



Energy Efficient Mortgages Initiative

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Market Context: Framing the UK energy efficiency opportunity

Around 19m properties fall short of EPC level C, equivalent to 71% of the UK's 27m homes¹

Based on UK Government property transaction sample survey; nearly 93% of dwellings sold were in EPC bands C, D and E with 45.5% in band D alone.²

Upgrading energy efficiency from an EPC Band E to an EPC Band D can reduce energy costs by £380 per year on average.³

For an average home in England, improving its EPC (Energy Performance Certificate) from band G to E, or from band D to B, could mean adding more than £16,000 to the sale price of the property.⁴

...however, cost of finance for refurbishing a home under Green Deal scheme via Green Deal Finance Company (GDFC) is high - approximately 6.96%

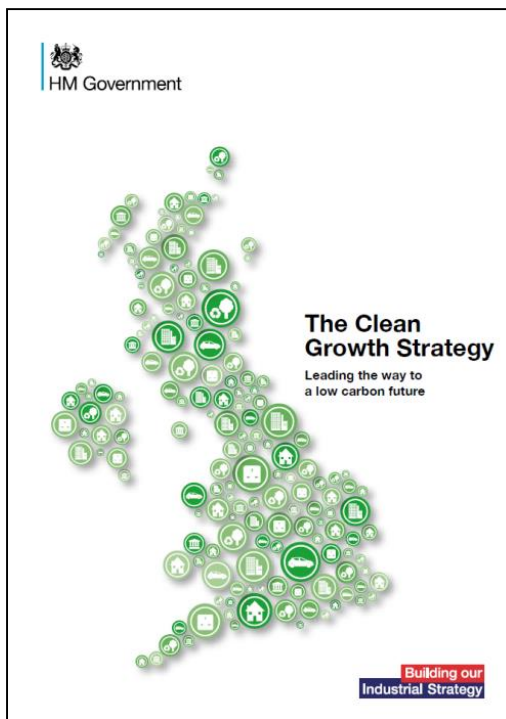


Customer Problem

- (1) Frontier Economics, 2017, <http://frontier-economics.com/news/frontier-report-proposes-programme-policies-deliver-energy-efficient-homes-uk/>
- (2) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/207196/20130613_-_Hedonic_Pricing_study_-_DECC_template_2_.pdf
- (3) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/207196/20130613_-_Hedonic_Pricing_study_-_DECC_template_2_.pdf
- (4) <https://www.gov.uk/government/news/energy-saving-measures-boost-house-prices>

UK Government has made Decarbonisation & Energy Efficiency key energy policy goals

Market Drivers BEIS Clean Growth Strategy¹



“Government will aim, across the whole housing stock, to bring as many homes as possible to be EPC Band C by 2035 where practical, cost-effective and affordable”

Government will extend support for home energy efficiency to 2028 at least at the current level of ECO funding but review the best form of support beyond 2022

Government is now working with mortgage lenders to incorporate energy efficiency into their lending decisions, alongside developing innovative “green mortgage” products

(1) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/651916/BEIS_The_Clean_Growth_online_12.10.17.pdf

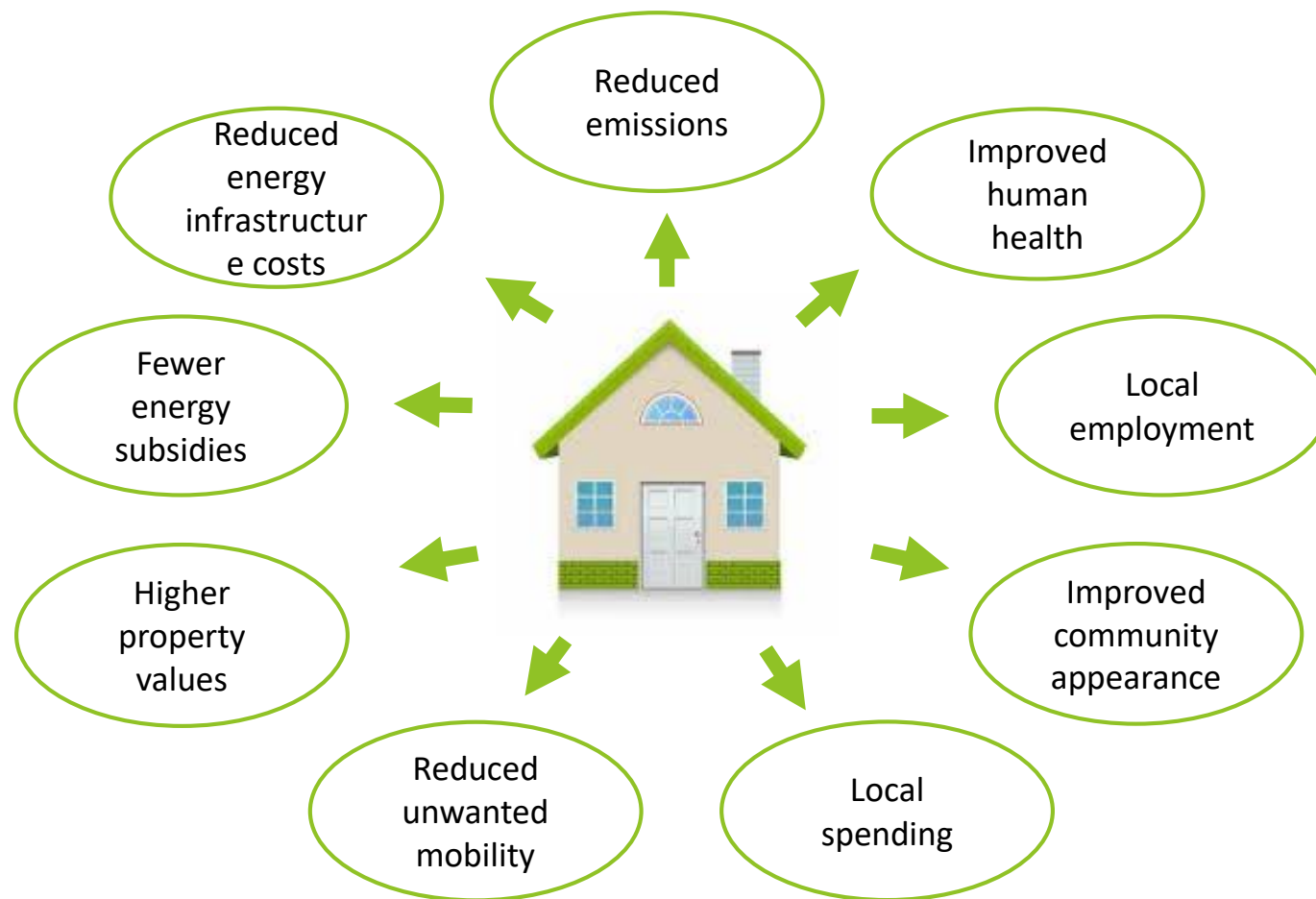
EeMAP: EU Commission funded initiative to develop an EU Green Mortgage market:

- Objective is to design, pilot and scale an EU standardized Energy Efficient / Green Mortgage product
- Project funded by EUR 1.5m EU Innovation Grant
- Launched in June 2017, ends July 2019
- E.ON involvement sponsored by COO-C
- E.ON is the only utility involved
- E.ON leading customer insight programme
- EU wide pilots of green mortgage planned in Q2 '18

<http://energyefficientmortgages.eu/>



Specific benefits from energy efficiency (EE) in households



How can banks play a game changing role in improving Energy Efficiency?

In the EU 28 there are...



510 million
people

...of which

More than
350 million
live under
their own
roof

Private financing
→

On average
each branch
serves
around
2,700
people

This initiative
has huge
potential!



7498 MFIs
and
188,109
branches



247 million
dwellings

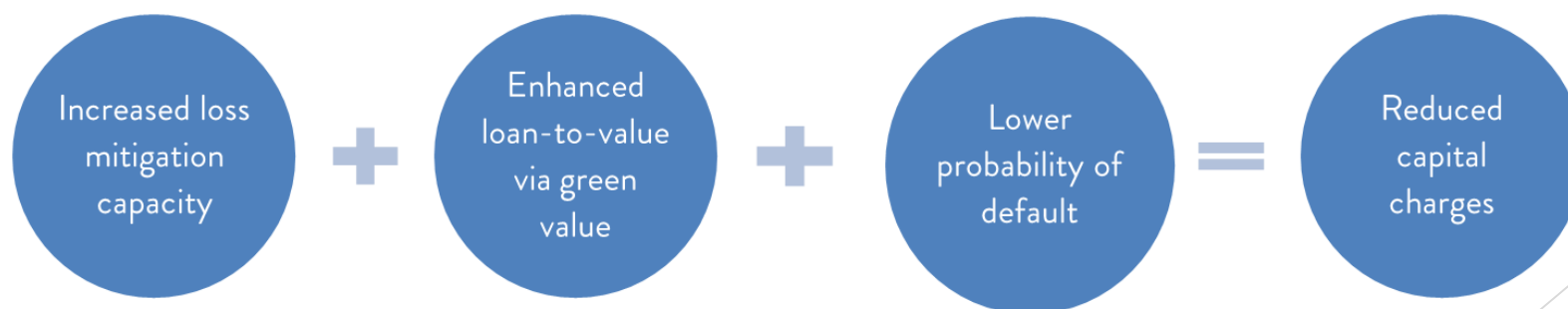
more than
220 million
dwellings
were built
before 2001

Objective & Underlying Business Case

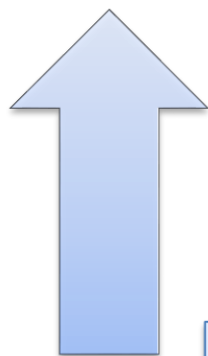
The **ultimate objective** is a pan-European private bank financing mechanism, based on a standardised approach, to encourage energy efficient improvement by households of the EU's housing stock by way of financial incentives linked to the mortgage, and in this way support the EU in meeting its energy savings targets.

Independent from, but complementary to, public funds or tax incentives

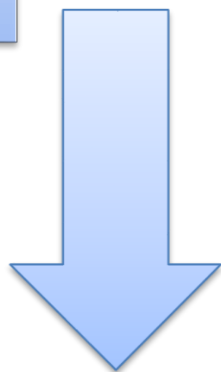
Underlying business case



Underlying risk parameters impacted by EE

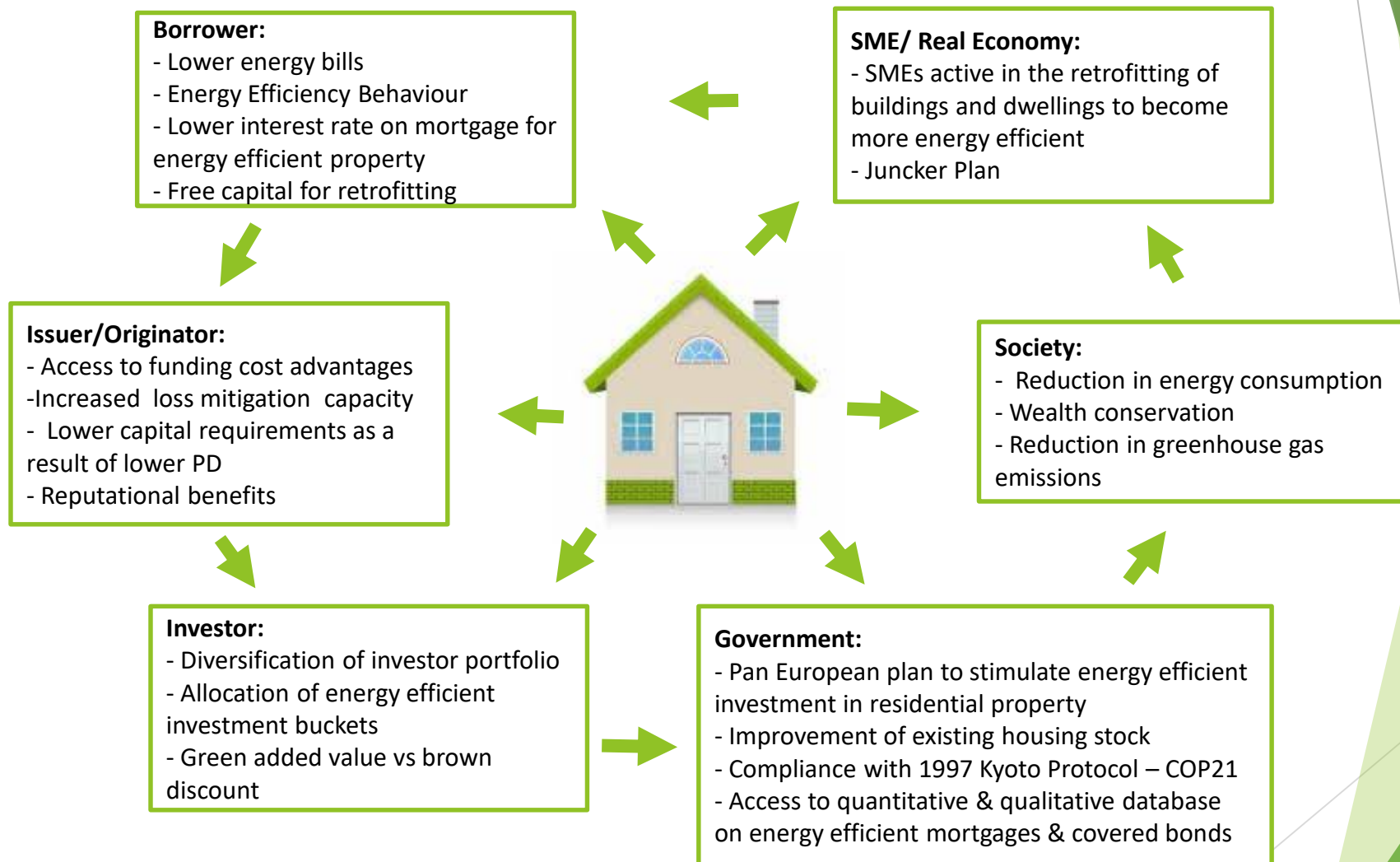


Retrofitting impacts positively on property value ensuring **wealth conservation & loss mitigation** by preventing “brown discount”

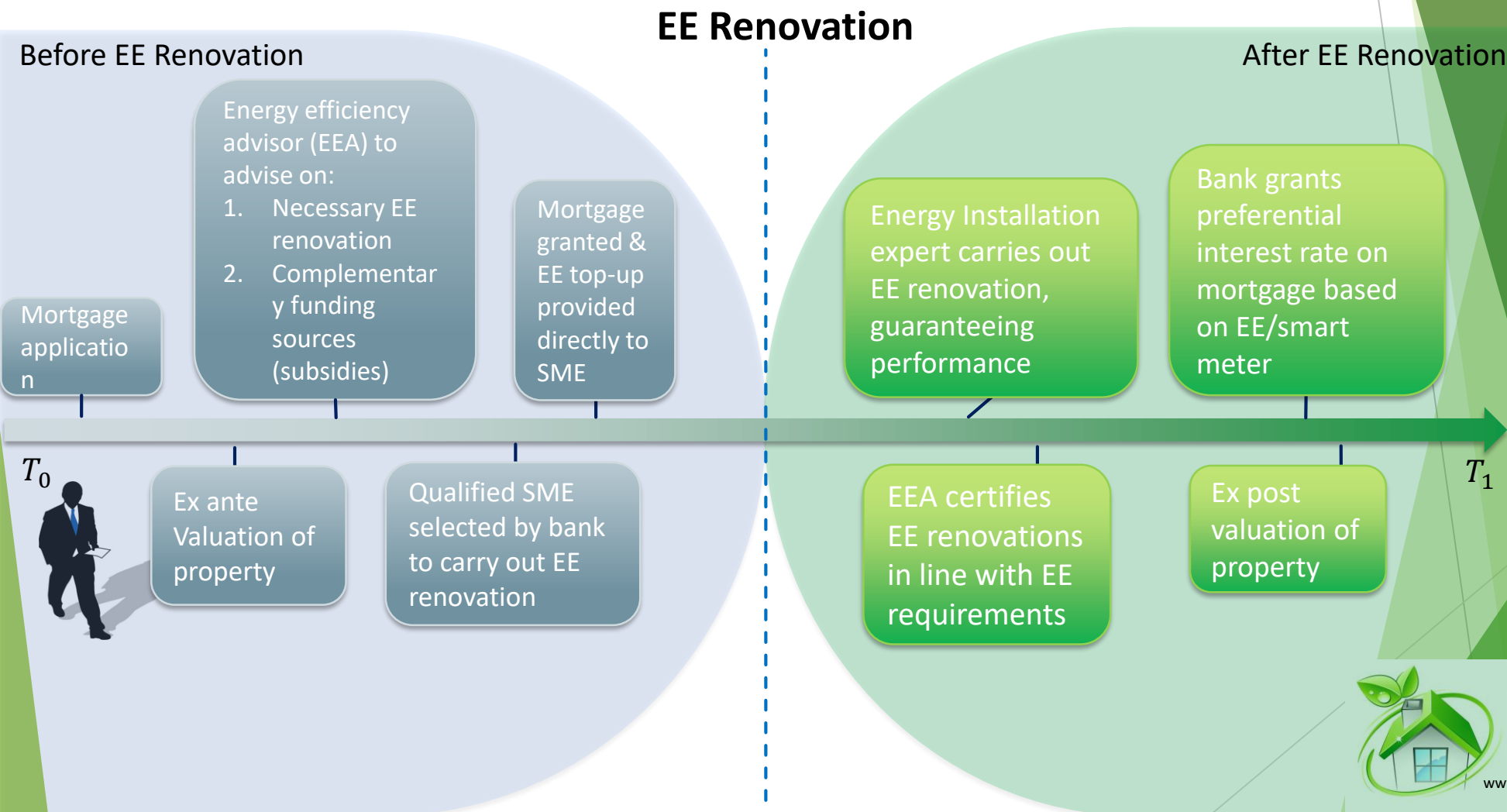


EE leads to a reduction in the impact of energy costs to income, reducing borrowers' **probability of default**

Incentive Chain

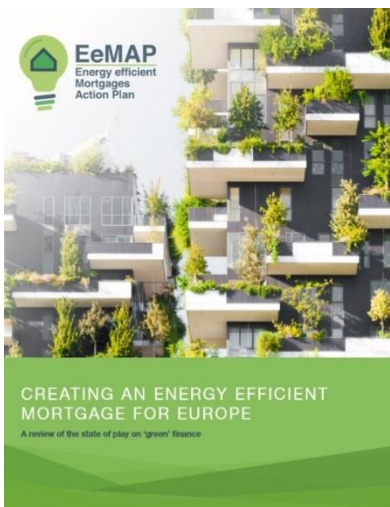


Bridging Renovation Gap - In Practice

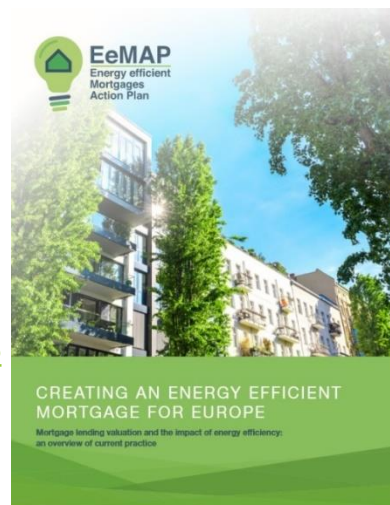
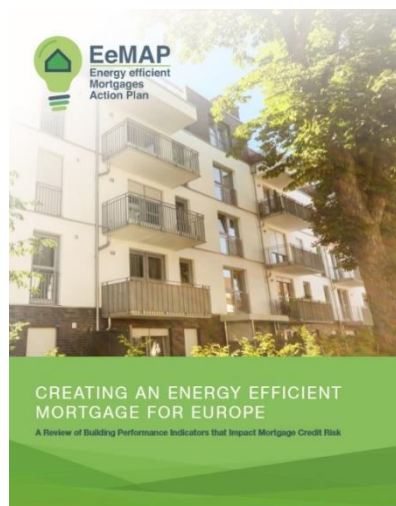


Four EeMAP Technical Reports

- The research findings are detailed in the **four EeMAP Technical Reports:**



Building Performance Indicators



Mortgage lending valuation

EE Impact on probability of default

