

ACTIVITIES. IMPACT. ACHIEVEMENTS.

Biennial Report
2016-2017





Content table

Graphic design
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Published in June 2018 by the Buildings Performance Institute Europe (BPIE).

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The Buildings Performance Institute Europe is a European not-for-profit think-tank with a focus on independent analysis and knowledge dissemination, supporting evidence-based policy making in the field of energy performance in buildings. It delivers policy analysis, policy advice and implementation support.
www.bpie.eu

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Chairman's words



Julian Popov,
Chairman BPIE

The world of buildings is rapidly changing. Soon all new buildings in the European Union will have to comply with the nearly zero energy standard – but this is only the tip of the iceberg of a deep transformation that goes far beyond the EU borders. The global commitment to mitigate climate change, improvement of living standards and technological innovations are turning buildings into major players in our energy systems.

In the last two years the BPIE team, under the leadership of our Executive Director Oliver Rapf, has reaffirmed its position in the

centre of this transformation in three key ways. First, it is leading the way in buildings-related data analysis. Second, it is supporting governments across Europe in developing regulatory and legislative standards. And, third, BPIE is driving the debate on the emerging trends in the built environment.

BPIE has been instrumental in advancing understanding of the role of buildings in reducing energy demand and in the overall development of the economy. Since its establishment eight years ago BPIE has been translating buildings data into proposals

for better legislation, buildings standards and economic solutions for a sector that consumes 40% of the energy we use, produces 36% of our CO₂ emissions, contributes 9% of EU GDP and provides 18 million direct jobs.

BPIE has also played an important role in developing buildings policies both at EU level and in individual member states. Recently BPIE became more closely involved in policy development beyond EU borders with studies in the Western Balkans and North Africa, and its research has been presented in China and India.

While retaining its European focus, in the next five years BPIE will aim also at enabling global industry and political leaders to stay ahead of the curve in the building sector and providing insights into the increasingly closer interlinkages between the built environment and energy, transport and communications.

Finally, I would like to thank all of our devoted Board members, who have been supporting the strategic development of the organisation, and our funders, who have made the valuable work of BPIE possible.

Julian Popov, Chairman BPIE

BUILDINGS 2018 =

40%
Of total energy consumption



36%
Of our CO₂ emissions



9%
EU GDP



18million
Direct jobs



The global commitment to mitigate climate change, improvement of living standards and technological innovations are turning buildings into major players in our energy systems.



CEO's words



Oliver Rapf,
Executive Director

Dear reader,

Welcome to the first public summary of our activities, impact and achievements. In February 2010, BPIE was created to analyse and support policy for the energy performance of buildings in Europe. When I joined BPIE in 2011 as Executive Director, the organisation was just a year old, trying to find its place in the buzzing Brussels community of policy-makers, trade associations, NGOs and many others focussing on the EU's strategy and decisions regarding its energy policy.

Since then, BPIE has succeeded in building a strong reputation, increasing its impact and reach over the years, gaining influence with decision-makers across Europe and solidifying its stakeholder network. We have built strong relations with selected EU media and the professional press and have increased our outreach in member states. BPIE is regularly invited to participate in research projects, workshops and conferences across Europe and is often solicited for input or guidance for policy decisions. BPIE's activities reach high levels of participation, demonstrating a sustained success over the years, and lead to constructive exchange with decision-makers. Our active involvement in large EU-funded projects has helped us strengthen our relations with all relevant research institutions in Europe. Today, BPIE is an established, credible and respected player in the energy policy debate.

In 2016 and 2017, the BPIE team in Brussels, Warsaw, Berlin, Bucharest and London was active in more than 30 projects, varying widely in scope and topic. This report will give you an overview of these projects, but it won't cover everything we did.

Our projects are highly diverse, and require sophisticated skillsets: from managing complex data collection to convening stakeholders and facilitating sometimes controversial discussion; from analysing policy instruments and programmes to presenting political views supported by analysis and evidence; from communicating with diverse audiences through a multitude of communication channels to advising governments and building capacity in countries within and outside the EU.

This biennial report documents the multiple activities of BPIE and their outcomes. At times, we will report only intermediate results since many of our projects aim at a mid- to long-term goal, and run over several years.

BPIE's aim is to instigate change by supporting those who have a stake and a role to play in improving the energy performance of buildings and in reducing the climate footprint of the built environment. Often, this change is happening at levels which are hard to observe. The impact of BPIE's activities and projects is nevertheless obvious in many ways, whether in the repeated referencing of BPIE reports in regulators' documents, in stakeholder opinions and

positions, in research papers and media articles, or from the many requests for collaboration, advice, and contributions to public and closed debates, workshops and conferences.

Our work is only possible because many funders, including foundations, public bodies and the private sector, trust and support us. I would like to thank all of them wholeheartedly. Our growth would not have been possible without you.

Equally, many of our projects are built on constructive collaboration

with experts from almost all European countries. Thank you for your collective wisdom and expertise; I hope that our collaboration is enriching for you as well.

Finally, I would like to thank you, dear reader, for your interest in our work. I hope that this report is informative and interesting to you and encourages you to continue the journey with us towards a future where our buildings have no more negative impact on our planet and serve our needs and wishes, in a truly sustainable way.

Kind regards,

Oliver Rapf, Executive Director

BPIE's aim is to instigate change by supporting those who have a stake and a role to play in improving the energy performance of buildings and in reducing the climate footprint of the built environment.



What does BPIE do?

The buildings sector is responsible for the highest share of CO₂ emissions and consumes most of the final energy in Europe. At BPIE, we want to change this.

We are convinced that the buildings sector could reduce its greenhouse gas emissions to zero, by investing in high-efficiency solutions, securing renewable energy supply for heating, cooling and electricity, and establishing a circular economy in the construction sector.

BPIE was founded in 2010 to innovate in political analysis, thinking and decision-making related to energy and buildings. As an independent “think-and-do tank” BPIE analyses energy and climate related challenges faced by the building and construction

sector, and develops and promotes innovation in the sector as well as policy initiatives to deliver solutions.

As an independent and innovative non-profit organisation, BPIE serves leaders and organisations in the public and private sectors able to advance a sustainable, low-carbon built environment. BPIE projects support effective policy development and implementation, economic growth and job creation in the value chain of the building sector, and healthier urban, living and work environments.

BPIE’s independent outputs serve decision-makers and society at large: we value our independence from any specific industry or political viewpoint.

We work in close collaboration with selected partners, complementing our skills and expertise, and we engage in intensive dialogue with a broad spectrum of stakeholders.

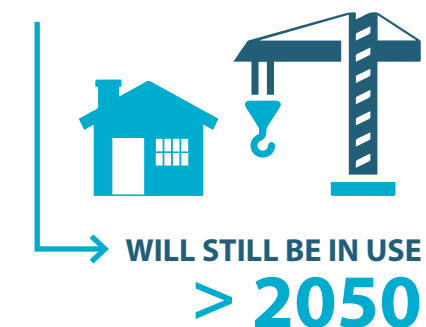
The BPIE team is multinational and interdisciplinary, enthusiastic and optimistic. We advance transformations that help fulfil commitments under the 2015 Paris Climate Agreement – in Europe and beyond.

We combine deep analytical research with dedicated outreach and communication activities addressing relevant stakeholders. Our projects are selected and designed to fully deliver our mission of developing and implementing more effective policies for the building and construction sector, reducing its climate impact.



As an independent “think-and-do tank” BPIE analyses energy and climate related challenges faced by the building and construction sector.

50%
OF THE BUILDINGS BUILT
< 1975



2016-2017

The building sector is one of the big CO₂ emitters in Europe and globally. Ignoring the mandate to reduce greenhouse gas emissions associated with buildings is no longer an option.

The Paris Climate Agreement in late 2015 marked a turning point for political and business decisions. It became clear to all in the industry and to those who regulate it that the building sector has to step up its efforts in reducing greenhouse gas emissions. The launch of the “Clean

Energy Package for all Europeans” by the European Commission reflected the new policy paradigm to keep global temperature increase to well below 2°C. This package includes the November 2016 policy proposal for a revision of the “Energy Performance of Buildings Directive (EPBD)”.

Against this backdrop, BPIE developed its transformational strategies and activities in the 2016-2017 period. We were well prepared for the post-Paris process,

and were already providing ideas and recommendations for the future Directive in early 2016. In previous years BPIE had rolled out a range of projects which analysed the effectiveness of the current regulatory framework and its implementation, so we were well placed to inform policy-makers about the most effective ways to improve it. We supported our analysis with examples from member states where we have worked.

SUPPORTING DECISION MAKERS

In taking the right steps to reduce the climate impact of our built environment

Policies for a zero-carbon building sector

The European Union’s “Clean Energy Package for all Europeans” and the revision of the “Energy Performance of Buildings Directive” (EPBD III) provided a once-in-a-decade opportunity to define the policy framework with a view to 2030. Late 2017 saw the conclusion of several years of intense, often highly controversial discussion about the future of European regulation on buildings.

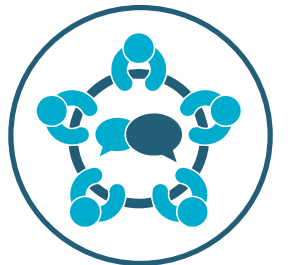
The result – political agreement on the EPBD III by the three EU institutions – is a game changer. It reflects many of BPIE’s recommendations, and introduces for the first time the goal of a highly efficient and decarbonised building stock by 2050. This had been one of the key requests facilitated by BPIE and supported by many stakeholders.

BPIE supported the discussion preceding the vote on EPBD III with a comprehensive range of publications. We published more than 10 factsheets

and briefings, summarising recent findings and translating them into policy recommendations. To support discussions in member states we produced briefings in German, Greek, Polish and Romanian.

We organized industry and civil society stakeholder roundtables to discuss options and strategies for a zero-carbon building stock, generating broad support for the concept and its integration into the revised Buildings Directive. We closely monitored the political discussion and organised briefings and webinars on the progress, the hot issues to be solved and the latest intelligence to support the positioning of diverse stakeholders.

BPIE colleagues were invited to provide their perspective at many events organised by the European Commission, the Parliament and the Council, as well as meetings hosted by industry and NGOs.





BPIE proposes using delivered energy as one of the main building performance indicator to determine and set requirements for its energy performance.



BPIE provides examples of financing schemes that debunk the myth that attracting private investment in building renovation is difficult. Public funding can play a key role in leveraging private investment.



The paper summarises the results of a BPIE workshop on the Clean Energy Package held in Warsaw in March 2017 in which 37 representatives of public administration, business, non-governmental organisations, media, research and finance participated.



Recommendations to spur deep renovation through the inclusion of trigger points in legislation, key moments in the life of a building when carrying out energy renovations would be less disruptive and more economically advantageous than at other moments.



Long-term renovation strategies developed by Member States as an opportunity to reduce energy poverty through stimulating deep renovation of buildings.



An analysis to make the EPBD more effective in improving the energy performance of European buildings, while enabling Member States to develop and implement ambitious policies.



The residential sector shows an annual average decline of over 2% in energy consumption as relative improvement per m². Policies and programmes have a positive effect, albeit not to the level needed to meet the Paris commitment to limit global warming well below 2°C.



A detailed analysis of EPC data finds that 97,5% of the residential building stock is not in the A class and should be upgraded. EPCs are currently the only available EU-wide source of information on the energy performance of the building stock.



Renovation decisions can be made easier with Building Renovation Passports. This fact sheet presents examples from across Europe.



Buildings as micro energy-hubs consuming, producing, storing and supplying energy more flexibly than before, playing a leading role in transforming the EU energy market.



This paper analyses elements of the Clean Energy for All Europeans package highlighting aspects to be addressed through the legislative negotiations with the European Council and Parliament. Available in English, Greek, Romanian, Polish and German.



This briefing provides a snapshot of measures supporting building renovation in selected Member States as of September 2017.

Transforming Renovation approaches

Europe's highly diverse built environment is responsible for more than one-third of its CO₂ emissions. European buildings are built in a wide range of architectural styles, under nationally defined building codes, and used for many different purposes. To achieve a decarbonised building stock by 2050, a vast universe of buildings will have to be renovated according to their potential. A huge task lies ahead.

Europe's renovation rate today is just around 1%: this needs to triple to renovate all buildings by the middle of the century.

BPIE projects have focused on five opportunities to increase renovation rates across Europe.

1. NATIONAL RENOVATION STRATEGIES:

BPIE has supported the development of renovation strategies to define policies and programmes to increase renovation since 2014. In 2017, we analysed the progress of selected member states in developing and implementing a national renovation strategy. We found that, while some national governments are making clear efforts to develop effective strategies, others still seem to miss the opportunity. BPIE presented the results at the [Renovate Europe Day](#) in the European Parliament in the company of Miguel Arias Cañete, EU Commissioner for Energy and Climate Action, and members of the European Parliament.

BPIE has supported the development of renovation strategies to define policies and programmes to increase renovation since 2014.



2. IBROAD:

Renovation activities will only increase if both large investors and individual homeowners know where, how and when to invest. The EU-funded project **iBRoad** – which BPIE designed in 2016 together with an expert consortium – targets the knowledge gap among homeowners. Started in mid-2017, the project is developing and testing a customised tool for deep renovation and comfortable energy-efficient homes, known as an individual building renovation passport. The tool aims to empower homeowners to take informed, cost-effective decisions.

It takes the building as a whole into consideration and provides a customised renovation plan over a long-term horizon (15-20 years).

The renovation passport is at its core a home-improvement plan which considers the occupant's needs and specific situations (e.g. age, financial situation, composition and expected evolution of the household, etc.) and avoids the risk of 'locking out' future renovation solutions due to a lack of foresight. The tool will be tested in Bulgaria, Poland, Portugal and Germany.



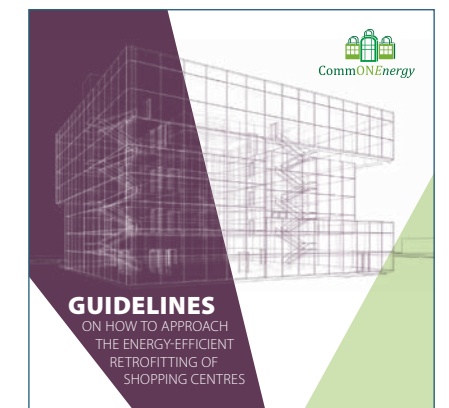
**EMPOWER HOMEOWNERS
TO TAKE INFORMED,
COST-EFFECTIVE DECISIONS**

3. COMMONENERGY:

Commercial buildings can consume large amounts of energy: shopping centres, for example, have dense heating, cooling, ventilation and lighting facilities. The **CommONEnergy** project, funded by the EU, developed renovation strategies for commercial buildings and demonstrated the solutions in lighthouse projects in Spain, Norway and Italy. BPIE led the communication activities, disseminating the results through videos, trade fairs, press articles and social media.

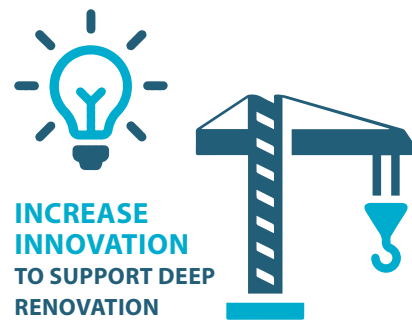


CommONEnergy



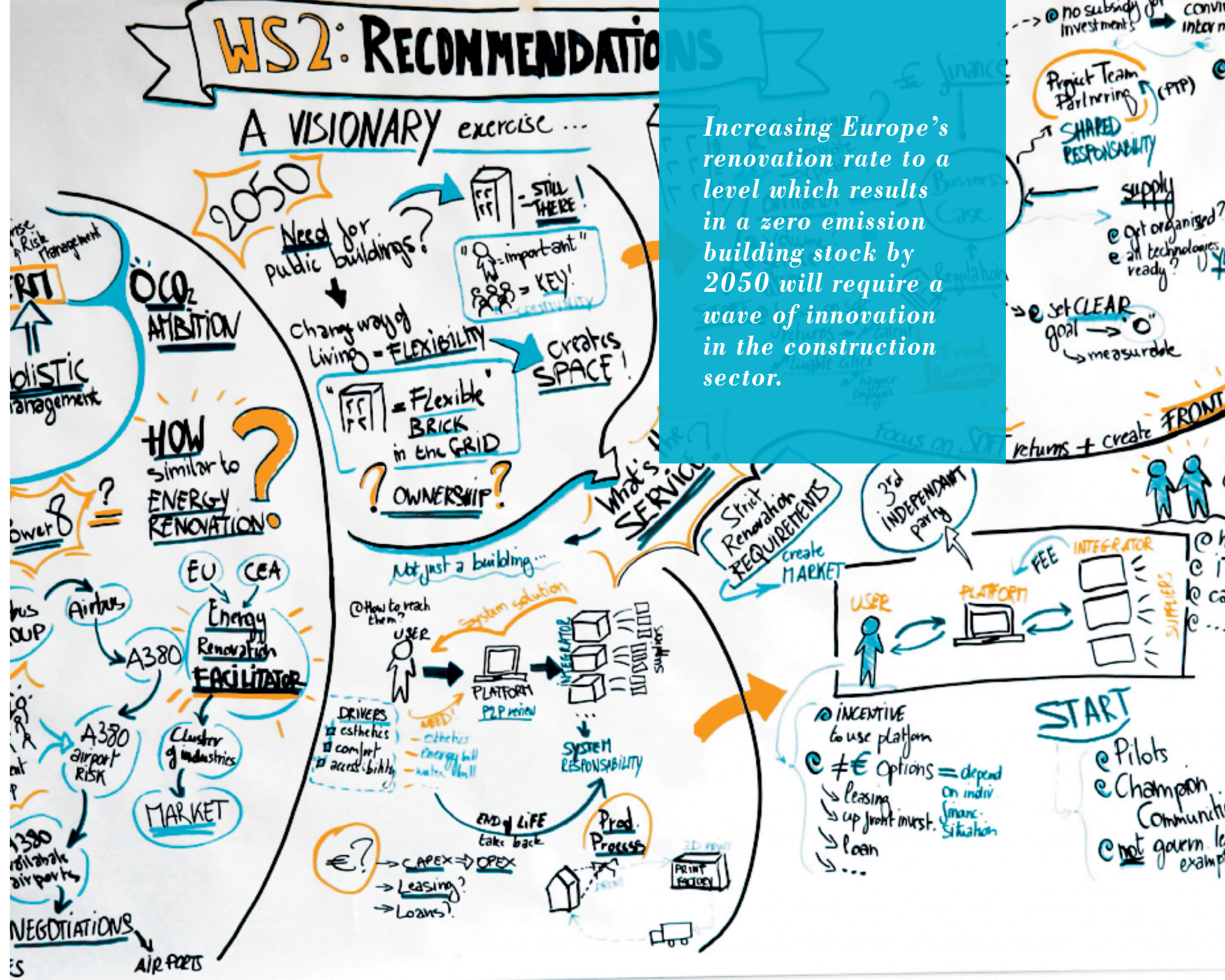
4. INNOVATION IN CONSTRUCTION:

Increasing Europe's renovation rate to a level which results in a zero emission building stock by 2050 will require a wave of innovation in the construction sector. BPIF collaborated with the Industrial Innovation for Competitiveness initiative launched by the European Climate Foundation to start a debate about the innovation potential in construction. We investigated opportunities to strengthen Europe's industrial leadership in the construction value chain, in order to deliver a fast and deep decarbonisation together with economic and competitive advantages in and for Europe. Two stakeholder processes gathered ideas from experts, co-creating recommendations on how to increase innovation in technology, organisation, services and products to support deep renovation. [Our report](#) and its findings were presented at a variety of events.



5. EPISCOPE:

Renovation solutions in the housing sector were the focus of the [EU-funded EPISCOPE project](#). We helped develop a database to compare measures and costs for different levels of renovation, increasing transparency. This also enabled comparison of the effectiveness of various types of pilot actions renovating different housing stock at local, regional and national level.



SMART Buildings for a zero carbon energy system

A smarter, more efficient building stock is a cornerstone of a decarbonised energy system. As well as becoming zero carbon themselves, buildings should move to the centre of the energy system's transition to a zero carbon future.

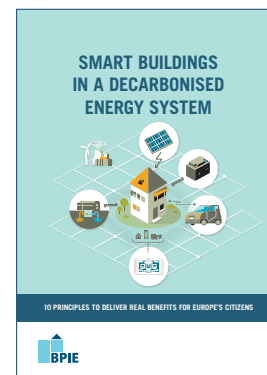
The buildings of the future will be highly efficient micro-energy hubs, integrating zero carbon energy production with energy storage, control and demand-response technologies, and power management for electric vehicles.

This requires a new understanding of the role and function of buildings.

Increased integration of distributed energy (re)sources, renewables and storage, coupled with growing peak demand for electricity, will drive the need for increased flexibility, demand-response capabilities and consumer empowerment.

Recognising that a lot of buzz and hype exists around smart buildings, BPIE launched a programme in early 2016 to inform the public debate

through publications and events. The focal point of the analysis was the role of smart buildings in the future decarbonised energy system. This helped policy-makers realise that increasing "smartness" should become a political goal in the transformation of our building stock. A booked-out BPIE conference organised in the context of the EU Sustainable Energy Week 2016 highlighted the need for political support for smart buildings, and helped spur momentum.

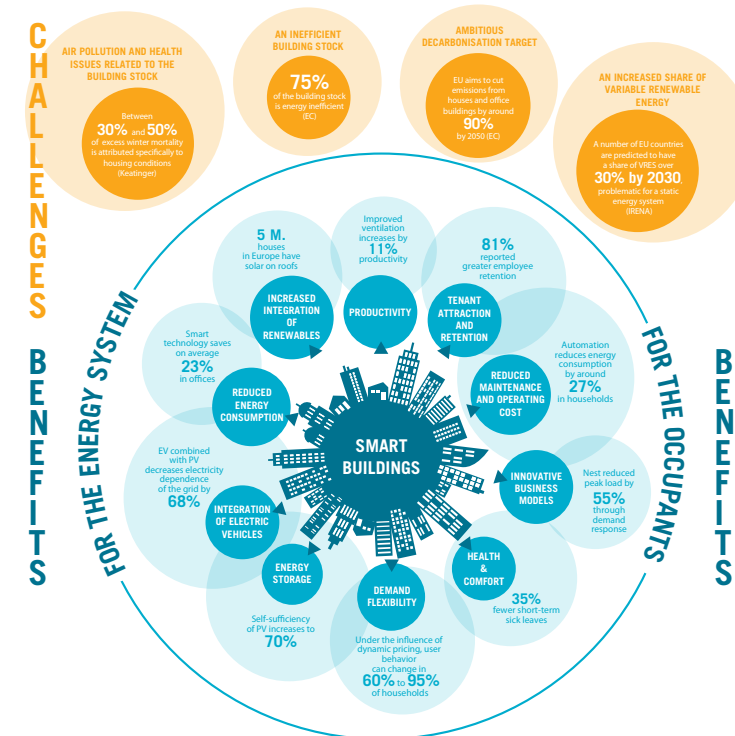


An analytical report showcased the varying stages of development in EU member states, and its findings were translated into policy recommendations for increasing the number of smart buildings in Europe. To highlight that these policy recommendations are supported by real life building examples, BPIE organised a conference presenting evidence with a variety of case studies.

Our work was also reflected by the European Commission's proposal to develop a Smart Readiness Indicator as part of the revision of the EPBD. Agreed in late 2017, this new instrument

enables member states to monitor the smartness of their buildings.

The increasing interest in smart buildings led to many invitations to present our work at conferences. Highlights included presentations at the European Utility Weeks in Barcelona and Amsterdam, the Future Energy Forum at the Expo in Astana, Kazakhstan, the Decarb Heat conference in Brussels and many other events around Europe. A Chinese industry magazine provided a translation of our smart buildings report into Mandarin.





The lack of investment in upgrading and renovating buildings is one of the tallest barriers to a zero carbon building stock.

Triggering Investment



The lack of investment in upgrading and renovating buildings is one of the tallest barriers to a zero carbon building stock. Well-documented reasons include, among others, a lack of investment incentives and financial instruments, small project sizes, and communication gaps between experts from the energy efficiency and the financial services communities.

BPIE was involved in analysis providing evidence that the investment risk is often lower than perceived, and that well-designed financial instruments

can trigger private investments. Energy efficiency policies need to set the right enabling framework soon enough to unlock private investments, in particular for building renovations.

The conventional business case for achieving an energy-efficient building stock has been driven by energy cost reduction, while the indirect benefits cited have tended to focus on economic development and job creation in the local communities as a result of renovation projects, in addition to CO₂ reduction. There is, however, increasing research

showing that energy efficiency investments in buildings also result e.g. in decreased air pollution and broader health benefits for society. These multiple benefits of energy efficiency are rarely taken into account in investment decisions.

BPIE has taken part in a range of activities and initiatives to unlock investment and promote the business case for energy efficiency and building renovations.





1. INVESTOR DAYS:

To increase exchanges between the financial and the energy efficiency communities, BPIE co-organised the [Investor Days 2016](#) with over 100 participants. Project developers, financial institutions, policy-makers and other interested stakeholders gathered to evaluate the current situation. They discussed progress achieved to increase investments in energy efficiency, ways to increase deal flow, necessary next market solutions and pitched projects to interested developers. Three speakers from DG Energy and 10 speakers from the financial services industry engaged in intense debates with the audience, which we documented in a [summary video](#).



THE DATABASE
DEEP
INCLUDES
OVER 10,000
PROJECTS AND
IS THE LARGEST
DATABASE OF ITS
KIND IN EUROPE

2. DE-RISKING ENERGY EFFICIENCY INVESTMENTS:

During 2016 and 2017, BPIE participated in analysis commissioned by DG Energy. The De-risking Energy Efficiency Platform (DEEP) collected evidence to monitor and benchmark the performance of energy efficiency investments, which was published as an open-source database. Launched in November 2016 alongside the Clean Energy for All Europeans policy package, DEEP includes over 10,000 projects and is the largest database of its kind in Europe. The database is complemented by an [underwriting toolkit](#) providing a common, accepted and standardised underwriting and investment framework for energy efficiency investments.

The challenges in member states regarding investments in buildings often require tailor-made solutions.



3. COUNTRY-SPECIFIC RESEARCH:

Further research commissioned by DG Energy included a comprehensive assessment of financing schemes within each of the EU 28 member states, along with an assessment of their effectiveness. The challenges in member states regarding investments in buildings often require tailor-made solutions.

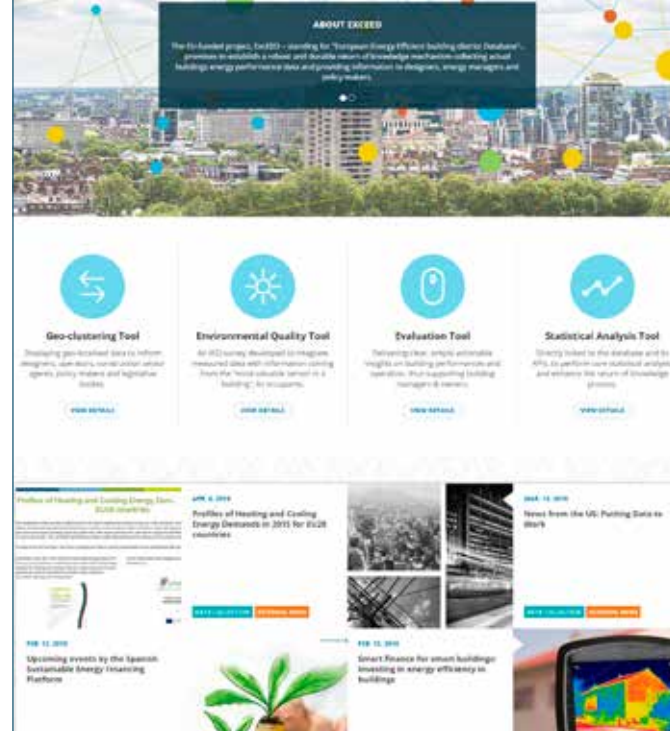
In Poland, BPIE contributed to discussions on stimulating the uptake of financing schemes to support deep renovation of public and private buildings, and improving the framework conditions for deep renovations of Poland's building stock. The report "[Financing Building Energy Performance Improvement in Poland](#)" was presented at a [BPIE workshop in Warsaw](#) in early 2016. A [second report](#) identified the renovation of single-family houses as vastly under-funded compared to other sectors and provided recommendations to improve the situation.

In Germany, BPIE launched an analysis from an investor's perspective providing renovation options and investment opportunities for 16 building types in early 2016, based on input from many stakeholders. The [report](#) documented that the right policy framework could result in negative costs for renovation, and contributed to the intense policy debate in Germany.



4. COLLECTING AND DISSEMINATING DATA:

Missing performance data is one of the many barriers for investment. BPIE is leading communication activities for the EU-funded project **ExcEED** ("European Energy Efficient building district Database"), which aims to establish robust knowledge by collecting actual buildings energy performance data.



5. REFRAMING THE BUSINESS CASE:

The **Buildings 2030** initiative aims to build demand for high-performing buildings that deliver multiple benefits. BPIE contributed to its creation by organising two expert workshops and preparing a white paper as the conceptual base for this leadership initiative. We are also part of a three-year project, **M-Benefits**, which aims to deliver tools for decision makers to valorise multiple benefits of energy efficiency in buildings and industry.

BPIE has also promoted innovative business models to help increase the low renovation rates in Europe. The first case study analysed in our "Innovation Briefing" series was **BetterHome** in Denmark, which provides a comprehensive renovation service offer to potential owner-investors. BetterHome is now well-recognised and copied business model. By making renovation more attainable and reliable through tailored renovation solutions, the scheme illustrates that it is possible to increase demand for (deep) renovation in the residential sector. BPIE's **briefing** fed into the European discussion and was quoted as an inspiring example by policy-makers and industry leaders in Brussels. A **video** and a **webinar** with over 100 participants attracted more attention to the success story.



Supporting Implementation

Each of the 28 European member states must transpose the EU Energy Performance of Buildings Directive into national law. In complying with the Directive, national policy-makers have a high degree of freedom in designing national regulation, support programmes and other initiatives.

From our broad spectrum of analytical work, BPIE is able to provide the necessary expertise and guidance to civil servants, industry stakeholders, NGOs and the wider building sector value chain. Their demand is reflected in the many activities and projects we are engaged in, including workshops, reports, online webinars and stakeholder consultations.

support successful implementation of energy efficiency policies and programmes as well as better compliance and enforcement. It provides a broad snapshot of the building stock characteristics in EU28 countries, and includes data from EU projects, national statistics, Energy Performance Certificate (EPC) databases, cities' sustainable energy action plans, industry data, and information from other sources, with factsheets on specific topics per country.

Often, actual implementation is delegated from national government levels to lower ones. And equally often, decision-makers are looking for best-practice examples which can support them in their daily work.

EUROPEAN BUILDING STOCK OBSERVATORY:

Back in 2012, BPIE launched an online data portal, the BPIE Data Hub for the Energy Performance of Buildings, which presented the results of our comprehensive survey of the European building stock in an interactive way. This portal served as blueprint for the **European Building Stock Observatory**, for which the European Commission awarded a contract to a consortium led by BPIE. Launched in the context of the Clean Energy Package in late 2016, the Observatory aims to



EMBUILD:

The EU-funded project EmBuild supports public authorities in South-East European countries to prepare long-term strategies for mobilising investment in energy-efficient renovation of the public building stock. The aim is to empower public authorities at local and regional level to accelerate and deepen renovation of public buildings, by providing support and tools for developing renovation strategies. BPIE developed a template and guidance to support public authorities in developing renovation strategies, with a particular focus on the renovation of public buildings; several municipalities have used it as a basis for their strategies. BPIE



also assessed the barriers to deep renovation, drawing on research and interviews with national experts to highlight key issues that local and national renovation strategies should address. This fed into national factsheets on tackling the barriers to renovation in Germany, Croatia, Romania, Slovenia, Serbia and Bulgaria, and a report investigating the legislative, regulatory, financial, capacity, technical, research and strategic barriers present in each country in more detail.



EMPOWER PUBLIC
AUTHORITIES
AT LOCAL AND
REGIONAL LEVEL TO
ACCELERATE
RENOVATION
OF PUBLIC
BUILDINGS



RENOVATION STRATEGY IN WALLONIA:

The government of the Belgian province Wallonia asked for support in updating its renovation strategy after receiving a disappointing evaluation of the first version from the European Commission. A consortium of three partners, including BPIE, supported the Walloon government in the development of the updated version. BPIE provided expertise, developed the strategy's framework based on guidelines from the European Commission, identified best practice renovation policies across Europe and highlighted relevant approaches from other renovation strategies. In addition, BPIE helped organise the stakeholder workshops.

The Walloon Renovation Strategy, submitted in to the Commission in 2017, is now an ambitious political commitment aiming for an energy-neutral building stock in 2050, and includes instruments and policy support measures such as a renovation passport and specific financing measures.

The Walloon Renovation Strategy is now an ambitious political commitment aiming for an energy-neutral building stock in 2050.

SUPPORT FOR SOUTH-EAST EUROPE:

Addressing the challenges of energy security and the need for increased investment in buildings in South-East Europe and the Western Balkans, BPIE developed two reports for the Central and South-Eastern European Connectivity (CESEC) High Level Ministerial Meetings in 2016 and 2017. We developed a Buildings Vulnerability Indicator for South-East Europe and the Western Balkans, guiding strategic policy-making and highlighting alternatives to an increase in gas supply infrastructure. Our report "Safeguarding energy security in South-East Europe" helped to put energy efficiency on the agenda of the CESEC Ministerial Meeting and was welcomed by Commission Vice-President for the Energy Union, Maroš Šefčovič. In a second step, we undertook a comprehensive analysis of funding streams targeting buildings renovation in the region. The report "Financing the future of buildings in Central, Eastern and South-East Europe" was presented at the 2017 edition of the CESEC meeting and launched a discussion about how to make better use of financial means and investment opportunities.



Our report "Safeguarding energy security in South-East Europe" was welcomed by Commission Vice-President for the Energy Union, Maroš Šefčovič.



Very impressed by @IRENA & @BPIE_eu presentations on potential of #renewables & #energyefficiency in #CESEC region: bpie.eu/publication/sa...



ZEBRA 2020:

The ZEBRA2020 project assisted policy makers at EU and member state level in developing impactful strategies and frameworks to accelerate the market penetration of nearly-Zero Energy Buildings (nZEBs). The project covered 17 European and about 89% of the European building stock and population. Online data tools provide unique information regarding nZEB market development and characteristics, and a nZEB radar allows comparison of national progress. A tracker tool assesses the market maturity and visualises the markets in a dynamic way.

EUROPEAN CALCULATOR:

When developing long-term strategies to fight climate change, policy-makers face complex decisions to define the right policy mix. The EUCalc project – where BPIE is responsible for the buildings sector – will provide an online tool for European and national policy-makers, businesses, NGOs and other actors to guide decisions on future policies. In 2017, the first year of the EUCalc project, BPIE took a leading role in designing the module, initiated cooperation on sector interactions, and collected, aggregated and assessed the available data on European buildings stocks and their energy demand.



HEAT ROADMAP EUROPE:

The EU-funded Heat Roadmap Europe is taking a supply-side look at reducing CO₂ emissions associated with buildings. BPIE is part of the international consortium which is analysing the 14 largest consumers of heating and cooling energy in Europe and developing country-specific roadmaps. The outputs provide recommendations on demand- and supply-side efficiency measures that could support the achievement of Europe's climate goals.



In Poland, BPIE is focussing on increasing awareness about the condition of the building stock, encouraging exchange between policy-makers and relevant stakeholders through workshops.



WORKSHOPS IN POLAND:

In Poland, BPIE is focussing on increasing awareness about the condition of the building stock, encouraging exchange between policy-makers and relevant stakeholders through workshops. A workshop in March 2017 with over 40 stakeholders covered the Clean Energy Package and its implications for Poland, establishing a broad consensus on key messages, concerns and proposed amendments. The resulting briefing was shared widely during the political dialogues on the future European buildings legislation. BPIE also organised a workshop in September 2017 on the future of Energy Performance Certificates, which led to a government initiative to improve the system.

RENOVATION IN ROMANIA:

BPIE activities in Romania, ongoing since 2011, support an ambitious implementation of EU energy policies for buildings in the country. Over the years, we have established a strategic collaboration with Romania's national authorities and contributed to the implementation of EU legislation for buildings, with a particular focus on financing building renovation. The Romanian strategy for mobilising funding for the renovation of buildings is heavily inspired by our study "Renovating Romania". BPIE's work was recognised by the Ministry of Regional Development for its contribution to the country's strategy for attracting funds for buildings renovation.

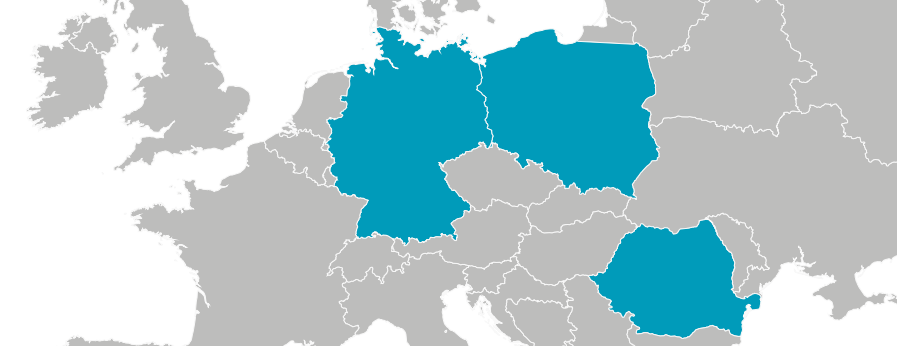


We regularly convene stakeholders and organise workshops to support national decision-making processes, and our country manager is a regular speaker at national events. Many of BPIE's EU-wide projects have specific elements focussed on the country.

In Romania, BPIE established a strategic collaboration with national authorities and contributed to the implementation of EU legislation, with a focus on financing renovation.

POLICY CONTRIBUTION IN GERMANY:

In Germany, BPIE put its focus on active contribution to the political debate about the future of the national building regulation. The team participated in a variety of government processes including the Energy Transition Platform organised by the Ministry of Economic Affairs and Energy, the Aktionsbündnis Klimaschutz dialogues organised by the Ministry for the Environment and presented BPIE analysis in several national conferences. As the German government had a strategic role in the final agreement of the EPBD III, BPIE held close contact with Ministry officials and informed national stakeholders from civil society and industry regularly about the development of the negotiation process, inviting relevant contacts to a breakfast meeting and a number of webinars. In addition to our own German publications, the German Year Book on Energy Efficiency 2017 published an article about BPIE's study on smart buildings.



Beyond The EU



BPIE does not limit its activities strictly to EU28 countries. We also lend our support to neighbouring countries that face similar challenges in improving their buildings, and are involved in global dialogues.

To add Europe's experiences to global voices, BPIE became a founding member of the **Global Alliance of Buildings and Construction** at its creation at the Paris climate negotiations. The Alliance brings governments, industry, civil society and research together to seek solutions to climate change from the buildings sector. BPIE's Executive Director has been a member of the steering committee since early 2017. The Alliance monitors global policy developments through its annual status report where BPIE regularly contributes. The initiative is making

its voice heard at many global events and is organising regional roundtables to support policy-makers.

Following earlier assignments in Serbia, BPIE was contracted by GIZ to support the Serbian government in implementing the requirement to renovate 1% of its public buildings per year. We prepared guidelines and organised two workshops for representatives of the Serbian government and other stakeholders, such as the United Nations Development Programme (UNDP) and research institutes, to discuss possible approaches. Under a different assignment for the United Nations Environment Programme (UNEP), we developed a renovation strategy for Belgrade as guidance for municipal decision-makers.



*To add Europe's experiences to global voices, BPIE became a founding member of the **Global Alliance of Buildings and Construction** at its creation at the Paris climate negotiations.*



In Morocco, the rapid growth of construction and buildings plays an increasingly important role in energy consumption and greenhouse gas emissions.

Achieving the government's environmental targets will depend on millions of decisions taken by owners, tenants, businesses and public entities that occupy the stock of current and future buildings. The World Bank commissioned BPIE, working in partnership with

Element Energy, to investigate the impact of different policy levers on building owners' propensity to invest in energy-saving measures. We developed a model that simulates the impact of different combinations of regulatory reforms, financial and tax incentives. Through several workshops and interviews with experts, building sector operators and other stakeholders in Morocco, the team estimated the "monetary value" of the various barriers and risks that tend to discourage investment in energy-saving measures. The results show clearly that these soft

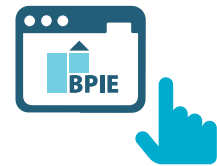
measures are essential if Morocco is to achieve its emissions reduction commitments, while also doing so in a cost-effective manner that stimulates the wider economy. Together with our partner Element Energy, we also provided several trainings to Moroccan civil servants.

In Beijing, BPIE shared European policy experience and supported the Sino-German Energy Partnership with three presentations during an Energy Efficiency Expert Roundtable in December 2017.

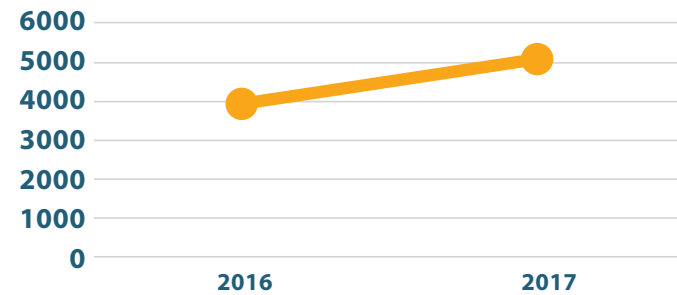
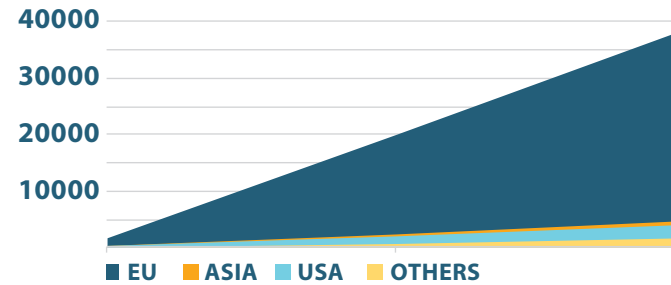
In Morocco, the World Bank commissioned BPIE to investigate the impact of different policy levers on building owners' propensity to invest in energy-saving measures.



BPIE COMMUNICATIONS



60%
AVERAGE
INCREASE IN
WEBSITE VISITS
FROM 2015



25%
INCREASE IN
SOCIAL MEDIA
FOLLOWERS



350
MORE THAN
MENTIONS FROM EUROPEAN
AND INTERNATIONAL MEDIA
AND ORGANISATIONS



119
PRESENTATIONS AT
PUBLIC EVENTS





CHAIR / Mr Julian Popov

is Fellow of the European Climate Foundation and Former Minister of Environment of Bulgaria. He is former energy security adviser to the President of Bulgaria, the founding Vice Chancellor and current Board Member of the New Bulgarian University, founding Board Member of Sofia Platform, former Board Member of the American University in Bulgaria, former Chairman of the Bulgarian School of Politics and co-founder of the Tunisian School of Politics (established following the Arab Spring). His articles have been published by Financial Times, Project Syndicate, The Independent, Huffington Post, Al Jazeera and other international media. He was recently voted as one of the 40 most influential voices on European energy policies and also as one of the 40 most influential voices in the European energy efficiency policies by the Brussels agency EurActiv.

VICE CHAIR / Ms Patty Fong

is Programme Director at the European Climate Foundation and serves on its Strategic Council. She was recruited in 2007 to help establish the foundation and was founding COO until August 2012. Patty has lead the Energy Efficiency Programme and is now leading the Buildings and Urban Systems Programme. Patty co-founded the Buildings Performance Institute Europe. She also co-founded and served on the Steering Committee of the EU Coalition for Energy Savings until 2018. In addition, she was a founding board member of the EU Alliance to Save Energy, a consortium of leading multinational companies

supporting greater EU political ambition for energy efficiency. From 1998 to 2005, Patty helped launch and manage the Energy Foundation's China Sustainable Energy Program (now EF China), which is a leading player in China's clean energy transition.

Mr Randall Bowie, is currently Director for the European Centre for Economic, Environmental and Energy Sustainability, in Sweden. He was previously Chief Consultant, Public Affairs at Rockwool International, focusing on EU energy affairs in Brussels, for over 10 years. Prior to that, Mr Bowie spent 11 years at the then-DG Energy and Transport of the European Commission, from which he retired.

While there, he was one of the original driving forces on energy efficiency (EE) legislation in the Commission, having been one of the chief architects of the Energy Performance of Buildings Directive and of the Energy Services Directive (one of the major progenitors of the Energy Efficiency Directive and of EE targets). He was also responsible inter alia for two Commission Energy Efficiency Action Plans. Randall worked earlier in the Swedish Ministry of Industry, the Swedish Energy Agency, and the Swedish National Institute for Economic Research, focusing on energy and energy efficiency legislation, programmes and research, respectively. Randall has also served on the boards of several EE organisations, including the eceee and Coalition for Energy Savings.

Dr. Peter Graham's career in sustainable building spans all levels of the industry, from the construction site to university, and from boardrooms to international negotiations. In addition to his role at Swinburne University, he has been Executive Director of the Global Buildings Performance Network (www.gbpn.org), and Technical Advisor and past Coordinator of the United Nations Environment Programme's (UNEP) Sustainable Buildings and Climate Initiative (www.unep.org/sbci). Prior to leading the GBPN he was Head of

Discipline for Architecture & Design at the University of New South Wales, Sydney, Australia. He has more than 15 years of experience in international advocacy, research and education in sustainable building design, construction, evaluation and policy.

Maritta R. von Bieberstein Koch-Weser, Founder and President of Earth3000, a non-profit organization supporting strategic innovations in governance for environment and development. She has a distinguished career spanning more than three decades in international development, as anthropologist and environmentalist. She has field experience in Latin America, South & East Asia, and in parts of Sub-Saharan Africa, the Middle East, Eastern Europe, and some countries of the Former Soviet Union. During 20 years at the World Bank, and later as Director General of IUCN, The World Conservation Union, she has led major environmental & social assessment tasks, as well as investment programs in the environment, agriculture, forestry, mining, energy, and urban-industrial sectors. She is involved in environment-oriented academic programs in Germany and Brazil, and a non-resident Fellow of the Woodrow Wilson Center in Washington DC.

Oliver Rapf, Executive Director of BPIE, is leading its strategic and programmatic development and is regularly advising governments and private sector stakeholders on the development and implementation of policies and support programmes to improve the energy performance of buildings. In 2016, he was ranked among the 40 most influential actors on energy efficiency policies in Europe. Oliver has been active as a jury member of architectural, environmental and sustainability awards, serves on various advisory boards and is a regular speaker at international conferences. Before joining BPIE, Oliver worked for the global conservation organization WWF in various roles, including as Head of the Climate Business Engagement unit of WWF International, managing strategy and partnership development with the private sector. Leading an international team, he advised multinational companies on climate change and energy issues. Oliver's experience in buildings efficiency goes back to the late 90s when he was WWF project leader for deep renovation projects in cooperation with housing companies across Germany. He also participated in the UNFCCC negotiations as leader of the German NGO coalition and worked on regional sustainability strategies and spatial planning.



BPIE LIST OF PARTNERS

IN 2016 AND 2017 WE COLLABORATED WITH THE FOLLOWING PARTNERS:

AUSTRIA

- Austrian Energy Agency
- Bartenbach
- OEGUT
- SOLID
- SUNPLUGGED
- SE4All
- TU Wien

BELGIUM

- 3E
- BPAC
- Build UP
- Buildings 2030
- BuildUPON
- Climact
- Coalition for Energy Savings
- Construction21
- Eceee
- ENDS Europe
- EurActiv
- Euroheat & Power
- European Energy Innovation Magazine
- European Heat Pump Association
- Fleishman Hillard
- Joint Research Centre
- Passiefhuis-Platform
- REHVA
- Renovate Europe
- Revolve
- Vlaamse Confederatie Bouw
- Flemish Energy Agency
- VITO

BOSNIA & HERZEGOVINA

- SEE Change Net

BULGARIA

- Eneffect

CROATIA

- REGEA
- University of Zagreb

CYPRUS

- Cyprus University of Technology

CZECH REPUBLIC

- IMPRIMA
- SEVEN
- STU-K

DENMARK

- Aalborg University
- COWI
- PLANENERGI FOND
- University of Copenhagen

FRANCE

- ARMINES
- ENERDATA
- Energy in Demand
- GBPN
- IEA
- Nalas
- Pouget
- Saint Gobain
- Schneider Electric

GERMANY

- Climate Media Factory
- DENA
- DS Consulting
- DURLUM
- Ecofys
- Europa-Universität Flensburg
- eza!
- Fraunhofer ISI
- ICLEI
- ifeu
- IWU
- Schwenk
- TU Munich

GREECE

- AMS
- INZEB
- National Observatory of Athens
- NTUA
- S&B
- Sympraxis

HUNGARY

- Budapest University of Technology
- Pannon

IRELAND

- Energy Action Limited
- Wattics

ITALY

- BYInnovation
- Economisti Associati
- EPTA
- EURAC
- European Academy Bolzano
- EUROPEAN CONSORTIUM OF ANCHORS PRODUCERS
- FUMAGALLI
- HALFEN
- Hoval
- INRES-COOP
- MAGNETTI
- POLITO
- Stamtech
- T6 ECOSYSTEMS
- UNIUD

NORWAY

- NTNU
- SEGEL
- SINTEF
- Storebrand

POLAND

- CIM-MES
- FASADA
- KAPE
- NAPE
- RIDAN

PORTUGAL

- ADENE

ROMANIA

- ARENA Constructiilor
- Ae3R
- INCID URBAN-INCERC

SERBIA

- Balkan Green Energy News
- University of Belgrade

SLOVENIA

- Kssena
- ZRMK

SPAIN

- Acciona
- ANCODARQ
- CARTIF
- CIMNE
- Valencian Institute of Building
- Ayuntamiento de Valladolid

SWEDEN

- AB Alingsås Rådhus
- Halmstad University
- Passive House Center
- NILAR

SWITZERLAND

- Empa
- EPFL
- TEP ENERGY

THE NETHERLANDS

- Delft University of Technology
- ECN
- ECOFYS
- Utrecht University

UNITED KINGDOM

- BRE
- Element Energy
- EPTA
- IES
- Imperial College
- ITM-POWER
- Ricardo AEA
- University of East Anglia

UNITED STATES

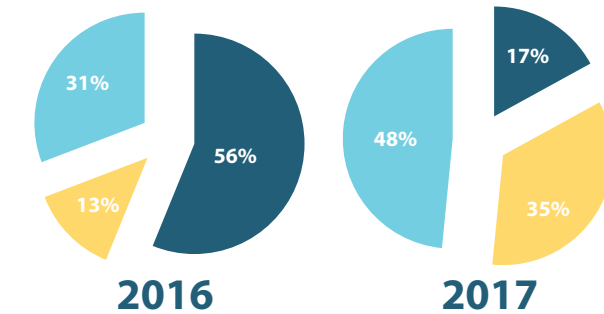
- World Green Building Council
- Institute of Market Transformation

BPIE INCOME SOURCES

ECF Grants & Other Grants

Service Contracts & Sponsorships

EU Grants



IN 2016 AND 2017, BPIE RECEIVED FUNDING FROM THE FOLLOWING ORGANISATIONS:

- Active House Alliance
- BASF group
- BetterHome ApS
- Danfoss A/S
- EURIMA ASBL
- EuroACE
- European Climate Foundation
- European Commission
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ GmbH)
- Rockwool International A/S
- Saint Gobain
- The Environmental Defense Fund (EDF)
- The United Nations Environment Programme (UNEP)
- The World Bank Group
- United Technologies Corporation
- Vlaams Energie Agentschap – Flemish Energy Agency
- VELUX A/S
- Walloon Region
- European Parliament, The Greens/EFA Group
- Union européenne des Promoteurs – Constructeurs (U.E.P.C.) A.I.S.B.L
- Environment & Energy Efficiency Branch, Public Works Department of Malaysia
- Bureau International du Béton Manufacturé (BIBM) A.I.S.B.L.
- Energy Consulting Network (Limited)
- TRIAD Berlin Projektgesellschaft mbH



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