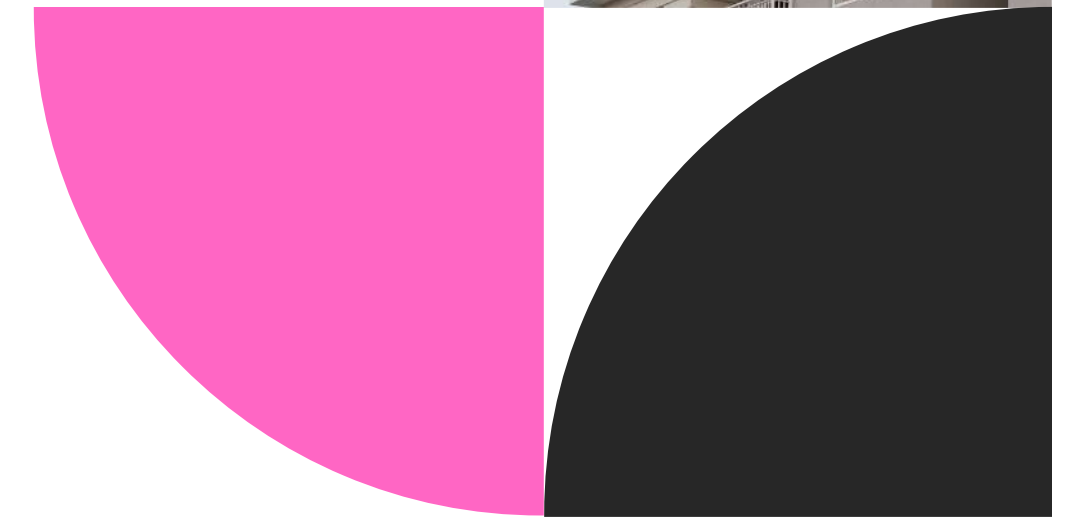


Engaging Retail Lenders in Home Renovation

20
23



**Turning Sustainable Finance Commitments into
Household Energy Savings and Climate Resilience**



CLIMATE & STRATEGY
PARTNERS

DEC 2023

Peter Sweatman, CEO Climate Strategy & Strategy

32 YEARS BLUE-CHIP FINANCE AND CLIMATE STRATEGY

32 years in finance and climate:

- ❑ JPMorgan
- ❑ Climate Change Capital
- ❑ Climate Strategy
- ❑ Energy Efficiency Capital Advisors

Published 24 white papers on low carbon finance and innovation

Long-term relationships with:

- ❑ Bloomberg NEF
- ❑ S&P Trucost (prev.)
- ❑ ECF

Clients:



**CS Group
launched EE
advisor in
2016:**





Agenda



1

The Opportunity to align Building Renovation and Sustainable Finance

2

Making Mortgages Sustainable

3

Insights drawn from a EU Retail Bank Questionnaire

4

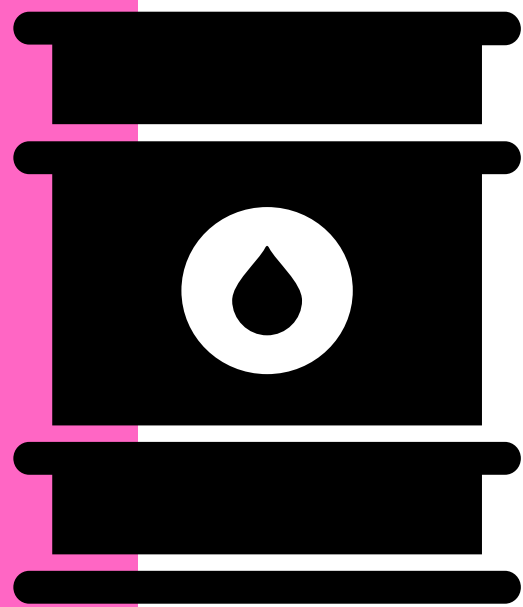
Conclusions and Recommendations



The Opportunity to align Building Renovation and Sustainable Finance



7.1% of global GDP **€7 trillion**
spent on subsidising fossil fuels is more than
10x the **€582 bn** that was invested
in energy efficiency in 2023



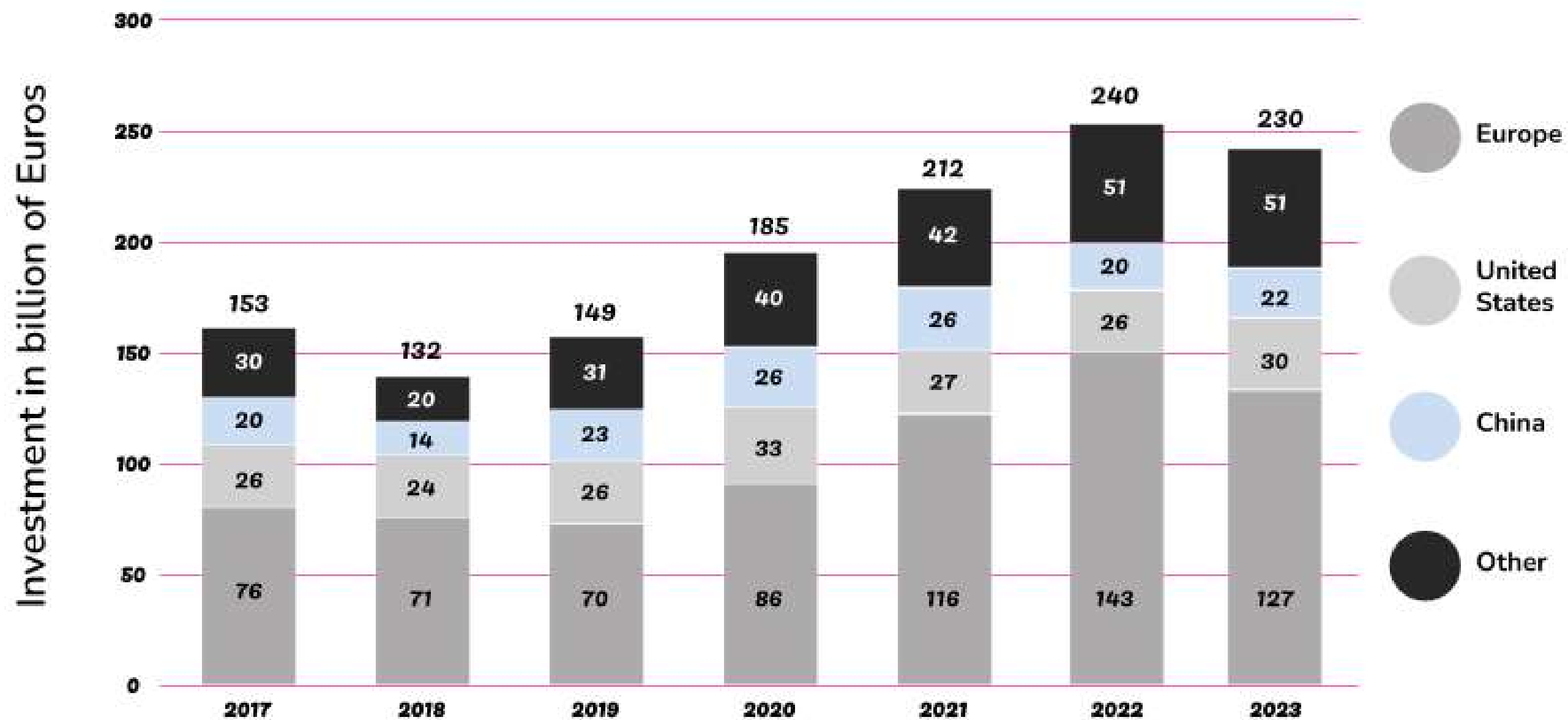
Europe imports nearly **60%** of its primary energy
resources, a factor which is worse for fossil fuels.

83% for gas, **97%** for oil, **70%** for coal



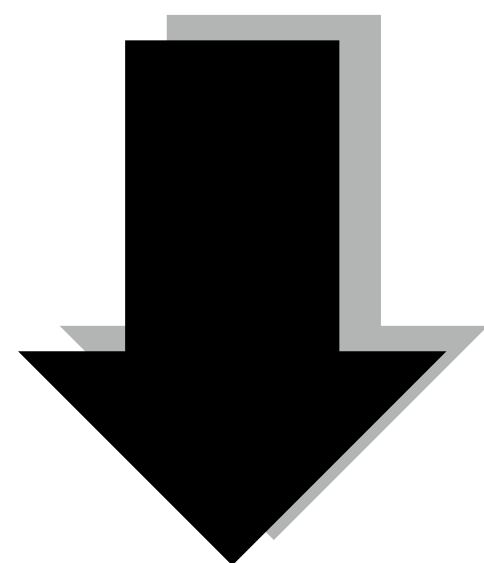
now pays more to import fossil fuels than was globally invested in energy efficiency in 2023

Annual investment in energy efficiency in the buildings sector worldwide from 2017 to 2023, in selected regions



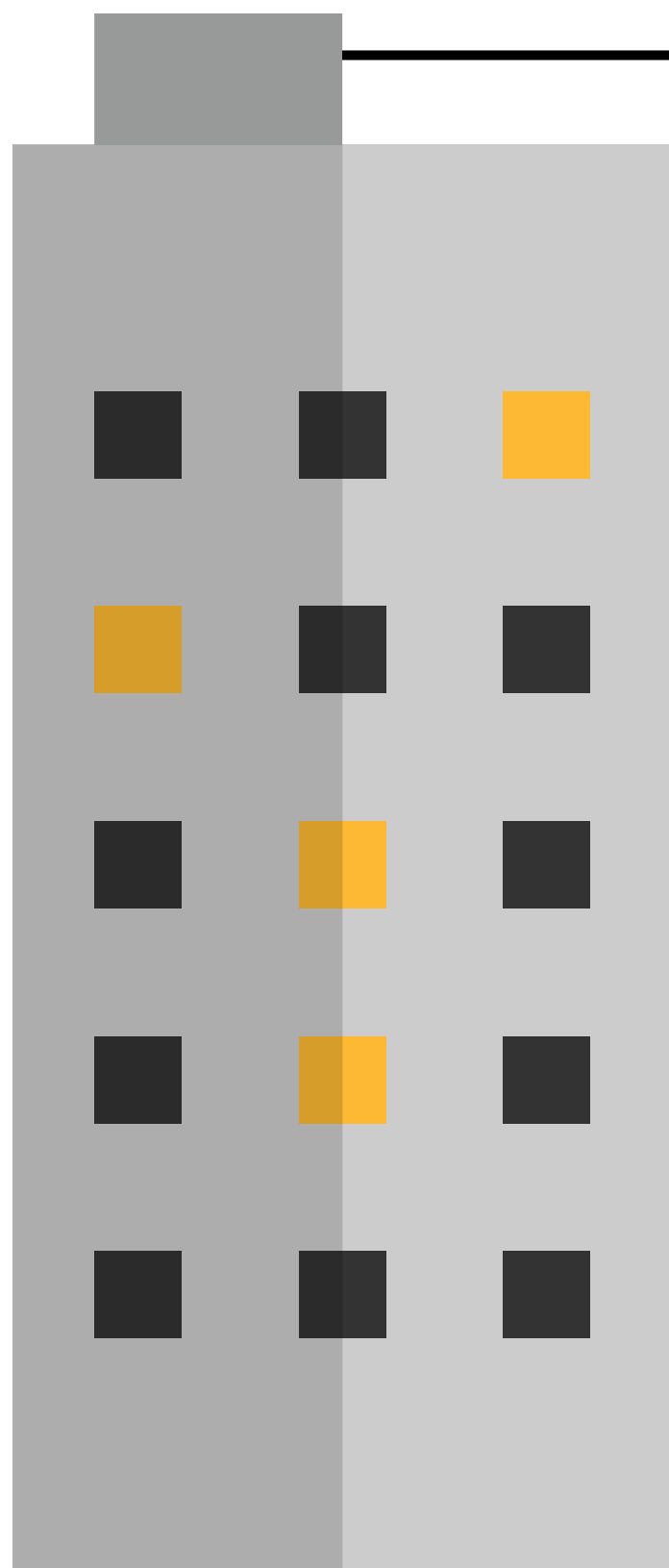
Source: Statista. (2023)

From 2007 to 2020, final energy consumption in the EU reduced around 9%



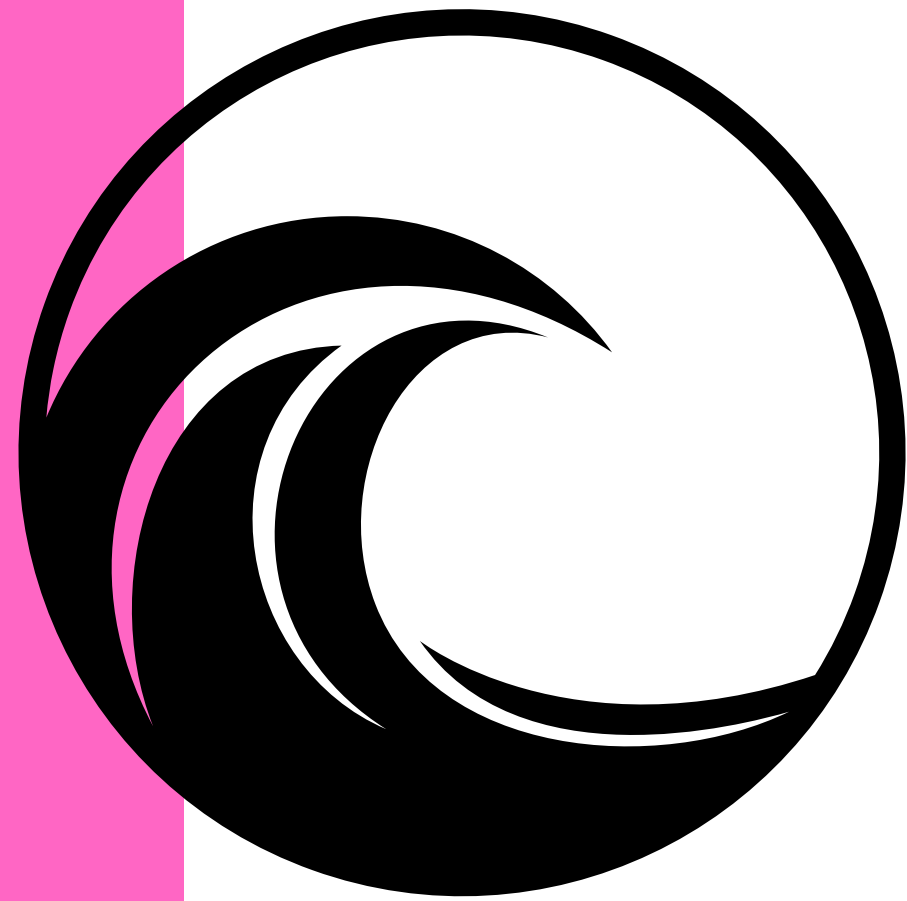
From 2024-2030, the EU is pledged in law to deliver over **2x** that reduction

- **11%** of EU buildings had some renovation in 2020
- Only **1%** of buildings have renovations impacting their energy performance
- **0.2%** optimise for energy efficiency

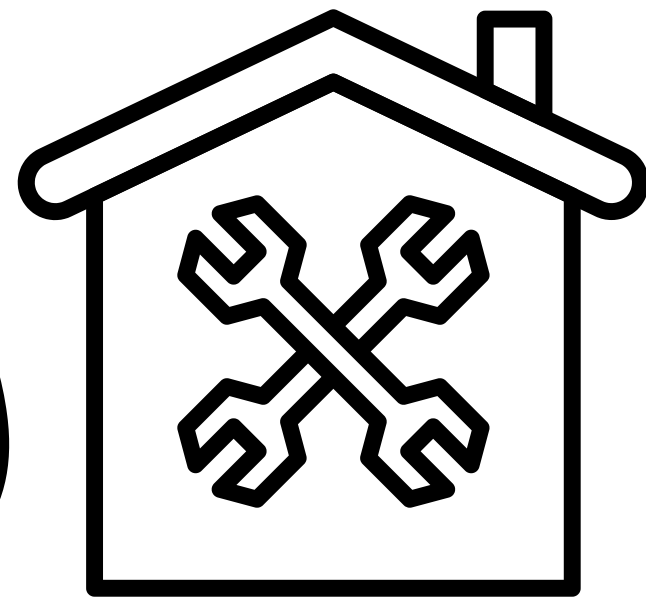


Practical examples of energy savings achieved

MS	Programme/ initiative	Description	Average energy savings per home
Lithuania	Lithuanian Public Investment Development Agency (VIPA)	Renovation of 50 multi-apartment buildings in Lithuanian cities	60%
Estonia	Estonian Business and Innovation Agency (Kredex)	KredEx offers loan guarantees with a state guarantee for the purchase and the energy renovation of Estonian homes.	44%
Germany	Pilot: Erste Energiesprong-Sanierung in bewohntem Zustand	Project sponsored by Interreg NWE's E=0 project and KfW for the energy modernization of 32 apartments in Bochum Germany.	50%
Spain	Orcasitas, Madrid	Community initiative where 40 out of 107 city blocks have been retrofitted. 26 additional blocks are currently undergoing renovation works.	60%
Italy	Cà Granda, Milan	Six residential towers were deeply renovated delivering energy savings, earthquake safety and resilience to heat waves.	62%
Spain	Navarre	EIB funded energy upgrades for 1,900 housing units.	70%

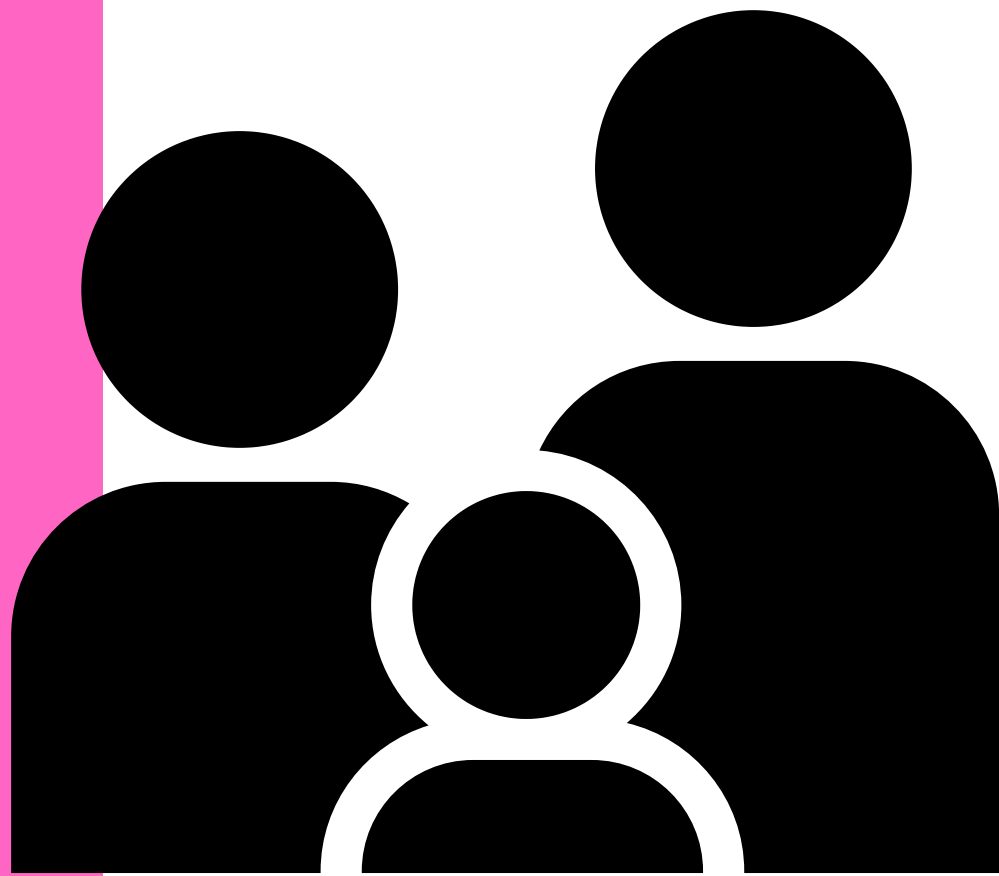


The EU Renovation Wave targets **35 million** building renovations by 2030 with anticipated annual investment requirement of **€275 bn**



An aggregate 2023-2030 renovation budget of around **€2 trillion** is the order of magnitude of the renovation investment challenge.

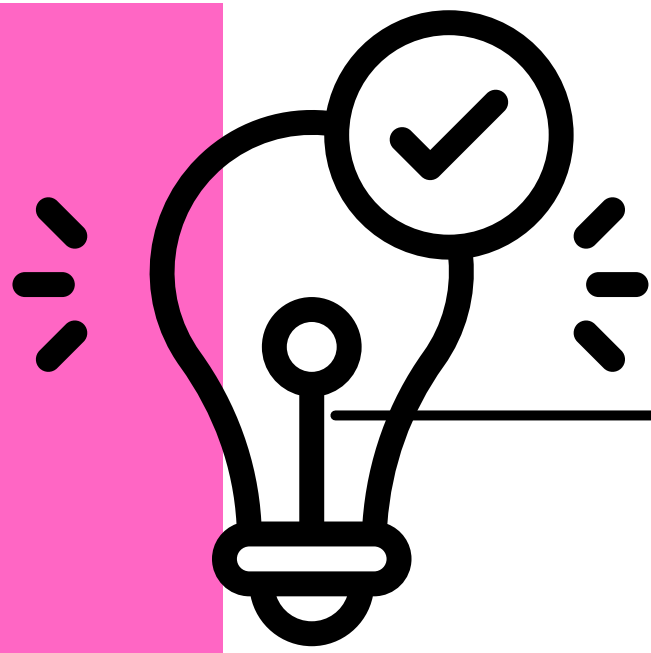
Electricity bills increased on average by 67% across EU MS from Jan 2021 to Jan 2023



An estimated **35 million** EU households (8% of Europeans), can't afford to keep their home adequately warm.



The hike in EU household energy bills will total as much as **€2 trillion**



Context for a €2 trillion investment to Renovate EU Buildings

- EU residential buildings are worth around **€20 trillion**
- **71%** of people living in the EU live in a home they own
- **25 million** of the 198 million homes in Europe are publicly owned
- EU27 residential mortgages are around **€7 trillion**
- Institutional real estate investments in the EU27 are around **€3 trillion**

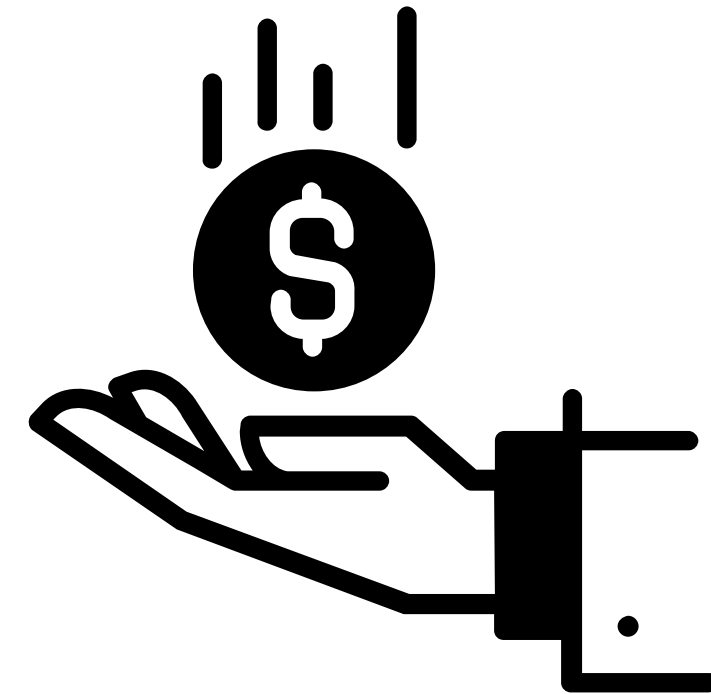
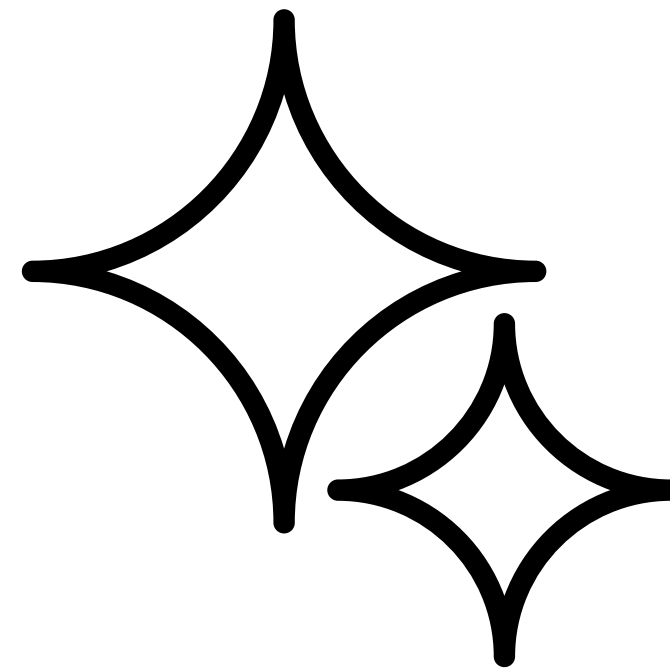
Estimate of
aggregate EU home
value

-

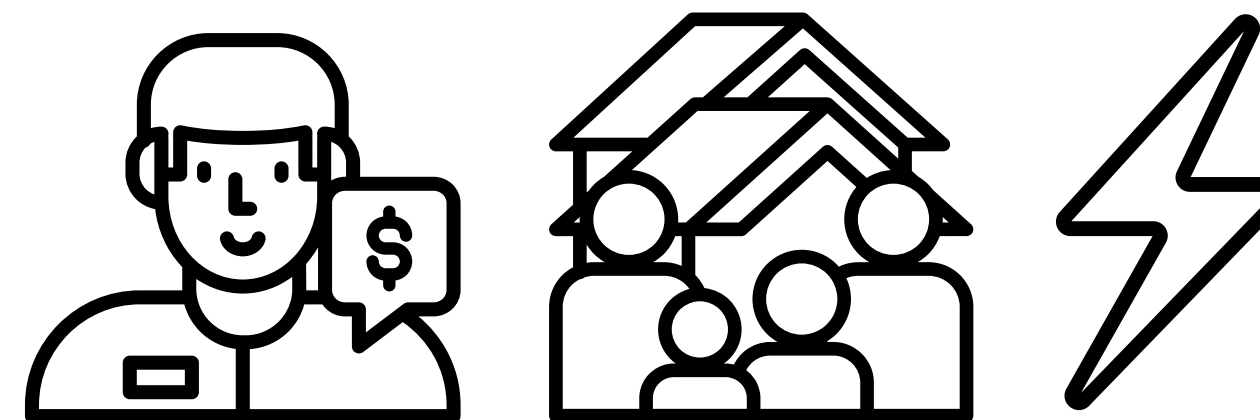
EU mortgage debt

=

total stored
equity is around
€13 trillion



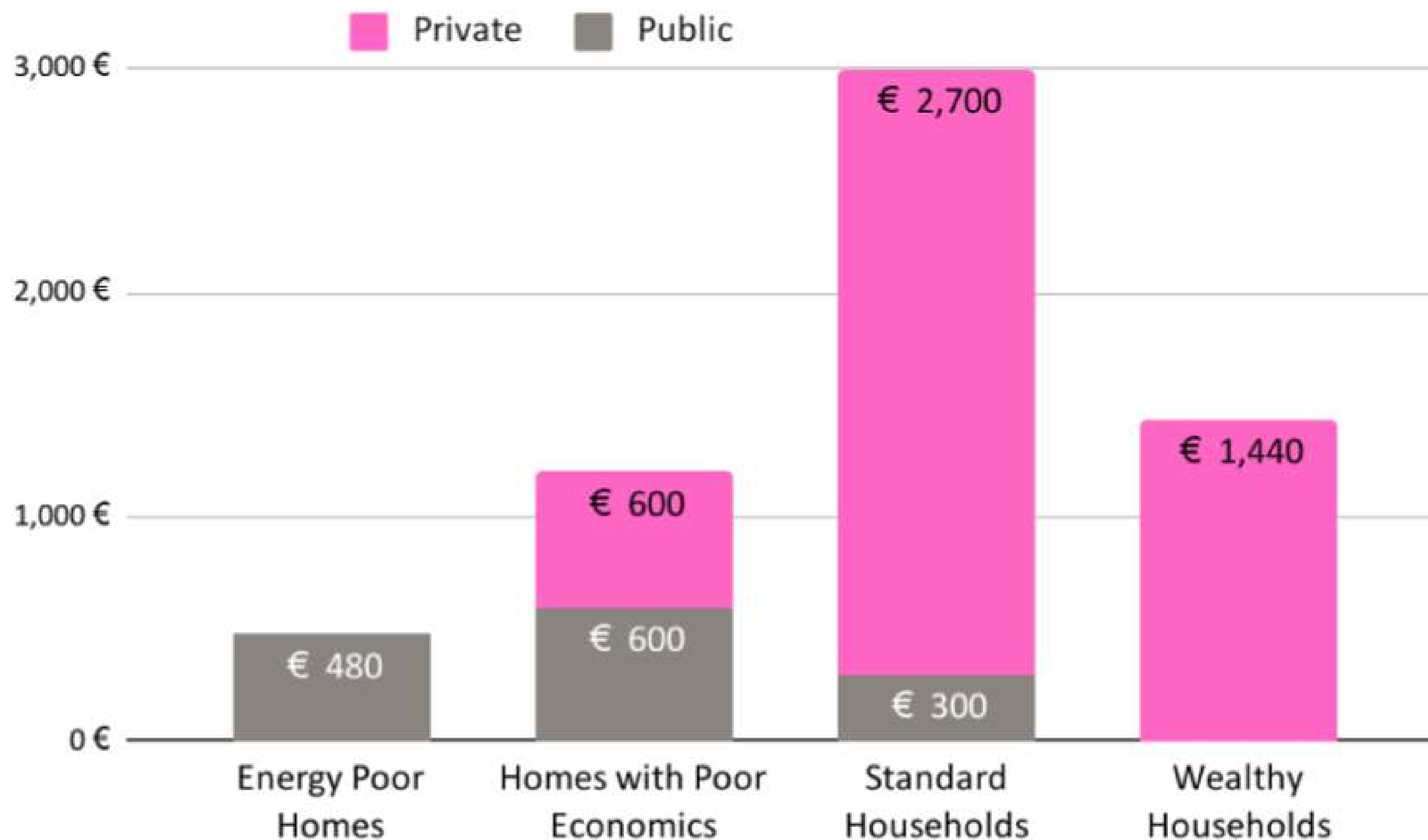
This is the amount of stored wealth against which up to 20% (**€2 trillion**) needs to be borrowed by 2030 to renovate the most wasteful buildings to deliver savings, resilience, jobs and green value.





Striking the Right Blend of Public and Private Renovation Finance

Breakdown of €6 trillion of home renovation finance by household economics (2023-50 in € bn.)



6 trillion to deeply renovate all EU homes and residential buildings...

The rough split of public versus private funding is 25/75

=

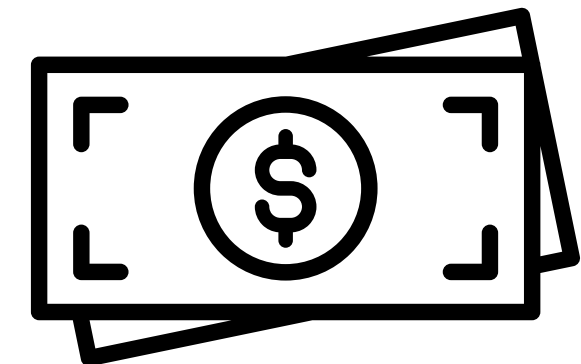
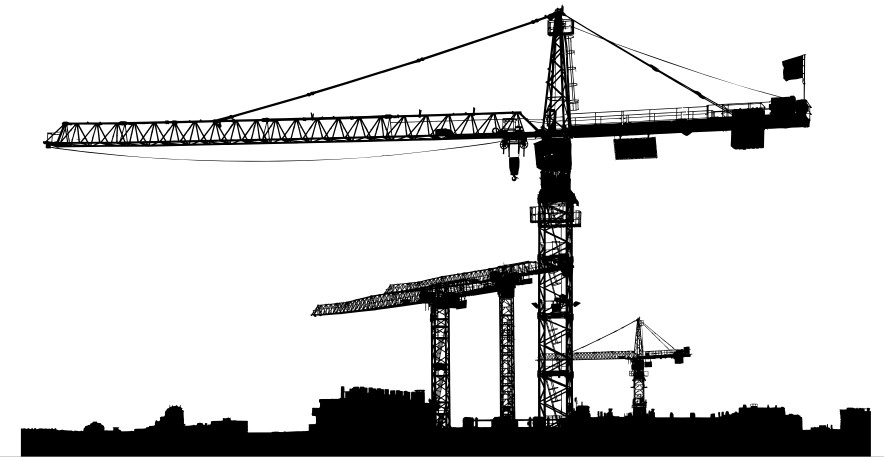
€500 billion of public funding

to lever

€1.5 trillion
of private
finance by 2030

+

Guarantees, accounted for within that budget



...of which €1.4 trillion (25%) of public support

In the form of:

- Grants
- Tax incentives
- Guarantees

=

Likely required

Segment	Size	Financial instrument	✓
Energy poor homes	16 million	€480 billion social investment need)	✓
Homes with poor economics	40 million	€1.2 trillion public-private investment	✓
Standard households	100 million	€3 trillion mainly private investment	✓
Wealthy households	48 million	€1.5+ trillion private investment	✓



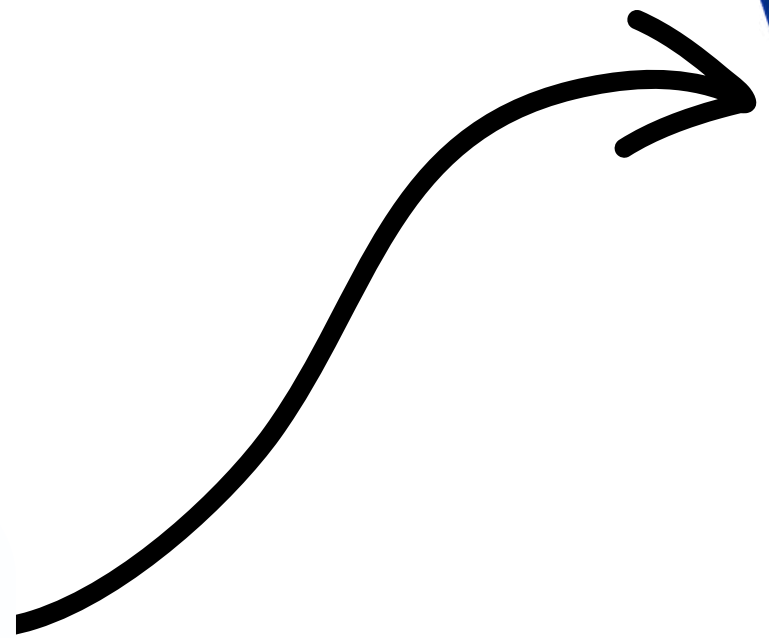
How Retail Banks in Europe are Engaging in Sustainable Finance





The Climate Alignment of Mortgages

is a direct and urgent consequence of EU banks'



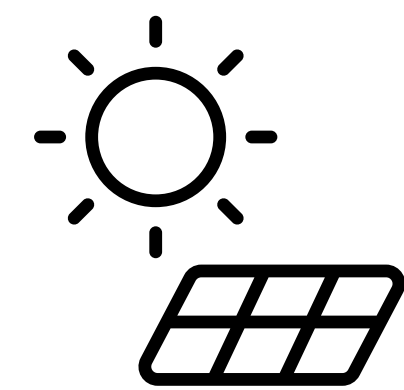
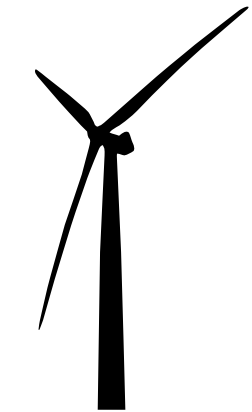
Net Zero targets

+

Sustainable finance commitments



All banks operating in the EU27 are lending into an economy with a net-zero target, and are required to operate sustainably



The Principles for Responsible Banking (PRB)

**Launched in 2019
by the UNEP FI**

- **325** current signatories = **€41 tn** in total assets
- **53%** (172 members) are Europe based
- Signatories are expected to align their portfolios with a 1.5°C pathway

Mortgage portfolio related actions:

- Signatories are expected to develop KPIs for portfolio adjustments with the monitoring and recording of data on:
 - New green mortgages ✓
 - Financing emissions targets ✓
- PRB offers signatories a “Portfolio Impact Analysis Tool for Banks” to:
 - Help banks comply with PRB’s Principle 2 on Impact Analysis and Target-setting. ✓

Net-Zero Banking Alliance (NZBA)



**Launched in Q2 of 2021,
acts as the climate-focused
accelerator for the PRB**

- Convened by UNEP FI
- **138** members, **70** are Europe based
- Represent **41%** of global banking assets (**€70 tn**)
- Signatories must establish **decarbonisation targets** for **residential real estate**, within 36 months of joining.

Mortgage portfolio related actions:

- In Q4 2022, NZBA signatories indicated that for 65% of the sector focused targets, these covered around 80% of the bank's portfolios, yet the real estate sub-sector recorded one of the **lowest coverages**.
- Has in place a “**Real Estate Working Group**” focused the use of metrics, benchmarks, and data for bank decarbonisation efforts.
- NZBA is calling for governments to develop an **international database** for harmonised energy efficiency measurements in buildings.

Net-Zero Banking Alliance Germany (NZBAG)



Has developed the Climate Action Portfolio Indicator (CAPI)

- A separate initiative from NZBA
- **CAPI** helps FIs assess their portfolio alignment with the **Paris Agreement climate goals**

Mortgage portfolio related actions:

- CAPI includes sectoral transition pathways and KPIs provided at the loan portfolio level in a **single alignment KPI**.
- CAPI is compatible with PACTA, PCAF, or SBTi FI.
- Germany's **KfW**, has developed Paris-aligned sector guidelines for promotional finance for the building sector
 - Drawing from the minimum requirements for buildings, defined according to the KfW Efficiency House and Efficiency Building standards used by **German mortgage banks**.

Science-based Targets Initiative in the Financial Sector



**Focuses on the target setting
within the broader portfolio
transition process**

- As of Oct 2023, **77** European FIs have committed to SBTi net-zero targets to be achieved by 2030
- **10** of them have approved targets

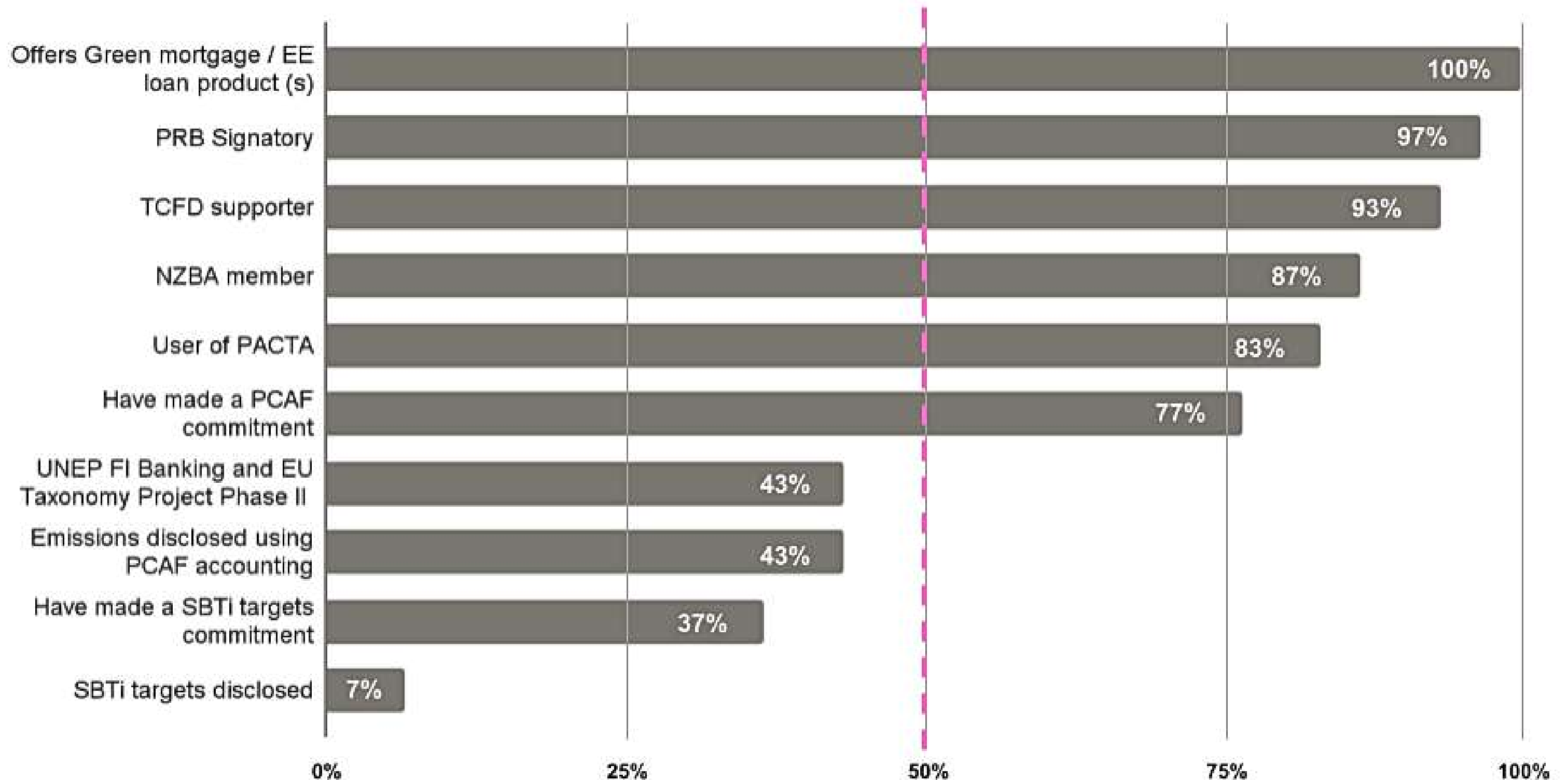


SBTi intends to require measurement of buildings' **embodied emissions** when its members deem that **robust data approaches are available**.

Mortgage portfolio related actions:

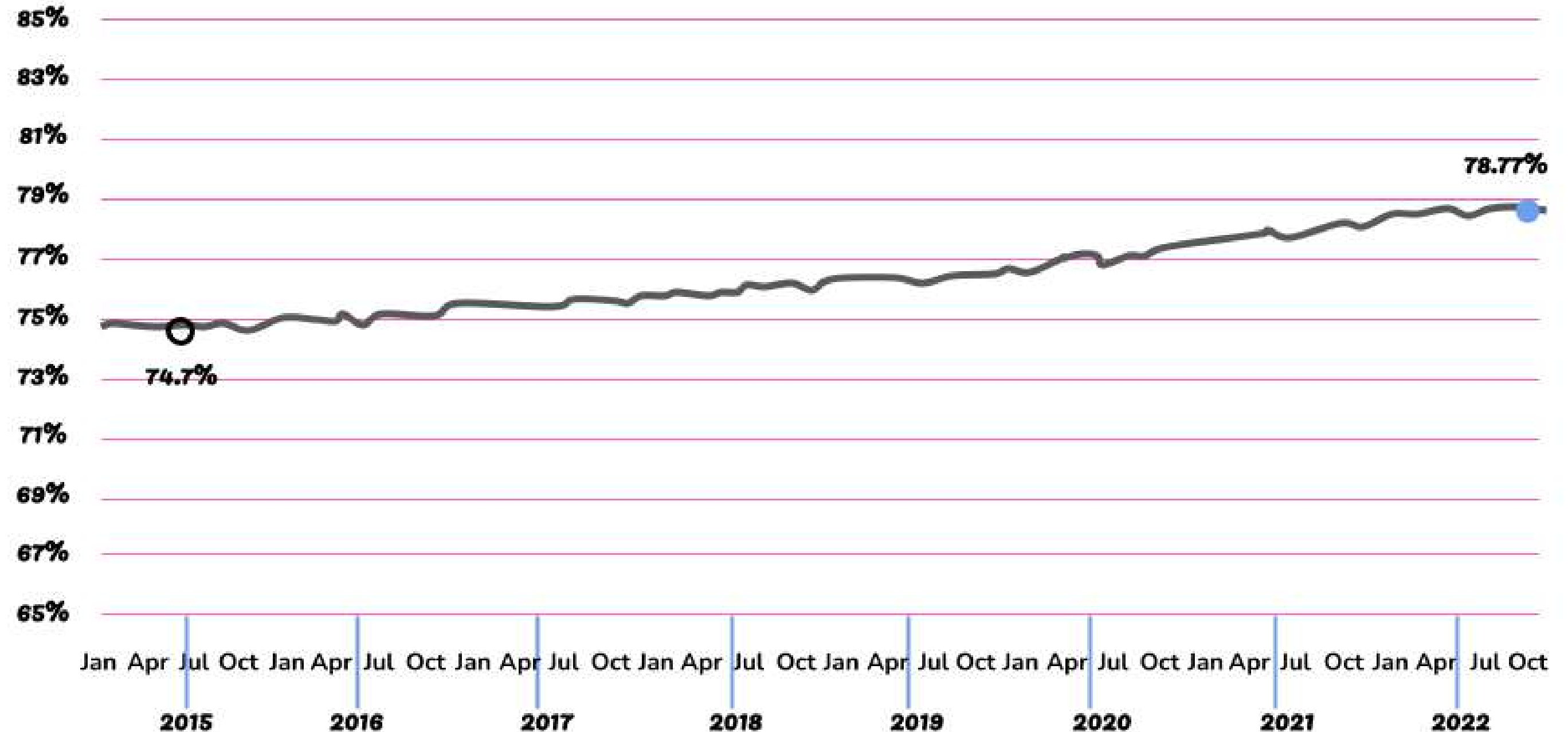
- According to **SBTi's Sectoral Decarbonization Approach for mortgages**, setting up science-based targets requires defining a baseline for emissions for the **bank's residential mortgage portfolio**. This calculation should rely on:
 - Asset-level data as much as possible
 - In the event of data gaps, these can be filled with regional proxies.

Europe's largest banks and their affiliation to climate initiatives



There is an Urgent Need to align Lenders' Mortgage Portfolios with the EU's Energy Transition

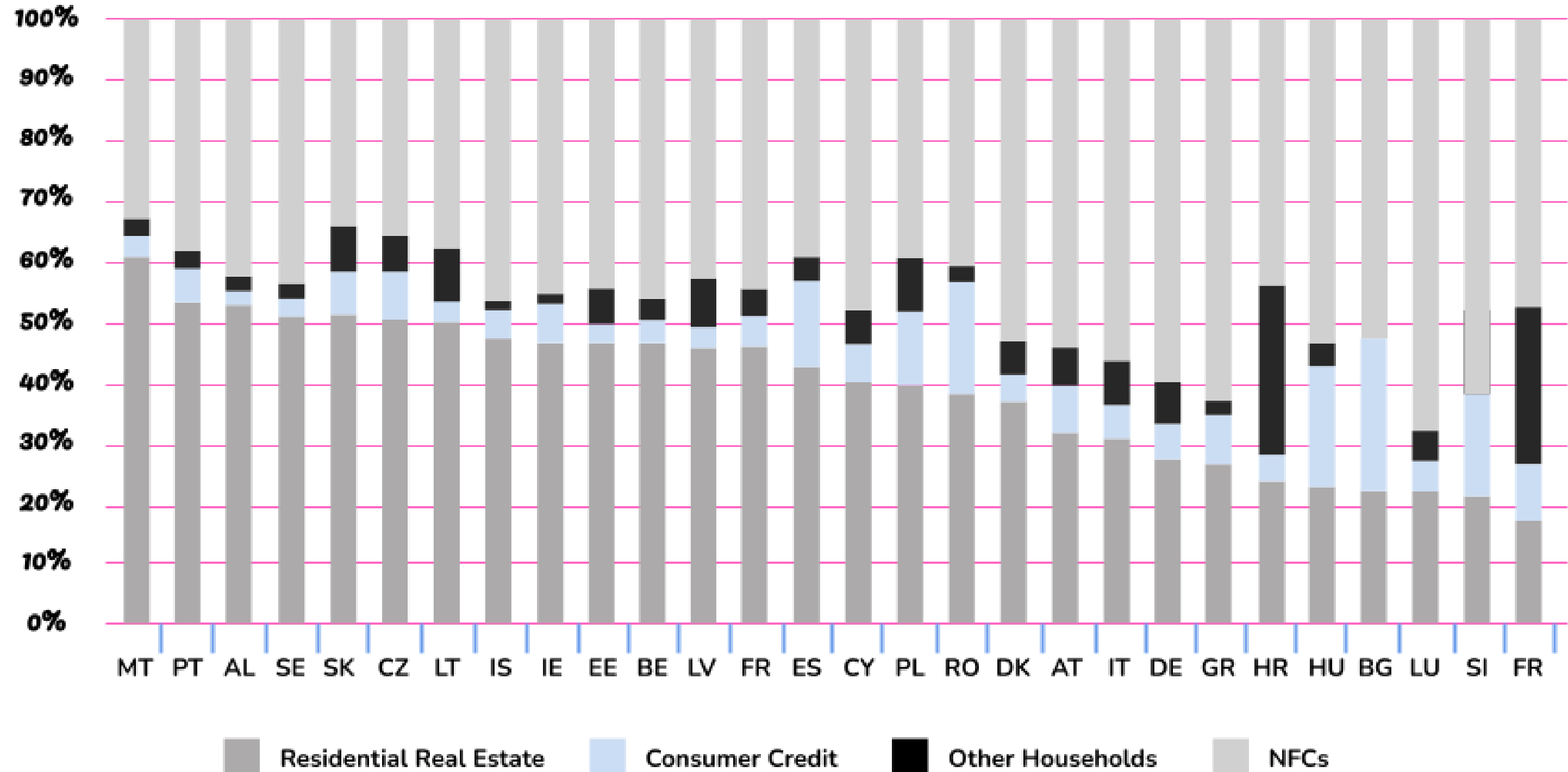
Mortgage as a percentage of loans to households in EU27 2015-2022



With 25+ million EU customers, mortgage lenders are the single most connected stakeholder group to Europe's buildings

The mortgage is the most widely used financing tool

Distribution of loans by segments by country - 2022 Data



Source: EBA (2023)

Green Mortgages: Incentives for the most efficient homes

According to the EU Taxonomy's technical screening criteria:

- For new build the home's primary energy demand needs to be 10% lower than legal requirements
- For an acquisition, an EPC Class A is required or proof that the building belongs to the top 15% of the country's building stock.

For EU Taxonomy aligned renovations:

- These must save at least 30% of the primary energy demand of the home, before the renovation.



- The Taxonomy's renovation criterion is lower than what many experts see as the technical or cost-optimal potential.

Issuance levels of green mortgages are surprisingly low

Energy Efficient Mortgage Label stats:

- Just 250,000 green labelled mortgages issued in aggregate by its members in recent years, totalling just over Euro 35 billion.
- Compared to the Euro 6-7 trillion mortgages outstanding.

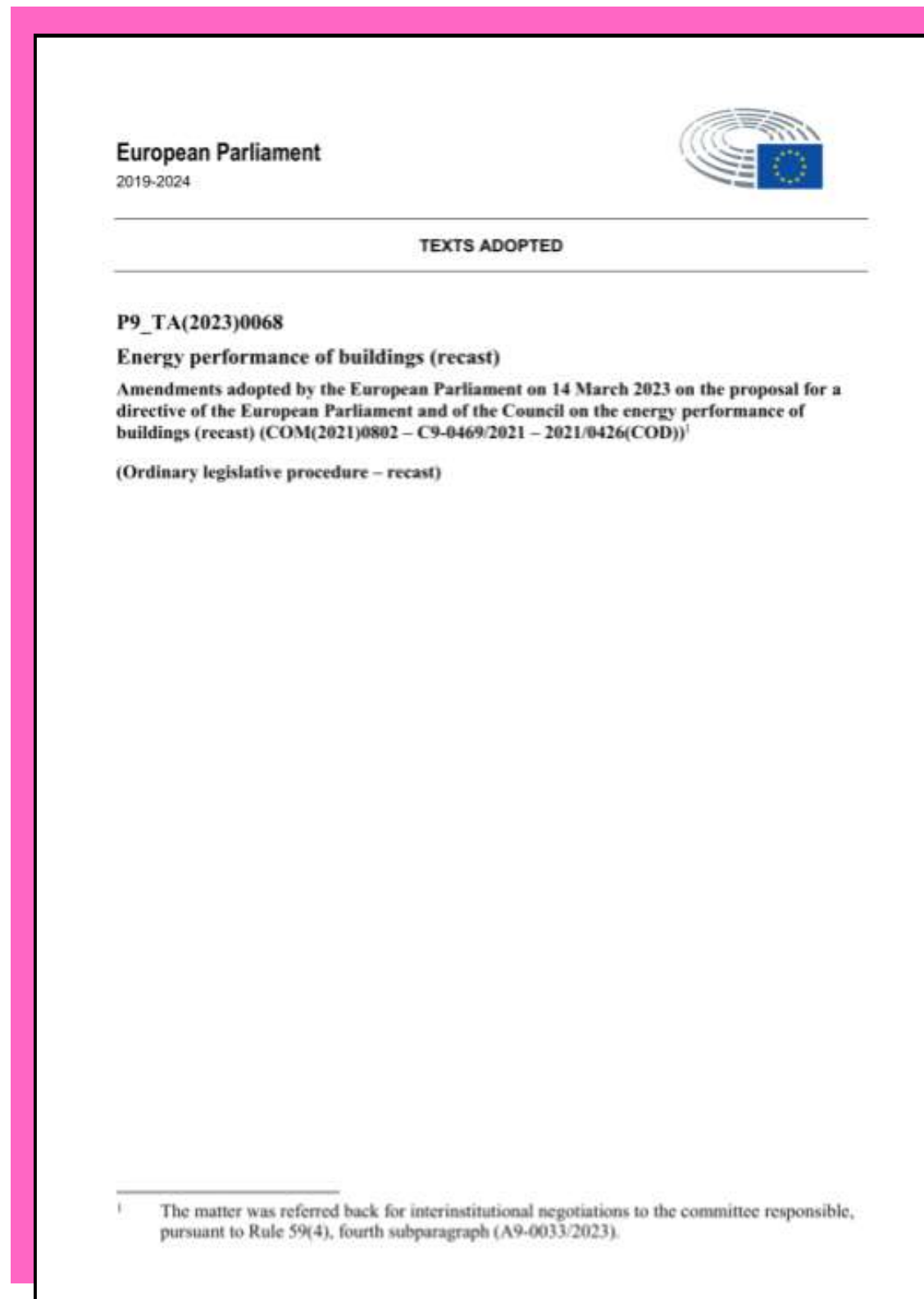


Mortgage Portfolio Standards:

A holistic tool to deliver net-zero alignment from EU Mortgage Lenders

Introduced as a voluntary regulatory tool in the Commission's December 2021 proposed recast of the EPBD

- Subsequently strengthened by the EU Parliament in its March 2023 recast proposal.



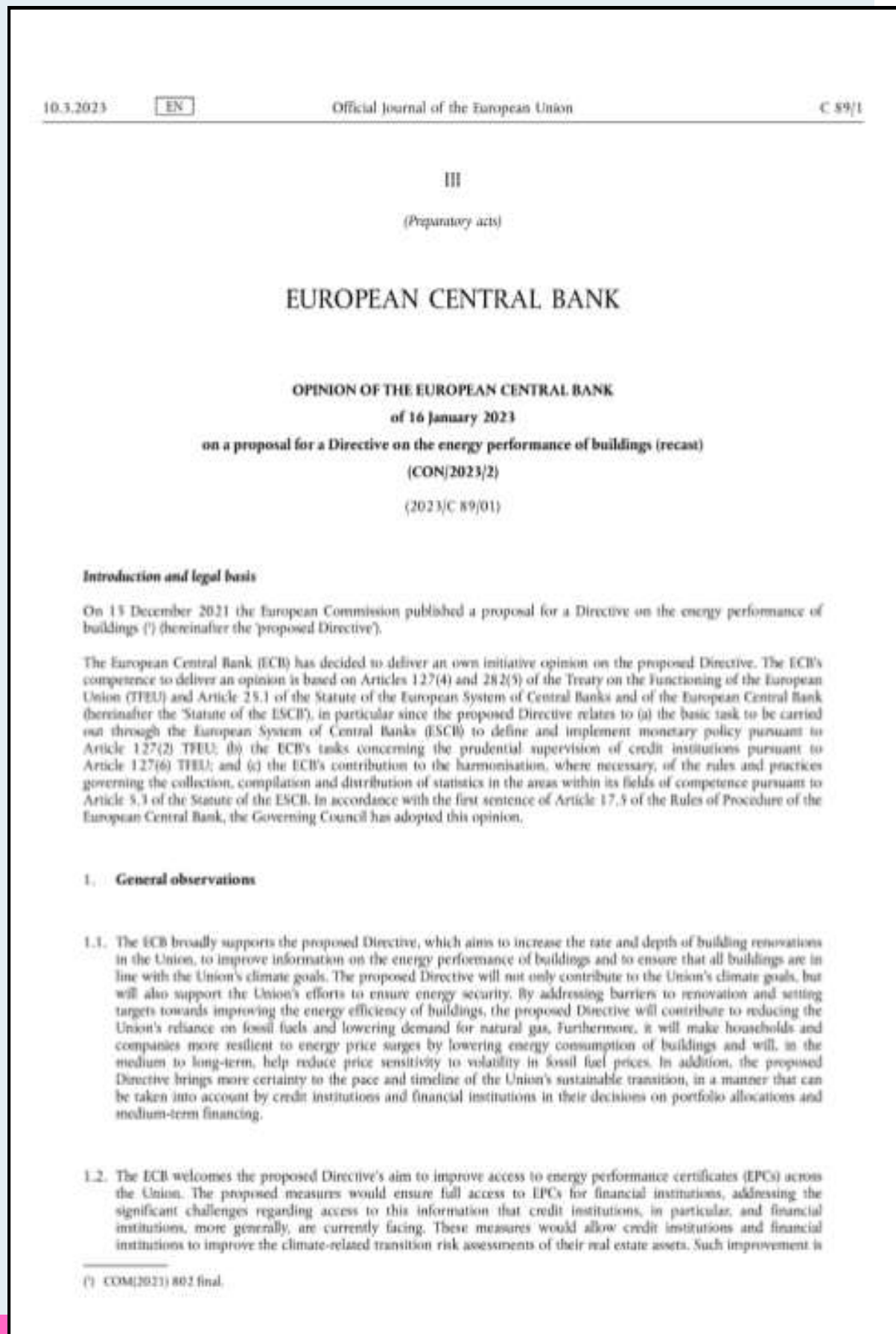
- **Portfolio standards** are proven and successful regulatory tools that have reduced transport emissions both in the EU and USA



Jan 2023, European Central Bank opinion on the EPBD recast

Calls out Mortgage Portfolio Standards:

- More detailed minimum requirements would harmonise the **mortgage portfolio standards** across Member States.
- The design of **mortgage portfolio standards** ought to be readily usable in issuances of financial and debt instruments, as these could:
 - Enable cross-border investments into energy performance-enhancing mortgages – also in the context of the Capital Markets Union.
 - Maximise the contribution of financial markets to reduce reliance on bank lending and government support schemes
- **Mortgage portfolio standards** ought to become increasingly stringent over time, mirroring the improvement of average EPC levels of real estate assets.



Leading Dutch and British banks

already use voluntary MPS to assess and steer their mortgage portfolios

Netherlands

- ABN Amro has a 17% share of the Dutch mortgage market, and launched “**Mission 2030**” strategy in 2017, which seeks to take its buildings financed to an “A” label.
- ABN’s gross loan portfolio was €246 billion at the end of 2022, with **residential mortgages** accounting for over **60%** of its loan book.

UK

- In the UK, all commercial rented properties are required to meet a minimum EPC B rating by 2030, and social housing and fuel poor homes will need to have an EPC C rating for all tenancies.

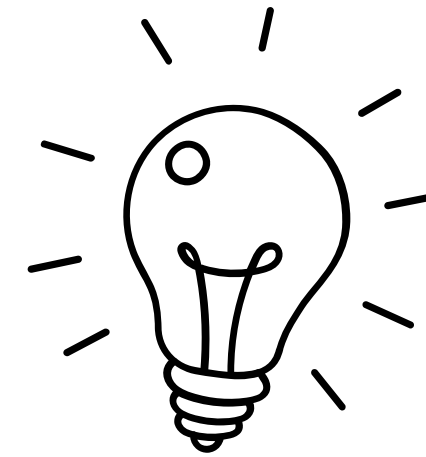
A mortgage portfolio standard is an impact analysis tool for banks



Top 30 European banks (by assets) and the climate alignment of their mortgage portfolios



12 top lenders (40%)



Already apply a form of Mortgage Portfolio Standard



Nearly all of the remaining banks are some way through a process that involves components or the entirety of a portfolio alignment.

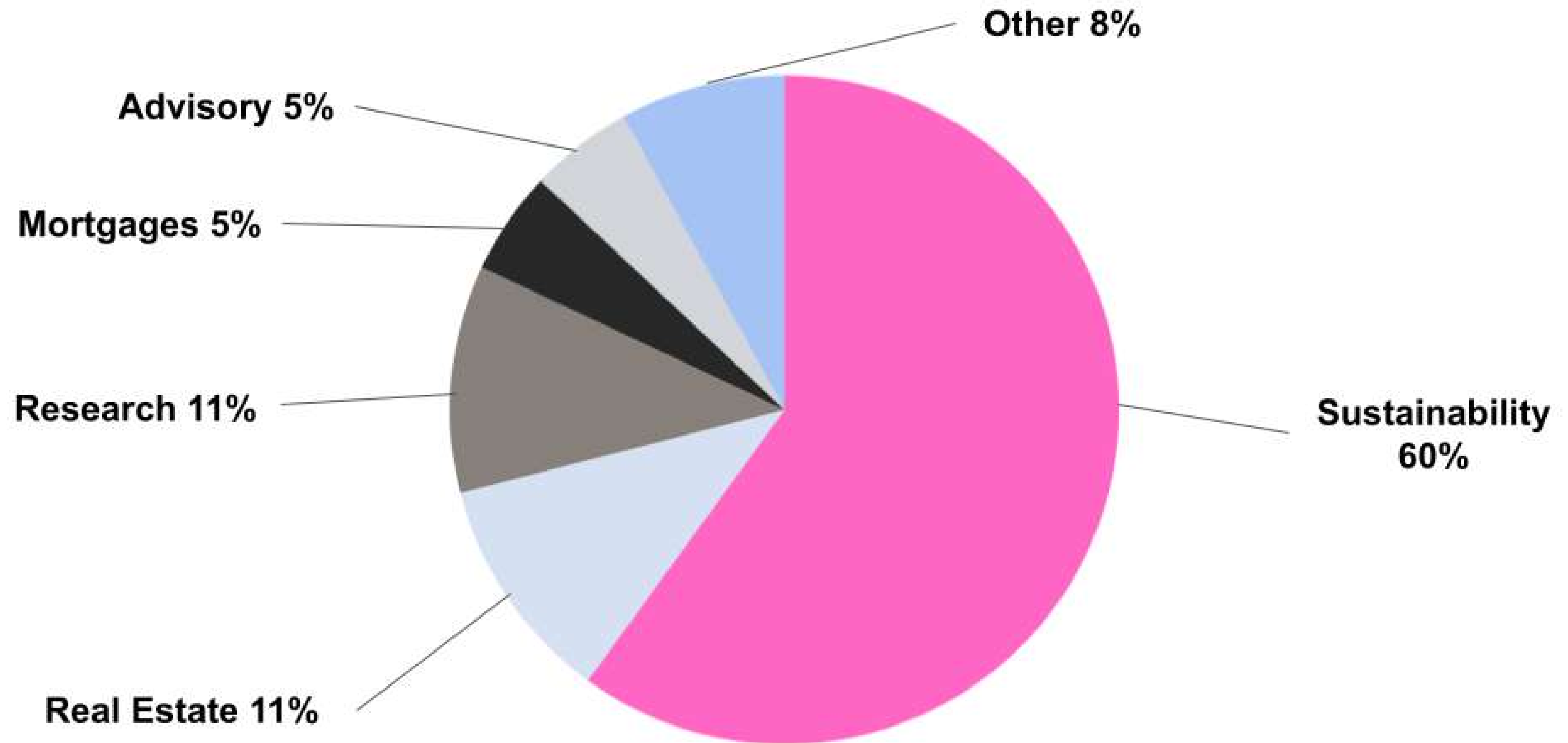


From Net-zero targets to Home Renovation

Insights drawn from a Retail Bank
Questionnaire on Approaches to
Sustainable Finance for Buildings

Insights drawn from a Retail Bank Questionnaire on Approaches to Sustainable Finance for Buildings

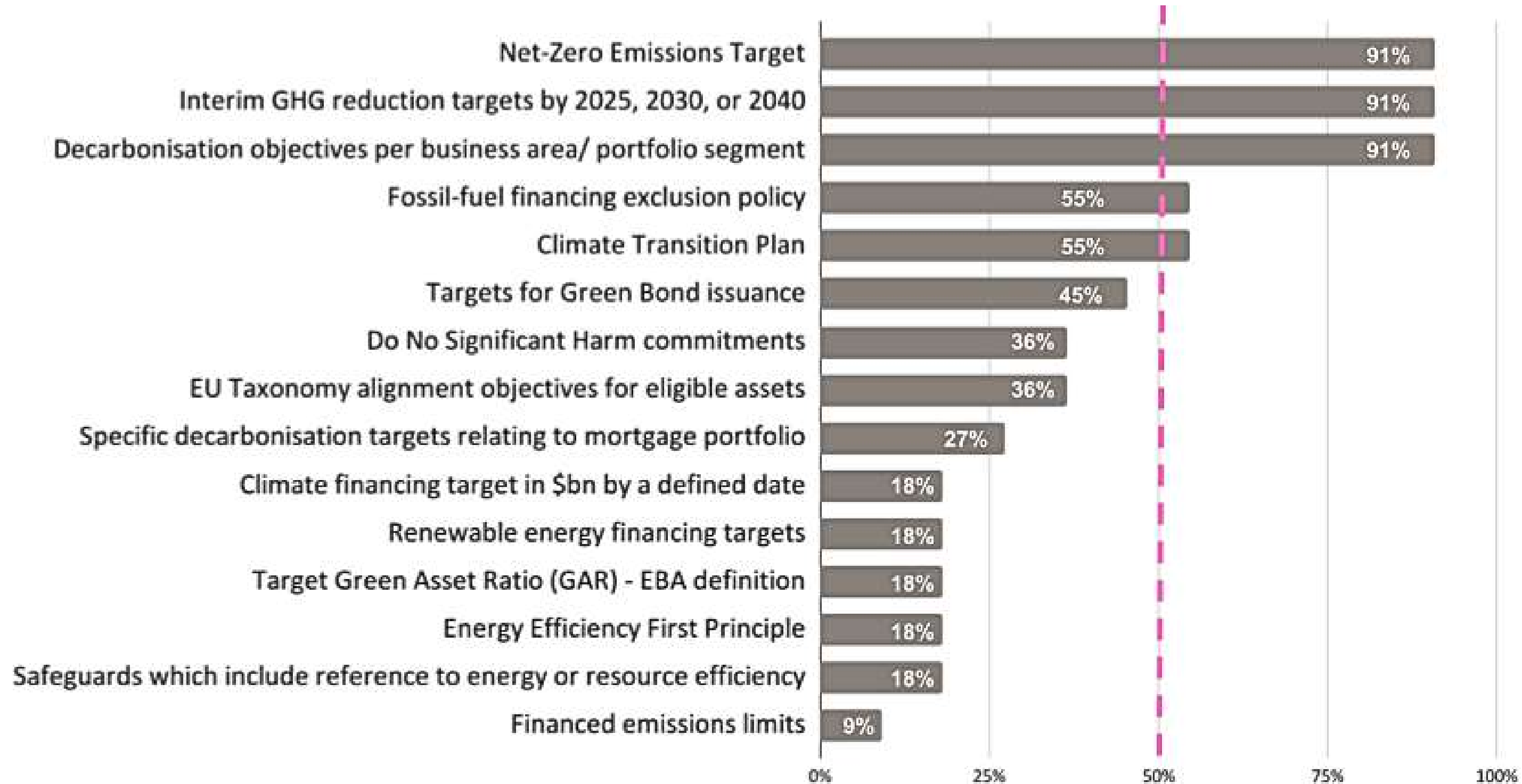
*Area of focus
of survey
responder
participants*



**Received 19
responses
mainly from
leading financial
institutions**

Understanding the impact of Bank Net-zero and other Sustainability Targets

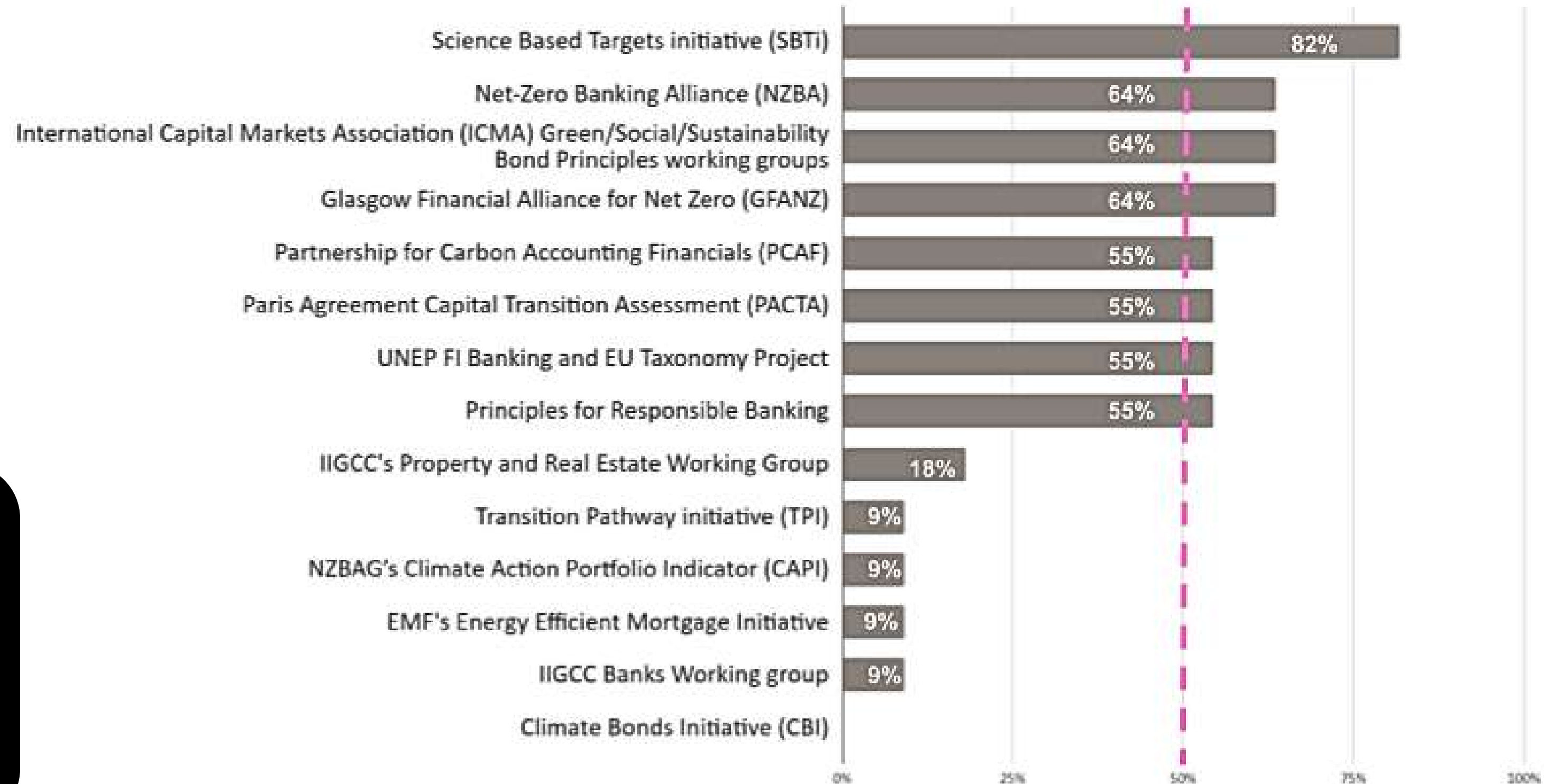
Observed implementation of climate targets and/or commitments



Just 27% of respondents had specific targets for their mortgage portfolio

Initiatives which support banks operationalising high-level decarbonisation commitment

Observed affiliation/subscription to climate initiatives

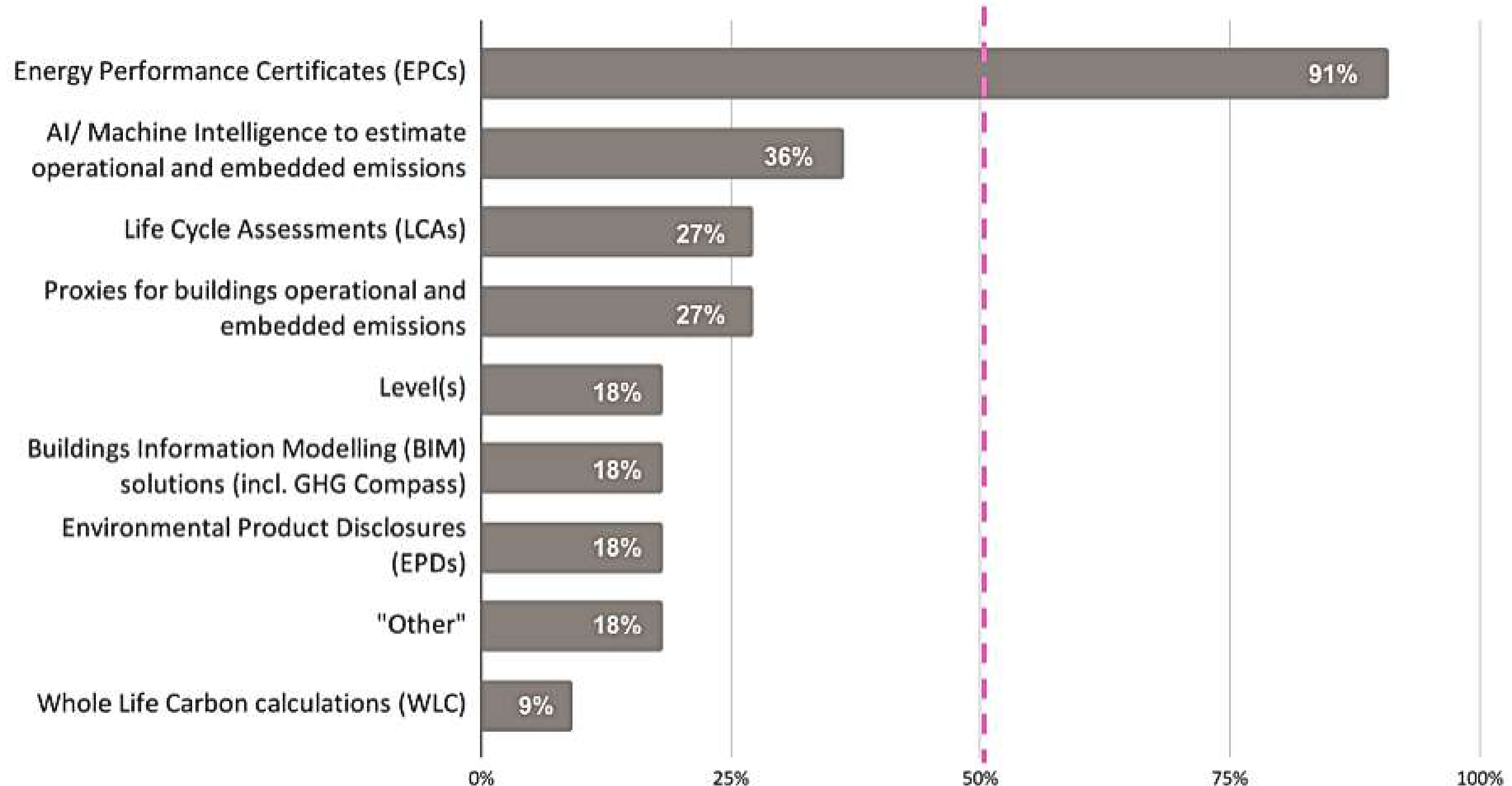


Over 80% of responders are working with Science Based Targets Initiative

EPCs are only available in a minority of existing buildings across the EU

Measuring life-cycle performance of buildings and their contribution to climate change

Over 90% of respondents rely on EPCs to provide the information they store on the buildings against which they lend



How Banks are Implementing Mortgage Portfolio Standards (if they are)

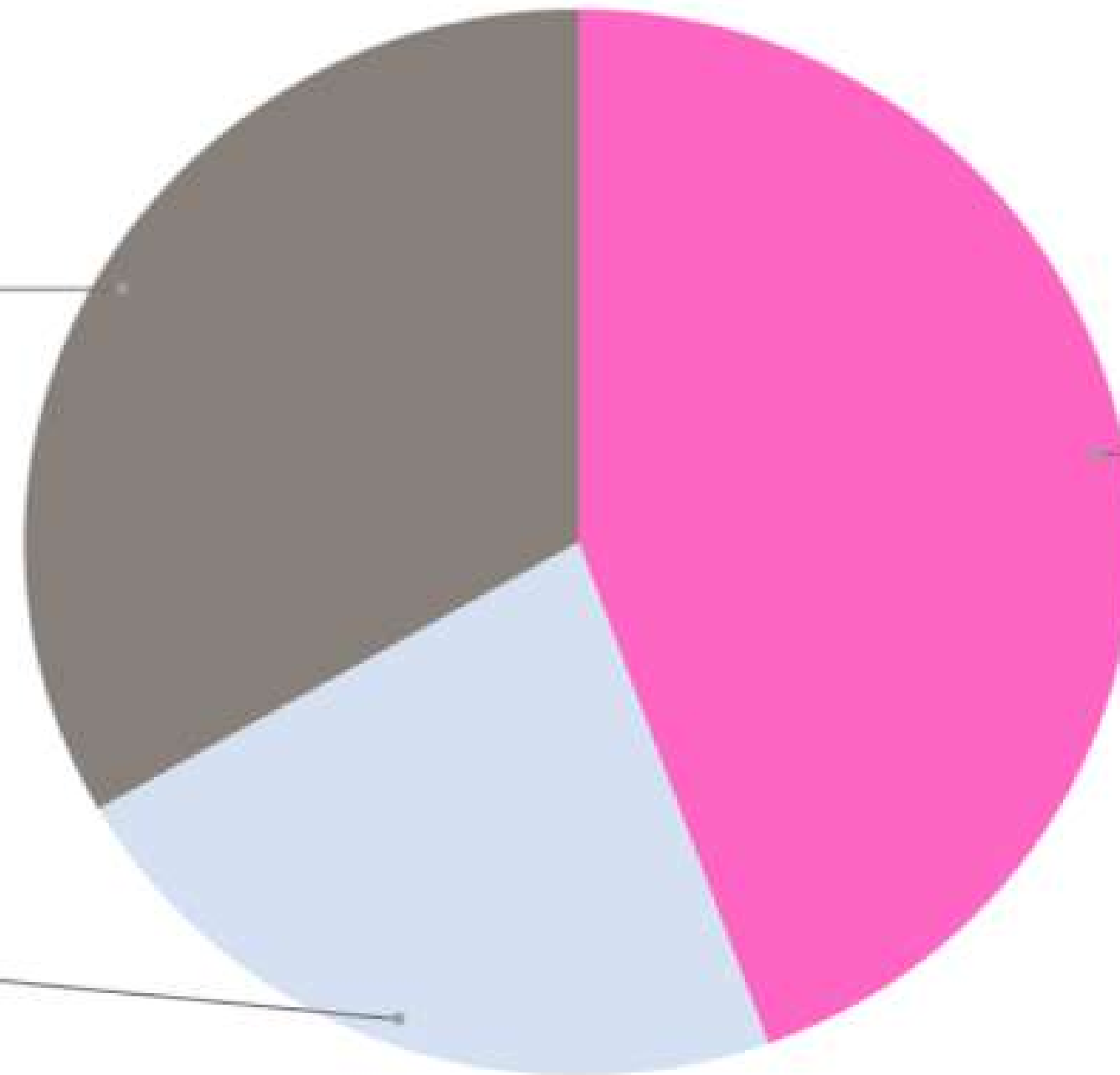
Are you aware of Mortgage Portfolio Standards?

No
33%

Yes
22%

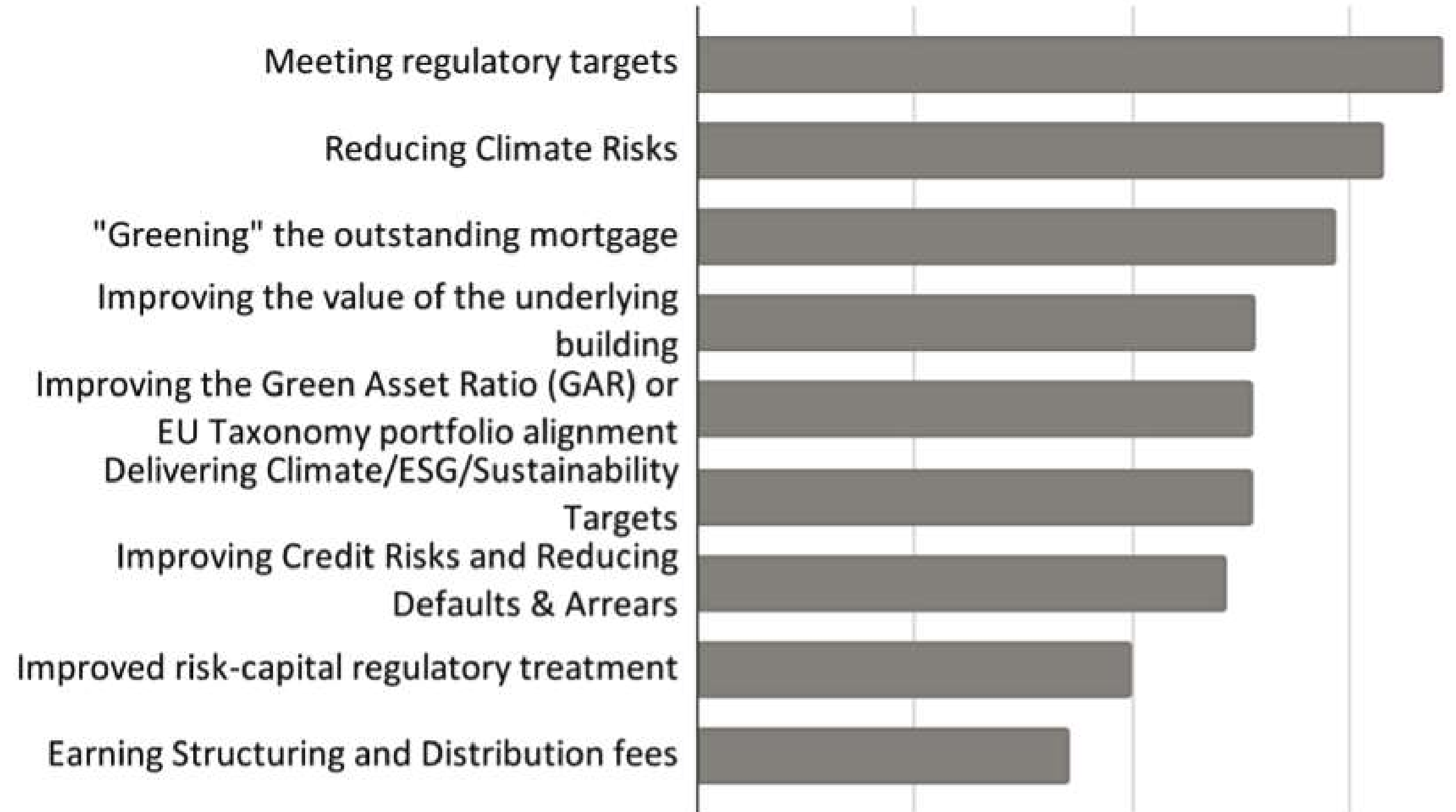
Yes, and have been actively following its progression
45%

Over the last three years, it has become clear that a MPS - or equivalent mechanism - is required to align a lender's mortgage portfolio with its net-zero transition.



Motivations for Bank Promotion of Building Energy Renovation

Renovation drivers for banks to promote client building renovation

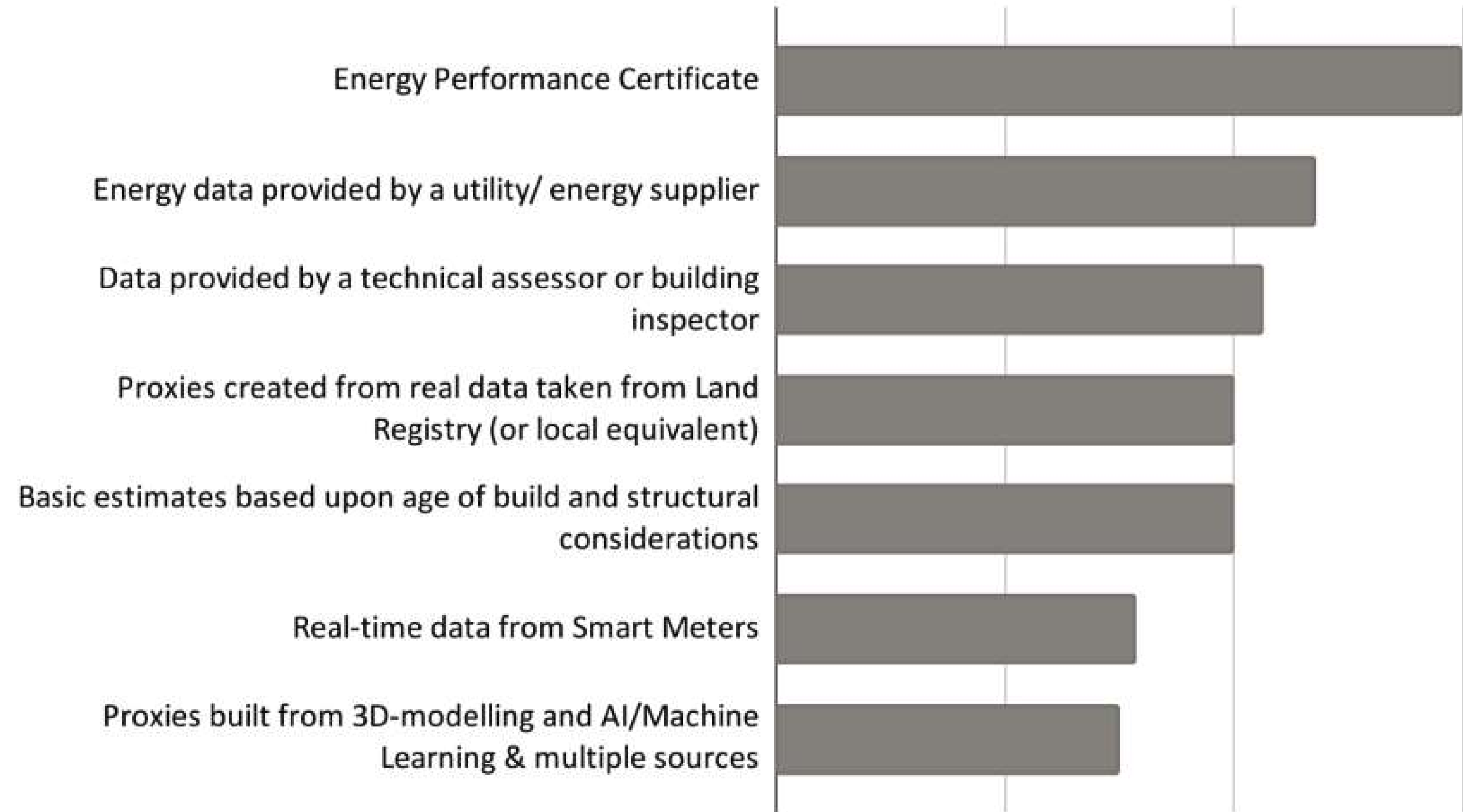
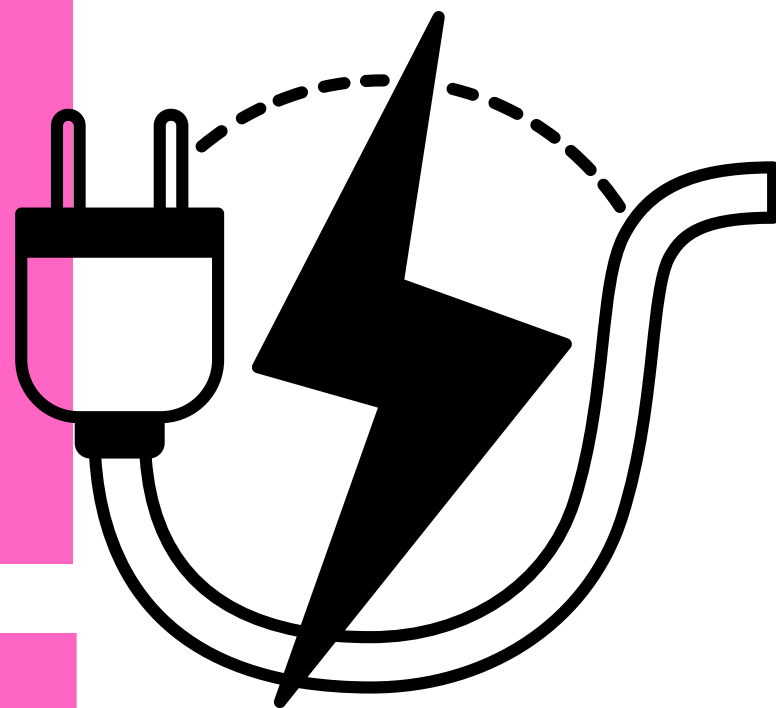


The main driver for mortgage lenders to promote energy efficient renovations to their clients is to meet regulatory targets and reduce climate risks.

(Voting was done with responders scoring "importance" from High to Low)

EPCs remain the leading source of energy performance information connecting to mortgages

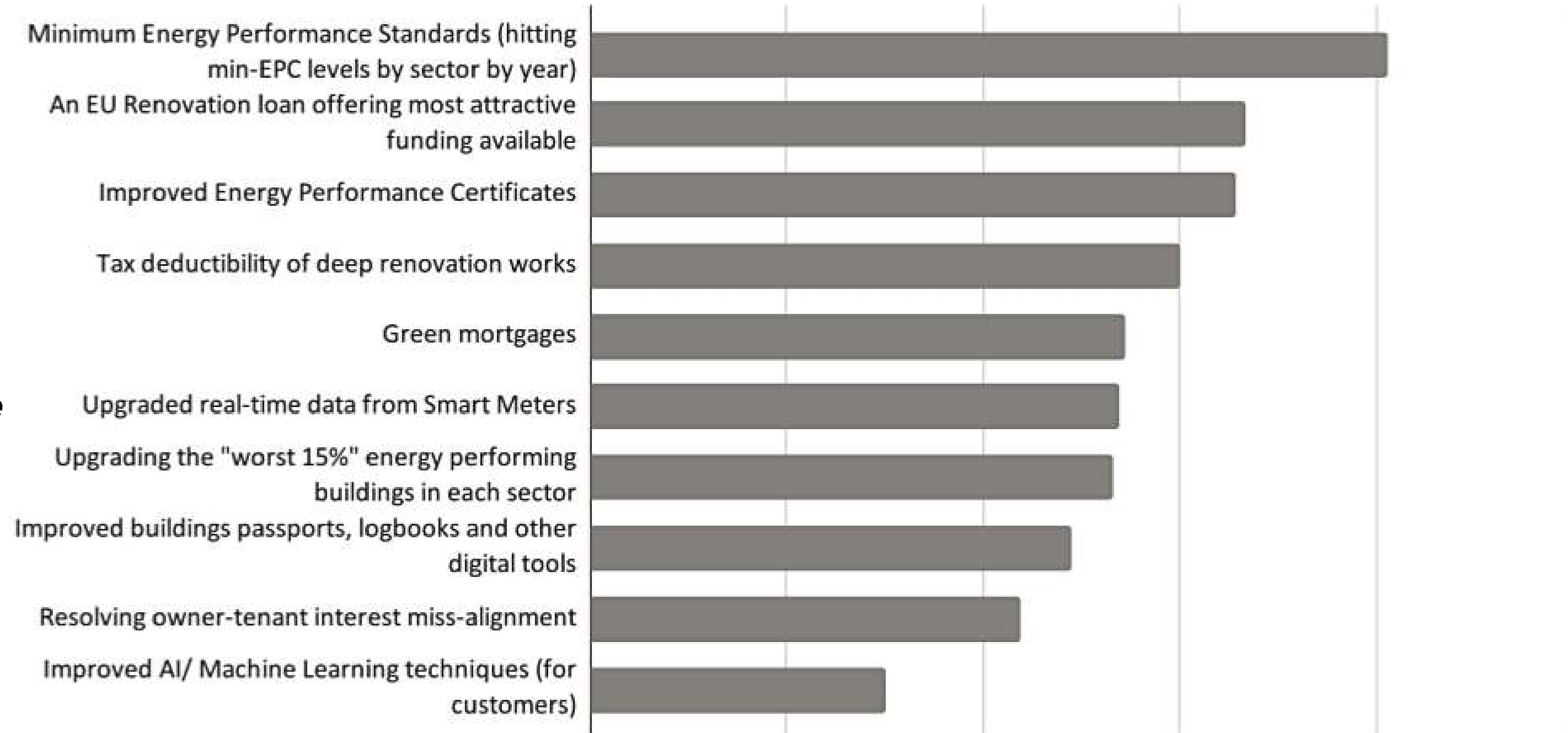
Data sources most important to implement Mortgage Portfolio Standards



(Voting was done with responders scoring "importance" from High to Low)

Non-financial drivers that would create an environment that stimulated demand for EE renovations

Complimentary non-financial drivers to support MPS-performance by banks

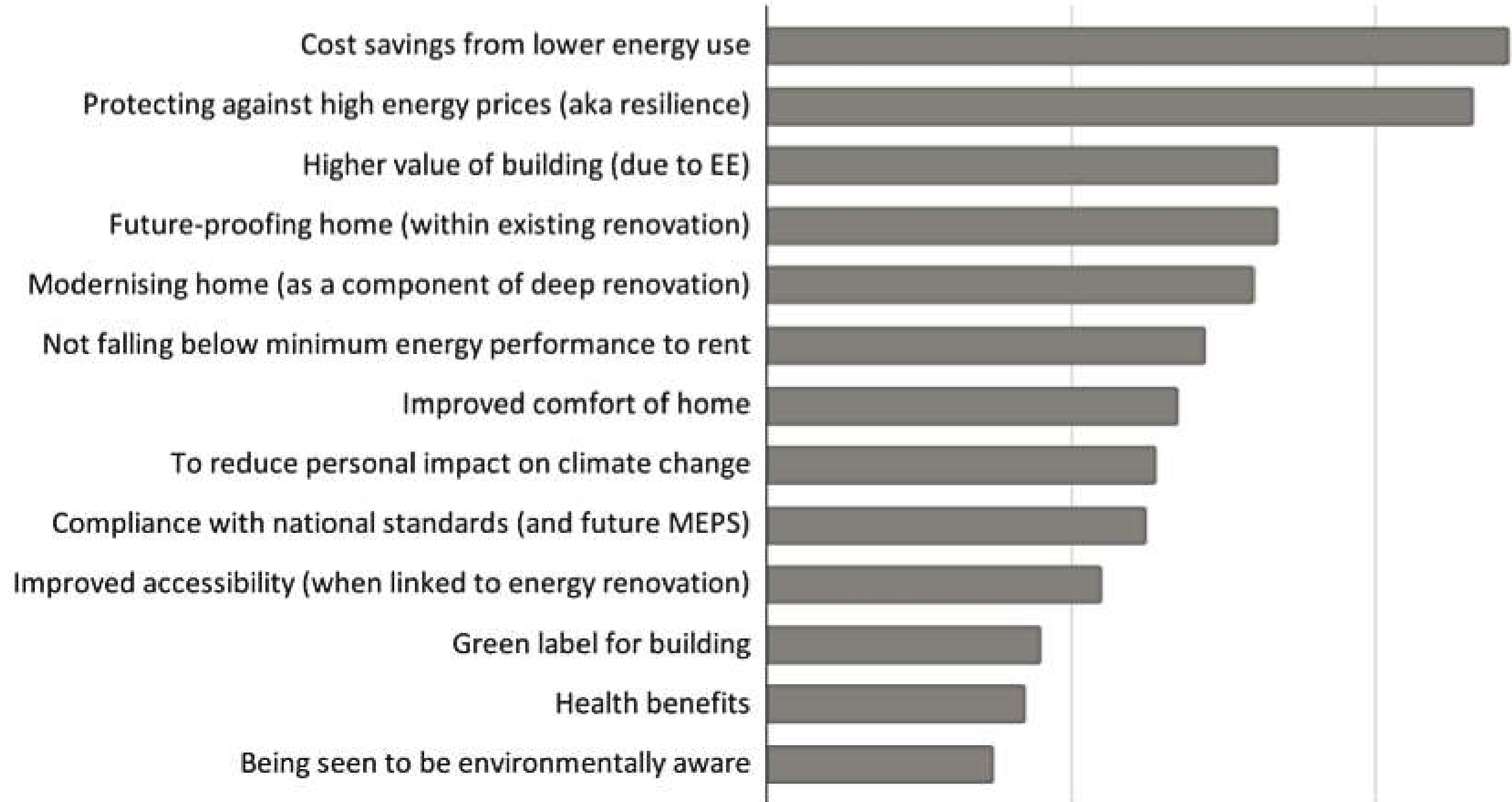


(Voting was done with responders scoring "importance" from High to Low)

Driving the Demand for Renovation from the lenders' perspective

Why buildings owners would borrow money to renovate their home/ building?

The increase in energy prices has increased owners' interest in energy efficient renovations to increase resilience to energy price shocks.



(Voting was done with responders scoring "importance" from High to Low)

Social Considerations for Mortgage Portfolio Standards

Public support to enable low income and elderly households to renovate is critical to the delivery of a net-zero pathway for a Mortgage Portfolio Standard.



If a recast EPBD or local standard causes low energy performing properties to lose value then those owned by vulnerable people must have their value loss made-up for through a combination of grants and other public renovation actions or instruments to enable those affected and poorer communities to renovate to recover that value.



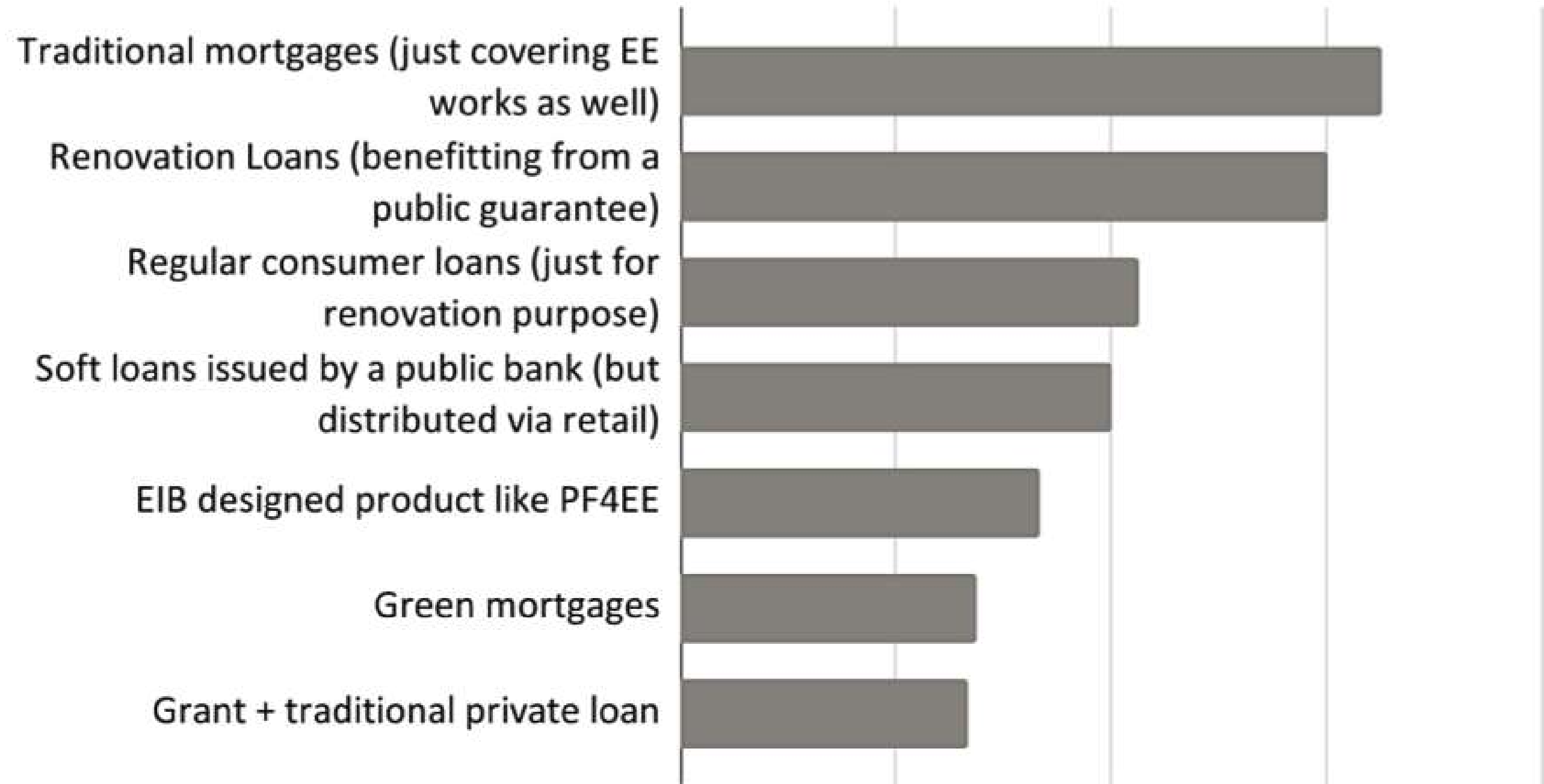
Mandated energy standards for properties will result in greater renovation, yet low income people need financial support and guidance to take the initial step to renovate their homes.



Clients seeking to improve the energy efficiency of their homes may exceed their mortgage effort rate and this can limit their access to renovation loans, without guarantees or other public support.

New Public Renovation Finance Instruments catalysed by the Buildings Directive

Ranking of selected renovation products with “ease of operation”



Two thirds of those surveyed felt that the addition of an EU Renovation Loan in the recast Buildings Directive made sense

(Voting was done with responders scoring “importance” from High to Low)

Building the “Ideal” Public-Private Renovation Loan

*Ranking of EU
Renovation Loan
components by
stakeholder*

**Having an “ultra-low”
interest rate that is
independent of the
building owner’s
credit score is a
critical feature for all
stakeholders**

Stakeholder			
Rank	Customer	Originator	Government (EU/ MS)
1	Ultra-low interest rate (same for all building owners)	EU Guarantee	Ultra-low interest rate (same for all building owners)
2	Zero-coupon structure (paying compound interest at maturity)	ECB TLTRO liquidity facility eligibility	Only available for deep renovations (saving >50% energy)
3	EU Guarantee	Offered through an accredited contractor	EU Guarantee
4	30 year maturity	Ultra-low interest rate (same for all building owners)	ECB TLTRO liquidity facility eligibility

The EU Renovation Loan was designed to apply to the broadest possible set of owners and buildings

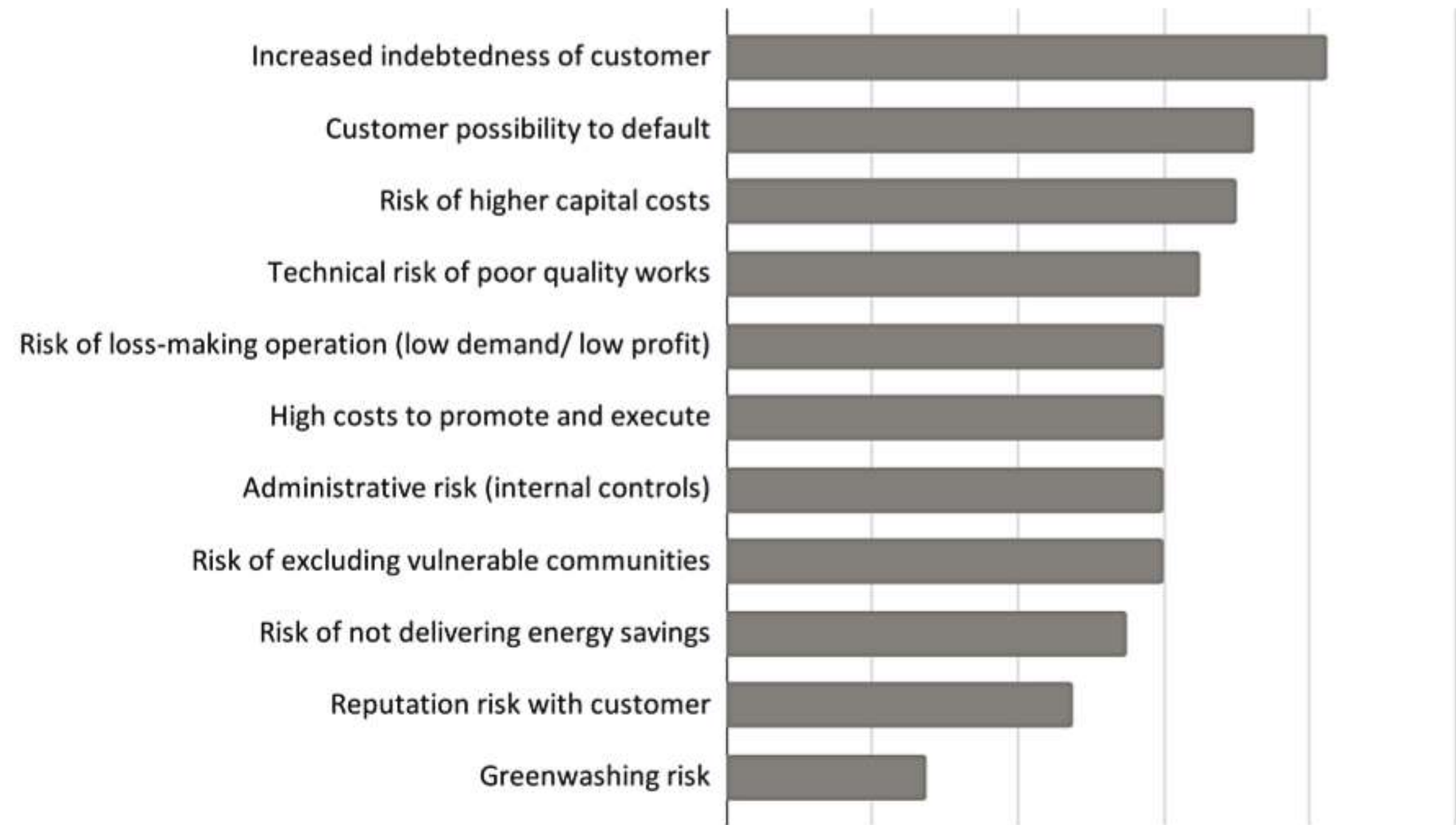
Identification of Renovation Loan target stakeholder by Dwelling Segment

Dwelling Segment			
Rank	Detached (or semi-detached) Single Family Home	Multi-family apartment block (eg. co-op)	Commercial Building
1	Energy poor household (>10% income on energy)	Average family	Single employed
2	Single employed	Energy poor household (>10% income on energy)	Social housing landlord
3	Average family	Private landlord	Private landlord
4	Private and Social housing landlords	Tenant	Tenant

FIs were asked to provide an assessment of the EU Renovation Loan's applicability by "best fit" against the following types of building owner and three building types

key concerns of originators of renovation loans can be addressed through the right structure of the loan itself

Ranking of perceived risks to ERL distribution from originator perspective



(Voting was done with responders scoring "importance" from High to Low)

Increased indebtedness can be addressed through an EU Guarantee, along with increased potential to default - which should have reduced given energy savings.

Biggest barrier to the successful operation of an EU Renovation Loan



identified

Barriers
to the successful
operation of an ERL

Lack of access to accurate EPC data and energy databases

The creditworthiness of homeowners

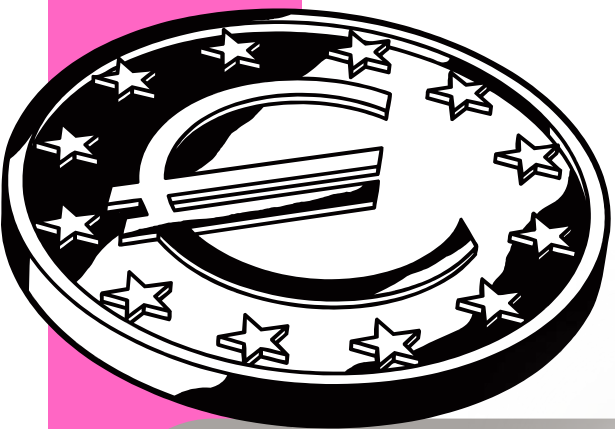
Lack of Government attention on renovation

A lack of evidence of increased property value due to energy performance improvements



Conclusions and Recommendations

Mortgage lenders must identify the “low hanging fruit” of the worst performing buildings



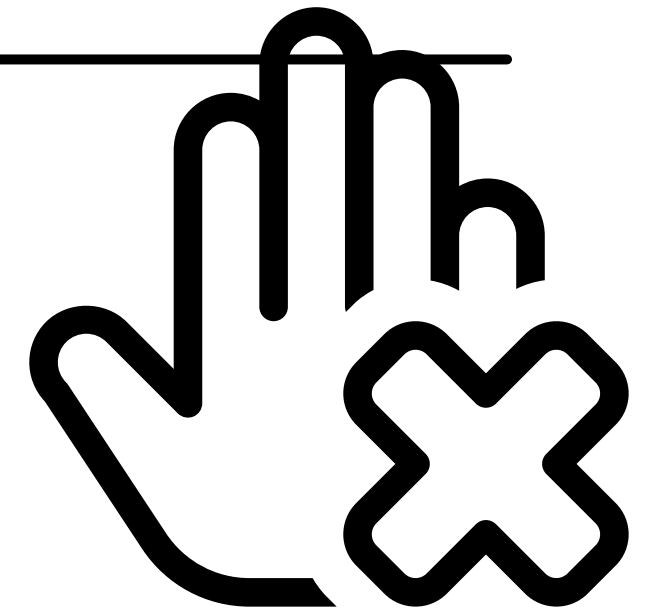
**Most
EU FIs**

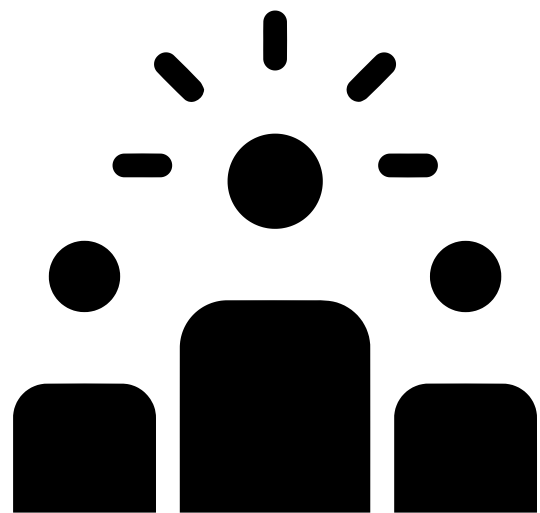
are aware

**the collateral
against which
they provide
mortgages**

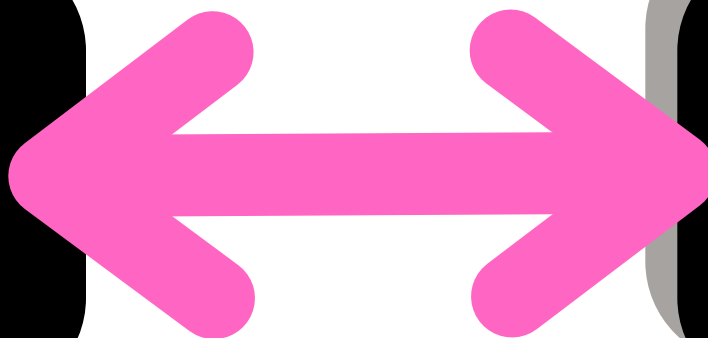
*is largely
inefficient*

**Will fall out of
alignment with the
net-zero emissions
pathway at some
point**





Leadership in offering renovations to mortgage clients



FIs who have been able to make renovation finance programmes work

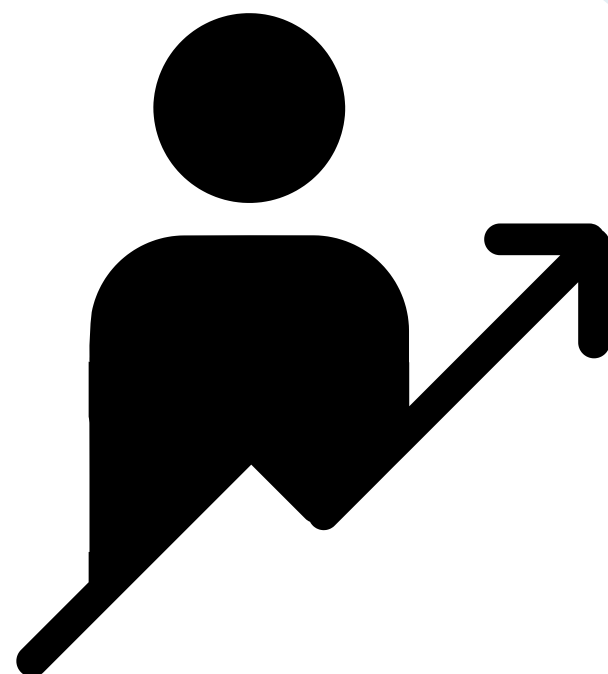
has largely been among lenders with

have relied on:

Voluntary forms of mortgage Portfolio Standards

Science-based emissions reduction targets

or in countries with MEPS

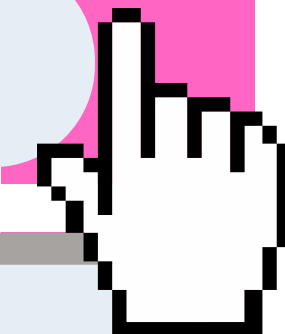


Standards

Contractor accreditation

Improving technologies

Sophisticated measurement tools and AI



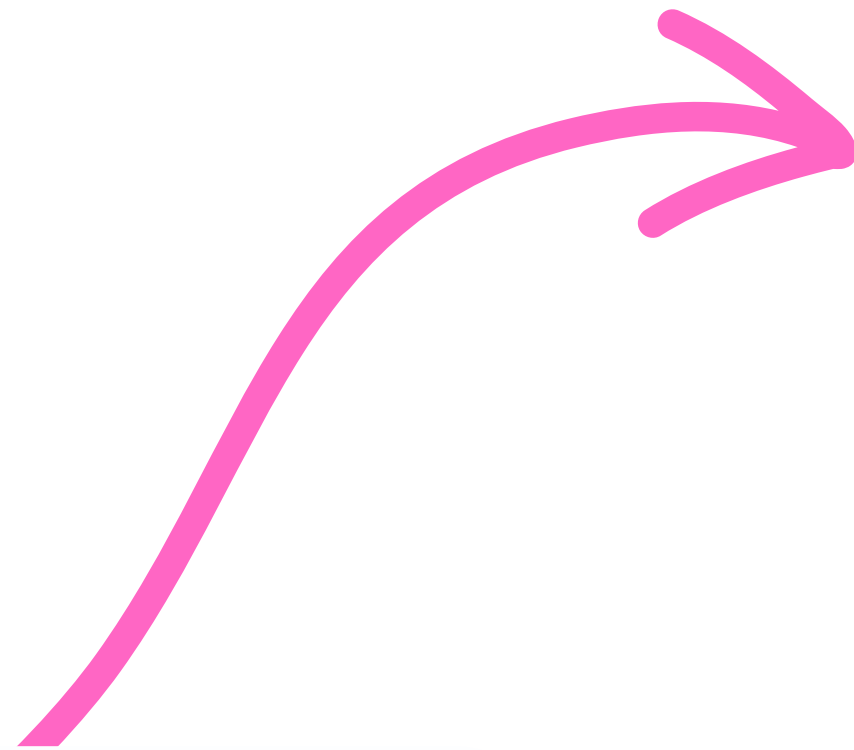
FIs implementing climate risk and mitigation measures, portfolio by portfolio



Understand
the highly material risk
of inaction in mortgages

+

**are
aware**



**There is
a limited window
of opportunity**

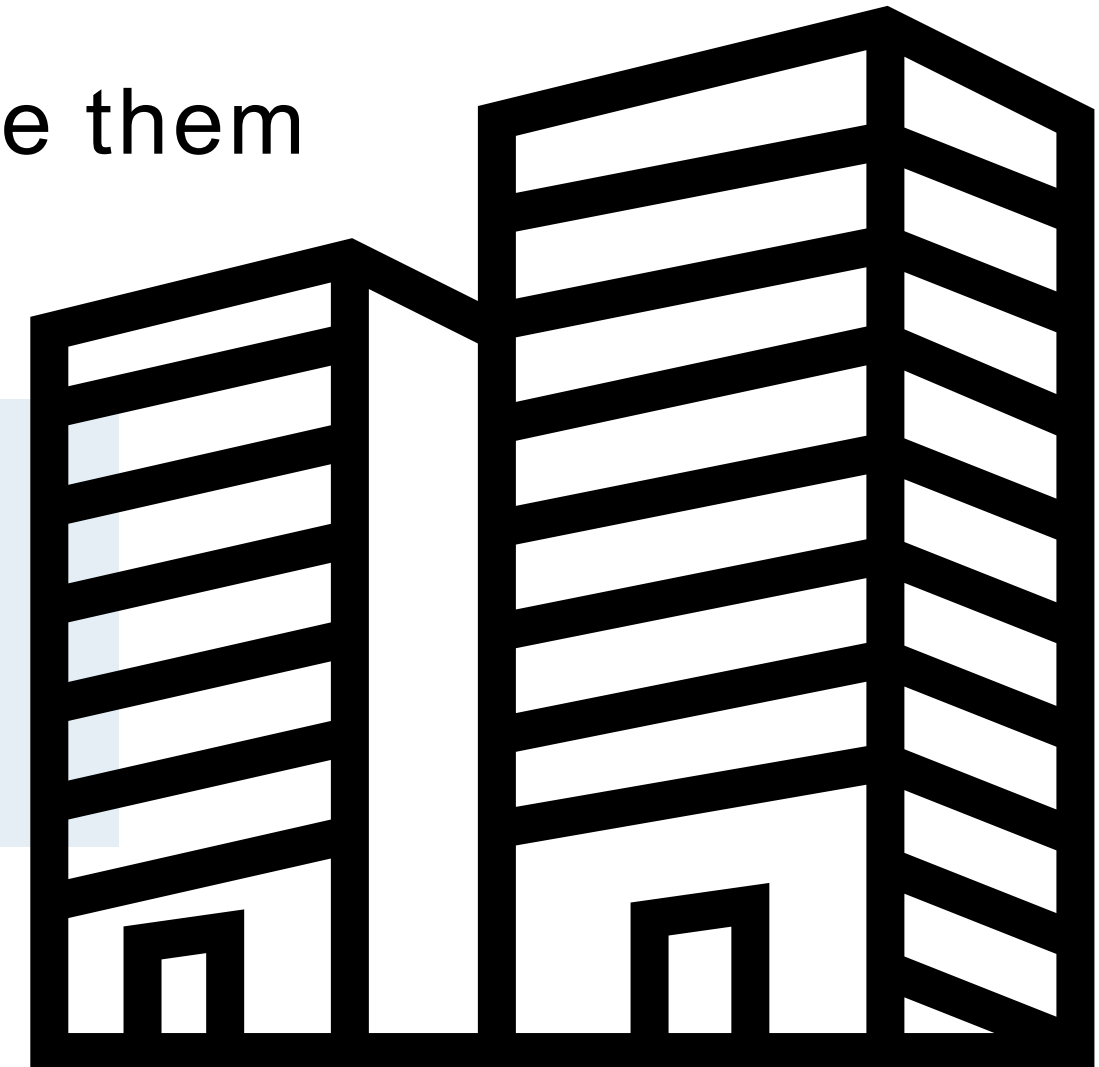
**to work with
Governments to
jointly address and
deliver shared
objectives**

Recommendations to Policymakers

1

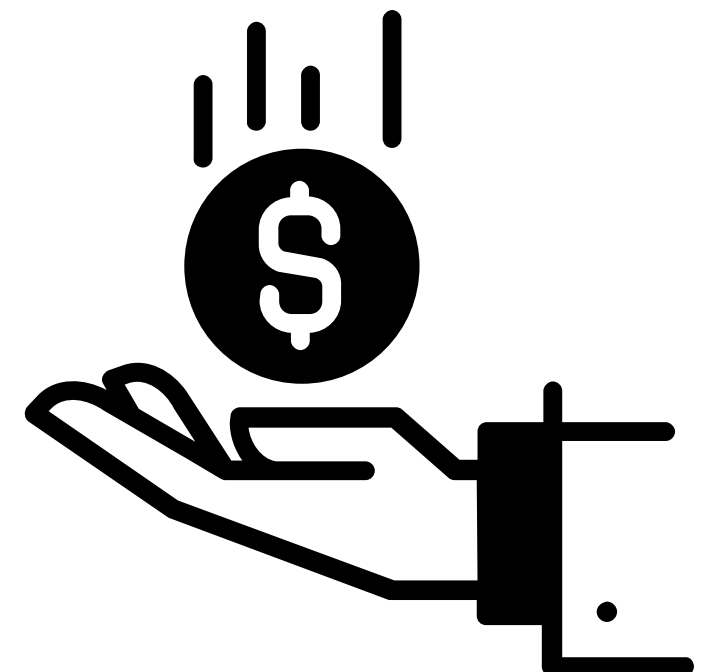
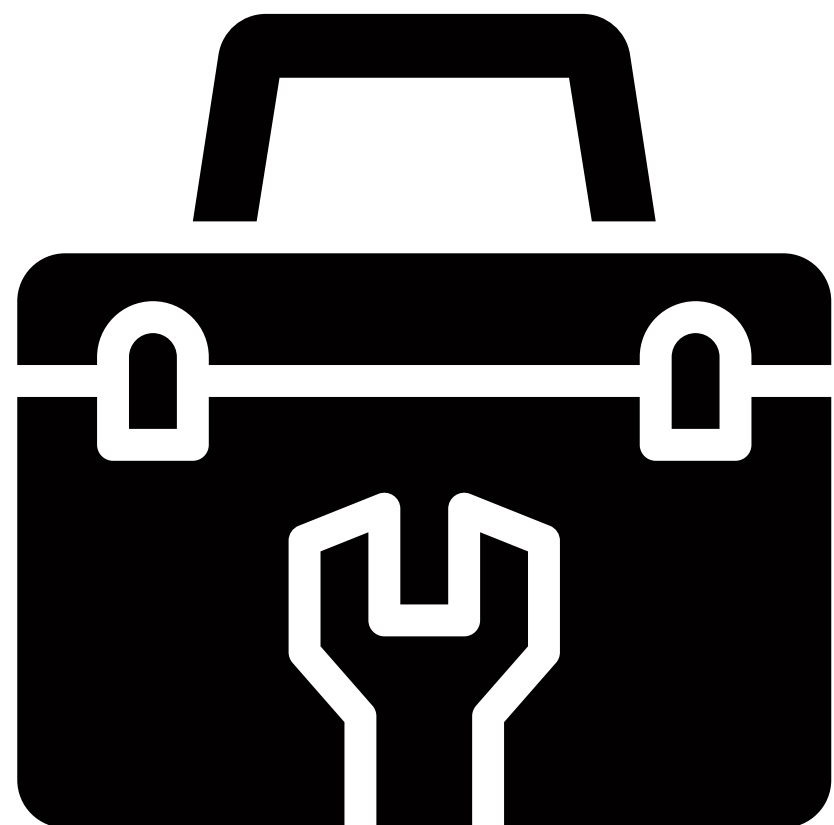
Member States must set national **minimum energy performance standards** that require building owners with the buildings that **waste the most energy** to renovate them in a given timeframe.

This must be supported by committed, long-term public funding instruments and technical assistance.



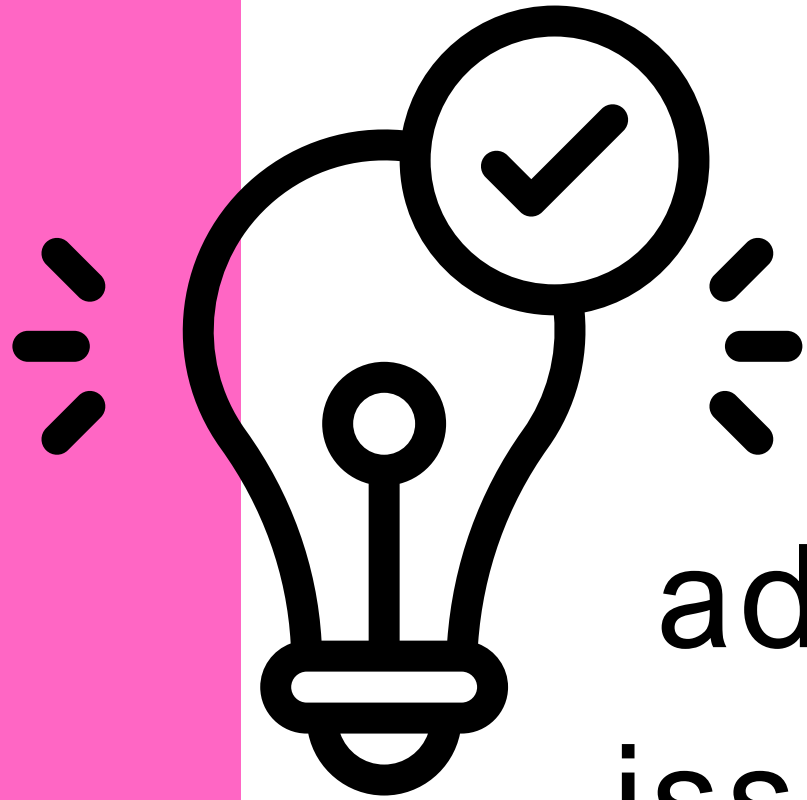
Recommendations to Policymakers **2**

Introduce a new **EU-level instrument** to help tens of millions of homeowners who **can renovate** but don't have access to **attractive finance**

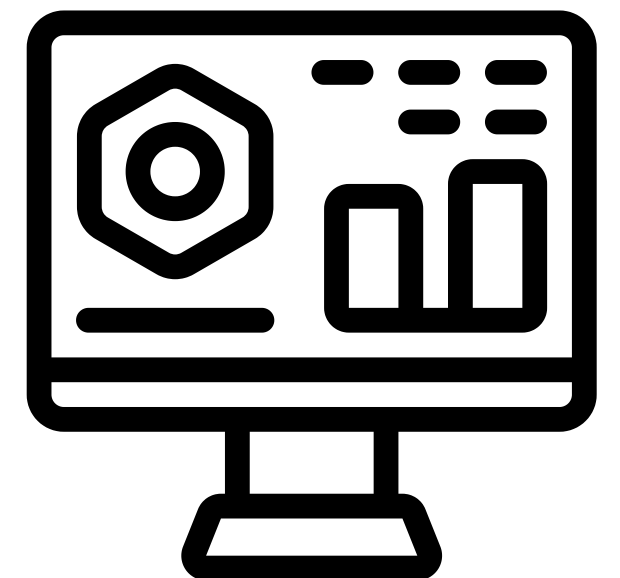
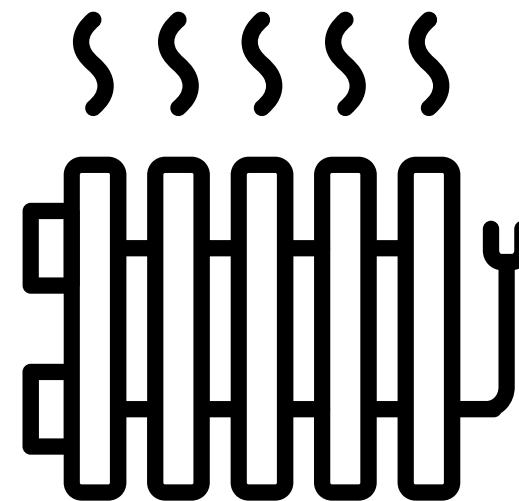
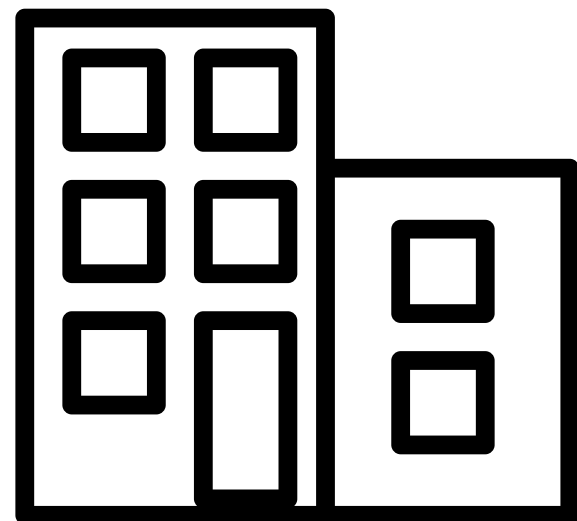




Position **Mortgage Portfolio Standards** as a **voluntary tool** for Member States to use to **better engage** mortgage lenders and **increase** National Buildings Renovation ambitions

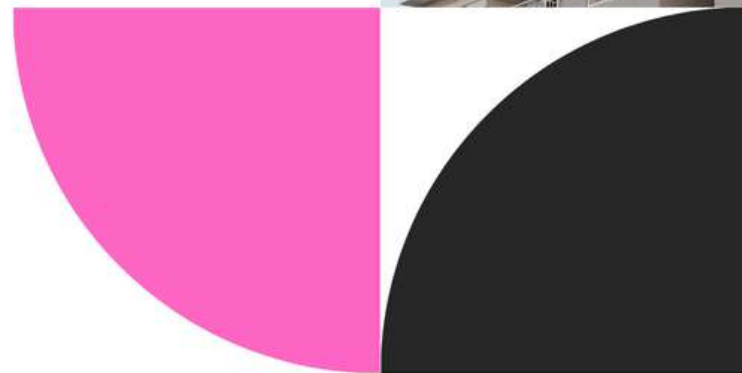


Promote **pragmatic solutions** to address the data **quality** and **availability** issues relating to EU buildings renovation



Engaging Retail Lenders in Home Renovation

2023

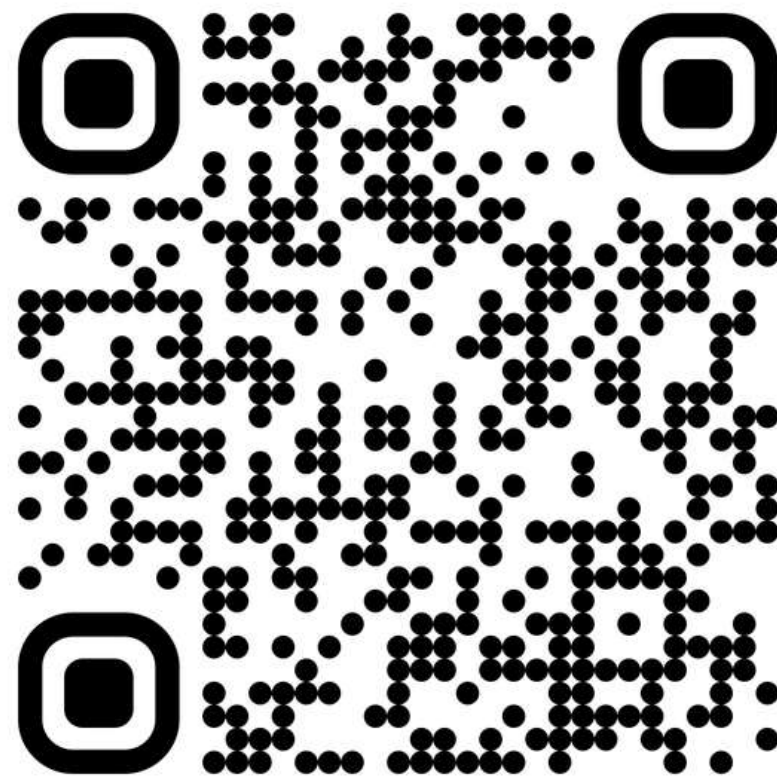


Turning Sustainable Finance Commitments into Household Energy Savings and Climate Resilience

Prepared by



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Thanks!

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