

OPPORTUNITY TO USE OFF BALANCE SHEET PRIVATE SECTOR FINANCE FOR PERFORMANCE BASED DEEP RETROFITS: SUCCESSFUL FINANCIAL INSTRUMENTS SUPPORTING EPC PROGRAMMES

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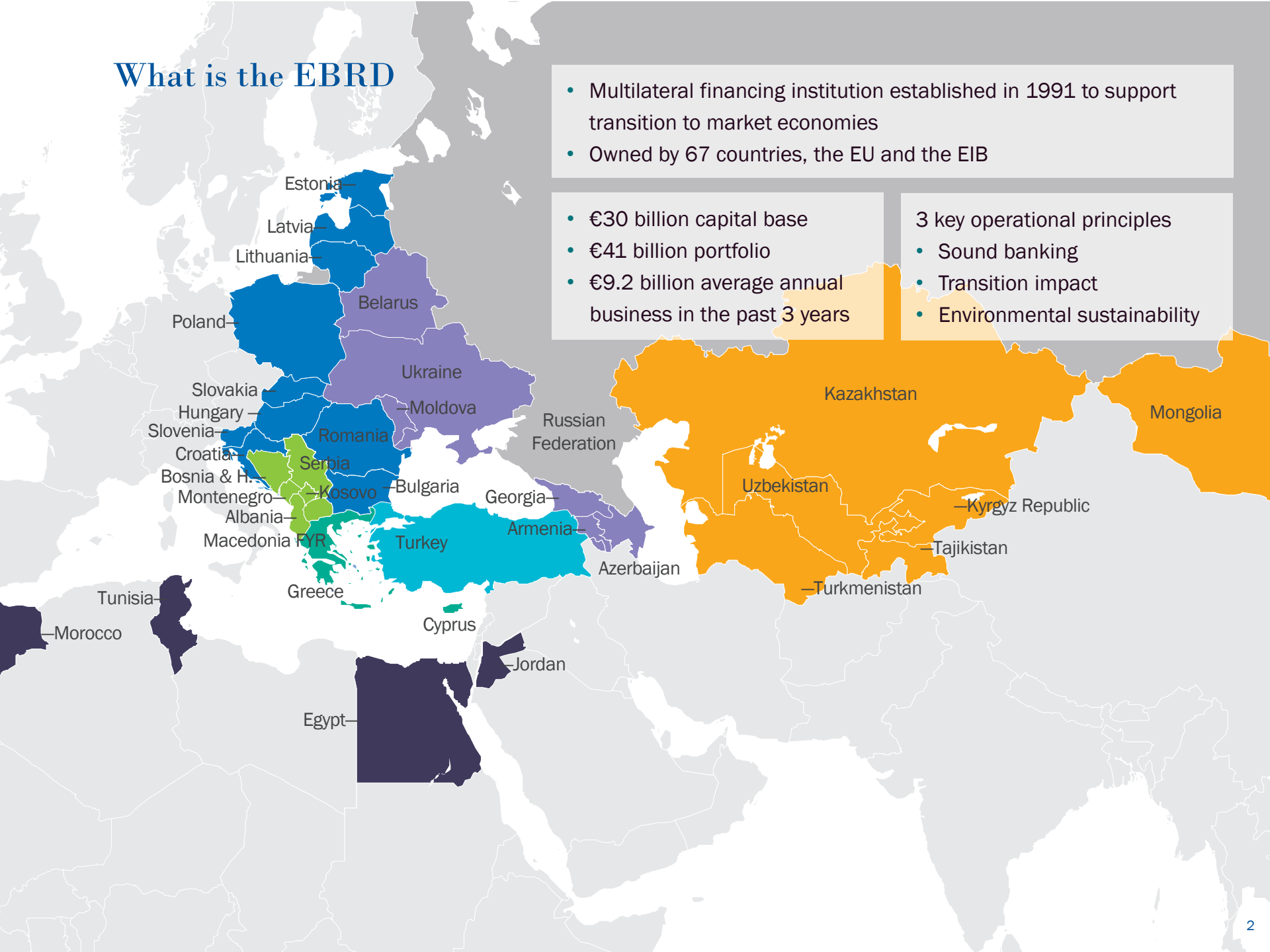
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What is the EBRD

- Multilateral financing institution established in 1991 to support transition to market economies
- Owned by 67 countries, the EU and the EIB

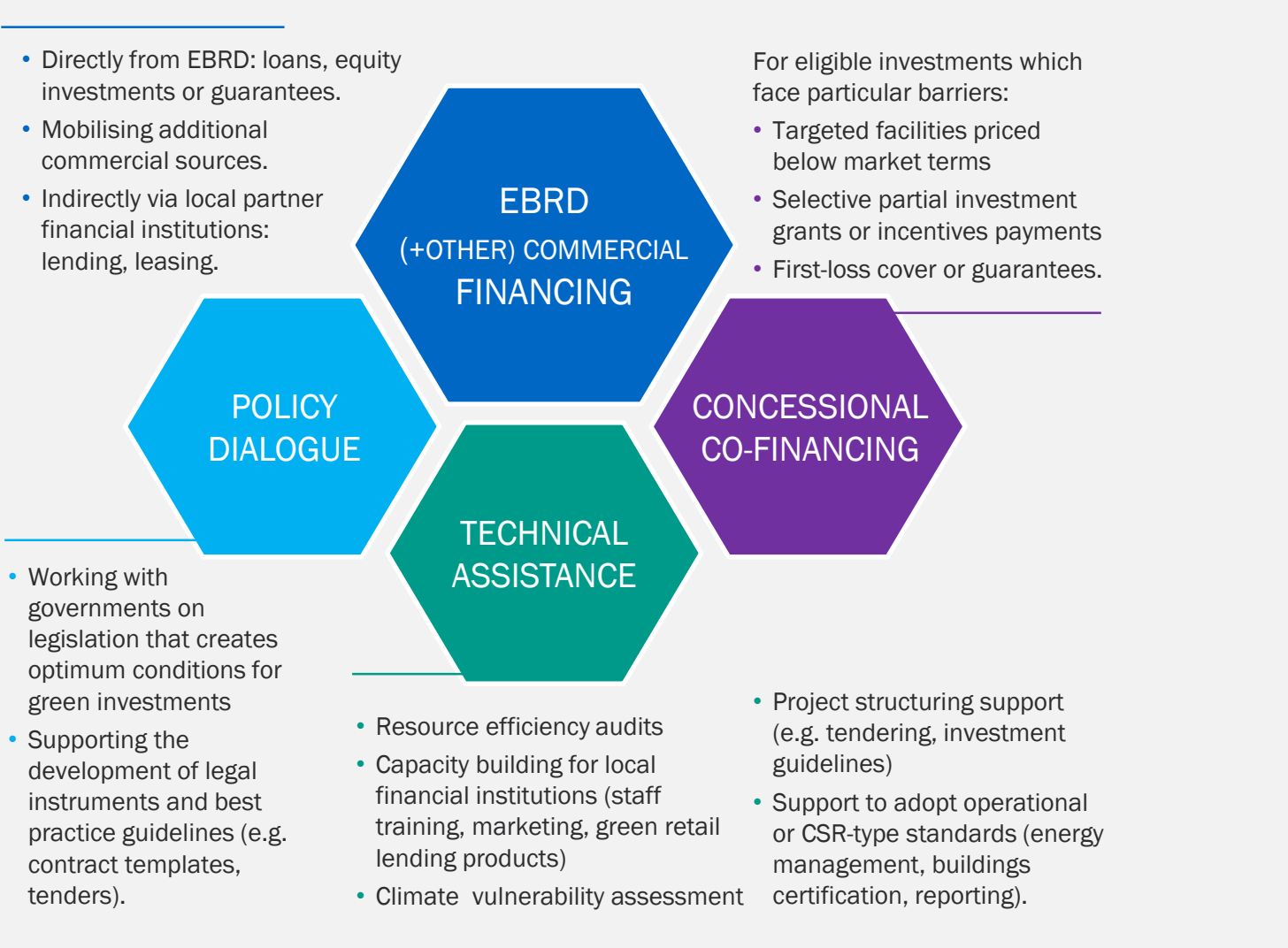
- €30 billion capital base
- €41 billion portfolio
- €9.2 billion average annual business in the past 3 years

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



Mainstreaming green financing

The EBRD business model



Mainstreaming green financing Results in 2006 – 2017



FINANCED

1,460

projects and credit lines

1,000+ directly financed projects with green components, and

250 credit lines to local financial institutions for on-lending to smaller projects

SIGNED

€26 billion

of green financing

For projects with a total value of €148 billion signed in 2006-2017

In 2017 green financing represented 43% of EBRD's total business, up from only 15% in 2006

REDUCED

90 million

tonnes of CO₂/year

Emission reductions more than annual energy emissions of Romania

+annual water savings of 200 million m³ since 2013 equal to more than a third of annual water use in London

Context: turning a threat into an opportunity

Threat: missing policy targets

- Vision to decarbonise building stock by 2050 as buildings consume 40% of energy.
- *EU: “To achieve the EU's 2030 targets agreed in Paris, including a 40% cut in greenhouse gas emissions, we have to fill an investment gap estimated at 180 billion EUR per year.”*
- EED requires 3% annual refurbishment rate for central government buildings.
- But: annual refurbishment rate of buildings in EU member states only 0.4%-1.2%, serious risk to miss policy targets

Opportunity: meeting policy targets, good value for money, off-balance for state

- Off-balance sheet financed energy efficiency refurbishments
- Flat or lower operational expenditure for public authorities
- Allows public authorities to use of available public funds for additional projects.
- Optimal investments and good value for money due to contractual incentives for ESCO
- Private sector expertise as delivery mechanism (design, implementation, performance, finance) and incentivising higher energy (cost) savings.
- Creates economic stimulus by private companies implementing the investments.
- Meet climate and refurbishment policy targets.

Different phases of EPC projects: View of ESCO regarding risks and finance

Pre-EPC contract, business development period - high risk - equity

- A competent private sector company (construction, engineering, utility etc.) uses its funds to create competence to implement EPC projects. This is based on there being an enabling legal framework and political support for EPC projects.
- Pre-tender: the ESCO does marketing, engages with municipalities
- Procurement: ESCO prepared bid and hopes to get selected

EPC contract signed, implementation period – medium/high risk – equity/bridge finance

- Implementation: an ESCO is contracted and implements the EPC project
- Implementation risk eliminated, performance verified: EPC project is accepted.

Performance period - very low risk - long term finance needed

- Performance period 5-15 years (in future possibly longer: this would allow longer payback periods, deeper investments and more energy savings)
- Risk reflects mainly sub-sovereign payment risk

Different phases of EPC projects: financially efficient finance

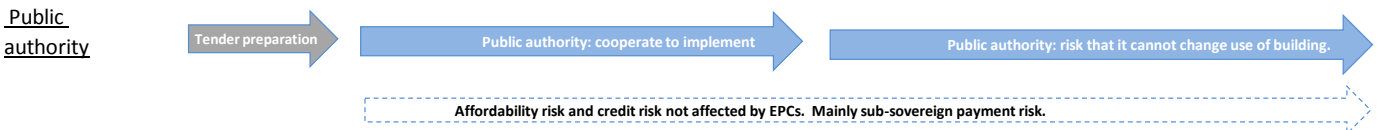
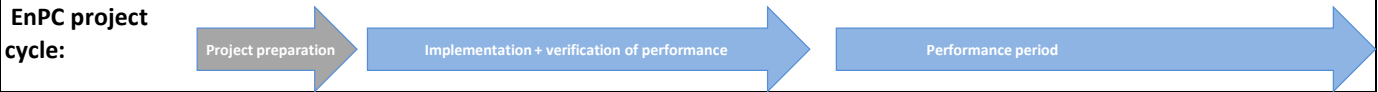
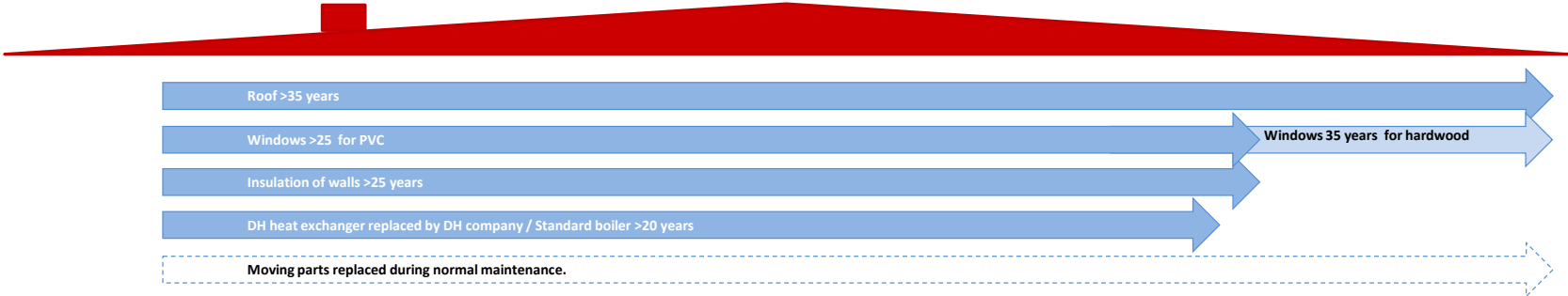
Pre-performance period = high risk

- Obtaining cheap long term debt for financing projects difficult
- Most likely to be financed with equity/expensive bridge finance or corporate debt

Performance period = very low risk

- Most risks are eliminated: Technical design risk, implementation risk
- Some risks are significantly reduced: performance risk
- “Financial restructuring” required to adjust the cost of funding to the lower risk
- ESCOs rely on cash conversion cycle being reasonably short in order to work on the next project. If not, ESCOs do not utilise fixed costs properly, do not grow and do not achieve required returns – either they sack employees or go bankrupt
- Selling receivables preferred approach (important that EPC contract is properly drafted to allocate risks appropriate and to allow efficient financing)

EPC project cycle



Finance

ESCO	Equity/working capital/corporate debt	Equity/working capital
Commercial bank	Corporate debt: ≤70% banks (recourse to ESCO)	Debt: 0% banks (repaid)
Forfaiting facility	Forfaiting facility: 0%	Forfaiting facility: sub-sovereign payment risk

Public authority has all risks and benefits.

ESCO Market Development REEP / REEP Plus

OBJECTIVE

Increase public sector low carbon investments by using private sector expertise and finance in ESCO/EPC projects. This is to be achieved by promoting an enabling legislative environment for ESCO business models in the Western Balkans and by providing technical support for project/tender preparation.

ACTIVITIES AND RESULTS (COMPLETED 1H/2018)

- Legislative support of EPC and ESC projects, including
 - Primary and secondary legislation,
 - Procurement, laws, taxation, budgeting.
- Providing model EPC and ESC contract templates for energy performance contracting and energy supply contracting,
- Standardising public procurement and contracting documents and processes to lower transaction costs,
- Energy Efficiency Project Preparation Support.

INVESTMENT OUTCOMES




- Total potential capex of >€98m in public sector low carbon investments arising from REEP policy and technical support.

ESCO MARKET DEVELOPMENT OUTCOMES

- Market in Serbia developing, 33 street lighting EPC projects [approved](#), biggest implemented project to date in [Krusevac](#). For the EPC project in Veliko Gradiste [see film](#).
- Market in Bosnia Herzegovina gradually developing,
- North Macedonia market initiated with 12 municipalities indicating interest in street lighting EPC projects.
- First discussions in Kosovo and Albania.



Project preparation

-  Tendered, contracted or implemented
-  Feasibility studies done
-  Tenders under preparation

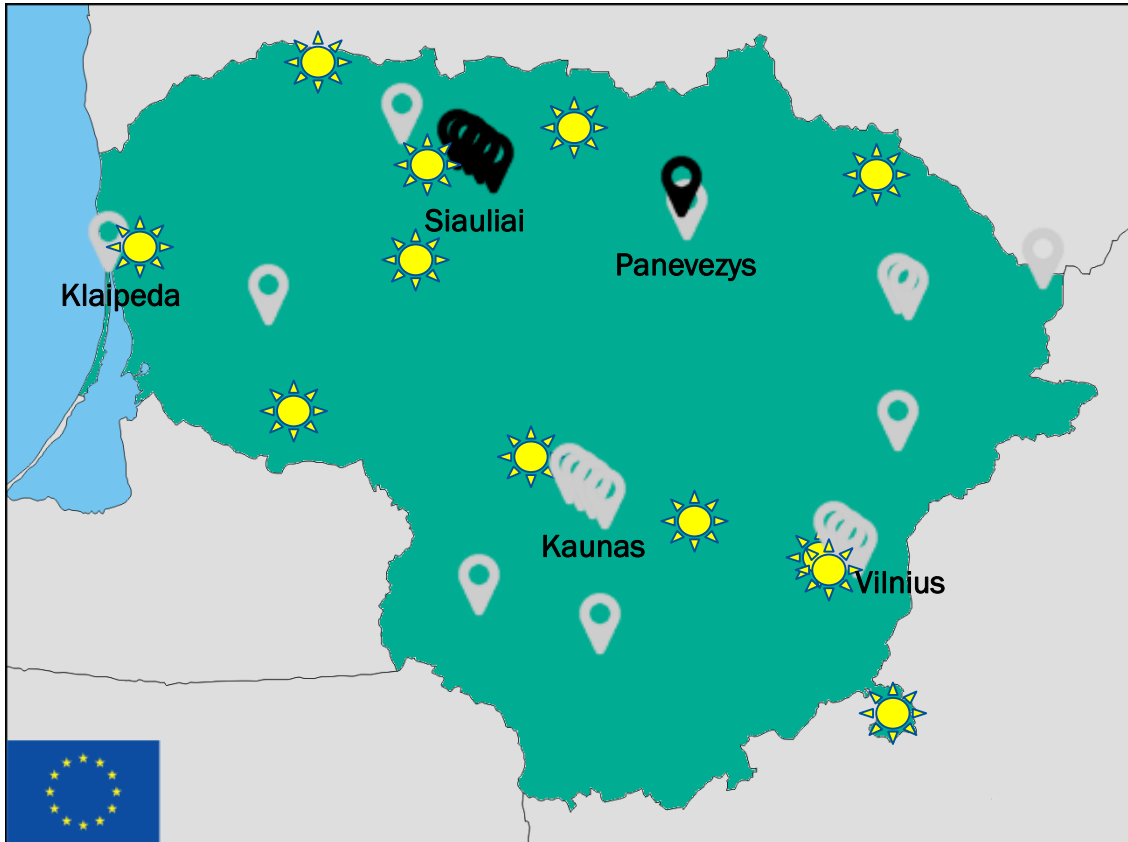
ESCO policy work

Legal analysis and ESC, EnPC contract templates prepared for all Western Balkan countries.

EBRD supported ESCO Projects in Lithuania



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Tenders published,
contracted or
implemented



ESCO tenders
under
preparation



Feasibility
studies
approved

Public buildings

- 12 EPC tenders published
- Estimated value of published tenders is equal to EUR 5.4 million
- 9 EPC tenders are under implementation
- 3 projects have their feasibility studies prepared and are to start EPC tender preparation

Street lighting

- 3 EPC tenders published
- 1 street lighting EPC tender in a stage of negotiations.
- Estimated maximum value is >EUR 15m

Verified during EBRD due diligence and monitoring in Latvia



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Before and after photographs of Latvian EPC projects

- There are 39,000 multi family buildings
- 95% of residential buildings built pre-1992
- 98% consume >200 kWh/sqm*year
- Reconstruction requires approx. EUR 40 billion versus refurbishments only EUR 9.5 billion, making refurbishments by means of EPC projects an attractive opportunity

- Performance based retrofits in 15 buildings with 359 apartments implemented
- No defaults since implementation in 2009.
- Buildings will last >30 years.
- No increased cost for residents means no increase of affordability risk.
- 54% en

**Since signing: >56%
metered heat savings**

State as enabler: financing instruments and other support

Facilitate more EPC projects, longer term EPC contracts and to reduce transaction costs: longer paybacks allow higher specific investments, which allows more savings (CO2 emission reductions) and extending the buildings life.

Lowering transaction costs

- Single contract per country (due diligence, aggregating small projects, big market)
- Contract to enable sale of receivable and to be bankable and generally accepted
- Long term policy support, stability, clarity.
- Political risk (not debt service but limited recourse finance)
- Lean approval and preparation process (walk through audit etc.)
- Technical support for preparing EPC tenders and develop capacity
- Ideally vertically integrated finance with terms and conditions known up front
- Do not distort market with short term grant programmes or favouring other projects.

Financing instruments

- Inject grant in EPC tender, alongside ESCO finance – short term solution
- Facilitate guarantees for forfeiting facilities – to develop long term finance

Thank you!



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Check list of enabling policy elements



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1. Are ESCO projects permissible?
2. Has the legislature endorsed contract and procurement templates and guidelines?
3. Are ESCO contracts in line with Eurostat guidance note and truly off-balance sheet?
4. Are multiannual budgeting and retaining savings permissible to pay ESCOs?
5. Can receivables be assigned?
6. Have barriers to initiating ESCO projects been removed e.g. feasibility studies, value for money studies, investment grade audits?
7. Have other barriers being eliminated, e.g. excessive approvals, tender preparation, monitoring, licenses etc.?
8. Is functional tendering and lifecycle costing permissible in procurement?
9. Can contractors be consortia or single companies who subcontract others?
10. Is it permissible to blend different kind of funding in an ESCO project, e.g. grants, budget funds and commercial ESCO finance?
11. Can energy efficiency measures be integrated with structural works?
12. Can municipalities and other public building owners initiate energy efficiency projects autonomously?
13. Regarding the contract, are common commercial contractual elements defined and balanced, e.g. early termination, related services, responsibilities, timeline, payment terms, non-performance, notice to be served etc.?

Context: underlying assumptions

- EPC projects focus on public sector, buildings and street lighting
- Legislatures intention to achieve as much energy savings and extend the building life as far as possible with limited public funds (2050 decarbonised building stock)
- Public sector faces a finance gap (EU identifies EUR 180 billion per year). Private sector finance only alternative.
- Off-balance sheet EPC contract for public authority (ESA2010)
- Off-balance sheet for ESCO (IFRS), true sale of receivables to financiers
- ESCO remains responsible for technical and energy performance
- Scalable financing structure
- Intention to achieve good value for money for public authorities
- Public authorities are supportive (legislature, central government, local government)