

**SCALING UP FINANCE FOR ENERGY EFFICIENCY REFURBISHMENTS OF  
BUILDINGS:  
FINANCING ENERGY EFFICIENCY IN POLAND, CZECH REPUBLIC, SLOVAKIA AND LITHUANIA**

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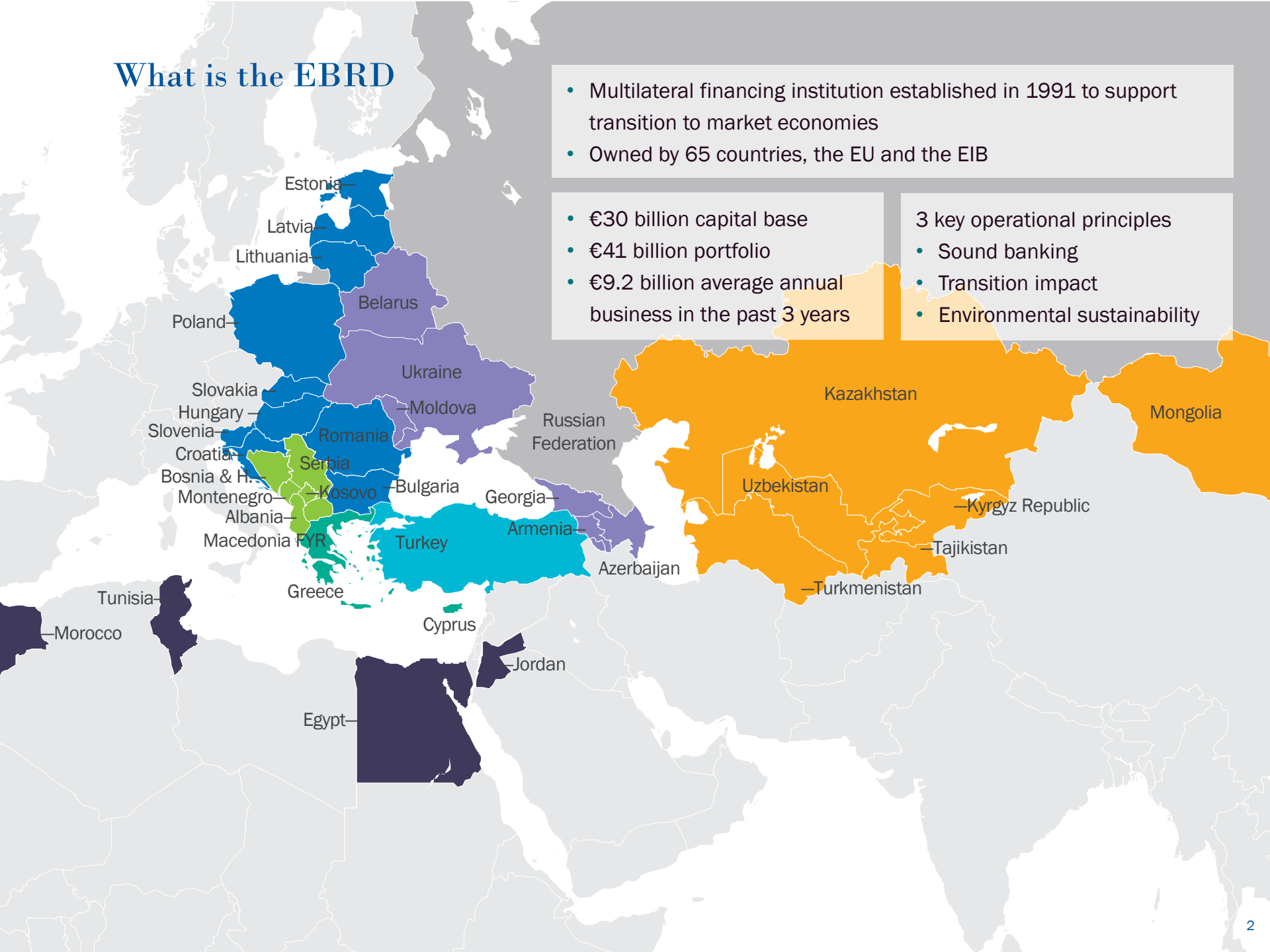
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for Reconstruction and Development

# What is the EBRD

- Multilateral financing institution established in 1991 to support transition to market economies
- Owned by 65 countries, the EU and the EIB

- €30 billion capital base
- €41 billion portfolio
- €9.2 billion average annual business in the past 3 years

- 3 key operational principles
- Sound banking
  - Transition impact
  - Environmental sustainability

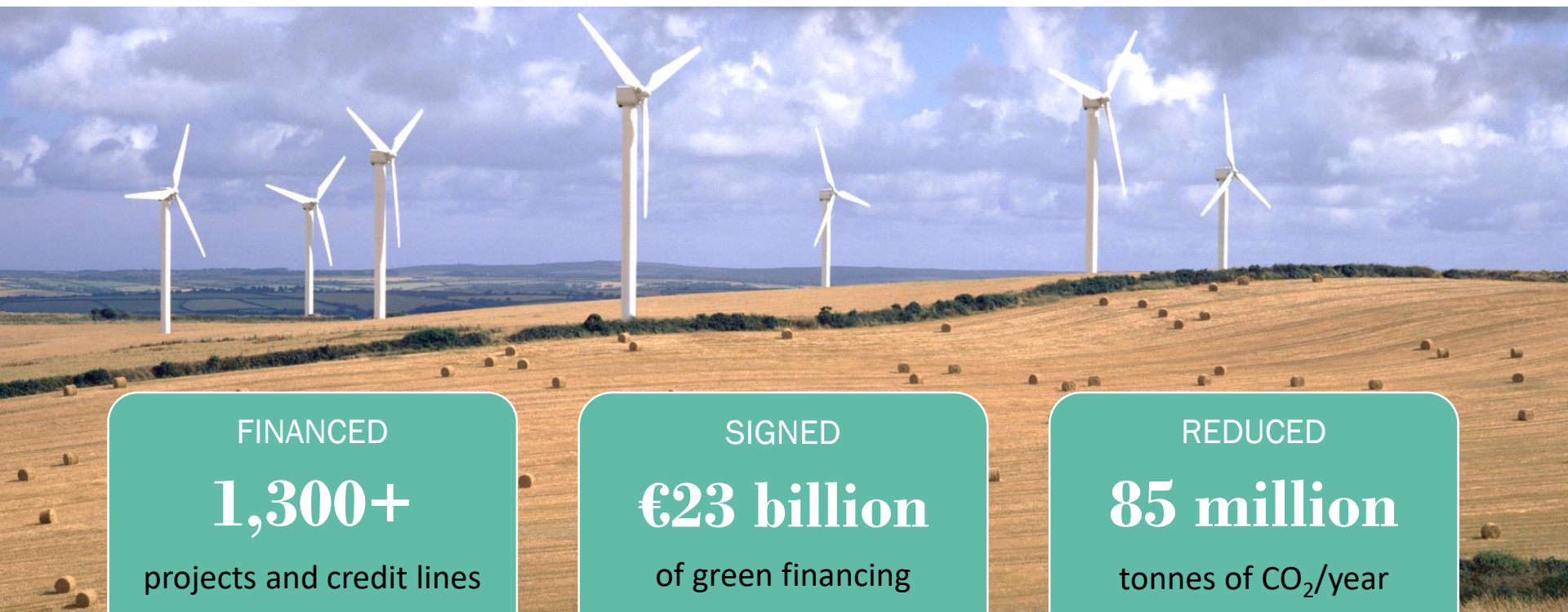




1. Introduction EBRD
2. Status building stock in Poland
3. Preliminary observations
4. Examples of EBRD finance for scaling up energy efficiency refurbishments in building stock



# Mainstreaming green financing Results in 2006 – H1 2017



FINANCED

**1,300+**

projects and credit lines

1,000+ directly financed projects with green components, and 290 credit lines to local financial institutions for on-lending to smaller projects

SIGNED

**€23 billion**

of green financing

For projects with a total value of €130 billion  
In 2014-2016 green financing represented 36% of EBRD's total business, up from only 15% in 2006.

REDUCED

**85 million**

tonnes of CO<sub>2</sub>/year

Emission reductions more than annual energy emissions of Romania  
+annual water savings of 200 mln m<sup>3</sup> since 2013 equal to a third of Londoners' water use

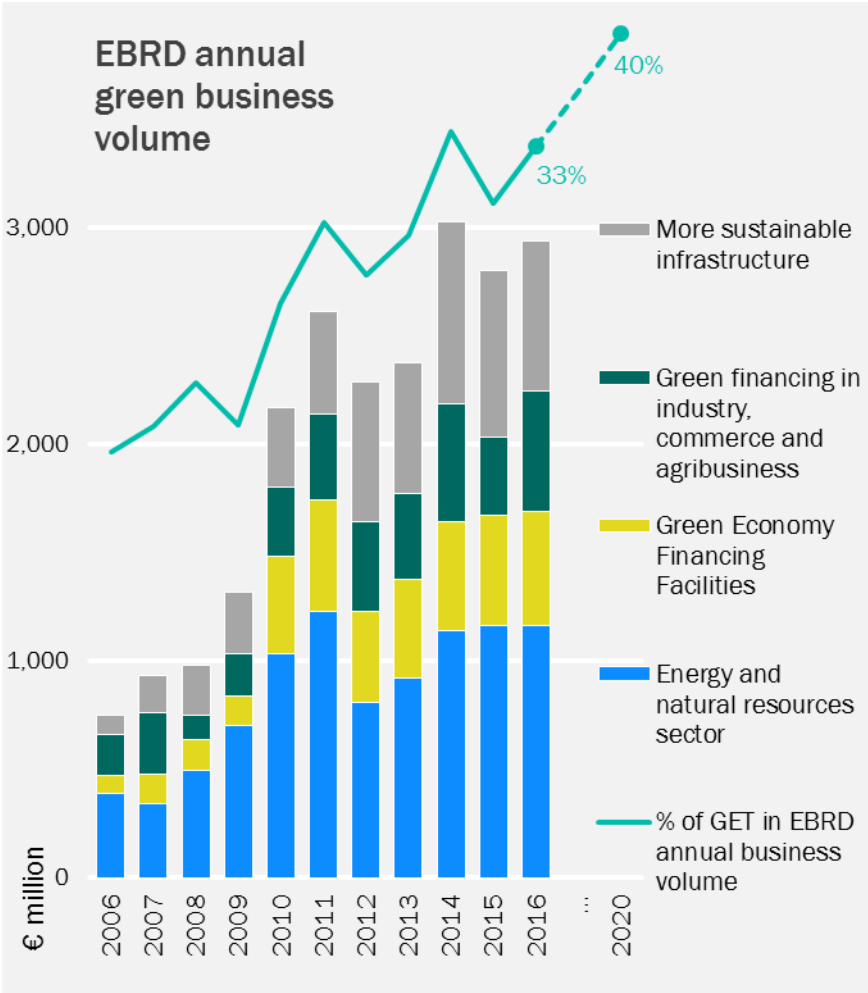
# Mainstreaming green financing the Green Economy Transition strategy



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The Green Economy Transition aims to address market opportunities, as well as market failures, related to resource use and environmental degradation. GET aims:

- **further scale-up** the Bank’s operational and policy activities to accelerate transition to low-carbon and climate resilient economies
- **broaden the environmental dimension** of investments supported by the Bank – this includes elements of environmental compliance and remediation
- **innovation and new areas:** promoting green technology transfer and innovation and engaging in new areas like green logistics, irrigation, bioeconomy, etc.
- **flexible financing channels:** engage private as well as public financing channels when opportune to accelerate low-carbon transition (e.g.: energy efficiency in public buildings, green infrastructure).
- **align the transition impact rating** of the Bank with the objectives of promoting a green economy, including recognising scale of impact or related elements of policy change and innovation.



# Mainstreaming green financing

## Examples of green business development tools

### RESOURCE AND ENERGY EFFICIENCY AUDITS

For clients who have resource efficiency potential, audits identify and recommend priority resource efficiency investments based on the financial return from input cost savings. A special category are resilience assessments which look at climate change impact risks and mitigation measures.

### GREEN ECONOMY FINANCING FACILITIES

Credit lines to local partner banks for on-lending to small and mid-sized green projects, combined with technical assistance teams who help identify and assess investment opportunities, train up banks' staff, and develop marketing activities. Support may be complemented with incentive payments to end-borrowers.

### TECHNOLOGY TRANSFER AND INNOVATION SUPPORT

The FINTECC programme helps clients willing to invest in higher resource efficiency technologies with partial investment grants to overcome affordability and first-mover barriers. A newly launched innovation vouchers scheme similarly helps R&D service providers.

### GREEN CITY ACTION PLANS & MUNICIPAL SUPPORT

GCAPs promote low-carbon urban development via integrated assessments of environmental gaps and of priorities for upgrading services and infrastructure. Investments are then supported with a mix of technical assistance (structuring and tendering support), financing (private, public) and concessional co-financing.

### BLENDING MULTILATERAL CLIMATE FUNDS

Partnering with multilateral providers of climate finance to structure financing packages on terms matching the risk and market maturity profiles of green projects. Such examples include integrated programmes to accelerate renewable energy rollout in early-stage markets via policy dialogue, commercial financing and soft loans.

### POLICY DIALOGUE

Working with governments and authorities to strengthen the institutional and regulatory context and create optimum conditions for green development. Examples include sector-specific low-carbon pathways: through dialogue with both the government and the private sector, an industry-wide technology upgradation plan is agreed and then supported.

## Challenges and opportunities

- 6 million existing buildings
- 60% of buildings built pre-1978
- 3.6 million (72%) have poor or very poor energetic standard
- Only <6% of refurbishments are deep retrofits
- Annual renewal rate of <2%

Source: Status Report on Financing Building Energy Performance Improvement in Poland, BPIE, 2016





# Preliminary observations for scaling up energy efficiency finance for buildings



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Existing buildings offer significant investment potential but current rate of refurbishments needs to be scaled up.

Project sizes are small and building owners usually do not take these capital intensive investment decision due to

- lack of expertise and resulting risks
- scarce finance
- transaction costs

**Conceptually this requires financial solutions that**

- Align risks and rewards of stakeholders to de-risk investments for building owners
- lower transaction costs
- Aggregate finance

# EBRD has developed a new credit line programme

- ❑ EUR 200 million credit line facility
- ❑ Available to Polish commercial banks
- ❑ For sustainable improvements of residential buildings
- ❑ Fast-track approval of loans for purchase and installation of approved technologies (LEME)
- ❑ Free technical assistance package (funded by donors)



| Partner Banks  | Borrowers   |
|--|---|
| - Marketing & training<br>- Project assessment & eligibility check | - Technical advice<br>- Project preparation support |

- ❑ The first bank joined the programme in March 2016



- ❑ Consultants contracted and operational (Warsaw, Wroclaw, Poznan)

# EBRD experience: credit line programmes for energy efficiency improvements in housing



Bulgaria  
EUR 90 mln  
[www.reecl.org](http://www.reecl.org)



Slovakia  
EUR 150 mln  
[www.slovseff.eu](http://www.slovseff.eu)



Georgia, Armenia  
EUR 125 mln  
[www.energocredit.ge](http://www.energocredit.ge)  
*(residential and SME sector)*



Turkey  
EUR 256 mln  
[www.tureeff.org](http://www.tureeff.org)



Turkey  
EUR 213 mln  
[www.turseff.org](http://www.turseff.org)  
*(residential and SME sector)*



Moldova  
EUR 35 mln  
[www.moreeff.info](http://www.moreeff.info)



Russia  
EUR 75 mln  
[www.ruseff.info](http://www.ruseff.info)



Kyrgyzstan  
EUR 15 mln  
[www.kyrseff.kg](http://www.kyrseff.kg)  
*(residential and SME sector)*

# EBRD experience – leasing of sustainable energy equipment in Poland

- ❑ 1<sup>st</sup> edition of PoISEFF (EUR 180m) - 5 financial institutions participated (all used leasing to allocate funds)
- ❑ PoISEFF provided loans and leases to SMEs
- ❑ 1,277 projects worth EUR 117 million financed by leases
- ❑ Most projects financed through the list of pre-approved technologies (LEME-list)
- ❑ SME sectors taking leases under PoISEFF: agribusiness, plastics, metal processing, construction, food processing, services, logistics, printing, packaging, etc.



# EBRD structured loan to Lithuanian agency VIPA for residential efficiency investments



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## THE PROBLEM

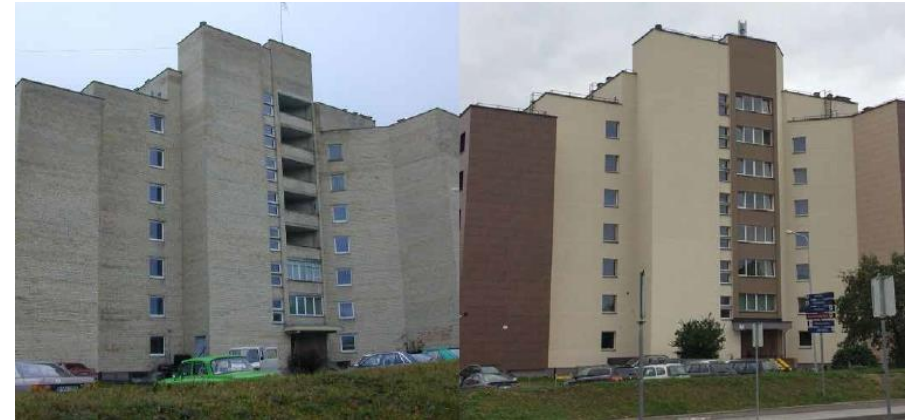
- Residential energy efficiency investments have often long payback periods. Shorter loan tenors make it often unaffordable for residents to borrow
- If a state agency provides clear procedures for appraising efficiency investments and what contract templates to use, as well as some oversight, risks for residents are reduced.

## THE INNOVATIVE SOLUTION

- Lithuanian agency VIPA provides long term credits and related investment grants upon completion.
- EBRD provided additional debt-finance to finance additional buildings. The loan was provided as structured loan, which made it viable, without requiring a sovereign guarantee, while it still being affordable for residents.

## THE EBRD'S ROLE

- Helped structure the project and provided debt.



## Benefits of this structured loan

- It helps reduce Lithuania's energy intensity, which is still 2.5 times higher than EU average.
- It addresses some of the investment demand of >€5 billion for retrofitting residential buildings. About 61% of the population live in multi family buildings built during the Soviet era, which require refurbishing in the near future.

## More information on related webpages

- [EBRD Press Release](#)

# Investment process VIPA: steps and responsible actors

## Project Administrator

- initiates project and informs residents.
- Obtains residents' approval for project plan (energy certificate, technical and financial proposal)



## Agency BETA

- Reviews and clarifies and approves/rejects proposal.

## VIPA

- Credit and legal appraisal of approved proposals.



## Project Administrator

- Asks construction companies for quotes.

## BETA

- reviews quotes

## Project Administrator

- Supports residents with contracting and supervision



# ESCO facility intermediates EBRD finance: forgoing performance based deep retrofits in Latvia



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## THE PROBLEM

- Owners of existing building stock (residential and public) struggle to initiate, implement and finance deep retrofits.

## THE INNOVATIVE SOLUTION

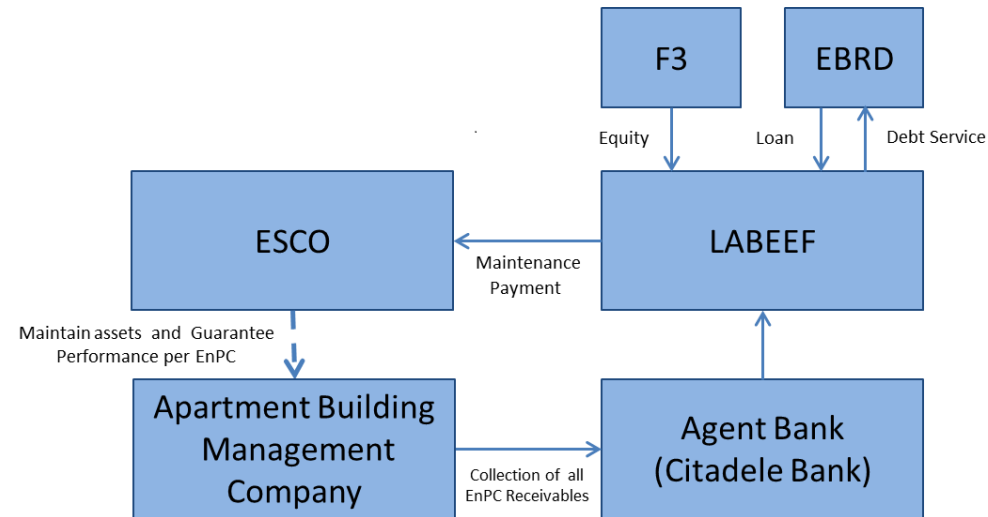
- The Latvian Baltic Energy Efficiency Facility (LABEEF) provides long term finance and reduces transaction costs (less risk) for ESCOs and building owners:
  - it provides investment guidelines for implementation and contracting.
  - it offers forgoing for implemented and performing ESCO projects.
- ESCOs have certainty that after successful implementation and technical performance, LABEEF provides long term financing.
- Building owners have no additional costs and risks, as ESCOs are paid based on performance and take implementation and technical risks.

## THE EBRD'S ROLE

- Helped structure the project and provided debt.

## More information on related webpages

- [EBRD Press Release](#) and [LABEEF website](#)



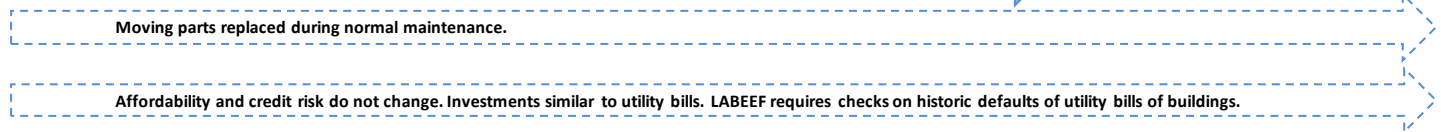
# De-risking based deep retrofits

## Key risks and their allocation:

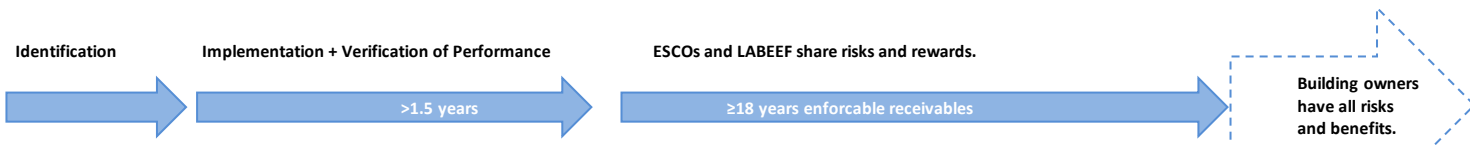
### Lifetime of energy efficiency investments:



### Default risk of building owners:



### EnPC project cycle:



### ESCOs' risk per EnPC project:

|      |                    |  |
|------|--------------------|--|
| ESCO | 100% ESCO          | ESCO: 20% of net capex receivables (junior)  |
|      | Equity: ≥30% ESCOs | ESCO: 20% equity                             |
|      | Debt: ≤70% banks   | Debt: 0% banks (repaid)                      |
|      |                    | LABEEF: 80% of net capex receivable (senior) |

### LABEEF's risk per EnPC project:

LABEEF: 0%

LABEEF: 0%



## Transition towards green economy transition and Scaling up EE investments in existing buildings requires financial structures that

- vertically integrate the EE investment process
- align risks and rewards of stakeholders to de-risk and lower transaction costs and facilitate aggregation
- In practice this is reflected in standardisation of processes and documentation:
  - *Investment guidelines or advisors*
  - *Contract templates*
  - *EE documentation for secondary market*

# Thank you!



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