, uncovering best practices

# Participant Objectives

Two common themes



## PARTICIPANT GUIDE



## Management Introspection

- Portfolio evaluation | gap analysis
- Process assessment
  - due diligence / underwriting
  - loan monitoring
  - risk management analysis
- Product development

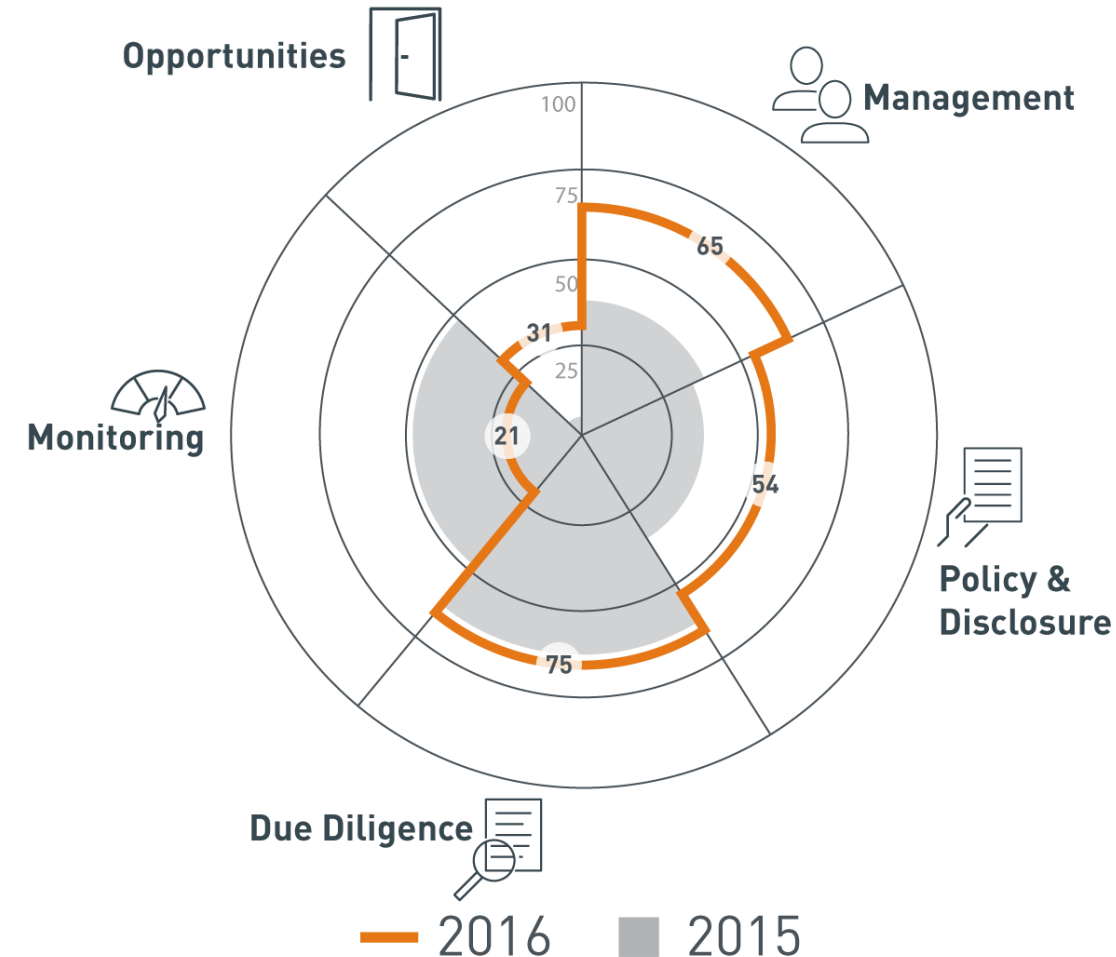
## Communication

- Informed forward business planning
- Data for external communications



# 2016 Debt Assessment Results

Year-on-year aspect changes



## Improved operations

- Incorporate ESG policies into ongoing operations

## Increased disclosures

- Enhanced external stakeholder communication

## Underwriting advances

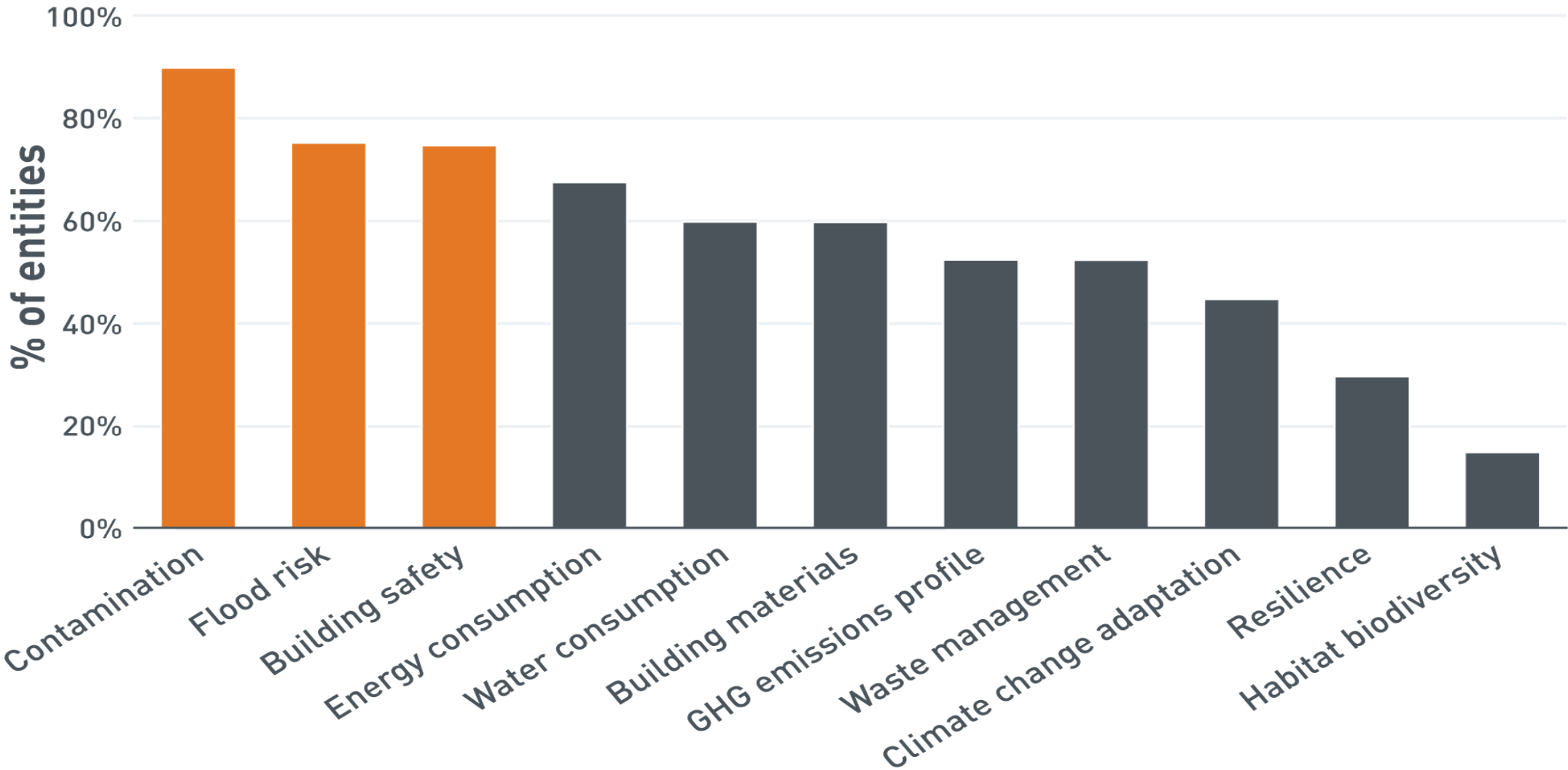
- Energy / water audits
- Building certifications
- Resilience risk assessments

## Monitoring challenges

- Persistent difficulty implementing ESG monitoring

# 2016 Debt Assessment Results

Loan underwriting practices

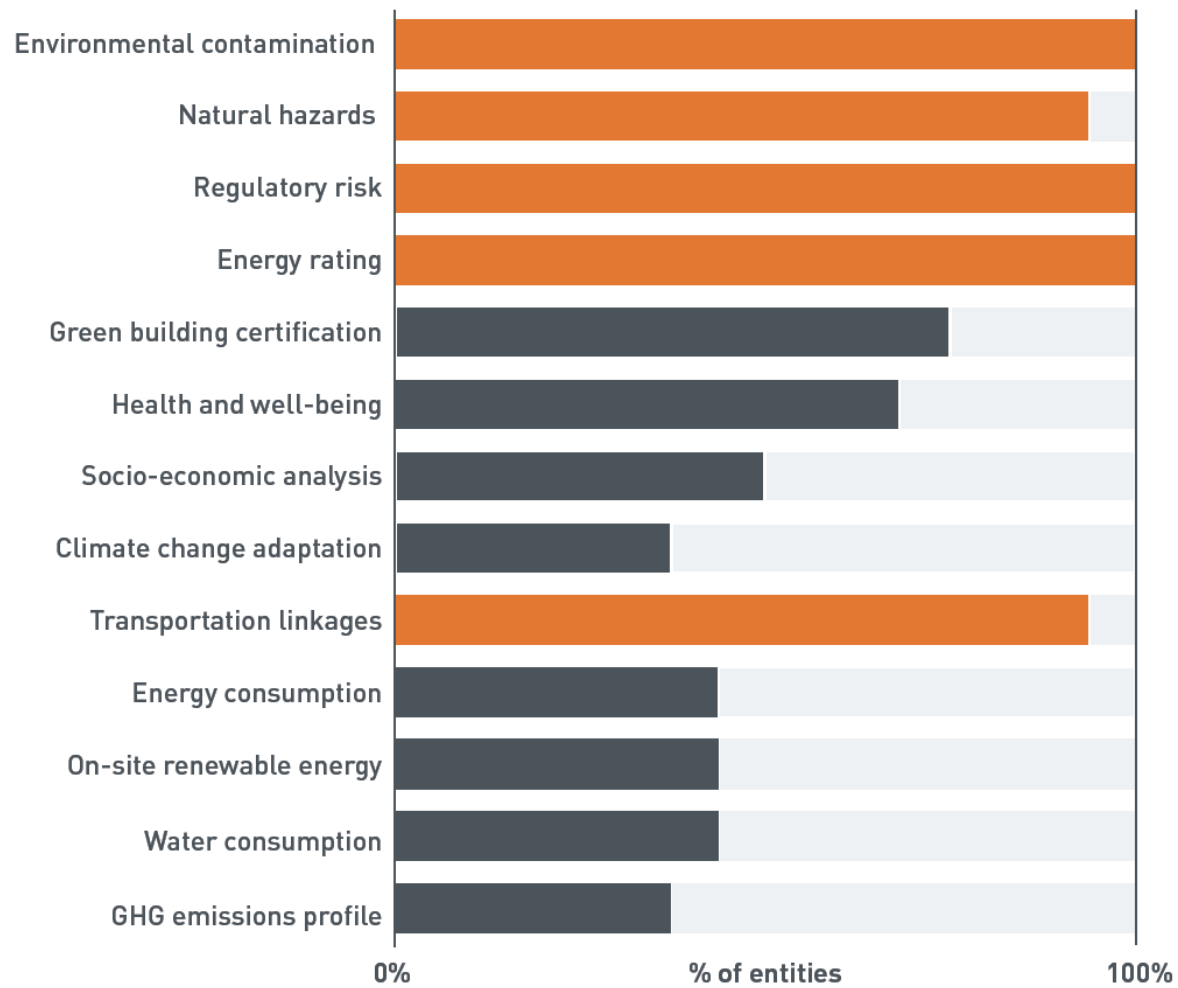


# GRESB Real Estate Debt

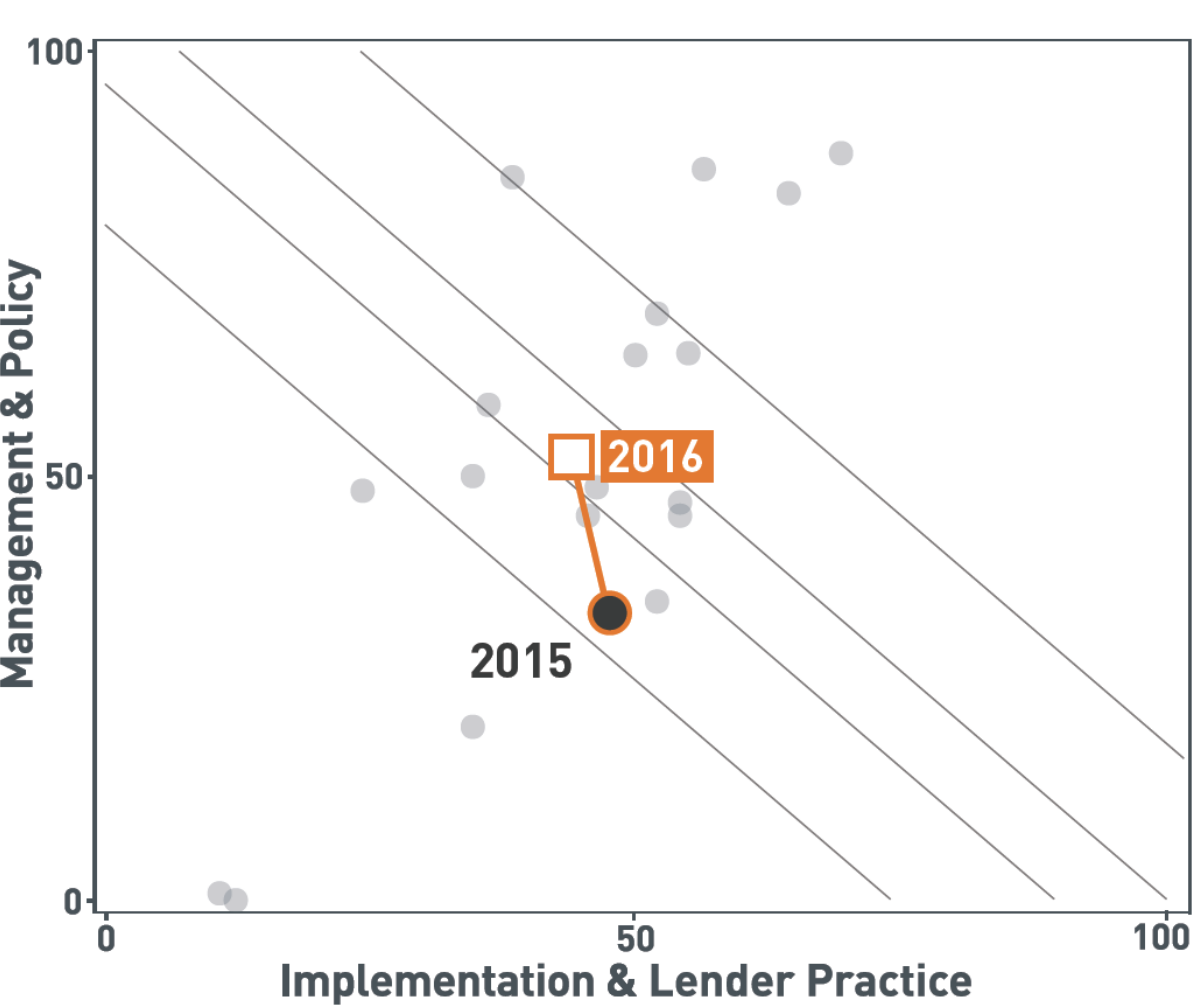
## Risk Indicators



### Risk Management



### GRESB Model



# Market Observations

Leaders :: ESG inclusion in lending programs



## Advanced data analysis

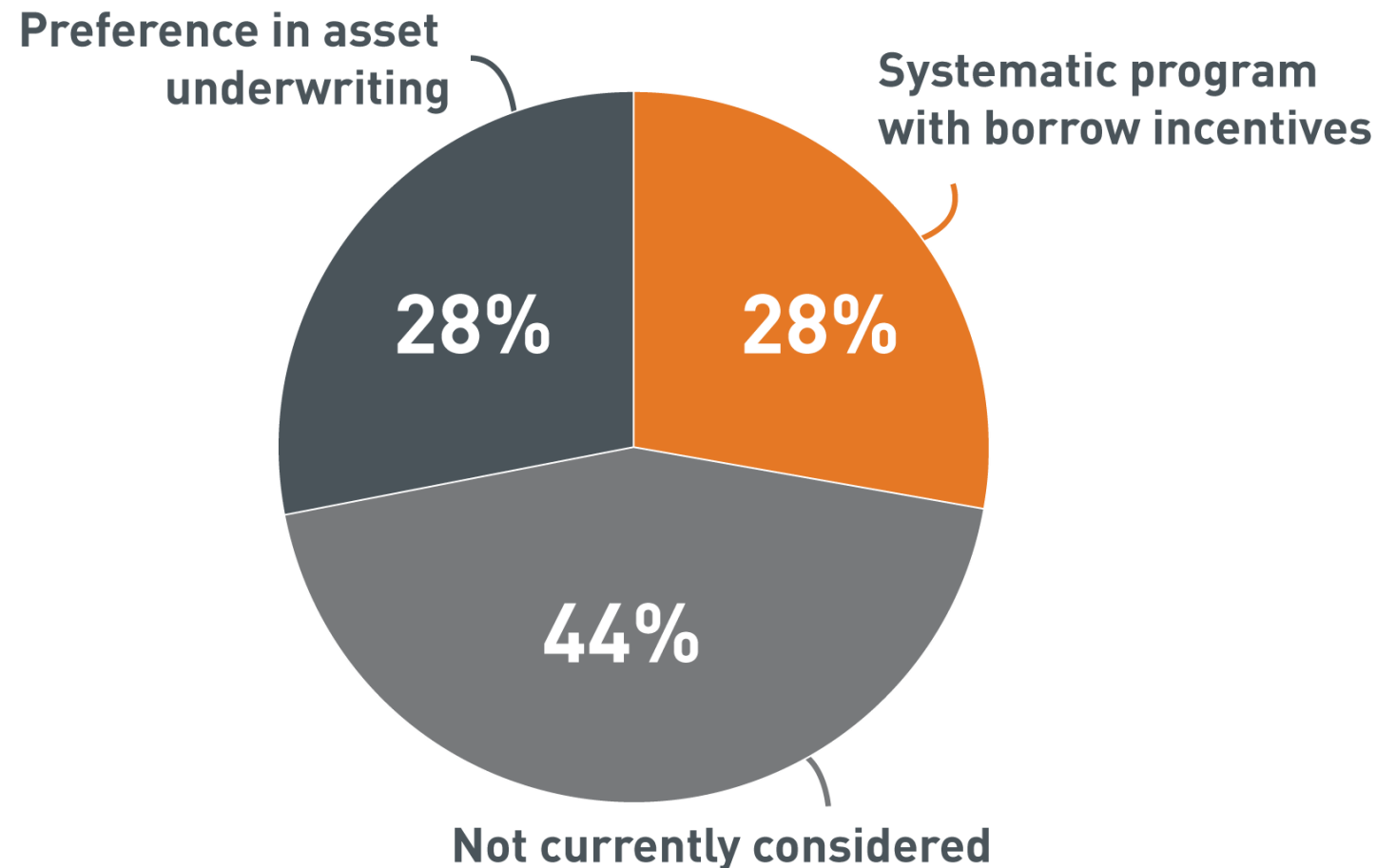
- GhG emissions
- waste management
- resiliency attributes
- indoor environmental qualities

## Targeted lending

- certified buildings
- retrofit opportunities

## Green bonds

- Tracking / bundling loans for securitization as “Green Bond”



# Best Practice: Colony Capital

## Enhanced underwriting and data analytics



Single page document with key findings	Location, transportation and connectivity	Water and climate risks	Current building Certification	Potential Building Certification	Recommended improvements and costs associated
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## KEY SUSTAINABILITY ATTRIBUTES

Recycling and composting	LED lighting and occupancy sensors	Drought efficient landscape	Reflective Roof and Efficient windows	Green Cleaning and no smoking policy	Indoor air quality assessment
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# Market Dynamic: United States

## Fannie Mae Multifamily GreenRewards program

### Enhanced underwriting

Target 20%+ utility cost savings

- Free ASHRAE energy audit
- Free water audit

### Increased loan proceeds

Based on NOI impacts

- 75% of OpEx improvements
- 25% of tenant utility costs

### Preferential pricing

Based on adjusted risk profile

- 10bp minimum

### Green bond securitization

\$1.6 billion in loans [3Q16]

- Strong pipeline for securitizations

Fannie Mae Multifamily  
is giving you the **green**  
to **go green**



### Where do I begin?

If your property has one of the following  
Multifamily Green Building Certifications:

- EarthCraft
- ENERGY STAR®
- Enterprise Green Communities
- Green Globes
- GreenPoint
- Leadership in Energy and Environmental Design (LEED)
- National Green Building Standard (NGBS)

If you're ready to reduce operating costs  
and create value with smart property  
improvements, such as:

- Upgrading to ENERGY STAR® appliances
- Upgrading boiler
- Replacing inefficient lighting
- Installing solar systems
- Installing water-saving irrigation systems
- Improving insulation
- Making other energy- & water-saving improvements


Fannie Mae Multifamily offers these financial incentives:

Preferential pricing

**Preferential Pricing**  
Free energy and water audit paid by Fannie Mae  
Additional loan proceeds

# Competitive Response

## Freddie Mac Green Advantage program



for Seller/Service

for Borrowers

for Investors

News & Research

About Us

About Us

What We Do

Our Results

Who We Are

Work With Us

Find a Lender

Products

Conventional

Seniors Housing

Small Balance Loan

Targeted Affordable Housing

Look Options

Freddie Mac Multifamily Green Advantage<sup>SM</sup>

Better Pricing, Larger Proceeds, Energy Savings

Go for the Green Advantage—and Save!

Term Sheet [PDF]

Green Assessment <sup>SM</sup>	Green Assessment Plus <sup>SM</sup>	Green Certified	C-PACE Consent	Green Rebate
Green Up <sup>SM</sup>	Green Up Plus <sup>SM</sup>			

We make it easy to be green! In addition to saving energy and water, with our Green Advantage<sup>SM</sup> suite of offerings, you may also qualify for better pricing and higher proceeds.

Whether energy-saving improvements are planned for a new acquisition or refinance—or if the property is already green certified—you can save.

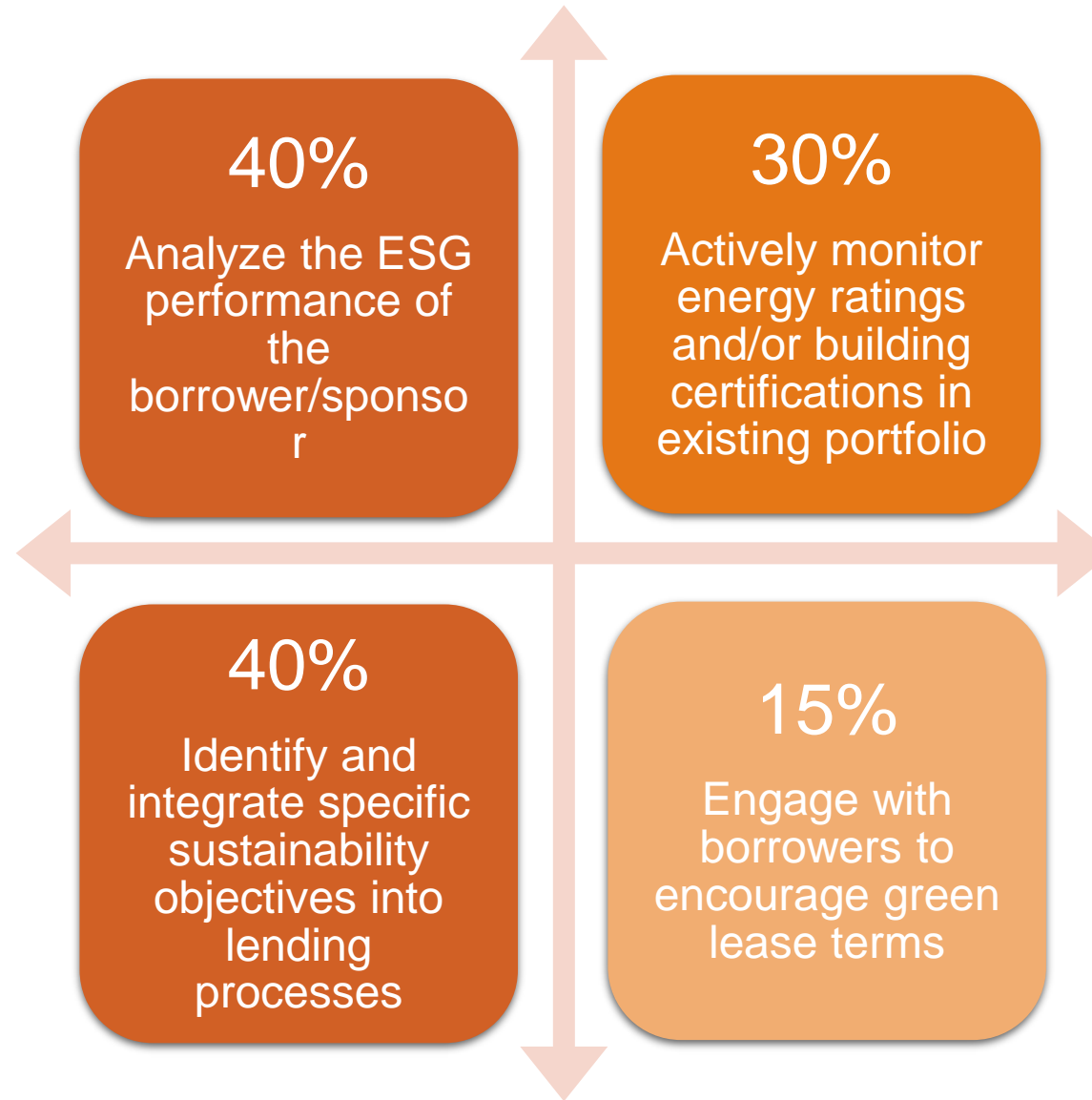
Green Advantage works with our Conventional, Targeted Affordable and Seniors Housing products.

23



# Key Takeaways

## 2016 GRESB Debt Assessment Results



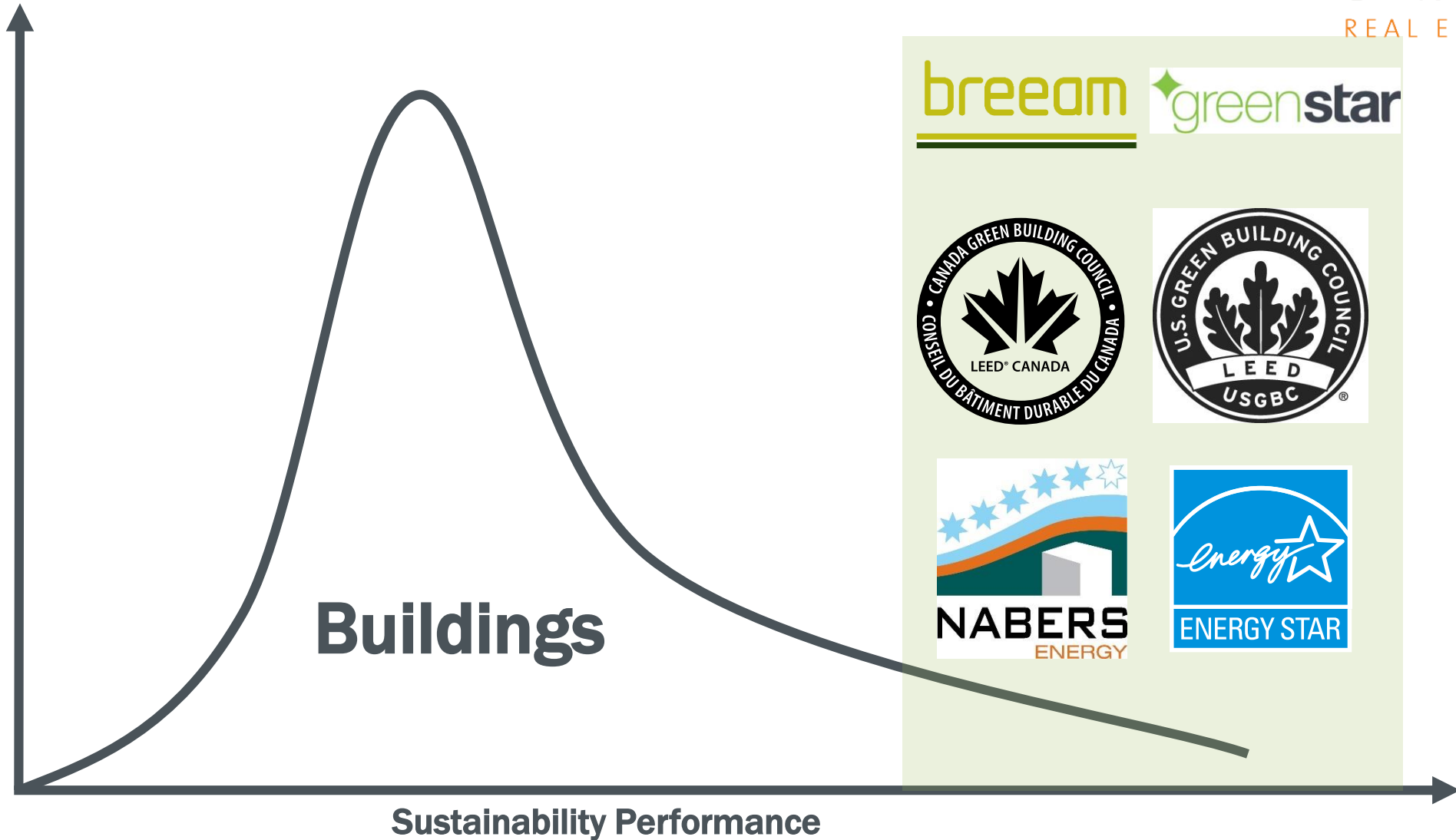


# How Are Your **Buildings** Doing?

Collateral quality

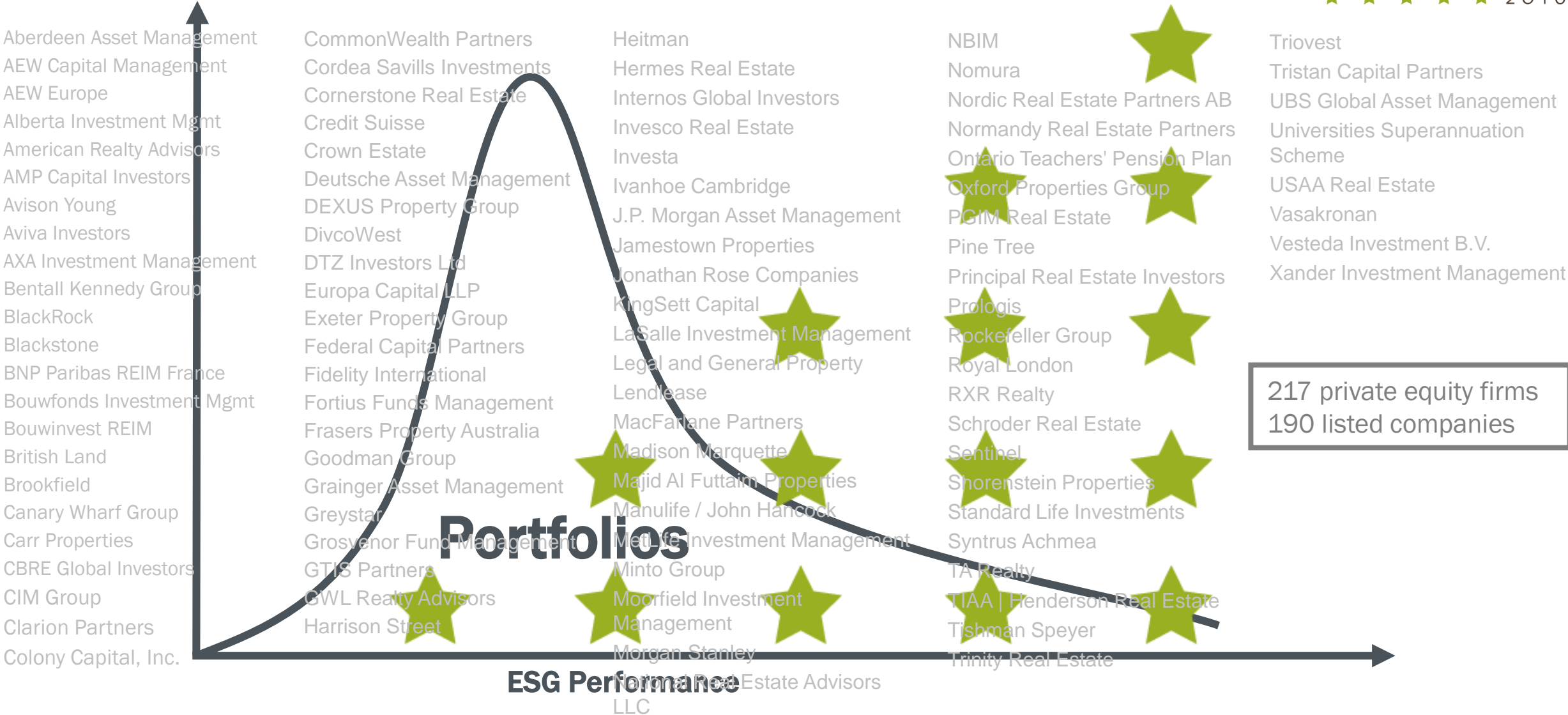


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# How are your **Borrowers** Doing?

Insight :: management capabilities | engagement | risk management



# Benchmark | Assess | Improve

How are you doing?



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# BEYOND RISK MANAGEMENT: SUSTAINABILITY INNOVATION IN COMMERCIAL REAL ESTATE LENDING



**David Short**  
Chair, BBP CRE Lender  
Sustainability Working Group

# The Better Buildings Partnership is

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A collaboration of the UK's leading property owners who work together to improve the sustainability of the UK's existing commercial buildings.

Our aim is to

---

Enable market transformation through sustainability leadership and knowledge sharing across the property industry.



# Members

Aberdeen

AVIVA  
INVESTORS

Blackstone

British  
Land

bruntwood

CADOGAN

27  
members

CANARY WHARF  
GROUP PLC

Capital &  
Regional

CLS Holdings plc

CORDING  
REAL ESTATE GROUP

THE CROWN  
ESTATE

Deutsche Asset  
& Wealth Management

GREAT  
PORTLAND  
ESTATES

GROSVENOR

Hammerson

HERMES  
INVESTMENT MANAGEMENT

intu

LandSecurities

+£180bn  
Assets Under Management

LaSalle  
INVESTMENT MANAGEMENT

Legal &  
General  
INVESTMENT MANAGEMENT

LOW  
CARBON  
WORKPLACE  
Partnership

M&G  
REAL ESTATE

SEGRO  
WHERE BUSINESS WORKS

Shaftesbury

450m  
sq ft

TH Real Estate

Transport  
for London

WORKSPACE

BBP | BETTER  
BUILDINGS  
PARTNERSHIP

# Our Objectives

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SHARE KNOWLEDGE

DEMONSTRATE  
LEADERSHIP

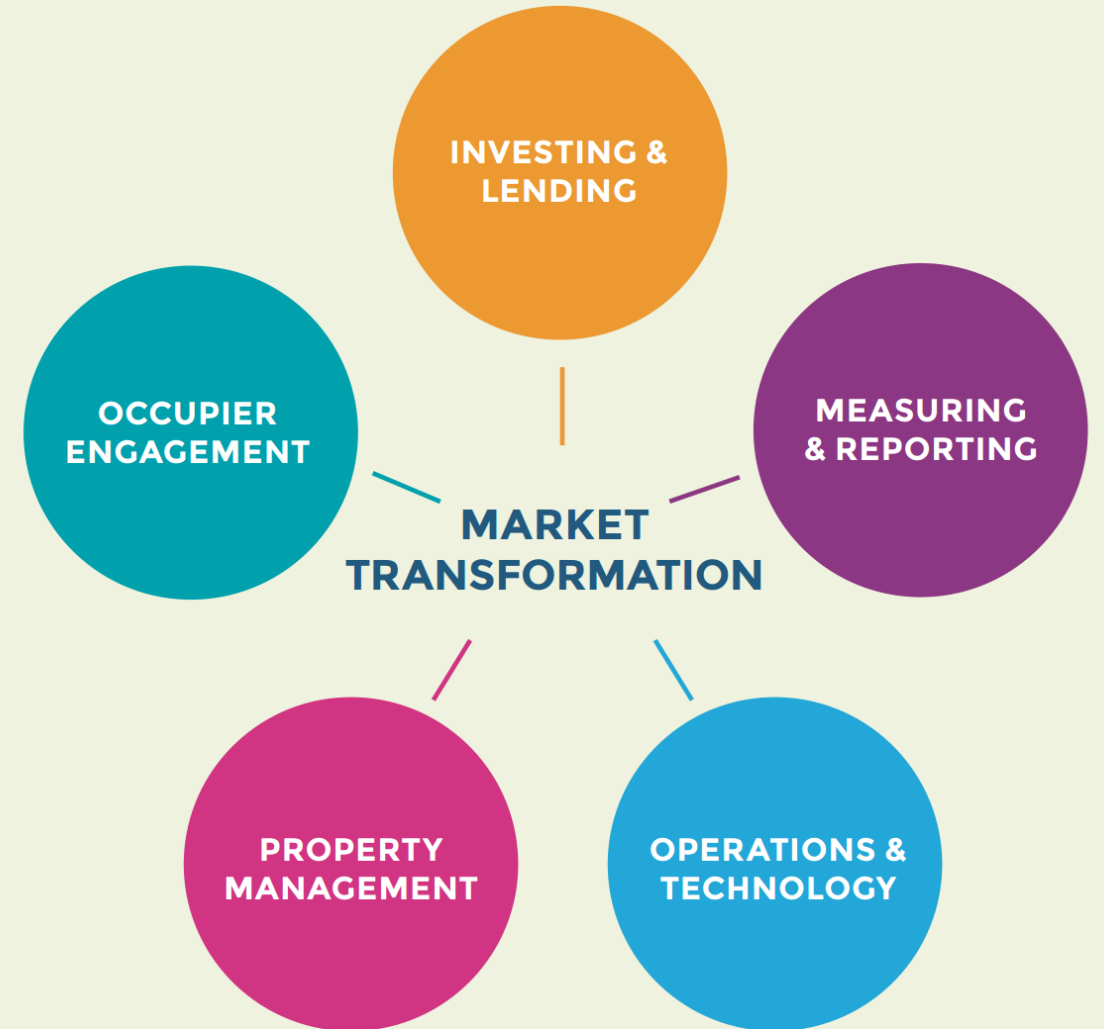
PROMOTE  
INNOVATION

INFLUENCE THE  
SECTOR

SUPPORT  
COLLABORATION

# Our Priorities

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# CRE Lending Working Group

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Deutsche Asset  
& Wealth Management



TH Real Estate



LLOYDS BANK



# From Risk to Opportunity

## Sustainability Innovation in Commercial Real Estate Lending



# Drivers for Action

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Leadership & brand



Managing risk



Borrower  
relationships



Investor pressure  
and diversification



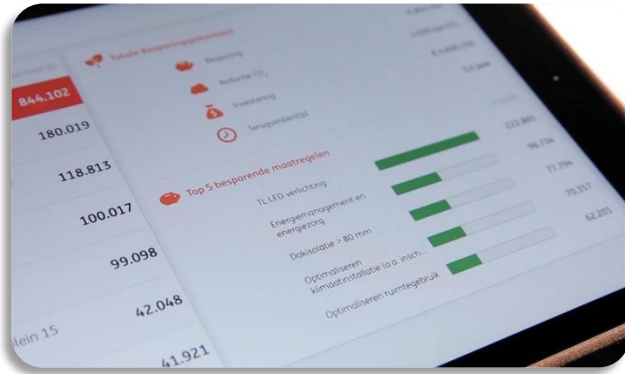
Potential interest  
from financial  
regulators



Integrated banking

# Case Studies – three categories

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Borrower engagement through apps and data



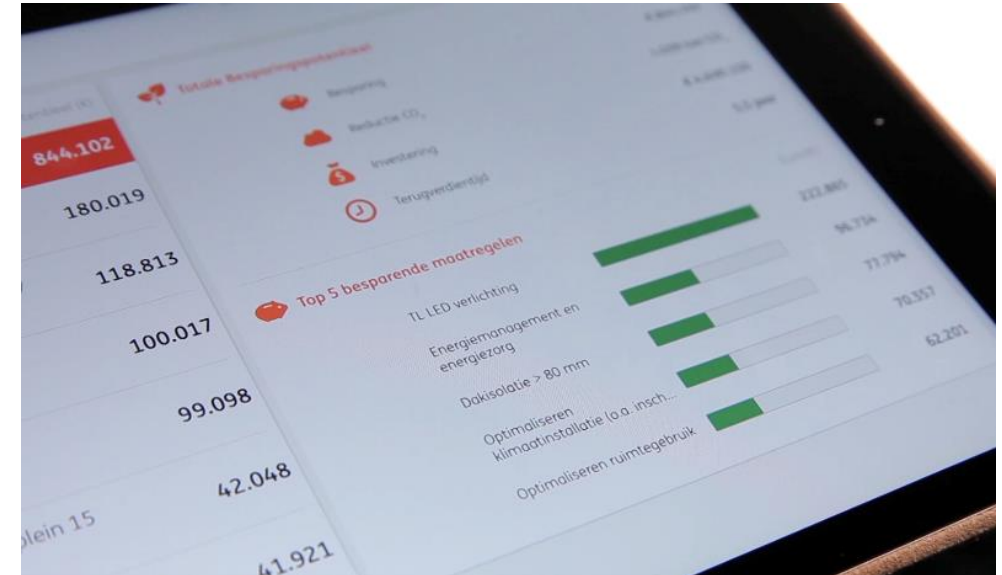
Green mortgages



Green Bonds

## Case Study: Apps and Data

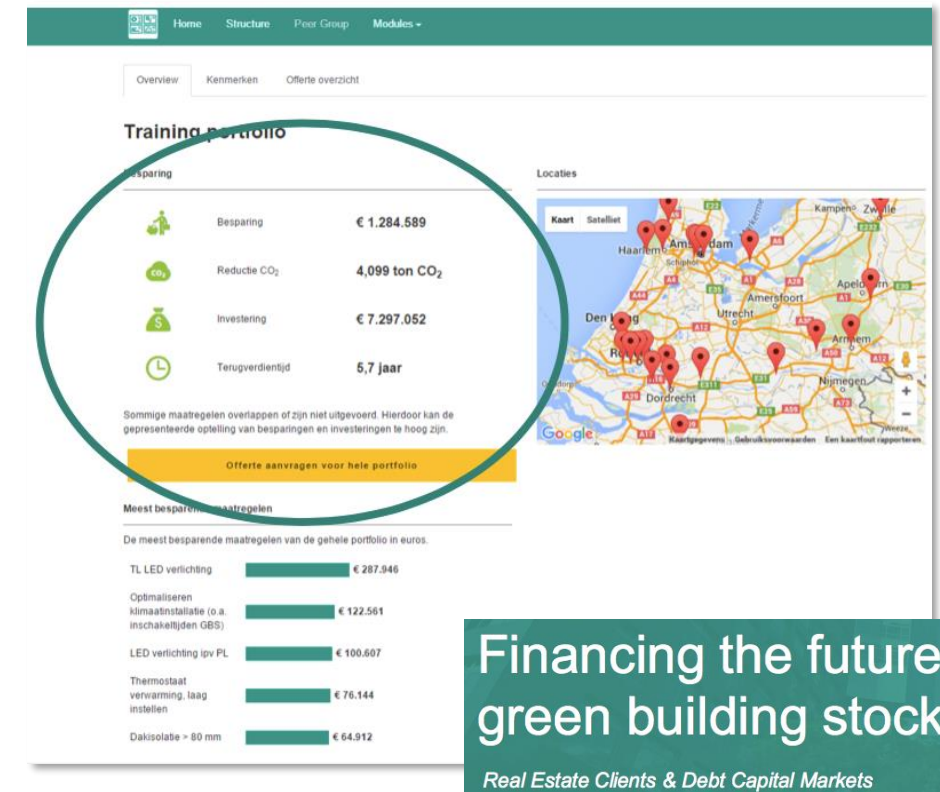
- ❑ iPad app for borrowers
- ❑ Borrowers enter basic data on their buildings
- ❑ Receive desktop energy investment opportunity assessment (top 10 measures)
- ❑ On-site energy & BREEAM check for best opportunity buildings



*“Our goal is to empower thousands of clients to ‘sustainabilise’ their portfolio”*

# Case Study: Sustainable Investment Tools

- ❑ Web application provides energy investment options for borrower CFOs
- ❑ ABN has data on collateral
- ❑ Tech tool provide investment/payback options for common measures
- ❑ Also help on finance, subsidies and technical partners







0 Terug

1 Huidige situatie

2 Oplossing

3 Kies installateur

4 Offerte

Energy Module

Lekstraat 13, Beverwijk

Besparing

€ 1.212

Technisch advies

Financiering

Offerte aanvragen

Subsidie

Gebouw Kenmerken



## Lekstraat 13 Beverwijk - Vervangen ketels door HR107 ketels

### Businesscase



Besparing

€ 1.212



Reductie CO<sub>2</sub>

4 ton CO<sub>2</sub>



Investering

€ 13.650



Terugverdientijd

11,3 jaar

### Huidige situatie

Huidige opwekking verwarming

VR ketel

Vermogen ketel

210.0

Bouwjaar

Toelichting

Opslaan

### Status

Status

Mogelijk

Uitgevoerd

Mogelijk

Niet in scope

### Beschrijving

HR ketels verbruiken in vergelijking tot oudere CR en VR ketels minder gas voor het produceren van dezelfde hoeveelheid warmte.



Impact duurzaamheid



Verbetering comfort



Verbetering energielabel



Investering



Besparing



- ## Lloyds in £1bn green property fund

John Feeney, global head of commercial real estate at Lloyds Bank, said he expects the typical loan to be be-

**Lloyds Bank Commercial Banking has completed the first deal under its £1bn green lending fund by providing a £17m investment loan to Trinova Real Estate.**



## Call to action

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Banks and other real estate lenders can play a meaningful role in sustainability whilst at the same time:

- ☐ Demonstrating leadership
- ☐ Engaging borrowers
- ☐ Managing risk
- ☐ Driving new business

What can **your business** do?



# What can you do next?

## Industry Insight Paper



Due January 2017

## BBP Working Group



Join us

## Get Thinking



5 Carbon bubble?  
Financial risks related  
to a sudden energy  
transition

BlackRock issues climate change warning

Investors must adapt their portfolios to combat global warming, says world's largest asset manager

Take action

# Get in touch with the BBP

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Commercial Real Estate  
**Lloyds Bank**



**Christoph Wagner** is  
Director of Debt  
Strategies  
**TH Real Estate**



**Mario Van Teijlingen**  
Director of  
International Business –  
Real Estate Finance  
**ING**

#sustainablelending