



CONCERTED ACTION

ENERGY PERFORMANCE OF BUILDINGS

(CCT2)

Finance and Information

Status in 2020

AUTHORS

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1. Introduction

Financing plays a key role in achieving the challenging energy and climate targets set for 2030 by the EU, since there currently exists a large investment gap regarding energy efficiency and the application of technologies based on renewable energy sources in buildings. To reduce the gap as well as to improve financing and to stimulate better energy efficiency in the building sector, several actions are needed. This includes:

- more effective use of existing financing options, as well as developing and introducing new financing mechanisms, including both hard investments but also soft measures as part of national initiatives;
- dissemination of information to complement other measures and inform buildings owners, tenants and users about the different methods and practices that serve to enhance energy performance. It is especially important to provide information on energy performance certificates, on inspection reports and their purpose and objectives, on cost-effective ways to improve the energy performance of the building, and, where appropriate, on financial instruments.

The EPBD CA V cross cutting team on Finance and Information deals with many relevant articles of the Directives 2010/31/EU and 2018/44/EU and in particular leads work and progress reports on:

- Article 10 on Financial Measures;
- Article 20 on Information activities.

The team supports work on the integration of Certification and Inspection in articles 11 – 16 in general, and on a holistic policy package covering financing for enhancing energy efficiency in all building types, thus helping to alleviate energy poverty (article 2a (1, d)). The amending Directive 2018/44/EU article 2a (3) emphasises Member States' responsibilities in supporting the mobilisation of investments into renovation by facilitating access to appropriate mechanisms for:

- a) the aggregation of projects, including those carried out by investment platforms or groups and by consortia of small- and medium-sized enterprises, to enable investor access as well as packaged solutions for potential clients;
- b) the reduction of the perceived risk of energy efficiency operations for investors and the private sector;
- c) the use of public funding to leverage additional private-sector investment or address specific market failures;
- d) guiding investments into an energy efficient public building stock, in line with Eurostat guidance;
- e) accessible and transparent advisory tools, such as one-stop shops for consumers and energy advisory services regarding relevant energy efficiency renovations and financing instruments.

The team also supports the Smart Finance for Smart Buildings initiative which was launched in 2018 by the European Investment Bank (EIB). The aim of the initiative is to make investments in energy efficiency projects in residential buildings more attractive to private investors through the intelligent use of EU grants as a guarantee.

2. Objectives

This report aims to give a short overview of the activities and outputs in the field of Financing and Information led by the Financing and Information cross cutting team within the CA EPBD V in the period May 2018 – June 2020.

In this period, four sessions were organised on this topic. The work and sessions primarily concerned:

- Smart financing for deep renovation, de-risking & aggregation;
- Smart financing for new public NZEB buildings;
- Reduction of perceived risk of financing / de-risking;
- Accessible and transparent advisory tools;
- One-stop shops as an assistance instrument.

Additionally, the team was responsible for organising a session in the joint CA RES/ CA EED/ CA EPBD workshop in January 2020 on Innovative Financing Solutions to Bridge the Investment Gap for 2030. In the beginning of CA EPBD V, the key topics identified for discussion in the Financing and Information team were:

- Financial incentives and mechanisms as part of EPBD implementation;
- Information activities in connection to the EPBD;
- Policy integration – financing as part of a policy package;
- Smart Finance for Smart Buildings initiative;

- Lessons learned and recommendations for EU/international funding initiatives.

3. Analysis of Insights

Analysis of the topics discussed and dealt with so far have been grouped into three different categories:

- Smart financing – deep renovation, de-risking and aggregation;
- Smart financing – new public NZEB buildings;
- Accessible and transparent advisory tools and one-stop shops as an assistance instrument in renovation.

Please note that the categories overlap each other.

3.1 Smart financing - deep renovation, de-risking and aggregation

3.1.1 Introduction

The objective of this topic is to present the current status in Member States on smart financing in renovation and to highlight examples of different instruments and mechanisms, with particular focus on de-risking and aggregation. Discussions have explored de-risking in energy efficiency operations to encourage participation of investors and the private sector. The reduction of perceived risks regarding energy efficiency investments is just one of the Member States' responsibilities outlined in Article 2a of the EPBD (Directive 2018/44/EU) as described in the general Introduction (Chapter 1).

Within the CA EPBD V work so far, it is seen that this is a topic of great interest in many Member States.

Review of Member States' experience on their current implementation of initiatives to facilitate funding for building renovation and discussion on activities to lower risks regarding investments in renovation.

There are several H2020 projects linked to de-risking, such as H2020 EuroPACE – Integrated Home Renovation Platform. The EuroPACE programme has been developed to offer technical assistance to its customers as well as access to short- and long-term financing. The programme is based on a US model; renovation is funded by a loan from the public authority, secured by a 'lien'¹ on the property.

The interactive exchange of experience (both successes and failures) has been instrumental to the work in the CA EPBD. For instance, the so-called Thinking hat method has been successfully used in exploring the various aspects of financing energy efficiency.

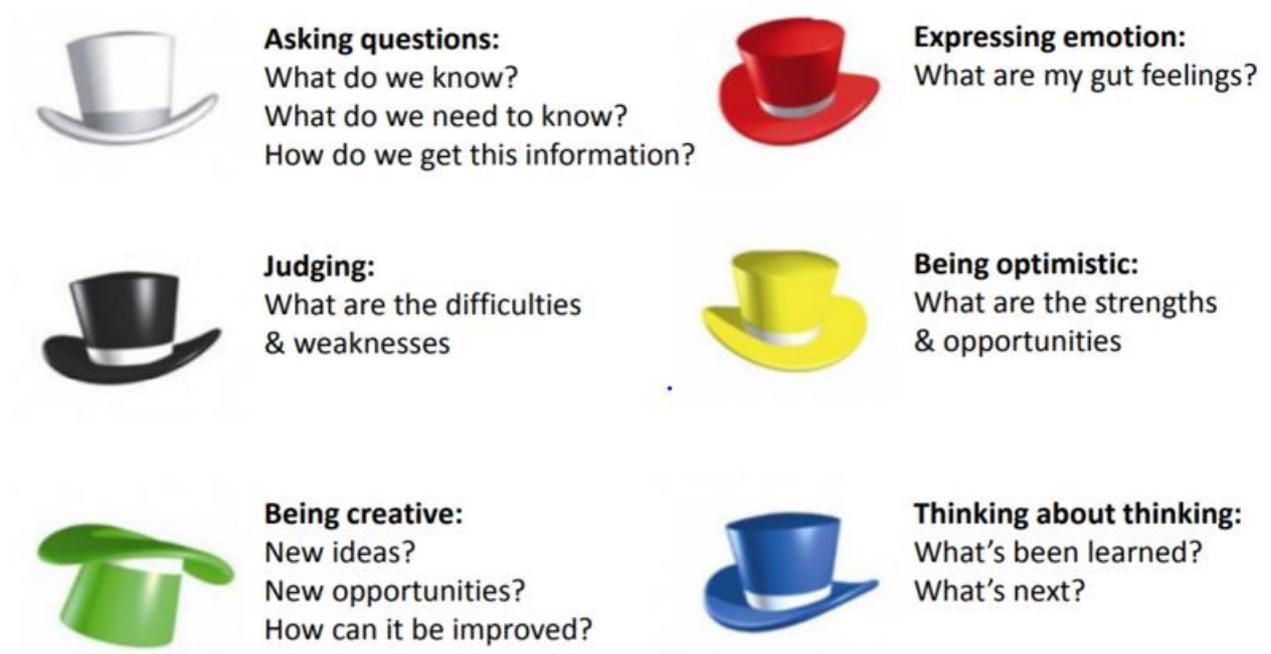


Figure – Edward de Bono's Six Thinking Hats, a tool for group discussion

Figure 1. Edward de Bono's Six Thinking Hats, a tool for group discussion.

White Hat – More examples of aggregation are needed, whilst considering whether the risk for banks is minimised by these.

Black Hat – Aggregation of projects is a challenge; will this lower the cost, and will financial institutions be more willing to finance? All schemes demonstrate a combination of commercial and European funds.

Green Hat – Discussion focused on value for money. It was also mentioned that medics in England are now prescribing boilers for health benefits.

Red Hat – It seems that a lot of experts are available in Portugal. The involvement of private banks and the number of professionals involved is encouraging. The banking sector now seems more agreeable to working with government agencies. However, as local situations vary a lot, it may not be easy to copy schemes between Member States.

Yellow Hat – It appears that a lot of money is available and lots of investors are looking for green projects; however, there is still a need to prepare the market correctly so that money flows towards energy efficiency in buildings. The focus should be on real emissions and savings, not those calculated.

Blue Hat – Happy to see that EPCs have been used for financing.

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| Highlights of 3.1 | <p>In June 2019, the topic of smart financing was well received among CA EPBD participants and discussions involved, for instance, the following reflections from the interactive part of the Plenary meeting:</p> <div style="text-align: center;"> <p>The figure consists of five rectangular boxes arranged in two rows. The top row has three boxes, and the bottom row has two boxes. Each box contains a quote from a participant.</p> </div> <p style="text-align: center;"><i>Figure 2. Reflections from the interactive part of the CA EPBD 2019 Plenary meeting on smart financing.</i></p> |
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| Main Outcomes of 3.1 |
| <p>Actions to tackle the renovation gap should not only focus on de-risking but also on aggregation, on development of a consistent regulatory framework and on improved use of public funds.</p> <p>There are many resources available to support energy efficiency financing, such as the De-risking Energy Efficiency Platform and the EEFIG Underwriting Toolkit. The Sustainable Investment Forum can also be used as an advisory body for Member States.</p> <p>Several Horizon 2020 projects are financed to accelerate the mobilisation of the investments on renovation, and Member States are encouraged to take full advantage of the results of such projects.</p> |

3.2 Smart financing - new public NZEB buildings

3.2.1 Introduction

The objective of this topic is to explore and encourage Member States to increase the use of different financing possibilities in the transition to NZEB buildings especially in the public sector. The goal is also to prioritise further needs for information on smart financing in the transition to new NZEB buildings.

Article 10 of the EPBD 2010/31/EU emphasises the importance of providing appropriate financing and other instruments to catalyse the energy performance of buildings and the transition to nearly zero energy buildings. Member States shall take the appropriate steps to consider the most relevant of such instruments in the light of national circumstances.

Directive 2010/31/EU states that after 31 December 2018, all new buildings occupied and owned by public authorities are nearly zero-energy buildings. According to this, Member States shall ensure that by 31 December 2020, all new buildings are nearly zero energy buildings.

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| Highlights of 3.2 | <p>Review of Member States' experience in utilising different financial instruments to boost and support NZEB buildings included the introduction of an obligation to renovate, tax incentives, loans depending on minimum requirements and building performance, and green bonds.</p> <p>Besides the Member States' presentations, participants were asked to reflect on the Critical Success Factors for financing of new public NZEBs by interactive means.</p> <div style="border: 1px solid #92d050; padding: 10px; text-align: center; margin: 10px 0;"> <p>Critical Success Factor – <i>'a factor or activity required for ensuring success of a company or organisation'</i></p> </div> <p>The Critical Success Factors identified by participants included:</p> <ul style="list-style-type: none"> • Renovation Pact – to engage all stakeholders in a single direction • One-stop shop – to collate all information • A focus on renovation • Funding for vulnerable individuals • Attracting the private sector • Having more than one approach and multiple incentives • Quality Assurance and the availability of a skilled workforce • Capacity in the building sector • Development of a sound business case |
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| Main Outcomes of 3.2 |
| <p>Based on a questionnaire run in autumn 2018, the majority of Member States who answered to the survey (15 out of 22) have already implemented financial mechanisms to support NZEB buildings. The most popular measures included subsidies, grants, loans and investment funding. Ten of the respondents also stated that other incentives or programmes have been set to mobilise the construction of new public sector NZEBs. These included guidance documents, discounts on land prices, research and pilot programmes, training programmes, information centres and an energy-efficient design label.</p> <p>Respondents highlighted that further examples of best practice and financing mechanisms would be useful for future CA EPBD work. Furthermore, CA EPBD V is seen as an excellent forum to broadly share experiences and, for instance, find partners for future projects.</p> <p>All in all, it seems that financing NZEBs is not the most critical issue in Member States; the challenge for most lies in finding financial mechanisms to boost renovation in existing buildings.</p> |

3.3 Accessible and transparent advisory tools and one-stop shops as an assistance instrument

3.3.1 Introduction

The objective is to boost renovations in terms of financing, with a focus on accessible and transparent advisory tools and one-stop shops as assistance instruments. The topic will provide examples of advisory tools and one-stop shops as well as corresponding H2020 projects while gathering information from all Member States in an organised poster session.

Article 2a (3) of the EPBD deals with mobilising investments into renovation in different ways. In this context, accessible and transparent advisory tools and one-stop shops are important assistance instruments.

Information requirements according to the EPBD are to provide information to owners or tenants concerning: methods and practices to enhance energy performance, energy performance certificates (EPCs), and inspection reports and their purpose and objectives.

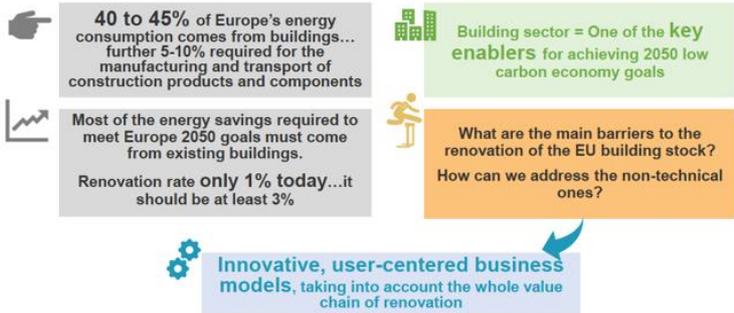
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| <p>Highlights of 3.3</p> | <p>From the presentations of H2020 projects Energies Positif and STUNNING, including the discussions hosted and after the small presentations given by selected Member States, clear conclusions were drawn as to what issues were surrounding the one-stop shop approach to energy retrofitting.</p> <p>There is a distinct issue with reaching the market and achieving economies of scale. As highlighted by both presenters, there is a real need for clarity and visibility of the financing surrounding the works to engage and gain trust with customers and clients. The knowledge transfer platform built in STUNNING is a great facility to see live case studies, like those completed by Ile de France (Energies Positif), and to retrieve and utilise previous work done to best address renovations in the future. This needs to be an approach that is facilitated throughout the European Union.</p> <p>Engaging the customer is the most important aspect to successfully implementing these business models, and to do that, the project needs to be beneficial, very accessible, value-adding and cost-worthy. Showing these aspects to clients would significantly increase trust between the cooperation and ultimately facilitate a larger market uptake through increased financing support.</p>  <p>The infographic consists of several colored boxes with text and icons. A grey box with a hand icon states: '40 to 45% of Europe's energy consumption comes from buildings... further 5-10% required for the manufacturing and transport of construction products and components'. A green box with a building icon states: 'Building sector = One of the key enablers for achieving 2050 low carbon economy goals'. A grey box with a line graph icon states: 'Most of the energy savings required to meet Europe 2050 goals must come from existing buildings. Renovation rate only 1% today...it should be at least 3%'. An orange box with a person icon asks: 'What are the main barriers to the renovation of the EU building stock? How can we address the non-technical ones?'. A blue box with a gear icon states: 'Innovative, user-centered business models, taking into account the whole value chain of renovation'. Arrows connect these boxes to show relationships.</p> |
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Figure 3. Context of the H2020 STUNNING project business case.

According to the poster presentations, Energy Performance Certificates (EPCs) are used and linked in various ways to the advisory tools and one-stop shops. The EPCs are either used as the basis for information, as a tool to present estimated savings, or as a way to gather information on implemented measures.

Main Outcomes of 3.3

- One-stop shops are an essential element in boosting renovations.
- Different business models exist.
 - Scaling up is not so easy (depending on the legal and fiscal context, the market readiness, etc.).
- Important to cover the whole value chain from planning to operation, including quality control.
 - Customised service package with technical solutions and financing.
- Important to offer a single contact point during the whole project.
- Multi-benefits: not just energy!
 - Better indoor climate, nicer homes, job creation.
- Consumer engagement is inevitable.

These subjects need to be further explored and discussed.

4. Main Outcomes

| Topic | Main discussions and outcomes | Conclusion of topic | Future directions |
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| Smart financing – de-risking and aggregation | For the financiers: de-risking, but also other supporting measures, project bundling, etc. Optimal use of private financing and public funding. | Member States are different, with differing instruments in use. Cooperation, understanding and exchange of information are important success factors. | Prioritising common interests |
| Smart financing and NZEB | | All new construction already on an NZEB level, as stipulated in the directive. Various financial instruments should be used to conduct demonstration projects on very energy efficient constructions and new innovations. | The use of different financial instruments need to be discussed further. |
| Advisory tools | Making use of existing tools and platforms, financial instruments, and mechanisms, as well as the results from H2020 projects. | | A key priority |
| Summary | The importance of financing is increasing as the need for energy efficient renovation grows. | There is a distinct need for exchange of experiences between Member States and a need to learn from examples (both successes and failures). | Further work on the theme of Financing and Information is needed to increase the volume of renovation and to enhance the energy efficiency of buildings. |

5. Lessons Learned and Recommendations

The topic Financing and Information has gained a lot of interest and participants consider the topic highly relevant also for future discussions.

5.1 Smart financing - deep renovation, de-risking and aggregation

It will be important to continue to discuss and share experiences on the various approaches taken by Member States to reduce the perceived risk seen by investors in energy efficiency measures. This seems to be central in order to increase private financing.

An example of a useful collaboration in this field is with the European Development Bank. It is also worthwhile to use and continue spreading the experiences of relevant EU (Horizon 2020) projects and mechanisms, e.g., DEEP (De-risking Energy Efficiency Platform) together with the EFIG (Energy Efficiency Financial Institutions Group), EIB (European Investment Bank), etc. Currently, many energy efficiency experts do not have a background and competence on financing as such; it might therefore be beneficial to also provide a 'basics' course or training (e.g., typical features of different financial mechanisms, vocabulary, etc.).

To successfully implement Article 2 a) of the EPBD, topics such as 'Aggregation of investments through public funding' and 'Guiding investments into an efficient public building stock, in line with Eurostat guidance' are still worth exploring further, possibly in connection with other issues including relevant information activities.

5.2 Smart financing - new public NZEB

All possible financial mechanisms should be used to fulfil the requirements for NZEB and to make sure of the quality of new buildings. All new construction should already be on the NZEB level, as stipulated in the directive. However, various financial instruments, including, for example, lower interests or higher subsidies, should also be used to conduct demonstration projects on very energy efficient constructions and new innovations.

5.3 Advisory tools and one-stop shops

The need and interest to continue the sharing of experiences and examples, especially in the field of different advisory tools and one-stop shops, still exists. They can provide excellent and effective platforms and tools to accelerate renovations. In particular, it would be valuable to receive more information on business models regarding advisory tools and one-stop shops.

5.4 Taking advantage and using existing tools and portals on financing

The situation between Member States varies, and thus no one-fits-all solution is possible. Each Member State has its own features, both regarding the financial market and the building sector. However, it is extremely important to utilise the available financial elements and mechanisms on the European level (H2020, EIB, ELENA, etc.). The Renovation Wave and flagship initiative under the EU Green Deal launched in May 2020 provides several EU programmes and financial instruments with support schemes that stimulate building renovation.

Member States' level of cooperation with the financial sector should increase to ensure a better understanding of the financial terminology. Examples of existing tools and platforms are EEFIG and DEEP, developed at the EU level, which lend a helping hand in this.

5.5 Collaboration with other central and cross-cutting themes

Since financing is strongly linked to all technical aspects and financial initiatives often work best as part of a package of measures, many topics addressed through the CA EPBD V cross cutting team Financing and Information are also linked to the CA EPBD V central teams for new and existing buildings. Many topics and activities therefore overlap with and complement those of other CA EPBD teams; indicative examples include one-stop shops and support for Long Term Renovation Strategies (LTRS).

5.6 Collaboration with other Concerted Actions

Financing and Information also plays a central role in the other Concerted Actions, i.e., CA EED and CA RES. Certain overlap and complementary relationships may therefore be expected between CA EPBD, CA EED and CA RES, particularly when addressing topics such as energy poverty, information tools, etc. The joint in-depth workshop in Barcelona in January 2020 enlightened and broadened the understanding of common possibilities and cross-cutting issues between the three CAs. All welcomed the expansion of the Concerted Action network and hoped that the cooperation continues in the future. The closing session in Barcelona ended with a quick online participants survey to identify topics for future cooperation. Cross-cutting implementation, and monitoring and reporting were voted the highest, followed by the alignment of definitions, regional cooperation and blended financing.

Figure 4 presents the output of the questionnaire by participants at the joint in-depth workshop of 2020 based on the question: Which financial topics do you consider to be most relevant in the future?

The due date for Member States to submit their Long Term Renovation Strategy (LTRS) was 10 March 2020. The national LTRs are an important input to the 'Renovation Wave' initiative, announced as part of the European Green deal, which aims to take further action and create the necessary conditions to scale up renovations and reap the significant saving potential of the building sector. One of the key elements in the LTRs is financing-related instruments and mechanisms, and thus it is necessary to share lessons learnt and exchange experiences regarding financing-related elements in future work of the CA EPBD V.

6. Endnotes

1. A legal claim; a charge upon real or personal property for the satisfaction of some debt or duty.



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