



The BEEF Model Scaling Massively Multifamily Renovations



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Director

Who are we?

Why focus on buildings?

What is a possible model?

Its evolution over 10 years

EPC+

EES



FUNDING FOR FUTURE B.V. (F3)



- F3: Fund Manager
- **finances building renovation services** and supports EU member countries in their Renovation strategies:
 - **pioneered first private finance investment vehicle “LABEEF”**
 - co-financed -**EBRD**- 6 Buildings – 20 year contracts
 - Poland –**NFOS priority program EPC+**
 - France, Italy, Germany, Portugal: **EES**

***Buildings –
Energy Drain & Health Hazard
And
Shortage of homes***

EU buildings: climate and societal challenge

- 40% of all energy consumption
- 36% of CO2 emissions across the EU
- Citizens live in degrading, unsafe and unhealthy buildings
- Buildings cost the EU economy approximately
€194 billion annually
- Missing investment in housing:
€57 billion annually



The solution is not only how to save energy!

It is, how to save Europe's housing stock!

Energy Efficiency First is the answer.



HEALTH HAZARD & ENERGY DRAIN



- Buildings in poor condition are health hazard for inhabitants and users
- Poor living and working conditions create financial burden to society
- Buildings consume 40% of energy
- Nearly 70% of buildings are build before 1990s,



***Complete renovation of buildings
financed by energy savings provides***

**Safety. Health. And Comfort™
Guaranteed Savings**



LABEEF

EPC+/EES

PERFORMANCE CONTRACT:

“Complete”

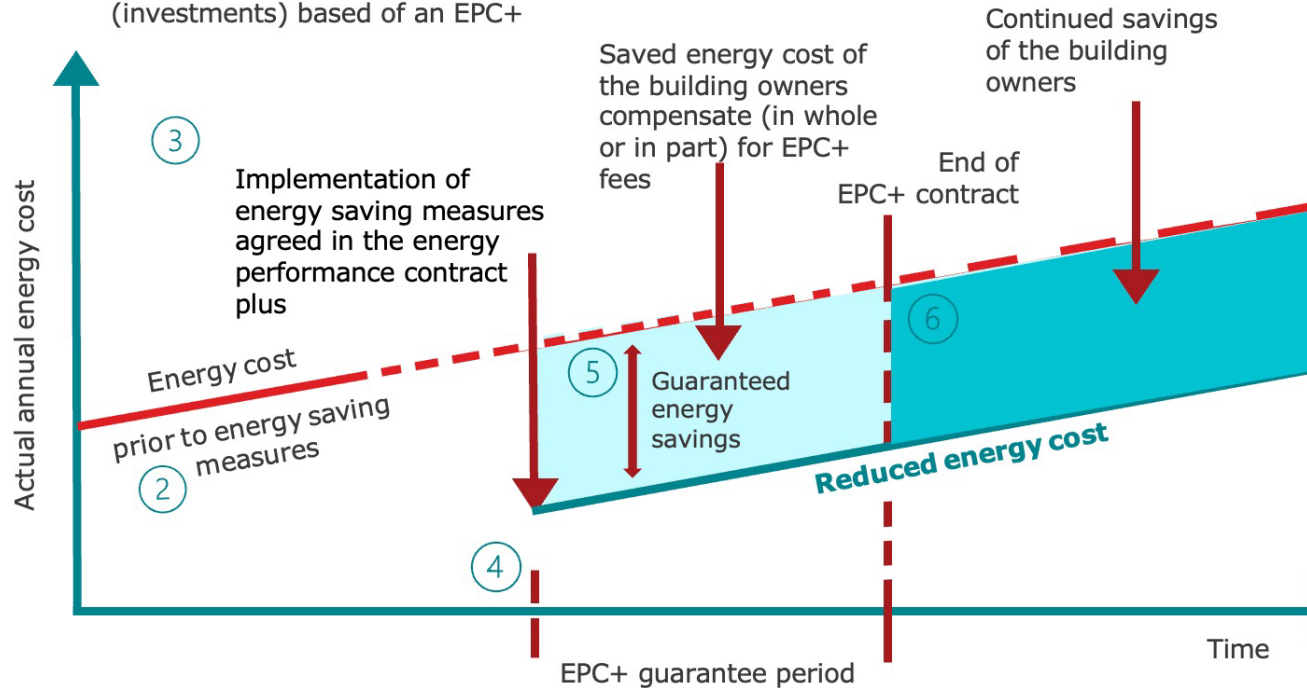
Retrofit Subscription

Delivered through a digital platform

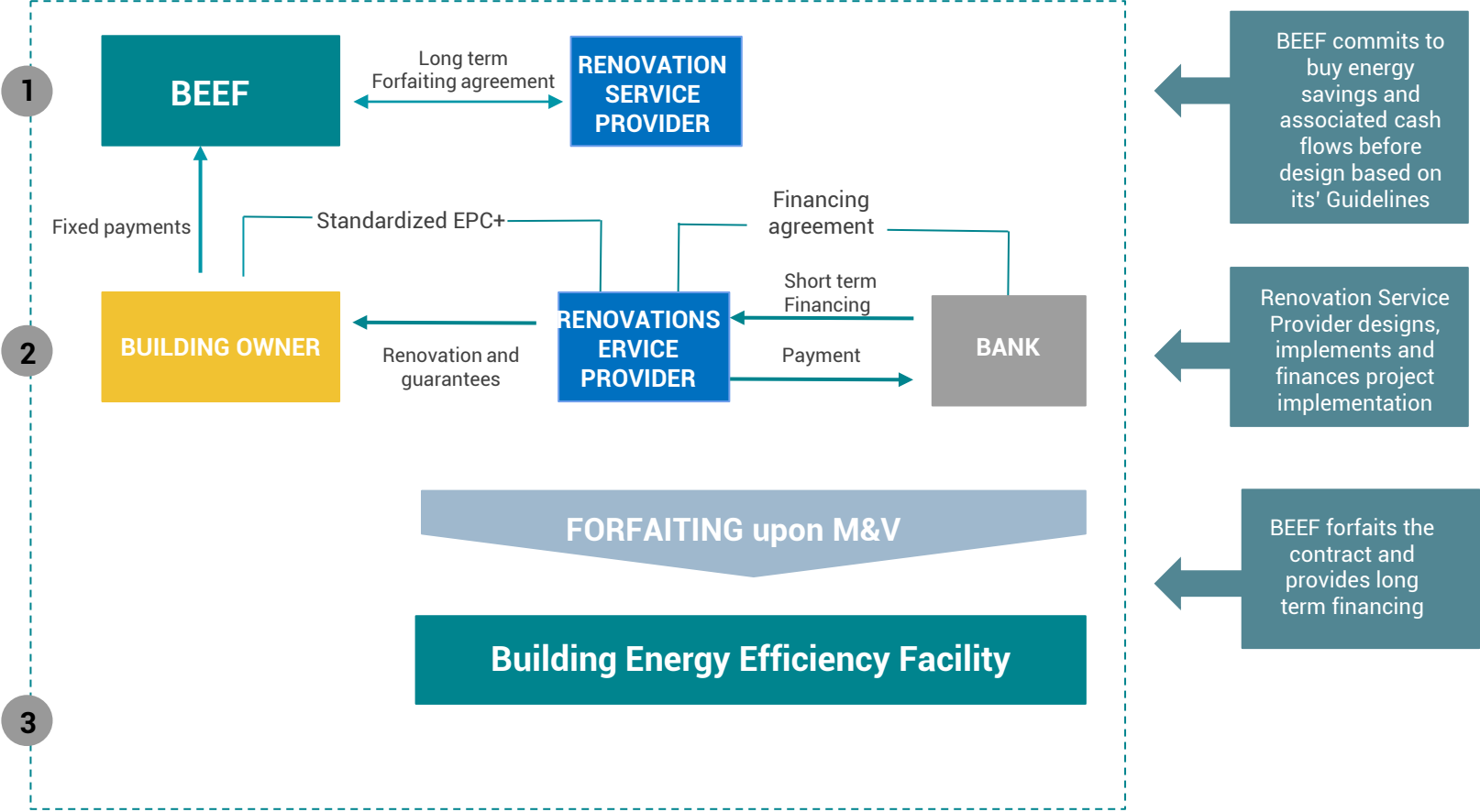
ENERGY PERFORMANCE CONTRACT Plus (EPC+)

① THE CONCEPT OF EPC+ FOR BUILDINGS

Service provider prepares standardized service-package, including technical improvements and safety measures (investments) based of an EPC+



BEEF OPERATIONS SCHEME

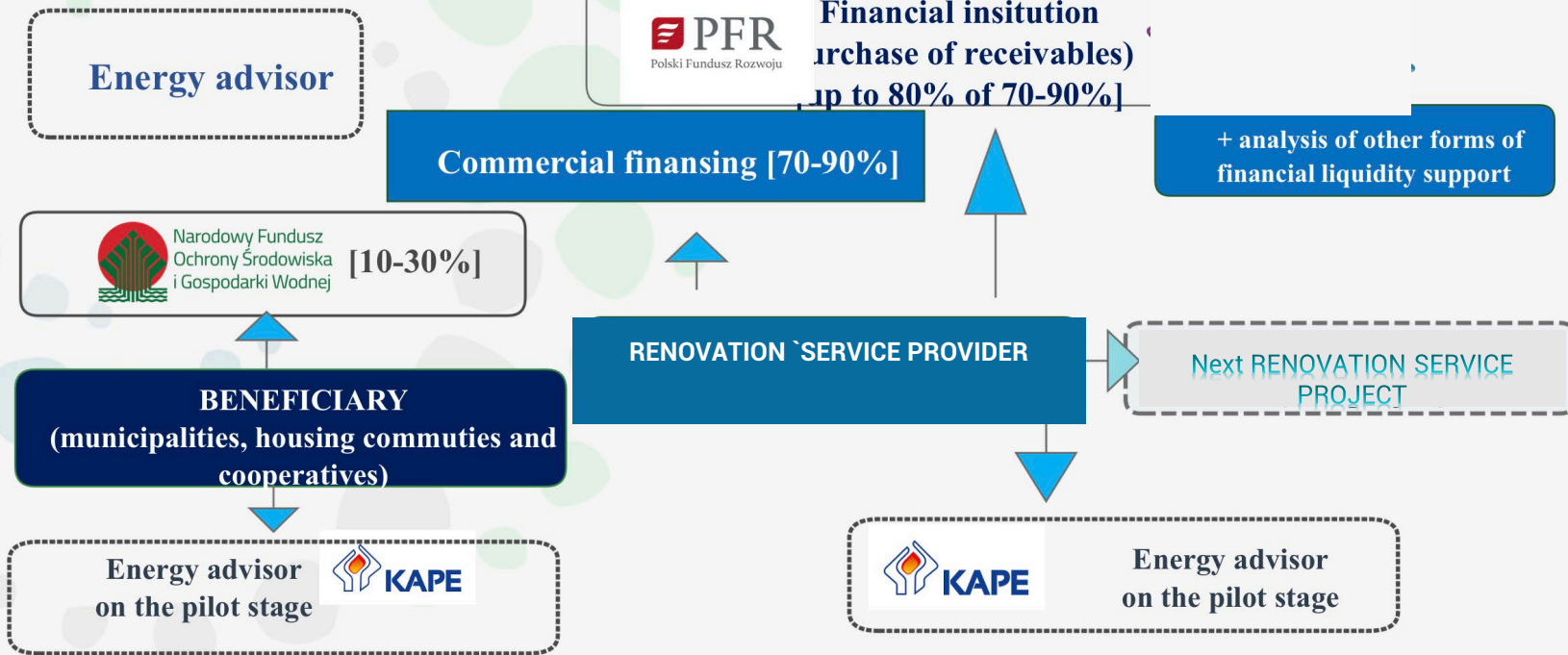


BEEF commits to buy energy savings and associated cash flows before design based on its' Guidelines

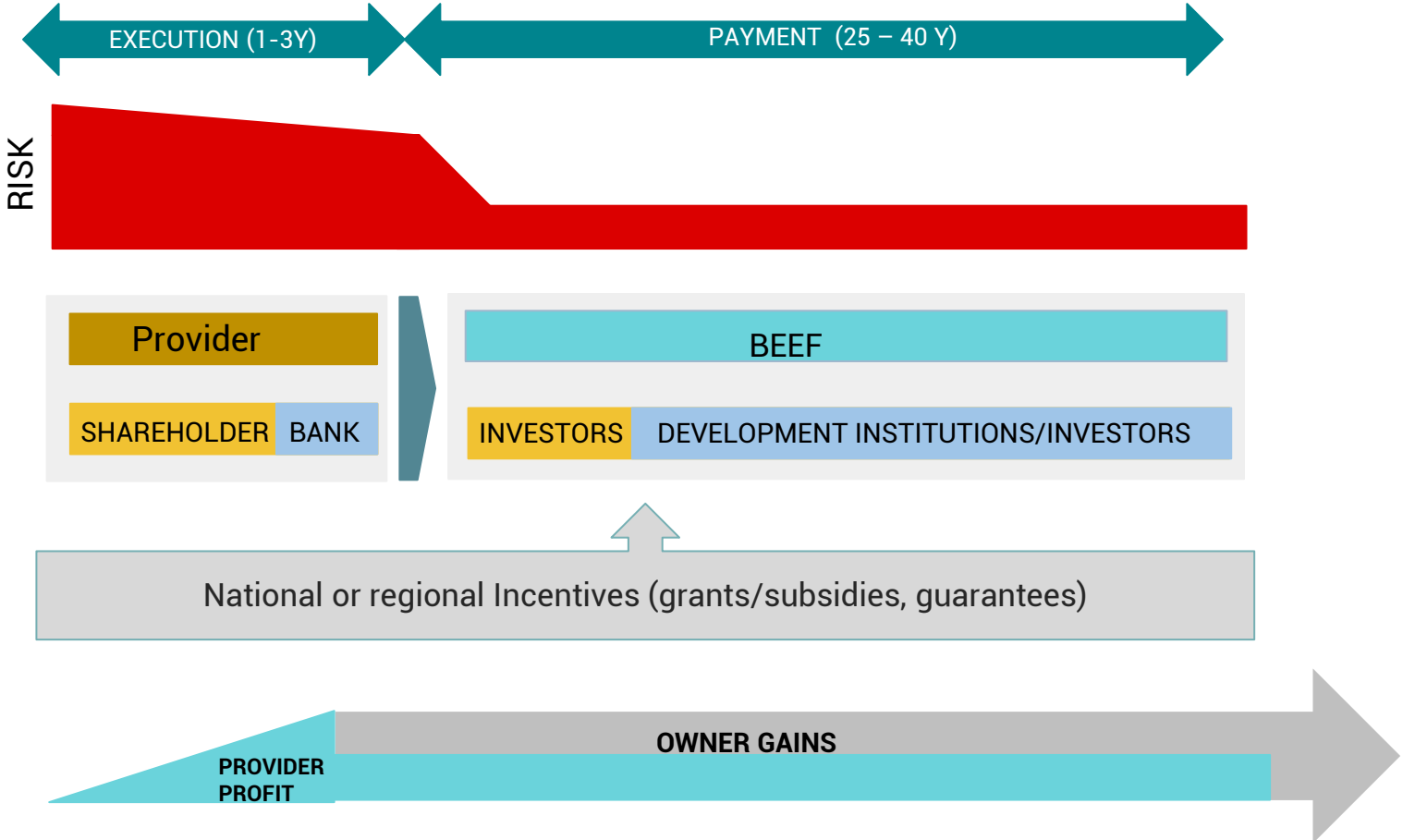
Renovation Service Provider designs, implements and finances project implementation

BEEF forfeits the contract and provides long term financing

Holistic system supporting investments in ESCO model



RISK MITIGANTS



EPC+ delivers HEALTH & ENERGY



- The investment **risks are transferred from the building owner to the renovation service provider.**
- **No up-front payment** required from the building owner.
- **On-Bill** payment for services received
- Renovation service provider **guarantees EE & safety/comfort improvements** which serve as basis for their payments.
- The productivity and **value of buildings are increased** through professional services.

BEEF EPC PLUS (+) - contract

- ✓ **Guarantees** energy savings and the way they are measured and verified
- ✓ **Standardized terms** of the contract
- ✓ **Client** (apartment owners) and **Contractor** (Renovation Service provider) **clear rights and obligations**
 - ✓ During the construction period
 - ✓ Operation / maintenance / responsibilities during the contract terms
- ✓ How to solve disputes, changes in conditions, unexpected problems

“SAFETY, HEALTH & COMFORT” The GUARANTEES

INDOOR AND HOT
WATER TEMPERATURE

guarantees

Minimum indoor air temperature
Minimum hot water supply (> 55 C)

INDOOR AIR QUALITY

Guarantees

number of air exchanges. = good ventilation of
the building

SERVICE QUALITY

guarantees that the installed equipment and the
used materials for the full length of the contract
= 20-40 years

Sustainable BENEFITS FOR RESIDENTS

- ✓ Conservation of their apartment
- ✓ More comfortable and nicer looking house to live in (currently many apartments are severely under-heated).
- ✓ Flat owners receive 25% profit share of Renovation Service Provider's net result
- ✓ 25+ year guarantee on all construction works and therefore less worries and cost for maintenance during the contract period
- ✓ The sales value of their apartment increases by at least 20% right after renovation
- ✓ After 25+ years apartment owners get all the benefits from energy savings (expected 50-80%)



THANK YOU

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ENERGY SERVICES COMPANY



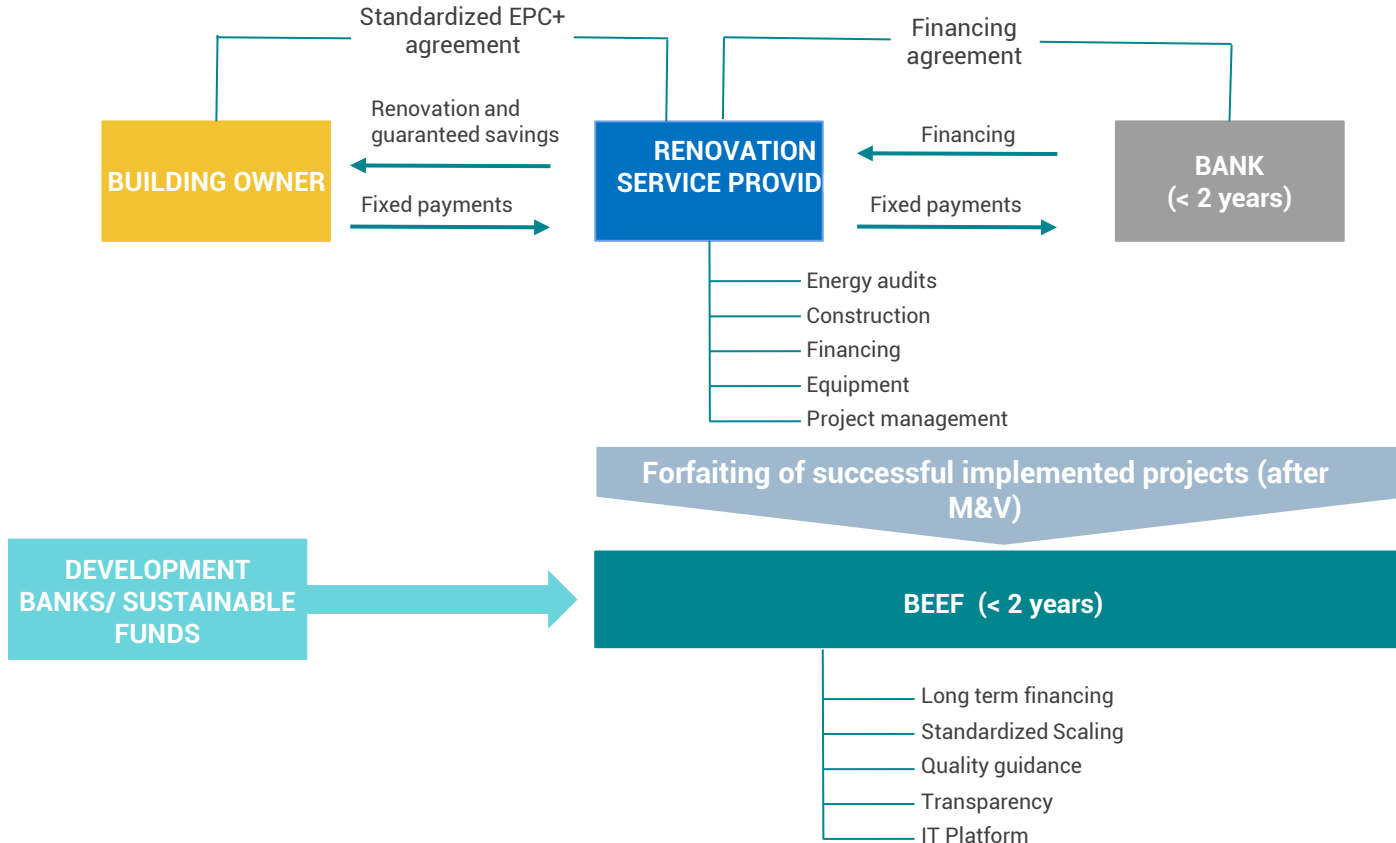
- **What is an Renovation Service provider?**

Energy Service Company is "as a natural or legal person that delivers **energy building services and/or other energy efficiency improvement measures** in a user's facility or premises, and accepts some degree of financial risk in so doing. Payment of provided services (in total or partially) is based on **reached energy efficiency improvements and fulfilment of other criteria** agreed upon regarding these targets" - *Directive EU 2006/32*.

EE Service provider/renovation service provider can provide the whole range of necessary energy services – from planning, management, implementation, and monitoring of energy management services to technical improvements. The company shoulders the associated **economic, technical, and administrative risks** in carrying out the EE improvements.

- Company arranges the financing and takes on performance risk: if no energy is saved, company does not profit.
- The company stays involved in the measurement and verification process for the energy savings in the repayment period.
- There is little upfront cost for the owner. The renovation service provider will assess the efficiency opportunity, purchase equipment necessary to improve performance, and install the equipment.
- The company provides energy reports and energy savings records.

BUILDING ENERGY EFFICIENCY FACILITY ("BEEF")



SCOPE AND SERVICES OF EPC+

