

# **SPRING WORKSHOP SERIES**

**UK – 16 MAY 2023**



# AGENDA

## WELCOME AND INTRODUCTION

- Andrew Mulley, Citi
- Markus Schaber, EDW

## UPDATE ON EUROPEAN DATAWAREHOUSE SOLUTIONS

- Clifton Cornell & Gopala Sankaran, EDW

## SUSTAINABLE FINANCE UPDATE: ENGAGE FOR ESG ACTIVATION INVESTMENTS PROJECT

- Christian Thun, EDW

## UK AND EUROPEAN SECURITISATION MARKET OUTLOOK

- Meghan Kellerher, JP Morgan

## CREDIT TRENDS WITH A FOCUS ON THE UK

- Mudasar Chaudhry, DBRS Morningstar

## USING ENHANCED PROPERTY DATA FOR GREEN RMBS IN THE UK

- Joseph Webb & Orla Shields, Kamma

## PANEL: REGULATORY & LEGAL PERSPECTIVES ON THE LATEST UK DEVELOPMENTS

- Maria Green, Alley & Overy
- Julia Tsybina, Clifford Chance

## CLOSING REMARKS

## NETWORKING RECEPTION

# **UPDATE FROM EUROPEAN DATAWAREHOUSE**

**CLIFTON CORNELL, EDW**

# EDW UK – AT A GLANCE

## Key Solutions and Features

### Public Transactions

**EDITOR** - integrated web application for uploading relevant files including CSV2XML Converter tool for FCA & ESMA templates

**Bespoke CSV2XML Converter** - solution converts raw data into an FCA/ESMA-compliant XML

**Extended Template** – FCA/ESMA data fields plus all additional fields relevant for CRAs, made directly available to CRAs

**Dual Reporting** - EDW automatically mirrors data uploaded to its UK platform on its EU platform. EU investors can directly access all relevant data on the EU platform

### Private Transactions

### Support Services

**Conversion from BoE or own data tapes to FCA/ ESMA templates**

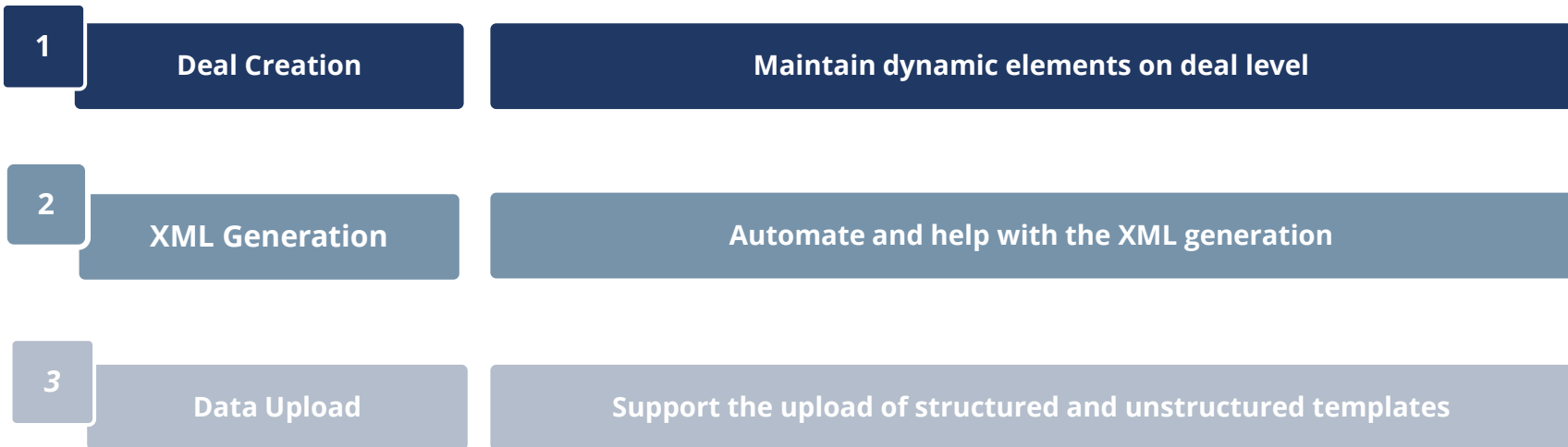
**Production of FCA-compliant Investor Report & Significant Event templates**

**Production of BoE/STS compliant cash-flow models**

**Outsourced Data Provider**

# EDW'S ANCILLARY SERVICE FOR DATA OWNERS & DATA PROVIDERS

## A Modular Approach



# WHAT'S COMING

## Future Enhancements & Products

**New Written Confirmation  
process with pre-populated  
templates**



**Simplified process including automated signature  
module**

**New UK Private Covered  
Bond Data Room as part  
of EDITOR**



**Secure environment for dissemination of non-  
public data through EDW as regulated entity with  
broad institutional ownership**

**Provision of data and documents to:**

- Regulators / BoE
- Rating agencies
- Selected investors

**Selection of user-specific access at document level**

**Data hosting in UK**

**Data usage statistics**

# **EDW DEAL REPORT**

**GOPALA SANKARAN, EDW**

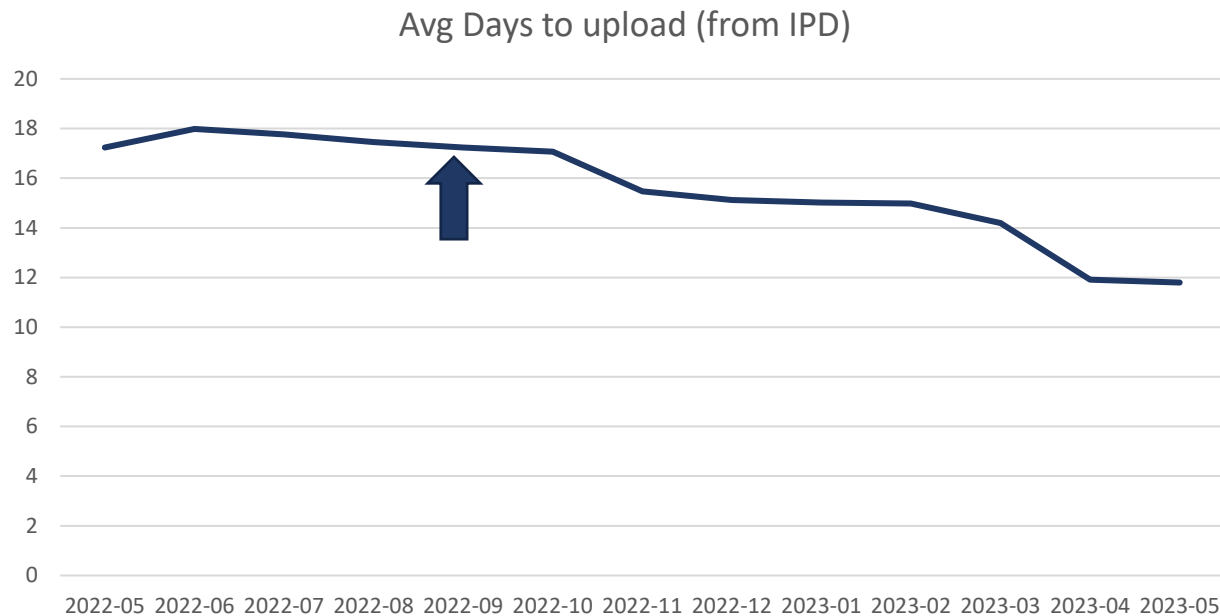
## EDW DEAL REPORT - PURPOSE

- ✓ **Turn regulatory reporting into a value-add activity**



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✓ Turn regulatory reporting into a value-add activity



# EDW DEAL REPORT

Like an Investor Report based on FCA/ESMA templates. Available upon upload and easy to use.

## What is it?

- *Detailed Excel / PDF report produced from the underlying UE/IR/SE XML*
- *Produced instantly upon XML upload, even when the upload is "Draft"*
- *Produced both for public and private deals*

## How to get it?

*Data Owners are pre-subscribed to receive the reports via email upon each upload*



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## Benefits

**Spot data quality issues:** Crisp & concise representation of data incl. time series (tables / charts) spot

**Compare & reconcile** with classic investor reports

**Process efficiency:** Re-use report in part or whole for internal management reports

**Redistribution license:** Includes a free license to modify/redistribute (e.g. to investors.)

**Free**

# EDW DEAL REPORT

## Example of information provided in the EDW Deal Report

### DEAL OVERVIEW

Securitisation Identifier	OQ3T05P7YR8P5YJEVI93N201902
Deal Name	Sample Demo Deal
EDCode	RMBMUK000209200520065
Pool Cut-Off Date	2023-03-31
STS	Yes

Vintage	2006
Asset Type	RMB
Country of Assets	United Kingdom
Country of Primary Exchange	United Kingdom
Country of SPV Incorporation	United Kingdom

FCA Templates made available	Underlying Exposures, Sign. Evnt, Inv. Rpt
Is the Securitisation Private?	No

Reporting Entity Name	European DataWarehouse
Report Entity Contact	Gopala Sankaran
Phone	+49(0)509869319
Email	<a href="mailto:gs@eurodw.eu">gs@eurodw.eu</a>

### FCA Completeness Score

# A2

### No Data Percentages

ND1	0.00%
ND2	2.02%
ND3	0.00%
ND4	0.00%

# EDW DEAL REPORT

## Example of information provided in the EDW Deal Report

### BOND REPORT

	2015-1 1A4	2015-1 1B	2015-1 1C	2015-1 1M	2016-1 1A2	2018-1 1A3
ISIN	XS1302965998	XS1309259082	XS1302936031	XS1302957037	XS1515233663	XS1835962330
Type	Controlled Amort.	Controlled Amort.	Controlled Amort.	Controlled Amort.	Controlled Amort.	Controlled Amort.
Cur	GBP	GBP	GBP	GBP	GBP	GBP
Original Balance	1,000,000,000	370,000,000	370,000,000	270,000,000	1,750,000,000	1,000,000,000
Current Balance	1,000,000,000	370,000,000	370,000,000	270,000,000	1,750,000,000	1,000,000,000
Issue Date	2015-10-20	2015-10-20	2015-10-20	2015-10-20	2016-11-28	2018-06-28
Maturity Date	2058-07-15	2058-07-15	2058-07-15	2058-07-15	2058-07-15	2058-07-15
IPD	2023-04-17	2023-04-17	2023-04-17	2023-04-17	2023-04-17	2023-04-17
Paym.Freq	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly
Current Coupon (%)	4.77	5.12	5.87	5.52	4.72	4.57
Cur. Int.Rate Mrgn/Sprd (%)	0.90	1.25	2	1.65	0.85	0.70
Step Up/Dn Coupon	0.90	1.25	2	1.65	0.85	0.70
Step Up/Dn Date	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-04-15
Coupon Floor (%)	0	0	0	0	0	0
Coupon Cap (%)	-	-	-	-	-	-
Current Int. Rate Index	Other	Other	Other	Other	Other	Other
Next Call Date	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-04-15
Next Put Date	-	-	-	-	-	-
Curr.Attch Point (%)	0.35	0.30	0.21	0.26	0.35	0.35
Orgl.Attch Point (%)	0.53	0.51	0.44	0.46	0.60	0.34
Curr. Cred Enhcmnt (%)	0.39	0.34	0.25	0.30	0.39	0.39
Orig. Cred Enhcmnt (%)	0.54	0.51	0.45	0.47	0.61	0.35
Protection Type	-	-	-	-	-	-
Unpaid P.Dfcy Ldgr Bal	130,385.14	130,385.14	130,385.14	130,385.14	130,385.14	130,385.14

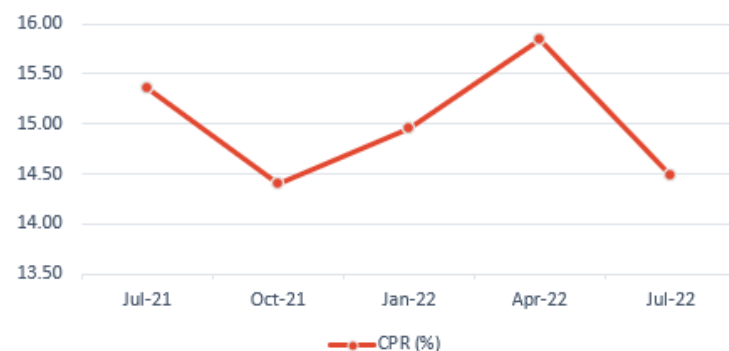
# EDW DEAL REPORT

Example of information provided in the EDW Deal Report

## COLLECTIONS & RECOVERIES

Principal Collections	460,183,494.56
Interest Collections	31,936,770.22
Principal Recoveries	0
Interest Recoveries	2,268,910.23
Repurchased Exposures	0
Restructured Exposures	0
Defaulted Exposures	43,012,854.56
Defaulted Exposures CRR	40,286,083.19
Annualised CPR (%)	14.49
Annualised CDR (%)	1.78

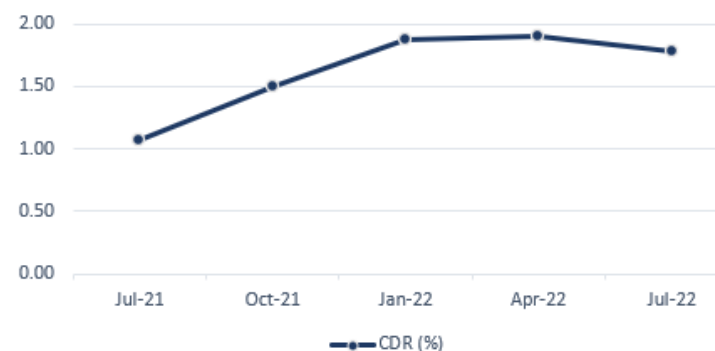
CPR History



## RISK

Dilutions	0
Gross Charge-offs In The Period	4,852,789.16
Internal LGD Estimate (%)	48.60
Excess Spread	13,344,121.92
Is Excess Spread Trapped?	No
Current Overcollateralisation (%)	87.90
Risk Retention Method	First Loss Tranche
Risk Retention Holder	Originator
Risk Transfer Method - True Sale?	Yes
Risk Weight Approach	Standardised Approach
Revolving/ Ramp-Up Period End-Date	2023-05-25

CDR History



# EDW DEAL REPORT

## Example of information provided in the EDW Deal Report

### POOL PERFORMANCE

Total Loans	238,969
Active Loans	170,172
Active Collaterals	170,172
Active Borrowers	88,276
Non-Performing Exposures	0

Original Balance	10,123,335,436.54
Current Balance	7,284,256,267.52

Top 10 Borrowers	5,088,103.94
Top 50 Borrowers	10,443,030.09
Cum. Prepayments	1,510,911,427.30
Cum. Recoveries	N/A
WA Int.Rate	3.97
WA Seasoning	119.19
WA Term	153.97
WA CLTV	53.25
WA OLTV	41.73
WA RTM	178.58

### Account Status Distribution

Account Status	#Loans	Cur.Bal	% Cbal	% Cbal (Prev)	Avg. Total Income	Avg. Loan Term	WA. CLTV
Performing	216,853	6,958,390,226.55	95.53	95.83	42,607.35	41.80	52.94
Restructured - No Arrears	2,873	38,081,567.59	0.52	0.41	40,804.76	7.02	56.80
Restructured - Arrears	4,236	127,902,519.72	1.76	1.52	41,154.89	4.61	60.73
Default (acc.to Art 178)	1,057	37,428,111.52	0.51	0.47	41,082.37	17.60	62.56
Arrears	3,449	122,453,842.14	1.68	1.77	41,328.85	15.72	59.43
Repurchased (Breach of Rep & Wrnty)	4	0	0	0	42,927		
Repurchased (Restructured)	299	0	0	0	52,665.84		
Redeemed	10,198	0	0	0	40,304.87		

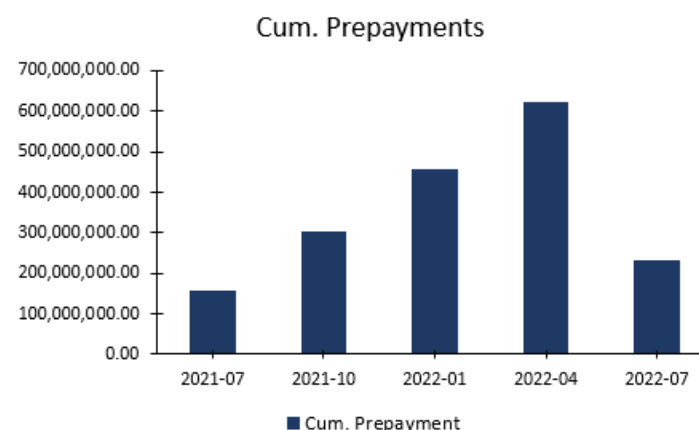
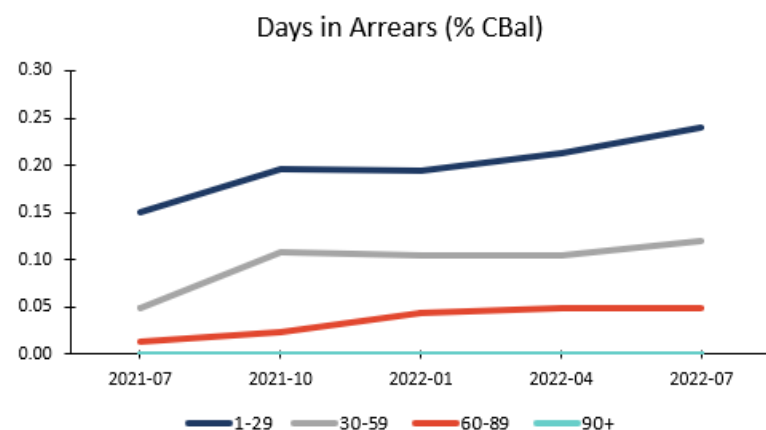
# EDW DEAL REPORT

Example of information provided in the EDW Deal Report

## DELINQUENCY INFORMATION

# Days in Arrears	Loans in Arrears						All Loans		
	#Loans	Cur.Bal	% Cbal	% Cbal (Prev)	Arrears. Bal	Arrears Bal / Curr. Bal	Curr.Bal	% Cbal	% Cbal (Prev)
1 - 29 Days	1,022	8,537,052.21	0.24	0.21	548,296.25	0.06	13,098,129.14	0.37	0.32
30 - 59 Days	486	4,256,394.14	0.12	0.10	530,581.70	0.12	7,776,409.65	0.22	0.21
60 - 89 Days	245	1,732,531.03	0.05	0.05	562,156.09	0.32	4,653,929.57	0.13	0.17
90 - 119 days									
120 - 149 days									
150 - 179 days									
>= 180 days									

## Performance History

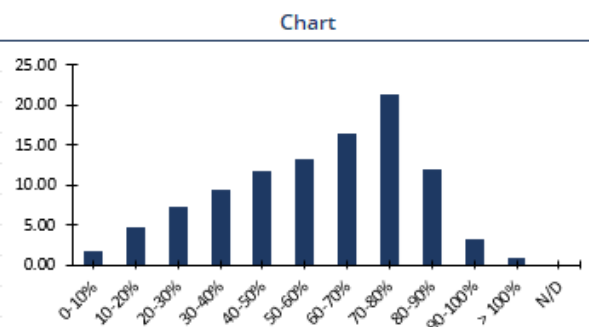




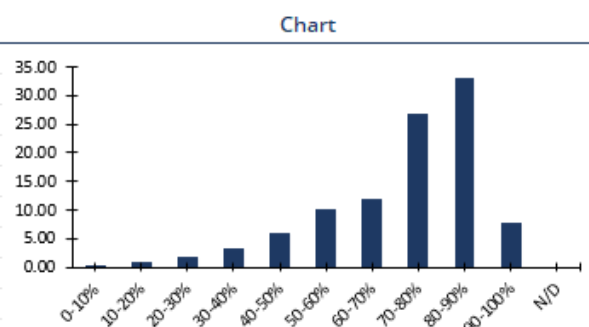
# EDW DEAL REPORT

Example of information provided in the EDW Deal Report

CLTV	#Loans	Cur.Bal	% Cur.Bal	% Prev.PCD
0-10%	34,752	109,408,712	1.50	1.46
10-20%	35,176	339,208,790	4.66	4.56
20-30%	31,838	515,195,560	7.07	6.96
30-40%	27,959	669,534,994	9.19	9.05
40-50%	24,332	843,000,613	11.57	11.47
50-60%	20,612	951,807,457	13.07	12.99
60-70%	16,743	1,179,117,972	16.19	16.10
70-80%	18,669	1,537,112,359	21.10	21.02
80-90%	11,565	861,413,782	11.83	12.60
90-100%	5,609	227,313,661	3.12	3.11
> 100%	1,213	51,142,367	0.70	0.68
N/D	10,501	0	0	0



OLTV	#Loans	Cur.Bal	% Cur.Bal	% Prev.PCD
0-10%	752	9,396,849	0.13	0.13
10-20%	3,808	49,483,139	0.68	0.69
20-30%	7,244	122,150,014	1.68	1.72
30-40%	11,875	230,744,949	3.17	3.21
40-50%	17,934	417,118,379	5.73	5.79
50-60%	25,837	718,914,812	9.87	9.90
60-70%	28,908	867,065,791	11.90	11.95
70-80%	49,114	1,936,659,044	26.59	26.66
80-90%	53,185	2,389,326,461	32.80	32.54
90-100%	29,811	543,396,829	7.46	7.42
N/D	10,501	0	0	0



# EDW DEAL REPORT

Example of information provided in the EDW Deal Report

## ACCOUNT STATUS TRANSITION

From PCD: 2022-12-31 to 2023-03-31

### # Loans

	(Current)						
	Performing	Arrears	Defaulted	Restructured	Redeemed	Repurchased	Other
Performing	215,090	699	1	1,060	9,710	303	614
Arrears	550	2,427	47	112	125		19
Defaulted	4	6	849	16	110		5
Restructured	912	77	5	1,392	125		10
Redeemed	2						12,272
Repurchased							532
Other							
New Loans in Curr. PCD	123			3			

### % Cbal

	(Current)						
	Performing	Arrears	Defaulted	Restructured	Redeemed	Repurchased	Other
Performing	94.85	0.37	0.00	0.29	0	0	
Arrears	0.30	1.16	0.04	0.05	0		
Defaulted	0.01	0.00	0.41	0.01	0		
Restructured	0.27	0.04	0.00	0.06	0		
Redeemed	0.00						
Repurchased							
Other							
New Loans in Curr. PCD	0.04			0.00			

# **SUSTAINABLE FINANCE UPDATE: ENGAGE FOR ESG ACTIVATION INVESTMENTS**

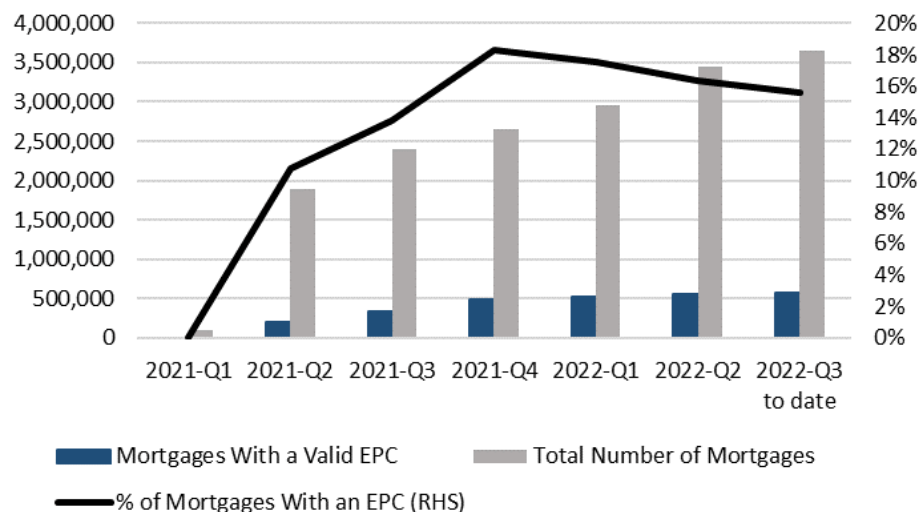
**DR. CHRISTIAN THUN, EDW**

# ENERGY PERFORMANCE CERTIFICATES – HOW MUCH DATA IS AVAILABLE?

Data availability for EPCs is stagnating

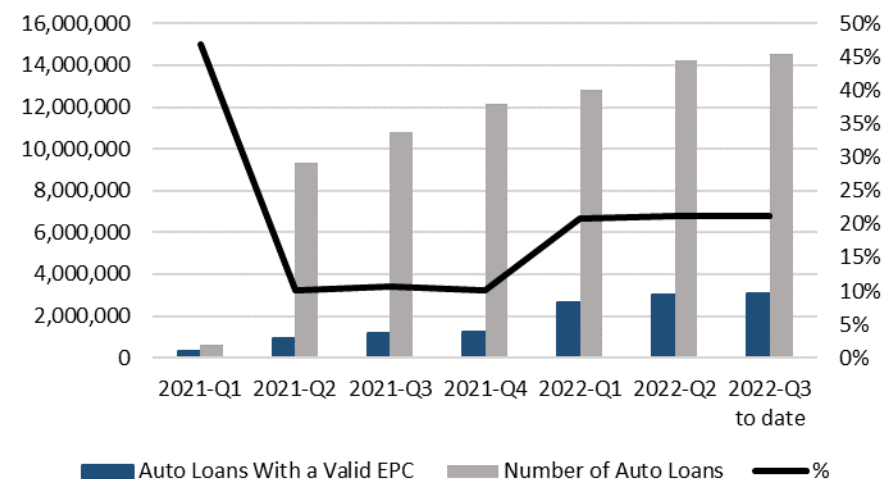
## MORTGAGES

Number of Loans Reporting a Valid EPC in ESMA



## AUTO

Number of Loans Reporting a Valid EPC in ESMA



Source: EDW Calculations

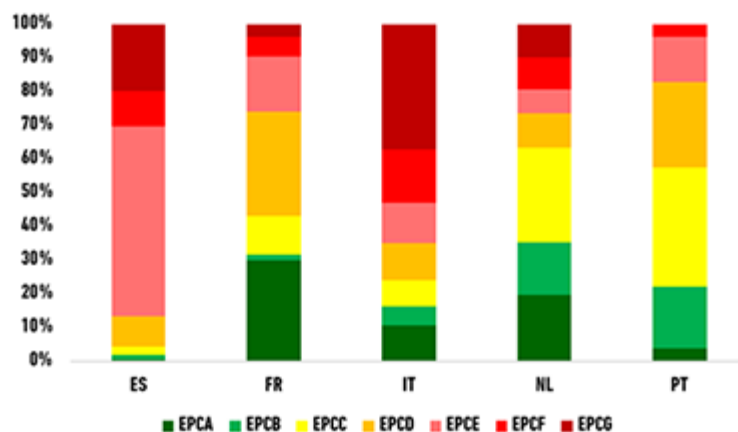
# MONITORING, ASSESSING, AND ANALYSING ESG MARKETS AND RISKS WITH EPC DATA

EDW collects a wealth of sustainable finance information, including energy performance certificates (EPCs) for residential mortgages and auto loans.

## ENERGY PERFORMANCE CERTIFICATES – RMBS

EPC distribution by country

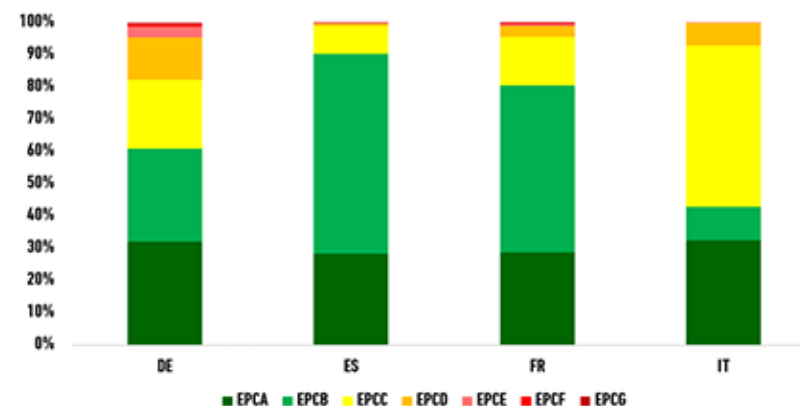
- differs greatly across countries



## ENERGY PERFORMANCE CERTIFICATES – AUTO LOANS

EPC distribution by Country

- Most cars have a Rating of C or better



Source: EDW Calculations





# ENGAGE for ESG Activation Investments

Project Summary – May 2023



Co-funded by the  
European Union





## EUROPEAN DATAWAREHOUSE

ESMA-designated Securitisation Repository and Eurosystem repository for ABS & pools of additional credit claims

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## UCI

Specialist entity in sustainable financing for mortgages and loans in the Spanish market. Leader of the Spanish pilot

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## HYPOPORT

IT company, developers of software solutions for the financial sector

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## woonnu

Innovative sustainable mortgage loan originator in the Dutch market. Leader of the Dutch pilot

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## Università Ca'Foscari Venezia

Pioneer university in sustainable finance programmes and research

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Experts in ensuring compliance of new technologies with legal and ethical standards

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# The ENGAGE Solution



Standardised, harmonised & comparable sustainability data combined with credit information



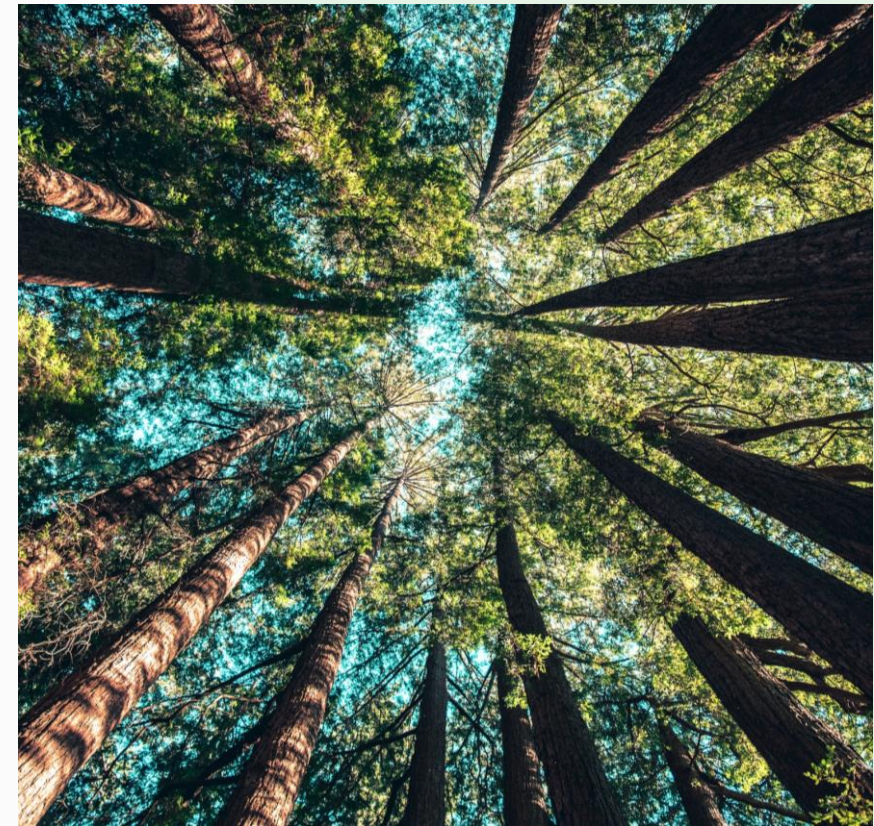
Adequate ESG risk assessment\* at micro- & macro-level



State-of-the-art financial technology solution - the 'Green Investment Portal' (GIP)



Increased investments in energy efficiency projects in Europe

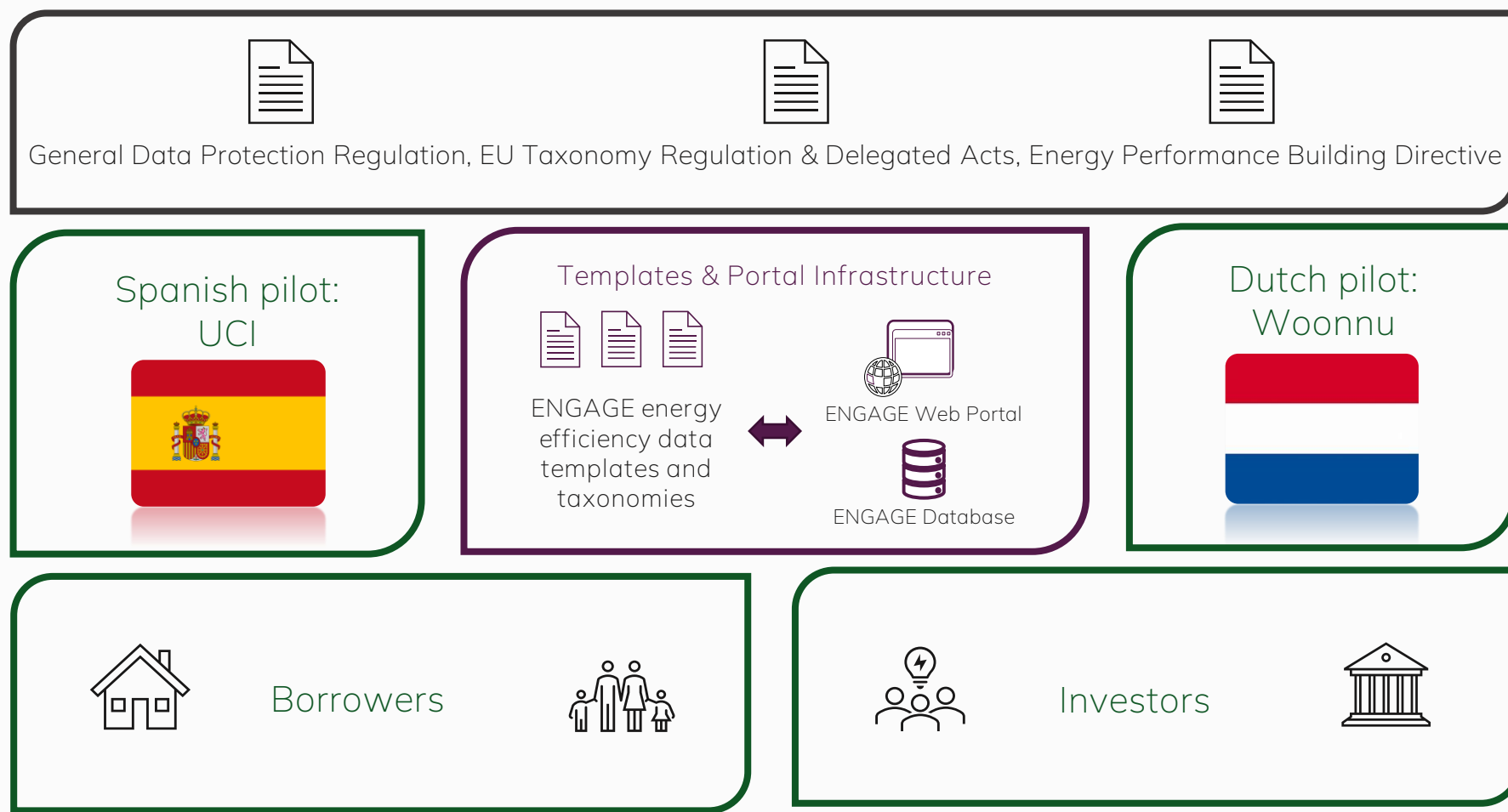


\* Relevant for, e.g., Green Asset Ratio calculations in 2023.



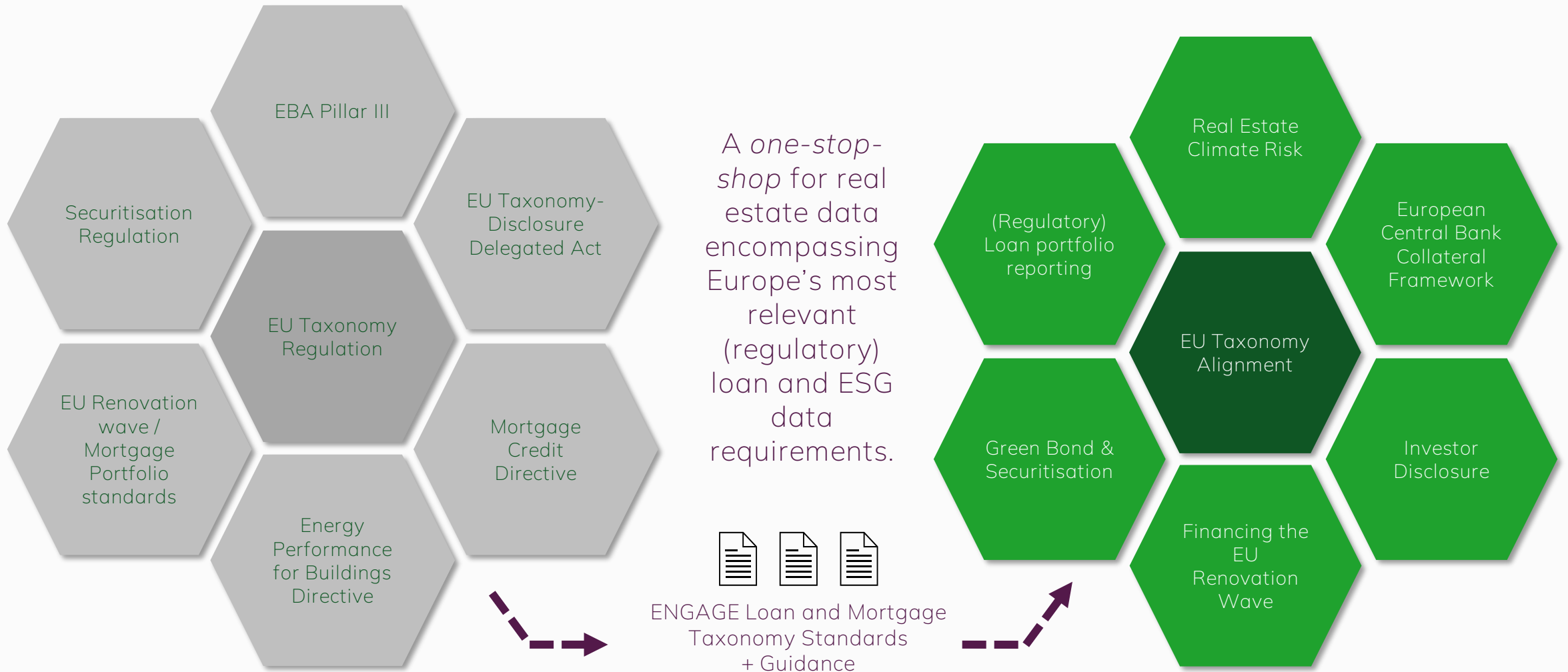


# The High Level Concept





# How ENGAGE Fits into the EU Sustainable Finance Roadmap



# **UK AND EUROPEAN SECURITISATION MARKET OUTLOOK**

**MEGHAN KELLERHER, JP MORGAN**

# USING ENHANCED PROPERTY DATA FOR GREEN RMBS IN THE UK

**JOSEPH WEBB & ORLA SHIELDS, KAMMA**

# KAMMA

## Enhancing Data to Drive a Revolution in Green Funding



[kammadata.com](https://kammadata.com)

Winner,  
*Best Environment Data Provider for ESG*





Before we  
begin...

To what extent is climate change projected to reduce global GDP in a 'no action' scenario?

- A. 1-10%
- B. 2-20%
- C. 3-30%
- D. 8-80%

An aerial photograph of a city at sunset, showing a dense urban landscape with various buildings and a hazy sky. The text 'Before we begin...' is overlaid on the left side of the image.

Before we begin...

To what extent is climate change projected to reduce global GDP in a 'no action' scenario?

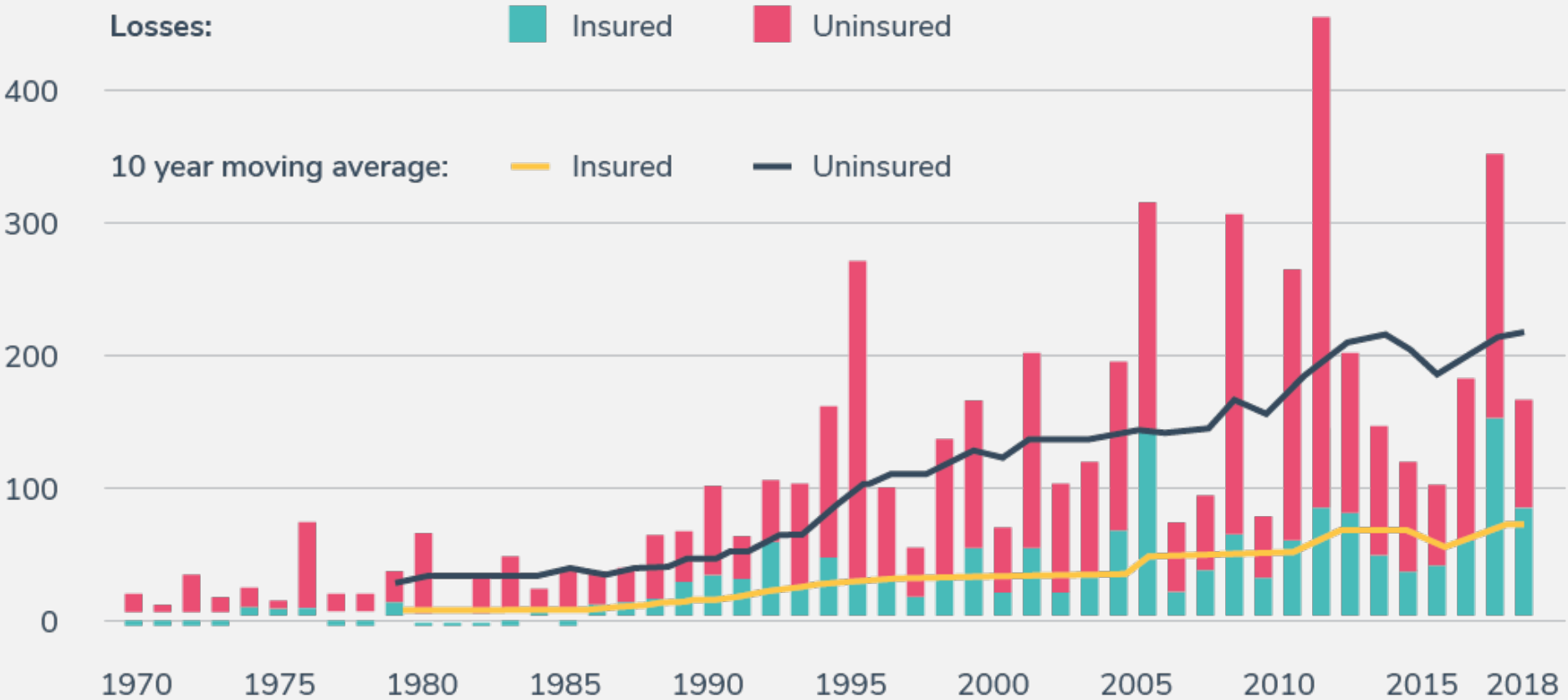
- A. 1-10%
- B. 2-20%
- C. 3-30%
- D. 8-80%

We only need to invest 0.5 - 1% of GDP to avert it

# We've reached a tipping point on climate change



Insured and uninsured catastrophe losses (\$USbn, 2018 prices)



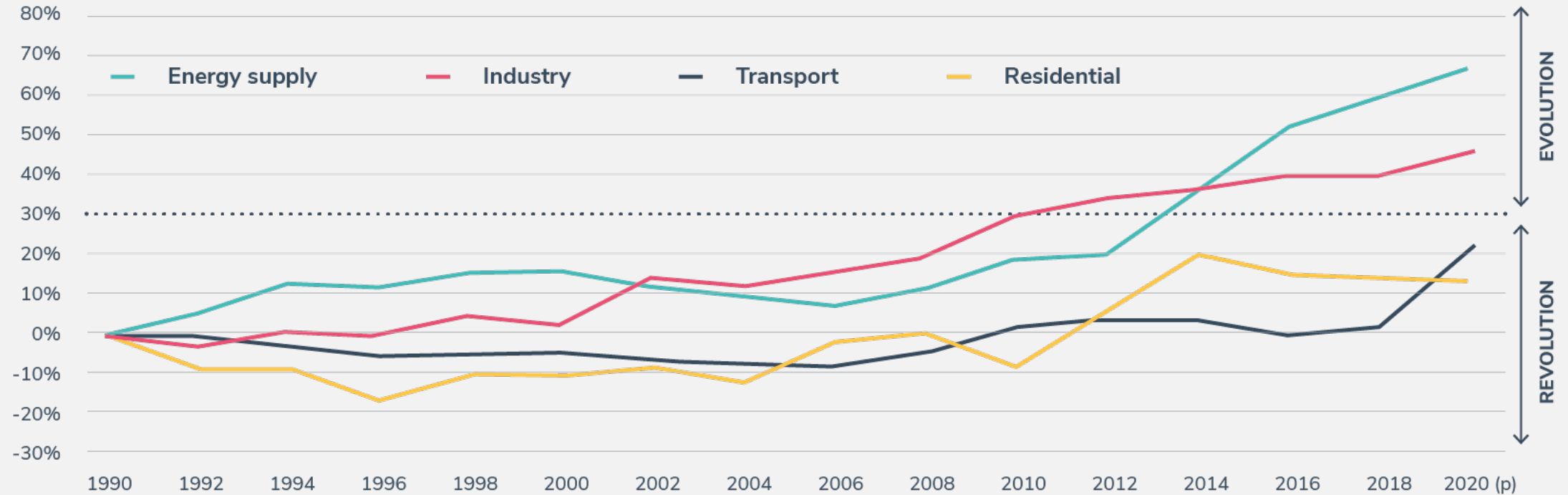
Source: [SwissRe](#)



# Where will legislation focus?

## On the sectors that are slowest to decarbonise

Percentage reduction in CO<sub>2</sub> emissions since 1990 – by major sector



Government regulation has already created a tipping point in the automotive industry, creating new winners and losers

2020

UK government bans the sale of new ICE cars from 2030

Investment (p.a.)



**£1.8bn**

before 2020

Registrations (p.a.)



**758.2k**

in 2020

Tesla's market cap grows to almost 4x it's nearest competitor



**£4.5bn**

after 2020

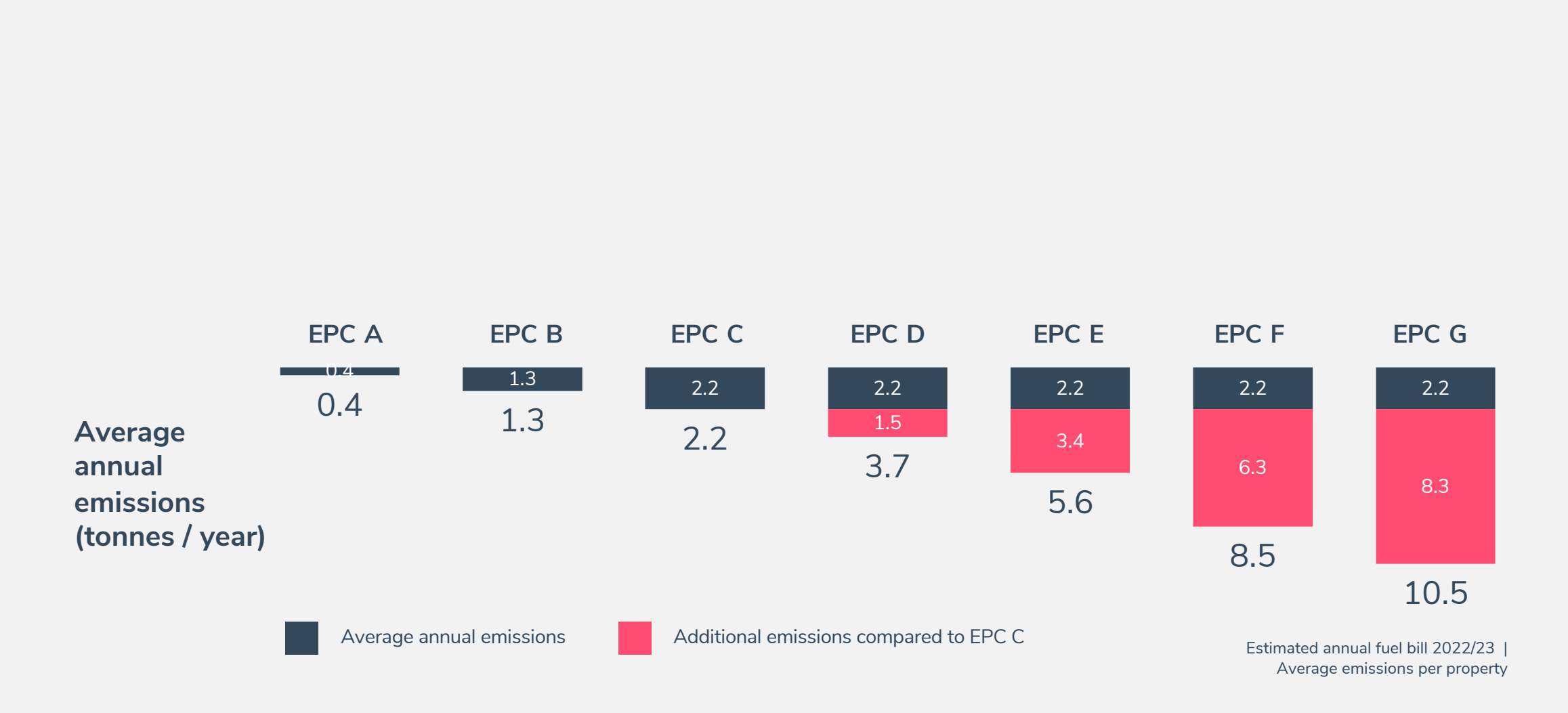


**1.8m**

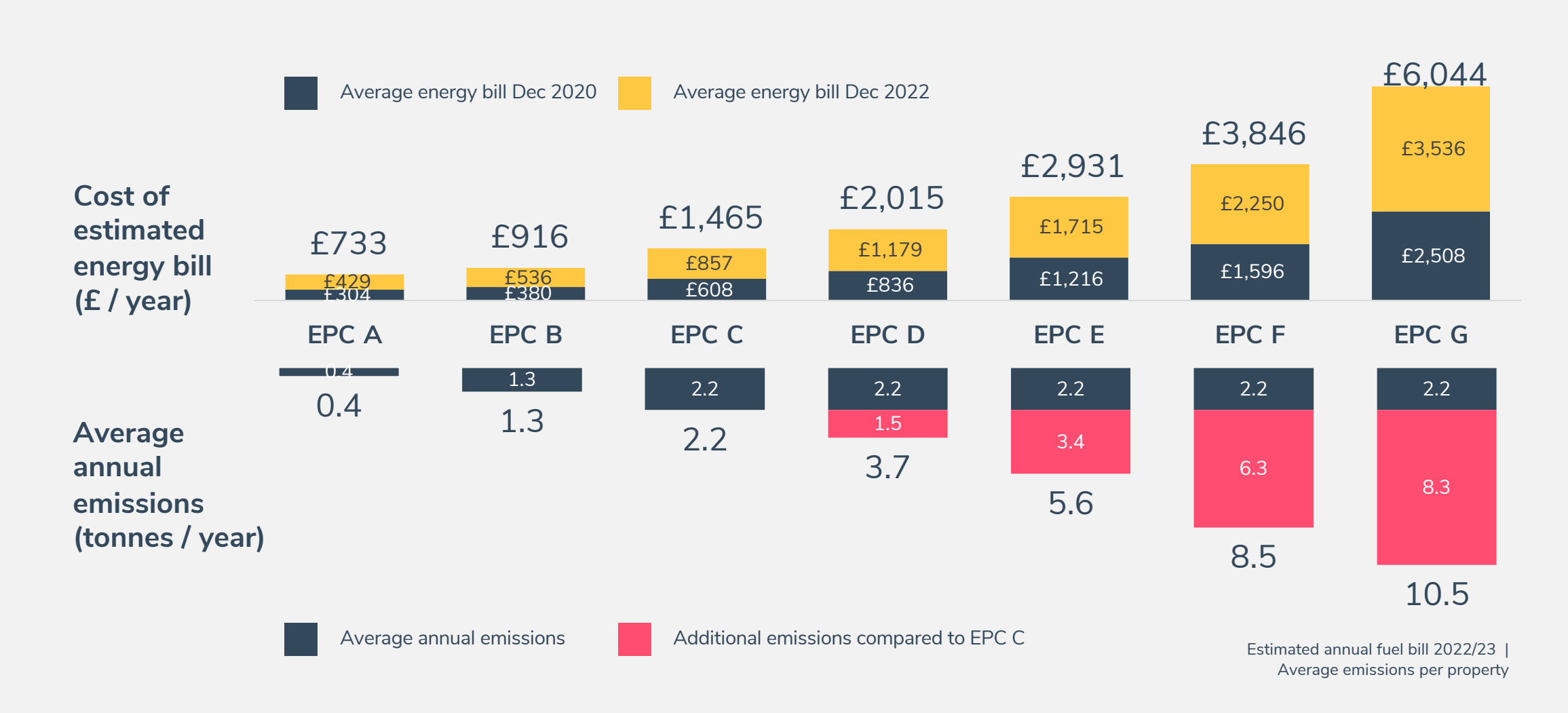
by 2022



Property hasn't...



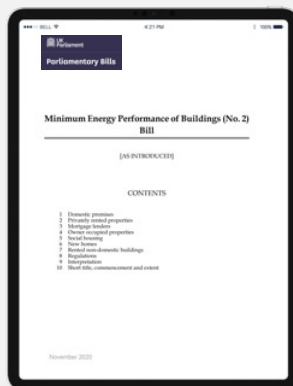
But is under more pressure than ever before



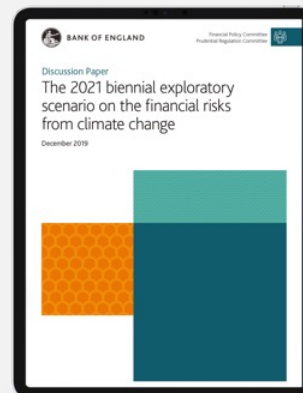
# UK government is seeking a regulatory tipping point

KAMMA

BTL mortgages may get hit first and the hardest



Minimum Energy Performance  
of Buildings Bill



Stress-testing, e.g.  
CBES and SS 3/19 (ICAAP / PRA)



Task Force for Climate-Related  
Financial Disclosures (TCFD)

## Homebuyers are driving a tipping point in valuations

A tipping point in consumer attitudes

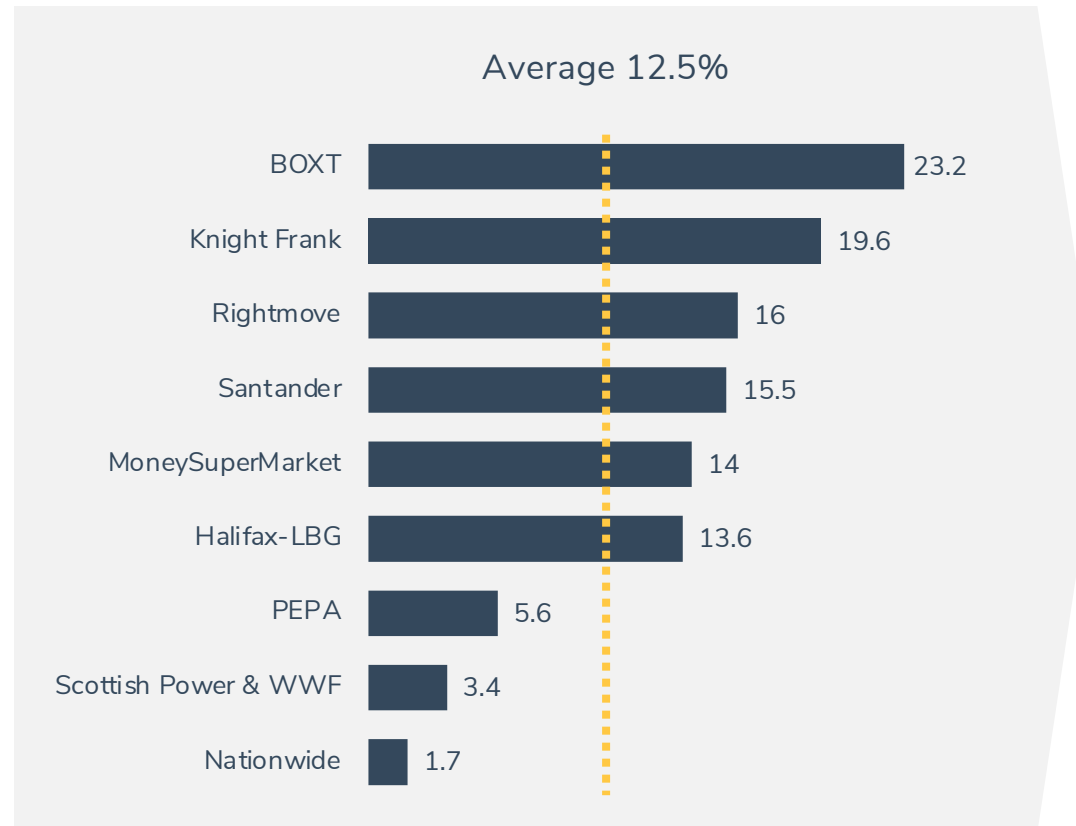
**241%**

increase in the cost of energy since 2020

**62%**

planning to improve energy efficiency of property in next year

An uplift in average property valuation (max.)



Efficiency as a key market comparable

**£36,260**

differential in value between efficient and inefficient properties of otherwise matching specifications

# Systemic crises create major, enduring industries



**Wall Street Crash**



**Credit Crisis**



**Climate Crisis**

Resulting legal  
requirements

GAAP / IFRS / Investment ratings

Basel II/III, ICAAP, Stress testing

Disclosure standards TCFD, IFRS, ISSB

Market value

**\$1,176bn**

Accounting services

**\$24bn**

Financial services consulting

**\$20bn**

ESG consulting and reporting by 2027

## Markets are also reaching a tipping point

### Current

AFME questionnaire (S1-S3)

TCFD / SFDR

Liquidity benefit

Greenwashing accusations

### Future

Standardisation of taxonomy

Institutional demand for ESG

Pricing benefit

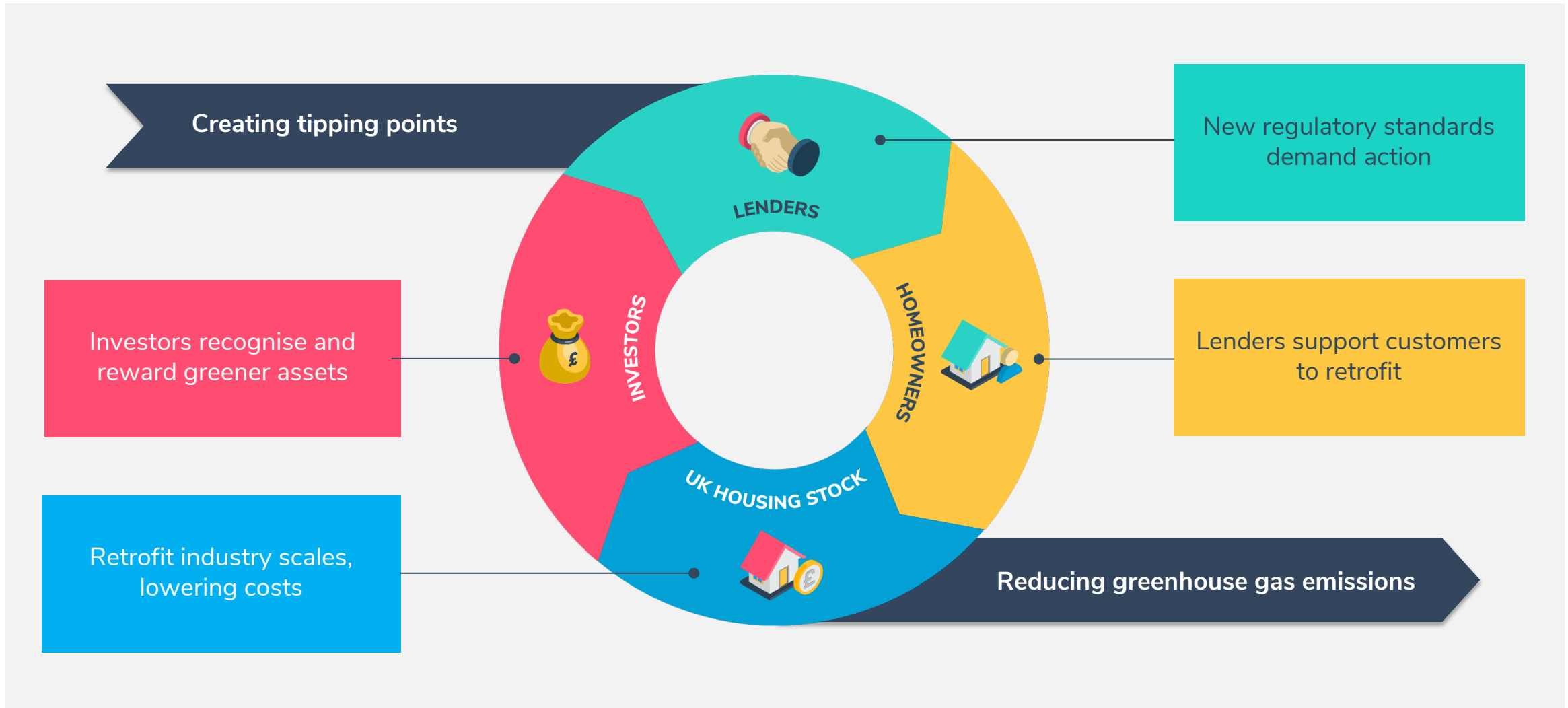
A data-driven antidote to greenwashing

**afme**  
Finance for Europe



And each of these changes is self perpetuating

KAMMA



# Green MBS framework in practice

## Two routes to green securitisation

### Green qualified asset securitisation



EPC rating of A or B, or T15% of properties with lowest emissions

- Current challenge – only 12.9% of properties in UK meet EPC criteria
- It does not tackle the built environment Net Zero problem

### Use of proceeds to fund greening of assets



Use of proceeds to include retrofit of properties

- >60% households can achieve EPC C for just £1,100 in additional draw down (CCC)
- Tackles Net Zero problem with existing stock with additional social benefits (fuel poverty & affordability)

**‘Use of proceeds’ securitized assets become green assets which can be re-packaged for future green securitisation**

Set green bond framework

Qualify use of proceeds at originations

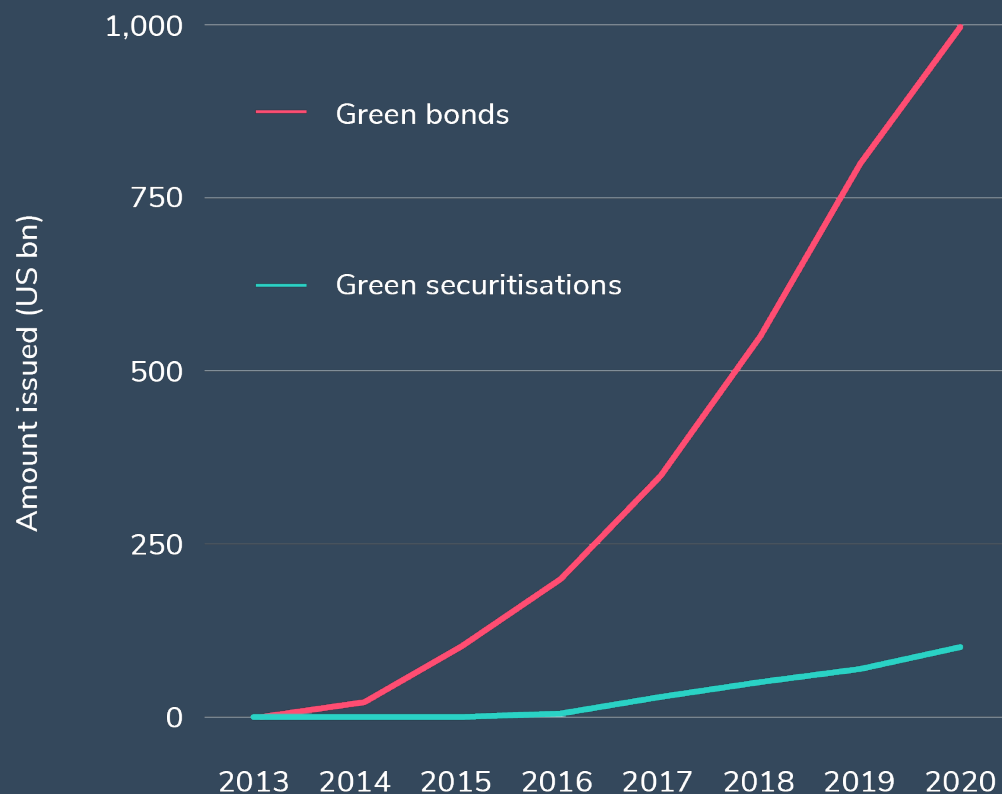
Verification of works and greening of assets

Climate credentials and progress reporting

Re-package as true green securitisation

RMBS should finance this change, but is held back by lack of objective, accurate, consistent data

### Rapid growth of the green labelled market



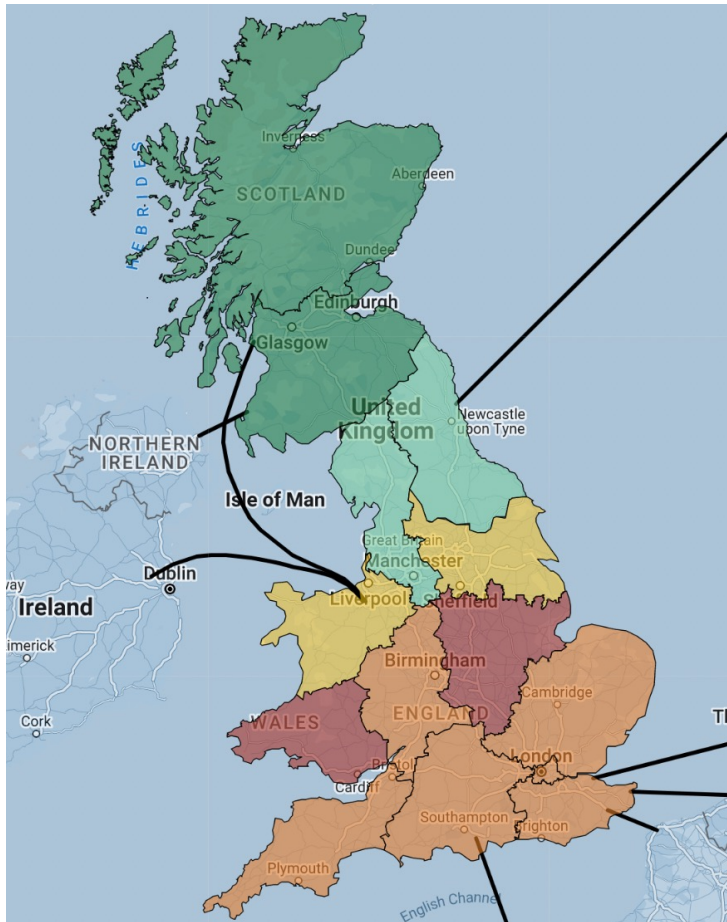
“

A common barrier to scaling up green RMBS is the lack of data or access to energy performance data

climatebonds.net

# Resolving issues with the calculation of financed emissions (3x overstated)

Comparison of carbon intensity factors from the national electricity grid



**EPC**

2012 carbon intensity factors

**519**gCO<sub>2</sub>/kWh

...applied to all properties and tariffs

**Kamma**

Current carbon intensity factors

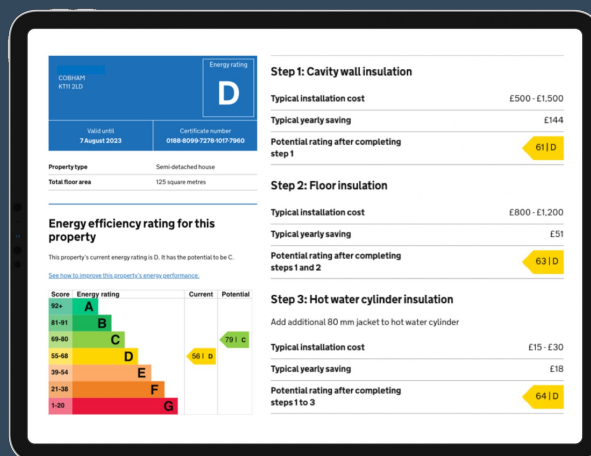
**173**gCO<sub>2</sub>/kWh

...average for GB over last 12 rolling months

# Go beyond EPC

KAMMA

## From this...



- Not comparable
- Not transparent
- 10 years out-of-date
- Inaccurate emissions

## To this...

Full climate credentials for RMBS



### Mortimer IV

- Accurate emissions reporting
- Benchmarked performance
- Trajectory to Net Zero
- Alignment with ESG goals
- Quantified regulatory, transition & physical risk
- Fuel costs, fuel poverty
- Compliance with TCFD-aligned disclosures and taxonomy requirements from regulators
- Environmental Asset Scores

# Environmental Asset Scoring combines multiple datapoints to provide a robust, representative and comparable single number score

KAMMA

## Proprietary modelling based on the following values and metrics:

Recalculated EIR incorporating real-time CO<sub>2</sub> intensity factors

Renewables

(Lack of) fossil fuels

Trajectory to Net Zero

Negative CO<sub>2</sub> emissions

Use of proceeds (where relevant)

## Environmental Asset Scoring

Creating objective, comparable standards



And unlock today's opportunity

KAMMA



Manage new  
credit risks



Unlock ESG  
investment



Hit ESG targets  
and report to  
regulators



Create the tipping  
point that drives  
property to Net Zero

# KAMMA

## Enhancing Data to Drive a Revolution in Green Funding



kammadata.com

Winner,  
*Best Environment Data Provider for ESG*

 **ESG Insight**  
Awards 2023



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**MARIA GREEN, ALLEN & OVERY**

**JULIA TSYBINA, CLIFFORD CHANCE**

# CLOSING REMARKS



**Q&A**

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22.

MAY  
2023  
WEBINAR

Exploring Global ABCP Markets @ 16:00 CEST

06.

JUN  
2023  
WEBINAR

Q2 Research Webinar @ 16:00 CEST

# THANK YOU // CONTACT US

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