



Impact Assessment

August 2023



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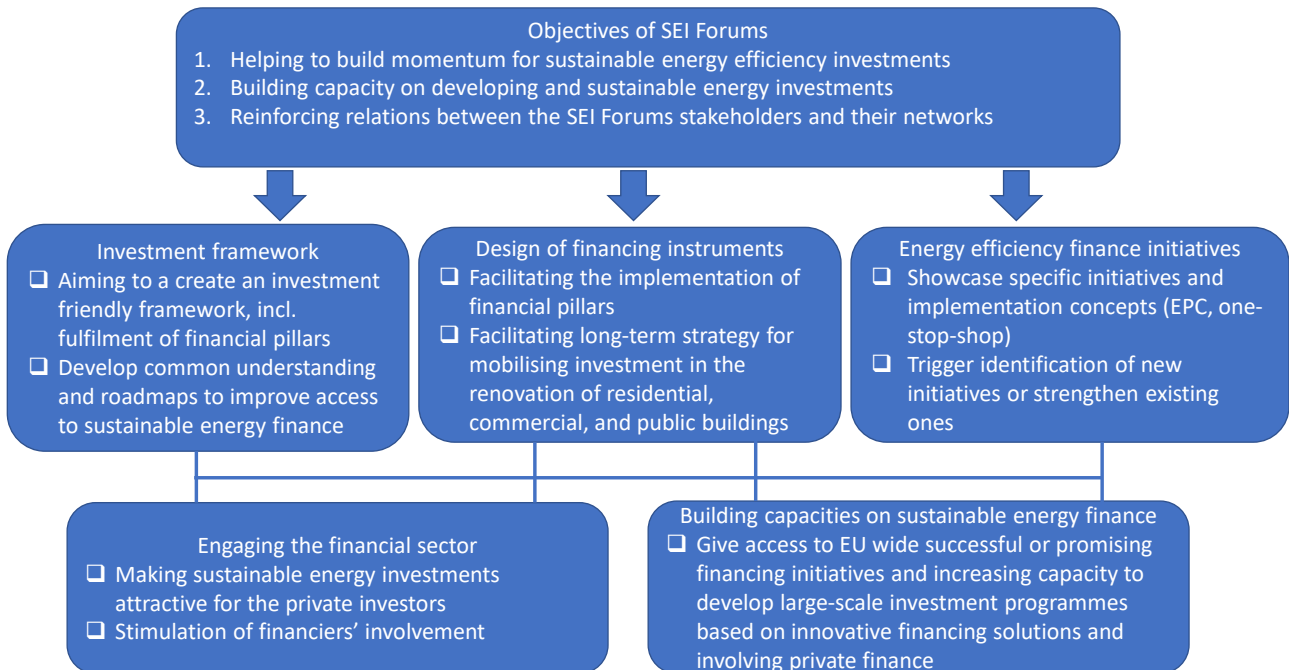
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1 Introduction

1.1 Project Objectives

The overarching objective of the RoundBaltic project is to support the implementation of the Smart Finance for Smart Buildings initiative in the Baltic Sea Region, notably the project’s direct target countries Poland, Latvia and Denmark. Moreover, RoundBaltic refer to the same objectives as Sustainable Energy Investment Forums (SEI Forums) to build momentum for energy efficiency (EE) finance, as illustrated below:



SEI Forums bring together representatives of the financial and energy efficiency sectors to discuss and find solutions to the challenge of energy efficiency finance. Key focus areas are how to ensure an investment friendly framework along designing of financing instruments in accordance with the financial pillars more effective use of public funds, aggregation and project development assistance, and de-risking. A third focus area is to showcase specific initiatives as well as triggering new investment initiatives within existing private and public buildings, industry and SME’s, street lighting, district heating, transport infrastructures and integrated renewable energy sources. At the stakeholder level a key intention is to engage the financial sector in conjunction with building capacities of project developers, incl. public authorities, on how to develop EE investments according to the policies.

The RoundBaltic project aims to provide framework and momentum for energy efficiency investments in the direct target countries Poland, Latvia and Denmark, building on the activities of the SEI Forums initiative, incl. the most recent roundtables held in Warsaw, 27 March 2019, Riga, 10 April 2019 and Copenhagen, 14 May 2019.

1.1.1 Specific objectives

Specific Objective 1: Contribute to establish supportive frameworks for energy efficiency financing in the three target countries (**Implemented in WP2**)

Specific Objective 2: Arrange a series of national and regional roundtables in the three target countries to act as a forum where all stakeholders can learn from successful market initiatives, and provide input for the policy making process (**Implemented in WP3**)

Specific Objective 3: Undertaking supplementary enabling actions through the supportive framework and the roundtables to generate sustainable energy investments within the targeted energy efficiency areas of the call (existing private and public buildings, industry and SME's, street lighting, district heating, transport infrastructures and integrated renewable energy sources) (**Implemented in WP4**)

Specific Objective 4: To make in-depth evaluation and learning of the performed activities in the target countries/regions against the targets set for the project as well as providing networking and experience exchange among the relevant stakeholders (**Implemented in WP5**)

Specific Objective 5: To communicate, disseminate and exploit the RoundBaltic outcomes to relevant target groups in the Baltic Sea Region and EU wide (**Implemented in WP5 and 6**)

Specific Objective 6: To pave way for the establishment of permanent structures for stakeholder and discussion forums to support financing of energy efficiency investments (**Implemented in WP2**)

1.2 Impact Evaluation

The assessment described in this report relates to the intended impact in the working programme/ Grant Agreement including the quantitative and qualitative indicators below.

Quantitative Indicators:

1. Primary energy savings triggered by the project
2. Investments in sustainable energy triggered by the project
3. Establishment of national energy efficiency investment roundtables
4. National / regional policy documents resulting from the roundtables
5. Permanent multilateral discussion forums gathering the relevant stakeholders
6. Number of key stakeholders involved in the roundtables

Qualitative Indicators:

Expected impact	How RoundBaltic contributes to the expected impacts – Qualitative approach
<p>Set up national roundtables focused on energy efficiency investment, as permanent multilateral discussion forums gathering the relevant stakeholders</p>	<p>RoundBaltic will build on the momentum created at previous successful roundtables in Poland, Latvia and Denmark including continuing cooperating with the stakeholder forums already established.</p> <p>RoundBaltic will follow-up on the recommendation from the previous roundtables and also introduce a regional dimension and establish a structure and procedures on a permanent set-up involving all relevant stakeholders, including important financial actors, that can support the further uptake of EE measures in the target countries</p>
<p>Use the roundtables to upscale existing best practices from the national and European level, develop strategies, roadmaps and action plans, propose improvements in the national policy frameworks and measures, and follow their implementation</p>	<p>The further enhanced cooperation with key stakeholders will enable supporting improving national policy frameworks through the project set-up, including a national Advisory Board and national roundtables interacting with supplementary roundtables at the regional level where specific initiatives around project aggregation and assistance, better use of public funds and de-risking will be directly supported and monitored by the project. These specific initiatives/actions will a.o. consider existing best practises from the regional, national and European level (inspiring new actions or enhancing existing actions)</p>
<p>Develop jointly template documents and contracts leading to a better functioning of the market</p>	<p>For each type of action, the project will through the project intervention focus on how to strengthen the policy frameworks to support the further uptake (roll out plans), including facilitating the development of needed templates, contract forms, tools etc. This will be discussed and developed in cooperation with the national Advisory Boards in relation to the outcomes from the roundtables (including suggesting/launching needed actions to generate tools and templates)</p>

1.3 Impact Assessment Methodology

The methodology distinguishes between project outputs and outcomes and further takes viability indicators into account.

- **Outputs** are defined as direct products and services delivered by the action. They for example include:
 - Investments and energy savings triggered
 - Material deliverables (e.g. proceedings, minutes, reports etc.)
 - Services provided (roundtables, events, actions initiated or supported, stakeholder platforms etc.)
- **Outcomes (Impact)** are identifiable changes which demonstrate the extent to which the activities influence the intended target group (stakeholders within energy efficiency and financing). These can be expressed in terms of for example (closely coordinated with WP2):
 - Enabling policies and strategies (improvement in framework conditions)
 - Enabling actions – Supported investment projects at regional level
 - Access to private capital (including financial tools and concepts)
 - Development of skills / awareness
 - Market uptake / transformation
- **Project Viability Factors**

Important to prove a viable project result, something that continues after the project

- The viability assessment of the project will consider necessary measures and strategies built into the action, follow-up activities, ownership by target groups etc.
- The viability must be evaluated in relation to existing and possible obstacles and barriers hampering the viability of projects/actions, and the possibilities for eliminating these barriers and obstacles.

In addition to evaluating project deliverables, the impact assessment is supported by articles with testimonials.

2 Summary of Key Project Activity – Quantitative Indicators

The accomplishment of RoundBaltic objectives has led to the implementation of **the main expected impacts disposed in the topic** as indicated in the tables below. This is based on:

- 3 national Roundtables per target country (Entry Roundtable and 2 follow up roundtables) and
- 2 roundtables per target region (24 regional roundtables in total). There are three target regions in Denmark, two in Latvia and seven in Poland.

Thus, in total 33 roundtables were implemented by the project.

Quantitative Indicators

Project Performance Indicator	Quantification		Measurement unit
	within project duration	5 years after project ends	
1. Primary energy savings triggered by the project			
Baseline GA	205 - 405	1,074 - 2,126	GWh/year
Final	804	3,200	GWh/year
2. Investments in sustainable energy triggered by the project			
Baseline GA	238 - 469	1,249 - 2,460	million EUR
Final	1,618	6,400	million EUR
Means of verification			
Documentation in WP4 (D4.1 – D4.4)			

Project Performance Indicator	Quantification					
	Baseline GA			Final		
3. Establishment of national energy efficiency investment roundtables						
Total number of RTs	33			33		
National RTs	9			9		
Regional RTs	24			24		
4. National / regional policy documents resulting from the roundtables						
Set of recommendations for improving national supportive framework	3			3		
National roll-out plans for permanent stakeholder structures	3			3		
RT proceedings, including specifying follow-up of actions	33			33		
5. Permanent multilateral discussion forums gathering the relevant stakeholders						
National forums	3			3		
Regional forums	12			12		
6. Number of key stakeholders involved in the roundtables						
Participants at 9 national roundtables (3 per country) and 24 regional roundtables (2 per region)	Nat 675	Reg 960- 1,440	Total 1,635- 2,115	Nat 613	Reg 1,466	Tot 2,079
Denmark – 3 regions				139	252	391
Poland – 7 regions				232	823	1,055
Latvia – 2 regions				242	391	633
Representatives from the financial sector	Nat 70 30%	Reg 64-95 20%	Total 134- 165	Nat 172 28%	Reg 201 14%	Total 373 18%
Denmark – 3 regions				48 35%	39 15%	87 22%
Poland – 7 regions				68 29%	110 13%	178 22%
Latvia – 2 regions				56 23%	52 13%	108 17%

Indicator 1– 2: Primary energy savings and investments triggered by the project

This refers to the interventions managed under **Work Package P4 ‘Enabling actions’**, which is dedicated to supplementary enabling actions of the roundtables aiming to generate or support sustainable energy investments within the targeted energy efficiency areas of the project. Overall, the RoundBaltic Action supports the implementation of sustainable energy investments in general in all three countries. However, specific support was given to actions at the regional level, and with the regional roundtables as an anchor point and in interaction with the national roundtables as to define the national supportive framework. The actions have followed up on the recommendations from the roundtables and are related to the financial pillars: more effective use of public funds, aggregation, project development assistance, and de-risking. Potential actions were identified prior to the roundtables and have as such been supported by the RTs and their follow-up. Or they have been identified during the roundtables and be further supported by the follow-up activities, including the follow-up roundtables and the Work Package 2 intervention.

During the proposal phase, numerous potential actions were mapped, forming the basis for regional roundtables. These actions were further prioritized in tandem with the preparation of background analyses for regional roundtables (WP3) in cooperation with the 12 regions, aligning them with actual needs and available resources. The project's target is thus initially categorized into mapped potential and a minimum target concerning actions or project volume.

The actions largely identified, regarding Latvia and Poland, represents projects implemented in parallel within the structural funds within the target regions, and which was supported by the RoundBaltic intervention, but also projects initiated as new potential ELENA projects i.e. The rationale behind this is that these projects have common challenges addressed at the RTs, amongst other in relation to more effective use of public funds and involvement of more private capital.

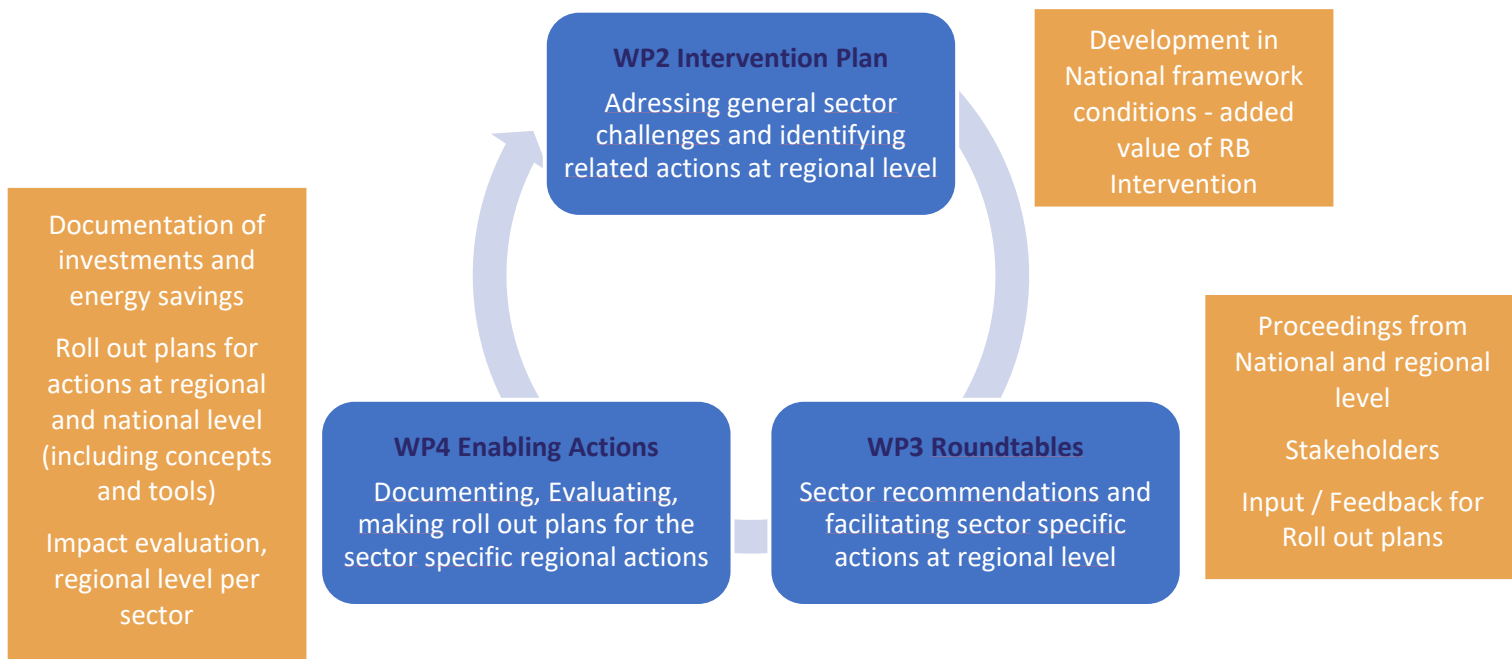
The project's intention has not been to support projects throughout the entire project cycle in detail but rather to initiate or advance them by convening stakeholders in a dynamic discussion forum, stimulating their collaboration, especially with a focus on attracting private capital. The status of each action has been tracked through the regional and national roundtable cycles, Advisory Board meetings, planning sessions, and bilateral consultations, ensuring the incorporation of diverse perspectives, including those from the financial sector.

Each action is comprehensively documented and evaluated under WP4 using templates covering objectives, descriptions, intervention types, challenges, stakeholders, organization, required supportive frameworks, potential energy savings, and investment volumes. This information consistently contributes to the horizontal WP2 task of identifying necessary supportive measures, including templates, legislation, tools, etc., as well as the overall evaluation, including the calculation of impact indicators.

For each type of action initiated at the regional level, a rollout plan has been developed proposing enhancements in national policy frameworks, financial initiatives, and template documents, contract formats (e.g., for EPC), guidelines, and other tools essential for market functionality. The identification of these needs has been coordinated nationally with key stakeholders, and the roadmaps encompass comprehensive descriptions, requirements, and actions for further development.

The rollout plans, aligning with RoundBaltic Intervention Plans (WP2) and impact assessments, offer comprehensive recommendations for supportive frameworks, stemming from regional interventions. These plans address both national and regional dimensions, providing guidance on the supportive framework, fostering regional-level interactions, and outlining actions needed at the national level. The National Advisory Boards have played a crucial role in discussions and implementations at the national level.

Evaluating impact, added value of RB at sectorial level per country (e.g, private housing, Social housing, SME, Public buildings) – taking into account the interplay between the regional and the national level.



Indicator 3: Establishment of national energy efficiency investment roundtables

In each of the three target countries in total 3 national RTs was implemented and two in each of the 12 target regions (7 regions in Poland, 2 in Latvia and 3 in Denmark),

Indicator 4: National / regional policy documents resulting from the roundtables

This relates to proceedings from all roundtables as well as road maps/roll out plans in relation to follow up on supportive measures as well as actions triggered and supported by the RTs.

Indicator 5: Permanent multilateral discussion forums gathering the relevant stakeholders

A national forum to continue the RoundBaltic has been suggested in each of the three target countries and in each of the 12 target regions (3 in Denmark, 2 in Latvia and 7 in Poland). See further description in the country assessment below building on input from WP2, WP3 and Wp4.

Indicator 6: Number of key stakeholders involved in the roundtables

Each of the 9 national RTs was assumed to be attended by 75 participants and each of the 24 regional RTs by 40-60 participants (representing all relevant stakeholders). 30% was assumed to represent the financial sector at national level and 20% at regional level.

As can be seen from the table above in average 28% of the participants at national roundtables represented the financial sector, which is close to the target of 30%. At regional level 14% represented the financial sector.

The 2,079 stakeholders attending the roundtables, are divided as follows:

	Financing Sector	National Government	Regional and Local Authorities	Research	Industry /SME	Others	Total
Poland	178	51	436	79	80	224	1,055
Latvia	108	155	170	17	133	50	633
Denmark	87	10	97	15	43	139	391
Total	373	216	703	111	256	413	2,079

Thus, overall, 18 % represents the financial sector (PL: 17%, LV: 17%, DK: 23%). Minimum 33% of participants represented the management level (with decision power).

3 Overall Assessment

3.1 Setting up national roundtables and permanent stakeholder forums

Purpose and Rationale	Output	Outcome
<p>Set up national roundtables focused on energy efficiency investment</p>	<p>9 national roundtables implemented (2 in each target country)</p> <p>24 regional roundtables implemented (2 in each target region)</p> <p>2079 representatives from key stakeholders involved, including 18 from the financial sector (28% within national roundtables, and 14% within regional roundtables)</p> <p>33 proceedings (1 per RT)</p>	<p>Increased networking and interaction with financial institution at regional and national level on focal points towards financing of energy efficiency</p> <p>Increased networking and interaction with other stakeholders</p> <p>Supporting enabling actions at regional level in relation to strategic goals for climate and energy</p> <p>increased interaction with national stakeholders and creation of a qualified dialogue on needed national support measures, including suggestions for concrete measures</p>
<p>Establish a structure and procedures on a permanent set-up involving all relevant stakeholders, including important financial actors, that can support the further uptake of EE measures in the target countries</p>	<p>3 National Advisory Forums outlined by RoundBaltic to continue the stakeholder forums</p> <p>24 regional stakeholder forums established</p>	<p>Through the Roundtable process all stakeholders involved at national and regional level have Increased their capacity in relation to specific needs within the sector and holistic process and project approaches to meet these.</p> <p>This also includes a massive involvement of the financial sector, which in parallel with the RoundBaltic intervention has carried out capacity building preparing for delivering financial loan products to the various energy efficiency sectors, e.g. in relation to understand the needs of the market and also how to deal with the ESG and taxonomy requirements. Further how to cooperate and create partnerships with relevant actors related to the sector.</p> <p>The RTs has further embraced an increased interaction with national stakeholders addressing regional and local needs, including increasingly adopting financing as an important topic in various forums.</p>

Means of Verification

Qualitative assessment per country (see below)

Intervention Plans (WP2)

Description of permanent structures (WP2)

	Planned within project period	Implemented at final Stage	Participants	Representation financial sector	
Total number of RTs	33	33	2,079	373	18%
National RTs	9	9	613	172	28%
Regional RTs	24	24	1,466	201	14%

Summary of permanent structures:Denmark

Proposals for a permanent energy efficiency finance structure have been developed and integrated into broader initiatives, with a focus on national and regional levels. This structure aligns with the national DK2020, supporting all 98 Danish municipalities in creating climate and energy action plans. Two key initiatives have been launched: the national Climate Alliance Project, overseeing plan implementation and financing, and the LIFE ACT project, focusing on climate measures, including energy renovation.

As to private homes RoundBaltic has enhanced the regional advisory structures and initiated new initiatives. As to Social Housing proposals for a permanent national supporting and coordination structure is integrated into the joint national initiative "The Green Model", aiming at a holistic approach to guide the green transformation of the social housing sector. At municipal level initiatives have been launched to aggregate projects at inter-municipal level.

In relation to the SME segments RoundBaltic has strengthened an existing inter-municipal cooperation structure amongst other through promoting partnerships with local banks. Nationally, various initiatives by the finance sector, interest organizations, and government institutions are being launched, necessitating coordination with regional efforts.

RoundBaltic's stakeholder forums persist in these initiatives, along with regional advisory structures. Coordination through a national one-stop-shop and potential integration into the EU EE Financing Coalition is proposed. RoundBaltic has established close collaboration with the financial sector, and has engaged the European Investment Bank and the Danish Energy Agency for a national ELENA program. Viability assessments have involved close work with Danish regions, paving the way for integrated energy finance efforts in strategic planning. Consultations with EIB and the Danish Energy Agency indicate the consideration of a national ELENA program within the EPBD recast, aligning with Denmark's commitment to the EU EE Financing Coalition.

Latvia

The concluding phase of RoundBaltic has explored ways to sustain the discussion platform established during the project, with some Advisory Board stakeholders expressing a commitment to maintaining regular online meetings. The project partner, Latvian Environmental Investment Forums (LEIF), pledges to continue active involvement in the Advisory Board, emphasizing the development of financial instruments for energy efficiency projects at national and regional levels. LEIF aims to facilitate dialogue among the Ministry of Economics, Finance Latvia Association, energy efficiency experts, and implementing companies.

Latvia faces a significant funding gap for multi-apartment building renovations, exceeding available resources by more than 25 times. The current funding trajectory indicates a 175-year timeline for necessary renovations. To address this, alternative financing scenarios and close collaboration among key stakeholders are essential. While there are no regulatory barriers for ESCOs in the public sector, concerns about contracting periods (limited to a maximum of 5 years for public bodies) exist.

Over several years, RoundBaltic proposes the creation of a national sustainable energy efficiency competence center. This center would centralize and coordinate energy efficiency processes, offer education and advice, and provide necessary information for decision-making and project implementation. ALTUM, a financial institution, could serve as the foundation for this center.

Viability assessments for permanent energy efficiency finance structures involve close collaboration with two of Latvia's five regions, integrating efforts into new initiatives with the regions as key facilitators. RoundBaltic's discussions on private funding for energy efficiency in Latvia were unique during 2021-2023. Recognizing the urgency to continue these discussions, it was concluded that sustained efforts are necessary to enhance this field of action and achieve NECP 2030 goals.

Poland

RoundBaltic has played a pivotal role in establishing and enhancing structures for energy efficiency finance in Poland. These structures involve both public and non-public entities at the national and regional levels. On the public side, key participants include ministries such as Climate and Environment, Development and Technology, and Funds and Regional Policy, along with central financial institutions like the National Fund for Environmental Protection (NFOS), Bank Gospodarstwa Krajowego, and Bank Ochrony Środowiska. Other contributors include the European Investment Bank, State Institute for the Development of Cities and Regions, and the Polish National Energy Agency (KAPE).

Non-public entities contributing to the cause include the Polish Bank Association, SAPE Association, Fala Renowacji Association (main suppliers of goods and services for building renovation, The think tank Reform Institute, Association of Polish Cities, commercial banks like BNP Paribas, VELO, Alior, PKO BP, and ING, the Association of Energy Auditors, and the Lewiatan Confederation bringing together 53 business associations, actively working to adapt Polish enterprises to the requirements of climate policy

At the regional level, structures formed through RoundBaltic activities involve SAPE members in seven Polish regions, including BAPE-Pomerania, DAES-Lower Silesia, AUIPE-Łódź Province, RAPEIS-Kuiavia-Pomerania, FEWE-Silesia, NAPE-Masovia, and Podlaskie. These regional structures, while

informal, represent a collaborative effort toward achieving transformation goals in energy efficiency finance. They include representation from government authorities, local governments, entrepreneurs, and energy advisors in Regional Councils.

3.2 Identifying and documenting enabling actions

Purpose and Rationale	Output	Outcome
Use the roundtables to upscale existing best practices from the national and European level, develop strategies, roadmaps and action plans (enabling actions)	Documentation of enabling actions in all 12 regional target regions within various sectors (1,618 MEUR) Proceedings reflecting status of progress and actions Roadmaps for each enabling action indicating actions at national and regional level	Enhanced cooperation structure initiated to generate further investments and actions in all 12 target regions across Denmark, Poland and Latvia (e.g. One Stop Shops) Broader circle of stakeholders involved around action plans/road maps. Banks and other financial actors have actively participated in the RoundBaltic Intervention in parallel with developing/offering financial products for the green transition.
Propose needed improvements in the national policy frameworks and measures, and follow their implementation	Proposals for improvements in the national policy frameworks reflected in proceedings, roadmaps and policy documents	Uptake of the suggestions/measures proposed, discussed and followed up at Roundtables, Advisory Board meetings and in bilateral consultations with regional and national key stakeholders.
Means of Verification		
Documentation in WP4 (regional reports with road maps) Proceedings Articles Testimonials		

3.3 Develop jointly market recommendations and tools

Purpose and Rationale	Output	Outcome
Facilitating the development of needed templates, contract forms, tools etc. This is discussed and developed in cooperation with the national Advisory Boards	Suggesting/launching needed actions to generate tools and templates within the supportive framework	Uptake of measures proposed and discussed at Advisory Board meetings, roundtables and in bilateral consultations with regional and national key stakeholders. Banks and other financial actors have actively participated in the RoundBaltic Intervention in parallel with building up capacity and business models for financial products to green transition.
Means of Verification		
National Sector Assessments (See WP2 and D5.2) Documentation of actions and road maps Articles Proceedings		

Summary of examples from the three target countries

Denmark:

OSS Concept for Private Homes: Regions participating in RoundBaltic aim to establish one-stop-shop (OSS) structures to simplify energy renovations and conversions to district heating.

5GDHC – Thermonet Concept: RoundBaltic promotes 5GDHC Thermonet systems for rural areas, emphasizing challenges and benefits. Larger installations benefit from the Heating Act, while smaller plants face financing difficulties. Standardization is crucial for trust and a common language.

Integrating Deep Renovation: Post EPBD directive update, focus on deep renovation plans at national, regional, and local levels, aligned with DK2020 goals for CO2 neutrality by 2050. Standardization, documentation, and public funds utilization are emphasized.

Social Housing: Collaboration in energy-efficient renovations in social housing, exemplified by "The Green Model" launched by key players in 2023. Aggregation of small projects, transparency in costs, and national support for vulnerable groups are highlighted.

SMEs: RoundBaltic has promoted intermunicipal cooperation, emphasizing partnerships, a holistic approach, and coordination with national measures. Credit rating, taxonomy, green conversion, and access to financing are crucial. Standardization, resource sharing, and guarantee schemes are suggested.

Latvia

ESCO Solutions: ESCO solutions are vital for private capital involvement in municipalities. Coordination with Local Strategic Climate and Energy Planning is emphasized, along with a call for better use of public funds, including decision-making facilitation and seed capital for ESCO projects.

Regional One-Stop-Shop Structures: Establishment of regional one-stop-shop structures, like Riga Energy Agency's OSS in 2023, is crucial. Banking sector involvement, de-risking investments, and collaboration with ALTUM are recommended.

Public Awareness Campaigns: National-level campaigns are essential to accelerate renovation projects. Regular public events are needed to educate and motivate the public. Permanent one-stop shops and regional collaboration are crucial for effective implementation.

SME Support: Cooperation between SMEs, State Construction Control Bureau, ALTUM, and planning regions is suggested for a permanent support structure. Profitable investments and private financial support are emphasized.

Poland:

Public Consultations and Activities: RoundBaltic actively participates in consultations at central and regional levels, focusing on enhancing energy efficiency in residential buildings, regional financial instruments, municipal heating systems, and ESCO market development.

Simplifying Processes for Investors: Simplifying the process for investors to prepare and finance projects is a key focus. Collaboration with NFOS, changes to thermal modernization support, and initiatives for SMEs are highlighted.

Financial Sector Engagement: Collaboration with the Polish Bank Association is key, emphasizing the need for new business models, tools for emissions calculations, and addressing challenges in data availability and standardization.

Learning Points: Banks are urged to adopt new business models, enhance tools, and address challenges in data availability and standardization. Coordination in preparing models for taxonomy criteria is emphasized.

Overall, the three intervention countries share common themes such as the importance of standardization, public funds utilization, and collaboration between national and regional entities to achieve energy efficiency and sustainability goals.

3.4 Qualitative Assessment

Overall, RoundBaltic succeeded in organising and implementing sessions at roundtables focusing on financing energy efficiency at both national and regional level. This led to enabling actions within 12 target regions across Poland, Latvia and Denmark and centred around regional support structures for financing and implementing energy efficiency measures.

These actions were considered in relation to national framework conditions and initiative. As such the Roundtable Intervention has contributed suggesting proposals for improving policy framework and measures supporting financing of energy renovation in the targeted energy efficiency sectors.

The added value of RoundBaltic in the process is related to interaction at the roundtables and several bilateral consultations with stakeholders, including financial players. An interaction that builds further on the dialogue established within SEI Forums. This has ensured an expansion of stakeholders and a qualified dialogue creating momentum at both national and regional level to enable concrete actions and propose needed support measures at regional and national level, including financial concepts.

The regional roundtables have been important for pooling of investment projects and road maps for their implementation including identifying needed policy and financial support measures at national level. The regions are functioning as facilitators for cross-municipal cooperation in relation to the local climate and energy planning process. The significant experience from RoundBaltic with active involvement of regions and municipalities and other local and national stakeholders (including financial players) is an essential input to this process.

Regions will continue being facilitators and several initiatives and follow-up projects are launched. Still there are room to improve the interaction between the national level and the regional/local, but the learning and the recommendations from RoundBaltic will contribute to enhance this further, both in relation to the strategic climate and energy planning processes, but also in relation to the recast of EU directives which will put higher focus on deep renovation and national building renovations plans, that would benefit from being coordinated efficiently with the regional/local level.

3.5 Viability Assessment

Below the project approach is evaluated in relation to the impact barriers identified at the beginning of the project.

Type	Detected impact barriers	RoundBaltic approach
Political	Insufficient support at national political level to create supportive framework for financing of EE Investments	RoundBaltic has identified various gaps in the current supportive framework and developed a set of recommendations to fill these gaps, and which were presented and discussed with national stakeholders and financial players during the intervention
Political	Insufficient interaction with the national and local level where the actions must be implemented in practise	The interaction between regional and national roundtables proved to be an efficient way of facilitating interaction between the national and local level. Recommendations from regional roundtables were included in proceedings and roadmaps and discussed at national roundtables and concrete supporting measures were outlined. The enabling actions served as good cases for determining steps ahead at regional and local level towards their implementation, including energy efficiency financing.
Involving the financial sector	Difficulties in involving the financial sector properly I	In parallel with the RoundBaltic Action the financial sector has increased their capacity to support the green transition. RoundBaltic has in this context worked closely with the national financing branch organisations and numerous banks (major part of the sector in all countries) and also pensions funds, to build bridge between the financial and the EE sectors. As such the financial sector has taken a very active part in the project and the enabling actions. The regional process and the inter-municipal cooperation must navigate in this well-developed financial landscape ensuring developing an appropriate link to the regional and municipal strategic initiatives and with a view to identify proper financing sources in relation to the project portfolios, the de-risking measures, and the various user segments (leasing, bank loans, pension funds etc.).

4 Assessment of interventions in Denmark

The national assessment is done for each country focusing on the three main points addressed above:

- 1) Set up national roundtables focused on energy efficiency investment, as permanent multilateral discussion forums gathering the relevant stakeholders.
- 2) Use the roundtables to upscale existing best practices from the national and European level, develop strategies, roadmaps and action plans, propose improvements in the national policy frameworks and measures, and follow their implementation.
- 3) Develop jointly template documents and contracts leading to a better functioning of the market.

WP4 provides input for the documentation of enabled actions (including road maps) for each sector per region, and the overall impact assessment refers to this. The documentation / road maps in WP4 includes a short impact evaluation table for actions in each region.

Further WP2 describes/ documents of changes in framework conditions triggered by the project which are largely common for the regions.

4.1 Project Intervention in Denmark

The project intervention has focused around three national roundtables and six regional roundtables in Central Denmark Region, Southern Denmark Region and East Denmark. The two regional roundtables in Eastern Denmark were spread over four individual events in relation to the various topics addressed (Two separate events on social housing and separate events on private homes).

The roundtables have followed up from the momentum created at previous Sustainable Energy Investment Forum Roundtables which suggested

- Regional one-stop-shop structures as effective tools to facilitate financing of energy renovations in private homes.
- Intermunicipal cooperation for supporting SMEs
- Aggregation of Social Housing energy efficiency projects at regional / intermunicipal level

The overall aim has therefore been setting up focal points for financing energy efficiency in the three target regions ideally supporting homeowners, social housing and SMEs through project development assistance and one-stop-shop services.

In total 3 national and 6 regional roundtables were implemented in addition to several Advisory Board meetings and bilateral meetings/consultations with key stakeholders.

Number of stakeholders involved:

	Number	Number of participants	% from the financial sector
National Roundtables	3	139	35%
Regional Roundtables	6 (held as 9 separate events)	252	15%
Total	9	391	22%

Overall, the roundtables have supported the intermunicipal cooperation in the three target regions involving several municipalities and through these increased the number and types of stakeholders involved along the value chain. These includes national and local banks, governmental institutions, research institutes, service providers, installers and branch organisations. Further the roundtables have led to an increased interaction with national stakeholders and created a qualified dialogue on needed national support measures.

As such RoundBaltic has contributed to establish regional structures that can function as future permanent structures regionally. At national level various initiatives have been launched by the financing sector, interest organisations and governmental institutions, which needs to be coordinated with the regional initiatives.

4.2 Private Homes - Denmark

As to private homes, the focus has been on one-family houses and multi-family houses inside and outside DH and gas supply areas. In the light of the current need to reduce gas consumption, there is a process of expanding the DH supply area within all Danish municipalities, including converting natural gas areas to DH areas or areas supplied by heat pumps. Further by connecting more consumers within the DH area.

Outside the DH area various forms of energy supply is promoted, e.g., heat pump systems supported by state funds (subscription schemes a.o.) and collective heat pump systems (5GDHC Thermonet).

4.2.1 Setting up national roundtables and permanent multilateral discussion forums

Output – roundtables

Private Homes were addressed at specific sessions at the Roundtables in each target region, two of them as separate events in East Denmark and Southern Denmark Region.

National governmental authorities involved

Danish Energy Agency; Ministry of Climate, Energy and Supply; the Danish Council on Climate Change (Klimarådet)

National Branch organisations involved

Synergi; Danish Business Association; Danish Rural Council; Danish Knowledge Center on Energy Renovation; Tekniq (Association of Installers)

Private financial institutions involved

Finance Denmark, Danske Bank, Nordea, Totalcredit, Jyske Bank, Merkur Bank: SUSTAIN (PKA Pension Fund); Local banks: Vestjysk Bank, Ringkjøbing Landbobank, Skjern Bank

Regional Level

Central Denmark Region; Southern Denmark Region; GATE 21 (East Denmark; Pool of Municipalities (including frontrunners); energy suppliers; House Owner Associations; Local representatives of installers; National and local branches of banks.

Outcome - roundtables

The intermunicipal cooperation is planned to continue taking recommendations from RoundBaltic into account and the various efforts done by various stakeholders around the roundtables.

Identifiable changes in relation to stakeholders include:

Private banks are generally building up capacity to meet the demand for private capital to finance home energy renovations, a.o. in relation to a partnership between the Government and the Financial sector. In parallel and in interaction with the RoundBaltic intervention each bank has made its own set-up with online guidance and tools and offers for energy checks by qualified consultants. In addition, they have carried out extensive capacity building activities for their staff and hired new staff with relevant qualifications.

The cooperation with the financing sector has included Finance Denmark as well as national and local banks.

The RTs has further led to Increased networking and interaction with other stakeholders, including research institutions, branch organisation, accountants etc. with a view to broaden the stakeholder involvement around a regional set-up. This also embrace an increased interaction with national stakeholders addressing regional and local needs, including increasingly adopting financing as an important topic in various forums.

Through the Roundtables and the interaction between these, all stakeholders have increased their capacity in relation to specific needs within the sectors and possible means to cope with these.

Within the regions the roundtable process has been used to initiate new initiatives building further on the conclusions and several stakeholders are committed in new project proposals following up on the recommendations from RoundBaltic.

Viability Assessment - roundtables

The roundtables have gathered enough participants representing various stakeholders, including a very active involvement of financial players. All roundtables were positively evaluated by participants and seen as very useful forums in relation to current needs and processes.

Permanent structures for energy efficiency finance – output

Proposals for a permanent structure was developed and integrated into other planned initiatives. The permanent structure at both regional and national level is related to the follow-up of the national DK2020 which has helped all 98 Danish municipalities to develop climate and energy action plans using the same methodology (C40) and in line with European SECAP standard.

Two new initiatives are initiated the 1) the Climate Alliance to monitor the plans and take the step from plan to implementation, including financing issues - This involves all regions and the Association of Local Authorities 2) the LIFE ACT project (Action for climate transition) in which all regions will work on several sub projects focusing on implementation of climate mitigation and adaptation measures, a.o. in relation to energy renovation.

The stakeholder discussion forums developed within RoundBaltic will continue within these initiatives. Further the regional advisory structures (cross municipal) established by RoundBaltic will continue, first in various project set-ups, and will further contribute to the stakeholder dialogue around specific initiatives.

Moreover it is proposed that these regional advisory structures could be coordinated through a national one-stop-shop for housing (see further below) and possibly as a part of a national hub under the EU EE Financing Coalition, which Denmark has agreed to join at the end of RoundBaltic

It also worth emphasizing that RoundBaltic has facilitated cooperation with the financial sector at national and regional level and in relation to the actions enabled at regional level. In this context RoundBaltic has established dialogue with the European Investment Bank (EIB) and the Danish Energy Agency on the prospect of creating a national ELENA for Denmark and which possibly could be integrated into a national OSS coordinated with regional advisory structures –also addressing requirements in revision of the EPBD and Building directives.

Viability Assessment

RoundBaltic have worked closely with four out of the five Danish regions and as such paved the way to integrate energy efficiency finance efforts in the new initiatives aiming at monitoring and implementing strategic energy and climate planning in all Danish 98 municipalities, and with the regions as important facilitators. This will also entail future roundtable discussions.

As to a national ELENA, consultations with EIB and the Danish Energy Agency (bilaterally and in the Third National Roundtable) has revealed that the option of a national ELENA programme is being considered by the Danish Government and will be integrated into the national process of the EPBD recast. This process will further consider how to support OSS structures in Denmark. Further as mentioned above, the Danish Government has agreed to join the EU EE Financing Coalition.

4.2.2 Identifying and documenting enabling actions

Output

RoundBaltic has initiated and supported 3 specific regional actions within the **private home sector**. The proceeding from the RTs reflects on the status of progress and actions. The roadmap in WP4 suggest further actions at national and regional level.

Private Homes - Southern Denmark

Facilitating cooperation between 7 municipalities to establish Project Development Assistance / OSS Struture for homeowners. The initiative got support from the LIFE-CET programme under the PDA call (COHEAT Project).

Private Homes - Central Denmark

Facilitating a general cooperation between regional stakeholders to establish a regional support structure for the needed heat conversion in rural areas as suggested from the RoundBaltic intervention and experience from a number of initial projects funded by the Region (Parallel proejcts), A new general project is being developed focusing on business models for “5GDHC Thermonet systems” in combination with energy renovations.

Private Homes - Eastern Denmark

Cooperation between 15 municipalities to establish a one-stop-shop for private homes, including initiating an application to the ELENA Programme.

Initiation of a regional cooperation project supporting “5GDHC Thermonet” systems in the rural area.

Investments

The RoundBaltic project has triggered / supported and documented investments for XX which are supported by RB in relation to further stakeholder involvement, financial matters (partnerships with banks, taxanomy etc.) and initiation of new follow-up projects.

Investments (MEUR) – Private Homes	<i>Triggered</i>
Central Denmark	32,7
Southern Denmark	29,1
East Denmark	106,0
Total	167,8

Please refer to D4.1 - D4.4 for a further documentation.

Proposals for needed improvements in the national policy frameworks and measures

The following suggestions deriving from the roundtables (in road maps) were continuously included in discussions in RB Advisory Board meetings, follow up roundtables, bilateral stakeholder consultations etc.

- Ensuring need for better use of public funds. Ineffective grant schemes should be replaced by campaigns and grants for project development (technical assistance ala ELENA for example). The regions have presented a concept paper on this to the Danish Energy Authority.
- Developing an improved national framework for heat planning in relation to the ongoing conversion of gas areas to district heating, the use of surplus heat and the conversion of Area 4 (outside DH) to other forms of supply than fossil fuels (heat pumps, etc.)
- The challenges in the rural area should be addressed at national level, as it may be a society issue to guarantee investments in energy renovation and alternative heat supply systems for vulnerable end-users.
- In relation to the establishment of a regional setup, e.g., around the concept of “Integrated Home Renovation Services” there is a need for coordination with national campaigns, including the use of standard assumptions and tools – dividing and coordinating actions and support at regional and national level.
- As part of strengthening the national regulatory framework, it is also important to ensure as efficient and action-oriented energy label as possible. There is already a dialogue between the Danish Energy Agency and Finance Denmark on this topic.
- Clarification of legal aspects as to whether “Thermonet” is considered as a district heating system and thereby covered by the Heat Act. This is currently a main barrier for project progress, as it is unclear who to own and operate the systems (DH companies or private entities e.g. energy communities).

Outcome - enabling actions

- Uptake of the above suggestions/measures proposed and discussed at Roundtables, Advisory Board meetings and in bilateral consultations with regional and national key stakeholders.
- OSS concepts (advisory structures) initiated by all the regions in cooperation with RoundBaltic considering the above suggestions and continuously addressed to national stakeholders– and in Central Denmark in combination with direct regional support to rural areas.
- Finance Denmark and the National Rural Community Council has suggested 13 measures in a publication to support financing in rural areas.
- Banks and other financial actors have actively participated in the RoundBaltic Intervention in parallel with building up capacity and business models for loans to green transition.

Partnering with the financial sector

As indicated above private banks have built up capacity to meet the demand for private capital to finance home energy renovations, a.o. in relation to a partnership between the Government and the Financial sector as well as in relation to the interaction with RoundBaltic

RoundBaltic has had a close cooperation with Finance Denmark (FIDA), representing most of the Danish financial sector, throughout the project period. This has gone hand in hand with FIDA's own intentions for sustainable finance and goes back to the roundtables organised under SEI Forums in 2019 and where FIDA the same year launched its 20 recommendations for actions to make the Danish financial sector more sustainable.

The RoundBaltic intervention has helped to engage the financial sector in sustainable energy investments, incl. representatives of banks have been active participants in the various roundtables organised.

A key focus has been to engage the banking sector in one-stop-shop development that has been a theme of several roundtables and enabling actions. It has also comprised more detailed aspects, like how to adopt sustainable energy in bank's dialogue with its clients incl. transferring the intentions for sustainable finance to the regional/local affiliates of the banks, how to adopt an energy performance of building label that is better suited with the financial sector and how to provide proper project documentation in relation to risk mitigation. Also, FIDA shared the RB focus on helping a sustainable development in rural areas and made a joint report with the National Council for Rural Affairs on how to meet the financial challenges of investments in these areas that were discussed during the roundtables and followed up via enabling actions.

Viability Assessment - Enabling Actions

Interaction with the regional and local level where the actions must be implemented in practise

The regional roundtables have followed up on the recommendations from the national roundtables and has provided feedback to the national follow-up roundtables as to needed supportive measures and coordination at national level. This is a complex process, due to many climate-related reforms launched in parallel with RoundBaltic. However, the RTs have created a consensus among the stakeholders involved about needs at the national level, and as such contributed actively together with key stakeholders. The actions are highly prioritised by politicians. For example, the Advisory Structure for rural areas in Central Denmark Region developed under RoundBaltic is aligned with initiatives carried out by the region such as exchange workshops and direct financial support from the region to initiate project opportunities at several locations.

Involving the financial sector

RoundBaltic has worked closely with financing institutions to build bridge between the financial and the EE sectors through the Advisory Boards, the roundtables, bilateral consultations, the follow up activities and European Exchange workshops.

In interaction with the RoundBaltic intervention each bank has made its own set-up with guidance and tools. In addition, they have carried out extensive capacity building activities for their staff and hired new staff with relevant qualifications.

The inter-municipal cooperation must navigate in this landscape ensuring developing an appropriate link to the regional and municipal strategic initiatives and with a view to identify proper financing sources in relation to the project portfolios, the de-risking measures, and the various user segments (leasing, bank loans, pension funds etc.). This will also relate to de-risking of energy efficiency investments through standardization and documentation considering real risks and

benefits of energy efficiency investments, including addressing creditworthiness at private homeowners which differ across the market.

4.2.3 Develop jointly market recommendations and tools

Output – market recommendations and tools

Several of the measures suggested at the roundtables have concerned needed actions to generate tools and templates within the supportive framework in relation to project aggregation, de-risking and better use of public funds. The RoundBaltic has suggested and launched various actions towards developing these tools

Outcome - market recommendations and tools

OSS Concept

The regions have within RoundBaltic taken initiatives towards establishing regional structures supporting energy renovations conversions to district heating or alternative heat supply in areas where district heating is not feasible (5G DH and cooling systems). Ideally these can function as one-stop-shop structures.

Further there is an inter-municipal cooperation in relation to Strategic Climate and Energy Planning (DK2020), where all municipalities have made plans according to C40 standards (comparable with SECAPs). The implementation phase of this is being planned at the end of the RoundBaltic project, including a new project financed by the philanthropic organization REALDANIA to monitor and follow up on all plans (involving all regions) plus a LIFE-project (LIFE ACT – Action for climate transition) in which all regions will work on implementation of climate mitigation and adaptation measures issues. The initiative is divided into 18 projects, including three focusing on climate mitigation i.e. strategic energy planning, utilization of surplus heat and energy home renovation.

The OSS approach should combine various services in a packaged offer to homeowners, to create confidence and simplify their renovation process. Further it should be well integrated in its context, making best use of what is nationally and locally available, notably in terms of public support schemes and local market players.

RoundBaltic has suggested that the local and regional efforts should primarily concentrate on project development assistance and a national OSS framework should provide the primary support as to tools and national framework conditions. As mentioned above this could also relate to a national ELENA as well as the implementation of the EPBD Recast.

Integrating existing national, regional and local policies, initiatives, tools, projects and experience				
National	Regional	Projects	Tools	EU Strategies
National climate strategy	Regional climate strategy	RoundBaltic (creating momentum around EE Financing)	Sparenergi.dk (national portal)	Renovation wave Green Deal
Conversion of gas supplied or rural areas to district heating or individual/collective RES supply	DK2020 (Strategic energy and climate planning in municipalities)	CrossCert (improving energy performance certificates for buildings)	Boliganalysen.dk Diverse calculators established in the market (by banks, Danish Energy Agency etc.)	Revision of EPBD including national building renovation plans and Building Renovation Passport concept (stepwise implementation towards 2050)
Long Term Renovation Plan	The Climate Alliance (follow up of DK2020)	CoolGeoHeat 1 and 2 (collective heat pump in rural areas)	Bedre Bolig (holistic audit and screening model established by the Danish Energy Agency)	
DNGB (Certification of sustainable building construction)	Regional development strategies for rural areas	2ISECAP (H2020 project focusing on SECAP process)		
Partnership with Finance Denmark		a.o.		
Subsidy and guarantee schemes				
Framework for DK2020 initiative (financed by philanthropic organisation)				

Business Models for Thermonet systems (5G DH heating and cooling)

Conversion to individual heat pumps is a possible alternative energy source in rural areas, but the collective alternative "Thermonet", which is based on a common primary circuit for heat pumps, is generally considered a more economical and technically advantageous solution (5GDHC). The heat pumps and the Thermonet can be supplemented with electricity-producing renewable energy plants in the form of solar cells and possibly wind turbines and contribute to balancing the load on the collective electricity supply network. All regions have been involved in several project and initiatives promoting Thermonet systems supplying a smaller number of buildings in villages etc., and therefore the Roundtables has addressed how to further support this development.

Within EUCF (European City Facility), and in relation to the RoundBaltic Roundtables, two projects were initiated in 2022 involving two of the municipalities in the Region (and SUSTAIN – project developed under the PKA pension fund) to develop an investment concept promoting investments of **96 MEUR** in Thermonet systems across the region and Denmark.

Roundtable discussions have focused on the technical and legal and especially financial challenges in relation to the establishment of plants above and below 250 kW. Installations above 250 kW are expected to be covered by the Heating Act (thus considered as district heating) and can therefore

generally be financed with a municipality-guaranteed loan and established by DH companies, while the smaller plants below 250 kW, which can be financed through energy communities, for example, have a challenge in finding financing on the private market. The clarification about the legal framework, however, has been delayed, making ownership and operation uncertainties. If Thermonet is excluded from the Heat Law, private service providers or energy communities may operate such systems, posing challenges for private financing. Financing energy renovations in rural areas is further complicated by low building equity.

Integrating deep renovation

Following the coming update of the EPBD directive it is relevant at national, regional and local level to target long term holistic deep renovation plans for the building segments considering Nearly Zero Energy Buildings levels, improved energy performance certificates, future energy supply, future smart home requirements including infrastructure for electric vehicles, strategic energy planning and spatial planning. This may involve promoting a step-by-step approach for renovation in relation to a holistic long-term plan. As such the initiative will support the ongoing DK2020 process where all 19 municipalities have prepared ambitious climate and energy plans aiming at CO2 neutrality in 2050.

There are various analyzes to consider in the process. for instance, The Danish Building Research Institute has prepared an overview of how deep the existing buildings can be expected to be renovated. The renovation level is based on recommendations given by the European Commission: **Easy:** Energy consumption is reduced by up to 30%; **Medium:** Energy consumption is reduced by 30% - 60%; **Deep:** Energy consumption has been reduced by more than 60%

Approx. 20% of the building stock built before 1980 is not energy renovated. 55-60% is slightly renovated (easy), approx. 20-25% is medium renovated, and deep energy renovation has yet only been carried out to an extremely limited extent. In Denmark, it is estimated necessary to reduce the energy consumption of the existing building mass by 50% on average to reach the Danish government goal of a fossil-free society by 2050. This is not possible for many buildings, therefore others, where possible, must go through a “**deep energy renovation**”, which reduces energy consumption to a need corresponding to either the Danish Building Regulations 2015 (BR15) for new construction, or the Building Class 2020 (BK2020 – corresponding to an **NZEB** level).

Up-scaling

Up-scaling of the project volume has been a general discussion point. In terms of investments mainly as an option to bundle heat supply systems in the rural area. As to home renovations it may more be a question of developing a common language between all stakeholders to understand and mitigate all risks (potentially including standardisation of processes and procedures).

Standardisation

The RoundBaltic action has shown a consensus that a common language and something recognizable is needed. Something that creates trust on both the house owner side and the financial side. At the same time, there is a need for further qualification among advisors around a common understanding of the process and the holistic approach.

It is important for the banks that the documentation does not become too complex. A standardized approach could help make it less complex, also for homeowners. The best option may be developing a guide based on a **checklist** that the various actors can adjust to.

Maximise use of public funds

There is running a national support programme where homeowners can get direct grants to heat pumps and energy renovation. There is a need to maximize the use of available public funds eg towards project development assistance, financial instruments or vulnerable consumers e.g. in rural areas.

Interaction between the national roundtables and actions at local/regional level has as indicated above identified needs for an improved policy framework towards better use of public funds (e.g. for project development assistance), tailored national support towards rural areas and clarification of legal aspects as to Thermonet systems. See further in roadmap and summary below.

Guarantee Schemes

The challenges in the rural area should be addressed at national level, as it may be a society issue to guarantee investments in energy renovation and alternative heat supply systems for vulnerable end-users. A joint initiative of Finance Denmark and the National Council for Rural Affairs has proposed [a range of measures](#) towards supporting financing of energy efficiency in the rural areas, and which was presented and discussed at the second regional roundtable in Central Denmark Region.. The problem also addressed by the branch organisation SYNENERGI, who has suggested a national guarantee schemes for this consumer segment

Viability Assessment – Market Recommendations and Tools

Setting up OSS Concept at regional/Inter-municipal level

RoundBaltic, has created a process where all regions work actively towards setting up regional focal points, ideally functioning as one stop shops, that can support the private homes on their project journey on implementing energy renovation measures. Overall, the challenge is **establishing** and **funding** a network cooperation of municipalities and other stakeholders along the value chain in relation to coordinating efforts and sharing capacity and capability.

An effective OSS structure should ensure a smooth coordination with all stakeholders, including with the financial sector. This process is initiated in all regions but there is a continuous need to expand stakeholder involvement along the project journey to simplify the renovation process for the homeowners. This includes further interaction with the financial sector and other stakeholders to upscale project development assistance, facilitate more effective use of public funds, possibly bundle projects and develop de-risking tools.

There are no sufficient resources to support this within the municipalities, due to tight budgets and various priorities. So, this will mostly depend on further project financing or better use of the current national grant schemes, which only focuses on grants to individual investment projects. New business models may also be elaborated based on financing from private actors. For now, the municipalities are applying new project funds at EU and national level.

In relation to the future structure, there is a need to coordinate national and regional efforts and in relation to the recast of the EPBD Directive.

Support at national political level to create supportive framework for financing of EE Investments.

RoundBaltic has identified various gaps in the current supportive framework and developed a set of recommendations to fill these gaps. This includes better coordination between the national and the regional level, legal challenges, better use of public funds towards assisting private homes in identifying proper EE investments as well as several other measures described above.

RoundBaltic and the regions have proposed to allocate funds for supporting municipalities and other actors in setting up project development cooperation structures. Further to coordinate assumptions at national level to develop a common project language. A national OSS structure could be set up forming the framework for supporting interventions actions at regional level and where the regional actions are mostly focusing on project development assistance. This may go hand in hand with a national ELENA set-up as addressed within RoundBaltic.

Combining regional OSS Structure with national OSS Structure and ELENA Programme

Clear feedback from the roundtables is a reluctance towards the existing 'stop and go' subsidy schemes as they tend not to provide the stable investment support required. At the same time the ELENA programme has been appreciated among the stakeholders as the concept of leverage factor and no deadlines for application has been helpful to boost green investments in Denmark.

Following this, RoundBaltic has done an effort to advocate for putting in place a 'national ELENA' to supplement the European one with a view to bring additional PDA means and adopt the funding criteria to the Danish context (for instance lowering the required investment volume if found appropriate).

The efforts include:

- A meeting with Ralf Goldmann (EIB), Head of Division at the Energy Efficiency and Energy Advisory of EIB, which made clear that EIB see positive prospects for Denmark to develop a national ELENA Programme and offered support in discussions on how to set this up and feed in with experiences made by EIB so far.
- Addressing the issue with project key counter parts and with positive feedback
- Addressing the issue at the Third national roundtable in cooperation with the Danish Energy Agency and where participants provided positive response on the idea of a national ELENA and consequently it was decided to follow-up on exploring such initiative.
- A subsequent consultation of Danish Energy Agency has revealed that the option of a national ELENA programme is being considered by the Danish Government and will be integrated into the national process of the EPBD recast. This process will further consider how to support OSS structures in Denmark.

4.2.4 Qualitative Assessment

Overall, RoundBaltic succeeded in organising and implementing the roundtables planned at national and regional level in the three Danish target regions. Further to enable actions within all three regions, in total launching, organising and following up 7 actions all centred around regional support structures for financing and implementing energy renovation in private homes. These actions were

considered in relation to national framework conditions and as such the Roundtable Intervention has suggested several proposals for improving policy framework and measures supporting financing of energy renovation in private homes.

The added value of RoundBaltic in the process is related to interaction at the three national and six regional roundtables, the Advisory Board Meetings involving the regions and several bilateral consultations with stakeholders, including financial players. This has ensured an expansion of stakeholders and a qualified dialogue creating momentum at regional level to enable concrete actions and propose needed support measures at regional and national level, including financial concepts.

The regional roundtables have been important for enabling actions, i.e., pooling of investment projects and road maps for their implementation including identifying needed policy and financial support measures at national level. The regions are functioning as facilitators for cross-municipal cooperation in relation to the local climate and energy planning process. All Danish municipalities have elaborated so-called DK2020 plans (C40 standard) which are similar to SECAPs, and are entering into a process of implementing these plans. The significant experience from RoundBaltic with active involvement of municipalities and other local and national stakeholders (including financial players) is an essential input to this process.

Regions will continue being facilitators and several initiatives and follow-up projects are launched. Still there are room to improve the interaction between the national level and the regional/local, but the learning and the recommendations from RoundBaltic may contribute to enhance this further, both in relation to the strategic climate and energy planning process, but also in relation to the recast of EU directives which will put higher focus on deep renovation and national building renovations plans, that would benefit from being coordinated efficiently with the regional/local level.

4.2.5 Viability Assessment Summary

Below the project approach is evaluated in relation to the impact barriers identified at the beginning of the project.

Type	Detected impact barriers	RoundBaltic approach
Political	Insufficient support at national political level to create supportive framework for financing of EE Investments	RoundBaltic has identified various gaps in the current supportive framework and developed a set of recommendations to fill these gaps, and which were presented and discussed with national stakeholders and financial players
Political	Insufficient interaction with the national and local level where the actions must be implemented in practise	The interaction between regional and national roundtables proved to be an efficient way of facilitating interaction between the national and local level. Recommendations from regional roundtables were included in proceedings and roadmaps and discussed at national roundtables and concrete supporting measures were outlined. The enabling actions including pooling of investment projects at regional level served as good cases for determining steps ahead at regional and local level towards their implementation, including energy efficiency financing.
Involving the financial sector	Difficulties in involving the financial sector properly I	In parallel with the RoundBaltic Action the financial sector has increased their capacity to support the green transition. RoundBaltic has in this context worked closely with Finance Denmark and various banks (major part of the sector) and also pensions funds, to build bridge between the financial and the EE sectors. As such the financial sector has taken a very active part in the project and the enabling actions. The inter-municipal cooperation must navigate in this well-developed financial landscape ensuring developing an appropriate link to the regional and municipal strategic initiatives and with a view to identify proper financing sources in relation to the project portfolios, the de-risking measures, and the various user segments (leasing, bank loans, pension funds etc.).

4.2.6 Means of Verification

- The private homes topic addressed in 8 proceedings
- Minutes of Advisory Board Meetings
- 3 articles with testimonials- [link](#)
- 3 case studies – [link](#)

- Road map developed (addressing actions at regional level and national level) – see WP4
- Participant lists (from RTs)

4.3 Social Housing in Denmark

The focus has been on promoting investments in energy efficiency at regional level related to municipal action and in interaction with initiatives and supportive framework conditions at national level.

4.3.1 Setting up national roundtables and permanent multilateral discussion forums

Output - roundtables

In total 1 national and 4 regional roundtables addressed the topic. In addition Advisory Board meetings and numerous bilateral meetings/consultations were with key stakeholders to follow up on actions agreed.

Overall, the roundtables have supported the intermunicipal cooperation in two target regions, Southern Denmark Region and East Denmark (Zealand Region and Greater Copenhagen Region). involving several municipalities and through these increased the number and types of stakeholders involved along the value chain. These includes representative for national banks and credit institutions as well as pension funds, governmental institutions, research institutes, service providers, installers and branch organisations. Further the roundtables have led to an increased interaction with national stakeholders and created a qualified dialogue on needed national support measures.

As such RoundBaltic has contributed to establish regional structures that can function as future permanent structures regionally. At national level various initiatives have been launched by the Government in cooperation with key stakeholders such as the National Building Fund and the Danish Association on Non-Profit Housing Providers, which needs to be further coordinated with the regional initiatives.

National governmental authorities involved

National Building Fund; Danish Energy Agency; Ministry of Climate, Energy and Supply;

National Branch organisations involved

Danish Federation of Non-Profit Housing Providers; Synergi (branch organisation); Danish Business Association; Tekniq (Association of Installers)

Private financial institutions involved

Finance Denmark, Realkredit Danmark, Danske Bank, Nordea, Totalkredit, Jyske Bank, Jyske Realkredit, SUSTAIN (PKA Pension Fund);

Regional Level

Southern Denmark Region; GATE 21 (East Denmark; Pool of Municipalities (including frontrunners)); energy suppliers; Social Housing Owner Associations; Local representatives of installers.

Outcome - roundtables

The intermunicipal cooperation is planned to continue taking recommendations from RoundBaltic into account and the various efforts done by various stakeholders around the roundtables.

Identifiable changes in relation to stakeholders include:

At national level the roundtables were initially based on The Danish political “Green Housing Agreement of 2020” allocated extra funds to finance a queue of projects within the social housing sector applying to the National Building Fund (2,5 billion EUR).

These projects include renovations work in general, including energy renovation where applicable. However, at the same time, the agreement put additional requirements to carry out screening and reassessment of the projects on the waiting list to ensure a higher emphasis on green investments.

A total of DKK 30 billion (4 billion EUR) has been set aside for renovations until 2026 in the national budget, but there will be a need for more funds, if not just to create a new queue. In this connection there is a desire and a need to attract more financial players in the market like pension funds, credit institutions etc.

The agreement also contains a new green guarantee fund, which will run under the auspices of the National Building Fund. The fund, being in operation from October 2021, is expected to be able to support up to 0,8 billion EUR in energy-efficient initiatives in the social housing sector.

Given this challenge a national roundtable, organised as a separate event in cooperation with the H2020 SUPER-I Project, focused on how to attract more private financing to the sector, and invited several financing institutions to initiate this process by addressing the ESCO potential, the involvement of pension funds and various measures to involve credit institutions more active for example through green bonds. Further bilateral discussions addressed the conclusions from the roundtable and other forums to develop further a holistic approach. This led to a joint initiative within the sector “The Green Model” involving key stakeholders such as Danish Federation of Non-Profit Housing Providers, the National Building Fund, Danish Pension Fund PKA, branch organisations for installers and service providers, social housing companies etc.

At regional level RoundBaltic in cooperation with social housing companies addressed potential regional investment portfolios across municipalities and housing companies, and which is to be considered in conjunction with the Green Model. Some of these SHCs are actively involved in the development of the Green Model.

Viability Assessment - roundtables

The roundtables have gathered enough participants representing various stakeholders, including a very active involvement of financial players. All roundtables were positively evaluated by participants and seen as very useful forums in relation to current needs and processes.

Permanent structures for energy efficiency finance – output

Proposals for a permanent national supporting and coordination structure is integrated into the Green Model, which as mentioned above includes key stakeholders.

The permanent structure at both regional and national level is further related to the follow-up of the national DK2020 process, which has helped all 98 Danish municipalities to develop climate and energy action plans using the same methodology (C40) and in line with European SECAP standard (also mentioned under Private Homes). The investment portfolio addressed is suggested integrated into this planning process (see further below)

Viability Assessment permanent structures

RoundBaltic have within this topic worked closely with three out of the five Danish regions and as such paved the way to integrate energy efficiency finance efforts in the new initiatives aiming at monitoring and implementing strategic energy and climate planning in all Danish 98 municipalities, and with the regions as important facilitators. It is important to coordinate this effort by the overall national Green Model initiative

4.3.2 Identifying and documenting enabling actions

Output

RoundBaltic has initiated and supported 2 specific regional actions within the **social housing sector**. The proceedings from the RTs reflects on the status of progress and actions. The roadmap in WP4 suggest further actions at national and regional level.

Social Housing - Southern Denmark

The overall scope of the intervention has been to explore the potential for energy efficiency finance within the social housing sector in the Region of Southern Denmark.

A key starting point for this concerns the EU PDA HAPPI project that helped to generate energy efficiency investments in the 9,400 public housing units distributed among 6 social housing companies in the Municipality of Sønderborg. Hence the RoundBaltic intervention has aimed to upscale these achievements to other parts of the region:

Investment potential of the following Social Housing Companies: **16.6 MEUR**

- AAB Vejle of 3,200 social housing units
- Østerbo Vejle of 4,200 social housing units
- AAB Varde of 716 social housing units
- HAB Haderslev of 2,300 social housing units

Social Housing - Eastern Denmark

The scope of enabling actions has been to explore the potential of energy renovation and associated sustainable energy investments in 18 social housing companies in Furesø Municipality due to enabling actions under RoundBaltic. This has been done in interaction with Furesø Municipality obtaining a grant from the EU City Facility to develop an investment concept for the municipal social housing sector (**17,8 MEUR**).

Investigations have been done of investment opportunities in the 18 social housing companies, covering measures like insulation, conversion to green heat supply, renewable energy etc. The

figures shown in the table above are the accumulated figures of the investment volume and associated energy savings of the measures.

Investments

As indicated above the RoundBaltic project has triggered and documented investments for 34.4 MEUR which are supported by RB in relation to further stakeholder involvement, financial matters (partnerships with banks, taxonomy etc.) and initiation of new follow-up projects.

Please refer to Deliverable 4.1 / D4.2 for a further documentation of these actions

Proposals for needed improvements in the national policy frameworks and measures

The following suggestions deriving from the roundtables (in road maps) were continuously included in discussions in RB Advisory Board meetings, roundtables, bilateral stakeholder consultations etc.

- Danish Federation of Non-Profit Housing Providers/BL is a key actor to support a better framework for sustainable energy finance in the Danish social housing sector. The **Green Model**, driven by BL and other key stakeholders, is a key initiative to guide the green transformation of the social housing sector, which can also help the development in the regions. This entails innovative financing and ways to provide tenants with confidence in the investments as part of the social housing company democracy.
- The municipalities can be a facilitator for the public housing associations regarding their options, and in relation to bundling investments across municipal boundaries. This must also be seen in relation to the municipalities' responsibility to be proactive in facilitating the green transition. The Green model
- The financial sector has shown interest in this development and RoundBaltic has in tandem with the parallel Super-I project explored how to manage the engagement (see further below).

Enhancing Private Financial Sector Engagement in Energy Renovations for Social Housing

The private financial sector has shown considerable interest in supporting energy renovations within the social housing domain. This interest is primarily driven by the sector's regulated nature, rendering investments less precarious compared to other industries. Currently, conventional mortgage loans are being offered, complementing the National Building Fund and pension funds.

While the financial sector demonstrates enthusiasm for green initiatives, green bonds remain underdeveloped concerning social housing. Achieving maturity in this area necessitates leveraging the financial sector, particularly in alignment with the European Union's green taxonomy.

Key inquiries have arisen regarding the attractiveness of the interest rate advantage offered by green bonds to the sector. Additionally, deliberations have explored whether extending the mortgage loan term from 30 to 50 years, especially in the context of climate screen renovations (roof and walls), might be a more advantageous alternative.

Furthermore, the discussion in RoundBaltic has highlighted the potential requirement for government guarantees and specific policy mandates to foster appealing green loans for the social housing sector. Such prerequisites may only become imperative with increased emphasis on addressing the substantial backlog in energy renovations within the sector. There is also a

suggestion to permit the utilization of national building funds for dedicated energy projects, a decision that rests within the realm of politics.

The discourse has also delved into the potential need for specialized green bonds in the bond market to facilitate the green transition in the social housing sector. This could be pivotal for prompting the pension sector to play a more active role in supporting energy renovations for social housing.

Consensus emerged on the notion that while raising inexpensive capital is currently feasible (at the time of the first national roundtable) the rising interest rates signal a need to develop specialized green loans with reasonable interest rates. Acquiring affordable capital is critical to executing renovations in social housing and mitigating energy poverty, especially as economic conditions evolve.

Outcome - enabling actions

- Uptake of the above suggestions/measures proposed and discussed at Roundtables, Advisory Board meetings and in bilateral consultations with regional and national key stakeholders.
- Banks and other financial actors have actively participated in the RoundBaltic Intervention in parallel with building up capacity and business models for loans to green transition and have gained additional knowledge in relation to the needs in the social housing sector (see summary above).

Viability Assessment - Enabling Actions

Interaction with the regional and local level where the actions must be implemented in practise

The regional roundtables have followed up on the recommendations from the national roundtables and has provided feedback to the national follow-up roundtables as to needed supportive measures and coordination at national level. This is a complex process, due to many climate-related reforms launched in parallel with RoundBaltic. However, the RTs have contributed to create a consensus among the stakeholders involved about needs within the social housing sector at the national level, and as such contributed actively together with key stakeholders. The actions are highly prioritised by politicians in relation to national, regional as well as local climate and energy strategies. Social housing represents 20% of the residential building stock in Denmark.

Involving the financial sector

RoundBaltic has worked closely with financing institutions to build bridge between the financial and the EE sectors through the Advisory Boards, the roundtables, bilateral consultations, the follow up activities and European Exchange workshops.

In interaction with the RoundBaltic intervention each bank has made its own set-up with guidance and tools. In addition, they have carried out extensive capacity building activities for their staff and hired new staff with relevant qualifications. As to the social housing sector the RoundBaltic intervention was an important initial part of this learning curve,

4.3.3 Develop jointly market recommendations and tools

Output – market recommendations and tools

Several of the measures suggested at the roundtables have concerned needed actions to generate tools and templates within the supportive framework in relation to project aggregation, de-risking and better use of public funds. The RoundBaltic has suggested and launched various actions towards developing these tools (see further about outcome below).

Outcome - market recommendations and tools

Aggregation of projects / Up-scaling

There is a need to aggregate relatively small projects across social housing companies as part of optimizing project development and manage the interface with the financial sector, covering aspects like:

- Enhancing collaboration aligned with the "Energi Spring" initiatives in Aarhus and Copenhagen, dedicated to promoting energy-efficient renovations through benchmarking, knowledge dissemination, and educational efforts. The initiative places a particular emphasis on Social Housing in Aarhus, anchored in the Aarhus Municipality and overseen by the local heating provider, Kredsløb.
- Strengthening collaboration in the facilitation, documentation, and development of projects, with a focus on resident engagement. This approach aims to minimize transaction costs by leveraging shared resources, ensuring a standardized project foundation for all stakeholders, and creating a unified interface for financing considerations.
- Implementing joint tenders, in alignment with the "dedicated builder model", which allows private builders to collaborate with social housing entities. This collaboration facilitates the construction of mixed developments comprising both private and social housing. This strategy is particularly relevant in the context of extensive project portfolios, fostering efficient and comprehensive approaches to large-scale initiatives.

Municipalities should be considered as possible facilitators of such aggregation and in relation to the strategic energy planning process, where energy efficiency in Social Housing can be considered a specific track.

The private investors are ready to finance energy savings. However, for pension companies a.o. to be interested, there must be a certain volume (in billion amounts), which a single housing association cannot ensure/stand for. It is necessary to ensure the aggregation of energy investments across multiple housing associations, which can help reduce overall risks and transaction costs.

Bundling of investments and attracting private investors will necessitate an intermediary between housing companies and investors, such as a project developer or a form of one-stop-shop, coordinating methods, documentation, and prequalified project developers. The latter could take the form of inter-municipal collaboration.

Resident democracy as a continuing challenge

Some of the major challenges remain creating trust in the resident democracy in relation to project facilitation, project documentation and construction processes. Particularly increase in rent levels are a sore point. At the same time there is generally a lack of holistic thinking and therefore not much focus on deep renovation. Overall, there is a need to ensure better transparency in relation to the total costs, the full set of needs and the total effects of energy renovations, including non-energy benefits. However, the social aspect is of high importance, and one should not expect the social housing sector, which in part represents some of the most vulnerable groups, to be frontrunners in the green transition. It requires national support ensuring that the necessary renovations are also carried out in a socially sound manner.

The Green Model

"The Green Model - Best practice for energy and comprehensive renovations in the social housing sector" aims to translate experiences with energy renovations into a guiding handbook that outlines the process and financing of energy renovations for all the country's social housing organizations.

The handbook will both compile the complex project and financing processes of energy renovations into tangible solutions and equip decision-makers in the social housing sector to integrate energy optimization into comprehensive renovations.

The Green Model incorporates a guarantee instrument of the associated energy savings meaning the social housing companies are assured of a financial long-term gain, which can give the tenants confidence in the investments as part of the housing association democracy. It also includes a gateway on how to better introduce ESCO in the energy renovation of the social housing sector. These prospects were presented by the ESCO SUSTAIN at the national and regional roundtable, and the Green Model can be key to drive innovation onwards.

Viability Assessment – Market Recommendations and Tools

The Green Model initiative addresses a need for joint investment-oriented actions across the social housing sector. Within this initiative key stakeholders have joined forces on the 'Green model' to make the green transformation of the social housing sector as simple, uniform, experience-based and effective as possible.

As addressed within RoundBaltic, and described above, it is important that this initiative is well coordinated with the regional and local level and as part of the strategic energy and climate planning process.

4.3.4 Qualitative Assessment

Overall, RoundBaltic succeeded in organising and implementing sessions at roundtables focusing on financing energy efficiency in social housing at both national and regional level. This led to enabling actions within two regions centred around regional support structures for financing and implementing energy renovation in social housing. These actions were considered in relation to national framework conditions and initiatives e.g. the national Green Model initiative launched after the first national roundtable. As such the Roundtable Intervention has contributed suggesting

proposals for improving policy framework and measures supporting financing of energy renovation in social housing.

The added value of RoundBaltic in the process is related to interaction at the roundtables and several bilateral consultations with stakeholders, including financial players. An interaction that builds further on the dialogue established within SEI Forums. This has ensured an expansion of stakeholders and a qualified dialogue creating momentum at both national and regional level to enable concrete actions and propose needed support measures at regional and national level, including financial concepts.

The regional roundtables have been important for the pooling of investment projects and road maps for their implementation including identifying needed policy and financial support measures at national level. The regions are functioning as facilitators for cross-municipal cooperation in relation to the local climate and energy planning process. All Danish municipalities have elaborated so-called DK2020 plans (C40 standard) which are similar to SECAPs and are entering into a process of implementing these plans. The significant experience from RoundBaltic with active involvement of municipalities and other local and national stakeholders (including financial players) is an essential input to this process.

Regions will continue being facilitators and several initiatives and follow-up projects are launched. Still there are room to improve the interaction between the national level and the regional/local, but the learning and the recommendations from RoundBaltic may contribute to enhance this further, both in relation to the strategic climate and energy planning process, but also in relation to the recast of EU directives which will put higher focus on deep renovation and national building renovations plans, that would benefit from being coordinated efficiently with the regional/local level.

4.3.5 Viability Assessment Summary

Below the project approach is evaluated in relation to the impact barriers identified at the beginning of the project.

Type	Detected impact barriers	RoundBaltic approach
Political	Insufficient support at national political level to create supportive framework for financing of EE Investments	RoundBaltic has identified various gaps in the current supportive framework and developed a set of recommendations to fill these gaps, and which were presented and discussed with national stakeholders and financial players
Political	Insufficient interaction with the national and local level where the actions must be implemented in practise	<p>The interaction between regional and national roundtables proved to be an efficient way of facilitating interaction between the national and local level. Recommendations from regional roundtables were included in proceedings and roadmaps and discussed at national roundtables and concrete supporting measures were outlined.</p> <p>The enabling actions including pooling of investment projects across social housing companies and municipalities at regional level served as good cases for determining steps ahead at regional and local level towards their implementation, including energy efficiency financing.</p>
Involving the financial sector	Difficulties in involving the financial sector properly I	<p>In parallel with the RoundBaltic Action the financial sector has increased their capacity to support the green transition. RoundBaltic has in this context worked closely with Finance Denmark and various banks, credit institutions (major part of the sector) and also pensions funds, to build bridge between the financial and the EE sectors.</p> <p>As such the financial sector has taken a very active part in the project and the enabling actions. The inter-municipal cooperation must navigate in this well-developed financial landscape ensuring developing an appropriate link to the regional and municipal strategic initiatives and with a view to identify proper financing sources in relation to the project portfolios, the de-risking measures, and the various user segments (leasing, bank loans, pension funds etc.).</p>

4.3.6 Means of Verification

- The social housing topic addressed in 5 proceedings
- Minutes of Advisory Board Meetings
- Articles [link](#)

- Case studies – [link](#)
- Green model process
- Road map developed (addressing actions at regional level and national level) – see WP4
- Participant lists (from RTs)

4.4 SME Sector in Denmark

This section summarises the impact assessment for the project's activities related to the SME segment in Denmark.

The project intervention within the SME area has focused around three national roundtables and two regional roundtables in Central Denmark Region.

It follows up from the momentum created at previous Sustainable Energy Investment Forum Roundtables which suggested establishment of regional focal points for EE in SMEs, e.g., a regional or inter-municipal one-stop shop for SMEs assisting small and medium-sized businesses in identifying, documenting, financing, and implementing their potential for EE.

In this context The RoundBaltic project has supported and enhanced a parallel existing regional initiative, the ECSMV project in Central Denmark Region (Energy efficiency and CO2 savings in companies in the Central Denmark Region) which aims to increase energy efficiency, reduce CO2 emissions and materials consumption (circularity) among small and medium-sized companies in the Central Denmark Region. The project covers all 19 municipalities in the region, and is led by Ringkøbing-Skjern, Skive and Aarhus Municipalities. Each municipality participates with a local contact person and one or more executive screening agents. The project is supported by the Central Denmark Region, the Danish Business Authority, and the EU Regional Development Fund. The consultancy work is conducted by pre-qualified consultants. A total of 10 consulting firms and approx. 60 consultants are associated with the project.

As such, ECSMV is a concrete example of organized inter-municipal cooperation in promoting energy efficiency in SMEs.

An external evaluation states that the project's organization and the practical implementation of the collaboration are mentioned as worthy of emphasis, and as a good example of successful implementation of decentralized business promotion projects at local level. The project's success is based, among other things, on the strong dialogue that has been established over the life of the project between the project and the municipalities, the municipalities in between and between municipalities, business councils and the companies. Furthermore, the evaluation recommends, and in line with the conclusions from the roundtables, that the green business model is used actively for a dialogue with the banks.

4.4.1 Setting up national roundtables and permanent multilateral discussion forums

Output - roundtables

In total 2 national and 2 regional roundtables were implemented on the topic, in addition to several meetings with key stakeholders.

Number of stakeholders involved:

	Number	Number of participants	% from the financial sector	% from national authorities	% Managers
National Roundtables	2	32	33%	33%	33%
Regional Roundtables	2	27	27%	10%	40%

Overall, the roundtables have supported the intermunicipal cooperation in Central Denmark Region, involving all 19 municipalities (i.e. the ECSMV project) and through these increased the number and types of stakeholders involved along the value chain. These include national and local banks (> 30%), governmental institutions, research institutes, service providers, installers and branch organisations. Further the roundtables have led to an increased interaction with national stakeholders and created a qualified dialogue on needed national support measures.

National governmental authorities involved

Danish Energy Authority, National Green Investment Fund, Danish Business Authority

National Branch organisations involved

SMV Denmark, Synergi, Tekniq, Danish Industrial Fund

Private financial institutions involved

Finance Denmark, Danske Bank, Nordea, Totalcredit, Jyske Bank, Merkur Bank: SUSTAIN (PKA Pension Fund); Local banks: Vestjysk Bank, Rinkjøbing Landbobank, Skjern Bank

Outcome- roundtables

The intermunicipal cooperation is intended to continue taking recommendations from RoundBaltic into account and the various efforts done by various stakeholders around the roundtables.

Identifiable changes in relation to stakeholders include:

The financial sector has in parallel with the RoundBaltic Actions carried out a targeted capacity building programme towards preparing for delivering loan products to green business models in SMEs (including ESG - Environmental, social, and corporate governance reporting, and taxonomy requirements). As such the roundtables have been actively used by the financing sector in this capacity building process, e.g. in relation to understand the needs of the SME segment, how to deal with the ESG and taxonomy requirements and how to cooperate and create partnerships with relevant actors related to the sector.

The cooperation with the financing sector has included Finance Denmark as well as national and local banks.

The RTs has further led to Increased networking and interaction with other stakeholders, including research institutions, branch organisation, accountants etc. with a view to broaden the stakeholder involvement around a regional set-up. This also embrace an increased interaction with national stakeholders addressing regional and local needs, including increasingly adopting financing as an important topic in various forums.

Through the Roundtable all stakeholders have Increased their capacity in relation to specific needs and challenges within the sector and possible means to meet these.

Roundtables - Viability Assessment

Interaction with the regional and local level where the actions must be implemented in practise

The regional roundtables have followed up on the recommendations from the national roundtables and has provided feedback to the national follow-up roundtables as to needed supportive measures and coordination at national level. This is a complex process, due to many new business and climate related reforms launched in parallel with RoundBaltic, including lack of proper coordination between business reforms and climate strategies. However, the RTs have created a consensus among the stakeholders involved about needs at the national level, and as such contributed actively together with key stakeholders.

Outcome – Permanent multilateral discussion forums

RoundBaltic has contributed to reinforce an existing OSS structure that can continue as a future permanent structure regionally. At national level various initiatives have been launched by the financing sector, interest organisations and governmental institutions, which needs to be coordinated with the regional initiatives. As such the topic has been adopted in already existing discussion fora at national level.

As to other initiatives, a cooperation was launched with the “Afkobling 2030” project (Decouple 2023). Decoupling 2030 is an initiative launched by “Industriens Fond” (Danish Industrial Fund), which started in the Triangle area in Region South Denmark in 2023. The intention is, in the long term, to spread the project to the whole country.

The triangle area has a strong concentration of manufacturing companies with 41,000 jobs spread over approximately 3,000 companies. 56.3% of Regions Syd's companies are in the Triangle area.

Decoupling 2030 is an eight-year program that helps production companies with high ambitions for sustainability to decouple their value creation from their climate and environmental impact. In the program, the sustainable transition becomes a lever to pursue new business opportunities that strengthen the companies' competitiveness.

Viability Assessment – Permanent multilateral discussion forums

Within the region the roundtable process has been used to initiate new initiatives building further on the success of ECSMV. 5 municipalities are committed in a new project proposal focusing on taxonomy and partnerships with local banks (GREENBIZ). Further other initiatives are discussed, including proposals on enhancing the OSS structure in relation to attracting private capital.

At national level various national initiative, including by branch organisations will coordinate across regions and establish stakeholder Forum, including within the Decoupling 2030 project as mentioned above.

Setting up OSS Concept at regional/Inter-municipal level

RoundBaltic, together with the ECSMV project, has proven the added value of setting up a regional focal point, ideally functioning as a one stop shop, that can support the SMEs on their project journey on developing and implementing green business models. There are no sufficient resources to support this within the municipalities, due to tight budgets and various priorities. So, this will mostly depend on further project financing or better use of the current national grant schemes, which only focuses on grants to individual investment projects. New business models may also be elaborated based on financing from private actors. For now, the municipalities are applying new project funds at EU and national level (business promotion programme).

in relation to the future structure, there is a need to coordinate local and regional efforts and especially seen in relation to the new Act on Business Promotion, which has established regional business centres as part of the regional business promotion system. One of the business centres' core tasks is to offer specialized and targeted 1:1 guidance to all types of companies and entrepreneurs. It is still unclear how this can play together with other inter-municipal initiatives such as ECSMV, including how to build on the clear success ECSMV has had and the factors that have ensured this success.

4.4.2 Identifying and documenting enabling actions

Output – enabling actions

RoundBaltic has supported 1 specific regional action within the SME sector, the parallel intermunicipal cooperation in the Central Denmark Region and with a particular focus on stakeholder involvement and financing. The proceedings from the RTs reflects on the status of progress and actions. The roadmap in WP4 suggest further actions at national and regional level.

Investments

The ECSMV project has triggered and documented investments for **178 SMES** documented which are supported by RB in relation to particularly further stakeholder involvement and financial matters (partnerships with banks, taxanomy etc.).

The ECSMV project has screened more than 600 SMEs, which has resulted in green business models for 178 SMEs which indicates 250 million DKK private investments. Implementation of these investments will result in 57,000 tons of CO2 reductions, 300,000 GJ of energy savings, and 28,000 tons of material savings.

Key Performance Pls Quantitative	Investments MEUR		Primary energy savings	
	<i>Baseline</i>	<i>Triggered</i>	<i>Baseline</i>	<i>Triggered</i>
Central Denmark	2.75 – 5.5	33.6	3 - 5	83.3

Please refer to D4.1 / D4.2 for a further documentation.

Propose needed improvements in the national policy frameworks and measures, and follow their implementation

The following suggestions deriving from the roundtables were continuously included in discussions in RB Advisory Board, follow up roundtables, bilateral stakeholder consultations etc.

- There is an overall need for standardization (requires further dialogue with a.o. Finance Denmark and the Danish Energy Agency) and a common language expression in a green business model accepted by all actors – see further in 4.4.3 below.
- Need for Competence building of the various actors. Alternatively, a training can be made for project developers around a standard business case.
- In general, there is a need for national coordination around prerequisites, methods and competence building and which forms the framework for concrete actions and initiatives at the regional / inter-municipal level - see further in 4.4.3. below.
- In relation to the national framework, continuity should be ensured in relation to initiatives that work or have worked. ECSMV and the previous energy efficiency obligation scheme are examples of successful and efficient solutions in relation to both identifying and implementing projects. The lessons learned from this should be used better and integrated into future solutions and initiatives. In this connection, there may be a need for closer coordination between the Danish Business Authority and the Danish Energy Agency (coordinate what works well in relation to both business promotion and climate goals).
- In relation to the current grant schemes, it should be considered to include the possibility that impartial advisers can undertake energy saving obligations in relation to a pool of projects, for example via tenders from the Danish Energy Agency (like in the previous energy efficiency obligation scheme)
- It should further be considered to use current grant schemes for project development rather than only investment grants. The grants are currently bound to already identified investments. This is a clear barrier as the SMEs need knowledge and resources to screen and analyse investment options.
- In relation to the further necessary capacity building among the various actors, there is a need for concerted coordination at national level as well as in the various sectors. Finance

Denmark has a coordinated training program, and here there is also a potential to coordinate matters around standardization and documentation across the banks.

- In relation to SMEs that do not immediately could uptake loans due to low credit ratings, consideration could be given to establishing a national guarantee.
- There is a need to coordinate the process in relation to the inter-municipal cooperation in relation to Strategic Climate and Energy Planning (DK2020), where all 19 municipalities in the Central Denmark Region have made plans according to C40 standards (comparable with SECAPs). The implementation phase of this is being planned at the end of the RoundBaltic project, including a new project financed by the philanthropic organization REALDANIA to monitor and follow up on all plans (involving all regions) plus a LIFE-SIP project in which all regions will work on implementation issues.

Outcome - enabling actions

- Uptake of the above suggestions/measures proposed and discussed at Roundtables, Advisory Board meetings and in bilateral consultations with regional and national key stakeholders.
- OSS concept (advisory structures) initiated by Central Denmark (enhancement of existing structure) in cooperation with RoundBaltic considering the above suggestions and continuously addressed to national stakeholder
- Finance Denmark and the National Rural Community Council has suggested 13 measures in a publication to support financing in rural areas.
- Banks and other financial actors have actively participated in the RoundBaltic Intervention in parallel with building up capacity and business models for loans to green transition.

Partnering with the financial sector

The financing sector has actively taken part in the Roundtables, and as part of their internal capacity building programme. At the beginning of RoundBaltic the financial institutions were mostly focusing on financing energy efficiency in private homes but has increasingly also focused on sustainability and energy efficiency in businesses.

RoundBaltic has had a close cooperation with Finance Denmark (FIDA), representing most of the Danish financial sector, throughout the project period. This has gone hand in hand with FIDA's own intentions for sustainable finance and goes back to the roundtables organised under SEI Forums in 2019 and where FIDA the same year launched its 20 recommendations for actions to make the Danish financial sector more sustainable.

The RoundBaltic intervention has helped to engage the financial sector in sustainable energy investments, incl. representatives of banks have been active participants in the various roundtables organised.

4.4.3 Develop jointly market recommendations and tools

Output

The roundtables have suggested / launched needed actions to generate tools and templates within the supportive framework.

Outcome

OSS Concept

RoundBaltic has actively promoted and developed the OSS concept in relation to a regional focal point for supporting SMEs in developing and implementing green business models. This builds on the success of the ECSMV-project, but further reinforcement measures have been proposed and discussed by the RoundBaltic action, i.e. more focus on partnerships with the financial sector, inclusion of more stakeholders (research, installers, service providers, branch organisations etc.), the use of a more holistic approach, coordination with national measures and initiatives etc.

Inter-municipal co-operation was generally highlighted as beneficial in relation to assisting SMEs in planning and implementing energy efficiency measures. The close contact between the municipalities and the SMEs is important in relation to motivating the SMEs. SMEs think locally and are motivated by local initiatives. The municipalities have a profound knowledge of the local business community and have a general interest in strengthening this and maintaining local working places.

Ideally, this collaboration will function as one-stop-shops that assist SMEs throughout the value chain and through a permanent local process consultant who regularly visits and guides companies throughout the process (referred to as boots on the ground). An OSS set-up must create an appropriate interface for SMEs that can motivate and facilitate the implementation of measures, including ensuring the connection of all relevant actors, as well as the use of the necessary tools and documentation that can ensure implementation and quality of energy efficiency measures in SMEs.

In relation to the expansion of the circle of stakeholders it is important to clarify the role between municipal initiatives and the new regional business centres established under the new business promotion reform, including creating a win-win situation for all parties. In general, more continuity should be created in relation to current and previous initiatives, partly by supporting and continuing what works and partly through a more effective harvesting of knowledge and experience.

Involving the private financial sector

The representatives of the participating banks have unanimously concluded the traditional credit rating as the most crucial factor when SMEs apply for energy efficiency loans. However, the credit rating will be seen in the context of the proposed project, including the project's impact on the company's cash flow. The latter requires good project documentation.

Furthermore, it was pointed out that the general requirements for green conversion will increasingly influence the banks' lending policy in connection with the financing of sustainable measures (including energy efficiency) in SMEs. It is important that companies generally have well-developed strategy plans, which also consider sustainability, including circularity. It is important that the green business model is used actively in the dialogue with the banks to secure access to financing. The EU

taxonomy and the associated classification system should be included in the business models to the extent relevant. It may be relevant for SMEs to adapt to the taxonomy if they are part of the value chain for other larger companies covered by the scheme. Furthermore, a "green" profile can be an asset in relation to their general competitive situation and financing of green investments, which lead to CO2 savings and energy savings.

Banks have stated that it can be helpful if they can refer companies/SMEs to a one-stop-shop or similar structure, e.g. to create an overview of the many support schemes across industries, etc.

Green business models can perhaps be standardized to some extent, and this can make it easier for banks to see the sense in a possible investment. It could be in the form of a checklist as suggested by RoundBaltic.

Holistic approach

In general, there will be a need for further development of competences among advisers, banks and municipalities in relation to assisting companies in relation to a holistic approach that, in addition to energy savings, also envisages circularity and side benefits from energy savings (including business drivers).

In this connection, there is a need for the involvement of a wide circle of actors around the projects, both in terms of advice and guidance, but also with respect to knowledge gathering, exchange of experiences, etc. which, overall, can help the SMEs through the project processes in the most appropriate way.

Furthermore, the roundtables have made it clear that there is a need for national coordination regarding prerequisites, methods and competence building and which forms the framework for concrete actions and initiatives at the regional / cross-municipal level.

Standardisation

The RoundBaltic action has shown a consensus that a common language and something recognizable is needed. Something that creates trust on both the SME side and the financial side. At the same time, there is a need for further qualification among advisors around a common understanding of the process and the holistic approach. A reduction in transaction costs requires specialization.

It is important for the banks that the documentation does not become too complex. A standardized approach could help make it less complex, and also for SMEs. However, it was also pointed out that a standard model can take a long time to develop, and thus it may be better to develop a guide based on a **checklist** that the various actors can adjust to.

The need for standardization should be constantly assessed, and there is a need for a closer dialogue with the financial sector on how to most appropriately, among other things in relation to complexity, include the green business models in the dialogue with the banks, including in relation to the necessary documentation for loan uptake. This also relates to taxonomy and ESG reporting.

Upscaling

A pooling of projects can be an advantage in relation to standardization and resource sharing. In principle, this can be done in two ways 1. Standardization of approach and prerequisites in relation

to the development and implementation of measures. 2. Pooling of investments in relation to funds / funding sources (joint tender). The latter was highlighted as an opportunity in relation to micro-SMEs such as e.g. bakeries, and where a certain volume can be created via e.g. 20 bakers.

According to Denmark's Green Investment Fund pooling is not logical, unless it is done under the auspices of an investment fund. This will require an intermediary organisation in the form of an aggregator/mediator who can validate the investments.

Guarantee Scheme

In relation to SMEs that do not immediately have the opportunity to take out loans due to low credit ratings, consideration could be given to establishing a guarantee scheme under for example Denmark's Investment Fund. Alternatively, the European Investment Fund can be used. The Danish cooperative bank "Merkur Andelskasse" has in 2023 signed an increased allocation of its existing EGF guarantee with the European Investment Fund (EIF) to channel new financing to Danish companies. The Bank has received a doubling of an existing guarantee, which falls under the "[European Guarantee Fund](#)", originally signed in August this year. This ensures that Danish SMEs will be able to benefit from an extra DKK 148,76 million (€20 million) in new lending on more favourable terms, bringing to total EGF-facility for Merkur to DKK 297.60 million (€40 million).

4.4.4 Qualitative Assessment

Overall, RoundBaltic succeeded in organising and implementing sessions at roundtables focusing on financing energy efficiency in SMEs at both national and regional level. This led to enabling actions within one region centred around regional support structures for supporting development and implementation of green business models in SMEs. These actions were considered in relation to national framework conditions and initiatives e.g. business reforms.

The added value of RoundBaltic in the process is related to interaction at the roundtables and several bilateral consultations with stakeholders, including financial players. An interaction that builds further on the dialogue established within SEI Forums.

Particularly RoundBaltic has enhanced an existing intermunicipal initiative by promoting a more holistic approach for green business models, including Taxonomy issues and partnerships with financial sector and other important actors along the project journey

In this context there has been a close cooperation with the **financial sector** in relation to their capacity building on handling green loan products to the SME sector, including integration of Taxonomy and ESG issues (national and local banks, Finance Denmark).

Further RoundBaltic addressed various gaps in the supportive framework: Better use of public funds to ensure grants for project development assistance and advisory; standardization; capacity building; Guarantee scheme for vulnerable SMEs (National Investment Fund or EIF).

The regional and local focus is important for the SME sector. As mentioned above SMEs think locally and are motivated by local initiatives. The municipalities have a profound knowledge of the local business community and have a general interest in strengthening this and maintaining local working places.

4.4.5 Viability Assessment

The recommendations from RoundBaltic will be integrated into further actions for example the GREENBIZ project where 5 municipalities are partnering up with the financial sector in relation to the SME segment.

Below is listed factors that is important in relation to the viability of the SME action

Support at national political level to create supportive framework for financing of EE Investments.

RoundBaltic has identified various gaps in the current supportive framework and developed a set of recommendations to fill these gaps. This includes better coordination between business promotion programmes and climate programmes, including creating continuity in relation to previous successful initiatives. Further, better use of public funds towards assisting SMEs in identifying proper EE investments as well as several other measures described above.

The better use of public funds is also supported by seven branch organisations in a proposal sent out in June 2023. This proposal states a lack of technological knowledge as a major barrier for SMEs. According to the organization, more advice is part of the solution. However, the current Business grant scheme, which has been the focal point of the last two governments' ambitions for the green transition of the business community, does not offer subsidies for advice that is not tied to a specific investment. [PM: Udvid Erhvervspuljen og giv virksomhederne den nødvendige hjælp til grøn omstilling - SYNERGI \(synergiorg.dk\)](https://www.synergiorg.dk/nyheder/udvid-erhvervspuljen-og-giv-virksomhederne-den-noedvendige-hjaelp-til-gron-omstilling)

This is also supported by RoundBaltic. However, it is also proposed to allocate funds for supporting municipalities and other actors in setting up project development cooperation structures. Further to coordinate assumption at national level to develop a common language.

Involving the financial sector

In parallel with the RoundBaltic Action the financial sector has increased their capacity to support the green transition and deal with new requirements as to EU Taxonomy and ESG. RoundBaltic has in this context worked closely with financing institutions to build bridge between the financial and the EE sectors through the Advisory Boards, the roundtables, bilateral consultations, the follow up activities and European Exchange workshops.

In parallel with the RoundBaltic intervention each bank has made its own set-up with guidance and tools. In addition, they have carried out extensive capacity building activities for their staff and hired new staff with relevant qualifications.

The inter-municipal cooperation must navigate in this landscape ensuring developing an appropriate link to the regional and municipal strategic initiatives and with a view to identify proper financing sources in relation to the project portfolios, the de-risking measures, and the various user segments (leasing, bank loans, pension funds etc.). This will also relate to de-risking of energy efficiency investments through standardization and documentation considering real risks and benefits of energy efficiency investments, including addressing creditworthiness at SMEs which differ across the market.

4.4.6 Means of Verification

- The SMV topic addressed in 5 proceedings
- Articles with testimonials- [link](#)
- case studies – [link](#)
- Road map developed (addressing actions at regional level and national level) – see WP4
- Participant lists (from RTs)
- External evaluation of the ECSMV project

5 Assessment of interventions in Latvia

The actions throughout the project followed up on the recommendations from the previous roundtables in SEI Forums and related to the financial pillars: more effective use of public funds, aggregation and project development assistance, and de-risking. Potential actions and topics to be discussed were identified prior to the roundtables, also in Advisory Board meetings and were further supported by the follow-up activities, including the follow-up roundtables. For each of the 2 regions involved in the RoundBaltic project several potential actions that could be supported through the roundtables have been identified in the proposal phase.

The topics addressed at the national roundtables included the main three sectors: **public buildings**, **residential buildings** and **SME & industry sector**. RoundBaltic aimed at enabling actions within these areas in the 2 target regions:

- **Kurzeme region:** consisting of 8 municipalities, two biggest cities by the number of residents are Liepaja and Ventspils, which are the most active in implementing energy efficiency projects in multi-apartment buildings.
- **Vidzeme region:** containing 11 municipalities, the biggest is city is Valmiera, which is the most active in implementing energy efficiency projects in multi-apartment buildings.

The following national assessment is done at sectorial level focused on the three points mentioned below:

- 4) Set up national roundtables focused on energy efficiency investment, as permanent multilateral discussion forums gathering the relevant stakeholders.
- 5) Use the roundtables to upscale existing best practices from the national and European level, develop strategies, roadmaps and action plans, propose improvements in the national policy frameworks and measures, and follow their implementation.
- 6) Develop jointly template documents and contracts leading to a better functioning of the market.

WP4 provides input for the documentation of enabled actions (including road maps) for each sector per region, and the overall impact assessment refers to this. The documentation / road maps in WP4 includes a short impact evaluation table for the specific sector in a region.

Further D1.2 and WP2 describes/ documents of changes in framework conditions triggered by the project which are largely common for the regions.

5.1 Project Intervention

RoundBaltic roundtables has deeply enabled and supported actions within the three energy efficiency areas (public buildings, residential buildings and SME & industry sector). The starting point was the conclusions from the last SEIF roundtable in April 2019 and the momentum created around these.

For each of the three areas addressed some common principles and requirements were identified based on these conclusions in relation to various cross cutting issues, for example in relation to setting up one-stop-shops. Further specific regional actions were defined for each of these areas

which will follow these common principles and requirements, but they also addressed specific regional characteristics or conditions in some cases. The starting point was the 11 potential actions identified in cooperation with the three regions in the proposal phase.

5.2 Setting up national roundtables and permanent multilateral discussion forums

Output - roundtables

In total 3 national and 2 regional roundtables in Kurzeme region were implemented, in addition to 6 Advisory Board meetings and bilateral meetings/consultations with key stakeholders.

	Number	Number of participants	% from the financial sector
National Roundtables	3	242	23%
Regional Roundtables	4	391	13%
Total	7	633	17%

Overall, the roundtables have supported increasing the number and types of stakeholders involved along the value chain. These includes national and local banks, governmental institutions, research institutes, service providers, installers and branch organisations. Further the roundtables have led to an increased interaction with national stakeholders and created a qualified dialogue on needed national support measures.

As such RoundBaltic has contributed to establish national and regional stakeholder structures that can function as future permanent structures. At national level various initiatives have been launched by the financing sector, interest organisations and governmental institutions, which needs to be coordinated with the regional initiatives.

Key stakeholders involved:

- Finance Latvia Association - a non-governmental organization representing the Latvian financial sector on a national and international level
- SJSC "State Real Estate" (SRE) - the largest manager of Latvia's greatest assets – land and buildings. Land and cultural heritage, old and modern buildings, state border and customs infrastructure
- ALTUM – a state-owned development finance institution, which offers state aid for various target groups with the help of financial tools (such as loans, credit guarantees, investing in venture capital funds, etc.).
- Ministry of Economy – key administrative body for energy efficiency financing, development of financial instruments such as ESCO, green loans etc.

- Latvian Energy Efficiency Association (LATEA) which aims at uniting the public under common goals and developing energy efficiency as an industry of its own.
- The Latvian Baltic Energy Efficiency Facility (LABEEF), RCG Lighthouse, Renecso, EnergoClima – supporting energy service companies (ESCOs) that implement renovation measures in multifamily buildings based on energy performance contracting (EPC) -including forfeiting.
- Vidzeme and Kurzeme planning regions – key regional authorities for development of OSS and attracting ESCO in implementing energy efficiency projects. Represents municipalities in further dialogue with state and financial institution.

Outcome -roundtables

The stakeholder forums are planned to continue taking recommendations from RoundBaltic into account and the various efforts done by various stakeholders around the roundtables.

Identifiable changes in relation to stakeholders include:

Financing institutions are generally building up capacity to meet the demand for financing energy efficiency, and has actively used the RoundBaltic intervention in this process.

The RTs has further led to Increased networking and interaction with several other stakeholders. This also embrace an increased interaction with national stakeholders addressing regional and local needs, including increasingly adopting financing as an important topic in various forums.

Through the Roundtables and the interaction between these, all stakeholders have Increased their capacity in relation to specific needs and possible means to cope with these.

Within the regions and at national level the roundtable process has been used to work on new initiatives building further on the conclusions.

Viability Assessment - roundtables

The roundtables have gathered enough participants representing various stakeholders, including a very active involvement of financial players. All roundtables were positively evaluated by participants and seen as very useful forums in relation to current needs and processes.

Outcome - Permanent structures for energy efficiency finance

The final phase of RoundBaltic has investigated how to continue the discussion platform created during the project and part of stakeholders in Advisory Board have showed initiative to keep the topic hot and ensure regular online meeting discussions.

In this light, the project partner Latvian Environmental Investment Forums - LEIF is committed continuing the active work in the established Advisory board, focusing on developing financial instruments and financial mechanism for energy efficiency projects at national and regional level. This includes facilitating the further dialogue between Ministry of Economics, Finance Latvia Association and energy efficiency experts, as well as companies implementing energy efficiency projects.

Currently, the needs for the renovation of multi-apartment buildings exceed the available funding more than 25 times in Latvia. Given that the current funding is intended for the renovation of apartment buildings over a period of 7 years, under the current scenario it will take 175 years to renovate all the buildings in Latvia that need overhaul. As such approach is not possible alternative financing scenarios must be considered, and which calls for a close cooperation among key stakeholders.

Regarding ESCO in public sector there are no barriers from a regulatory perspective, although in practice there is some doubt and concern on the public sector's side regarding contracting periods which is maximum 5 years for public bodies.

In relation to a continuous discussion over several years RoundBaltic has suggested to create a national sustainable energy efficiency competence center, which compiles and coordinates all energy efficiency-related processes in the country, as well as educates and advises and provides enterprises, financial institutions, and implementers with the information necessary for decision-making and project undertaking. It could be based on finance institution ALTUM (financial and informational support, execution).

Viability Assessment - Permanent structures for energy efficiency finance

RoundBaltic have worked closely with two of five Latvian regions and as such paved the way to integrate energy efficiency finance efforts in new initiatives and with the regions as important facilitators.

RoundBaltic project during 2021-2023 was the only set of discussion events that focused on attracting private funding for financing energy efficiency in Latvia. At the end of the project, it was concluded that there is an urgent need to continue such discussion with the aim to improve this field of action and help reaching NECP 2030 goals.

5.3 Identifying and documenting enabling actions

Output – enabling actions

RoundBaltic has initiated and supported specific regional actions within the public sector, the residential sector and the SME sector. The proceeding from the RTs reflects on the status of progress and actions. The roadmap in WP4 suggest further actions at national and regional level.

Kurzeme Region

The intervention has been related to

- Supporting 13 projects implemented in the public sector in the period from 2021 to 2023 and all supported by the European Regional Development Fund (ERDF). The new EU Funds period started at the end of the RoundBaltic project.
- Supporting implementation of 13 projects in the public sector within the Kurzeme Planning Region from 2021 to 2023, all of which are supported by the European Regional Development Fund (ERDF).

- Supporting 57 projects in Kurzeme planning region within the residential sector and with support of finance institution ALTUM.
- Supporting SME projects supported by the EE support programs for enterprises including SMEs administrated by ALTUM.

Vidzeme Region

- Supporting implementation of 27 projects in the public sector within the Vidzeme Planning Region from 2021 to 2023, all of which are supported by the European Regional Development Fund (ERDF).
- Supporting 62 projects (multi-family buildings) in Vidzeme Planning Region within the residential sector and with support of finance institution ALTUM.
- Supporting SME projects supported by the EE support programs for enterprises including SMEs administrated by ALTUM.

The intervention has been related to support 13 projects implemented in the period from 2021 to 2023 and all supported by the European Regional Development Fund (ERDF).

Investments

The RoundBaltic project has supported/triggered and documented investments for XX which are supported by RB in relation to further stakeholder involvement, financial matters (partnerships with banks, taxonomy etc.) and initiation of new follow-up projects.

Investments MEUR	Public Buildings	Residential Buildings	SMEs	Total
Kurzeme Region	12,4	189,6	6,7	208,7
Vidzeme Region	22,0	324,9	4,6	351,5
Total	34,4	514,5	11,3	560,2

Please refer to D4.2 / D4.2 for a further documentation.

Proposals for needed improvements in the national policy frameworks and measures

Main recommendations Public Housing Sector:

- Local governments to take on the role of leader and example creator in the implementation of the latest energy efficiency technologies.
- Municipalities should cooperate more actively and more with the private sector, effectively using the competence of energy efficiency technologies already existing in it.
- To increase energy efficiency, buy performance instead of works.
- Create a national competence center for energy efficiency.

- Introduce digital accounting and public availability of all energy consumption data of the public sector.
- At the highest national level, clearly determine which national organization is the leader of the energy consumption data collection project and the coordinator of all involved parties.
- Review, evaluate and make the necessary changes in the regulatory framework in order to promote the involvement of private ESCOs, thereby creating an alternative to insufficient budget funds for the renovation of public sector buildings and increasing energy efficiency.

Major recommendations SME Sector

- A signal from the state is needed, for example, that it is a no-gas policy and the market for fossil fuel solutions will shrink, but the RES and energy efficiency market will grow.
- There is a lack of a one-stop shop that takes the energy user through the entire process from start to finish.
- Decisions are not based on data because there is no universal availability of data.
- It is necessary to increase the understanding of energy users that the purpose of investments is to improve energy.
- Necessary management of resources is required, including encouraging micro and macro-level energy use conscientiously.
- It is needed to implement and define level features so that users can enjoy the best results with different usage efficiency to suit everyone.
- Data recording and availability is critical for both simple consumption recording and comparison and decision-making.
- Events are hindered by the political cycle – before the elections, decision-makers actively address voters, mostly in the household, temporarily forgetting to pay sufficient attention to, for example, the SME segment, financial support is also more focused on the household rather than the merchant segment.
- Must be able to identify the most sustainable solution from the environmental point of view.

Major recommendations, residential sector

- Municipalities must participate at all levels, from project documentation to implementation.
- It is necessary to develop regional climate plans that would regulate activities and expected results and systematize the role and responsibility of the involved parties.
- Promotion of practical examples of how citizens' support was achieved
- Applying different coefficients when calculating costs and promoting a more flexible approach for beneficiaries of funding related to energy performance.
- Facilitate the arrangement of technical documentation to avoid unexpected costs during the project implementation stage.

- Municipal co-financing for complex solutions (for example, arrangement of the surrounding environment, improvement of territories) for buildings that have implemented insulation/energy efficiency measures
- Reduction of the VAT rate or introduction of other mechanisms to encourage the choice in favor of building improvements, reducing costs
- Creation and implementation of a one-stop shop as a solution for simplifying the process and better exchange of information.

Outcome – Enabling actions

- The potential uptake of the above suggestions/measures proposed and discussed at Roundtables, Advisory Board meetings and in bilateral consultations with regional and national key stakeholders.
- Deeper discussions were held with Ministry of Economy and Finance Latvia Association about the agenda for energy efficiency financing in roundtable events. These points of departure have been mentioned in roundtables as to be considered and discussed further.
- Banks and other financial actors have actively participated in the RoundBaltic Intervention in parallel with building up capacity and business models for loans to green transition.

5.4 Develop jointly market recommendations and tools

Output

Several of the measures suggested at the roundtables have concerned needed actions to generate tools and templates within the supportive framework in relation to project aggregation, de-risking and better use of public funds.

Outcome

Below is described important suggestions put forward to major stakeholders during the roundtable discussions, and which will be followed up in the future set-up managed by LEIF. Further information on finding and recommendations are provided by D1.2 and WP2.

ESCO Concept

ESCO company solutions are considered the most realistic way to involve private capital for municipalities, as there are fewer risks. Energy efficiency projects have a good balance sheet and repayment discipline and are low-risk projects, making them more attractive to banks. The creation of a portfolio of joint projects through the cooperation of several municipalities is welcome, thus making the implementation of projects much more effective and realistic. It is important to conduct a feasibility study and economic justification to find a more suitable solution. It is important to avoid cyclicity and funds, as this means waiting and losing time, as well as increasing costs. In general, ESCO projects have already been implemented in more than 40 local governments in Latvia, and available data prove the effectiveness of this cooperation model.

Please refer to more aspects under the viability assessment below,

National Energy Efficiency Competence Sector and national database

The Center should compile and coordinates all energy efficiency-related processes in the country, as well as educate and advice and provide enterprises, financial institutions, and implementers with the information necessary for decision-making and project undertaking. It could be based on finance institution ALTUM (financial and informational support, execution).

Within such center is a need to establish a national database of publicly credible data on energy efficiency projects executed indicating measures undertaken, methods and technologies used, costs incurred, and performance achieved. It could be based on State Construction Control Bureau of Latvia.

On municipal level establish standardized monitoring system of real time energy consumption of all public buildings, available for unrestricted public viewing.

Coordinaton with the local strategic climate and energy planning

Most of Kurzeme and Vidzeme region municipalities prepared energy and climate plans which generally need to take the next steps to implementation in coordination with the relevant stakeholder per sector, recognising that municipalities have a role to catalyse sustainable energy measures also outside the public sphere. RoundBaltic's effort under this task has, in coordination with roundtables and enabling actions, helped the Kurzeme and Vidzeme municipalities build relationships and linked stakeholders to take the step from plan to action.

Two out of eight Kurzeme municipalities do not have SECAP as well as lack **energy efficiency managers** who would create holistic view about energy efficiency matters in their municipality. Mostly energy efficiency and deep renovation projects in public buildings are executed one by one by project departments according to the available public funding. Regular experience sharing and building knowledge is critically needed.

Suggestions for better use of public funds

- To facilitate decision making on the part of residents, the municipality should finance the “preliminary work” required before construction work has started; that would include the complex task of performing the energy audit, developing the technical project, informing the residents, including about the ESCO solution, and conducting “senior tenant” training.
- For ESCO model there is a need for “seed” capital to make the first move in implementing ESCO projects in municipalities (during the preparatory phase), as well as technical and advisory support during the whole project period: development, implementation, monitoring.
- For multi-apartment buildings the alternative model proposed is that, instead of providing grants, the State would subsidise the interest rate on the loan and extend the loan maturity period to 20–25 years. This model would slightly increase the project implementation costs for citizens but compared to the current (grant) model which presumes renovation of 400 houses at the cost of €100 million EUR, the alternative model would provide for the renovation of 1,266 buildings (at a 20 years' loan maturity period) or 1,010 buildings (at a 25 years' loan maturity period), which means significantly more renovations at the same cost.

Public campaigns

There is a need for national level information campaigns for housing sector to speed up the decision taking and renovation project implementation because it has been concluded there are enough financial resources (grants and loans) available for these projects. Otherwise, the slow implementation will postpone reaching NECP 2030 goals.

Introduce regular informative / educational / motivating events / campaigns for the general public in order to explain the long-term energy efficiency goals of the Latvian state and promote public awareness and connection with the national sustainability goals.

Establishing regional one-stop-shop structures

Experience and idea sharing about establishing one-stop shops from the beginning of the project resulted as creating OSS in Riga city by Riga Energy Agency in 2023. Further Vidzeme planning region devoted participation in INTERREG project in 2023 as well as planning to establish OSS in Vidzeme as well. The establishment of regional one-stop-shop structures is to be well coordinated with national campaigns, including the use of standard assumptions and tools.

One-stop shop as permanent structure is seen as the need of for supporting multifamily building apartment owners. Vidzeme planning region through INTERREG project RenoWave are planning to establish one-stop-shop. Possibly The State Construction Control Bureau together with finance institution ALTUM and Vidzeme planning regions could establish a permanent structure for supporting SMEs in EE measures.

Even though Kurzeme planning region have quite big role in the coordination of municipalities, their funding is very limited and lots of actions are executed through projects. RoundBaltic discussions have concluded that **one-stop-shops** could be made on the platform of planning regions, however, lack of funding has not helped this idea. Help of ALTUM also on regional, municipal level should be considered since they are administrating the support program and are consulting MFB owners daily.

Involving the financial sector

As indicated above the banking sector has been actively involved in the roundtables and have thereby built-up capacity to meet the demand for private capital to finance home energy renovations, i.e. in relation to a partnership between the Government and the Financial sector as well as in relation to the interaction with RoundBaltic

This also relates to de-risking of energy efficiency investments through standardization and documentation considering real risks and benefits of energy efficiency investments, including addressing creditworthiness which differ across the market.

RoundBaltic has had a close cooperation with Finance Latvia (FIDA), representing most of the Latvian financial sector, throughout the project period.

The RoundBaltic intervention has helped to engage the financial sector in sustainable energy investments, incl. representatives of banks have been active participants in the various roundtables organised.

Permanent structure for supporting SMEs

Developing cooperation between SME's and The State Construction Control Bureau which daily is ensuring control of the energy efficiency monitoring system, maintenance, and administration of

the register of company energy audit reports. Possibly The State Construction Control Bureau together with finance institution ALTUM and planning regions could establish a permanent structure for supporting SMEs in EE measures.

Policy makers need to be aware and understand that the use of private finance is always based on profitable investments, as only profitable investments will be successful and private financial investments will not be made in non-profitable activities. “Profitability” is the key word for promoting the use of private finance in Latvia's sustainable energy efficiency.

Integrating deep renovation

Following the coming update of the EPBD directive it is relevant at national, regional and local level to target long term holistic deep renovation plans for the building segments considering Nearly Zero Energy Buildings levels, improved energy performance certificates, future energy supply, future smart home requirements including infrastructure for electric vehicles, strategic energy planning and spatial planning. This may involve promoting a step-by-step approach for renovation in relation to a holistic long-term plan.

Viability Assessment – Market Recommendations and Tools

Some further considerations on viability are given below in relation to current challenges and related to proposed measures.

Involving the financial sector

The main financial resource for financing development projects in municipal public buildings are grants in addition to state financed loans from State Treasury. Municipalities are cooperating with commercial banks for financing development projects way less than with the State Treasury. In cases if there is a possibility for financing energy efficiency by using innovative financial instruments, public sector/municipalities do careful evaluation before making the decision. That brings the necessity of making the main dialogue with Ministry of Finance as a crucial player in making the public sector start using and agreeing to build such pilot programmes. In addition to that, discussing about how they can finance their own energy efficiency through innovative financial instruments is important. RoundBaltic has acted as facilitator of these discussions with the goal to pursue successful financial instruments for energy efficiency.

The banking sector is willing to cooperate with municipalities, but the problem is the relatively small number of applications. The public sector problem may be with the wave-like planning and cyclicity of funds and projects. The public sector is based on funds and banks are the acceptable alternative and this is promoted by the territorial reform that consolidates and organizes planned activities. This allowed banks to plan cash flow and returns more efficiently.

It is important to have professional company (municipality) management, transparent financial flow and project management, incl. design and construction control. Climate neutrality goals are also present, incl. selection of heating type. Until now, renovation programs appear relatively slowly and cumbersome, and it is difficult for banks to operate with them, because there are few opportunities to correct and clarify something.

Regional focal points

The regional focal point in public sector relates to the development of extra financial instruments for implementing energy efficiency projects in public buildings because the available funds and municipal budget is limited. Even more obstacles have arisen since the war in Ukraine started and construction costs have increased significantly.

Evaluating the statistics of 2022 for improving the energy efficiency of local governments, most funds (up to 96%) came from the implementation of projects, the rest is the budget of local governments. Main financial instruments - Instrument for auctioning emission allowances (ECII), European Regional Development Fund (ERDF) projects, Cohesion Fund (CF) projects.

According to the available data of the State Construction Control Office, the energy savings achieved by the municipalities in 2021 reached up to 8.65 GWh, or 73% compared to the previous period.

ESCO Concept

Regarding ESCO in public sector there are no barriers from a regulatory perspective, although in practice there is some doubt and concern on the public sector's side regarding contracting periods which is maximum 5 years for public bodies. Yet another concern relates to off-balance sheet liabilities and their impact on ESCO projects. To facilitate decision making on the part of residents, the municipality should finance the "preliminary work" required before construction work has started; that would include the complex task of performing the energy audit, developing the technical project, informing the residents, including about the ESCO solution.

Municipalities and public authorities could use ESCO services in Latvia. However, investments made under these agreements are accounted as a public debt with an impact on the fiscal space. This ignores the basic principle of ESCO service where ESCO service does not create additional budget expenditures for the local government (fiscal-neutral projects), because private investment is recouped from the cost of the energy savings achieved.

At the same time, in the end of project in 2023 still no guidelines are available for the public sector which would explain the preparation of energy service contracts and the organization of procurement and there is no clear regulatory framework. These are the obstacles to the implementation of ESCO projects in the public sector mentioned in NECP 2030.

Latvia's policymakers participating in roundtable discussions organized by RoundBaltic project have clearly indicated their resistance to developing sort of playground for ESCO services by characterizing ESCO model as complex and burdensome, requiring extensive EC and EUROSTAT approval process for every single ESCO contract to be undertaken by public sector and only worthwhile with multiple project bundling (minimum 50M EUR) and stating that:

- Providing easy pathway to borrowing for ESCOs is a threat to Latvia's fiscal space;
- Opening the gates for ESCOs might cause inflation of construction costs, which needs to be avoided;
- It is much more important to use the finances offered by the EU grant money and consider ESCO services only after this option has been used up;

- Current Latvia's energy efficiency target (improve energy efficiency in 3% buildings per year) is met, so there is no reason for stress;
- Current government apparatus does not have a human capacity and skill level to undertake the implementation and control of active ESCO market and this can be changed only by highest level political decision on what is important for economy and fiscal space of Latvia in the next 10-year period.

Also, second important thing is lack of so called "forfeiting" or when ESCO company implements its service in private sector or in public sector with small scale investments with payback period and contract no longer than 5 years, what the law allows in Latvia, the ESCO company cannot take loans in the bank forever, there are some limits. And, it can't wait all payback period to receive its money back. That's why LEIF started discussions with one of the largest and very well-known ESCO company in Latvia about such new and not existing financial instrument as forfeiting or buy the future cash-flow from this ESCO company, so it can operate further, but LEIF is provider of such financial instrument to contribute energy efficiency projects, make profit as well for next projects etc. As LEIF is state owned company, it can provide such service only for municipal companies currently, however, possible changes in this regulation are being discussed and it is a matter of time, when such a service could be provided for municipalities as well. LEIF as financial institution, developing, implementing and distributing different financial instruments, is very much interested to develop such financial instrument in Latvia.

Support at national political level to create supportive framework for financing of EE Investments.

RoundBaltic has identified various gaps in the current supportive framework and developed a set of recommendations to fill these gaps. This includes better coordination between the national and the regional level, legal challenges, better use of public funds towards assisting public building in identifying proper EE investments, a national knowledge center as well as several other measures described above.

Interaction with the regional and local level where the actions must be implemented in practise

The regional roundtables have followed up on the recommendations from the national roundtables and has provided feedback to the national follow-up roundtables as to needed supportive measures and coordination at national level. This is a complex process, due to many climate related reforms launched in parallel with RoundBaltic. However, the RTs have created a consensus among the stakeholders involved about needs at the national level, and as such contributed actively together with key stakeholders.

5.5 Qualitative Assessment

Overall, RoundBaltic succeeded in organising and implementing the roundtables planned at national and regional level in the two Latvian target regions. Further to enable further actions within both regions considered in relation to current national initiatives and national framework conditions. As such the Roundtable Intervention has suggested several proposals for improving policy framework and measures supporting financing of energy renovation in public buildings, multi-family buildings and SMEs

The added value of RoundBaltic in the process is related to interaction at the three national and four regional roundtables, the Advisory Board Meetings involving the regions and several bilateral consultations with stakeholders, including financial players. This has ensured an expansion of stakeholders and a qualified dialogue creating momentum at regional level to enable concrete actions and propose needed support measures at regional and national level, including financial concepts.

The regional roundtables have been important for creating a mutual understanding of challenges among regional and national stakeholders. This is important as regions are functioning as facilitators for cross-municipal cooperation in relation to the local climate and energy planning process and potential one-stop-shops working across municipalities. The significant experience from RoundBaltic with a committed involvement of municipalities and other local and national stakeholders (including financial players) is an essential input to this process.

Still there are room to improve the interaction between the national level and the regional/local, but the learning and the recommendations from RoundBaltic may contribute to enhance this further, both in relation to the strategic climate and energy planning process, but also in relation to the recast of EU directives which will put higher focus on deep renovation and national building renovations plans, that would benefit from being coordinated efficiently with the regional/local level.

5.6 Viability Assessment Summary

Below the project approach is evaluated in relation to the impact barriers identified at the beginning of the project.

Type	Detected impact barriers	RoundBaltic approach
Political	Insufficient support at national political level to create supportive framework for financing of EE Investments	RoundBaltic has identified various gaps in the current supportive framework and developed a set of recommendations to fill these gaps, and which were presented and discussed with national stakeholders and financial players
Political	Insufficient interaction with the national and local level where the actions must be implemented in practise	The interaction between regional and national roundtables proved to be an efficient way of facilitating interaction between the national and local level. Recommendations from regional roundtables were included in proceedings and roadmaps and discussed at national roundtables and concrete supporting measures were outlined. The enabling actions at regional level served as good cases for determining steps ahead at regional and local level towards their implementation, including financing.
Involving the financial sector	Difficulties in involving the financial sector properly	In parallel with the RoundBaltic Action the financial sector has increased their capacity to support the green transition. RoundBaltic has in this context worked closely with Finance Latvia and various banks (major part of the sector) to build bridge between the financial and the EE sectors. As such the financial sector has taken a very active part in the project and the enabling actions.

5.7 Means of Verification

- The topics addressed in 7 proceedings.
- Articles
- Case studies
- Road map developed (addressing actions at regional level and national level) – see WP4
- Participant lists (from RTs)

6 Assessment of interventions in Poland

The actions throughout the project followed up on the recommendations from the previous roundtables in SEI Forums and related to the financial pillars: more effective use of public funds, aggregation and project development assistance, and de-risking. Potential actions and topics to be discussed were identified prior to the roundtables, also in Advisory Board meetings and were further supported by the follow-up activities, including the follow-up roundtables. For each of the 7 regions involved in the RoundBaltic project several potential actions that could be supported through the roundtables have been identified in the proposal phase.

The following national assessment is done at sectorial level focuses on the three points mentioned below:

- 1) Set up national roundtables focused on energy efficiency investment, as permanent multilateral discussion forums gathering the relevant stakeholders.
- 2) Use the roundtables to upscale existing best practices from the national and European level, develop strategies, roadmaps, and action plans, propose improvements in the national policy frameworks and measures, and follow their implementation.
- 3) Develop jointly template documents and contracts leading to a better functioning of the market.

WP4 provides input for the documentation of enabled actions (including road maps) for each sector per region, and the overall impact assessment refers to this. The documentation / road maps in WP4 includes a short impact evaluation table for the specific sector in a region.

Further D1.2 and WP2 describes/ documents of changes in framework conditions triggered by the project which are largely common for the regions.

6.1 Setting up national roundtables and permanent multilateral discussion forums

Output - roundtables

In total 3 national and 2 regional roundtables in each of seven target regions were implemented – in total 17 roundtables, in addition to Advisory Board meetings and bilateral meetings/consultations with key stakeholders.

	Number	Number of participants	% from the financial sector
National Roundtables	3	232	29%
Regional Roundtables	14	823	13%
Total	17	1,055	22%

Overall, the roundtables have supported increasing the number and types of stakeholders involved along the value chain. These includes national and local banks (governmental institutions, research institutes, service providers, installers and branch organisations). Further the roundtables have led to an increased interaction with national stakeholders and created a qualified dialogue on needed national support measures.

As such RoundBaltic has contributed to establish national and regional stakeholder structures that can function as future permanent structures. At national level various initiatives have been launched by the financing sector, interest organisations and governmental institutions, which needs to be coordinated with the regional initiatives.

Outcome - roundtables

The stakeholder forums are planned to continue taking recommendations from RoundBaltic into account and the various efforts done by various stakeholders around the roundtables.

Identifiable changes in relation to stakeholders include:

Financing institutions are generally building up capacity to meet the demand for financing energy efficiency, and has actively used the RoundBaltic intervention in this process.

The RTs has further led to Increased networking and interaction with several other stakeholders, This also embrace an increased interaction with national stakeholders addressing regional and local needs, including increasingly adopting financing as an important topic in various forums.

Through the Roundtables and the interaction between these, all stakeholders have Increased their capacity in relation to specific needs within the sectors addressed and possible means to cope with these.

Within the regions and at national level the roundtable process has been used to work on new initiatives building further on the conclusions.

Outcome - Permanent structures for energy efficiency finance

In Poland, RoundBaltic began, among others, following the SEI Forums Conference and National Round Tables in 2017-2019. In connection with the organization of these events, structures were formed at the national level participating in the continuous process of improving energy efficiency support instruments.

On the public side, they include:

1. Ministries:
 - a. Climate and Environment, responsible for climate policy, which has taken over from 2022 the spending of funds for this purpose from the national budget and from the EU
 - b. Development and Technology, responsible for the implementation of LTRS and for financing the renovation of buildings
 - c. Funds and Regional Policy managing the European Funds implementation system

2. Central Financial Institutions:

- a. National Fund for Environmental Protection (NFOS), responsible for, among others, energy efficiency financing programs in single-family homes, industry and transport and supporting the development of the use of RES
- b. Bank Gospodarstwa Krajowego managing the Thermal Modernization and Renovation Fund focused on multi-family houses, local governments, low-income households and co-managing regional financial instruments for improving energy efficiency and developing RES in 13 regions
- c. Bank Ochrony Środowiska, financing directly beneficiaries of energy efficiency support programs with repayable instruments

3. Others:

- a. European Investment Bank, supervising 12 ELENA projects in Poland and co-managing regional financial instruments for improving energy efficiency and developing RES in 3 regions
- b. State Institute for the Development of Cities and Regions, established in 2002, supporting the Ministry of Funds, among others, in empowering local governments in the energy efficiency financing system
- c. Polish National Energy Agency (KAPE), established in 1994, operating in the form of a public-private joint-stock company with majority shares of NFOS, as an expert organization in the implementation of EU directives in the discussed area

On the non-public side, they include:

1. Polish Bank Association, operating since 1991, representing the interests of non-public financial institutions, although public ones are also associated with it
2. SAPE Association, operating since 2004, bringing together physical authorities and energy agencies experienced in cooperation with beneficiaries of energy efficiency financing, sometimes since the mid-1990s
3. Fala Renowacji Association, operating since May 2022 as a representative of the interests of main suppliers of goods and services for building renovation
4. Reform Institute, a think-tank operating since 2022, whose team managed the creation of LTRS
5. Association of Polish Cities, operating since 1990, bringing together 355 out of 979 cities in Poland, representing the interests of local governments, having a representative for energy efficiency delegated by SAPE
6. Commercial banks operating actively on the investment market in this area, including: BNP Paribas, VELO, Alior, PKO BP, ING

7. Association of Energy Auditors, operating since 2000 in supporting energy auditing professionals through educational and environment-integrating activities (1,700 members)
8. Lewiatan Confederation, founded in 2004, bringing together 53 business associations, actively working to adapt Polish enterprises to the requirements of climate policy

At the regional level, these structures were created based on RoundBaltic activities by SAPE members in 7 Polish regions: BAPE-Pomerania, DAES- Lower Silesia, AUiPE - Łódź Province, RAPEiS - Kuiavia-Pomerania, FEWE - Silesia, NAPE-Masovia, Podlaskie. The composition of these structures results from the RoundBaltic logic and regional conditions. In each region, the public side is represented by the region's government authorities and their agencies, as well as local governments with their relevant units. Moreover, entrepreneurs and energy advisors are represented in the Regional Councils.

The structures described above are not formal, but this does not prevent them from working together towards the transformation goals in the discussed scope.

6.2 Identifying and documenting enabling actions

Output – enabling actions

RoundBaltic has initiated and supported specific actions in 7 Polish regions. The proceeding from the RTs reflects on the status of progress and actions. The roadmaps in WP4 suggest further actions at national and regional level. An overview is provided below:

- Kuiavia -Pomerania: more efficient use of energy in housing cooperatives using national and EU investment support measures
- Lower Silesia: support for the creation of the ELENA project for the renovation of public buildings
- Łódź Voivodeship: energy balancing at the level of poviats and communes, horizontal flow of information about exemplary projects implemented using national and EU investment support funds
- Masovia: argumentation for the development of systemic information and technical support for investors, with the participation of local governments - a project financed from EU funds for 2021-2027 worth €56 M
- Pomerania: development of guidelines and mobilization of financial support from EU funds for 2021-2027 for advice on the creation of energy communities
- Silesia: support for the creation of 4 ELENA projects for the renovation of multi-family buildings
- Podlaskie: support for the creation of the ELENA project to improve energy efficiency in SMEs

Investments

In relation to the above-mentioned enabling actions the RoundBaltic project has triggered and documented investments for in total 822 MEUR which are supported by RB in relation to further

stakeholder involvement, financial matters (partnerships with banks, taxonomy etc.) and initiation of new follow-up projects.

Investments MEUR	Public Buildings	Residential Buildings	SMEs	Total
Mazowieckie Region	94,0	171,5	12,8	278,3
Podlaskie Region	27,4	34,8	34,0	96,2
Pomorskie Region	19,2	5,8	-	25,0
Kujawsko-Pomorskie Region	15,5	6,0	-	21,5
Śląskie Region	93,4	24,7	-	118,1
Łódzkie Region	87,7	104,0	-	191,7
Dolnośląskie Region	64,8	13,6	13,0	91,4
Total	34,4	514,5	11,3	822,2

Please refer to D4.3 / D4.4 for a further documentation and description of these investments in each of the Polish target regions.

Proposals for needed improvements in the national policy frameworks and measures

The RoundBaltic intervention in Poland happened in interaction of improving the overall national framework for energy efficiency finance and enabling specific investment actions on the regional/local level. Roundtables on both national and regional/local level have been anchor points for engaging the relevant stakeholders and fostering the good ideas and recommendations for actions.

As for the efforts on improving the general national framework for energy efficiency finance RoundBaltic has fulfilled the following tasks/activities:

1. The role of the two main project partners, i.e. the Ministry of Development, which supported the project at the stage of its formulation, and the Polish Bank Association, was crucial in this task. This was reflected in the findings of the first meeting of the National Advisory Council, which gave direction to the subject of the first NRT around the LTRS created by the Ministry of Development and barriers to the development of energy efficiency financing based on the national RoundBaltic diagnosis.
2. The next two meetings of the Advisory Council focused on the preparation of 2nd and 3rd NRT programs, responding on the one hand to the recommendations formulated by their participants and, on the other hand, raising problems that emerged as a result of Russia's aggression against Ukraine. The public side was represented by KAPE in these meetings.

3. The last communication between the members of the National Advisory Board took place at the end of August 2023, where they outlined in writing which of the barriers identified at the beginning of the project require further action to reduce them. They concern (they are quoted in full in the further part of the report), among others:
- still too weak coordination of sectoral policies around energy efficiency, resulting in, for example, overlapping financial instruments
 - the need to increase technical support for investors at various levels of one-stop-shop
 - regulatory unblocking in order to develop EPC-based services for local governments
 - the slow process of energy transformation resulting from, among others, due to lack of NECP update.
 - Although representatives of public authorities did not participate in the last meeting of the Council, their important, programmatic speeches took place during the 3rd NRT regarding:
 - implementation of LTRS by the Ministry of Development
 - implementation of RED II by the Ministry of the Climate
 - use of EU funds for energy efficiency by the Ministry of Funds.

The activities of the National Advisory Council were certainly effective in terms of shaping the discussion within the NRT thanks to the participation of central authorities. During the RoundBaltic period, there was a reorganization of central institutions, as a result of which energy efficiency is increasingly related to climate policy, although no decision-making centre has been established to implement the EE1 principle horizontally.

Advisory Councils in individual regions were created by regional members of SAPE based on long-established cooperation with regional public authorities and other stakeholders in the regions. Similarly, to the national level, they fulfilled their role in assessing regional diagnoses and shaping the programs of individual RTs.

Thanks to the coordination of the work of the Councils at the RoundBaltic level, it was easier to transfer RoundBaltic topics vertically and horizontally.

Support for policy implementation

The main means for this action was the inclusion by the Ministry of Development of most of the recommendations from the 1st NRT into the LTRS in the chapters on regulatory changes and financing of building renovation.

These LTRS findings became binding on changes in law regarding:

- energy performance of buildings - introduction of energy classes from 2024
- intensity of support in financing instruments for the renovation of residential houses - increase in 2023
- citizens' participation in the production of renewable energy - introduced in 2023.

On the other hand, round tables at the national level were used by public authorities to present the effects of the introduced regulations and collect recommendations from other stakeholders.

An important activity was the promotion of direct support programs from the European Commission among potential beneficiaries in the field of:

- EU ELENA, in the form of presentations by EIB representatives at roundtable meetings and organized by the RoundBaltic team. During the project period, 6 ELENA initiatives were created in Poland, 4 of which started operations after signing agreements with the EIB, aiming to implement investments worth approximately €250 M
- EU Target in coal regions - 2 agreements were concluded with the EIB in Warsaw
- EU City Facility, PDA, Ficompas, EEEF – promotion at the meeting of the 3rd NRT

Outcome – enabling actions

- The potential uptake of the above suggestions/measures proposed and discussed at Roundtables, Advisory Board meetings and in bilateral consultations with regional and national key stakeholders.
- Deeper discussions were held with the members of the Advisory Board.
- Banks and other financial actors have actively participated in the RoundBaltic Intervention in parallel with building up capacity and business models for loans to green transition.

6.3 Develop jointly market recommendations and tools

Output

Several of the measures suggested at the roundtables have concerned needed actions to generate tools and templates within the supportive framework in relation to project aggregation, de-risking and better use of public funds.

Outcome

Below is described important suggestions put forward to major stakeholders during the roundtable discussions, and which will be followed up in the future set-up managed by SAPE. Further information on findings and recommendations are provided by D1.2 and WP2.

Activities in this area were multidirectional also in the periods between RTs.

At the central level, the RoundBaltic team took part in consultations organized by the public site on the following topics:

- Ministry of Development: use of EU NRRP funds to improve energy efficiency in multi-family residential buildings in the form of subsidies - introduced in 2022
- BGK - use of EU funds for 2021-2027 in the form of regional financial instruments - introduced in 2023
- Ministry of Development: extension of the white certificate system for investments in municipal heating systems - introduced in 2021
- NFOS: use of the EU Modernization Fund for the development of the ESCO market - EPC+ Program, in progress

- NFOS: development of a technical support system for investors using the "Clean Air" program - in progress

At the regional level, the key issue was how to make it easier for investors to prepare and finance projects. In each region, this was one of the RT topics, and in the periods between them, the RoundBaltic team conducted activities with public and non-public partners that strengthened the RT message (see list of activities above).

Residential buildings

In the field of renovation of single-family buildings, the RoundBaltic team actively supported NFOS in creating an advisory platform for investors using the "Clean Air" program in 2022. The platform brings together several hundred advisors whose work can be financed by subsidies for investors. The next stage of the development of this service was consulted, the so-called renovation project operators, which was launched in August 2023 as a pilot in the Małopolska region.

With regard to the renovation of multi-family buildings, the Ministry of Development consulted with the RoundBaltic team on changes in the functioning of the thermal modernization support system. The changes to the law introduced in 2022 increased the intensity of support provided by BGK in the form of a subsidy from national funds for loans and launched the expenditure of funds provided for in the EU NRRP in the form of subsidies for the development of RES and deep modernization of social buildings owned by municipalities.

Public buildings

Participants of the RT meetings raised the issue of helping local governments prepare projects of this type for financing and implementation. For this purpose, NFOS created the EPC+ program financed by the EU Modernization Fund, which completed the pilot in June 2023. The course of this project was reported at NRTs and RTs meetings. The RoundBaltic team assessed the proposed solutions, drawing attention to the need to better connect the market for ESCOs with public and non-public FIs. So far, no clear rules have been established by the Budget Inspection regarding the forfeiting of ESCO companies' liabilities. This activity is to be continued after the end of RoundBaltic in the form of an inter-institutional working group, based on the experience from the EPC+ program. An important activity was the cooperation of the RoundBaltic team with Bank Ochrony Środowiska to launch the ELENA project with a focus on supporting local governments in preparing renovation of buildings and other municipal investments (heating, street lighting), as well as supporting SMEs and owners of multi-family houses. This project was launched nationally in April 2023.

In turn, in 2022, BGK started preparations for the implementation of Regional Financial Instruments using EU funds for 2021-2027 for improving energy efficiency and introducing RES in buildings, municipal services and SMEs. The RoundBaltic team consulted the initial technical assumptions, and financial products will be launched by BGK in 13 regions from autumn 2023.

SME sector

Support for SMEs in the field of energy efficiency improvement is not systemic in Poland. SMEs can use the white certificate system, BGK guarantees for loans for ecological investments from EU funds for 2014-2020, and financial instruments using these funds available in some regions of Poland.

These opportunities were promoted on NRTs and RTs. In 2023, BGK launched subsidies for SME loans for ecological investments with the participation of EU funds for 2021-2027 granted by banks. The RoundBaltic team consulted on changes to the white certificate system in 2021, which allowed SMEs from the district heating sector to participate in this system. It also supported the Environmental Protection Bank and the Eastern Fund in the Podlaskie Voivodeship in the preparation of the ELENA project for SMEs and consults BGK in the creation of Regional Financial Instruments for SMEs in 13 regions.

Support to engage and build capacities of the financial sector

In this respect, the Polish Bank Association played a significant role by providing formal patronage to the RoundBaltic project, taking an active part in the Advisory Board, shaping NRT programs and transmitting the project results to the associated banks. In particular, the 3rd NRT session on the impact of the EU environmental taxonomy on financial institutions and enterprises highlighted the needs and challenges for the private finance sector in this area. The RoundBaltic team consulted several private banks on financing EPC-based investments, using the ELENA fund and better use of national and EU funds to support investments related to energy efficiency improvement.

Public central financial institutions (BGK, NFOS) participated in each of the NRT meetings and in some of the RRT meetings, presenting their products and collecting opinions on their functioning. Regional public financial institutions participated in regional advisory councils and presented their products at RRT meetings, and read the recommendations of the participants.

The Polish Bank Association declared to coordinate activities in the preparation of models necessary to develop the scope and form of information compliant with the taxonomy and obtained from borrowers. These activities should include, among others, experts in the field of energy efficiency. The RoundBaltic team held several such consultations with private banks during 2023.

Support to engage and build capacities of the energy efficiency sector

The RoundBaltic project had the support of the energy efficiency goods and services sector through industry associations from the beginning. Their role in market development was particularly emphasized during 2 RTDs and during some RTDs.

From May 2022, the activity of the national Association Renovation Wave dates back to reducing barriers to market development and improving the use of national and EU public funds to support the renovation of buildings. On its initiative, independent expert opinions are created, which are published and discussed in forums involving public and private stakeholders. The association, ensuring long-term activity, expands its representativeness by establishing in March 2023 a permanent interdisciplinary expert team for improving the financing of energy efficiency in Poland. It will be an excellent forum after the completion of the RoundBaltic project to conduct public-private dialogue in this field.

6.4 Qualitative Assessment

Overall, RoundBaltic succeeded in organising and implementing the roundtables planned at national and regional level in the seven Polish target regions. Further to enable actions within all 7 regions considered in relation to current national initiatives and national framework conditions. As such the Roundtable Intervention has suggested several proposals for improving policy framework and

measures supporting financing of energy renovation in residential buildings, public buildings and SMEs

The added value of RoundBaltic in the process is related to interaction at the three national and 14 regional roundtables, the Advisory Board Meetings involving the regions and several bilateral consultations with stakeholders, including financial players. This has ensured an expansion of stakeholders and a qualified dialogue creating momentum at regional level to enable concrete actions and propose needed support measures at regional and national level, including financial concepts.

The regional roundtables have been important for creating a mutual understanding of challenges among regional and national stakeholders. The significant experience from RoundBaltic with a committed involvement of regions and other local and national stakeholders (including financial players) is an essential input to this process.

Still there are room to improve the interaction between the national level and the regional/local, but the learning and the recommendations from RoundBaltic may contribute to enhance this further, both in relation to the strategic climate and energy planning process, but also in relation to the recast of EU directives which will put higher focus on deep renovation and national building renovations plans, that would benefit from being coordinated efficiently with the regional/local level.

6.5 Viability Assessment

Below the project approach is evaluated in relation to the impact barriers identified at the beginning of the project.

Type	Detected impact barriers	RoundBaltic approach
Political	Insufficient support at national political level to create supportive framework for financing of EE Investments	RoundBaltic has identified various gaps in the current supportive framework and developed a set of recommendations to fill these gaps, and which were presented and discussed with regional and national stakeholders and financial players
Political	Insufficient interaction with the national and local level where the actions must be implemented in practise	The interaction between regional and national roundtables proved to be an efficient way of facilitating interaction between the national and regional level. Recommendations from regional roundtables were included in proceedings and roadmaps and discussed at national roundtables and concrete supporting measures were outlined. The enabling actions at regional level served as good cases for determining steps ahead at regional and local level towards their implementation, including financing.
Involving the financial sector	Difficulties in involving the financial sector properly	In parallel with the RoundBaltic Action the financial sector has increased their capacity to support the green transition. RoundBaltic has in this context worked closely with the Polish Banking Association and various banks (major part of the sector) to build bridge between the financial and the EE sectors. As such the financial sector has taken a very active part in the project and the enabling actions.

Some further considerations on viability are given below in relation to current challenges and related to proposed measures (lessons learned).

Main learning of the performed support activity

While the reactions of the central authorities on recommendations were initially limited, the banks, regional authorities and various stakeholders are more frequent looking for use of innovative financing schemes of energy efficiency in buildings and SMEs. The need to implement amendments to the EPBD, EED and RED directives, the RePower EU program, the 2021-2027 financial perspective have increased the level of interest in the RoundBaltic project as a source of Polish and foreign knowledge and experience and a representative forum for social consultations on the introduced regulatory changes.

Main learning of the performed support activity (investment framework)

The silo organization of state governance is not conducive to the implementation of the EE1 principle in politics. Recommendations from the national diagnosis and recommendations from round tables were addressed to various ministries responsible for sectoral regulations resulting from the implementation of individual EU directives. It was important to follow the reorganization of the decision-making centre and maintain contacts with officials transferred between Ministries

and departments to ensure the flow of knowledge and information from RoundBaltic to the decision-making centre and vice versa.

Main learning of the performed support activity (financial instruments)

Despite the lack of updates to the energy policy and NECP, central authorities make decisions on allocating national and EU funds to improve energy efficiency, and public and non-public financial institutions are actively involved in the use of improved and new FIs. This sometimes leads to overlapping of financial instruments addressed to the same beneficiaries, but facilitates the spending of funds reserved for these purposes in national and regional programs. There is a visible increase in interest in EU funds available outside national programs (ELENA, TARGET and others) and their actual use by authorized institutions, thanks inter alia RoundBaltic massive promotion of them.

Learning points of the project intervention, formulated by the Polish bank Association are:

1. It is necessary for banks to introduce new business models that allow for building knowledge, assistance in training and customer preparation, under which banks go through the transformation together with the customer - they learn together with the customer. As part of these models, tools should be developed, e.g. building and providing calculators for calculating emissions, especially for SMEs, or supporting new technologies, e.g. for reducing and capturing CO2 or water consumption.
2. There is a noticeable lack of appropriate tools and competences, which may significantly slow down work on preparation for the implementation of new regulations. There is a need to identify new sources of data on ESG factors, their integration and standardization, as well as systems obtaining and storing this data - this is a significant challenge for banks. Additionally, current risk measurement models are based on historical data, which do not take into account ESG factors. The bank is responsible for developing the methodology, while we are dealing with a large number of complex regulations and new changes are in the process of being created. The European taxonomy is an attempt to standardize the approach, but it will take a long time until technical standards are common. There are many challenges for banks: e.g. how to estimate physical risk, transformation risk, which decarbonization paths to choose and which ones to follow? These activities are still essentially experimental in the banking sector.
3. The challenge for everyone is the methodology to achieve comparability, transparency, and availability of data. The available data used by banks in stress tests to estimate environmental risk are characterized by a very wide range - this is the scale that must be faced. Other data is data that is not available because we use models based on historical or statistical data. But for environmental risk assessment such data is not available. Lack of data or limited access to data forces the use of methodologies that were used in previous risk assessment models. The question arises: how to account for the impact of climate change on loan default loss? An important element is the horizon - in the past it was several years, but when estimating climate risk it is up to thirty years - and another question: is it possible to obtain such data? How will climate risk translate into macroeconomic parameters - violent

phenomena are local, and banks have a larger scale of operations, and it is difficult to manage this risk profile.

4. Hence, there is a need to build a database of information regarding the fulfillment of taxonomy criteria by various types of economic activities. The Polish Bank Association should make it a priority to maintain such a database, which should make it easier for banks to assess credit in terms of compliance with ESG requirements.
5. There is a need to coordinate activities in the preparation of models necessary to develop the scope and form of information consistent with the taxonomy and obtained from borrowers. Standardization of models will enable data comparability and, at the same time, competitiveness of loan offers. The Polish Bank Association should undertake to coordinate the work on defining these models.

Main learning of the performed support activity (capacity building energy efficiency)

Learning points of the project intervention are:

- RoundBaltic, in cooperation with market participants, actively promotes the importance of energy efficiency for the implementation of LTRS, taking into account technical concepts ensuring climate neutrality for owners of residential buildings, local governments and enterprises.
- While the State is dealing with the energy transformation at the national level, it is providing temporary protection for energy consumers and reaching out to them with instruments to reduce energy consumption through various market participants. An important role in this activity is played by the developing scope of technical assistance in various forms.
- Polish cities, in the face of drastically increased energy costs, want to actively participate in these processes, understanding that the Energy Efficiency First principle must be combined with the "knock on every door" action.

6.6 Means of Verification

- Proceedings from 17 roundtables (WP3)
- Participant lists (from RTs)
- Minutes of Advisory Board meetings
- Articles
- Case studies
- Documentation and Road maps at regional level (addressing actions at regional level and national level) – see WP4