



# EeMAP

Energy efficient  
Mortgages  
Action Plan



## Creating an energy efficient mortgage for Europe

The supporting role of the green building sector



EUROPE REGIONAL  
NETWORK



The World Green Building Council (WorldGBC) is a global network of Green Building Councils (GBCs) who are building a better future and are committed to green buildings for everyone, everywhere. WorldGBC's Europe network is the common voice for a sustainable built environment in Europe: representing Green Building Councils in over 20 countries, 8 Regional Partners and over 4,500 diverse members across the construction and real estate sectors.

<http://www.worldgbc.org/our-regional-networks/europe>

E.ON is an international, privately owned energy supplier based in Essen, Germany, and has around 43,000 employees. With a clear focus on three strong core businesses—Energy Networks, Customer Solutions, and Renewables—we aim to become the partner of choice for energy and customer solutions.

[www.eon.com](http://www.eon.com)

#### Authors

Stephen Richardson, Head of Projects, WorldGBC Europe

Marco Marijewycz, Senior Manager – Global Business Development – Home Energy Management, E.ON

#### Editorial support

James Drinkwater, Regional Director, WorldGBC Europe

#### Our report partners

Thanks to the Green Building Councils working with us on EeMAP, our regional partners and the members of our expert advisory committee for their advice and review. Contact details for national Green Building Councils who are working with EeMAP in their respective countries are provided at the end of this report.

The views expressed in this report are those of the WorldGBC's Europe network staff and do not necessarily reflect the views of all other parties named above.

June 2019

### Participating Europe network GBCs



### Participating regional partners



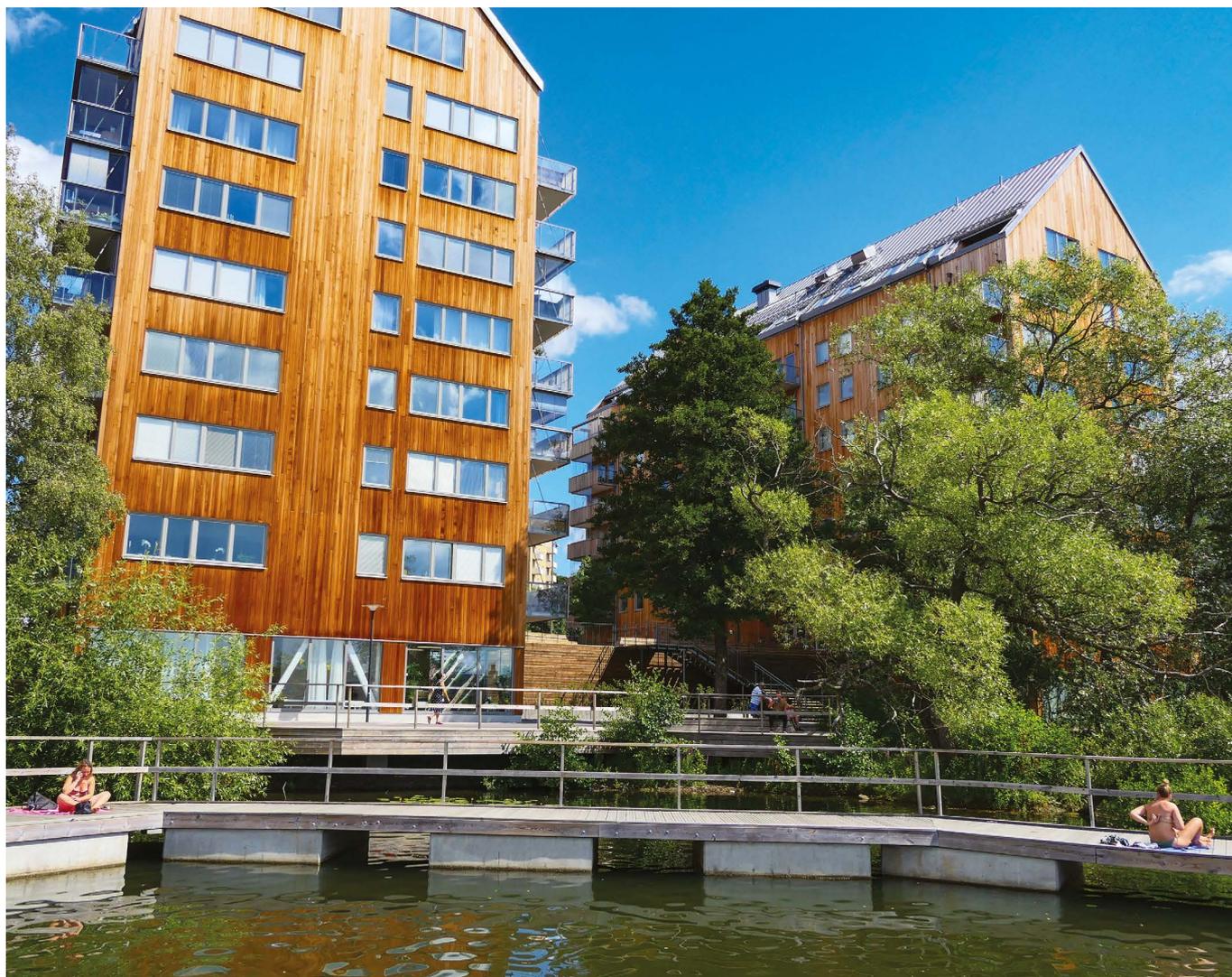
### Other supporting organisations in our expert advisory committee



# Table of contents

## Creating an energy efficient mortgage for Europe: The supporting role of the green building sector

1. Introduction. . . . .	4
2. Understanding the customer perspective . . . . .	5
3. Goals to support market growth of energy efficient mortgages. . . . .	8
4. Actions to achieve market growth goals . . . . .	9
5. Case Study: BNP Paribas and E.ON partnership for UK pilot . . . . .	15



# 1. Introduction

Green finance is increasingly recognised as a powerful driver in the fight against climate change. The growth of the energy efficient mortgage market in Europe and beyond represents a unique opportunity to unlock significant amounts of new investment to accelerate the decarbonisation of the built environment. WorldGBC is working hard to ensure that our sector is equipped to seize this opportunity. 🌱

Cristina Gamboa, CEO WorldGBC

This guide from the World Green Building Council's (WorldGBC's) Europe network and our partner E.ON sets out how we believe the sectors and stakeholders involved in delivering green buildings should support the growth of energy efficient mortgages.

In our 2018 report [Creating an Energy Efficient Mortgage for Europe: Towards a New Market Standard](#)<sup>i</sup>, WorldGBC set out high level actions to be taken by banks and financial institutions, government and policymakers and by the building sector and energy companies to establish and implement a common market standard for energy efficient mortgages in Europe.

This guidance note builds on that report by explaining in more detail the support lenders and their customers need from non-financial organisations across the green building value chain. **It represents a roadmap for market development at mass scale and therefore an opportunity to transform millions of buildings across Europe.**

The supporting actions outlined in this guidance note have been developed using evidence gathered from around Europe over the past two years of the Energy Efficient Mortgages Initiative. In particular they have been shaped by:

- state of the market reviews across [green finance](#)<sup>ii</sup>, [green value](#)<sup>iii</sup> and [green building performance assessment](#)<sup>iv</sup>
- [market consultation with 500+ stakeholders across Europe carried out by Green Building Councils and the Energy Efficient Mortgages Initiative consortium in 2018](#)<sup>v</sup>
- working with pilot banks to understand the opportunities and barriers [see section 4.7 of the [Technical report on the complete design of the energy efficient mortgage](#)<sup>vi</sup> ]
- detailed analysis of the energy efficient mortgage pilot [collaboration between E.ON and BNP Paribas in the UK](#)<sup>vii</sup>

One of the key recurring themes across all of this work has been the importance of considering the needs of the borrower in order to ensure energy efficient mortgages have broad appeal.



## 2. Understanding the customer perspective

“ We need to find ways to radically increase interest and action on energy efficiency in homes, but property owners often face a significant financing barrier when wishing to do so. In the UK, attempts to tackle this barrier have not been successful, in part because they weren’t designed with the customer front and centre. ”

Michael Lewis, Chief Executive, E.ON UK

Developing a new market across Europe for energy efficient mortgages can only happen if customers believe that it offers them real benefits and are therefore willing to take out such products. A critical step in the market development process is to ensure a deep understanding of what will move customers towards engaging with the benefits of an energy efficient mortgage versus a conventional mortgage product.

The consumer research programme of the Energy Efficient Mortgages Initiative, led by E.ON, has addressed this question in great detail with qualitative and quantitative studies now covering five EU markets; Italy, Portugal, Spain, Sweden and the UK as shown in Figure 1.

The full results of the research are published in the [Consumer Research Insights report](#)<sup>viii</sup> (Italy, Sweden & UK) and the [Technical Report on the Market Analysis and Stakeholder Consultation](#)<sup>ix</sup> (Portugal and Spain) 1. Here a few key insights are highlighted, which help to frame the recommended actions set out in the following section.

The factors that can help drive appeal of energy efficient mortgages were evaluated, as illustrated in Figure 2.

Unsurprisingly, most of the surveyed respondents considered the financial incentives of energy efficient mortgages to be the most appealing feature. Nevertheless, the

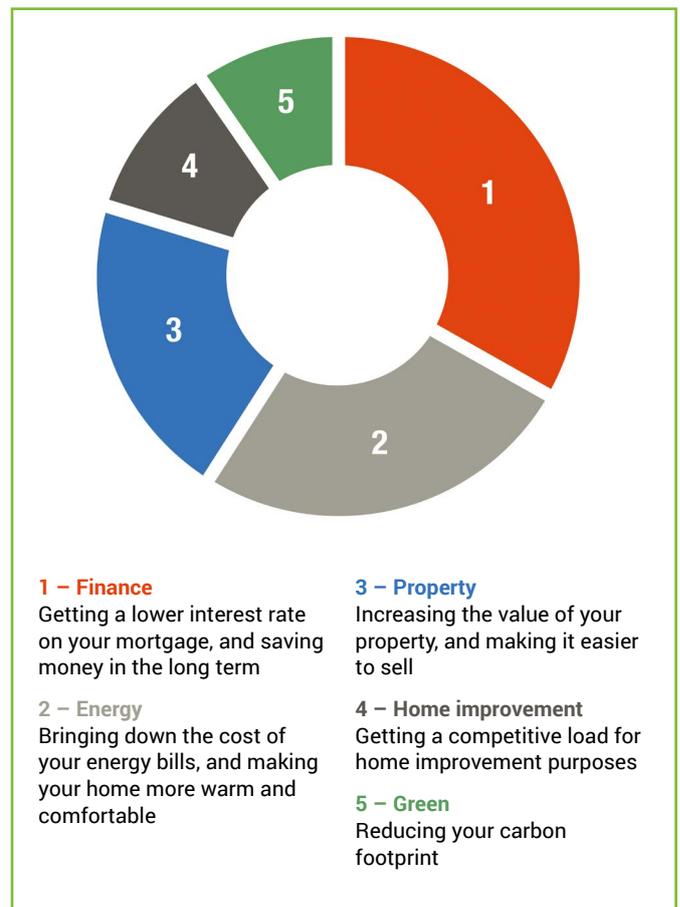


Figure 2: Most important drivers of appeal of energy efficient mortgages

1 Research extended to Portugal and Spain with the kind support and funding of UCI

					
First time buyer: first mortgage or considering first mortgage	25%	16%	19%	24%	17%
Experienced mortgagee onto their second or more mortgage	54%	53%	54%	54%	48%
Multiple mortgage holder two or more mortgages	22%	31%	27%	22%	34%

Figure 1: Interviews conducted with consumers in five EU Member States who had recently taken out a mortgage, or were actively considering mortgage

potential to increase the property value and make it easier to sell and the benefits of a more energy efficient home were also found to be important factors.

Further key considerations for borrowers, highlighted by this research, include:

- the need to ensure a high quality outcome from energy efficient renovations
- achieving value for money when undertaking renovation
- the potential for further commercial or government incentives to enhance appeal (see recommendations in section 4 for further details)

The barriers to taking an energy efficient mortgage also offer valuable insights, and include:

- reluctance to take on additional borrowing
- the perception that the home is already efficient
- concern about the time and effort involved in an energy efficient renovation

The scope of these considerations and concerns extend beyond the realm of traditional mortgage lending and addressing them effectively is likely to be beyond the current capacity and expertise of most banks and mortgage lenders. Hence support from organisations currently outside the mortgage value chain is needed, namely from

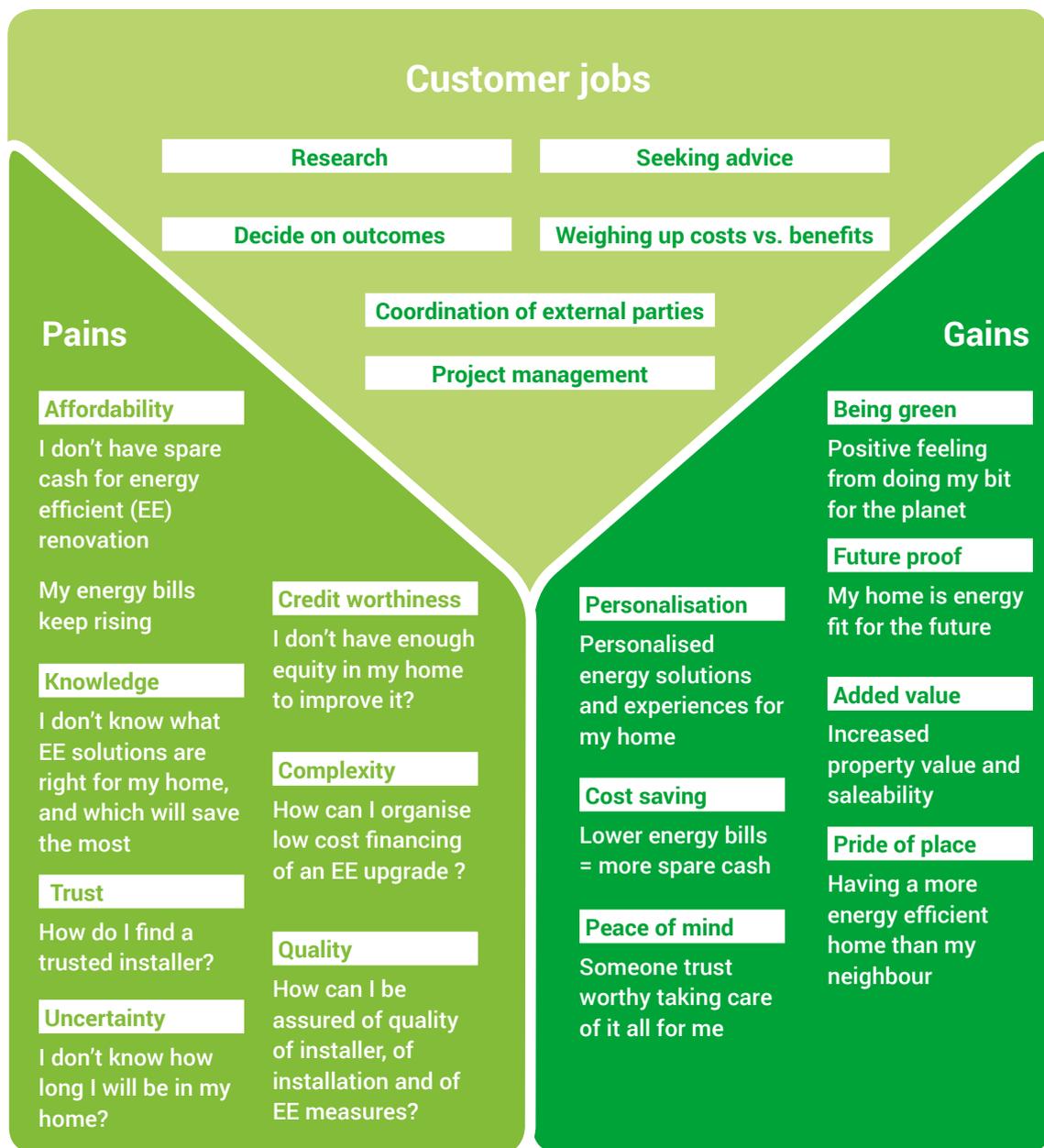


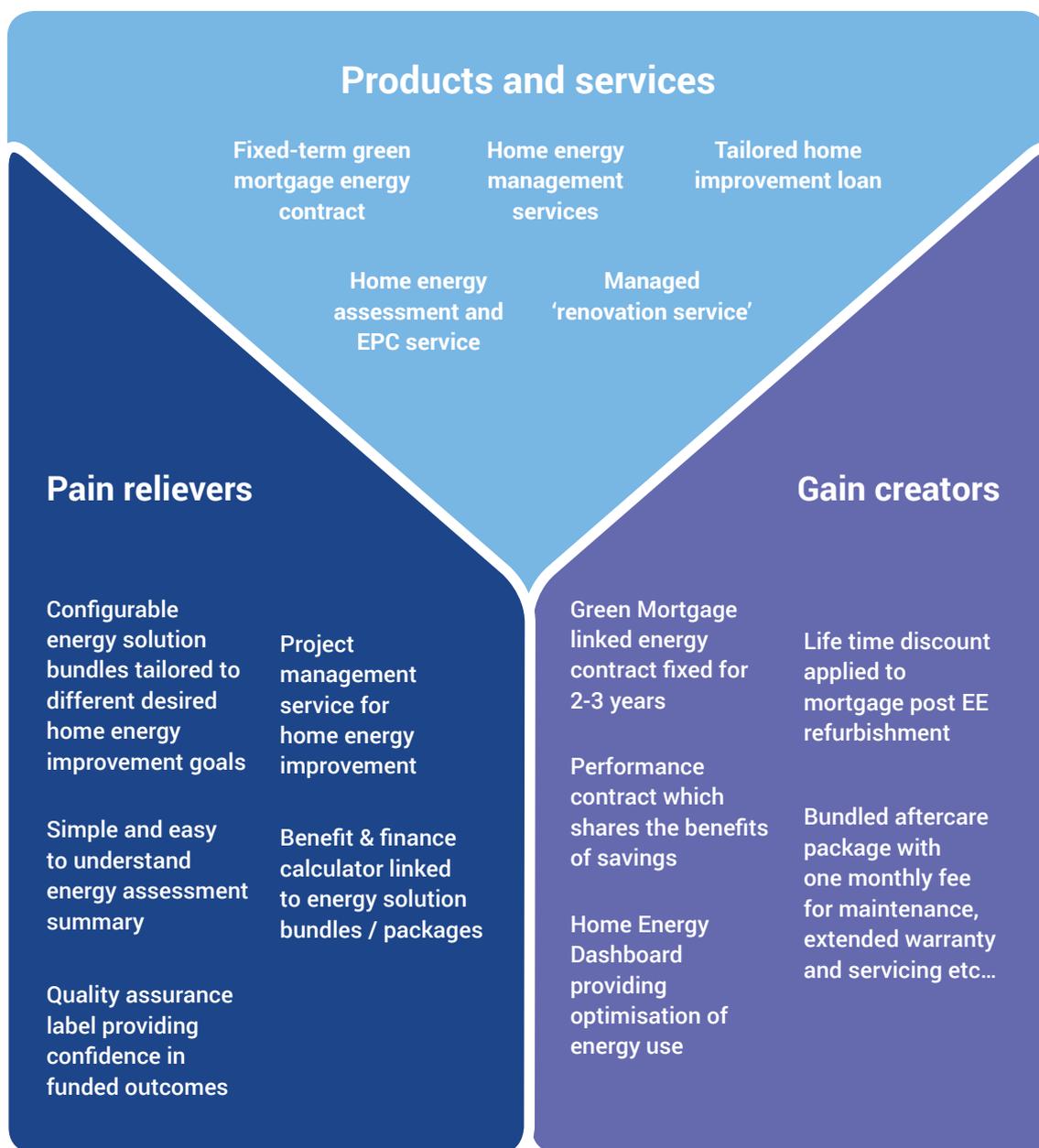
Figure 3: Opportunities to enhance the appeal of energy efficient mortgages through supporting products and services which meet the needs or desires of borrowers.

those organisations and businesses that are already engaged in delivering energy efficient new buildings and renovations.

To further analyse the opportunities for a joint energy efficient mortgage pilot proposition, E.ON and BNP Paribas Personal Finance held a number of workshops in 2018 and early 2019. These were designed to build a clear picture of the range of 'gain creators' and 'pain relievers' facing property owners when considering energy efficiency improvements. The customer mindmap created is reproduced in Figure 3 and signposts some clear opportunities and pain points to be addressed by an energy efficient

mortgage proposition, drawing on the consumer benefit themes highlighted previously in Figure 2.

The results of these workshops and the consumer research have provided the basis for a partnership between E.ON and BNP Paribas Personal Finance UK to develop a pilot product. Section 4 of this report presents a case study of this proposition as a cutting edge example of how such partnerships can support growth of the energy efficient mortgage market.



### 3. Goals to support market growth of energy efficient mortgages

The results of the customer research indicate that achieving significant market growth will require coordinated support from organisations beyond the traditional mortgage value chain. The feedback gathered from banks participating in the Energy Efficient Mortgages Initiative pilot scheme reinforces this and indicates that this support should be targeted to achieve the following three goals:

- Stimulating demand
- Streamlining implementation
- Supporting the borrower

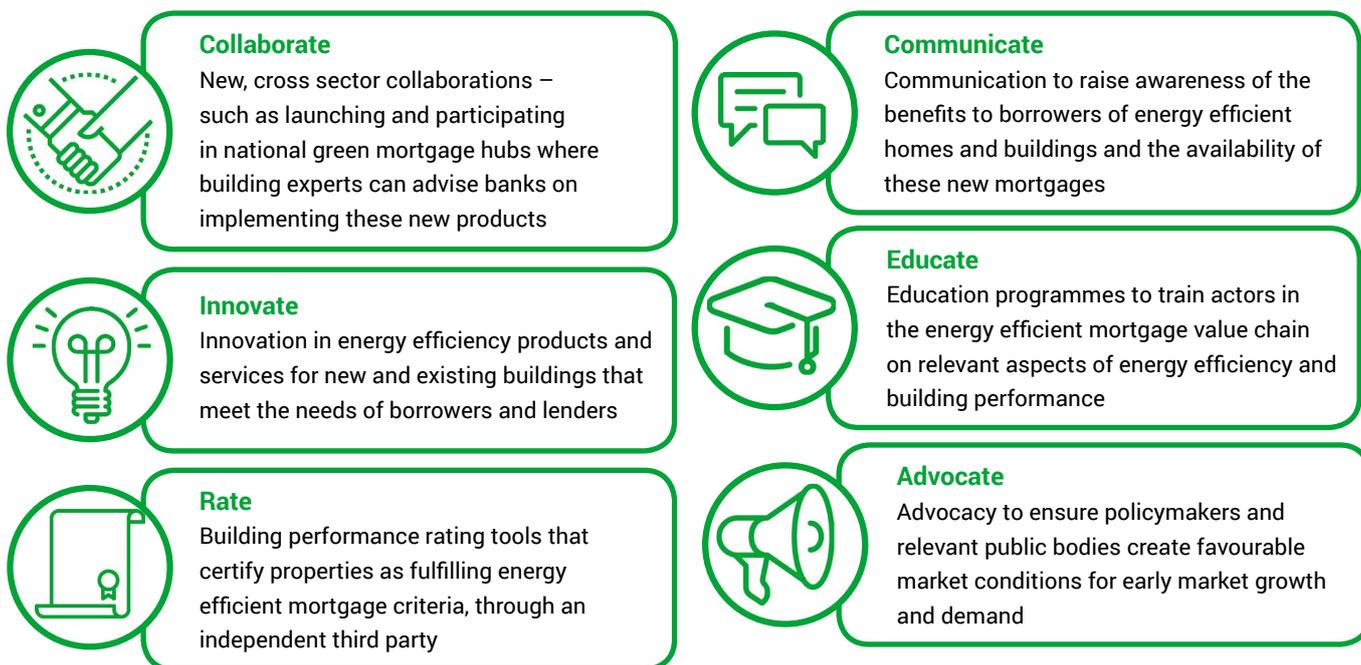
Stimulating demand may be the most important of these, since feedback from pilot scheme lender shows some have been reluctant to invest in developing new product lines where they perceive there to be low awareness and interest from customers. Yet, until the market reaches critical mass, demand will only grow if there is adequate support for borrowers **and** if the products available and the processes underpinning them – the customer journey – are straightforward. So, the three goals are interrelated and interdependent.



## 4. Actions to achieve market growth goals

Achieving the three market growth goals outlined in section 3 will require a range of different actions to be taken that cut across the various sectors engaged in delivering green buildings. The recommendations that follow have been framed around six different types of action, as shown below.

Table 1 overleaf summarises recommended actions under these six areas and indicates how each can support one or more of the three goals for market growth. These actions are explained in more detail in the subsequent sections that follow the table.



	Stimulate demand	Streamline implementation	Support the borrower
Collaborate	Form national energy efficient mortgage hubs		
	Work with cities/governments to target borrowers	Foster new delivery partnerships	
Innovate		New products and services	
		One stop shops for renovation	
Rate		Update existing rating tools	
		Develop streamlined assessment tools	
Communicate		Communicate climate risks to lenders	
	Consumer facing awareness raising campaigns		
	Promote energy efficient mortgages to policymakers		
Educate		Train lenders in building energy efficiency	
		Support valuers to apply the Energy Efficient Mortgages Initiative checklist	
	Train building efficiency companies and experts to support the market		
	Identify and target other key actors		
Advocate	Governments involved in national hubs		
	Policy and fiscal incentives		
		Improve existing energy performance certificates	
		Implement building renovation passports	

Table 1: Actions to support growth of the energy efficient mortgage market



## Collaborate

There are a range of possibilities for collaboration that could achieve the goals for market growth of stimulating demand, streamlining implementation and supporting the borrower. Three key, interrelated, opportunities are:

### 1. Forming national energy efficient mortgage market hubs

Convening a cross sectoral group of stakeholders with common interests in scaling the market is a key first step – replicating at local level the Energy Efficient Mortgages Initiative’s successful model of bringing together finance, building and energy organisations. These hubs should be a platform to agree best practice standards that banks apply to their energy efficient mortgage lending criteria. They can also facilitate discussions about how best to promote the growth of the market. Terms of reference, outlining the key roles of a national market hub can be found in Annex 2 of the [Technical report on the complete design of the energy efficient mortgage<sup>x</sup>](#).

WorldGBC and our Europe network have also produced a number of key resources previously that can help ensure these hubs are successful:

[A New Era in Building Partnerships<sup>xi</sup>](#) – explains key principles on setting up successful collaborative hubs,

[Resources for Collaboration<sup>xii</sup>](#) – from our EU funded Build Upon project lists learning and resources on how to run impactful cross sector collaborations.

### 2. Partnerships between banks and providers of building energy efficiency services

Corporate partnerships can be a way to simplify creation of a smooth customer journey by linking together existing business processes. The partnership between E.ON and BNP Paribas Personal Finance in the UK described in the next section is one example of this. Such ventures require the support and buy-in of senior leadership. National market hubs and events will be important for fostering networking and partnership opportunities for these key decision makers.

### 3. Collaborating with cities and governments to identify and stimulate demand

The EU Energy Performance of Buildings Directive commits all EU Member States to update their long term national building renovation strategies by March 2020 and many national and local authorities have made further ambitious commitments. They therefore have a vested interest in improving the energy efficiency of the building stock. The public sector can play an important

enabling role in stimulating the market through offering additional fiscal or regulatory incentives (see *Advocate* below) and by helping to identify target customer groups. Creating a platform for dialogue between different market actors and policymakers is strongly recommended.



## Innovate

The increased availability of finance for energy efficient renovations or highly efficient new buildings creates tangible business opportunities for a range of organisations across the building, construction and energy sector. Those that can innovate to offer new or tailored services that help unlock this finance stand to gain first-mover advantage.

### 1. New products and services

Services or products can be designed to address specific parts of the assessment or delivery of new builds and renovations that comply with national energy efficient mortgage criteria. The most powerful innovations will be those that both streamline implementation of energy efficient mortgages for the lender (and indeed other forms of energy efficiency finance) whilst also providing support to the borrower. The types of offerings which would achieve these dual goals include:

- Tools to improve the quality and minimise cost of building energy assessments and valuations.
- Digital services which improve data capture and data sharing between different parties (borrower, valuer, energy assessor, lender etc.).
- Quality assurance tools and schemes that give confidence to the borrower and the lender about the energy performance of the property.
- WorldGBC's Europe Network hosted a webinar as part of the EeMAP project in 2018 that explored this topic. A recording of the webinar is [available to view](#)<sup>xiii</sup>.

### 2. One-stop-shops

Designed to provide a holistic range of services that support those undertaking an energy efficient renovation – from technical and financial advice, to advising on reliable contractors – this innovative bundling of services has been shown to increase interest and demand for renovation in a number of pilots across Europe. In some cases pilots have been supported by public funds, but without this one-stop shops may require innovative business models in order to sustain them. The European Commission have published several [reports on one-stop-shops](#)<sup>xiv</sup> and EU funded projects such as [Refurb](#)<sup>xv</sup> provide further guidance on this model.

### 3. Insurance products for energy performance

The insurance industry underwrites a huge volume of transactions in the construction sector but is not yet a major player in the building energy performance space. A number of projects and initiatives in Europe (eg [I-Life](#)<sup>16</sup> and [EEFIG](#)<sup>17</sup>) have explored the sort of new and innovative insurance products needed to back stronger growth of the energy efficient renovation market. Insurance actors are therefore another key group to engage with national market hubs.



## Rate

The assessment of the building's energy performance is a vital part of both the customer journey and the lender's product implementation. This is an area where neither lenders nor borrowers typically have expert knowledge and they will have to rely on trusted third parties to deliver this service for an acceptable price.

### 1. Develop streamlined assessments for energy efficient mortgages

The quality of the energy assessment is crucial to the success of the loan product and particularly in the case of renovations, where the assessor will help to determine the most appropriate energy conservation measures to undertake for the property. The pilots scheme banks have pointed to the cost of such assessments as an important potential barrier to market demand. Measures that can reduce the cost of assessment without sacrificing on quality will be of great interest to lenders.

For example, the Dutch Green Building Council (DGBC), has developed [Woonmerk](#)<sup>xviii</sup>, a quality mark for homes that is intended to support energy efficient mortgages as well as other financing products. In scope it covers multiple aspects of building sustainability performance for all types of homes and apartments, and assessment can take place either on a single home or a group of homes in a project.

The first step is a self-assessment questionnaire that is supplemented by a number of automatically generated data points using open data (eg Google Maps) to determine factors such as the proximity to public transport links. Together with evidence from existing certifications such as an energy performance certificate, this provides a baseline measurement of the building's performance and can help highlight possibilities for improvements. The second step then involves a test by an independent auditor to ensure the robustness of the data.

### 2. Incorporate energy efficient mortgage criteria into existing rating tools

In many markets, voluntary sustainability certifications

are already market standard for demonstrating the environmental credentials of buildings in the commercial sector. Such schemes are also growing in relevance in the residential sector in a number of EU countries. Owners and investors who already work with these certifications may also wish to take advantage of the preferential terms of energy efficient mortgage products. To avoid the need for duplicate assessments, it is in the interest of certification scheme operators to ensure their ratings can be used as evidence of compliance with energy efficient mortgage criteria.

For example, the German Sustainable Building Council (DGNB) has launched a scheme<sup>xx</sup> whereby lenders' criteria for green loans or energy efficient mortgages are evaluated against the criteria for DGNB sustainable building certifications. Where there is adequate alignment, the lender's loan products can be labelled and marketed as having a "DGNB recognised sustainability rating".



## Communicate

Growing the energy efficient mortgage market requires engagement from a range of sectors as well as increased demand from borrowers. All of this requires greater awareness of the benefits that these products offer. Businesses and organisations that stand to benefit from increased availability of finance for energy efficient renovations and highly efficient new builds have a role to play in communicating these benefits.

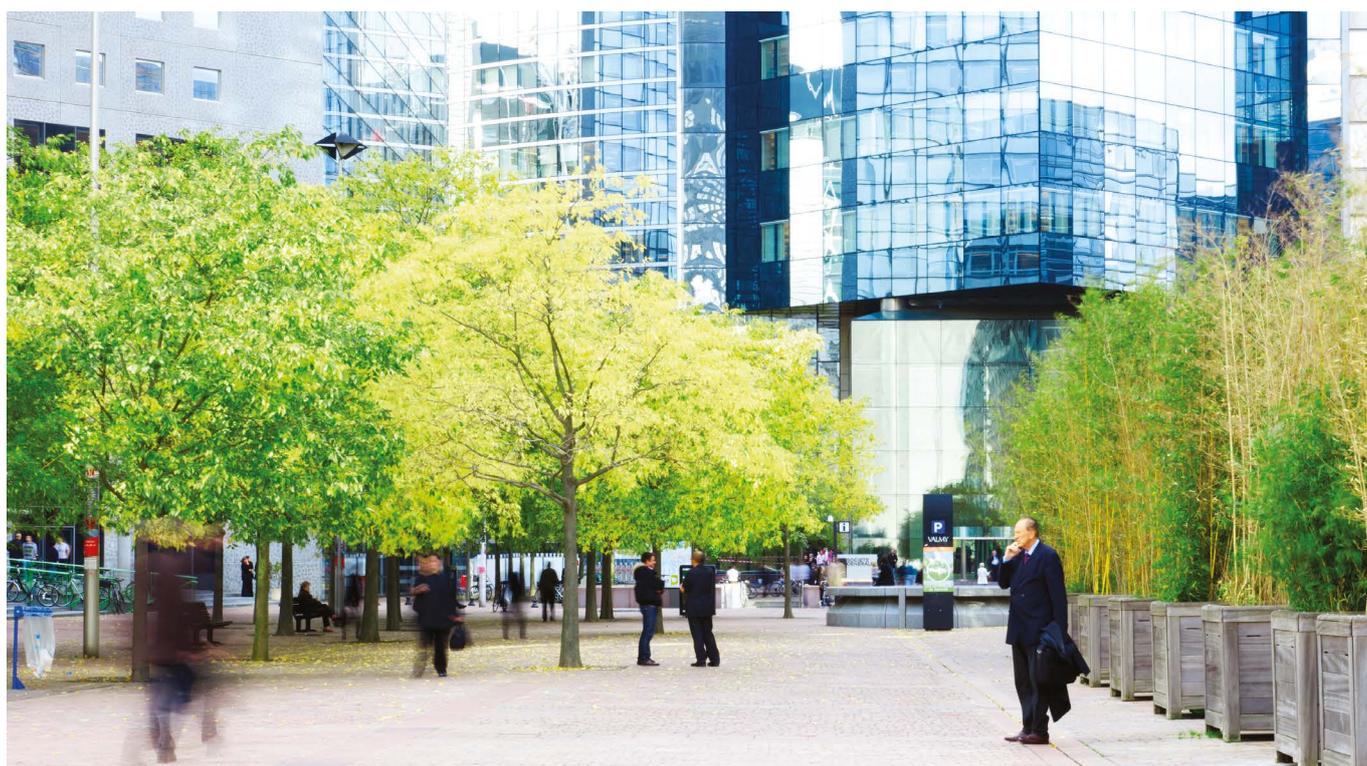
## 1. Communicate climate and energy related risks to property to lenders

An impactful energy efficient mortgage market that is genuinely shifting the climate performance of Europe's buildings requires a critical mass of lenders to start offering this type of financial product. Our previous report [Creating an energy efficient mortgage for Europe: Towards a new market standard](#)<sup>xx</sup> set out a clear case for why banks should seek to ensure their mortgage portfolios move towards becoming compliant with the goals of the Paris Agreement. This is a message all lenders need to be made aware of and Green Building Councils and other organisations that give voice to the building sector can facilitate this through their external communications and campaigns.

## 2. Communicate benefits of energy efficient buildings to owners and occupants

Currently energy efficiency is not an important factor when most property owners and occupants select or renovate a property. Yet this can change if the benefits and co-benefits of energy efficiency are better understood. These are not restricted to savings on fuel bills but include increased comfort and improved indoor air quality, both of which improve health and wellbeing and are often higher priorities for occupants than lower bills. Our [Better Places for People](#)<sup>xxi</sup> project provides research on the benefits of health and wellbeing in office, retail and residential properties.

There are a wide range of existing awareness raising programmes for efficient buildings across Europe that could help connect consumer demand with energy efficient mortgages. Ensuring these programmes also



provide information on how to access an energy efficient mortgage will help newly engaged property owners connect with the financial resources that can enable them to take action.

### 3. Promote energy efficient mortgages as a financing option

For those already interested in improving the energy performance of their building, the next step is to ensure that they are aware of and able to access information about energy efficient mortgage products. Where people go to obtain information on finance options may differ by market, but in general people increasingly use online sources when starting their research. Ensuring that popular online information platforms and finance comparison tools contain relevant and easy to access information on energy efficient mortgages is an important step to increasing demand. Engaging online estate agents and mortgage brokers in national market hubs will be important, where these services grow in popularity and market share.

### 4. Promote energy efficient mortgages to policymakers

There is consensus amongst pilot banks in the Energy Efficient Mortgages Initiative that support from policymakers and regulators is vital to help the market to grow. See further detail under **Advocate** below.



## Educate

#### 1. Provide training courses on building efficiency for banks

Developing nationally appropriate materials that can support relevant bank staff to understand the energy efficient mortgage concept from a building performance perspective – including locally available standards and tools – will be key to successful deployment of new products. Such knowledge can build confidence that these loans are good investments and that energy savings do materialise. This will be important from product design through to roll out, across a range of bank staff from those in the capital markets to those in marketing and local branches.

#### 2. Support valuers to integrate energy performance into their practices

The Energy Efficient Mortgages Initiative's [Valuation and energy efficiency checklist](#)<sup>xviii</sup> is a key tool for all valuers working with banks issuing energy efficient mortgages. The dissemination of this checklist and ensuring valuers have the knowledge and skill to use it is important to build the capacity needed to sustain significant growth

of the market. The Royal Institute of Chartered Surveyors, through programmes like its EU-funded [Renovalue](#)<sup>xviii</sup> project, has developed material that can support this and investment is needed to scale up such programmes.

### 3. Help building efficiency experts and companies to support the growth of the market

For companies in the building energy efficiency sector to support the market, they will need to understand how the end-to-end mortgage process works. In the past, in some countries, this community has devised solutions and initiatives without thinking about the needs of the finance sector. For example, the interface between retail finance and the capital markets or the concerns of institutional investors. This has undoubtedly created some of the barriers that limit the flow of finance into building energy efficiency improvements. Targeted training programmes for these stakeholders on relevant aspects of how the financial sector operates will mitigate the risk that the next generation of building performance initiatives, such as building renovation passports, are not fit for purpose. Understanding the intersects between building performance and financial performance, and technical building tools and approaches and banking systems and processes, will aid the development of a building efficiency market that can effectively leverage institutional investment.

### 4. Identify and target other key organisations for capacity building

There are other organisations and sectors that may play a role in growing demand for, and eventually mainstreaming energy efficient mortgages. Examples include real estate agents and mortgage brokers, who are an important part of the customer journey towards finding a new property or mortgage in many countries. Organisations in this space would benefit from targeted capacity building activities to help them play a potentially pivotal role. Similarly, the insurance sector, key for underwriting risk and developing new products that can support the energy efficiency renovation market, is another group of stakeholders that could be targeted with tailored educational material on energy efficient mortgages, their mechanics, and their market potential.



## Advocate

#### 1. Ensure governments are key observers/participants within national hubs

Government at national, regional and local level can play a crucial role in developing early demand for energy efficient mortgages, and in streamlining and mainstreaming these products. As attention turns from how



to subsidise building efficiency to how to use public funds to leverage private institutional investment, and governments look to implement the 2018 EU Energy Performance of Buildings Directive: the public sector should be a key beneficiary of the knowledge, partnerships and solutions developed by national energy efficient mortgages hubs.

The Energy Efficient Mortgages Initiative advisory council also provides a platform for public authorities to share experiences with energy efficient mortgages at European level and WorldGBC's Europe network and national Green Building Councils have already been influential in bringing a number of regional and city authorities into this group.

## **2. Develop incentives to grow the energy efficient mortgage market**

The importance of working with policymakers to develop further incentives to stimulate early demand and grow the market for energy efficient mortgages has been highlighted already in this report. These incentives could range from:

- local tax reductions for properties that comply with relevant energy efficient mortgage criteria
- subsidising reduced interest rates in some instances
- removing upfront technical costs such as the costs of an energy assessment

Experience from existing green mortgage schemes, like that of Fannie Mae in the United States, has shown that commissioning and paying for a property assessment is considered a 'hassle factor' that restricts product demand. This is despite the cost typically being insignificant in relation to the financial benefit of a reduced interest rate over the mortgage term. In future, once this

market matures into an area of significant revenue growth, such costs can be expected to be borne by lenders. In the current early stages of market development, identifying and removing such barriers to greater private investment in building efficiency should be a key goal of government backed incentive schemes.

## **3. Improve quality and accessibility of existing energy performance certificates**

Throughout the Energy Efficient Mortgage Initiative, the importance of building on existing energy performance certificate schemes has been noted. This is in spite of the deficiencies of some schemes in terms of robustness, coverage or data format and accessibility. The importance of energy performance certificates as a tool in the market will also be increased by governments introducing minimum rating requirements for different property typologies over defined timescales, such as the private-rented sector regulations being introduced in a number of European markets. These provide an incentive for energy performance certificate data to be more visible and become more robust.

## **4. Implement building renovation passports**

Governments are encouraged to introduce schemes for building renovation passports under the 2018 Energy Performance of Buildings Directive. Designing these schemes in close collaboration with local energy efficient mortgage hubs will aid their usefulness in terms of containing data relevant to energy efficient mortgages. It is vital that the data they contain is fully digital and machine readable and stored and accessed in a format that allows these information instruments to be easily integrated with banking information systems and accessed by other organisations such as valuers or contractors undertaking energy efficiency improvements.

## 5. Case study: BNP Paribas and E.ON partnership for UK pilot

“Energy efficient mortgages have the potential to be a game changer in the delivery of affordable finance and we are ready to meet the challenge for homeowners motivated to take the step into energy efficient living. Our agreement with BNP Paribas Personal Finance is a further step along this journey and brings together two well-known international companies with expertise in financing and delivering energy saving solutions across Europe”

**Michael Lewis, Chief Executive, E.ON UK**

In October 2018, Europe’s largest green utility company, E.ON and BNP Paribas Personal Finance UK [announced a new collaboration](#)<sup>xxiv</sup> to bring energy efficient mortgages a step closer to the UK property market. Their partnership demonstrates how combining existing business services and processes can streamline the development of new market offerings. Moreover, it is evidence of the real potential that these two major corporations see in the growth of this market.

This innovative finance product will allow movers, first time buyers, and remortgagers to use their mortgage to borrow further via a linked ‘energy efficiency home improvement loan’ to improve the energy efficiency of their homes. Under this model BNP Paribas Personal Finance would provide the improvement loan financing and E.ON would provide a managed service to install appropriate energy efficiency solutions. This service builds on the insights from the customer research summarised previously in Section 2. E.ON would provide technical expertise to support the borrower to identify what measures would deliver the greatest savings potential and then install the measures

and offer a range of additional energy services. These could range from basic energy efficiency measures such as:

- insulation
- efficient boilers
- smart meters
- smart thermostats

or smart energy technologies such as

- electric vehicle charging points
- solar panel
- battery storage
- heat pumps

All of these technologies can then be controlled from a Home Energy Management System Dashboard called E.ON Home, supported by a smart meter. The innovative E.ON Home product will enable customers to visualise and understand their energy performance with ease and get the







Figure 4: Proposition house example for energy efficient mortgage.

most out of their energy efficiency upgrades. The inclusion of a smart meter with any E.ON upgrade package, where one is not already present, will mean that customers will be assured of accurate energy bills, without needing to supply a meter reading.

The improvements funded through the scheme loan could also result in a discounted mortgage rate (from a third party secured lender) once the energy efficiency measures have been verified via an updated EPC, a service that can also be provided by E.ON. Furthermore, energy consumption data recorded via the smart meter can also be shared, with the customer's permission, to third parties such as banks offering energy performance linked discounts on mortgage interest rates, to enable seamless, digital verification of home energy expenditure.

Both E.ON and BNP Paribas are working together towards further collaborations with building societies and high street finance providers to pilot and develop this new financing solution to customers, initially for the UK market, in 2019.

The high level framing of this joint value proposition is set out in Figure 4 below and highlights the customer benefits that arise from forming partnerships between lenders and businesses such as energy companies or others in the building energy efficiency sector to deliver energy efficient mortgages.

The managed assessment and installation service is an extension of existing services that E.ON already offers to its customers. Thus, by partnering in this way, the implementation of this new financial product is greatly simplified. It also addresses one of the key concerns of both borrowers and lenders, namely the need to ensure high quality installations. This maximises the likelihood of realising tangible energy savings and improving or preserving property value. E.ON's large UK customer base of around 4.3 million customers provides scope to stimulate demand through targeted marketing compliant with FCA regulations in the UK.

# 6. References

- i <https://www.worldgbc.org/access-new-market-standard-report>
- ii <https://eemap.energyefficientmortgages.eu/wp-content/uploads/2018/04/EeMAP-Technical-Report-on-Green-Finance.pdf>
- iii <https://eemap.energyefficientmortgages.eu/wp-content/uploads/2018/04/EeMAP-Technical-Report-on-Mortgage-Lending-Valuation-and-the-Impact-of-Energy-Efficiency.pdf>
- iv <https://eemap.energyefficientmortgages.eu/wp-content/uploads/2018/04/EeMAP-Technical-Report-on-the-Impact-of-Energy-Efficiency-on-Probability-of-default.pdf>
- v [https://eemap.energyefficientmortgages.eu/wp-content/uploads/2018/09/EeMAP\\_D3.4\\_ERN-WGBC\\_Final.pdf](https://eemap.energyefficientmortgages.eu/wp-content/uploads/2018/09/EeMAP_D3.4_ERN-WGBC_Final.pdf)
- vi [https://eemap.energyefficientmortgages.eu/wp-content/uploads/EeMAP\\_D6.1\\_EMF-ECBC\\_Final.pdf](https://eemap.energyefficientmortgages.eu/wp-content/uploads/EeMAP_D6.1_EMF-ECBC_Final.pdf)
- vii <http://www.bnpparibas.co.uk/en/2018/10/18/e-joins-forces-bnp-paribas-personal-finance-help-uk-home-owners-unlock-energy-efficiency-potential-green-mortgages/>
- viii [https://eemap.energyefficientmortgages.eu/wp%20content/uploads/2018/04/EeMAP\\_D2.7\\_E.ON\\_Final.pdf](https://eemap.energyefficientmortgages.eu/wp%20content/uploads/2018/04/EeMAP_D2.7_E.ON_Final.pdf)
- ix [https://eemap.energyefficientmortgages.eu/wp-content/uploads/EeMAP\\_EMF-ECBC\\_D6.5\\_Final.pdf](https://eemap.energyefficientmortgages.eu/wp-content/uploads/EeMAP_EMF-ECBC_D6.5_Final.pdf)
- x [https://eemap.energyefficientmortgages.eu/wp-content/uploads/EeMAP\\_D6.1\\_EMF-ECBC\\_Final.pdf](https://eemap.energyefficientmortgages.eu/wp-content/uploads/EeMAP_D6.1_EMF-ECBC_Final.pdf)
- xi [https://www.worldgbc.org/sites/default/files/WorldGBC\\_A\\_New\\_Era\\_in\\_Building\\_Partnerships.pdf](https://www.worldgbc.org/sites/default/files/WorldGBC_A_New_Era_in_Building_Partnerships.pdf)
- xii <http://buildupon.eu/resources/>
- xiii [https://drive.google.com/file/d/1fn8y2Uxk2wa\\_qJ7MzjLKN0EzlvHxarx/view?usp=sharing](https://drive.google.com/file/d/1fn8y2Uxk2wa_qJ7MzjLKN0EzlvHxarx/view?usp=sharing)
- xiv <https://e3p.jrc.ec.europa.eu/publications/one-stop-shops-energy-renovations-buildings>
- xv <http://www.go-refurb.eu/>
- xvi <https://ilifebuildings.wordpress.com/>
- xvii <https://valueandrisk.eefig.eu/valueandriskappraisal>
- xviii <https://www.dgbcwoonmerk.nl/>
- xix <https://www.dgnb.de/de/aktuell/pressemitteilungen/2019/dgnb-erkennung-nachhaltigkeitsratings>
- xx <https://www.worldgbc.org/news-media/creating-energy-efficient-mortgage-europe-towards-new-market-standard>
- xxi <https://www.worldgbc.org/better-places-people>
- xxii <https://eemap.energyefficientmortgages.eu/introducing-the-eemap-valuation-and-energy-efficiency-checklist/>
- xxiii <http://renovalue.eu/>
- xxiv <https://www.eonenergy.com/About-eon/media-centre/eon-joins-forces-with-bnp-paribas-personal-finance-to-help-uk-home-owners-unlock-energy-efficiency-potential-through-green-mortgages/>

## Project contacts

If you want to learn more about the energy efficiency workstream of the EeMAP initiative, please contact: [europe@worldgbc.org](mailto:europe@worldgbc.org)

## Contact your local Green Building Council

Organisations such as banks, valuers, utilities and building and construction companies looking to explore how an energy efficient mortgage could work in your local market can contact any of the national Green Building Councils that are officially participating in the EeMAP initiative. These GBCs have produced National Building Performance Briefings (see page 13) and led the market consultation process for the criteria presented in this report.

COUNTRY	MAIN CONTACTS	WEBSITE
Croatia	Dean Smolar	<a href="http://www.gbccroatia.org">www.gbccroatia.org</a>
Finland	Mikko Nousiainen	<a href="http://figbc.fi/gbc-finland">http://figbc.fi/gbc-finland</a>
France	Anne-Sophie Perrissin-Fabert, Yona Kamelgarn	<a href="http://www.hqegbc.org/accueil">www.hqegbc.org/accueil</a>
Germany	Christine Lemaitre, Daniel Häußler	<a href="http://www.dgnb.de/de">www.dgnb.de/de</a>
Ireland	Pat Barry, Marion Jammet	<a href="http://www.igbc.ie">www.igbc.ie</a>
Italy	Valentina Marino	<a href="http://www.gbcitalia.org">www.gbcitalia.org</a>
Netherlands	Martin Mooij	<a href="http://www.dgbc.nl">www.dgbc.nl</a>
Poland	Alicja Kuczera	<a href="https://plgbc.org.pl">https://plgbc.org.pl</a>
Spain	Bruno Sauer, Emilio Miguel Mitre	<a href="http://www.gbce.es">www.gbce.es</a>
UK	John Alker, Richard Twinn	<a href="http://www.ukgbc.org">www.ukgbc.org</a>

A full list of European Green Building Councils that are members of the World Green Building Council network can be accessed here: <http://www.worldgbc.org/our-regional-networks/europe>

EeMAP Consortium Members



Università  
Ca' Foscari  
Venezia



EUROPE REGIONAL  
NETWORK



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 746205