

**Interreg**

CENTRAL EUROPE



European Union  
European Regional  
Development Fund

**PROSPECT2030**

TAKING  
**COOPERATION**  
FORWARD



REPLICATION WORKSHOP

15th of April 2021



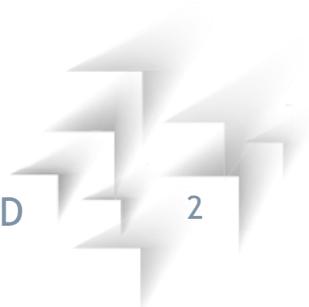
**Energy Performance Contracting for public  
buildings in Piemonte**



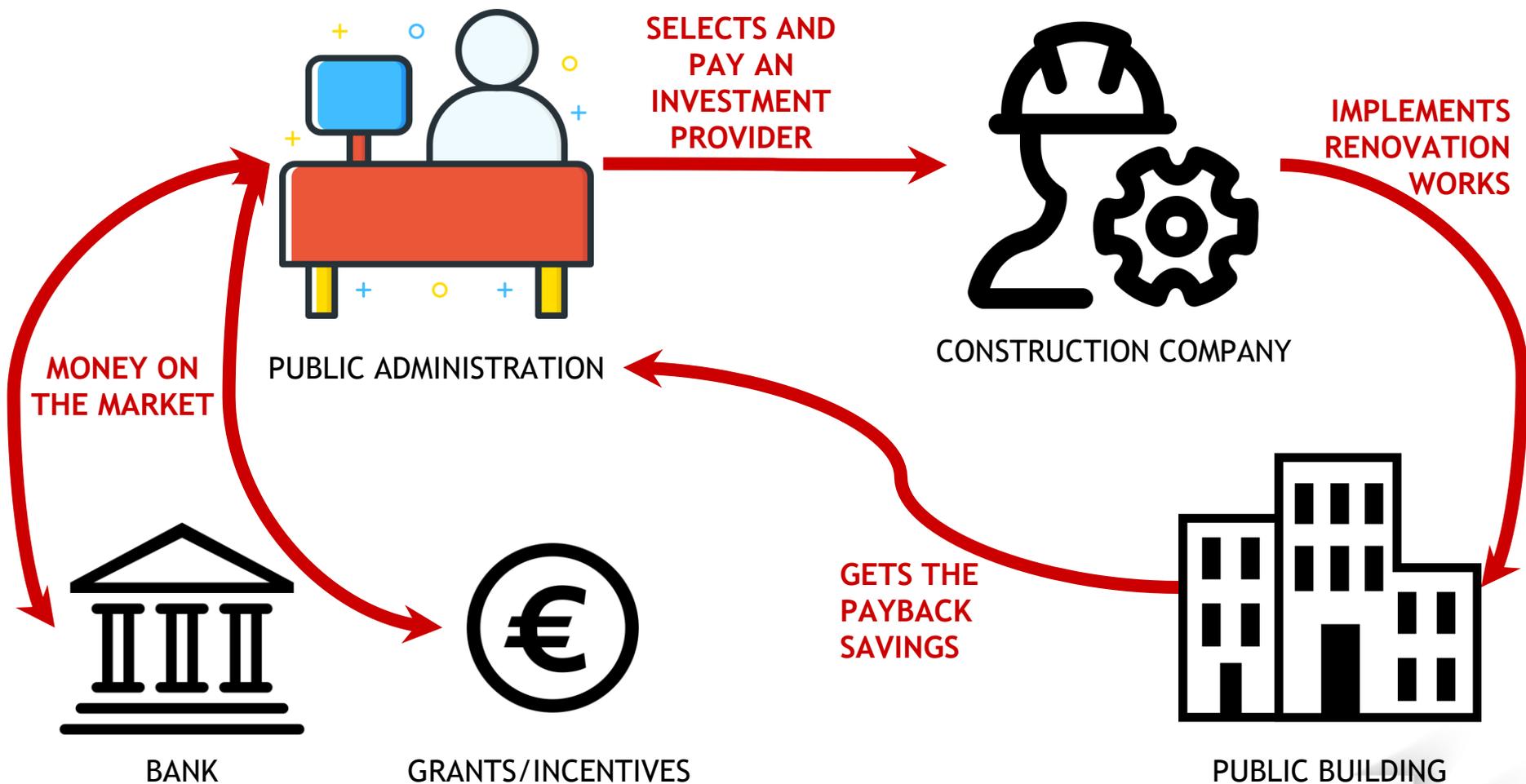
PROSPECT2030

**REQUIRED  
FINANCIAL  
ENGINEERING  
INNOVATION**

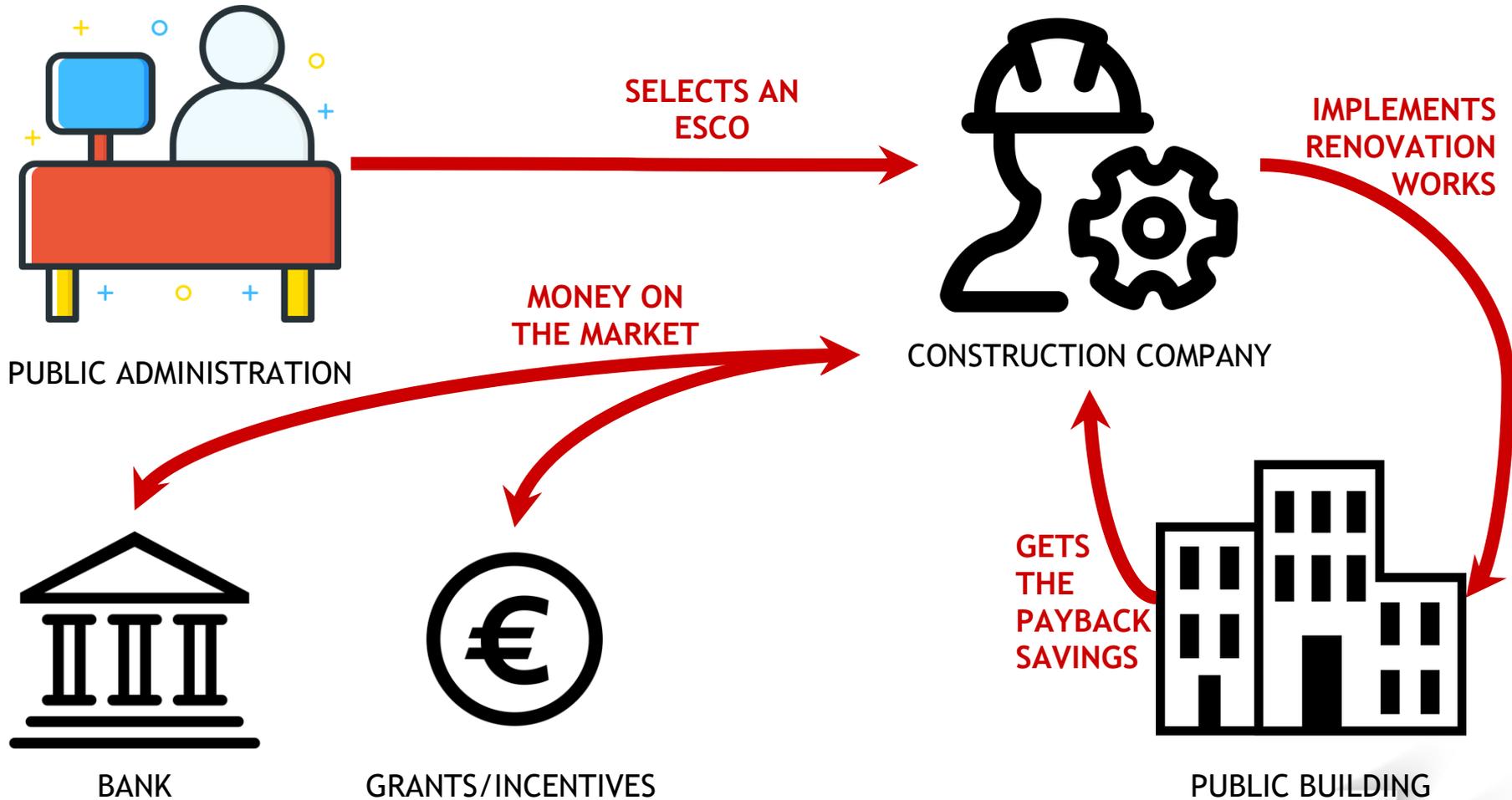
**REQUIRED  
ADMINISTRATIVE  
INNOVATION**



# STANDARD PROCEDURE



# EPC PROCEDURE



## Energy Performance Contracting

Energy performance contracting (EPC) is a mechanism for organising the energy efficiency financing. The EPC involves an Energy Service Company (ESCO) which provides various services, such as finances and guaranteed energy savings. The remuneration of the ESCO depends on the achievement of the guaranteed savings. The ESCO stays involved in the measurement and verification process for the energy savings in the repayment period.



## OPERATION RISK ALLOCATION IN THE EPC

The legal nature of the EPC in a PPP context, imposes that the ESCO must take on specific risks:

**TECHNICAL RISKS:** risks regarding the planning and design of the technical solutions phase, risks regarding the technical efficiency of the measures and services performed;

**FINANCIAL INVESTMENT RISK:** increase in the cost of loans and money over the contract duration

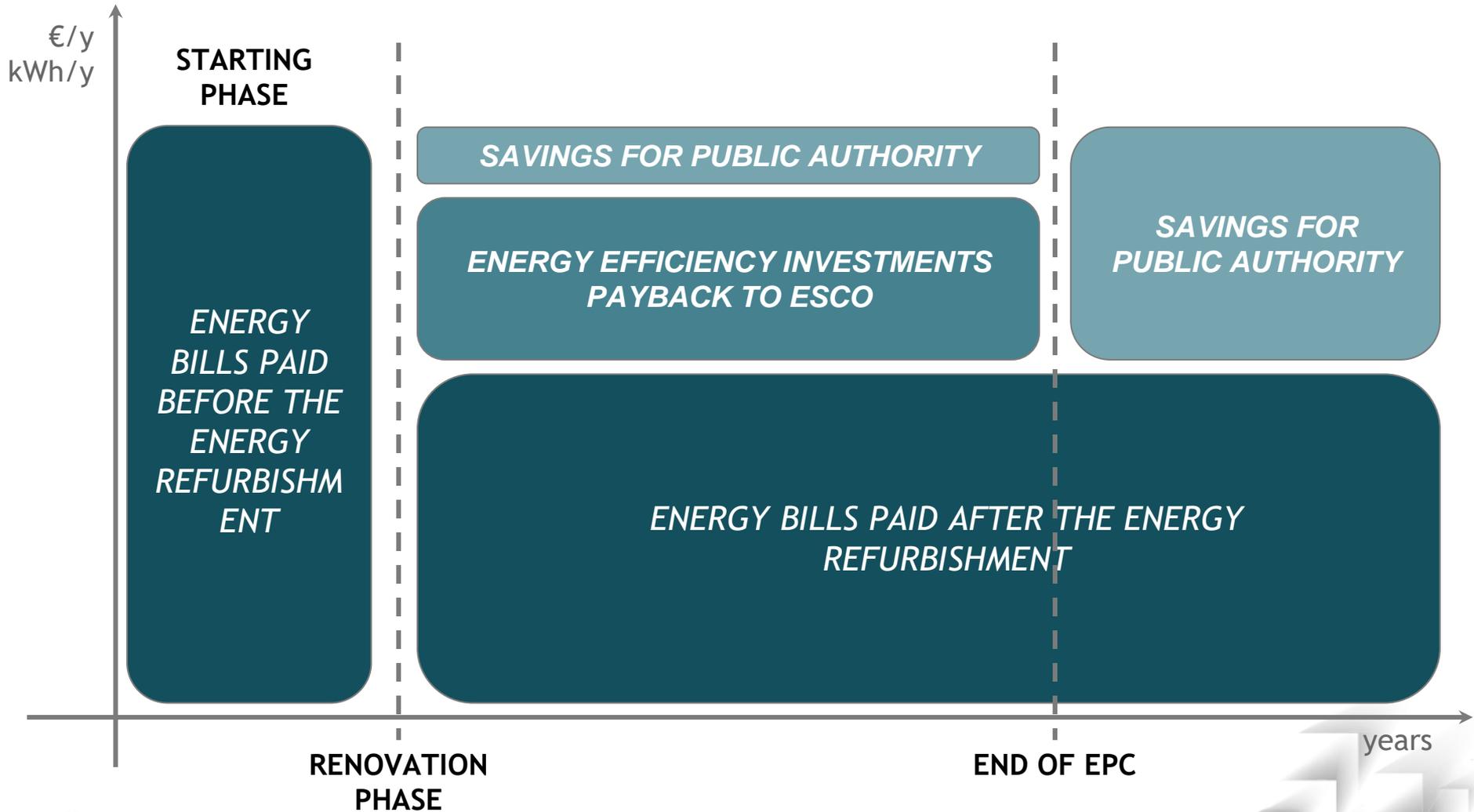
**CONSTRUCTION RISKS:** related to the late completion of works, non compliance to planned standards, increase in building costs, any inconveniences related to the building performance and activities as well as the non completion of the e.e measures.

**PERFORMANCE RISK:** the risk of not reaching guaranteed performances and results implicates the proportioned reduction of payback fees

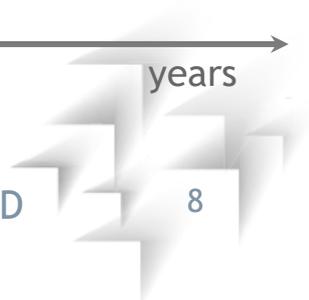
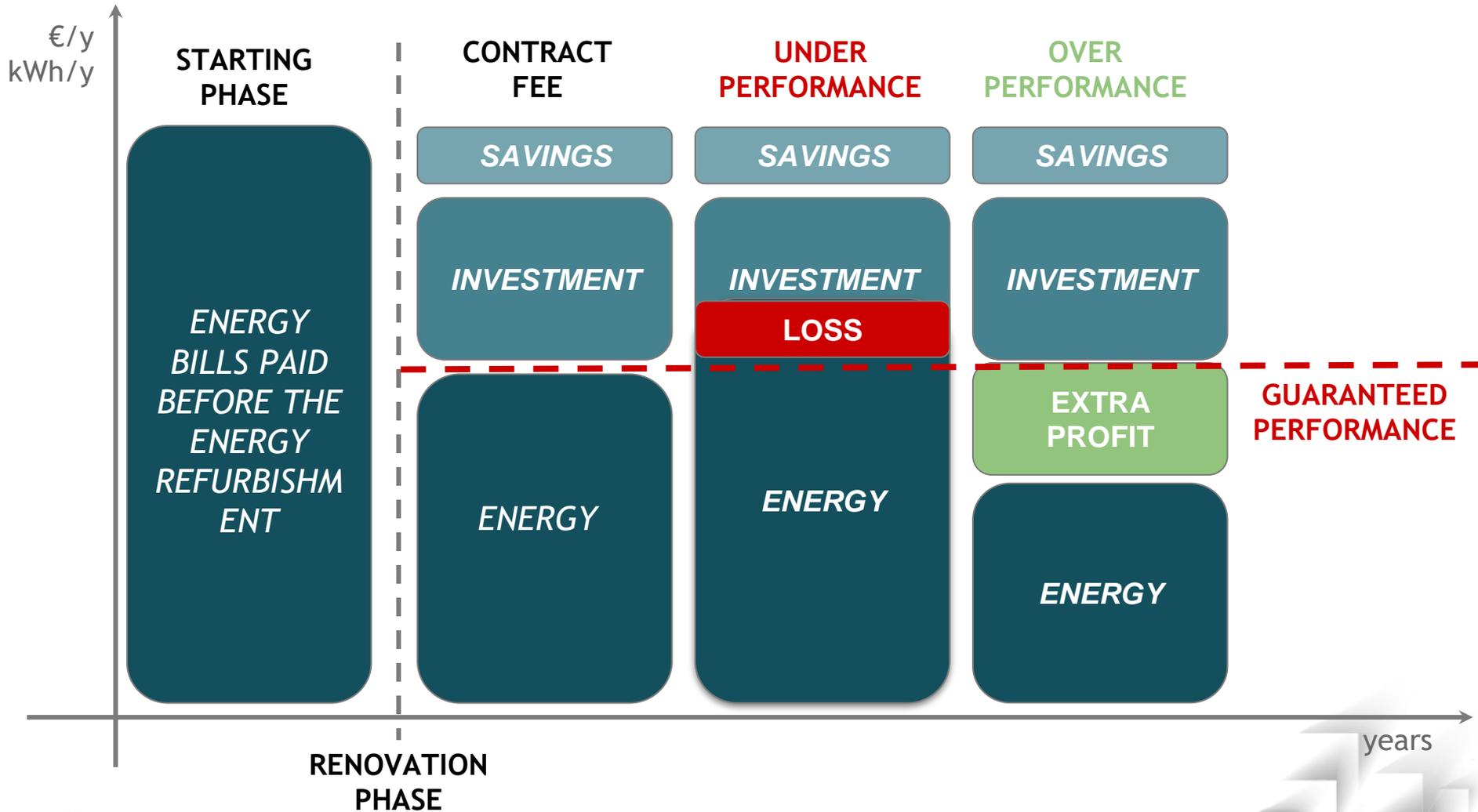
**LESS ENERGY SAVINGS = LESS PAYBACK FEES**



# EPC CONCEPT



# EPC: HOW IT WORKS

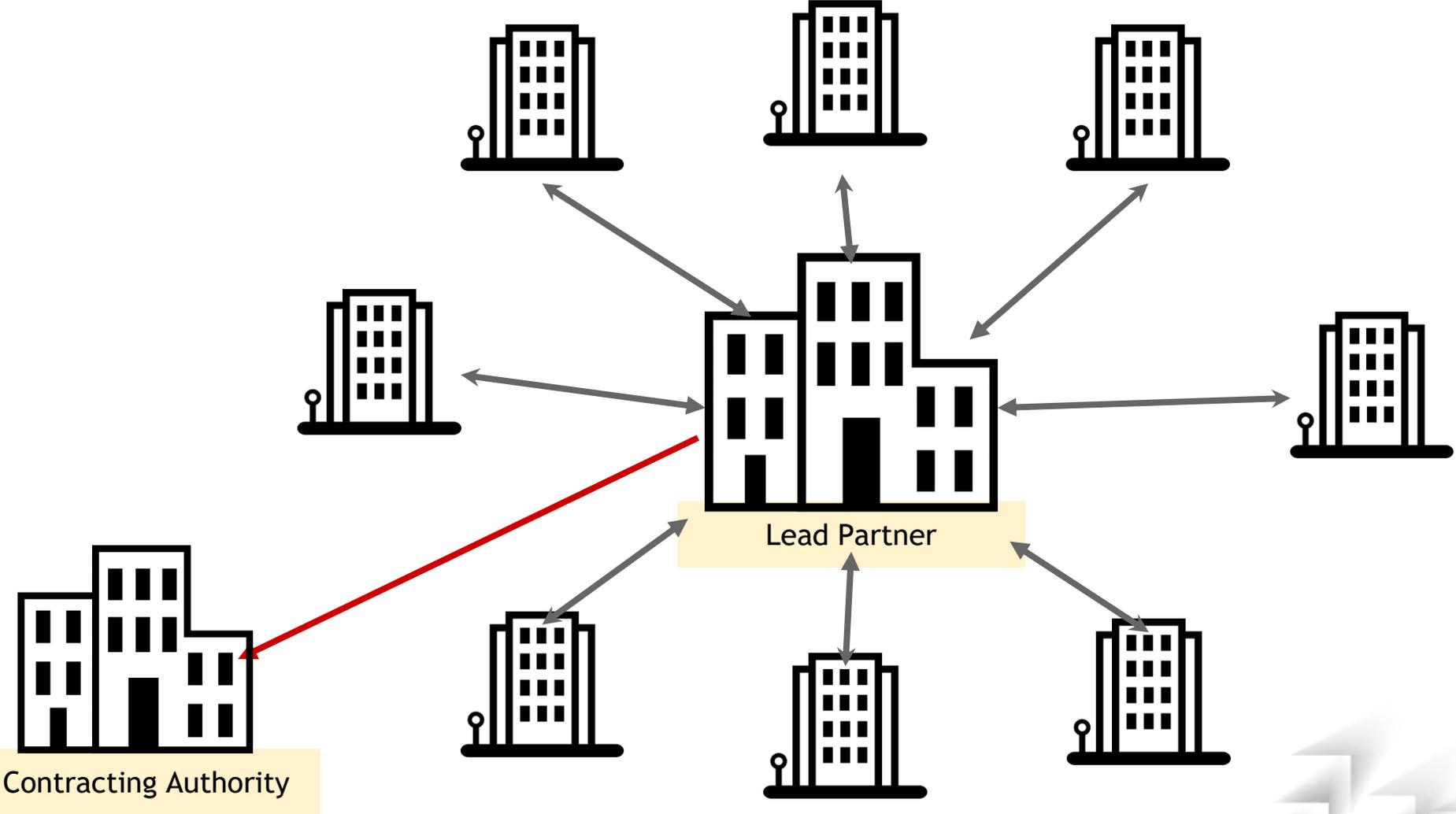


**EVERY YEAR THE PERFORMANCE  
NEEDS TO BE MEASURED AND  
CERTIFIED!**

**BESIDES, LARGER INVESTMENTS NEED  
TO BE ADDRESSED**



# POOLING SCHEME



## **Streamline project implementation:**

- combining short payback measures with medium-to-long payback measures to achieve long term, deep energy savings while still promoting financially attractive options for participants
- a relatively simple screening process could be used to select the appropriate first tier of bundle
- the bundling can be ideal for a standardized set of energy efficiency measures

## **Simplify participant decision-making:**

- A PDA structure can ease the process of decision making reducing the range of options to be selected
- necessary expertise to make an informed decision can be livelized or supported

## **Reduce transaction costs through economies of scale:**

- design, administrative, tendering costs can be significantly reduced
- better use of available resources (financial, staff, expertises, etc...)



# EPC INVESTMENTS IN PIEMONTE

Type of investments	Amount	Status	Project
18 public buildings (5 Municipalities)	2.5 M€*	<i>Awarded and in operation</i>	2020Together
3.000 street light points (6 Municipalities)	2.4 M€*	<i>Awarded and in construction phase</i>	2020Together
3 public buildings (1 Municipality)	0.5 M€**	<b>Failed</b>	PEACE_Alps
8 public buildings (4 Municipalities)	0.5 M€**	<b>Failed</b>	STEPPING
6 public buildings (2 Municipalities)	0.5 M€**	<i>Tender launched. No bids</i>	STEPPING
8 public buildings (1 public authority)	2 M€*	<i>Awarded . Design phase</i>	STEPPING
16 public buildings (10 Municipalities)	2 M€*	<i>Awarded . Design phase</i>	STEPPING

\*Awarded \*\*Baseline

**IN AVERAGE THE LEVERAGE FACTOR FOR THE PDA WAS ABOUT 15**



# EPC INVESTMENTS IN PIEMONTE

- Energy Renovation of 18 public buildings coupled with energy supply
- EPC duration of 13 years (1 for construction + 12 of maintenance)
- 5 Municipalities and Bosch Energy and Solutions Italy as ESCO
- Guaranteed savings by 61% with a shared system in the case of over-performance (70-30)
- Investments: 2.5 M€ + VAT

