

Closing the circle: funding schemes for energy efficiency investments in 2014-2020

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JASPERS Networking Platform Seminar

Brussels, 09 April, 2014

The case for energy efficiency

- 40% of final energy consumption buildings
 - Large economically viable potential
 - Main issues:
 - Small project size
 - Access to suitable finance
- Further potential in SME's

- Directive on the energy performance of buildings
 - Cost optimum refurbishment levels
 - Near-Zero Energy Buildings
- Energy Efficiency Directive
 - Article 4 of the EED requires MSs to define long-term strategies for stimulating renovations in their building sector
 - Article 5: Member States to refurbish 3% of the total floor area of central government buildings
 - Art: 18: Promotion of Energy Services
 - Art 20: Dedicated financing facilities (e.g. National Energy Efficiency Funds)

- New eligibility and screening criteria approved by the Board of Governors in July 2013
- EIB reinforces its support for energy efficiency
- Key part of low carbon transition - affordable energy, local jobs
- Substantial need but significant underinvestment
- Criteria to address barriers:
 - Simplified screening criteria
 - Streamlined co-financing of national programmes
 - Increased support for near-zero energy buildings
 - Streamlined financing for industry and SMEs
 - Support rollout of emerging technologies
 - Enhancing existing (e.g. Elena) and developing new technical assistance and financial instruments for the sector

- Eligible energy efficiency projects should be justified on the basis of an economic cost-benefit-analysis, for which in general the net present value of the energy saved including externalities, is greater than the net present cost of the project over its life.
- Where it is difficult to separate out the investments directly related to energy savings, it is necessary to demonstrate that energy efficiency is a significant element of the project. In these cases the energy savings, including environmental externalities, should at least cover 50% of the project cost in an economic analysis.

- New systems and the rehabilitation or extension of existing systems are eligible, provided the heat is produced mainly from high-efficient cogeneration, residual waste heat or renewable energy. Long-term heat supply costs including all necessary rehabilitation must be economically competitive with heat produced by individual boilers in buildings.

Major renovation of existing buildings

(i.e. covering more than 25% of the building envelope or where the investment is higher than 25% of the building value excluding land value)

- Investments are only eligible within the framework of a public support program which is acceptable to the EIB
- Investments shall aim to achieve the life-cycle cost-optimum refurbishment level

Building renovation not falling under the definition of major renovation:

- Investments are only eligible within the framework of a public support program which is acceptable to the EIB
- For measures at the building envelope, application of minimum requirements (U-values) identified in the public support programme
- Energy related building technologies (i.e. HVAC, control and regulation systems, lighting) must demonstrate economic profitability.

Projects are limited to the improvement of existing facilities.

- All investments must be identified by an energy audit according to the minimum requirements established by EN 16247:1
- The rehabilitation of the facility shall not significantly increase the production capacity.
- Energy efficiency investments in enterprises which are not SMEs are only eligible if the enterprise is establishing an energy management system according to ISO 50001.

EIB project example – Thermal rehabilitation of residential apartments in Romania

Project: BUCHAREST S6 THERMAL REHABILITATION - Romania



- The objective of the project is to renovate 270 buildings (23000 apartments) from 2010 until 2012.
- The project is expected to reduce the energy consumption of the buildings by around 50%.
- The project supports national and European objectives related to improving energy efficiency and climate change and security of energy supply objectives.

Similar projects have been signed for a total investment of EUR 423 million in 63 800 apartments in the City of Bucharest.

European Local ENergy Assistance -- ELENA

- EC-EIB cooperation to support local and regional authorities to reach 20-20-20 targets;
- Grant facility: managed by EIB; funded by EU budget (CIP/IEE programme).
- Application to Energy Efficiency; local renewables; clean transport.
- Market replication focus;
- Minimum investment leverage required
- Budget 2009 – 2013: 93 Mio € (allocations can be made until end 2015)
- Envisaged budget 2014/15: 30 Mio €
(under the HORIZON 2020 programme)

EIB project example – Energy Efficiency in the Province of Milano



Finance provided by local Banks, supported by EIB loan (EUR 65 million).
Technical Assistance provided by the EIB-ELENA facility

Problem

Large EE potential in public buildings but budget constrained municipalities with a lack of technical capacity to develop a flow of projects.

Solution

adopt energy performance contracting

- aggregate projects
- coordinate at Province level;
- standardise contracts

Programme:

Refurbishment of existing school buildings in some 30 to 40 municipalities.

Implementation by ESCOs who pay the investments costs and guarantee energy savings (around 20%); serve debt through energy savings.

EE Walloon Social Housing

- EE refurbishment and upgrade of 12,000 - 14,000 flats in social housing in Wallonia BE, including also RE if requested
- Total investment: EUR 400m (EIB co-financing: EUR 200m)
- Partner: regional social housing company supporting local social housing companies
- EE refurbishment level: low energy consumption (or minimum R values)



- Refurbishment and new construction of houses and flats
 - Supported by federal and regional housing support programmes
 - In line with Near-Zero-Energy-Building standards (new buildings)
- Total framework loan amount EUR 150m financed by EIB:
 - Refurbishment: up to 75% EIB co-financing
 - New construction: up to 50% EIB co-financing with max cost cap
- Already several commercial partner banks identified

Project Example 15 schools in one part of Prague



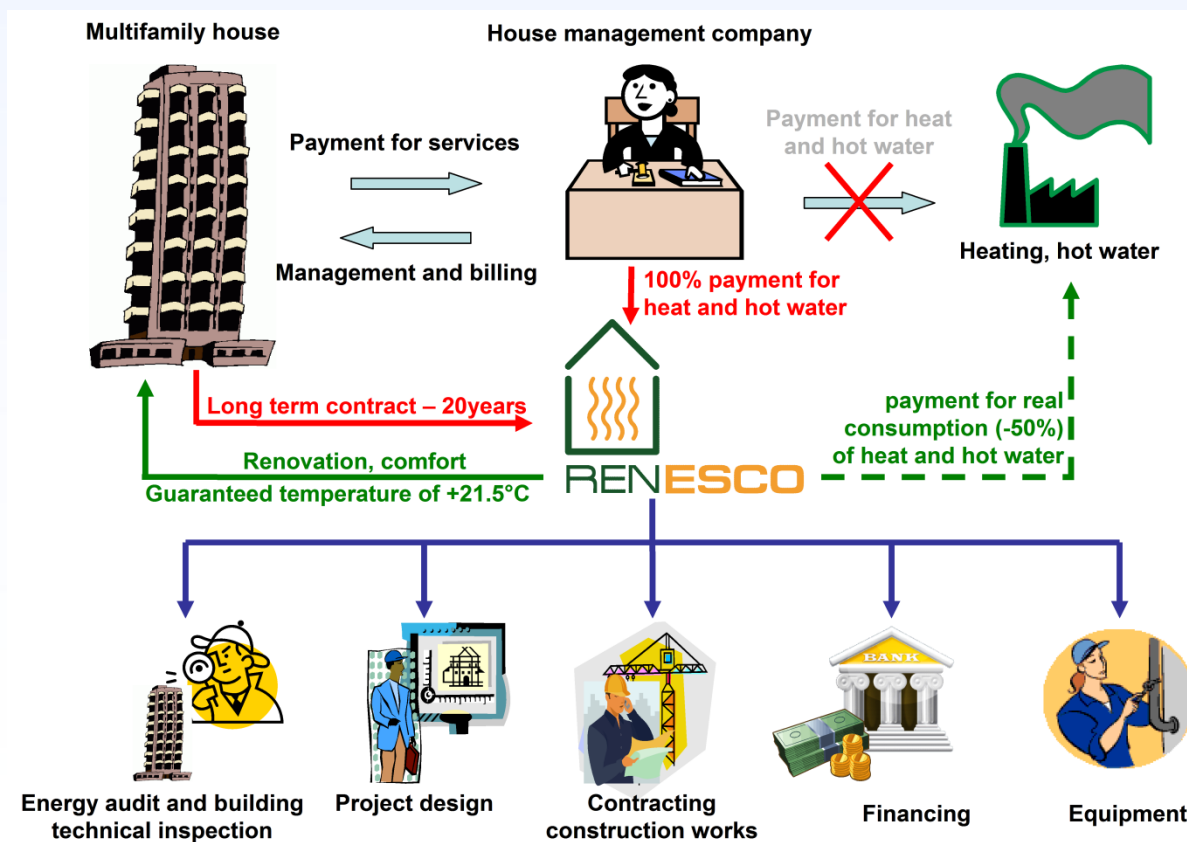
- reconstruction of technology equipment by EPC
investment 1,6 – 2,4 MIO EUR
(financing from future energy saving operational costs)

- insulation of building + exchange of windows
investment 10 MIO EUR (co-financing by subsidy from OPE)

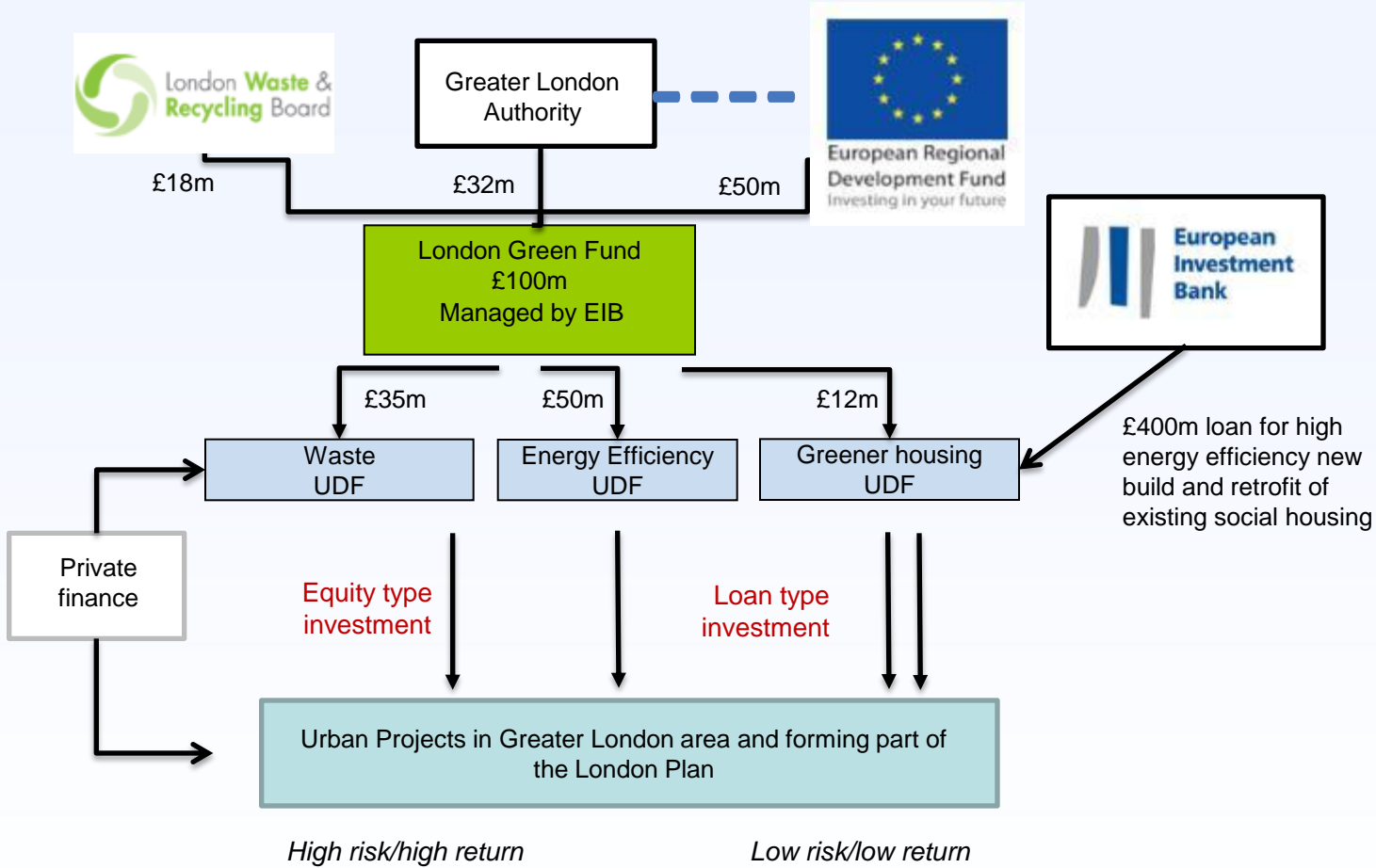
co-financing by owner of the schools only up to 28 %

Project Examples

- ESCO Refurbishment of Residential Buildings



The London Green Fund



Aiming to deliver outputs/impacts of job creation, carbon reduction, and energy usage savings

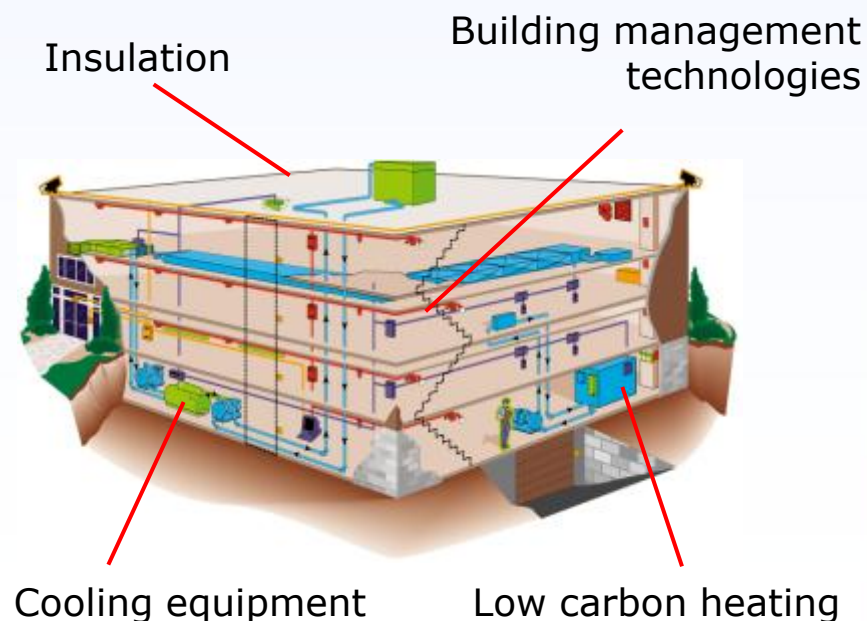
- A GBP 100m UDF, with co-financing from Royal Bank of Scotland, blended with London Green Fund monies to provide cheap loan financing for retrofit and low carbon heating projects in local authority, university, hospital, social housing and other public buildings.

Low cost financing in exchange for carbon reduction benefits

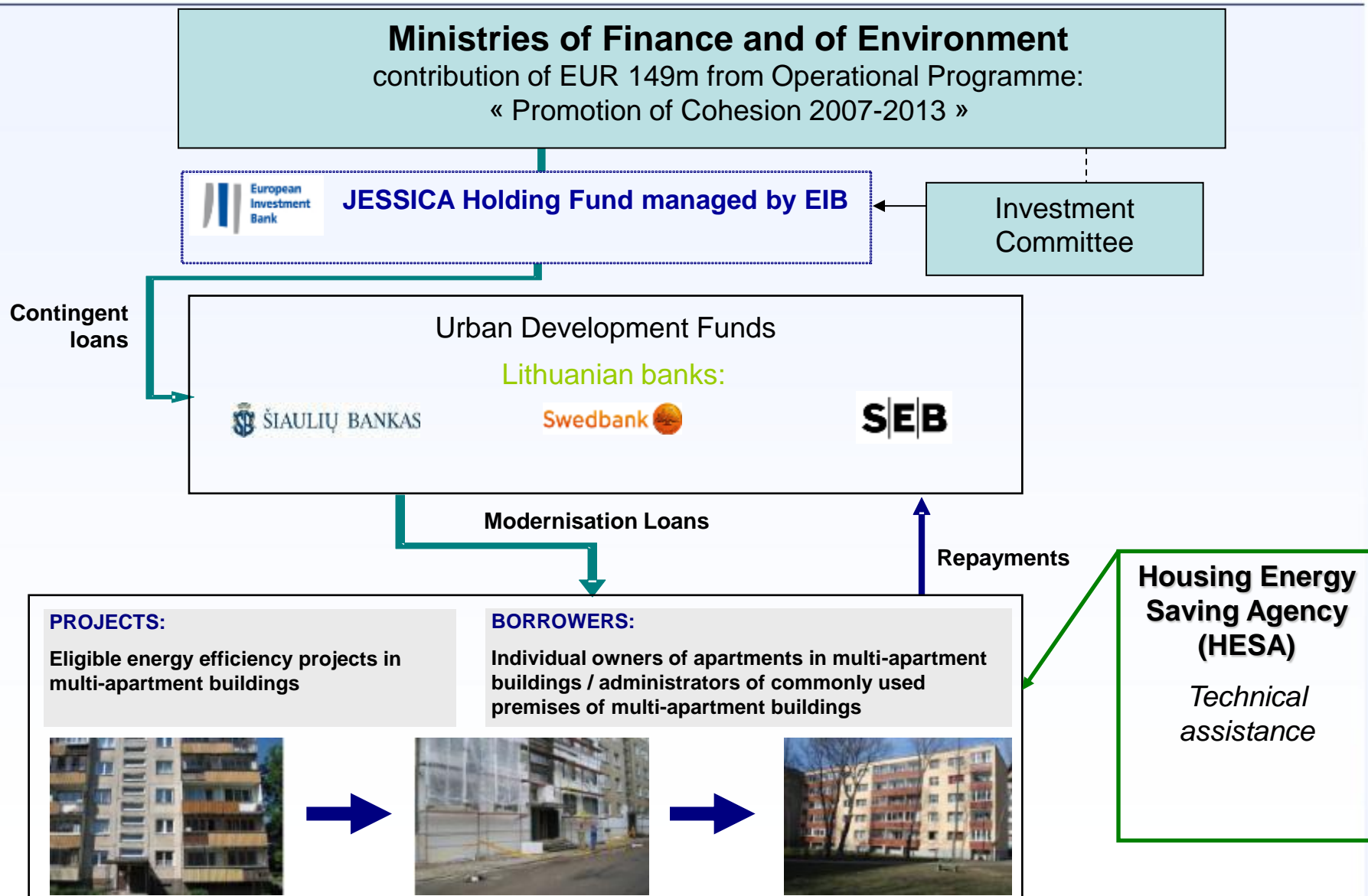
- As a provider of cheap debt, return expectations for the fund are low, but the private sector finance provider still makes a commercial return, and the fund manager has a significant component of fees linked to maximising carbon reduction and energy efficiency impacts

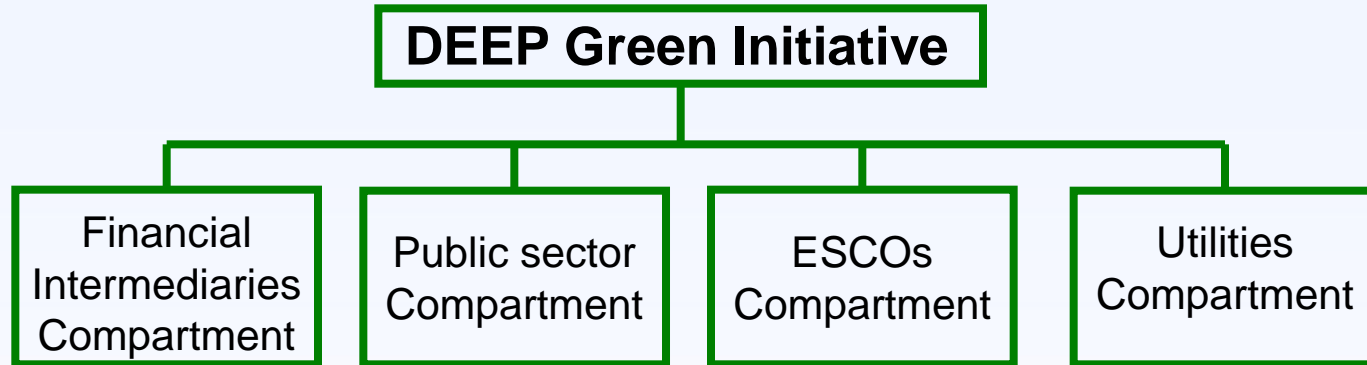
Leveraging other EIB/EC products

- The EIB managed ELENA facility is providing technical assistance for project preparation

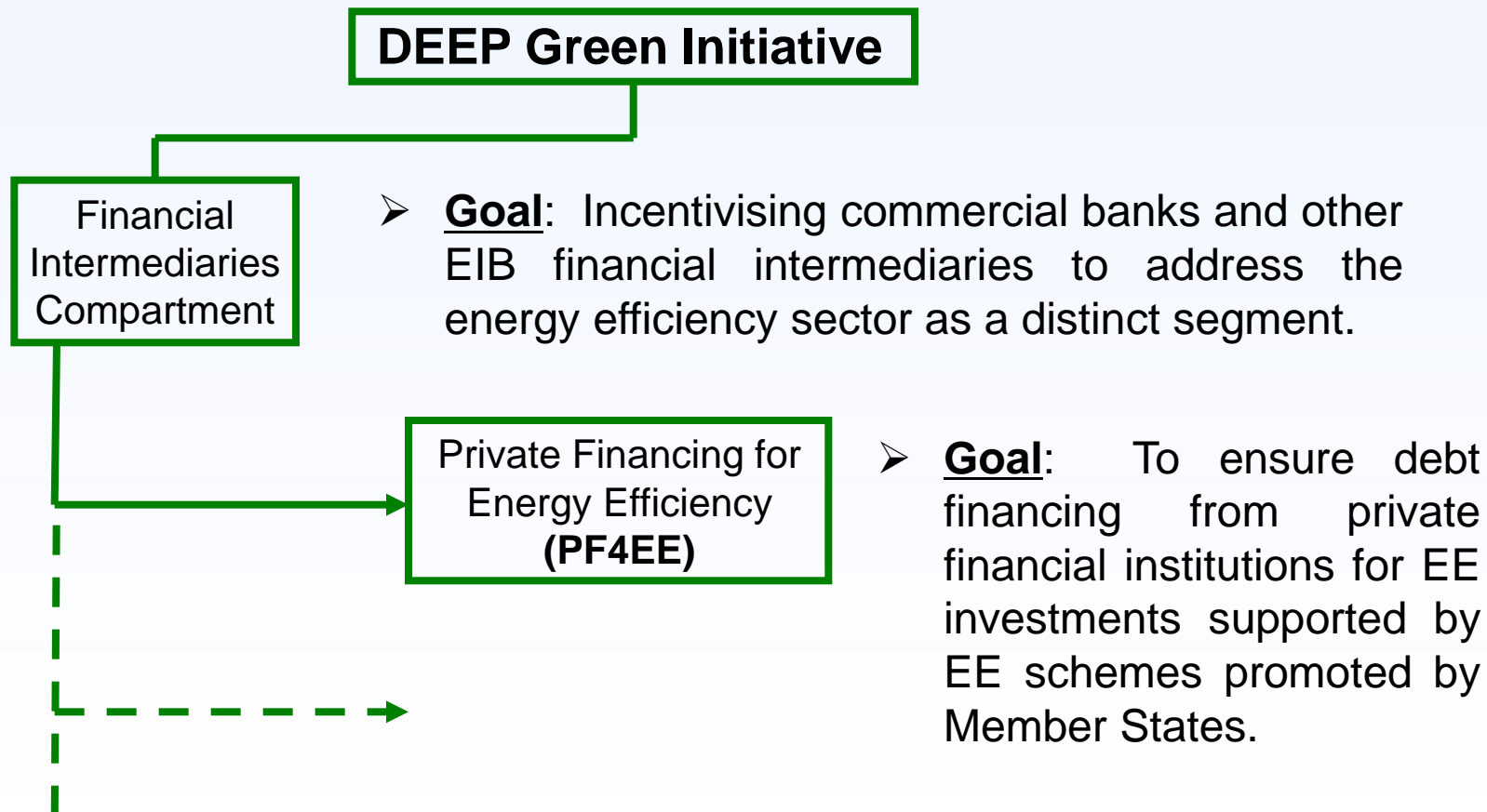


JESSICA scheme in Lithuania: renovation of multi-apartment blocks under 1st Call

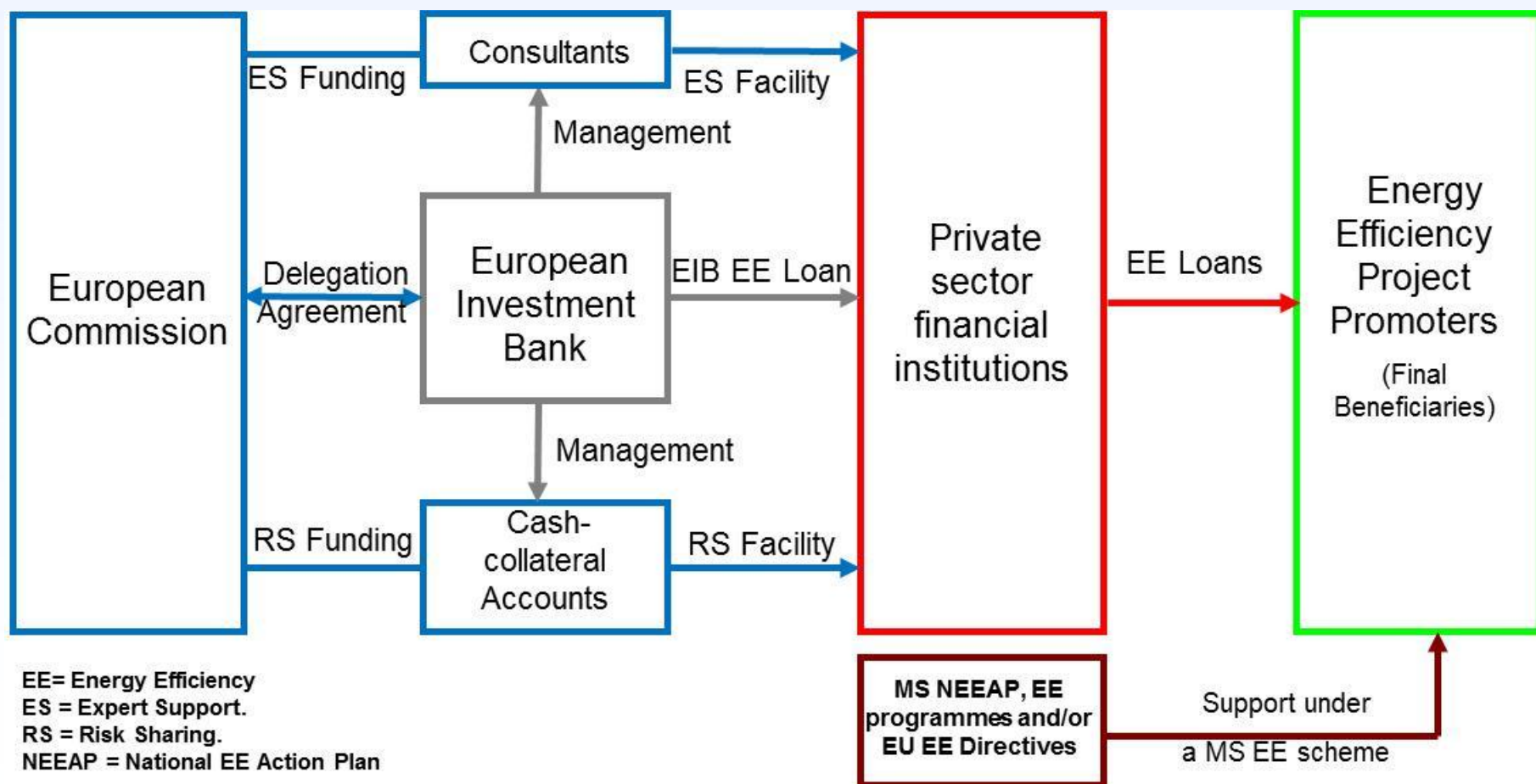




- **D**ebt for **E**nergy **E**fficiency **P**rojects Platform aims at developing a suite of new financial products for four groups of EIB customers.
- These new products shall increase both EIB and commercial banks lending to the EE projects.
- New products under DEEP Green will target aggregation and de-risking of EE projects to allow for debt financing.



PF4EE: Instrument chart.



Conclusions

- Large potential for energy efficiency exists
- Bundling of small projects in national or regional programmes
- Use of structural and cohesion funds to support economically viable projects
- EIB co-financing is possible if eligibility criteria are met
- Use of ESCOs can bring additional private funding to the projects
- Technical assistance should be used to overcome non-financial barriers



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