



D4.2: SMAFIN EXPANDED NATIONAL ROUNDTABLES

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THE REPORT AT A GLANCE

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EXECUTIVE SUMMARY

The 1st round of national roundtables under the **SMAFIN Expanded project in 2024** brought together key stakeholders from five EU Member States—**Bulgaria, Croatia, Greece, Romania, and Slovenia**—to accelerate the implementation of **smart financing solutions** for energy efficiency investments across residential, public, and tertiary buildings.

Through diverse formats, including plenary panels and parallel sessions, over 500 stakeholders—representing public authorities, financial institutions, private sector actors, and civil society—explored strategies to unlock investments, improve technical assistance, and address pressing issues like energy poverty. Discussions also addressed integrating new financing tools such as on-bill mechanisms, enhanced technical standards, support for energy communities, and the use of digital tools and renovation passports.

The roundtables identified national-specific barriers and common European challenges, including the overreliance on grants, fragmented governance, and the need for long-term financing frameworks. Recommendations from each country will inform future national action plans and EU-level dialogue on energy efficiency financing.

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1. INTRODUCTION

The SMAFIN Expanded project (2023–2026), co-funded by the EU LIFE Programme, aims to promote smart financing implementation for clean energy investments in the building and SME sectors. Building on the success of the original SMAFIN project (2020–2023), this expanded initiative includes Slovenia as a new participant and focuses on deepening cross-country collaboration and national stakeholder engagement.

As part of Work Package 4, the first national roundtables 2024 took place in Bulgaria, Croatia, Greece, Romania, and Slovenia, each addressing country-specific energy renovation challenges. These events fostered inclusive, evidence-based dialogue among diverse stakeholder groups to co-create practical recommendations and scalable financial tools. The roundtables were structured around thematic priorities such as developing and mainstreaming innovative financing mechanisms (e.g., ELENA, on-bill financing, energy performance contracting), supporting the design and implementation of national energy renovation programmes, strengthening public-private collaboration, addressing technical capacity gaps and improving programme governance, and more.

The minutes of the first round of national roundtables in each SMAFIN Expanded country are available in the following chapters.

2. BULGARIA

2.1 1ST SMAFIN EXPANDED NATIONAL ROUNDTABLE IN BULGARIA

On November 13, 2024, EnEffect Consult hosted the 1st SMAFIN Expanded National Roundtable in Bulgaria. Supported by the Sustainable Energy Development Agency, the Center for Energy Efficiency EnEffect, the Bulgarian Association of Energy Agencies, Renovate Bulgaria and Cleantech Bulgaria, the hybrid event occurred at the “Hemus” Hotel in Sofia and was streamed online. It brought together policymakers, industry experts, financial institutions, and stakeholders from various sectors, focusing on advancing sustainable financing strategies and implementing energy efficiency policies for residential and public buildings.

The roundtable gathered 93 participants, including 22 expert speakers, 2 moderators, and 69 attendees. It highlighted the SMAFIN Expanded project’s mission to promote smart financing for energy efficiency investments, building on the success of previous initiatives like BeSMART and SMAFIN. Leveraging experience from 12 roundtables held in Bulgaria between 2021 and 2023, the event aimed to expand discussions to tackle evolving challenges in sustainable energy financing.

The roundtable addressed the theme “Energy Efficiency Policies for Buildings: In Search of Sustainability, Quality, and Predictability” and focused on three main topics:

- New financing models for energy efficiency renovation,
- Energy efficiency indicators,
- Tools and instruments supporting sustainable financing for zero-emission buildings.

There was also a closed session for financial institutions and commercial banks to finance investments in sustainable energy projects. Overall, the event emphasised the shortcomings of grant-dependent, campaign-driven policies and the risk of eroding trust among homeowners and professionals, potentially undermining national renovation policies for years.

BACKGROUND

Buildings account for a significant share of energy consumption in Bulgaria, making energy efficiency improvements essential to achieving the country’s 2030 ambitious climate targets: 34,48% share of renewable energy and a 10,7% reduction of final energy compared to the 2020 reference scenario. While various renovation programmes have been implemented, challenges like reliance on public funding and process inefficiencies have slowed progress. Less than 20 days after the Parliamentary elections, the SMAFIN Expanded roundtable on sustainable energy financing highlighted the pressing issue of sustainable renovation for multifamily residential buildings. Currently, buildings selected under both stages of the renovation programme under the National Recovery and Resilience Plan (RRP) are still awaiting administrative and procurement procedures under local authorities' guidance. With Bulgaria at risk of losing significant funding from the Recovery and Resilience Mechanism due to insufficient reforms, the potential failure of the programme, scheduled for completion in the next 18 months, raises concerns about excessive reliance on grant-based policies. A collapse of the programme would compromise current efforts and erode trust among homeowners and professionals, undermining national renovation policies for years to come.

The event highlighted several pressing challenges Bulgaria faces in advancing its building energy efficiency and renovation goals. One major hurdle is the insufficient and unpredictable financing mechanisms. The heavy reliance on public grants has created a bottleneck, limiting the scalability

of projects and generating uncertainty when funding runs out. This lack of long-term financial frameworks hinders the ability to sustain energy-efficient renovations nationally. Furthermore, inefficiencies in project preparation and execution exacerbate the situation. Overlapping programme deadlines, excessive documentation requirements, and stop-start cycles in renovation programmes disrupt the market's stability, making it difficult to retain skilled professionals across the entire value chain.

AGENDA

TABLE 1: AGENDA 1ST ROUNDTABLE IN BULGARIA

TIME	TOPIC
09:00 – 09:15	Welcome Address and Opening of the Plenary Zdravko Georgiev (ABEA), Yordan Nikolov (Renovate Bulgaria and BACIW), Dragomir Tzanev (EnEffect)
09:15 – 09:45	The Integrated National Energy and Climate Plan and Building Renovation Programmes Kalina Stoycheva, Ministry of Regional Development and Public Works Ivaylo Aleksiev, Sustainable Energy Development Agency
09:45 – 10:00	Structuring Financial Instruments to Support the Renovation of the Residential and Public Buildings Iljana Ivanova, Fund of Funds
10:00 – 10:20	Objectives and Challenges for the Renovation of the Building Stock in Europe Adrian Joyce, Renovate Europe
10:20 – 10:40	Advancing Sustainable Financing for Deep Energy Renovations and Zero-Emission Buildings: Key Provisions in the Amended EPBD Julien Tami, European Commission
10:40 – 10:55	The Revised Integrated National Energy And Climate Plan: Another Missed Opportunity? A Roadmap For Accelerated Low Carbon Deployment In Bulgaria By 2050 Martin Vladimirov, Center for the Study of Democracy
10:55 – 11:15	Flattening the peak demand curve through energy-efficient buildings Dimitar Kolichev, EURIMA
11:15 – 11:25	Discussion
11:25 – 11:45	Coffee break
11:45 – 13:00	Panel Discussion 1: Energy-Efficient Renovation Financing Models Developed for Bulgaria Moderator: Dragomir Tzanev, EnEffect Panel Participants:

	▪ Ivan Krofak, <i>World Bank</i> ▪ Mariana Hamanova, <i>Cleantech Bulgaria</i> ▪ Lyuba Nikiforova, <i>EERSF</i> ▪ Tsveta Nanyova, <i>BACC</i> ▪ Marko Markov, <i>Econoler Bulgaria</i>
13:00 – 14:00	Lunch Break
14: 00 – 15.00	Panel Discussion 2: Indicators for Energy Efficiency Moderator: Stanislav Andreev, EnEffect Consult Panel Participants: ▪ Lyudmil Kostadinov, <i>Sustainable Energy Development Agency</i> ▪ Tsvetomira Kulevska, <i>Sustainable Energy Development Agency</i> ▪ Dragomir Tzanev, <i>EnEffect</i>
15:00 – 15:20	Coffee break
15:20 – 16:20	Panel Discussion 3: Supporting Sustainable Financing for Zero-Emission Buildings Moderator: Stanislav Andreev, EnEffect Consult Panel Participants: ▪ Ivaylo Aleksiev, <i>SEDA</i> ▪ Kalina Trifonova, <i>EVN</i> ▪ Jordan Nikolov, <i>BACIW and Renovate Bulgaria</i> ▪ Stanislav Andreev, <i>EnEffect</i> ▪ Todor Popov, <i>Gabrovo Municipality</i> ▪ Petar Kamburov, <i>BSERC</i>
16:20 – 16:40	Conclusions and Closing of the Roundtable

WELCOME AND OPENING PLENARY

Dragomir Tzanev, Executive Director of Center for Energy Efficiency EnEffect

The event commenced with opening remarks emphasising the importance of persistence and collaboration in advancing energy efficiency initiatives. Mr Tzanev highlighted that the challenges of implementing sustainable building renovation policies require sustained efforts and constructive dialogue among stakeholders. He also noted the event's focus on aligning Bulgaria's energy efficiency strategies with broader EU goals while addressing national specifics.

Zdravko Georgiev, Vice-chairman of the Association of Bulgarian Energy Agencies

Zdravko Georgiev underlined the event's significance, which will continue with the association's 18th annual conference. He reflected on the agencies' longstanding role in supporting local and national policies in energy efficiency, sustainable energy, and environmental management. Mr Georgiev expressed optimism about the roundtable's outcomes and its potential to drive meaningful decisions at the national level.

Yordan Nikolov, Executive Director of Renovate Bulgaria

Yordan Nikolov welcomed the participants and emphasised the importance of uniting efforts across organisations and stakeholders. He outlined the pressing task of integrating the amended EPBD into Bulgarian legislation. Mr Nikolov highlighted that achieving the directive's ambitious targets would require sustained, cooperative efforts over the coming years. He also stressed creating practical, achievable strategies that balance ambition with Bulgaria's national circumstances.

After the opening words, Dragomir Tzanev presented the speakers of the plenary session and gave the floor to the panellists.

Speaker: Ivaylo Aleksiev, Executive Director, Sustainable Energy Development Agency.

Presentation: Integrated Energy and Climate Plan of Bulgaria and building renovation programmes

The presentation outlined Bulgaria's national strategic documents and their alignment with EU energy efficiency goals. He emphasised the challenges and opportunities in meeting the EU's energy efficiency and renewable energy targets, including the need for nearly zero-energy buildings and the transition towards net-zero emission buildings. Mr Aleksiev also discussed the difficulties of implementing these goals, particularly in existing buildings, and the importance of combining energy efficiency measures with renewable energy technologies to achieve a sustainable future. He also summarised the lessons learned during the renovation process:

1. Most projects are implemented through funding that provides a 100% grant, but the procedures are highly complex.
2. Resources are exhausted, and the renovation operates in a "start-stop" manner. This makes it challenging to maintain skilled personnel throughout the entire value chain.
3. Specific financing requirements create competition based on scoring systems rather than on the quality of the projects.
4. Programmes open for a defined (short) period, with many applicants but few getting selected.

Kalina Stoycheva, Expert Strategic planning and programming, Ministry of Regional Development and Public Works

Presentation: Opportunities to support energy efficiency

Kalina Stoycheva shared insides about the "Regional Development Program" 2021-2027, focusing on its efforts to support energy efficiency in buildings across Bulgaria. She highlighted funding opportunities available through the programme for municipalities, enterprises, and public buildings, emphasising key measures such as installing renewable energy systems, energy audits, and energy-efficient renovations. Mrs Stoycheva also underlined the programme's goals to reduce energy consumption and greenhouse gas emissions, improve the energy performance of buildings, and create sustainable energy communities. She also stressed the importance of financial instruments, including grants and ESCO services, to help achieve these goals.

Iliana Ivanova, Deputy Head of Debt Financial Instruments Department, Fund of Funds

Presentation: Financial instruments for energy efficiency

The presentation highlighted the financial instruments available for energy efficiency projects during the 2021-2027 programming period. The focus was on innovative financial mechanisms, including portfolio guarantees and blended financing combining grants and loans. These tools

support energy efficiency measures in enterprises and municipal buildings, focusing on SMEs, public institutions, and multi-family residential buildings. The financial instruments aim to lower the risk for banks, improve access to financing for high-risk projects, and support renewable energy integration in building renovations. The presentation also detailed the eligibility criteria, funding conditions, and expected outcomes for public and private sector projects.

Adrian Joyce, Campaign Director of the Renovate Europe Campaign

Speech on topic: Objectives and Challenges for the Renovation of the Buildings Stock in Europe

Adrian Joyce emphasised the urgent need to increase buildings' deep energy renovation rate to 3% annually across Europe. He discussed key aspects of the recast Energy Performance of Buildings Directive (EPBD), including the requirement for zero-emission buildings by 2050 and the roll-out of one-stop shops to assist building owners. Mr Joyce stressed the importance of public-private collaboration, innovative financing approaches, and multiannual funding schemes to support large-scale building renovation efforts and achieve climate goals.

Julien Tami, Policy Officer, DG Energy EU

Presentation: Energy Performance of Buildings Directive (EPBD) recast

Julien Tami discussed the EU's climate and energy goals, mainly focusing on the "Fit for 55" package, which aims to reduce greenhouse gas emissions by 55% by 2030. He highlighted the importance of achieving energy-efficient building renovation and the role of the Energy Performance of Buildings Directive in driving the transformation of the European building stock. Mr Tami also outlined the financial instruments and technical support available for energy-efficient renovations, emphasising the need for public-private partnerships, creating one-stop shops, and mobilising investments to meet the EU's ambitious goals.

Martin Vladimirov, Director of Energy and Climate Programme, Center for the Study of Democracy

Presentation: Roadmap for accelerated implementation of low-carbon technologies in Bulgaria by 2050

Martin Vladimirov presented a roadmap for accelerated implementation of low-carbon technologies in Bulgaria until 2050. He focused on the long-term vision for decarbonisation and the energy transition, including targets for renewable energy and energy storage. Mr Vladimirov presented projections for electricity production and consumption, emphasising the need for substantial investment in renewables, particularly wind and solar power, and modernising Bulgaria's electricity grid. He highlighted the importance of energy efficiency in achieving national and EU climate goals, focusing on integrating decentralised energy production and smart energy systems.

Dimitar Kolichev, Energy & Climate Manager, EURIMA

Presentation: Flattening the Peak Demand Curve through Energy Efficient Buildings: A Holistic Approach to Net Zero Carbon Emissions

Dimitar Kolichev highlighted the importance of energy-efficient buildings in addressing peak electricity demand and supporting the energy transition in Europe. The study discussed the potential of energy-efficient buildings to reduce peak demand, improve grid stability, and lower energy costs. It also examined the role of widespread renovations in optimising energy infrastructure, enhancing energy security, and reducing the reliance on fossil fuels. The findings

stressed that prioritising energy efficiency could significantly contribute to achieving climate neutrality while minimising overall system costs.



FIGURE 1: SNAPSHOTS FROM THE OPENING PLENARY SESSION

PANEL DISCUSSION 1: ENERGY EFFICIENT RENOVATION FINANCING MODELS DEVELOPED FOR BULGARIA

Moderator: Dragomir Tzanev, Executive Director of Center for Energy Efficiency EnEffect

The panel included five speakers. The main content of the presentations/speeches is presented hereafter.

Speaker: Ivan Krofak, World Bank

Bulgaria must diversify funding sources for building renovation, shifting from reliance on public grants to leveraging private capital through financial instruments like green bonds and renovation loans. Despite significant public funding under the National Recovery and Resilience Plan, the financing gap remains substantial, with only a fraction of renovation needs met by 2030. Strategies should include better targeting energy poverty measures, integrating social aspects, and adopting innovative models like performance-based capital rebates to combine loans and grants. Thermal renovation is essential for reducing energy demand and is a prerequisite for deploying sustainable heating technologies like heat pumps.

Speaker: Mariyana Hamanova, Cleantech Bulgaria

The discussion focused on developing financial instruments and banking products to support energy-efficient renovations in multifamily residential buildings in Bulgaria. Such aim is to stimulate private investments and improve public financing for energy efficiency upgrades by creating risk-sharing mechanisms and loan guarantees. Mrs Hamanova also presented findings from surveys conducted with households and commercial banks, highlighting the demand for financing and the willingness of owners to participate in co-financed energy efficiency programmes. She emphasised the potential of such instruments and products to replicate their national and international success, contributing to Bulgaria's transition to a greener economy.

Speaker: Luba Nikiforova, Energy Efficiency and Renewable Sources Fund

Mrs Nikofova outlined a proposed co-financing mechanism for energy efficiency in Bulgaria, leveraging existing institutional structures to minimise the need for new reforms. She highlighted the need to transition from reliance on 100% grant funding, emphasising that market-based investments in energy efficiency can provide measurable and guaranteed savings. The mechanism includes three components: 1) grants covering up to 40% of project costs and initial technical assistance, 2) low-interest loans guaranteed through public resources, and 3) targeted support for

vulnerable households using existing social assistance frameworks. Additionally, specialised intermediaries are emphasised to ensure professional project management and quality assurance. This integrated approach effectively combines public and private resources while fostering long-term energy efficiency and addressing energy poverty.

Speaker: Tzveta Nanyova, BAAC

In her presentation, Tsveta Nanyova from BAAC discussed the challenges and solutions for implementing mixed financing models in building renovations, mainly focusing on the role of One-Stop Shops (OSS). She outlined the systemic problems that have hindered progress, such as delays in reforms and the shift of responsibilities to building owners, often without sufficient capacity. Mrs Nanyova also presented practical solutions for overcoming these issues, including support agreements, transparent budgeting, and technical guidance. She highlighted the importance of co-financing, technical assistance, and improved communication to ensure successful project implementation.

Speaker: Marko Markov, Econoler

Marko Markov highlighted challenges in implementing 100% grant-funded initiatives, referencing Martin Vladimirov's presentation on the barriers created by state policies. He emphasised the inefficiency of such an approach, which depletes significant resources. Instead, Markov noted a growing willingness among banks to finance decarbonisation measures, citing examples such as the European Investment Fund, EBRD, BBR, and InvestEU, which offer portfolio guarantees with up to 80% guaranteed exposure, providing confidence to financial institutions. He also mentioned the commitment of organisations like the World Bank and Inter-American Development Bank to allocate \$120 billion annually for decarbonisation and climate-related activities. Despite these efforts, a substantial portion of financing still relies on grants. Still, Markov affirmed that Bulgaria cannot avoid aligning with this global trend toward leveraging both public and private resources for sustainability.

STAKEHOLDERS VIEWS

- Support for integrated approaches: Municipalities generally support policies that create clear frameworks for renovation, focusing on long-term sustainability. However, they have expressed concerns about transferring responsibility to building owners without adequate support, as they may be unable to manage the renovation process effectively.
- Financial support is essential: Homeowners, particularly those in multifamily buildings, appreciate government funding but are generally wary of taking on the financial burden of co-financing. They argue that energy efficiency renovations should not be solely on their shoulders, especially for low-income households.
- Need for technical assistance: There is significant support for One-Stop Shops (OSS), as homeowners see them as critical to navigating the technical and financial aspects of the renovation process. They value professional support and clarity in accessing funding.

CONCLUSIONS – MAIN OUTCOMES

- Many stakeholders, especially homeowners and municipalities, call for capacity building and technical assistance to facilitate the energy renovation. One-Stop Shops (OSS) and other support systems should be scaled up to ensure technical guidance is available throughout the renovation process. Training and certifications for professionals in the field of energy efficiency are also needed to ensure that the right expertise is available to support the projects.

- The transition to energy-efficient buildings requires a long-term strategy focusing on immediate funding and sustainable practices. Stakeholders agree that 100% public grants for renovation projects are not sustainable in the long term, and a co-financing model that combines public support with private investment should be the focus moving forward. Energy efficiency should be integrated into broader urban development and national energy strategies to ensure its long-term success.



FIGURE 2: SNAPSHOTS FROM THE PANEL DISCUSSION 1

PANEL DISCUSSION 2: INDICATORS FOR ENERGY EFFICIENCY

Moderator: Stanislav Andreev, EnEffect Consult Ltd.

Speaker: Lyudmil Kostadinov, Sustainable Energy Development Agency

Mr Kostadinov stressed the importance of energy efficiency indicators to monitor trends, evaluate the impact of policies, and identify energy-saving potentials. These indicators are critical for developing strategies, action plans, and international comparisons of energy efficiency levels. Key metrics include primary and final energy consumption, energy intensity in various sectors (such as households, transport, and industry), and the ODEX composite index, which measures overall improvements in energy efficiency.

Speaker: Tsvetomira Kulevska, Sustainable Energy Development Agency

Tsvetomira Kulevska aimed to showcase the capabilities and significance of the ODYSSEE-MURE project and database. She highlighted how the database evaluates energy efficiency policies and measures across sectors, compares progress within the EU, and identifies impactful policies. By focusing on harmonised data collection, policy mapping, and tools for assessing multiple benefits and successful measures, she emphasised its utility for national planning, particularly in the Integrated National Energy and Climate Plan (NECP) context. The presentation also underscored Bulgaria's role in contributing to EU-wide efforts for energy efficiency and climate neutrality.

Speaker: Dragomir Tzanev, Center for Energy Efficiency EnEffect

The presentation focuses on enhancing the capacity of EU member states to calculate and report energy savings in alignment with the updated Energy Efficiency Directive. It fosters knowledge sharing and collaboration among countries such as Bulgaria, Austria, Belgium, and Croatia. Czechia, Greece, Lithuania, Portugal and Slovenia. Priority areas include building renovations, industrial technologies, and energy savings in transport, heating, and cooling. The effort aims to develop updated and new methodologies for calculating energy savings, facilitate stakeholder discussions, and offer expert support to participating countries. It emphasises the public sector,

energy communities, and zero-emission urban areas, providing practical guidance on savings from renewable technologies, efficient lighting, and behavioural measures to combat energy poverty. The initiative supports the EU's energy and climate objectives by promoting collaboration and delivering actionable policy insights.

STAKEHOLDERS VIEWS

- Support for energy efficiency metrics: Stakeholders need straightforward, reliable indicators to monitor trends, assess policy impacts, and identify energy-saving potentials. These metrics are vital for strategic planning, international comparisons, and developing action plans tailored to sector-specific needs.
- Utility of harmonised tools: There is strong support for harmonised databases and methodologies like the ODYSSEE-MURE project. These tools provide valuable insights for evaluating policies, tracking progress, and enhancing collaboration across EU nations. They also aid in aligning national plans with broader EU energy and climate goals.
- Challenges in calculating energy savings: Participants stressed the importance of developing updated and accurate methodologies for reporting energy savings. This includes addressing technical gaps and fostering stakeholder capacity-building to improve compliance with directives.

CONCLUSIONS – MAIN OUTCOMES

- Metrics such as primary and final energy consumption, energy intensity, and the ODEX composite index are essential tools for engaging stakeholders. They provide a clear, data-driven basis for monitoring trends, evaluating policy impacts, and identifying energy-saving potentials, ensuring informed decision-making across sectors.
- Efforts to enhance methodologies for calculating energy savings, as highlighted by the Energy Efficiency Directive, ensure that stakeholders can accurately report and leverage energy savings data. This builds credibility and empowers stakeholders, particularly in priority areas such as building renovations and industrial technologies.
- Demonstrating benefits enhances stakeholder engagement: Clear communication of measurable outcomes, such as reduced energy consumption, cost savings, and climate benefits, motivates stakeholders to invest in sustainable energy efficiency projects. Practical guidance on implementing renewable technologies, efficient lighting, and behavioural measures further ensures the success and scalability of these initiatives.

PANEL DISCUSSION 3: KNOWLEDGE AND SKILLS FOR ZERO-EMISSION BUILDINGS AND BUILDING RENOVATION

Moderator: Stanislav Andreev, Managing Director, EnEffect Consult Ltd.

Speaker: Ivaylo Aleksiev, Sustainable Energy Development Agency

Mr. Aleksiev highlighted the lengthy and complex process of developing EU directives, including extensive dialogue with the member states. He emphasised that while directives contain explicit mandatory provisions, they also allow flexibility in national implementation. Discussions at events like the current one are essential for shaping Bulgaria's approach to defining zero-emission buildings definition, which is critical for attracting sustainable financing, as it provides clarity and stability for investors.

Speaker: Kalina Trifonova, EVN Bulgaria

Mrs Trifonova underscored the potential of energy communities as a strong foundation for achieving decentralised energy systems closer to production and consumption. She explained that Bulgaria is still operating within the comfort of a regulated market, unlike Austria, which has experience with over 1,000 citizen energy communities. Decentralised energy distribution can unlock new financing models by improving the efficiency and resilience of energy distribution networks. Still, a comprehensive approach is required to consider the grid and the energy communities.

Speaker: Yordan Nikolov, Renovate Bulgaria and Bulgarian Association for Construction Insulation and Waterproofing (BACIW)

Mr Nikolov discussed the challenges of achieving zero-emission buildings, particularly in retrofitting existing ones. He emphasised integrating renewable energy and smart systems into new building projects to meet investor expectations. He called for targeted financial and technical support programmes to overcome the complexity of retrofits and attract private-sector financing.

Speaker: Todor Popov, Municipality of Gabrovo

Mr Popov highlighted the deficit of trust between citizens and local and national authorities as a significant barrier to investment in energy efficiency. He pointed out the paradox where people do not fully utilise existing housing while new constructions continue. He argued that financial factors are not the primary issue but lack consistent and parallel policies. Building trust through better communication and engagement is essential to foster broader participation and align financial resources with stakeholder needs.

Speaker: Petar Kamburov, Black Sea Research Energy Center

Mr. Kamburov described the development of the Smart Readiness Indicator (SRI) methodology as a tool to standardise and enhance the marketability of smart building projects. While SRI provides a framework for showcasing technical and operational benefits, its successful adaptation in Bulgaria will require substantial institutional support. Leveraging SRI could help attract public and private investments, enhancing the financial viability of smart solutions.

STAKEHOLDERS VIEWS

- Zero-emission buildings and financing readiness: To support sustainable financing, stakeholders advocate for mandatory renewable energy infrastructure and smart systems in new buildings to improve project viability for green investors. Retrofitting existing buildings requires targeted financial programmes, including grants and blended financing, and a skilled workforce capable of implementing these complex renovations efficiently.
- Energy communities as drivers of sustainable financing: Energy communities are essential for decentralised energy systems that link production and consumption. Stakeholders stress that integrating these communities into financing models can attract investments by demonstrating efficiency gains in the distribution network, especially in transitioning markets like Bulgaria. Strong political support, legislative adaptation, and the availability of skilled facilitators and technical experts to develop and manage these systems are essential to achieve this.
- Policy alignment to secure sustainable funding: Inconsistent policies undermine stakeholder confidence. A coherent and stable policy framework is needed to support energy-efficient and innovative building projects, creating an attractive environment for homeowners, developers, and financial institutions. Policymakers should also prioritise

funding for workforce training programmes to ensure a pipeline of skilled professionals to meet future project demands.

CONCLUSIONS – MAIN OUTCOMES

- The transition to zero-emission buildings and energy-efficient renovations requires a highly skilled workforce. Stakeholders agree on the need for specialised training programmes focusing on zero-emission technologies, energy efficiency, and renewable energy integration in building renovations. The lack of qualified professionals in these fields remains a significant barrier, and there is strong support for enhancing technical education and professional certifications.
- There is broad recognition of the importance of training and upskilling, especially for smaller contractors and professionals in rural or economically disadvantaged areas. Public and EU funding is seen as essential to ensuring that training initiatives reach all sectors of the workforce, which will lead to better project quality.
- Embedding zero-emission building skills into a long-term national strategy that aligns with EU climate goals is essential. Education curricula and job profiles must reflect the future needs of the building sector, ensuring that professionals are equipped to implement advanced technologies and practices. This preparedness is critical for designing and executing projects that maximise energy savings and financial returns, thereby attracting sustainable financing and ensuring the effective use of resources.

CONCLUSIONS & MAIN OUTCOMES

Representatives from the public and private institutions in the financial sector will explore opportunities for involving banks in building renovation by developing dedicated financial instruments. A key challenge identified was the significant investment required to establish new specialised banking products, making them feasible for commercial banks only if they expect large investment volumes not interrupted by campaigning programmes offering excessive grant components. This highlights the critical need for designing financial instruments that are sufficiently robust, have a solid long-term perspective, and are scalable enough to attract commercial banks' interest. Collaborative efforts between national policymakers, financial institutions, and industry stakeholders are essential to address these concerns. By ensuring that financial tools are both impactful and economically viable, the building renovation process can gain the necessary support from the financial sector to accelerate its implementation and achieve sustainability goals.

MEDIA COVERAGE

<https://www.bloombergtv.bg/a/16-biznes-start/137363-ako-imashe-sanirane-v-balgariya-nyamashe-da-se-nuzhdaem-ot-nova-aets-i-stari-tets>

The article highlights the importance of energy efficiency and building renovation in Bulgaria, focusing on the insights shared by Dragomir Tzanev. Tzanev emphasised that if Bulgaria had a more widespread building renovation programme, the country would not need to rely on new power plants and outdated technologies. Instead, energy efficiency improvements could significantly reduce energy demand, contributing to long-term sustainability goals. A key challenge identified was substantial investments in renovating existing buildings, requiring comprehensive financial support. Tzanev stressed the importance of designing financial instruments that are not only robust but also scalable to attract private investment, ensuring that the building renovation process is both economically viable and sustainable. By integrating energy efficiency into the broader strategy for

sustainable development, Bulgaria could reduce its dependency on new energy sources and enhance the quality of life for its citizens. Ultimately, collaboration between public policymakers, financial institutions, and industry stakeholders is essential for achieving these goals and ensuring the success of the renovation initiatives.

All material related to the 1st National Roundtable in Bulgaria is available at the following link:
<https://www.smafin.eu/1st-smafin-expanded-national-roundtable-in-bulgaria/>

3. CROATIA

3.1 1ST SMAFIN EXPANDED NATIONAL ROUNDTABLE IN CROATIA

On May 15, 2024, **REGEA** and the **Green Building Council Croatia** hosted the GBC Live National Roundtable, “**Sustainable Finance and Implementation of Energy Efficiency Projects**” at the Esplanade Hotel in Zagreb. The event addressed sustainable finance strategies and the effective implementation of energy efficiency projects, featuring 252 participants, including 7 expert speakers, 8 panellists, 6 moderators, and 231 attendees. Interactive sessions and valuable networking opportunities were part of the event, contributing to continuous professional development. Key topics included:

- SMAFIN Expanded project presentation.
- Overview of sustainable finance framework: ESG, EU Taxonomy and ESG.
- Plans for renovations and energy efficiency in Croatia.
- Access to finance: financing climate-neutral and climate-resilient buildings.
- Construction sector potential for decarbonisation and energy savings.
- New technologies for energy efficiency and building renovations.
- Support mechanisms for project preparation.
- Technical standards and guidelines for energy renovation of buildings.
- Citizens and energy poverty.

BACKGROUND

Buildings consume about 40% of total energy, making their energy efficiency crucial for reducing consumption and CO₂ emissions. Most Croatian buildings constructed before 1987 lack proper thermal insulation, leading to significant heat losses and high energy use, placing them in energy class E. Improving energy efficiency involves enhancing thermal protection and the efficiency of heating, cooling, ventilation, lighting, and electrical systems and utilising renewable energy sources. Furthermore, the integration of EU Green Deal objectives remains central to Croatia's 2030 National Development Strategy, focusing on enhancing industrial competitiveness, promoting energy renovation in multi-apartment buildings, and addressing energy poverty. In 2014, the Government of the Republic of Croatia adopted energy renovation programmes to reduce energy consumption in buildings nationwide and decrease CO₂ emissions. These programmes cover various types of buildings: family houses, multi-apartment buildings, commercial non-residential buildings, and public buildings. The energy renovation programmes were supported by co-financing schemes from the State budget, Recovery and Resilience Facility (RRFRRF) and European funds within the Operational Programme Competitiveness and Cohesion 2021-2027 (RRFOPCC), depending on the building's purpose. From 2014 to 2020, numerous energy renovation projects were implemented, achieving a building renovation rate of 0.7%, or 1.35 million m² per year. By 2030, the goal is to increase the renovation rate to 3%. Therefore, a Long-Term Strategy for the Renovation of the National Building Stock up to 2050 has been prepared, and renovation programmes are also included in the Integrated National Energy and Climate Plan for 2021-2030. In this evolving landscape, SMAFIN Expanded National Roundtable is a platform for collaborative action, facilitating discussions on financing mechanisms, policy implementation, energy efficiency and building renovation best practices.

AGENDA

TABLE 2: AGENDA 1ST ROUNDTABLE IN CROATIA

TIME	TOPIC
08:30 – 09:00	Registration of participants
09:00 – 09:15	Ceremonial Opening of the Conference Dean Smolar , CEO, GBC Croatia Julije Domac , Director, REGEA
09:15 – 09:45	Keynote Presentation: Overview of Sustainable Finance – EU Commission, ESG, EU Taxonomy Ursula Hartenberger , Secretary General, Climate Positive Europe Alliance (CPEA)
09:45 – 10:10	Energy Renovation Plan in the Republic of Croatia Irena Križ Šelendić , Director of the Directorate for Energy Efficiency in the Buildings Sector, European Union Projects and Programmes, Ministry of Physical Planning, Construction and State Assets (MPGI)
10:10 – 10:25	ESCO model in energy renovation of buildings Damir Vuletić , Head of Department for Energy Renovation of Public Sector Buildings, Croatian Real Estate Agency (APN)
10:25 – 10:45	EIB support for energy efficiency projects Andreas Piontek , Senior Energy Expert, European Investment Bank (EIB)
10:45 – 11:00	Loan programmes for energy efficiency renovation Suzana Laušin-Katanec , Director of the Credit Sector, Croatian Bank for Reconstruction and Development (HBOR)
11:00 – 11:30	Break
11:30 – 12:30	Panel Discussion 1: Construction sector and investments – the greatest potential for decarbonisation and energy saving Moderator: Goranka Tropčić Zekan , Director, Klimaproing & GBC Croatia Board Member Panel Participants: Josip Grubišić, Head of Sales, Presales and Business Development, Samsung Electronics Adriatic Irena Križ Šelendić, Director of the Directorate for Energy Efficiency in the Buildings Sector, European Union Projects and Programmes, Ministry of Physical Planning, Construction and State Assets Ana Zorić, Director, Directorate for the Economy and Financial System, Ministry of Finance Marko Markić, Head of Certification Programmes, Green Building Council Croatia
12:30 – 13:15	Panel Discussion 2: Financing of climate-neutral and climate resilient buildings Moderator: Morana Plejić , Senior Project Manager, REGEA Panel Participants: Diana Bezjak, Head of Service, Financial Instruments Service, Ministry of Regional Development and Funds of the European Union Davor Indić, Associate Director; Sustainable Infrastructure Debt Portfolio, European Bank for Reconstruction and Development (EBRD) Nataša Mlakar, Director and Head of ESG Competence Center for Corporate & SME, PBZ

	• Krešmir Ižaković, <i>Representative of tenants, Successful examples of energy renovation financing in Osijek</i>
13:15 – 14:00	Lunch
14:00 -14:05	Innovative solutions and access to financing Franciska Erdelj, Project Coordinator, Green Building Council Croatia
14:05 – 15:15	Presentation of the SMAFIN project and introduction of Parallel Sessions, Hrvoje Maras, Head of Finance, Regional Energy and Climate Agency of Northwestern Croatia (REGEA) Parallel Session 1: Support mechanisms for project preparation ·One-stop-shop mechanisms ·Sources of financing for the technical assistance (EUCF, ELENA, EPEEF, Croatian Bank for Reconstruction and Development) Parallel Session 2: Technical standards and guidelines ·Standards and guidelines for energy efficiency renovation of buildings ·Digital tools and a new generation of energy certificates Parallel Session 3: Financial instruments and standards ·ESIF financial instruments for energy efficiency ·Green bonds and the EuGBS standard ·Fiscal framework for the application of financial instruments Parallel Session 4: The role of citizens in the decarbonisation of buildings ·Energy communities and cooperatives ·Energy poverty
15:15 – 15:45	Conclusions from the Parallel Sessions - presented by the moderators
15:45 – 16:00	Closing the conference

WELCOME SESSION

Dean Smolar, CEO, Croatia Green Building Council (CGBC)

Dean Smolar opened the event by highlighting GBC Croatia's proactive measures to drive innovation and transition to sustainable building practices. He emphasised the commitment to influencing societal consciousness, connecting the public, academic, and real sectors, and developing tools for sustainable construction development. He also pointed out the DGNB certification system, which ensures transparency and credibility in assessing building sustainability and is being implemented in Croatia by GBC Croatia.

Dr.sc Julije Domac, Director of the Regional Energy and Climate Agency of Northwest Croatia (REGEA)

Dr. sc. Julije Domac emphasised the strategic importance of regional cooperation and sustainable practices, highlighting the importance of investments and capacity-building in building renovation, energy efficiency and renewable energy projects. He presented REGEA's Life CROSS project, which aims to establish a regional one-stop-shop (OSS) to accelerate public sector renovations across four regions and 88 local authorities in Croatia, offering comprehensive technical, financial, and legal services. Dr.sc. Julije Domac also mentioned the SMAFIN Expanded and Interreg MESTRI-CE projects, which focus on sustainable financing, and emphasised REGEA's role as a sectoral and development agency.



FIGURE 3: SNAPSHOTS FROM THE WELCOME SESSION

INTRODUCTORY PLENARY

Ursula Hartenberger, Secretary General of the Climate Positive Europe Alliance, Climate Positive Europe Alliance (CPEA)

Keynote Presentation (online): “Overview of Sustainable Finance – EU Commission, ESG, EU Taxonomy”

The keynote presentation emphasised the need to increase investment in sustainable buildings and renovations within the EU, noting that buildings account for 40% of EU energy consumption and 36% of energy-related GHG emissions. With nearly 75% of EU buildings not being energy efficient, the urgent need for energy efficiency improvements was stressed.

Challenges highlighted included the lack of harmonised investment and valuation criteria, data access and analyst tools, ESG ratings, and science and policy-based technical criteria for reporting and disclosures. The EU Taxonomy was indicated as a crucial framework to guide investors and companies in aligning activities with sustainability goals, preventing greenwashing, and promoting genuinely sustainable projects. Additionally, the presentation described the EU Sustainable Finance Framework, which incorporates ESG disclosures, ESG and climate benchmarks, reporting standards, the European Green Bond Standard, and the International Platform on Sustainable Finance. Implementing the EU Taxonomy was challenging, with inconsistent national regulations, data availability issues, and the risk of selective compliance. To address these, the CPEA has engaged in research and capacity-building initiatives.

Irena Križ Šelendić, Director of the Directorate for Energy Efficiency in Building at the Ministry of Physical Planning, Construction, and State Assets (MPGI)

Presentation: Energy renovation plan in the Republic of Croatia

The presentation outlined Croatia's Long-Term Renovation Strategy (LTRS) for national buildings stock in 2050, aiming to renovate over 30 million square meters of building space by 2030, with a targeted average renovation rate increasing from 1% in 2021 to 3% in 2030, requiring a €9.46 billion investment. The revised Energy Performance of Buildings Directive (EU) 2024/1275 (EPBD) mandates national thresholds for energy performance, aiming for a 16% reduction by 2030 and a 26% reduction by 2033, verified through energy certificates. Additionally, member states must achieve a 55% reduction in average primary energy consumption by renovating 43% of the worst-performing residential buildings by 2050. The presentation underscores compliance with the revised EPBD, including minimum energy performance standards (MEPS) and reduction pathways for primary energy use. It highlights significant past and ongoing projects funded by NRRP 2014-2020 and NRRP 2021-2026, showcasing substantial renovations and energy savings achieved. Under NRRP 2014-2020, 1,383 projects were contracted for the Energy Renovation of Multi-residential

Buildings and Public Sector Buildings, totalling €530.18 million, with EFRD Grants covering €264.74 million. Renovations covered over 1.3 million m² of multi-apartment buildings, over 1.7 million m² public buildings, and approximately 15,400 households. The initial NRRP 2021-2026 and subsequent Annex allocated over €2 billion for renovation and energy efficiency improvements for multi-apartment, public, and cultural heritage buildings. Future plans include Program Competitiveness and Cohesion (PKK) 2021-2027, allocating 345 million EUR from ERDF for energy efficiency and reducing greenhouse gas emissions in public and residential buildings, providing 185 million EUR in grants and 89 million EUR in financial instruments. The presentation also discusses new measures under the ETS and ETS II systems. ETS II or BRT ETS—a new, separate emissions trading system for the building and road transport sectors—will become operational in 2027. Part of the proceeds from the auction will be used to support vulnerable households and micro-enterprises through the dedicated Social Climate Fund (SCF).

Damir Vuletić, Head of Department for Energy Renovation of Public Sector Buildings, Croatian Real Estate Agency (APN)

Presentation: ESCO model in energy renovation of buildings

The presentation focused on the ESCO model for building energy renovation, highlighting best practices from the Croatian Real Estate Agency (APN) and outlining the EU guidelines for energy performance contracting (EPC). Key points included the new EU directives on energy efficiency, which mandate member states to establish legal and regulatory frameworks for public procurement to encourage public bodies to improve energy efficiency. The presentation also detailed the successful implementation of energy performance contracts (EnPCs) in Croatia, showcasing 23 contracts with a combined value of 94,89 million EUR (715 million HRK), achieving significant energy and water savings. The presentation concluded with an overview of the new ESCO model implementation scheme under the National Recovery and Resilience Plan (NRRP), aimed at further enhancing energy efficiency in the public and private sectors.

Andreas Piontek, Senior Energy Expert, EIB

Presentation: EIB support for energy efficiency projects

European Investment Bank (EIB) presented its role and support for energy efficiency projects, focusing on innovation, SMEs, infrastructure, and climate/environmental initiatives. The EIB aids projects through various means such as loans, funds (including InvestEU), blending finance, and advisory services. With a focus on renewable energy and energy efficiency innovations, the EIB's energy lending policy halts support for traditional fossil fuels. In 2023, over €21 billion was allocated to energy-related projects, including investments in electricity grids, energy efficiency,

and renewable energy. The ELENA initiative, providing technical assistance and funding support, has facilitated significant investments in building renovation and urban transport. Additionally, the EIB prioritises energy-efficient buildings, financing up to 75% of investment costs, and supports projects exceeding national standards. The presentation concluded with an overview of the EIB's initiatives in Croatia and the application process for ELENA assistance.

Suzana Laušin-Katanec, Director of the Credit Sector, Croatian Bank for Reconstruction and Development (HBOR)

Presentation: Loan programmes for energy efficiency renovation

HBOR presented the pivotal role of a development bank in financing sustainable projects, highlighting its contributions to economic growth, job creation, and macroeconomic stability. The

presentation elaborated on HBOR's financing mechanisms, including regular loan programmes, financial instruments within the Integrated Territorial Programme 2021-2027, and the National Recovery and Resilience Plan (NRRP). Sustainable project investments through the National Recovery and Resilience Plan (NRRP) focus on small and medium-sized enterprises (SMEs) and end users like novice entrepreneurs, young entrepreneurs, and women entrepreneurs. SME projects are based on Research, Development, and Innovation (RDI), with loans ranging from €100,000 to €1 million (€500,000 for beginners) and interest rate subsidies up to 75% for investments in green and digital business transition. The guarantee programme with commercial banks allows large-caps and state-owned companies to guarantee up to 80%. Furthermore, a new financial instrument, the Urban Development Fund, aims to bolster sustainable infrastructure and energy efficiency projects. With a total allocation of €172 million (50% ERDF—50% HBOR), loans ranging from €100,000 to €10 million are provided, with a repayment term of up to 15 years. This fund offers a combination of loans and grants, incentivising investments that align with sustainability, aesthetics, and inclusivity criteria, thereby promoting multifunctional infrastructure, energy efficiency, and renewable energy sources.



FIGURE 4: SNAPSHOTS FROM THE INTRODUCTORY SESSION



FIGURE 5: SNAPSHOTS FROM THE INTRODUCTORY SESSION

PANEL DISCUSSION 1: CONSTRUCTION SECTOR AND INVESTMENTS – THE GREATEST POTENTIAL FOR DECARBONISATION AND ENERGY EFFICIENCY

Moderator: Goranka Tropčić Zekan, Director, Klimaproing & GBC Croatia Board Member

Speaker: Josip Grubišić, Head of Sales, Presales and Business Development, Samsung Electronics Adriatic

The discussion focused on how digitalisation and managing technical systems in buildings can optimise energy consumption efficiently. Modern technology facilitates significant savings and

boosts energy efficiency through smart building management systems. The approach was described as simple, fast, and cost-effective.

Speaker: Irena Križ Šelendić, Director of the Directorate for Energy Efficiency in the Buildings Sector, European Union Projects and Programmes, Ministry of Physical Planning, Construction and State Assets

The discussion underscored the implications of the amended Energy Performance of Buildings Directive, particularly focusing on the challenge posed by the minimum energy performance standards (MEPS). Additionally, forthcoming initiatives to co-finance energy renovation projects were delineated, aiming to stimulate increased investment in energy efficiency.

Speaker: Ana Zorić, Director of the Directorate for the Economy and Financial System, Ministry of Finance

The discussion explained the requirements and processes of ESG reporting, known as "CSRD." The reporting obligations for companies were elaborated on, specifying the responsible entities for report preparation and the authentication process. Emphasis was placed on the vital involvement of auditors and the verification system in ensuring the relevance of reports. It was clarified that auditors won't independently verify the sustainability of a company's technical portfolio.

Speaker: Marko Markić, Head of Certification Programmes, Green Building Council Croatia

The discussion highlighted the importance of accreditation systems and audit trails in assessing building sustainability to prevent greenwashing. Objective confirmation systems like the DGNB system ensure transparency and credibility in sustainability assessments. This need was underscored despite the definitions provided by the EU Taxonomy and EU Level(s).

STAKEHOLDERS VIEWS

- The potential of digitalisation and smart management systems to optimise energy consumption and increase the energy efficiency of buildings.
- Challenges and opportunities posed by EPBD focusing on MEPS as a significant challenge.
- The necessity of robust ESG reporting frameworks and the role of auditors in verifying sustainability reports.
- Lack of resources at the national level to establish harmonised criteria and monitor energy efficiency (EE) and renewable energy sources (RES) projects and investments.
- The importance of having credible accreditation systems to ensure transparency and prevent greenwashing.

CONCLUSIONS – MAIN OUTCOMES

- Achieving decarbonisation and increasing energy efficiency in the construction sector requires a combination of advanced technology, regulation, financial incentives, and objective accreditation systems.
- Accreditation systems and audit trails are critical in evaluating building sustainability and preventing greenwashing.
- Implications of the amended Energy Performance of Buildings Directive (EPBD) nationally, particularly the challenge posed by the minimum energy performance standards (MEPS), sets another milestone for national authorities.
- At the national level, advanced capacity building, resources, and digitalisation are essential.

- While auditors and the audit report verification system ensure the relevance of ESG reports, auditors alone cannot independently verify the sustainability of a company's technical portfolio (such as buildings).



FIGURE 6: SNAPSHOTS FROM THE PANEL DISCUSSION 1

PANEL DISCUSSION 2: FINANCING CLIMATE-NEUTRAL AND CLIMATE-RESILIENT BUILDINGS

Moderator: Morana Plejić, Senior Project Manager, REGEA

Speaker: Krešimir Ižaković, Representative of the tenants of Sjenjak 101 in Osijek, Head of Engineering Services and Chief Engineer for Energy and EU Funds, Dilj (part of the Nexxe Group)

The successful energy renovation project of the multi-apartment building Sjenjak 101 in Osijek, financed by ERDF, was highlighted in the discussion. Key improvements implemented from 2016 to 2018 included energy-efficient building renovations and the installation of new lighting and heating systems. These efforts resulted in significant energy savings, reducing energy consumption by 36% and elevating the building's energy rating from D to B. These upgrades notably enhanced the quality of living conditions and increased the property's market value. Future plans to enhance the building's energy efficiency involve installing a photovoltaic plant and electric vehicle chargers. However, a challenge noted is the inability to obtain additional co-financing for these upgrades, as the previous energy renovation has already been completed, and further energy savings are challenging to achieve. The discussion underscored the critical need for new financial resources and emphasised the importance of motivating building managers to pursue further upgrades despite funding limitations.

Speaker: Diana Bezjak, Head of Financial Instruments Service, Ministry of Regional Development and EU Funds

The discussion highlighted the period from 2021 to 2027, during which financial instruments can be combined with grants to cover up to half the loan principal. It was noted that the Ministry of Regional Development and EU Funds has adopted an Ex-ante assessment, which encompasses 12 financial instruments. These instruments aim to facilitate the effective utilisation of funds and maximise the impact of financial support within the specified timeframe. The Competitiveness and Cohesion Programme offers long-term loans for energy renovation of multi-apartment buildings and energy efficiency for entrepreneurs, as well as small loans for industrial transition and the Urban Development Fund for infrastructure investments. These instruments are coordinated by the Croatian Bank for Reconstruction and Development (HBOR) and the Croatian Agency for Small Business, Innovation, and Investment (HAMAg-Bicro).

The Urban Development Fund, part of the New European Bauhaus initiative, supports innovation and sustainable urban development, offering €172 million in loans ranging from €100,000 to €10 million, excluding VAT. Loans are available until December 2029 with a repayment period of up to 15 years. This programme combines loans and grants up to 50% principal write-off, aligning with sustainability, aesthetics, and inclusiveness goals, supporting the principles of the New European Bauhaus and the green transition. It encourages the use of local materials, innovative construction practices, the preservation of cultural heritage, affordable housing solutions, and urban regeneration. The fund is intended for buildings with public-commercial purposes, such as shopping centres with rooftop swimming pools, concert halls, and garages. Revenue is generated from renting the space. The projects will be evaluated, and the engineer's certification system will provide confirmation for a 50% principal write-off.

Speaker: Nataša Mlakar, Director of ESG Competence Centre for Corporate Sector and SMEs, PBZ

The discussion highlighted the growing interest among banks in financing energy renovation projects and renewable energy sources (RES), driven by their alignment with ESG criteria and the EU Taxonomy. This interest aims to bolster portfolios of "sustainable investments" and mitigate financial risks associated with climate change. It was emphasised that construction companies seeking financing for energy renovations must adhere to the EU Taxonomy, which sets higher standards than nZEB (nearly Zero Energy Buildings). Key considerations for companies include focusing on ESG compliance, ensuring project sustainability, maintaining transparency in reporting, and fostering innovation in materials and technologies. These factors are crucial in attracting financing and demonstrating a commitment to sustainable practices in the construction sector. While nZEB focuses primarily on energy efficiency and renewable, the EU Taxonomy includes additional environmental criteria

Speaker: Davor Indić, Associate Director, Sustainable Infrastructure Debt Portfolio, European Bank for Reconstruction and Development (EBRD)

The discussion underscored the potential for sustainable construction in Croatia, focusing on significant projects such as smart residential complexes and sustainable districts. EBRD highlighted its role in supporting these projects through technical assistance and financial resources. Additionally, opportunities and challenges in urban revitalisation were discussed, particularly the transformation of old industrial areas into modern living spaces. These initiatives offer potential for sustainable development, requiring careful consideration of infrastructure, environmental impact, and community integration. EBRD emphasised strategic planning, stakeholder collaboration, and leveraging international support to optimise the impact of sustainable construction projects in Croatia.

STAKEHOLDERS VIEWS

- The need for professional and motivated building managers who would lead the energy renovation of multi-apartment buildings.
- need for open calls for financing multi-apartment buildings that have met energy efficiency goals and want to upgrade to "smart buildings."
- New financial instruments for 2021-2027, combining grants and principal write-off.
- The Urban Development Fund supports innovation and sustainable urban development as part of the New European Bauhaus initiative. It offers €172 million in loans (excluding VAT)

ranging from €100,000 to €10 million, available until December 2029, with a repayment period of up to 15 years. This fund enables loans for public-commercial infrastructure projects, including those with higher commercial value, such as concert halls and garages.

- Banks are increasing interest in financing energy renovation projects and renewable energy sources due to alignment with ESG criteria and the EU Taxonomy.
- The aim is to raise banks' portfolios of "sustainable investments" and manage financial risks associated with climate change.
- Construction companies seeking financing for energy renovations must comply with the EU Taxonomy, which has higher standards than nZEB.
- While nZEB primarily focuses on energy efficiency and renewable, the EU Taxonomy includes additional environmental criteria.
- Construction sector should focus on ESG compliance, project sustainability, transparency in reporting, and innovation in materials and technologies.
- Cities have not fully realised the potential of building smart residential complexes and urban revitalisation.
- Urban revitalisation in Croatia holds significant potential, allowing for the repurposing of abandoned industrial zones and the reconstruction of old buildings into modern residential spaces.
- EBRD knowledge and experience can significantly contribute to the development of sustainable construction projects in Croatia by providing technical support, financial resources, and best practices from similar projects worldwide.

CONCLUSIONS – MAIN OUTCOMES

- The crucial role of professional and motivated building managers in leading the energy renovation of multi-apartment buildings.
- A need for open calls for financing multi-apartment buildings that have achieved energy efficiency goals and aim to upgrade to "smart-building" standards.
- New financial instruments introduced for the 2021-2027 period offer a combination of grants and principal write-offs, providing enhanced support for sustainable construction initiatives.
- The Urban Development Fund, aligned with the New European Bauhaus initiative, facilitates innovation and sustainable urban development by offering substantial loans for public-commercial infrastructure projects.
- Banks are raising interest in financing energy renovation projects and renewable energy sources due to their alignment with ESG criteria and the EU Taxonomy. They aim to bolster portfolios of "sustainable investments" and manage climate change-related financial risks.
- Construction companies seeking financing for smart and/or green building projects must adhere to the EU Taxonomy's higher standards, emphasising the importance of compliance with environmental criteria beyond energy efficiency and renewable.
- The construction sector should prioritise ESG compliance, project sustainability, transparency in reporting, and innovation in materials and technologies to meet evolving environmental standards.
- The municipalities and cities in Croatia have yet to fully leverage the potential of building smart residential complexes and implementing urban revitalisation projects.

- Urban revitalisation in Croatia presents significant opportunities for repurposing abandoned industrial zones and transforming old buildings into modern residential spaces, which can contribute to sustainable urban development.
- The knowledge and experience of organisations like the EBRD can be pivotal in advancing sustainable construction projects in Croatia by providing technical support and financial resources and sharing best practices from similar projects worldwide.



FIGURE 7: SNAPSHOTS FROM THE PANEL DISCUSSION 2

PARALLEL SESSION 1: SUPPORT MECHANISMS FOR PROJECT PREPARATION

Moderator: Valentina Đurek, Project Manager, REGEA

This session explored various support mechanisms that facilitate the preparation of energy efficiency projects, emphasising integrated service models like One-Stop-Shop mechanisms and available and co-financed technical assistance.

STAKEHOLDERS VIEWS

Technical Assistance and access to finance: The session highlighted several key funding sources, including the European City Facility (EUCF), European Local Energy Assistance (ELENA), the Environmental Protection and Energy Efficiency Fund (EPEEF), and the Croatian Bank for Reconstruction and Development (HBOR). These sources provide essential financial support for technical assistance in project preparation.

- **One-Stop-Shop Mechanisms:** These integrated service models provide comprehensive support to stakeholders, simplifying the project implementation process from initial planning to completion.
- **EUCF and Small Grants:** While these funds were limited, they provided essential initial support for developing projects that could achieve significant energy savings. Small grants are essential for financing the start of the project, as well as the plan and project costs.
- **Challenges in Energy Renovation:** All phases of building energy efficiency renovation present challenges, particularly in financing and project planning. Clear processes and a pipeline of professionals are essential for successful implementation.
- **Strategic vs. Ad-hoc Investment Planning:** A strategic approach to investments in building renovations is more effective than ad-hoc planning and improves project preparation and funding acquisition.
- **Turnkey Model:** This model is recognised as an efficient way to reduce the complexity of energy renovation projects. However, choosing reliable partners who can ensure performance quality is important.

- Technical Assistance Funds (ELENA): Despite the risks of refunds for unrealised projects, technical assistance like ELENA has proven valuable in project planning and technical and financial support.

CONCLUSIONS – MAIN OUTCOMES

- Small grants play a vital role in initiating energy renovation projects.
- Specialised professional support is necessary during the financing and project planning stages.
- Strategic investment planning proves more effective than ad-hoc approaches.
- The 'turnkey' model simplifies project execution but necessitates trusted partners.
- Technical assistance programmes like ELENA drive better project preparation despite associated risks.
- Continuous education, experience sharing, and stakeholder collaboration are key to improving energy renovation processes.
- Developing sustainable financing models and local capacity-building is crucial for successful project implementation.

PARALLEL SESSION 2: TECHNICAL STANDARDS AND GUIDELINES

Moderator: Milka Hrbud, Project Leader, REGEA

This session focused on the technical aspects of energy efficiency renovations and highlighted the need for comprehensive building databases to improve energy efficiency and achieve climate neutrality by 2050. Many buildings are in an inadequate construction and energy state and require renovation. To initiate this renovation process, gathering quality data about the building, analysing energy consumption, assessing internal climate conditions, and determining compliance with basic construction requirements is imperative.

STAKEHOLDERS VIEWS

- Project Planning: Each project follows a cycle of planning, design, execution, and maintenance. Quality planning is essential, starting with data collection and analysis of basic building information.
- Building Data and Databases: Establishing a building database is crucial for transparency and investment planning. It aids in prioritising investments in the national building fund, comparing building parameters, and selecting financial mechanisms based on energy efficiency and potential savings. There's potential for integrating energy certificate data within this database.
- It is important to maintain comprehensive and up-to-date databases of building energy consumption and conditions.
- A building passport is a valuable tool containing certificates, climate-proofing, facility management data, energy efficiency data, and the basis for building data management.
- Sustainable Building Standards: Stakeholders anticipate that EU frameworks and upcoming energy certification regulation changes will significantly impact the construction sector's decarbonisation efforts.
- Smart Technology Readiness: Understanding and integrating smart technology indicators can enhance energy efficiency. Introducing a standardised methodology for assessing building readiness for smart technologies, such as the Smart Readiness Indicator (SRI), is

crucial. Integrating the SRI into energy certificates would be advantageous, as it actively assesses a building's readiness to adapt to changing conditions.

- Climate proofing: Technical guidance on climate-proofing of infrastructure projects for 2021-2027 consists of two parts: verification of climate neutrality and verification of resistance to climate change.
- Emphasising early inclusion of climate validation processes is vital for projects to meet EU funding requirements.
- DGNB Standard: As the EU standard ensures quality, DGNB incentivises citizens to fund projects independently, potentially through reduced or waived communal contributions.

CONCLUSIONS – MAIN OUTCOMES

- Project Planning: quality planning, including data collection and analysis, is essential for every project.
- Building Data and Databases: Building databases aid in transparent investment planning and prioritisation and have the potential to integrate energy certificate data.
- Building Passport: The building passport consolidates certificates, climate-proofing, and energy efficiency data for effective building management.
- Sustainable Building Standards: Anticipated changes in energy certification regulations will significantly impact decarbonisation efforts.
- DGNB Standard: Encouraging citizen-funded projects, the DGNB standard promotes quality assurance and community engagement.
- Smart Technology Readiness: Integrating smart technology indicators improves energy efficiency, with the Smart Readiness Indicator enhancing adaptability.
- Climate Proofing: Early climate validation processes are vital for meeting EU funding requirements.

PARALLEL SESSION 3: FINANCIAL INSTRUMENTS AND STANDARDS

Moderator: Hrvoje Maras, Chief Economist, REGEA

The roundtable focused on "Financial Instruments and Standards" within the National Energy and Climate Plan (NECP) context. It highlighted the financial gap between the investments needed to meet 2030 goals and available public funds, covering only 20% of necessary investments. Emphasis was placed on mobilising private sector funds through public-private partnerships (ESCO, capital markets, guarantee funds, fiscal instruments, and citizen participation models).

STAKEHOLDERS VIEWS

- Based on their multi-apartment renovation experience, tenants do not see the bigger picture of energy renovation or the potential of smart buildings. Financing is carried out with their own funds, and they perceive it as an additional cost or a drain on building reserve funds.
- The municipalities highlighted the administration issues related to the National Recovery and Resilience Plan (ZNS) and how reimbursement requirements slow project implementation. The new financial instrument, the Urban Development Fund, was a good practice example because it streamlines funding procedures and eases administrative burdens for energy efficiency (EE) projects.
- Banks PBZ and HPB discussed upcoming EU Taxonomy requirements and clients' need to align with ESG standards. They are already holding workshops for clients on ESG

requirements, emphasising that EU Taxonomy standards are stricter than those for nearly zero-energy buildings (nZEB).

- The banks supported the involvement of the Agency for Residential Construction (APN) in financing the ESCO model, as it ensures the security of project loans. The limited financial allocation again created an excess of demand over supply, which would require an increase in the total allocation for this model in the next call
- Banks stressed the importance of risk assessment before financing energy efficiency projects and the need for digital solutions or databases with risk data.
- Participants were informed about green bonds, noting the absence of green bond issuers in the Croatian capital market. Nonetheless, they agreed that financing EE and renewable energy projects through green municipal bonds is a future opportunity for cities.

CONCLUSIONS – MAIN OUTCOMES

- Public and Private Sector Financing: existing models for energy renovation primarily relied on one-time grants, which have been insufficient to meet national decarbonisation goals due to limited public funds and high demand.
- Energy renovation projects yield significant financial savings for end-users, making them suitable for financial instruments that can be repaid from these savings.
- New financial instruments like the Urban Development Fund, with additional co-financing, can incentivise investments in energy efficiency, green infrastructure, or community-involved public building projects.
- Current grant co-financing rates are considered too high. Lower rates, making the funds more widely available, could achieve similar outcomes.
- ESCO Model: The APN's ESCO model is a viable alternative, but limited funding allocations have created demand that exceeds supply. Increasing the total allocation for this model in future calls is necessary.
- Fiscal instruments and incentives (tax reliefs, municipal contributions) have great potential for encouraging energy renovation and building renovations. However, their impact on municipal revenues needs clear projections.
- Green bonds have potential, but lower interest rates on loans are more competitive. Higher preparation costs and reporting requirements also pose challenges for issuers, particularly for municipal and public projects. To make them more attractive, green bonds could be further incentivised through additional tax reliefs.

PARALLEL SESSION 4: THE ROLE OF CITIZENS IN THE DECARBONISATION OF BUILDINGS

The roundtable on the role of citizens in building decarbonisation focused on the issues of energy poverty and energy communities in Croatia, with a particular emphasis on rural areas. The discussions centred on the key challenges in establishing energy communities and addressing energy poverty, highlighting the potential of using energy community models to mitigate energy poverty. The findings from these parallel sessions underscore the multi-faceted approach required to achieve energy efficiency and decarbonisation in buildings, involving technical, financial, and community-driven strategies.

STAKEHOLDERS VIEWS

- Addressing energy poverty is a key topic. At the same time, vulnerable populations can benefit from energy efficiency improvements and renewable energy solutions, thereby enhancing social equity in transitioning to a low-carbon economy.
- Challenges in addressing energy poverty are linked to:
 - Legal property issues and a high number of illegal buildings.
 - Need for comprehensive and easily accessible support through One-Stop Shops.
- Importance of turnkey financial mechanisms for energy renovation and renewable energy projects
- There is a need to empower citizens to take collective action in managing energy resources and implementing renewable energy projects with the support of energy communities and cooperatives.
- Energy communities are facing challenges such as:
 - Lack of financial mechanisms.
 - Complex and unclear legislative frameworks.
 - Difficulty in energy sharing among different entities.
 - Lack of publicly available templates and guidelines.
 - Insufficient public awareness about the benefits and possibilities of energy communities.
- Energy communities can benefit the entire local community, including the energy-poor, through various mechanisms. One example is using financial or energy surpluses to support vulnerable households.
- Solar power plants on public institution roofs can supply energy to the institution and vulnerable households, providing direct access to free renewable energy instead of bill subsidies. The new Directive on the internal electricity market (draft) mandates that shared electricity from public projects be available to energy-poor customers, with at least 10% of the shared energy going to these groups.
- New EU directives support using shared energy projects to benefit vulnerable or energy-poor customers.

CONCLUSIONS – MAIN OUTCOMES

- A lack of financial mechanisms, complex legislative frameworks, and insufficient public awareness hinders the establishment of energy communities.
- Energy Communities have the potential to significantly reduce energy poverty through collective energy management and financial support.
- Strategic financial mechanisms are essential for supporting energy renovation and renewable energy projects for vulnerable households.
- Comprehensive Support like One-stop shops and turnkey solutions are crucial for assisting energy-poor households.
- Resolving property legality issues and providing financial support are vital for enabling energy-poor households to benefit from energy efficiency measures.
- Strong cross-sector collaboration is needed to identify energy-poor households and ensure they receive appropriate support.



FIGURE 8: SNAPSHOTS FROM THE PARALLEL SESSIONS

ROUNDTABLE CONCLUSIONS

The roundtable on "Support Mechanisms for Project Preparation" emphasised the critical role of EUCF and small grants in initiating energy efficiency projects. Participants highlighted the necessity for specialised assistance throughout the challenging phases of energy renovation, particularly in financing and design. Strategic investment planning was favoured over ad-hoc methods, and the turnkey model was recognised as an effective approach to reduce project complexity, provided reliable partners are involved. The discussion also underscored the importance of technical assistance funds, which, despite posing risks, drive thorough preparation and better planning. Continuous education, experience exchange, and enhanced stakeholder collaboration are vital for advancing the energy renovation process and developing sustainable financing models.

The roundtable on "Technical Standards and Guidelines" highlighted the significant role of buildings in energy consumption and greenhouse gas emissions within the EU, emphasising the urgent need for renovations. The revised Energy Performance of Buildings Directive, focusing on CO₂ emissions and introducing the ZEB standard, sets a new framework for improving building energy efficiency. The discussion underscored the necessity of comprehensive data collection, strategic investment planning, and the integration of smart technologies to enhance building sustainability. Standardising and digitalising energy certificates and applying Green Deal construction guidelines were identified as crucial steps toward achieving decarbonisation goals. Continuous education, experience exchange, and stakeholder collaboration are essential for advancing technical standards and guidelines in the building sector.

The roundtable on "Financial Instruments and Standards" emphasised the necessity of mobilising private sector funds to bridge the financial gap in achieving the 2030 goals outlined in the NECP. Participants discussed various financial models, highlighting the importance of small grants from the EUCF in initiating energy efficiency projects and the challenges of utilising financial instruments. Strategic investment planning was preferred over ad-hoc methods, with the ESCO model recognised as an effective approach, albeit limited by financial allocation. The potential of green bonds was also discussed, noting their attractiveness despite higher preparation and reporting costs. The session concluded that diverse financial instruments, strategic planning, and fiscal incentives are crucial for financing energy efficiency projects. Continuous education, experience exchange, and stakeholder collaboration are essential for advancing the financing and implementation of these projects.

The roundtable on the “Role of citizens in the decarbonisation of buildings” highlighted the critical role of energy communities and state support in addressing energy poverty. Participants identified the key barriers to establishing energy communities in Croatia, including a lack of financial mechanisms, complex administrative requirements, and insufficient public awareness. The discussion emphasised that energy communities can benefit local communities, including the energy poor, through sharing surpluses and providing free renewable energy. The need for comprehensive and easily accessible assistance for energy-poor citizens was also highlighted, along with the importance of combining state and EU support to finance energy renovation projects. By addressing these challenges and leveraging opportunities, energy communities can significantly reduce energy poverty and promote citizen involvement in the decarbonisation of buildings.

All material related to the 1st National Roundtable in Croatia is available at the following link:
<https://www.smafin.eu/1st-smafin-expanded-national-roundtable-in-croatia/>

4. GREECE

4.1 1ST NATIONAL ROUNDTABLE IN GREECE

The 1st SMAFIN Expanded Roundtable in Greece, held on Thursday, 30th May 2024, at the Royal Olympic Hotel in Athens, was organised as a physical event by the Centre for Renewable Energy Sources and Saving – CRES and INZEB (SMAFIN Expanded national partners). 87 attendees participated, including 15 expert speakers, 4 moderators and 68 stakeholders from the energy efficiency and finance sector, covering all plenary sessions and engaging in networking opportunities and vivid discussions.

The event was titled “Supporting the Implementation of Smart Financing for Energy Efficiency in Greece.2024” and focused on three main topics:

- Financing energy efficiency in private and public buildings – National scale.
- Financing energy efficiency in private and public buildings – European funding and case studies.
- Financing energy efficiency in the tertiary sector and the industry.

The event addressed challenges such as closing the gap between investment needs and available public funding, the difficulty of achieving larger-scale energy efficiency investments, the need to raise awareness of the multiple benefits of energy efficiency investments, improving green skills, and access to data for better programme funding.

BACKGROUND

Energy efficiency investments are crucial in meeting the energy and climate targets for 2030 and the full EU decarbonisation target by 2050, enhancing the economy's competitiveness and energy security.

As part of the Fit for 55 package and REPowerEU Plan, Directive (EU) 2023/1791 on energy efficiency (EED recast) entered into force on 10 October 2023. The EED recast sets the rules, obligations and policy tools to achieve the EU's 2030 energy efficiency targets. In this recast, Article 30 strengthens the legal and policy framework to mobilise investments in energy efficiency, aiming to increase the cost-effectiveness of public budget support and the mobilisation of private investments in energy efficiency measures. The specific article recognises the need to deploy adequate financial and technical support for energy efficiency measures, develop targeted policy measures enabling the mobilisation of private investments in energy efficiency, and promote innovative financing mechanisms and private financial products for energy efficiency. Besides, it triggers further work to incentivise investment in energy efficiency, emphasising cooperation between the European Commission, Member States and financial institutions.

In parallel, the very recent final adoption of the strengthened Energy Performance of Buildings Directive sets ambitious targets to reduce the overall energy use of buildings across the EU, taking into account national specificities. For residential buildings, the target is to reduce the average primary energy use by 16% by 2030 and 20-22% by 2035. For non-residential buildings, each member state will need to renovate the 16% worst-performing buildings by 2030 and the 26% worst-performing buildings by 2033. The Directive requires the establishment of a one-stop

shops for advice on building renovation, and public and private financing provisions will make renovation more affordable and feasible. Better planning of renovations and technical and financial

support will be crucial to trigger a Renovation Wave across the EU, which is foreseen under the revised Directive.

The 1st National SMAFIN Expanded roundtable in Greece aimed to address challenges such as the gap between investment needs and available public funding, the difficulty of achieving greater scale for energy efficiency investments, the need to raise awareness of the multiple benefits of energy efficiency investments, the improvement of green skills and access to data on energy efficiency to better programme funding.

AGENDA

TABLE 3: AGENDA 1ST ROUNDTABLE IN GREECE

TIME	TOPIC
09:30 – 10:00	Registration of participants
10:00 – 11:30	Welcome Session Alexandra Sdoukou , Deputy Minister, Ministry of Environment and Energy Dimitrios Kardomateas , Chairman of the board of Directors and General Manager, CRES
	Introductory Plenary “European and National energy efficiency policy framework and financing initiatives” Moderator: Charalampos Malamatenios, Head of Energy Policy and Planning Department, CRES Speakers: Eduardo Soares Antunes , Policy Officer, DG ENER, European Commission <i>“European Energy Efficiency Policy and Financing Initiatives - European Energy Efficiency Financing Alliance”</i> Vicky Sita , Head of The Directorate of Energy Policy and Energy Efficiency, Ministry of Environment and Energy <i>“The policy framework for energy efficiency in Greece”</i> Panagiotis Habesis , Head of Development Programmes, Financing and Sustainability, Hellenic Banks Association <i>“Financing energy efficiency projects”</i> Kiki Papadopoulou , Head of The Dissemination of RES & EE Applications Department, CRES <i>“The SMAFIN & SMAFIN Expanded projects: The forerunners of the European Alliance for Financing Energy Efficiency”</i>
11:30 – 12:30	Lunch Break
12:30 – 14:30	Parallel Sessions
	Parallel Session 1: “Financing energy efficiency in private and public buildings – National programmes.” Moderator: Alice Corovessi , Managing Director, INZEB Speakers: Vicky Sita , Head of The Directorate of Energy Policy and Energy Efficiency, Ministry of Environment and Energy <i>“Energy upgrading of homes - The SAVING programme.”</i> Eleftheria Touloupaki , Project Manager, INZEB <i>“Building renovation passports in energy efficiency certification systems. The iBRoad2EPC project.”</i>

	▪ Minas Iatridis, <i>Head of The Energy Policy Analysis Department, CRES</i> “Energy efficiency financing in public buildings - the ELECTRA Programme” ▪ Giorgos Kouloukakis, <i>Funding for LA, Business Director, Deposit and Loan Fund</i> “Financial tools for energy efficiency projects” Stakeholders Discussion
	Parallel Session 2: “Financing energy efficiency in private and public buildings – European funding and applications.” Moderator: Vlasis Economou, <i>Director of the Institute for European Energy and Climate Policy, IEECP</i> Speakers: Eleni Gioti, <i>Senior Advisor, EIB Advisory Services</i> “Financial instruments of the European Investment Bank - The ELENA programme” Dinos Papapolyzos, <i>Managing Partner, TREK Development</i> “Energy upgrade of Public Buildings through the ELENA mechanism, the 5x5 experience in Greece.” Dimitris Mezartasoglou, <i>Department of Energy Policy Analysis, CRES</i> “Road maps for the radical renovation of houses of energy-poor households” Stakeholders Discussion
	Parallel Session 3: “Financing energy efficiency in businesses.” Moderator: Christos Tourkolias, <i>Energy Policy and Planning Sector, CRES</i> Speakers: Ivana Rogulj, <i>IEECP</i> “Obstacles and incentives for financing energy saving projects in SMEs” Christos Tourkolias, <i>Energy Policy and Planning Sector, CRES</i> “Alternative business financing schemes” Costas Dimopoulos, <i>Green Buildings & TMT, Climate Strategy and Delivery, EBRD</i> “Public ESCO Project – Energy renovation of apartment buildings connected to the district heating system” Stakeholders Discussion
14:30 – 15:00	Conclusions from the Parallel Sessions and Closing of the Event Alice Corovessi, <i>Managing Director, INZEB</i> Vlasis Economou, <i>Director of the Institute for European Energy and Climate Policy, IEECP</i> Christos Tourkolias, <i>Head of Energy Policy and Planning Department, CRES</i>

WELCOME SESSION

Speaker: Alexandra Sdoukou, Deputy Minister, Ministry of Environment and Energy

Mr Dimitrios Kollias, special advisor to Mrs Sdoukou, gave the welcome address, as it was impossible to attend due to last-minute ministerial obligation. Mr Kollias extended her warm greetings and best wishes for a successful national roundtable. He emphasised the importance of initiatives like this, where stakeholders can engage in-depth on energy efficiency financing

highlighting how collaborative discussions help address challenges and drive actionable solutions. Mr. Kollias noted his longstanding involvement with the SMAFIN project from its inception, having attended all previous roundtables and serving as a member of the Working Group for both the SMAFIN project (2017-2022) and the SMAFIN Expanded project. This experience has given him a

clear understanding of the need for such projects, which support innovative approaches to energy financing, strengthen partnerships, and contribute significantly to Greece's sustainable energy future.

Speaker: Dimitrios Kardomateas, Chairman of the Board Of Directors and General Manager, CRES

Dimitrios Kardomateas welcomed the attendees on behalf of CRES and wished for fruitful discussions on the event topics. Mr. Kardomateas highlighted the critical role of energy efficiency in achieving the EU's 2030 energy and climate targets and the 2050 decarbonisation goals, noting that relevant technologies are now both mature and cost-effective. However, he emphasised that significant investments in energy efficiency remain essential to reach these ambitious objectives while simultaneously strengthening European economic competitiveness and energy security. He further noted that the revised Energy Efficiency Directive, which was enacted on 10 October 2023, establishes clear rules and policy tools to support these targets. In particular, Article 30 enhances the framework for mobilising investments, aiming to boost public financing cost-effectiveness and attract private sector involvement. Mr. Kardomateas also drew attention to the recently approved Energy Performance of Buildings Directive, which sets ambitious goals for reducing energy use across the EU, respecting national contexts. He pointed out that CRES, with its longstanding experience in European and national energy programmes, actively contributes to these targets. In this context, he introduced the SMAFIN Expanded project as a key initiative focused on supporting energy efficiency financing for buildings, SMEs, and industry, with further insights to be shared later in the event.



FIGURE 9: SNAPSHOTS FROM THE WELCOME SESSION

INTRODUCTORY PLENARY

Moderator: Charalampos Malamatenios, Head of Energy Policy and Planning Department, CRES

Speaker: Eduardo Soares Antunes, Policy Officer, Dg Ener, European Commission

Presentation: European Energy Efficiency Policy and Financing Initiatives - European Energy Efficiency Financing Alliance

Eduardo Soares Antunes updated the European Policy landscape regarding energy efficiency and the newly established Energy Efficiency Financing coalition. He emphasised the solid political momentum due to the overarching priorities of the European Green Deal and the REPowerEU, the adoption of the revised EED, and the provisional political agreement on the recast of the EPBD and RED directives. The main elements of the EED revision were mentioned, namely:

- The binding and increased EU energy efficiency target and indicative national contributions.

- The “Energy Efficiency First” principle and its role as an integral part of policy and investment decisions.
- The strengthened energy savings obligation in end-use.
- The more vital exemplary role of the public sector and.
- the increased focus on alleviating energy poverty and consumer empowerment.

He then proceeded to present the main points of Article 9 of the proposed EPBD recast regarding MEPS and national trajectory by listing the specific targets for renovating non-residential buildings (renovation of the 16% of worst-performing buildings by 2030 and 26% by 2033) and the respective ones for the residential building stock as a reduction in primary energy use (16% reduction by 2030 and 20-22% by 2035 compared to 2020 with at least 55% of the savings in worst-performing buildings). The financing policy and legislation regarding energy efficiency were briefly highlighted, with the legal basis of the Sustainable Finance Framework and the energy legislation in place (EED and EPBD specific articles) and their objectives to remove regulatory barriers, develop favourable conditions and predictability, and support financing instruments that better match investment supply and demand. He then presented the European Energy Efficiency Financing Coalition as a triangular cooperation between the European Commission, financial institutions, and member states and the overarching objective of mobilising private financing for energy efficiency at scale. Finally, Mr Soares Antunes referred to the Joint Declaration on Energy Efficiency, signed on December 2023 by Commissioner Simson and 27 Energy Ministers to support the Coalition and its scope to encourage private investments on EE projects using public funding as leverage and strengthened cooperation between financial institutions and policymakers.

Speaker: Vicky Sita, Head of the Directorate of Energy Policy and Energy Efficiency, Ministry Of Environment And Energy

Presentation: The policy framework for energy efficiency in Greece

Vicky Sita presented the principal axes of the Greek policy framework regarding energy efficiency and specifically the reduction in final energy consumption, the energy upgrade of the Greek building stock, the “Energy Efficiency First” principle, the annual decrease of at least 1.9% per year, compared to 2021, in the consumption of public bodies, specific actions concerning the industry sector, the adoption of innovative financial mechanisms and strengthening of measures to combat Energy Poverty. The legal framework consists of the Greek NECP with a target for final energy consumption of 15,4 Mtoe, The Long-term Renovation Strategy (currently under revision) for the 4,1 million Greek buildings, of which approximately 79% amounts to residential buildings, the regulations on technical requirements for existing and new buildings (Laws 4122/2013, 4685/2020 and 4710/2020) and the Action Plan to combat Energy Poverty, also to be revised. In this evolving context, planning, policy and major investment decisions with a value of more than 100 million euros (175 million euros for transport infrastructure projects) are examined, taking into consideration the “Energy Efficiency First” principle focusing both on energy systems and non-energy sectors, when they present an impact on energy consumption and energy efficiency, such as the buildings, transport, water, information and communication technology (ICT), agriculture and the financial sectors.

Speaker: Panagiotis Habesis, Head of Development Programmes, Financing and Sustainability, Hellenic Bank Association

Presentation: Financing energy efficiency projects

Mr Habesis provided an overall briefing on banks' critical and catalytic role in achieving the European Union's goals for climate neutrality by 2050 and the intermediate target of reducing emissions by 55% by 2030. In this context, he outlined the obligations created for financial institutions by both the EU regulatory framework (such as the Taxonomy Regulation, the

Sustainable Finance Disclosure Regulation (SFDR), and the Corporate Sustainability Reporting Directive (CSRD)), as well as the requirements from European Supervisory Authorities (ECB, EBA). He explained that a set of obligations and requirements have been established for banks, which they must align with, requiring them to redirect capital flows toward sustainable investments to "green" the image of their portfolios. He went on to mention the actions and initiatives undertaken by financial institutions toward this goal, specifically highlighting the participation of Greek Banks in the United Nations' Net-Zero Banking Alliance (NZBA). This initiative aims to strengthen their commitment to aligning lending and investment portfolios with the goal of achieving net-zero emissions by 2050, in line with the targets of the Paris Climate Agreement. In this light, he emphasised the particular importance for banks of financing energy efficiency projects, for which they have designed specialised, innovative financial tools and provide targeted information to their business clients. Supporting Greek businesses through financial solutions, innovative services, initiatives, and actions aimed at long-term growth, addressing modern challenges, and ensuring their sustainability remains a lasting commitment of Banks. He also mentioned that the Hellenic Bank Association and its member banks have established an ESG Data Repository & Scoring system for all businesses (regardless of size or regulatory obligation) to collect ESG information. Through the recording and collection of relevant information, the timely identification, assessment, and management of the business community's sustainability performance will be achieved, highlighting best practices and preparing businesses for upcoming changes, thus supporting their transition to a climate-neutral and socially just economy."

Speaker: Kiki Papadopoulou, Head of the Dissemination of RES & EE Applications Department, CRES

Presentation: The SMAFIN & SMAFIN Expanded projects: The forerunners of the European Alliance for Financing Energy Efficiency

Kiki Papadopoulou presented the SMAFIN Expanded project, which started in October 2023, has a three-year duration and is the continuation of the SMAFIN project (2020-2023). She mentioned the evolution since the SEIFs to the SMAFIN and SMAFIN Expanded projects and the Energy Efficiency Financing Coalition. The SMAFIN Expanded project also includes Slovenia as a participating country, which was added to the previous project group (Bulgaria, Croatia, and Romania, coordinated by Greece). The aim is to support smart financing for energy interventions in private and public buildings, investments in SMEs, and the tertiary sector, mainly by organising roundtable discussions. Mrs Papadopoulou listed the project's objectives for residential buildings, public buildings, and buildings of the tertiary sector, along with the relevant actions in the context of the project to provide meaningful policy recommendations as a result of stakeholder roundtable discussions. Proposals for the upgrade of national energy upgrade schemes, best practices and the design of competitive procedures, and the creation of an OSS service were some of the topics presented that aligned with the scope of the 1st roundtable discussion that was about to take place. It is essential to capitalise on the results of the previous project and address the weaknesses identified to improve further the dialogue and cooperation between the essential stakeholders in the public and private sectors and build capacity to implement investments in energy efficiency projects. Finally, she presented the main activities foreseen in the new implementation period, the

structure of Working Groups, Roundtable discussions and Cross Country Labs that will be organised in the project context. She introduced the three topics to be discussed in the parallel sessions and wished for a fruitful stakeholder discussion.



FIGURE 10: SNAPSHOT FROM THE INTRODUCTORY SESSION

PARALLEL SESSION 1: FINANCING ENERGY EFFICIENCY IN PRIVATE AND PUBLIC BUILDINGS – NATIONAL SCALE

Moderator: Alice Corovessi, Managing Director INZEB

The topic of the first parallel session was “Financing energy efficiency in private and public buildings—National programmes.” It included four presentations from expert speakers and was moderated by Alice Corovessi, the managing director of INZEB. The main contents of the presentations are described below, and then the conclusions of the stakeholders’ discussion are summarised and presented.

Speaker: Vicky Sita, Head of the Directorate of Energy Policy and Energy Efficiency, Ministry Of Environment And Energy

Presentation: Energy upgrading of homes - The SAVING programme.

Vicky Sita's presentation focused on the main instrument for home energy upgrades, the SAVING programme. It started by highlighting the Ministry's main investment priorities: the energy efficiency upgrade of buildings and businesses, the improvement of transportation and distribution networks, the installation of smart energy monitoring systems, and the support of RES and CHP projects through grants and loans. For the programming period 2014-2020, 20 sectoral and regional operational programmes have been implemented, utilising approximately 29 billion euros of EU funding to support the thematic objectives of the transition to a low-carbon economy and the promotion of sustainable transport and infrastructure regarding energy. The main characteristics and some statistical information of the previous versions of the SAVING programme were presented, with around 78.700 projects funded, costing 732,8 million euros in public grants. Referring to the 2021 version of the scheme, the total budget, including leverage, is estimated to be 2 billion euros. The respective budget for the 2023 programme version amounts to 973 million euros. In the residential sector, the energy upgrading programmes contributed to a 67% increase in energy-efficient houses compared to 2019. The approved number of applications in 2022 amounts to 95.000 dwellings, and the completed interventions in residential buildings in 2023 amount to 86.545. The 2020-2022 housing renovation programmes provided the possibility to cover energy efficiency improvement interventions for an additional 126.000 potential beneficiaries and are currently under implementation.

Speaker: Eleftheria Touloupaki, Project Manager, INZEB

Presentation: Building renovation passports in energy efficiency certification systems. The iBRoad2EPC project

Eleftheria Touloupaki presented the scope and activities of the iBRoad2EPC EU-funded project, which proposes a flexible and modular concept of a Renovation Passport for residential and public buildings. Eleftheria initially highlighted the implications of the EPBD recast in terms of regulatory requirements and targets for the building sector and, more specifically, Articles 19 and 20, 12, 7 and 11 on EPCs, Renovation Passports and Zero Emission Buildings, respectively. The MEPS proposed for the worst performing buildings and the need for careful planning of stepwise renovations to address the lack of initial capital make Renovation Passports a pivotal instrument for increasing renovation rates. The main characteristics and the graphical outputs of the iBRoad2EPC online tool were presented, highlighting the key advantages it offers to avoid lock-in effects, adapt to each case, and aid energy experts in providing meaningful individualised consultation, putting in minimal effort. She then described the training procedure for 65 Greek energy inspectors and the feedback they provided for the developed tool. Finally, Eleftheria referred to the field test of iBRoad2EPC in Greece, which was almost completed and included 16 public buildings (city halls, offices, educational and research buildings and a museum) amounting to approximately 18.000 square meters of total building area. The analysis of the field test outcomes in the six participating countries shows that iBRoad2EPC is considered both by experts and owners mostly useful for residential office buildings, requires additional effort of around 140% compared to EPC issuing and should cost around 160% of the EPC cost to be considered viable.

Speaker: Minas Iatridis, Head of the Energy Policy Analysis Department, CRES

Presentation: Energy efficiency financing in public buildings - the ELECTRA Programme

Minas Iatridis presented the national energy upgrade scheme for public buildings, ELECTRA, in which upgraded buildings should achieve a minimum of energy class B while reducing annual primary energy and CO₂ emissions by at least 30%. The objectives of the scheme are the promotion of the exemplary role of public buildings in terms of energy efficiency, the contribution to achieving climate-related targets such as the national goal for a 3% renovation of the useful surface of the buildings of the central public administration and the acceleration of large-scale EE projects with significant impact on energy efficiency in the public sector—additionally, the promotion of the business model of ESCOs using Energy Performance Contracts. The scheme's implementation period is 2022-2025, with a potential for extension. The potential beneficiaries of the programme include public authorities that use privately-owned buildings listed in paragraph 1 of Article 7 of Law 4342/2015, general government bodies and Legal Persons governed by Public Law and their partnerships with a total budget of 620 million euros coming from the Deposit and Loans Fund, the European Investment Bank and the RRF. The remaining part of the financing can come from the Beneficiary Bodies' own resources and the resources of ESCOs or third parties through Energy Performance Contracts (EPCs). Then, the characteristics of beneficiary buildings were listed, with the most important ones being that they need to be classified in energy class C or lower and have a useful area of at least 450 square meters. It is worth noting that the upper funding limit for the proposed interventions is defined to be 1,80 € per kWh of saved primary energy annually. The subsidy rate is set at 50% of the amount of eligible public expenditure with a possibility to reach 60% if the building achieves at least energy class B+ or is considered to be deeply/radically renovated according to the Greek regulations, or 70% if both requirements are met with even more favourable conditions for the buildings listed in article 7 of Law 4342/2015 and if EPCs are used to fund the

remaining amount of the project budget. The final slides of the presentation included information on the application procedure and the documentation needed, as well as statistical data on the 189 already submitted applications with an average of 69% percentage of grant funding. The first-grade seismic evaluation and the lack of response from the potential beneficiary were the causes of rejection for 60% of rejected cases.

Speaker: Georgios Kouloukakis, Funding for LA, Business Director, Deposit and Loan Fund

Presentation: Financial tools for energy efficiency projects

Georgios Kouloukakis introduced the Deposits and Loans Fund as an entity with the purpose of the exclusive safekeeping and management of any type of deposit, as well as the provision of funds in the form of loans to finance public utility projects which a current financing impact in terms of investment projects and programmes of at least 3 billion euros. He then proceeded to present the four financing programmes currently established by the fund, which concern the upgrading of municipal street lighting, the support of electricity production utilising net metering, the promotion of electric mobility and RES in water and wastewater management infrastructures (development programme “Antonis Tritsis”) and energy upgrading of public and municipal buildings through the ELEKTRA scheme. Some key information on each programme:

- Street lighting is the second largest electricity consumer in Municipalities, with an energy-saving potential of 60-75%, translating to a reduction of energy costs by up to 60%. The Fund finances up to 100% of the investment with a low interest rate and speedy procedures, provides technical assistance and example documentation for interested Municipalities, and has financed 33 municipalities to date with 122 million euros in the project budget.
- The financing of PV installation projects with net metering offers Municipalities up to 3 years of future energy offset via virtual net metering. The best practice of utilising municipal and educational buildings with large roof areas for installing PV panels was introduced as a solution for municipalities with limited available space.
- The Antonis Tritsis programme is considered to significantly impact EE projects in Municipalities, with funds released totalling over 1,55 billion euros and large participation. Many EE actions are supported, ranging from electrification projects to energy management, infrastructure, and building-related projects and services. Approximately 120 million euros have been dedicated to electrification actions and 207 million euros to energy improvement and management actions and the utilisation of RES, especially in the water supply and sewage pumping stations.
- Finally, some information on the budget and the building categories eligible for the ELECTRA scheme was mentioned, adding to Minas Iatridis's comprehensive programme description in the previous presentation.

STAKEHOLDERS VIEWS

The discussion among the stakeholders revolved around two main topics:

- Proposals to upgrade the SAVING energy efficiency scheme and
- Challenges in implementing the ELECTRA scheme and regulative or other provisions to support the participation of public buildings in the scheme.

The stakeholders took the opportunity to express their opinions and engage in a lively discussion on the national energy upgrading schemes for residential and public buildings. The main barriers and potential solutions through the combination of different actions and synergic planning were the

strong points of the discussion, which was led by stakeholders coming from various backgrounds (municipalities, energy market, policy and managing authorities, consulting agencies, etc.). The main conclusions and outcomes of the first parallel session discussion are presented below.



FIGURE 11: SNAPSHOTS FROM THE 1ST PARALLEL SESSION

CONCLUSIONS – MAIN OUTCOMES

Regarding the SAVING energy efficiency scheme:

- A helpful strategy would be to combine the “SAVING” and “PV panels on the roof” schemes depending on the availability of the network for new PV projects in each region. When combined, the energy upgrade interventions of the “SAVING” scheme should be done first and then proceed with the PV installations on the roof, as some cases of exclusion from the SAVING scheme were reported due to insufficient capacity of the network to support new PV installations in some regions.
- It is considered very important to reduce bureaucracy, which in the latest versions of the SAVING scheme discourages owners from applying and taking particular care of the sufficient experience of the scheme inspectors responsible for successfully completing the applications.
- The SAVING-RENOVATING scheme could spread over a longer period for the works and be combined with Renovation Passports to monitor the interventions implemented effectively.

Some proposals for the improvement of the ELECTRA scheme are the following:

- Technical assistance may be needed in many cases for municipalities to prepare applications and carry out the works in the programme context. Also, model projects of Energy Performance Contracts would be useful for street lighting projects and preparing works, construction management and monitoring energy upgrading projects.
- More favourable conditions are needed for cultural heritage buildings. In particular, the maximum cost of €1.80/sq. meter should be increased due to the restrictions/limitations characterising these projects concerning energy savings. This could also counteract the fact that many Municipalities consider the essential 50% grant very low and acts as a barrier to the scheme's penetration in public entities when other programmes offer up to 100% funding.

PARALLEL SESSION 2: FINANCING ENERGY EFFICIENCY IN PRIVATE AND PUBLIC BUILDINGS – EUROPEAN FUNDING AND CASE STUDIES

Moderator: Vlasia Economou, Director of the Institute for European Energy and Climate Policy, IEECP

The topic of the 2nd parallel session was “Financing energy efficiency in private and public buildings – European funding and applications.”. The moderator, Vlasia Economou (*Director of The Institute for European Energy And Climate Policy, IEECP*), started the discussion by presenting the PROSPECT+ H2020 project, which began in September 2021 and lasted 42 months. The project’s focus is capacity building for cities and regions on their way to adopt innovative financing for their local energy and climate actions through 4 learning cycles and three peer methods dealing with five thematic areas (public buildings, private buildings, public lighting, transport and cross-sectoral projects). He also presented a case study project of 24 energy-refurbished public buildings in the Municipality of Maribor utilising a combination of private, cohesion fund and EPC financing, and a best practice public lighting upgrade project in the Municipality of Albertville using interactive financing.

Speaker: Eleni Gioti, Senior Advisor, EIB Advisory Services

Presentation: Financial instruments of the European Investment Bank - The ELENA programme

Eleni Gioti shared a few critical facts about EIB, which acts as the most significant multilateral lender and borrower in the world with over 1,5 trillion euros invested since 1958 in more than 14.400 projects in over 160 countries and a mobilisation of 4,8 trillion euros mobilised overall via crowding-in bank. She provided an overview of the EIB’s Climate Adaptation Plan, launched in 2021 and focuses on supporting smarter, faster, and more systematic climate adaptation on a global scale. The presentation also highlighted EIB’s products: financial advice, technical advice, and capacity-building services. The range of services is linked to EIBG funding, EU policy objectives and individual client needs, thus holistically supporting large-scale investment projects for public sector entities, businesses and financial intermediaries. The last part of the presentation was dedicated to the ELENA model for sustainable energy, residential and urban transport projects addressed to public and private entities on a first-come, first-serve basis. ELENA grants can cover up to 90% of the eligible costs, and applicants will receive direct EIB support to prepare their application for the grant. Finally, a case study of the ELENA contract in the Region of Crete was presented, specifically the INTERACT project with an approved ELENA grant of 1,346 million euros involving coordination and support services as well as technical assistance for implementing EE actions in the street light network, in public buildings and RES development through Energy Communities.

Speaker: Dinos Papapolyzos, Managing Partner, TREK Development

Presentation: Energy upgrade of Public Buildings through the ELENA mechanism, the 5x5 experience in Greece

Dinos Papapolyzos introduced TREK development as a seasoned professional and infrastructure development firm that has provided advisory and infrastructure development services since 1995 in Europe, North Africa, and the Middle East. TREK supports the most extensive active portfolio of Infrastructure, RES and EE projects in Greece by providing technical and legal support, finance modelling, PPP/EPC preparation and tendering, quality assurance and related services. Several ELENA projects in which TREK development has been involved were briefly presented: the PRODIGEE project for the Greek Ministry of Economy and Finance and energy projects for the Region of Central Macedonia, the Region of South Aegean, the Region of Crete and the Region of Epirus. The mentioned projects involved a range of EE-related actions, such as the modernisation of the street lighting network, the energy upgrade of public buildings (including installing PV panels), and

schemes designed for energy communities for local and virtual net metering and eco-friendly means of transport.

Speaker: Dimitris Mezartasoglou, Department of Energy Policy Analysis, CRES

Presentation: Roadmaps for the radical renovation of houses of energy-poor households

Dimitris Mezartasoglou presented the REVERTER project funded under the LIFE Programme with the primary objective of providing tenants or landlords with comprehensive information and realistic building renovation solutions in the form of deep renovation roadmaps to reduce energy poverty in Europe. He described the main steps for preparing the roadmaps and 15 policies and measures identified in the project context. In addition to the roadmap design offered by the project, the development and establishment of an OSS provide services to vulnerable households on energy renovation, awareness raising, building assessment, information on available funding, and support for drafting applications and reducing energy consumption.

STAKEHOLDERS VIEWS

The discussion mainly revolved around the ELENA mechanism and its pivotal role in climate change adaptation and resilience in buildings, infrastructure and transport. It was mentioned that ELENA also supports national development banks (such as ETEAM) and provides up to 90% of the costs, including payroll and consultants, requiring in remaining funds only 1 euro for 20 euros investment in energy projects and 10 euros investment for transport and buildings projects. In the residential sector, the renovation of buildings and the installation of RES are of importance. In contrast, emphasis should be placed on electrification and charging actions and projects in public mass transport.

CONCLUSIONS – MAIN OUTCOMES

- The ELENA mechanism requires three years for the study and auction, so it helps mature projects be auctioned.
- In Greece, there are only 5 ELENA projects in street lighting, district heating, and RES in the built environment, while infrastructure projects such as desalination must also be added. The minimum budget is 30 million euros, assuming large projects and municipalities.
- PRODIGEE is open, and funding can be made upon application
- Because it operates with banking criteria, it certifies the importance and quality of the investment.
- NSRF: a mature project with PRODIGEE is more straightforward to get funding, although it is not an official criterion.
- Checks on the possibility of financing with PEP/Development, NSRF, etc., as long as it is an eligible expenditure in these programmes. Energy loads must be recorded to calculate what costs are necessary
- Because Municipalities have structural problems, they must take the Operational Plans that record the priorities and which projects will have priority more seriously. Also, the DI SME, by climate law, specifies these projects.
- A vital end is harmonising costs with Community and National legislation changes.



FIGURE 12: SNAPSHOTS FROM THE 2ND PARALLEL SESSION

PARALLEL SESSION 3: FINANCING ENERGY EFFICIENCY IN THE TERTIARY SECTOR AND THE INDUSTRY

Moderator: Christos Tourkolias, Energy Policy and Planning Sector, CRES

During the session, an overview of alternative schemes and the implementation case in Serbia were presented, supported by the EBRD and the national program EXOINOMO for SMEs. The discussion revolved around key questions, including the prerequisites for the market to transition from conventional programs to alternative financing schemes, the mechanisms through which the banking sector could secure financing for the involved companies, and the primary challenges industrial units faced in preparing for financing initiatives. Additionally, the role of Energy Services Companies (ESCOs) in promoting energy efficiency in the industrial sector was examined, highlighting their potential to drive sustainable advancements in the industry.

Speaker: Ivana Rogulj, IEECP

Presentation: Obstacles and incentives for financing energy-saving projects in SMEs

Ivana Rogulj started her presentation by highlighting the 14 billion euro investment gap in EE projects in the European industry sector. The major challenge in company targeting is the substantial (99,8%) share of SMEs in the European industry sector, which are not as suitable hosts for third-party funded EE projects as large industrial enterprises. The barriers for companies to implement EE-related projects can be categorised as financial, surrounding and internal obstacles, mainly concerning the lack of governmental support, awareness of energy efficiency regulations and benefits, lack of trust in external energy experts and auditors, lack of expertise and technical capacity and limited access to financial incentives and tools. The tangible economic benefits and other non-energy related benefits of EE interventions help to offset these barriers. According to the DEESME H2020 project outcomes, funding mechanisms may already exist for SMEs, along with dedicated tools, training, and education resources. To some extent, there is a significant lack of regulatory measures, fiscal incentives and voluntary agreements. New models and assisting tools for green financing in SMEs have been introduced, such as EPCs, loan/debt financing, energy service agreements, green bonds, economic incentives, energy efficiency mortgages, property-assessed clean energy, energy savings insurance, efficiency as a service, etc. According to the EEFIG, the four critical key drivers are a clear business case (including guaranteed services), mandatory energy audits, the availability of tailored financial products, and technical assistance. The DEESME project has developed an approach to aid companies in implementing EE investments via structured guidance, calculation, emphasis on non-energy benefits, de-risking and benchmarking. A tool to analyse investments according to the MB approach was also developed. Finally, Ivana Rogulj highlighted the link to improved ESG indicators, which promote alignment with sustainability reporting standards (EFRAG).

Speaker: Christos Tourkolias, Energy Policy and Planning Sector, CRES

Presentation: Alternative business financing schemes

Christos Tourkolias started his presentation by mentioning four key points foreseen in the Greek NECP (2019):

- Maximisation of leverage through the efficient use of available government resources, the adoption of innovative financing tools and the mobilisation of the domestic financial sector.
- Emphasis on the energy upgrade of the building stock through energy efficiency contracts and PPPs
- Implement competitive procedures to achieve energy savings by grouping small individual projects to de-risk and maximise economic viability.
- Adoption of innovative and specialised blended/hybrid financing programmes to promote energy services more widely and to utilise the untapped potential.

He also referred to the reforms under the REPowerEU as a roadmap for innovative energy efficiency interventions and identifying new financial instruments. Next, he referred to several alternative financing schemes for businesses, starting with the “SAVING in businesses” scheme with a total public budget of ~177 million euros co-financed by the RRF and national funds. The main characteristics of eligible projects and businesses and some key facts about the programme were presented. The participating businesses were mainly from the tourism sector, and a total of 2.923 open applications were submitted by 16.05.2024. Christos Tourkolias also referred to Law 4843/2021 on energy efficiency auctions, the specifications for participating businesses, energy efficiency targets, eligible measures, and the application procedure. Another action was mentioned to support existing manufacturing small, very small, and medium-sized enterprises (SMEs) in implementing interventions to improve their energy efficiency, such as fundamental upgrading and replacing energy-intensive machines and production lines in Eastern Macedonia and Thrace. This pilot programme provided financing under an energy efficiency auction scheme to support investment plans. It was open to applications until 06.08.2024, supporting 100% of the costs for eligible measures to achieve at least 72.000 MWh in annual final energy savings.

Finally, two market models for financing EE interventions utilising energy tariffs/bills were presented, the on-bill financing scheme and the on-bill repayment scheme, with implemented case studies in Illinois, Butler and Southern California. The specific emphasis points for the comprehensive design of such a financing model have been identified. Christos Tourkolias closed his presentation by outlining the targets, legal/regulatory aspects, scheme format and funding sources, and managerial aspects of such a financing model. He then concluded by describing the project implementation procedure from the application stage until the completion of the programme and the repayment of funds through energy bills.

Speaker: Costas Dimopoulos, Green Buildings &TMT, Climate Strategy and Delivery, EBRD

Presentation: Public ESCO Project – Energy renovation of apartment buildings connected to the district heating system

Costas Dimopoulos presented a bill-financing scheme through energy bills in Serbia, including technical assistance, an EBRD loan, and a subsidy.

The key points of the programme's structure include:

- Households express interest in the district heating companies, which participate in the scheme and carry out the evaluation based on the repayment history of the interested households.
- The companies prepare the implementation plan and finance the interventions, which are repaid through energy bills.
- For the participation of households in the programme, a relative majority of approval is required from the council of the apartment building
- The percentage of the majority is a criterion for evaluating applications.
- Repayment is determined based on actual energy consumption.
- The contract is concluded with the building's general assembly, and the costs are distributed to the apartments based on the corresponding methodology for the other costs.

STAKEHOLDERS VIEWS

The stakeholders' discussion started with the identification of the main barriers to EE projects in businesses:

The long repayment period is a problem, resulting in the preference of bankable projects by banks and ESCOs. In the industrial sector, the problem is smaller than in buildings, which are characterised by low energy consumption.

- There is also limited response from the ESCOs due to the small number of mature projects and the cost to mature existing ones.
- Difficulty preparing and maturing projects is a key barrier to financing energy efficiency improvement projects.

It was also noted that proper project preparation and technical support are key to successfully implementing the schemes.

Regarding the "Saving for Businesses" programme, which has an initial budget of 177 million euros, stakeholders mentioned that participation has not been satisfactory so far, so modifications will be made to make the programme more attractive for businesses from the trade and tourism services sectors.

CONCLUSIONS – MAIN OUTCOMES

The conclusions/outcomes of the 3rd parallel session are organised in the following bullet points:

- The long repayment period is a problem for EE investments in businesses, resulting in the preference for bankable projects by banks and ESCOs. In the industrial sector, the problem is smaller than in buildings, which are characterised by relatively low energy consumption.
- It is more difficult to access funds through loans for smaller projects because a certain project scale is required. The specific problem can be solved by grouping the projects and promoting the relevant scheme.
- The energy efficiency auction scheme is particularly promising. However, the state aid framework must be further investigated in the case of a different mix of consumers.
- The on-bill-financing scheme is also seen as an effective and potentially more meaningful tool, but it requires the commitment of participating consumers.
- Supply codes need to be changed to reflect the terms of the specific scheme, while invoices need to be simplified given their complexity.

- The duration of the contract is also a critical parameter in the scheme's success, given that it should be as short as possible.
- The terms of switching providers should be defined clearly and transparently, and the repayment amount may be better not collected by another provider because managing it creates problems and additional costs.
- Regarding implementing interventions in industry, financing projects with a 4-10 years payback period is preferred.
- The industry sector lacks information about the benefits of energy-saving interventions and financing possibilities. As they are currently constrained, strengthening programmes to improve energy efficiency in industrial units is imperative.
- Financing and other intervention support should consider the positive effects on human health.



FIGURE 13: SNAPSHOTS FROM THE 3RD PARALLEL SESSION

ROUNDTABLE CONCLUSIONS

- Combining energy upgrade programmes, such as SAVING, with PV installations could improve impact, with a focus on reducing bureaucracy and enhancing inspector expertise.
- Enhancing the ELECTRA programme with technical assistance for municipalities and model projects, especially for heritage buildings, was recommended to facilitate adoption.
- Streamlined processes and extended timelines for combined energy-saving and renovation projects were suggested to maximise effectiveness.
- Improved funding options for cultural heritage buildings, including higher grant percentages to cover unique project needs, could encourage more public sector participation.
- The ELENA mechanism is pivotal in enabling large-scale projects but requires lengthy preparation; streamlining this process could enhance uptake.
- Stakeholders highlighted the importance of building renovations and transport electrification in public sectors and the need for simplified access to funding.
- Developing large-scale, cross-sector projects using EU funds focused on building resilience was recommended for more significant impact.
- Integrating EU and national frameworks to create a more seamless funding pathway was viewed as critical for supporting ambitious projects.
- Long repayment periods and limited engagement from banks and ESCOs present barriers for SMEs in energy efficiency investments.
- The on-bill financing scheme shows promise but requires strong consumer engagement and simplified administrative procedures to succeed.

- Grouping smaller projects can simplify funding access and make them more financially viable.
- Raising business awareness of the benefits of energy efficiency, alongside favourable financing options, is essential for encouraging uptake.

All material related to the 1st National Roundtable in Greece is available at the following link:
<https://www.smafin.eu/1st-smafin-expanded-national-roundtable-in-greece/>

5. ROMANIA

5.1 1ST NATIONAL ROUNDTABLE IN ROMANIA

The 1st SMAFIN Expanded national roundtable in Romania was organised by the SMAFIN Expanded Romanian partners **RoGBC** - Romania Green Building Council (www.rogbc.org) and **Pro-nZEB** - Cluster for Promoting nearly Zero Energy Buildings (www.pro-nzeb.ro). The organisers took into consideration the following aspects:

- Follow the guidelines included in the SMAFIN Expanded Engagement Plan.
- Follow the recommendations and guidance of the Romanian Working Group (WG) members provided during the second meeting on 10 April 2024.
- Seek support from key government institutions for the SMAFIN Expanded objectives both for the patronage of the event and for facilitating the presence of relevant key speakers in the plenary sessions to synchronise the roundtable theme with the stage of energy efficiency policies implementation in Romania, focusing it on the operationalisation of energy efficiency strategies and action plans.
- Work with experienced moderators recommended by the WG members who can actively disseminate project activities and results.
- Continue to involve relevant speakers with well-known public positions, using their presence on the agenda to attract high-quality participants and ensure a high-level event. For example, Mr. Laszlo Borbely, State Counsellor of the Prime Minister of Romania, is a traditional speaker with a high decisional position who participates in all Romanian roundtables.
- Identify and facilitate the participation of relevant international speakers to connect the debate to the latest developments on the financing EE at the European level:
 - Representative of the EC,
 - Representatives of international FI,
 - Experts in relevant European projects (Horizon 2020, LIFE or other relevant programmes).
- Secure high-quality logistic and technical services.

According to the above-mentioned targets, the following steps were implemented by the Romanian project team:

- The strategic partnership with the Romanian Government was established by the confirmed patronage of the event:
 - the Department for Sustainable Development,
 - the Ministry of Development, Public Works and Administration,
 - the Ministry of Energy,
 - the Ministry of Finance.

The invitations and other event visuals included institutional logos accordingly.

- The confirmed speakers included top representatives of all stakeholder target groups:
 - European Commission DG Energy;
 - Romanian Government;
 - Financial institutions: EBRD, European Investment Bank;
 - Regional Institutions;
 - Relevant Associations;
 - Experts from the Horizon 2020 projects (nZEB Ready) and national grants.

The national roundtable was advertised in specialised publications and on social media and was professionally recorded and transmitted online by the Journal of Romanian Patronage and streamed by the Romanian project partners' Social Media channels.



FIGURE 14: ADVERTISING FOR THE 1ST SMAFIN EXPANDED ROUNDTABLE BY REVISTA PATRONATULUI ROMAN

The SMAFIN Expanded national roundtable was organised with a physical presence at Noblesse Palace in Bucharest, on the 21st of May 2024 starting at 9:30 EET and lasting 5 hours. It was also hosted on the Zoom platform for speakers and participants present online. The national roundtable joined 39 participants, of which 11 as speakers, 4 moderators, and 3 rapporteurs. 3 of the participants attended online.

The roundtable started with an opening plenary session. After a short break, the participants were split into 3 groups, according to their option for one of the parallel sessions selected at registration. After the end of the parallel sessions and the second break, the participants reconvened for a final plenary session.

The plenary sessions were moderated by a well-known journalist who specialised in the energy field. Each parallel session had a moderator (who convened the sessions) and a rapporteur (who summarised the discussions).

The agenda of the final sessions included presentations of general interest and the rapporteurs' synthesis of the debates of the parallel thematic sessions. The closing session ended with general conclusions on the overall event, which will be used as the basis for subsequent discussions and analyses of the national SMAFIN Expanded Working Group and further discussion of potential SMAFIN Expanded policy recommendations for supporting energy efficiency national objectives.

The detailed agenda for the event is presented in [Annex RO1](#).

The general topic approached by the 1st SMAFIN Expanded roundtable in Romania was *"Operationalising Energy Efficiency Strategies and Action Plans - Active financing mechanisms and instruments: exchange of experience, challenges, lessons learned, good practices"*.

The parallel session topics, as discussed and agreed upon by the Working Group members, were:

- Integrated energy renovation services for buildings.
- Financial mechanisms for the implementation of energy efficiency and climate change strategies and action plans.
- Integrated mechanisms for monitoring the implementation of energy efficiency financing programmes.

All topics aimed at discussing, refining, and validating policy recommendations to support the energy efficiency sector.



FIGURE 15: IMAGES FROM THE PLENARY SESSION

As the event is designed mainly as a debate forum, generous slots in the agenda were reserved for discussions in addition to relevant presentations.

BACKGROUND

The 1st Romanian SMAFIN Expanded roundtable continued the debates in the previous events organised within the SMAFIN project while approaching new elements, as mentioned previously, following the important developments that took place since then and including new areas of interest covered by the SMAFIN Expanded project (SMEs, tertiary sector).

AGENDA

TABLE 4: AGENDA 1ST ROUNDTABLE IN ROMANIA

TIME	TOPIC
09:30 – 11:00	Introductory PLENARY SESSION Moderator: Gabriel Avăcăriței, Editor-in-Chief Energynomics Speakers: Laszlo Borbely, State Adviser in the Prime Minister's Office, Coordinator of the Department for Sustainable Development within the General Secretariat of the Government Bogdan Atanasiu, Senior Policy Officer, on Energy Efficiency in Buildings at DG Energy Horia Petran, Pro-nZEB Cluster / INCD URBAN-INCERC
10:00 – 11:30	Coffee Break
11:30 – 13.00	Parallel Session 1: Integrated Energy Renovation Services for Buildings

	Moderator: <i>Ion Dogeanu, Executive Director, Agency for Energy Efficiency and Environmental Protection, AEEPM</i> Rapporteur: <i>Manuela Drăghicescu, Executive Director, SUNE New Energy Sources Employers Association</i> ▪ Horia Petran, INCD URBAN-INCERC/Cluster Pro-nZEB
11:30 – 13.00	Parallel Session 2: Financial Mechanisms to Implement Energy Efficiency and Climate Change Strategies and Action Plans Moderator: <i>Oana Iosip, Advisor – Romanian ESG Employers’ Council</i> Rapporteur: <i>Andrei Botis, President of the Romanian Green Building Council</i> ▪ Ștefania Racolța-Cruceru, Head of Climate Strategy & Regional Delivery for Central and South-Eastern Europe, EBRD ▪ Adrian Ghiță, Romanian Energy Efficiency Fund ▪ Alexandru Kelemen, Executive Director of the Association for Integrated Territorial Development Jiului Valley
11:30 – 13.00	Parallel Session 3: Integrated Mechanism of Monitoring a Programme’s Implementation Of Energy Efficiency Financing Moderator: <i>Mihai Moia, Executive Director, ROENEF</i> Rapporteur: <i>Andrei Laurențiu Popescu, INCD URBAN-INCERC</i> ▪ Darrian Cotesu, Deputy Director General, Directorate General for Regional Development and Infrastructure – Ministry of Development, Public Works and Administration ▪ Ioana Mitrea, Director DRGE, Banca Transilvania ▪ Matei Dimitriu, Counsellor, Department of Energy Efficiency, Ministry of Energy
13:00 – 14:45	Lunch Break
14:45 – 15.00	Closing Plenary Moderator: <i>Gabriel Avăcăriței, Editor-in-Chief Energynomics</i> ▪ Radu Dudău, Energy Policy Group ▪ Ana Maria Lupascu, Economist, Energy Efficiency & Energy Advisory JASPERS, European Investment Bank ▪ Event Rapporteurs summarise the parallel sessions.

WELCOME SESSION

The moderator, Mr Gabriel Avăcăriței, Editor-in-Chief at Energynomics, gave the welcome speech. He explained the context of the event and its structure and mentioned the important support received from the governmental institutions.

Speaker: László Borbély, State Counsellor of the Prime Minister of Romania, Coordinator of the Department for Sustainable Development - Government of Romania

Mr Borbély began by stressing the importance of the current period until 2026 for the energy efficiency sector in Romania, while the National Recovery and Resilience Plan (NRRP) offers huge financing opportunities. He underlined that the Department for Sustainable Development acts as a catalyst supporting Romania’s sustainable development goals, including energy efficiency. Romania is also recognised as a European regional centre that promotes Agenda 2000. It is encouraging that the initial set of projects funded under the NRRP has started. However, ensuring that their outcomes are closely monitored is equally important. One of the key milestones of the NRRP is the establishment of the Digital Building Register, which supports the inventory of Romania’s building stock.

The action plan foresees measures for more efficient financing mechanisms. Discussions started with the Romanian Association of Banks and the National Bank. They showed interest in supporting

energy efficiency projects, but the relevant information must reach the citizens in a way that allows them to understand.

There is a lack of specialists in the field, which makes training a significant measure. In Romania, there is a new profession—sustainable development expert—a profession that does not exist in any other EU country. The NRRP is funding the training of 2000 experts; the first 150 have already obtained the certification. Such experts are also needed in the construction field. Training programmes will be developed in 10 universities.

Speaker: Bogdan Atanasiu, Senior Policy Officer, on Energy Efficiency in Buildings at DG Energy, - online

Presentation: Energy performance of building Directive - EPBD

Mr. Atanasiu's presentation focused on the key areas of the reformed Energy Performance of Buildings Directive (EPBD). These include minimum energy performance standards for non-residential buildings and national building renovation plans to enhance energy efficiency. The directive also sets ambitious targets for reducing carbon emissions by making zero greenhouse gas (GHG) emissions the standard for new buildings, accelerating solar energy use, and eliminating fossil fuel subsidies.

Further, the supporting framework reforms highlight the modernisation of energy performance certificates (EPC), building renovation passports, and integrating smart readiness indicators. Additional emphasis was placed on improving infrastructure for sustainable mobility, enhancing indoor air quality, digitisation, and the role of one-stop shops in streamlining energy renovation efforts.

Speaker: Horia Petran, Pro-nZEB Cluster / INCD URBAN-INCERC

Presentation: SMAFIN Expanded: Supporting the implementation of smart financing for energy renovation of existing private and/or public buildings, investments in SMEs and the tertiary sector

Mr Petran presented the main objectives of the SMAFIN Expanded project. In this context, he highlighted the importance of round tables: encouraging structured dialogue with key decision makers, identifying barriers to large-scale investment, and promoting energy efficiency funding in line with priorities and national opportunities. As one of the main policy recommendations from the SMAFIN project, he also stated the importance of creating One-Stop Shops that could offer Integrated services for energy renovation of residential buildings and the public. The other recommendations of SMAFIN policies are:

- Increasing energy efficiency through sustainable financing solutions using mechanisms and financial instruments to operationalise energy and change strategies and action plans, with a multiplier effect of public funds.
- Improving the monitoring of existing funding programmes – through Integrated mechanisms for monitoring the implementation of energy efficiency financing programmes (necessary indicators, monitoring/reporting mechanisms, digital register of buildings).

Discussion

Mr. Borbely took the floor to underline again the necessity of collaboration among different structures of central and local public administration and technical experts. He appreciated that the proposals of the SMAFIN Expanded project are feasible and needed. He also stated that the Department for Sustainable Development will set up a Centre of Excellence in Sustainable Development this year, comprising a One-Stop-Shop for Sustainable Development.

PARALLEL SESSION 1: INTEGRATED ENERGY RENOVATION SERVICES FOR BUILDINGS

Moderator: Mr. Ion Dogeanu, Executive Director of the Agency for Energy Efficiency and Environmental Protection Bucharest (AEEPM)

Rapporteur: Manuela Drăghicescu, Executive Director, SUNE New Energy Sources Employers Association

This session addressed the issue of increasing renovation rates and the level of performance required for residential and public buildings to achieve Romania's set targets in the EE sector, following mainly deep energy renovation or achieving the nZEB level of public buildings, including energy produced from renewable sources.

The central topic discussed in this session is the definition and promotion of the One Stop Shop (OSS) concept in Romania. It would provide an integrated solution, information-services-resources, for building owners' renovation efforts. A pilot project at the municipal level has already been started in Romania within a European project financed by the H2020 programme (Padova FIT Expanded). An OSS model in Romania should emerge after discussions on who manages OSS, access to funding through innovative mechanisms with private financing, and the involvement of all necessary actors.

Speaker: Horia Petran, INCĐ URBAN-INCERC/Cluster Pro-nZEB

Presentation: nZEB Roadshow - key stakeholder involvement model iBRoad2EPC - a tool for defining the deep renovation passport

Mr. Petran's presentation addressed the aspects related to the implementation of the EE projects. He presented the main elements of the One Stop Shop component within RePowerEU: the establishment of single information counters (One Stop Shop—OSS) to provide energy consulting services in the fields of energy efficiency and energy production from renewable sources for consumers. A one-stop online information point for funding programmes on energy efficiency and using energy from renewable sources in buildings and households. An anti-bureaucratic approach is desired at the service of citizens—a one-stop shop for advice on energy efficiency and green energy production.

He also presented the iBRoad2EPC project that embeds renovation passport elements in the existing EPC schemes:

- iBRoad2EPC is a means of providing energy consultancy for building owners developed by construction professionals.
- iBRoad2EPC outlines an initial renovation strategy on how a building can become climate-neutral in the long term.
- The strategy may include a complete renovation in a single stage or a renovation in several stages.

Additionally, the nZEB Roadshow project represents a best practice for involving stakeholders for potential technical assistance in OSS: it builds on previously developed European projects, such as the creation of the Building Knowledge Hub, and is focused on a marketing campaign involving the full range of stakeholders in series of on-ground nZEB days, consisting of various events. The initial purpose was to design and construct mobile demonstration units, like the mobile nZEB house developed by the Croatian project partner. The Cluster Pro-nZEB managed to build a mobile unit containing models, which is used to organise nZEB Days in different locations. The first event of this type was held in Bucharest, and it lasted 6 days, followed by 6 other events of 4 days in different representative cities. The events are held in public spaces, including exhibitions of building products and technologies, practical demonstrations and gamification, training courses for designers and construction workers, information sessions and free consultations for citizens active in the real estate market, on-site training at public building construction sites, career orientation sessions and construction job fairs with focus on the local SMEs.

STAKEHOLDERS VIEWS

- Regarding the EE in building projects, banks are willing to finance nZEB projects and are interested in integrated renovation projects, but the association of owners are not usual clients, as they are used to receiving a high percentage, up to 100%, of grants.
- Legal provisions should be improved to determine owner associations to be more open to implementing and co-financing energy renovation projects
- There is a need for efficient money allocation; subsidies should be given only to those who need them.

CONCLUSIONS – MAIN OUTCOMES

- Establishing One-Stop Shops is critical for integrating energy renovation services for residential and public buildings.
- Boosting energy efficiency requires adopting sustainable financing solutions that ensure long-term improvements and viability.
- Effective financial mechanisms and instruments must be implemented to operationalise energy strategies and action plans.
- Energy strategies and action plans must be structured to drive impactful, sustainable energy transformations.
- Public funds should be used strategically to create a multiplier effect, attracting private investments to meet climate goals.
- Enhancing monitoring energy efficiency funding programs through integrated indicators, reporting, and a digital building registry is essential.
- Developing integrated mechanisms for monitoring energy efficiency financing programmes and using necessary indicators, reporting tools, and digital building registries are vital.

PARALLEL SESSION 2: FINANCING MECHANISMS FOR THE IMPLEMENTATION OF ENERGY AND CLIMATE CHANGE STRATEGIES AND ACTION PLANS

Moderator: Oana Iosip, Advisor - Romanian ESG Employers' Council

Rapporteur: Andrei Botis, President of the Romanian Green Building Council

This session addressed the development of mechanisms for the effective implementation of strategies and action plans for energy and climate in the context of recently published national programmes and the need to multiply the effect of public funding. Representatives of the Ministry of Development, Public Works and Administration, responsible for implementing the Long-Term Renovation Strategy – LTRS, the Ministry of Energy, researchers and Financial Institutions involved in energy efficiency programmes were invited to present their achievements and best practices.

The main topics of discussion covered in this session are:

- Financing instruments for the Renovation Wave and LTRS Implementation.
- The support of Financial Institutions.
- The European experience regarding energy efficiency support mechanisms to ensure the increase in the multiplier effect of public financing for energy renovation of buildings and energy efficiency in the industry.

Speaker: Ștefania Racolța-Cruceru, Head of Climate Strategy & Regional Delivery Central and South-Eastern Europe, EBRD

Presentation: Accelerating the Green Economy Transition in Romania

Mrs. Racolța reviewed the successful projects of the EBRD in energy efficiency. A common characteristic of these programmes is that their model is an integrated one-stop shop that can

contribute to overcoming barriers and risks by joining commercial financing with technical assistance, capacity building, project evaluation, monitoring, and reporting.

Ongoing and future programmes of the EBRD:

- EBRD is working on new financial instruments. There is an allocation in the NRRP and in the InvestEU instrument. EBRD will build a financial instrument to guarantee portfolio risks, specifically supporting energy efficiency in buildings and addressing both the demand and supply sides.
- The Green Cities Programme offers both financing and technical assistance to municipalities and utility companies that want to prepare in the medium and long term for the measures and policies necessary to develop green cities. In RO, there are projects in five cities.
- The EBRD business model combines policy engagement with technical assistance to prepare action plans for green cities.
- EBRD assessed a financing deficit of 180 billion EUR/year, of which the majority of the needs were identified as investment needs in green buildings, energy renovation of existing buildings, electrification in transport and renewable energy, mostly concentrated in Central and Eastern Europe. This means that there is room in the market for all financial instruments.

Mrs. Racolța-Cruceru stated that EBRD supports the green transition in 36 economies and highlighted the fact that there is an important increase in GET investments in Romania in the last three years. She presented the Financing Instruments and Programmatic Approaches of EBRD

- Reflecting its operating model, EBRD finances its projects at market rates and under sound banking principles. EBRD climate action benefits from its broad range of instruments, which includes private sector loans, public non-sovereign loans, risk sharing, direct equity, and investments in equity funds.
- EBRD–EC Green Innovation Programme (co-financed by Horizon2020) is providing TA and grants for eligible green innovation projects undertaken by client SMEs and midcaps.
- EBRD is one of the main implementing partners of InvestEU Programme. The Bank signed a guarantee agreement worth up to €450 million with the European Commission that can be used for companies, municipalities and financial institutions. The Bank will use this guarantee in the EU-12 region to mobilise investments directly and indirectly (via partner banks) across sectors (incl. energy infrastructure, low carbon technologies, green buildings, circular economy, critical raw materials, etc.).
- In addition, the Bank is working with the European Commission and the Ministry of Investments and European Projects to structure new financial instruments (including risk-sharing and guarantees) supported through InvestEU or at the national level through the RRF and ESIF co-financing.

Speaker: Adrian Ghiță, Executive Director, Romanian Fund for Energy Efficiency – FREE

Presentation: Financing mechanisms to implement energy efficiency and climate change strategies and action plans'

The presentation addressed the development of mechanisms for the effective implementation of strategies and action plans for energy and climate in the context of recently published national programmes and the need to multiply the effect of public funding. Representatives of the Ministry of Development, Public Works and Administration, responsible for implementing the Long-Term Renovation Strategy – LTRS, the Ministry of Energy, researchers and Financial Institutions involved in energy efficiency programmes were invited to present their achievements and best practices. The main topics of discussion covered in this session are:

- Financing instruments for the Renovation Wave and LTRS Implementation.
- The support of Financial Institutions.

- The European experience regarding energy efficiency support mechanisms to ensure the increase in the multiplier effect of public financing for energy renovation of buildings and energy efficiency in the industry.

Speaker: Alexandru Kelemen, Executive Director of the Association for Integrated Territorial Development Jiului Valley

Presentation: Financing the just transition through actions to increase energy efficiency and reduce greenhouse gas emissions'

Mr. Kelemen presented Romania's largest underground mining microregion in the middle of the Jiului conurbation. This microregion connects Hunedoara County with Gorj and Dolj Counties and is the largest urban area in Romania, surrounded by protected natural areas. Mr Kelemen also presented the Jiu Valley's socio-economic and environmental development strategy for 2022-2030.

He also presented Valea Jiului Energy Community, one of the leading initiatives under the programme. With a budget of 56 million euros, it plans energy efficiency measures and renewable energy production (prosumers) for public consumption. The approach combines funding from different EU programmes and European Financial Institutions.

STAKEHOLDERS VIEWS

- Prioritising projects that promote increased energy efficiency and reduced emissions, a positive impact on communities, and respect for sustainability standards.
- Rigorous Monitoring and Evaluation: Establish a robust project monitoring system to ensure efficient use, fulfil proposed objectives, and identify continuous resource opportunities.

CONCLUSIONS – MAIN OUTCOMES

- Actively promoting the adoption of Energy Service Companies (ESCOs) and their innovative tools to successfully implement energy efficiency projects, capitalising on their specialised technical expertise and access to tailored financing solutions.
- Giving priority to projects that significantly enhance energy efficiency and lower emissions, ensuring they deliver measurable benefits to local communities while upholding high sustainability and environmental standards.
- Developing and maintaining a comprehensive monitoring and evaluation system that ensures optimal resource allocation, tracks the achievement of defined objectives, and facilitates continuous improvement by identifying areas for enhancement throughout the project lifecycle.

PARALLEL SESSION 3: INTEGRATED MECHANISMS FOR MONITORING THE IMPLEMENTATION OF ENERGY EFFICIENCY FINANCING PROGRAMS

Moderator: Mihai Moia, Executive Director, ROENEF

Rapporteur Andrei-Laurențiu Popescu, Researcher, URBAN-INCERC

This session addressed the mechanisms for monitoring existing and planned financing schemes for energy efficiency projects, aiming to ensure relevant performance indicators and integrating information on the impact of financing, thus supporting the tracking and compliance of national commitments on energy efficiency and the environment. The main topics of discussion expected covered in this section were:

- The sufficiency of the performance indicators provided by the existing and planned programmes.
- Coordinated mechanisms for collecting information from implementing various programmes and financing instruments.

- Integration and processing of information collected regarding building renovation and energy efficiency in industry and other sectors.

Speaker: Darrian Cotescu, Deputy Director General, Directorate General for Regional Development and Infrastructure - Ministry of Development, Public Works and Administration

Presentation: The National Digital Register of Buildings (NDRB) – a tool for monitoring the energy performance of the built stock

Mr. Cotescu presented the project for the National Digital Register of Buildings, part of the National Recovery and Resilience Plan - Component 5 – Renovation Wave, Pillar I. Green Transition, which supports:

- Investments that finance energy renovation and integrated renovation (energy renovation and seismic strengthening) for multi-family residential and public buildings.
- Investment to strengthen the professional capacity of specialists and workers in energy renovation of buildings.
- Digitalisation investment of the construction sector (allocated budget: 5 million Euros).

The NDRB is available online, with a pilot section that includes information on buildings refurbished through the National Recovery and Resilience Plan. This project aims to provide an IT system for the national-built stock containing a georeferenced public and private buildings database, correlated and interoperable with urban data banks at the local level and with other national systems and registers. The register will serve as an IT tool that facilitates:

- ✓ carrying out public policy analyses and data-based decisions;
- ✓ substantiation and development of investment programmes and their evaluation, prioritisation of investments and monitoring of progress;
- ✓ information exchange in the construction sector and between building owners and occupiers, financial institutions and public authorities.

The design and development of RNDP involves:

- ⇒ Microservices architecture, which involves complex software applications through the design of modular services, which can be developed, implemented and scaled independently;
- ⇒ Connecting the application to other data sources (calling building/building unit data) through the Application Programming Interface (API);
- ⇒ Future extensions (the ability to add new modules, new functions, new reports, new security roles, etc.) without depending on the development environment or the system in which it was made;
- ⇒ "Cloud Ready" type, based on a virtualised infrastructure, to facilitate later migration onto the governmental cloud.

Participants Tour de table and free comments

The session turned out to be very interactive. It started with an introduction held by the moderator, Mr. Mihai Moia, who has a lot of experience in managing energy efficiency programmes. The main ideas exposed were the following:

Currently, there is no proper concern to measure energy consumption and savings. It is worth noticing the efforts of the Ministry of Energy to fulfil the role of data integrator for EE project results. Although ESCO has been applied for a long time with great success worldwide, especially in industry, it is intended to create the conditions for these contracts to be used by local authorities, because those have a limited capacity to access financing from essential banking institutions.

People are currently reluctant to get credits, only wanting to obtain grants, but the bureaucratic procedures to access a grant, could delay the implementation of the project. Financing (partially) through loans might be a solution.

Clear information on the EE projects results are necessary, not only for authorities but also for the involved financing institutions; the technical monitoring of the project, and then the financial monitoring allows the donor to assess whether the cash-flow resulted is sufficient for the repayment of the loan. The importance of indicators was acknowledged by recent formation of a the EEFIG (Energy Efficiency Financial Institutions Group) SR-15 Working Group on collecting and monitoring of data on energy efficiency investments and financing.

Indicators that can be used

- at the level of individual consumers, the basic indicator is the specific energy consumption
- for large enterprises, energy intensity can be used

Monitoring activities should have an allocated budget. Monitoring can be bottom-up and top-down systems.

The most used are the top-down systems, which start from a set of indicators calculated at the national level and then extrapolated. This approach is not entirely appropriate for tiny projects, but it can still be an element of comparison. Bottom-up systems—each consumer creates a monitoring system and generates certain values for the monitoring indicators, aggregated at the regional/national level, giving a much clearer overall picture.

European regulations foresee that all energy efficiency projects must be cost-effective, which means profitable.

Profitability is appreciated differently depending on how the financing is done. A bank judges a project's bankability. Therefore, considering the need for financing from private sources to achieve the LTRS's objectives, the project's bankability becomes an important indicator.

Another problem to be discussed is combining the grant with the credit in proportion to make a project bankable.

Mr. Matei Dimitriu, representing the Ministry of Energy, draws attention to the potential danger that, without serious monitoring, some wrong parameters will be introduced from the project's initial phase, so it is important to define the project's objective correctly.

The Department for Sustainable Development (DSD) representative informed that DSD monitors the National Sustainable Development Strategy together with the National Statistical Institute, and they have experience building a set of indicators at the national level. DSD developed a platform that aggregates indicators at the EU level, including those for EE. It is important to monitor and interpret the data obtained.

This interpretation must be made with a long-term perspective in mind.

It was noticed that the long recovery terms complicate financing an energy efficiency project in buildings. For this reason, monitoring these projects becomes complicated.

An example of a programme that is not sufficiently substantiated is requiring all localities with more than 5000 inhabitants to develop an energy efficiency plan. It is doubtful that these localities can draw up and implement these plans.

However, the city of Brasov is a good example. It made such a plan and, at the same time, appointed an energy efficiency manager at each institution. Essential cost reductions were thus made.

The monitoring indicators must be more unified and centralised to address the problem of their integration.

Speaker: Matei Dimitriu, Counsellor, Department of Energy Efficiency, Ministry of Energy
Presentation: Monitoring energy efficiency - Centralisation of energy efficiency data and indicators'

Mr. Dumitriu briefly presented the data collection practice within the Ministry of Energy. There has been much intervention and discussion on this subject, especially on the role of complexity in this activity, the role of city energy managers, and the lack of qualified personnel at the local level. The Ministry of Energy is working on digitising and synchronising data sets to reduce staff workload at the local public authority level.

It was also observed that the closure of the Romanian Agency for Energy Conservation and, later, of the Regulatory body ANRE and the Energy Efficiency Department meant there were no more local branches or tools to stream data from the territorial level. The work was transferred to an Energy Efficiency Directorate with insufficient personnel in the Ministry of Energy.

Speaker: Ioana Mitrea, Director DRGE, Banca Transilvania

Presentation: Challenges in implementing the EU Taxonomy

Ms. Mitrea presented Banca Transilvania's steps in aligning with EU Taxonomy and stated the necessity of a register that contains information about existing buildings and the need to review EPCs. Of the total amount estimated as necessary to fulfil the LTRS objectives of 12.8 million, only 40% will come from the public sector, which already represents a huge investment but not enough. The remaining 60% must come from private funding, which means that private capital needs to be mobilised. Besides the financial instruments, creating a market capable of reaching these goals is equally important.

Markets are very complex, and a wide variety of actors are involved. The big problem is that of non-reimbursable funds, which have flooded the system and created distortions due to a lack of programme continuity. This has led to interruptions in market demand and prevented the sector from creating the necessary capacities to fulfil the objectives. Financial instruments offer a smooth response to this demand over a long period of time and allow balancing demand with supply. In addition, financing through grants will delay the financing of European funds. On the other hand, financial instruments are perceived as more complex, and the lack of financial instruments creates these interruptions on the market at the level of demand and supply.

STAKEHOLDERS VIEWS

- **Rewarding energy performance:** The importance of efficient funding use and avoiding resource waste through wrongly awarded vouchers was highlighted; also, funding should increase the higher the level of ambition.
- **Replicability:** It showcases best practices and advanced technologies (partnered with the market) while maintaining optimal costs.
- **Credibility of CPE:** The Energy Performance Certificate must be credible and integrated into an evaluation system that can signal possible irregularities ("red flag" generated, perhaps, at the level of RNDC).
 - **Quality Assurance:** There is a need for clear standards to ensure the quality of work from all points of view, with traceability from A to Z.
- **The problem of energy poverty and vulnerable groups.** Better definition of energy poverty and integration of NDRB with INS for easy access to data for better decisions. Defining and prioritising the "least performing" buildings (the least energy efficient).
- **Taxonomy and ESG factors:** The challenges related to aligning buildings with the Taxonomy and ESG criteria (Environmental, Social, Governance) were evoked.

CONCLUSIONS – MAIN OUTCOMES

- **Energy performance monitoring and evaluation:** It is important to develop mechanisms for monitoring the energy performance of buildings, and the RNDC can be an extremely valuable tool in this respect.
- **Interoperability and standardisation:** Better interoperability is needed between the various databases (from different sources: ANCPI, INS, etc.) to facilitate the most effortless monitoring

and assessment of buildings. Also, in the spirit of transparency, as much information as possible should be made public to allow interested parties to conduct studies, etc.

- **Funding and efficient use of resources:** It is essential that available funds are used as efficiently as possible and prioritised to reward performance and support truly disadvantaged communities. Thus, wasting resources through superficial measures should be avoided. Interventions should occur in a natural sequence (e.g., using the Building Passport or tools like the one developed in iBRoad2EPC can facilitate this). Also, potential beneficiaries should be well informed and motivated to co-finance renovation projects.
- **Quality Assurance:** "What we set out to achieve, has it been achieved?" For example, mechanisms must be found to make CPE credible.
- The indicators used to monitor EE projects are technical and financial and quite diverse and complex depending on the sector and the funding source. They are accordingly defined and collected, even in different formats and perspectives. There is a clear need for coordination between institutions to better use and process existing data.
- There are different techniques for monitoring the energy efficiency results in building renovation (calculations) versus industry (direct measurements).
- Utilities may help and should be involved in monitoring of energy consumption and savings
- Existing good practices must be used and replicated.
- There is no need for a specific policy in integrated monitoring indicators in the sense of a legislative recommendation. Still, an inter-institutional working group is welcomed to define the way of integration and interpretation of the monitoring indicators.

CLOSING PLENARY

The closing plenary consisted of two parts. The first part included three presentations of general interest. After these three presentations, the three rapporteurs from the parallel sessions presented the results of the discussions from the respective panels. In the end, a Q&A and discussion session took place.

Speaker: Radu Dudău, Energy Policy Group

Presentation: Efficient Romania - nZEB renovation funding'

The main ideas expressed by Mr. Dudău were the following:

- Energy efficiency is a solution for reducing GHG emissions
- It is necessary to focus on those solutions that receive the support of citizens, and energy efficiency is such a solution because it reduces costs
- Education is very important to determine the reduction of waste of any kind.
- An obstacle to better coordination of energy efficiency actions is fragmented governance.
- A challenge is related to the optimal use of funds, including European funds. These should help us unlock other financing types like banks, international financial institutions, or private financing.
- Human resources are also a problem, as it is rather difficult to find specialists in both technology and writing projects. Therefore, qualification programmes related to energy efficiency must be supported.
- Data monitoring and availability—The presidential administration supports the creation of a platform containing data related to the broader theme of the green transition and climate change, including energy efficiency data.
- There is a need for partnership between public institutions, the business environment, the financial-banking environment, the associative and academic environment, and citizens.

Speaker: Ana Maria Lupascu, Senior Economist, Energy Efficiency & Energy Advisory JASPERS, European Investment BANK

Presentation: Energy Advisory - a perspective for sustainable growth'

Ms. Lupascu presented the activity of EIB and the partnerships developed with institutions:

JASPERS: Joint Assistance to Support Projects in European Regions, established in 2006, Partnership between the European Commission (EC) and the European Investment Bank (EIB) European Regions, established in 2006 Partnership between the European Commission (EC) and the European Investment Bank (EIB).

ELENA: Mrs. Lupascu presented the main principles of the ELENA programme: the value of investments, the maximum share of ELENA support, the duration, the application process mechanism, the required leverage ratio, etc. Established in 2009 as European Local Energy Assistance Based on an agreement between EIB and EC Grant for preparation (not implementation) of investment programmes Over €285m awarded to projects supporting approx. €9.6bn investments.

EIB offers support in several areas, including financial, technical, and capacity building.

ELENA could financially support the One-Stop-Shops formation.

PSLF—Public Sector Loan Facility—is a “blending” facility that combines EIB loans and EU grants.

Comment from the moderator: The Romanian Fund for Energy Efficiency -FREE could apply for technical assistance within the ELENA Programme on behalf of its clients.

Q1: What are the eligibility criteria from the EE point of view? Are the results monitored?

A1: Min 30% improvement in energy efficiency. CO₂ and GHG emissions mitigation are monitored.

ROUNDTABLE CONCLUSIONS

The main conclusions of the 1st SMAFIN Expanded national roundtable in Romania are synthesised below:

- Energy performance monitoring and evaluation: It is important to develop mechanisms for monitoring the energy performance of buildings, and the NDRB can be an extremely valuable tool in this regard.
- Interoperability and standardisation: Better interoperability is needed between the various databases (from different sources: ANCPI, INS, etc.) to facilitate the most accessible monitoring and assessment of buildings. Also, in the spirit of transparency, where possible, as much information as possible should be made public to allow interested parties to conduct studies, etc.
- Funding and efficient use of resources: Available funds must be used as efficiently and prioritised to reward performance and support truly disadvantaged communities. Thus, wasting resources through superficial measures should be avoided. Interventions should occur in a natural sequence (e.g., using the Building Passport or tools like the one developed in iBRoad2EPC can facilitate this). Also, potential beneficiaries should be well-informed and motivated to co-finance renovation projects.
- Quality Assurance: "Has achieved what we set out to achieve?" For example, mechanisms must be found to make CPE credible in the market.

All material related to the 1st National Roundtable in Romania is available at the following link:
<https://www.smafin.eu/1st-smafin-expanded-national-roundtable-in-romania/>

6. SLOVENIA

6.1 1ST NATIONAL ROUNDTABLE IN SLOVENIA

The "Jožef Stefan" Institute, Energy Efficiency Centre (JSI EEC), in collaboration with the Ministry of Environment, Climate, and Energy, and Interreg CENTRAL EUROPE project MESTRI-CE, organised the "National Roundtable on Financing Building Energy Renovations in Slovenia". The event occurred on Wednesday, June 12, 2024, at the Radisson Hotel in Ljubljana.

The goal of the national roundtable was to foster dialogue among key Slovenian stakeholders on improving access to public and private financial resources for buildings' energy renovations. These renovations are essential to achieving the goals of the National Energy and Climate Plan (NECP) and the Long-Term Strategy for Building Renovation by 2050 (LTRS). Both strategic documents are currently in the final stages of updating.

The event featured a welcome session, an introductory plenary session, three thematic sessions, and a concluding plenary session. Discussion-based recommendations were formulated on specific topics in the following areas:

- Thematic Session 1: Funding Sources and Financial Instruments
- Thematic Session 2: Best Practices in Financing
- Thematic Session 3: Project Preparation

The event, conducted in Slovenian and partially in English, was attended by 65 participants, including 10 speakers and 10 event organisers and moderators.

BACKGROUND

Consistent with the EU's commitments, the revised Energy Efficiency Directive, the updated Energy Performance of Buildings Directive, and measures to mitigate the energy crisis and accelerate the green transition, the 2024 updates to Slovenia's National Energy and Climate Plan (NEPN) and the Long-term Energy Renovation Strategy (DSEPS) aim to establish stricter energy efficiency and renewable energy targets for 2030. Achieving these enhanced targets requires stronger preparation, implementation, and financing of energy efficiency investments, with a specific emphasis on building renovation, alongside the introduction of supplementary support mechanisms.

The roundtable objective is to generate momentum at the national level and foster meaningful discussions among key stakeholders involved in financing the energy renovation of buildings, with a special focus on the 2024-2030 timeframe. The roundtable will facilitate in-depth discussions during the thematic sessions, allowing participants to share insights and engage deeply with the selected topics. The event will conclude in formulating concrete recommendations to promote further investments in energy renovation across Slovenia.

AGENDA

TABLE 5: AGENDA 1ST ROUNDTABLE IN SLOVENIA

TIME	TOPIC
09:00 – 09.15	Welcome Session Hinko Šolinc, Director General, Ministry of Environment, Climate, and Energy

09.15 – 10.30	Introductory Plenary Moderator: Jure Čižman, JSI EEC, SMAFIN Expanded Erik Potočar, Head, Energy Use Sector, Ministry of Environment, Climate, and Energy “Policies and Financing for Building Energy Renovations by 2030” Q&A
10:30 – 10:50	Coffee break / Networking
10:50 - 11:50	Parallel Session 1: Funding Sources and Financial Instruments Moderator: Dr. Gašper Stegnar, LTRS Project Manager, JSI EEC Speakers: Mojca Vendramin, Director, Eco Fund “Financial Instruments of the Eco Fund for Building Renovations” Iztok Pustatičnik, Corporate and Investment Banking Management of the NLB Group, NLB “Green Financing” Hrvoje Maras, Chief Economist, Regional Energy and Climate Agency of Northwest Croatia (REGEA) “Potentials for the introduction of green bonds in Croatia” Discussion
11:50 - 12:30	Parallel Session 2: Best Practices in Financing Moderator. Damir Staničić, IJS CEU, SMAFIN Expanded Speakers: Marko Coh, Chief Development Officer, RESALTA “Innovative financing and the green transition – a case of the company Resalta” Blaženka Pospíš Perpar, Director, Vizije mobilnosti “Innovative financing and the green transition – a case of the company Vizije mobilnosti” Discussion
12:30 - 13:30	Lunch Break
13:30 - 14:30	Parallel Session 3: Project Preparation Moderator. Barbara Petelin Visočnik, JSI EEC, SMAFIN Expanded Speakers: Daniela Bachner, Department of Energy Efficiency and Energy Consulting, EIB – online “ELENA EIB technical assistance” Ida Bibič, Office for Development and Smart Community, Municipality of Kranj “ELENA technical assistance for the preparation of projects of the Municipality of Kranj” Discussion
14:30 - 15:30	Closing Plenary Moderator. Jure Čižman, JSI EEC, SMAFIN Expanded

Dr. Sabina Jordan, Slovenian National Building and Civil Engineering Institute,
RENOINVEST
“RENOINVEST - first results of the project”
Q&A, discussion and next steps

WELCOME SESSION

Hinko Šolinc, Director General, Ministry of Environment, Climate, and Energy

In his opening address, Hinko Šolinc presented Slovenia's activities in alignment with EU commitments, including the revised Energy Efficiency Directive (EED), Renewable Energy Directive (RED), and Energy Performance of Buildings Directive (EPBD). He also highlighted efforts to mitigate the adverse effects of the energy crisis and support the green transition. The key message was that this year's update to the National Energy and Climate Plan (NECP) and the Long-Term Strategy for Building Renovation (LTRS) will tighten the targets for EE and renewable energy sources (RES) for 2030. To achieve these new, more ambitious short-term targets, enhancing the preparation, implementation, and financing of EE investments, particularly in building renovations is essential. Additionally, there is a need for further supportive measures, including establishing a constructive dialogue among key stakeholders in the field of EE and RES financing.



FIGURE 16: SNAPSHOT FROM THE WELCOME SESSION

INTRODUCTORY PLENARY

Moderator: Jure Čižman, JSI EEC, SMAFIN Expanded

Speaker: Erik Potočar, Head, Energy Use Sector, Ministry of Environment, Climate, and Energy

Presentation: Policies and Financing for Building Energy Renovations by 2030

Erik Potočar outlined significant updates and guidelines for EE and RES. The national RES target aims to increase from 32% to 42.5% by 2030, while the EE goal is an 11.7% reduction compared to 2020 levels. Key areas include improving EE and integrating RES in buildings and heating and cooling systems, in line with the Energy Efficiency Directive, Renewable Energy Sources Directive, and Energy Performance of Buildings Directive.

For new constructions, zero-emission standards will apply to all new public buildings from 2028 and to all new buildings from 2030. Additionally, new buildings over 1000 m² must consider lifecycle global warming potential (GWP) starting in 2030. Solar energy requirements are structured with deadlines: by December 31, 2026, new public and commercial buildings of 250 m² or more must have rooftop solar energy, and by December 31, 2027, existing non-residential buildings of 500 m² or more undergoing major renovations must comply. Existing public buildings with a 2000 m² or more floor area must meet these standards by December 31, 2027, with progressively lower thresholds by 2028 and 2030. All new residential buildings and covered parking spaces must integrate solar energy by December 31, 2029, with possible technical or economic exceptions.

Updates under the Fit for 55 and REPowerEU initiatives include several funding sources, such as the European Structural and Investment Funds, the Recovery and Resilience Plan, and various local and international resources like the Eco Fund and Swiss Contribution. The European Cohesion Policy 2021-2027 includes significant allocations for renovating public and municipal buildings, private sector renovations, and supporting vulnerable groups. For RES, substantial funds are designated for renewable electricity generation and district heating. The Climate Fund supports nearly zero-energy and zero-emission buildings with EUR 117.5 million, and EUR 166 million is allocated for renewable energy investments, including solar plants and EE projects.



FIGURE 17: SNAPSHOTS FROM THE INTRODUCTORY PLENARY

PARALLEL SESSION 1: FUNDING SOURCES AND FINANCIAL INSTRUMENTS

The first thematic session centered on funding sources and financial instruments. Mojca Vendramin detailed the Eco Fund's financial instruments available for building renovations, while Iztok Pustatičnik from Nova Ljubljanska Banka (NLB) outlined their green financing options. Additionally, Hrvoje Maras from the Regional Energy and Climate Agency of Northwest Croatia (REGEA) explored the potential of green bonds as a financing tool.

Moderator: Dr. Gašper Stegnar, LTRS Project Manager, JSI EEC

Mojca Vendramin, Director, Eco Fund

Presentation: Financial Instruments of the Eco Fund for Building Renovations

The Eco Fund supports investments in EE and RES through loans and grants. Between 2019 and 2023, the Eco Fund approved an average of €84 million in grants and €50 million in loans annually, processing 31,600 applications. In 2023, its incentives drove €690 million in investments, resulting in 533 GWh of energy savings. The EnSvet network, operated by the Eco Fund and consisting of 51 independent energy advisors, provides 8,000 free consultations annually to guide households in making EE and RES investments in buildings.

The Eco Fund's operations are financed through the EE contribution, the Climate Fund, EU funds, and loans sourced from its own reserves and the European Investment Bank. It offers grants to individuals, businesses, municipalities, and the public sector, prioritising energy-efficient construction, building renovations, electric vehicles, and energy audits. In 2024, responsibility for certain subsidies, like photovoltaics and electric vehicles, was transferred to Borzen, allowing the Eco Fund to concentrate on building renovations and combating energy poverty.

Citizens can access low-interest loans at fixed rates of 1-2.8% for environmental projects and electric vehicle purchases. Legal entities and municipalities benefit from competitively priced loans, adjusted based on project scope. Special pilot projects offer 0% interest loans for comprehensive energy renovations in older multi-apartment buildings, with non-repayable incentives covering up to 60% of renovation costs, including the possibility of financing investments via on-bill financing.

Speaker: Iztok Pustatičnik, Corporate and Investment Banking Management of the NLB Group, NLB

Presentation: Green Financing

In 2020, NLB made sustainability a key business priority, viewing it as a strategic opportunity. The bank signed several sustainability commitments and surpassed ESG rating benchmarks. NLB's most significant contribution is in sustainable financing, having allocated €300 million for green loans in 2023 - €200 million for corporate clients and €100 million for households. In June 2023, NLB issued a €500 million green bond to support green transformation efforts, aligned with EU taxonomy and EPBD commitments. The bank aims to decarbonise key sectors, including electricity generation, iron and steel production, and commercial and residential real estate.

Sustainable financing at NLB involves evaluating each investment from a sustainability standpoint, with environmental factors like CO₂ emissions playing a central role. Clients are required to provide additional information and documentation, but this enables them to secure more favourable financing terms for sustainable investments. The green bond supports six key areas: RES, EE, green buildings, clean transport, waste management, and water and wastewater management. Energy efficiency is measured based on building energy performance certificates, which set standards for nearly zero-energy buildings. While RES projects dominate the portfolio, there are fewer investments in building renovations.

Speaker: Hrvoje Maras, Chief Economist, REGEA

Presentation: Potentials for the introduction of green bonds in Croatia

Mr. Hrvoje Maras from REGEA highlighted the potential of green bonds in Croatia, focusing on their role in financing sustainable projects. Green bonds fund eco-friendly initiatives, while sustainability-linked bonds (SLBs) are tied to meeting ESG targets, with frameworks like the European Green Bond Standard (EuGBS) and Green Bond Principles (GBP) guiding the market. While global issuance of green and SLB bonds grew significantly until 2022, Croatia's financial market remains bank-centered with underdeveloped stock and bond markets. Although SLBs have been issued by companies like Mplus Ltd, Zagreb Holding Ltd, and Erste Bank, no standard green bonds have been introduced.

Preparatory processes, such as developing prospectuses and setting up monitoring and reporting mechanisms, are complex and time-consuming. Compliance with national regulations and the European Green Bond Standard (EuGBS) adds layers of financial oversight and formal reporting requirements. These strict rules drive up capital costs, making green bonds more expensive compared to development bank loans, with investors expecting higher interest rates. Furthermore, green standards have not yet led to more favourable financing conditions or lower interest rates compared to non-green investments, which limits their attractiveness. Barriers to adoption include limited public sector financial capacity, low project awareness, and an inactive secondary market. REGEA and the Zagreb Stock Exchange are working with municipalities to overcome these. The City of Zagreb plans to issue Croatia's first green bond, aiming to raise €6-8 million for solar power plants on municipal buildings, targeting citizens as investors with bonds available at €1,000 each and an expected 5-6% interest rate over five years.

STAKEHOLDERS VIEWS

During the thematic session, participants discussed several key challenges and solutions in advancing energy efficiency (EE) and sustainable financing, particularly for vulnerable groups and complex projects.

One major issue raised was on credit solutions, such as a dedicated fund to reduce loan costs and special loans for multi-residential buildings financed through reserve funds. However, the requirement for unanimous agreement from all unit owners poses significant challenges to executing these projects. This often delays or halts energy renovation efforts in multi-residential buildings.

Another focus was "free-riding," where households capable of financing energy efficiency upgrades still access subsidies, which can reduce available support for truly energy-poor households. Participants stressed the need for 100% subsidies and dedicated financial instruments for these vulnerable groups to ensure equitable access to energy-saving benefits.

Comprehensive renovations were emphasised as a priority, as current efforts tend to be partial, targeting individual systems like heating or ventilation. Promoting full-scale renovations would streamline the application process, reduce administrative burdens, and speed up project approvals. However, participants noted the lack of a centralised, easily accessible overview of all available incentives, which complicates decision-making for investors and households.

Banks face their own set of challenges, including discrepancies between the projected and actual energy efficiency gains, ensuring that financed measures are implemented as agreed, and the high costs and complexity of obtaining certifications like BREEAM, LEED, and DGNB. A shortage of technical professionals further complicates project execution, and there is a pressing need for a standardised methodology to monitor the effects of EE investments at a national level. In terms of

green bonds, participants identified barriers to their successful adoption in Slovenia similar to those in Croatia. These include complex and time-consuming preparatory processes, stringent financial oversight and reporting requirements, and high capital costs. As a result, green bonds currently present a less competitive financial instrument.

The session underscored the need for policy reforms, streamlined administrative processes, and enhanced financial support mechanisms to advance EE projects and make green bonds a more attractive and viable tool.

CONCLUSIONS – MAIN OUTCOMES

- Encourage full-scale, holistic energy renovations rather than partial efforts (e.g., individual system upgrades), based on building renovation passport too.
- Introduce permanent one-stop-shop technical and financing assistance in the residential and public sector. This would streamline administrative processes, reduce burdens, and expedite approvals of renovation pipeline projects ready for investments.
- Prioritise tailored large scale investment programme and provide 100% subsidies for energy-poor households to ensure equitable access to energy-saving initiatives, preventing "free-riding" from wealthier households.
- Establish flexible financing instruments that do not require unanimous agreement from all apartment owners to enable more efficient execution of renovation projects in multi-apartment buildings.
- Develop and provide an easily accessible, centralised database of all available incentives for energy efficiency and renewable energy projects to support informed decision-making for households and investors.
- Standardise methodologies for measuring and monitoring EE project outcomes to ensure accuracy and accountability.
- Simplify certification processes for green projects to reduce the costs and complexity associated with obtaining certifications like BREEAM, LEED, and DGNB.
- Invest in building the technical capacity of professionals to address workforce shortages.

PARALLEL SESSION 2: BEST PRACTICES IN FINANCING

During the second thematic session, Marko Coh from ESCO company Resalta presented the company's innovative financing approach. Additionally, Blaženka Pospiš Perpar from Vizije mobilnosti introduced a novel business model for financing sustainable mobility by ESCO company. This model is part of a comprehensive Municipality of Kranj sustainability and renovation programme and utilises the energy performance contracting (EnPC) approach.

Moderator: Damir Staničić, JSI EEC, SMAFIN Expanded

Speaker: Marko Coh, Chief Development Officer, RESALTA

Presentation: Innovative financing and the green transition – a case of the company Resalta

Resalta operates across eight markets, including Slovenia, and emphasises the importance of collaboration between engineers and economists in project development. The company has successfully sold bonds to European financial institutions, achieving significant savings, although local banks were not yet prepared to participate at that time. Resalta employs long-term contract-based business models, assuming management risks and responsibilities themselves. Projects must be attractive to bankers and financial partners, as loans are transferred through tripartite agreements involving the state, financial institution, and contractor.

The company issued a bond for Romanian projects in partnership with an infrastructure fund and also utilises receivables sales for credit financing. When the client is a country or municipality, securing funds is generally easier. Since 2021, Resalta has adopted an "asset-light" business model, executing engineering projects and reaching a stage where they can either use their own or investor funds before selling the completed project to an investor. This model enhances cash flow and addresses liquidity issues during growth, making it well-suited for company expansion.

A critical component of Resalta's projects is ensuring adherence to plans, verified through various mechanisms. Initial assessments are crucial for determining potential savings, and the company engages only in projects with strong engineering partners, avoiding those lacking sufficient expertise. Currently, Resalta is reviewing its organisational structure and responsibilities to mitigate risks and plans to expand into residential buildings, which involves complex and lengthy processes.

Speaker: Blaženka Pospiš Perpar, Director, Vizije mobilnosti

Presentation: Innovative financing and the green transition – a case of the company Vizije mobilnosti

The project focuses on charging electric vehicles (EVs) using locally produced RES, and based on EnPC principles. The company oversees the entire process, from purchasing EVs and installing charging stations to ensuring performance and maintenance. Investments are repaid through energy savings, with terms flexible to changing prices. Based in the Municipality of Kranj which implements EnPC renovations for more than 20 years, the project spans 15 years and involves collaboration with 20 institutions.

The contract is divided into three pillars: supplying and managing EVs and home charging stations, operating public charging stations with revenue from charging fees, and installing solar power plants on public buildings and battery storage to benefit from network fee savings. Currently, the project manages 62 EVs, operates three solar power plants with a total capacity of 415 kW, and has set up 63 internal and 31 public charging stations.

Despite its sustainability achievements and recognition, the project faces challenges with low profitability and financing. Financial institutions are reluctant to fund beyond solar power plants, and leasing companies impose restrictive terms. Although supported by public sector clients, these issues limit the project's broader financial backing and potential for expansion.

STAKEHOLDERS VIEWS

The discussion highlighted that projects receiving technical assistance from ELENA were notably less costly and implemented more efficiently than those without such support. This underscores the crucial role of technical assistance in reducing expenses, securing financing, and improving implementation speed. Nevertheless, a significant gap remains in the development and financing environment for EE service providers. Historically, these providers have independently navigated the EE market and secured funding for building renovations through various methods, highlighting the urgent need for improved support systems.

Energy efficiency service providers face significant challenges in attracting commercial financing for EE, renovation, and sustainability projects, especially within the public sector, which is a major market for these initiatives. The primary obstacle is their low profitability, despite the low-risk nature of these projects. Successful project execution often relies on early and effective collaboration between project developers and financial institutions. While EE service providers are essential for ensuring the quality of investments under EnPC models, financial institutions have yet to offer the

innovative and flexible financing solutions required to meet these project needs. This lack of support also limits the financial institutions' opportunity to build a robust portfolio of high-quality green assets.

The experience of Vizije Mobilnosti illustrates that delivering expected business value and demonstrating a commitment to sustainability are insufficient to secure the necessary financial capital for business expansion. Financial institutions often restrict their financing to renewable energy sources, primarily solar power plants, and are hesitant to support other types of EE and sustainability projects. Additionally, leasing companies impose restrictive conditions on e-mobility services providers' projects, applying similar criteria to those used for individual vehicle buyers. This further complicates the process of obtaining favourable financing terms.

CONCLUSIONS – MAIN OUTCOMES

- Technical assistance proves essential for cost reduction and efficient project implementation. Expand and increase access to technical assistance programmes to help reduce costs and improve project efficiency.
- A lack of supportive financing environments hampers the growth of EE service providers. To bridge existing gaps, create and implement more supportive financing structures and systems for EE service providers.
- Foster early and effective collaboration between project developers and financial institutions to streamline financing and project execution.
- Encourage financial institutions to develop and offer innovative and flexible financing solutions tailored to the needs of EE, renovation, and sustainability projects.
- Financial institutions restrict their financing mainly to RES, and impose stringent conditions on other EE projects. Urge financial institutions to broaden their financing scope beyond RES to include a wider range of EE and sustainability projects.
- The financial barriers EE service providers face further complicate the acquisition of favourable financing terms. Advocate for a review and adjustment of restrictive conditions imposed by financing institutions on EE, renovation and sustainability projects to facilitate better financing terms.



FIGURE 18: SNAPSHOTS FROM THE PARALLEL SESSIONS

PARALLEL SESSION 3: PROJECT PREPARATION

Moderator: Barbara Petelin Visočnik, JSI EEC, SMAFIN Expanded

Speaker: Daniela Bachner, Department of Energy Efficiency and Energy Consulting, EIB

Presentation: ELENA EIB technical assistance, online (in English)

Daniela Bachner presented the process for securing technical assistance from ELENA (European Local ENergy Assistance), a collaborative initiative of the European Commission and the European Investment Bank (EIB) focused on supporting sustainable energy and energy efficiency projects. ELENA provides grants for a range of initiatives, including building renovations, renewable energy integration, street lighting, and district heating and cooling networks, as well as residential upgrades.

Since its launch, ELENA has funded 166 projects totalling €297 million, with several notable projects in Slovenia involving various municipalities and local energy agencies. The grants are available to a broad spectrum of applicants, including public authorities, private institutions, and financial entities, provided they can develop and implement investment programmes. Applications are processed on a first-come, first-served basis and typically take about eight months from start to grant agreement. ELENA covers up to 90% of investment preparation costs, with a minimum investment threshold of €30 million. The programme also offers comprehensive support through Project Development Services (PDS), which includes feasibility studies, technical audits, and project management.

Speaker: Ida Bibič, Office for Development and Smart Community, Municipality of Kranj

In recent years, the Municipality of Kranj (MOK) has advanced its sustainable development and energy efficiency efforts through various projects. Between 2002 and 2017, MOK implemented a pilot energy performance contracting (EnPC) initiative, involving heat supply contracts and renovations of municipal buildings. This was followed by partial upgrades to 12 facilities in 2018 and further renovations of 8 facilities in 2023, including an electric mobility project and new district heating systems and solar power plants.

A third phase of energy renovations is planned, targeting comprehensive upgrades to 19 facilities. MOK secured ELENA technical assistance through the Sustainable Energy – East Slovenia (SE-ES) project, running from April 2021 to March 2024 with estimated investments of €56.6 million and involving 13 partners.

MOK met ELENA funding requirements, which necessitated investments totalling 20 times the received amount (€2 million, or at least €40 million). The municipality showed commitment through public tenders and on-site project execution, with regular monitoring and documentation of CO₂ reductions and energy savings. Effective collaboration between public and private sectors ensured efficient resource use and joint public procurement, supporting the city's sustainable development. Financial transparency was upheld with a structured ELENA payment sequence: 40% at the project start, 30% after 70% of initial funds were used, and the remaining 30% upon final report approval.

STAKEHOLDERS VIEWS

The discussions underscored the importance of financial accessibility, risk management, strategic planning, transparency, and collaboration in achieving successful outcomes in building renovation projects.

A critical barrier identified from practical experience is the shortage and of consistent and regular calls for public financing and resources available for the implementation of building renovations. This shortage complicates the planning and execution of necessary upgrades, as limited funding

can delay projects or reduce their scope. There is a clear need for more accessible and sustained financial support to ensure the successful completion of these projects.

During the implementation of building renovation projects, various risks arise that impact the ability to achieve the desired energy savings. These risks could stem from unforeseen technical challenges, rising costs, or misalignments between projected outcomes and actual results. Such uncertainties emphasise the importance of comprehensive risk management strategies to mitigate potential setbacks and ensure that projects meet their EE goals.

Transparency in financial management is critical. Clear and accurate financial disclosures allow for better oversight, ensuring that funds are used appropriately and that project progress is monitored effectively. This transparency builds trust among stakeholders and helps maintain the credibility of the renovation efforts.

For potential applicants of the ELENA and future technical assistance, careful planning and the setting of SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals are essential for project success. Well-defined and targeted goals provide a clear direction and allow for better evaluation of progress. Additionally, ensuring continuity in project leadership is crucial; frequent changes in leadership can disrupt project momentum and hinder overall performance.

It was recommended that project applications for building renovations under ELENA should include a wide range of eligible measures that contribute to the overarching goals of the project. This not only ensures compliance with funding requirements but also accommodates potential additional costs that may arise during the implementation phase. By anticipating these costs early on, applicants can avoid budget shortfalls and maintain project momentum.

Successful implementation of ELENA projects depends heavily on the collaboration between municipal leadership and the expertise of reliable consortium partners. Municipal authorities play a pivotal role in driving project vision and securing local support, while consortium partners bring the technical expertise and operational capacity necessary to execute complex renovations. This synergy ensures that projects are both well-managed and technically sound, leading to higher success rates.

CONCLUSIONS – MAIN OUTCOMES

Increase in Consistent and Accessible Public Financing

- There is a critical need for more consistent and accessible public financing mechanisms for building renovation projects. Regular calls for funding should be made available to facilitate effective planning, gaining technical assistance, execution, and completion of these projects without delays or reductions in scope.
- Project applications should cover a broad range of eligible costs, including potential additional expenses, to align with project goals. Anticipating these costs ensures compliance with funding requirements and prevents budget shortfalls during project implementation, including technical assistance.
- The inherent risks during the implementation of renovation projects, such as rising costs or technical issues, require robust risk management strategies. Developing these strategies early on will help mitigate risks and ensure targeted energy savings are achieved.
- Transparent financial management and clear disclosures are essential for effective oversight and trust-building among stakeholders. Projects, especially those involving

external funding, should prioritise accurate financial reporting to ensure credibility and accountability.

- Continuity in projects leadership is crucial to maintain momentum and projects consistency. Frequent leadership changes can disrupt projects progress, so sustained leadership should be prioritised throughout the renovation programme lifecycle.
- Applicants of the (ELENA) technical assistance should also focus on setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals. This will provide clear direction, improve performance tracking, and enhance the likelihood of achieving technical assistance and related eligible projects' milestones.
- A strong partnership between municipal leadership and ELENA consortium partners is crucial for the success of ELENA technical assistance. Municipalities provide strategic direction and local support, while consortium partners bring the technical expertise necessary for effective project execution. This collaboration improves both the management and technical quality of renovation projects and helps to reduce capital costs.

CLOSING PLENARY

Moderator: Jure Čižman, JSI EEC, SMAFIN Expanded

In the concluding plenary session, dr. Sabina Jordan from the Slovenian National Building and Civil Engineering Institute presented the RENOINVEST LIFE project. This was followed by a panel discussion featuring Dr. Sabina Jordan, Dr. Marjana Šijanec Zavrl (Building and Civil Engineering Institute), Polona Močilnik (SID Bank), and Barbara Visočnik (JSI EEC, SMAFIN Expanded).

Speaker: Dr. Sabina Jordan, Slovenian National Building and Civil Engineering Institute, RENOINVEST

Presentation: RENOINVEST - first results of the project

The [RENOINVEST](#) project, a twin LIFE project of the SMAFIN Expanded, runs until April 2026 and includes partners from Austria, Hungary, and Slovenia. Its primary focus is to identify challenges and opportunities for sustainable building renovation in these countries. By promoting international cooperation and knowledge exchange among partners, experts, and stakeholders, the project aims to develop action plans for smart investments in building renovation between 2025 and 2030.

Key achievements to date include the establishment of national networks, thematic working groups, a draft report on Slovenia, and the successful organisation of roundtables and a study trip.

Recent analyses and partner collaborations within RENOINVEST have revealed several key challenges:

- The construction sector is highly fragmented, making cohesive efforts difficult.
- There is insufficient organised support for comprehensive and large-scale renovations.
- Legislative changes and adjustments are progressing at an unacceptably slow pace.
- Financial backing for critical stakeholders in sustainable building renovation is lacking.
- Confidence in innovative technologies and solutions is low.
- Awareness of the long-term consequences of maintaining the current "business as usual" approach is inadequate.
- Efforts to promote sustainable building renovation are ineffective and need improvement.

The project aims to tackle these challenges by fostering collaboration, encouraging innovation, and providing the necessary financial and legislative support to drive sustainable renovations forward.

STAKEHOLDERS VIEWS

The panel discussion on sustainable building renovations brought to light several critical issues and perspectives.

Participants noted an increase in confusion due to the overlapping roles of different funding bodies, such as the Eco Fund and Borzen. This overlap has led to greater fragmentation and unclear responsibilities among ministries, complicating the management of subsidies and support for renovations.

A significant gap in understanding between different sectors was highlighted as a major issue. This lack of cohesion often results in misalignment between technical and economic needs, implementation challenges, and available funding sources. Addressing these gaps is crucial for achieving effective renovation outcomes.

It was also pointed out that while renovation goals are achievable, there are substantial gaps in funding and project preparation that require systemic solutions. The importance of considering environmental impacts and costs throughout the building's entire life cycle was emphasised. Upcoming legislation will require the reporting of carbon footprints for construction products as part of the CE marking, which is a step towards more comprehensive environmental accountability.

Furthermore, institutions involved in financing sustainable projects are supportive of new legislation but currently operate under internal criteria rather than adhering strictly to EU taxonomy. This is due to the varied needs of the public sector and companies that may not always meet EU standards but still contribute to sustainability.

The discussion also covered the issue of energy poverty in building renovations. Slovenia's [Action plan for reducing energy poverty for a period of three years](#) outlines three goals to address this challenge, including the establishment of "one-stop-shop" centres, support for local initiatives, and the need to tackle issues related to multi-apartment buildings. Recommendations included making necessary legislative and technical changes and reinforcing the role of municipalities in supporting these processes.

Finally, it was noted that cultural heritage considerations were neglected during the event, highlighting the need for a more inclusive approach that incorporates cultural aspects into renovation projects.

Overall, the panel underscored the necessity for improved coordination, innovative solutions, and a comprehensive approach to achieve effective and sustainable building renovations.

CONCLUSIONS – MAIN OUTCOMES

- Overlapping roles of funding bodies have led to increased confusion and fragmentation, complicating subsidy management and support for renovations. Enhance coordination among funding bodies and ministries to reduce fragmentation and clarify responsibilities for managing grants, financial instruments and support.
- There is a significant gap in understanding between different sectors, causing misalignment between technical and economic needs, implementation challenges, and available funding sources. Foster a sector collaboration addressing the gap in understanding between sectors.

- Despite achievable renovation goals, substantial gaps in funding and project preparation need addressing through systemic solutions. Develop systemic solutions to address funding gaps and improve project preparation to meet renovation goals effectively.
- Emphasising the importance of accounting for environmental impacts and costs throughout the building's life cycle is crucial. Upcoming legislation will require carbon footprint reporting for construction products, promoting environmental accountability. Implement comprehensive measures to account for environmental impacts and costs throughout the building's life cycle, and prepare for upcoming legislation on carbon footprint reporting.
- Institutions supporting sustainable projects use internal criteria rather than adhering strictly to EU taxonomy due to diverse needs of the public sector and companies, though they support new legislation. Align financing criteria with EU taxonomy where possible, while considering the diverse needs of the public sector and companies.
- Slovenia's three-year Action Plan for Reducing Energy Poverty outlines goals and recommendations, including establishing "one-stop-shop" centres, supporting local initiatives, and addressing multi-apartment building challenges. Timely implement recommendations from the action plan.
- The neglect of cultural heritage considerations in the discussions highlights the need for a more inclusive approach that integrates cultural aspects into renovation projects. Develop a more inclusive approach that integrates cultural heritage considerations into building renovation projects.

ROUNDTABLE CONCLUSIONS

The roundtable discussions brought together diverse stakeholders to address critical aspects of energy efficiency and renovation projects. The sessions focused on three key thematic areas: funding sources and financial instruments, best practices in financing, and project preparation. Each session aimed to identify and address challenges while proposing actionable solutions to enhance access to public and private financial resources for building energy renovations.

Thematic Session 1: Funding Sources and Financial Instruments

The session advocated for comprehensive energy renovations using tools like the building renovation passport, rather than partial upgrades. Establishing a permanent one-stop-shop for technical and financial assistance was recommended to streamline processes and expedite project approvals. For energy-poor households, large-scale investment programmes with 100% subsidies were proposed to ensure equitable access. In multi-apartment buildings, flexible financing instruments that don't require unanimous agreement from all owners were suggested to facilitate renovations. Additionally, creating a centralised database of available incentives was deemed crucial for informed decision-making.

Thematic Session 2: Best Practices in Financing

This session emphasised expanding technical assistance programmes to reduce costs and enhance efficiency. It recommended developing supportive financing structures for EE service providers and fostering early collaboration between project developers and financial institutions. There was a call for financial institutions to broaden their financing scope beyond renewable energy sources to include other EE and sustainability projects. Revising restrictive financing conditions was also highlighted as necessary to improve terms for these projects.

Thematic Session 3: Project Preparation

The focus was on improving public financing mechanisms for building renovations to avoid delays and budget shortfalls. Comprehensive planning of eligible costs and strengthening risk management strategies were emphasised. Transparent financial management and maintaining continuity in project leadership were seen as crucial for success. Setting SMART goals for technical assistance projects and fostering collaboration between municipalities and ELENA consortium partners were recommended to enhance project outcomes.

Closing Plenary

The plenary discussed the need to reduce fragmentation and confusion from overlapping funding roles by enhancing coordination among funding bodies. Addressing sector misalignment and developing systemic solutions for funding and preparation gaps were seen as essential. Emphasis was placed on accounting for environmental impacts throughout the building's life cycle and aligning financing criteria with EU taxonomy. Recommendations from Slovenia's Action Plan for Reducing Energy Poverty, including establishing "one-stop-shop" centres and addressing multi-apartment building challenges, were highlighted. Integrating cultural heritage considerations into renovation projects was also acknowledged as necessary for a holistic approach.

All material related to the 1st National Roundtable in Slovenia is available at the following link:
<https://www.smafin.eu/1st-smafin-expanded-national-roundtable-in-slovenia/>

7. CONCLUSIONS

Across the five countries, several key cross-cutting conclusions emerged. Smart financial instruments must complement, not replace, grants. While grants remain essential for vulnerable households and deep renovations, scalable instruments like on-bill financing, auction schemes, and project bundling are needed to attract private capital.

Technical assistance is critical. Success depends on robust project preparation support for both public authorities and private stakeholders, including tools like One-Stop-Shops (OSS) and ELENA assistance.

Improved coordination and data integration are needed. Fragmented data and overlapping institutional roles hinder the effective planning and monitoring of renovation initiatives.

A long-term, stable policy framework builds confidence. Stakeholders across all countries warned against short-term, campaign-based schemes that disrupt market continuity and investor trust. Transparent, predictable roadmaps are needed to ensure uptake and lasting impact.

Public sector leadership is key. National and local governments must lead by example, support market development, and ensure policy coherence across sectors and funding instruments.

These findings reinforce the value of national dialogue platforms and underline the SMAFIN Expanded project's role in shaping inclusive, impactful energy transition strategies at national and European levels.