



# Esco Services

Business model based on Esco services

Sinloc SPA



This project has received funding from the European Union's Horizon 2020 research and innovation program under Grant agreement No. 101033940

# Description of the model

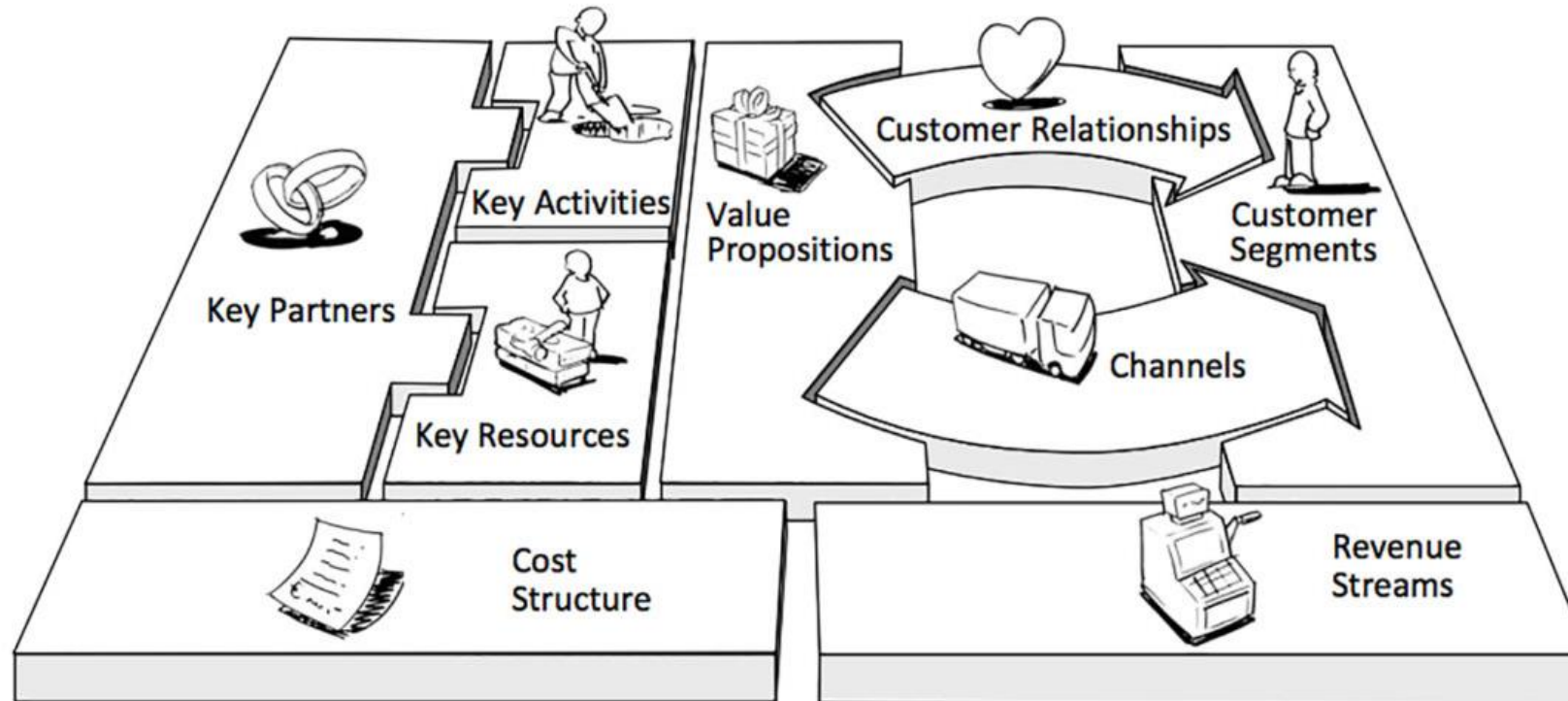
- This model is about the services that an ESCo could provide to increase energy efficiency and reduce energy costs for the households
- It's applicable to several type of renovation measures (building envelope, equipment and solar) and its economics vary mainly accordingly to technical aspects
- It can be activated without or with limited up-front investment cost
- It's generally more suitable for large-scale, multi-apartment buildings

# Description of the model

- The ESCo provides design and financing of the renovation measures
- The ESCo renovates the house and may be the energy supplier
- The households benefit from the new equipment and energy efficiency measures, paying a periodic fee to the ESCo
- Economic benefits are usually shared between ESCo and households during the contract



# Business Model Canvas



# Key partners



- **Households:** the ones that benefit from the renovation measures
- **Property owners** (if different from households): the owners of the building where the renovation is made, which must agree to undergo the renovation project
- **ESCo:** the provider of the energy efficiency service and investment
- **Utility:** the supplier of the energy source (electricity and gas) – could also be an ESCo and provide the energy efficiency services
- **Building manager** (in case of multi-apartment buildings): the person in charge of managing the building and contracting with the ESCo
- **Sponsor/Guarantor** (if needed/required by the ESCo): the subject that can guarantee the payment by the households – Public entity, NGO, guarantee fund, etc.

# Key activities – Key resources



- **Energy audit on the buildings**
  - Assessment of the current status of the building and historical energy consumption
  - Analysis of the energy efficiency measures
  - Could be directly done by the ESCo applying to do the renovation works
- **Subscription of the contract with the ESCo**
  - Needs the agreement of the majority of property-owners (apartment building meeting)
  - Definition of the payment mechanisms
  - Has to define a clear mechanism for measurement and verification of performance
- **Resources needed to start-up a ESCo contract**
  - Knowledge and experience about this type of contracts (One-Stop-Shop)
  - Support in the verification of the works done and monitoring during the life of the contract
- **Time** to start a contract is relatively short, mostly depending on:
  - Time to find an agreement between property owners and the ESCo
  - Technical complexity of the renovation measures

# Value Proposition



- **Energy efficiency renovation**
  - usually addressing large buildings and with high energy savings objectives (working on building envelope, windows and energy equipment)
  - high environmental benefits
  - increase of thermal comfort
- No or limited up-front investment cost
- Guarantee of performance/service level (maintenance) over the life of the contract
- Benefits in particular those situations where people are not able to afford the initial investment

# Customer Relationships Segments and channels



- Our "customers" are the vulnerable households, benefitting from the renovation measures
- Owners of the apartments (if different from the vulnerable households) need to be involved too in the decision-making process
- Customers (and owners) need to be properly engaged through the Local Working Groups in order to explain them the advantages of the initiative
- Technical support should be provided through the OSS or through local sponsors

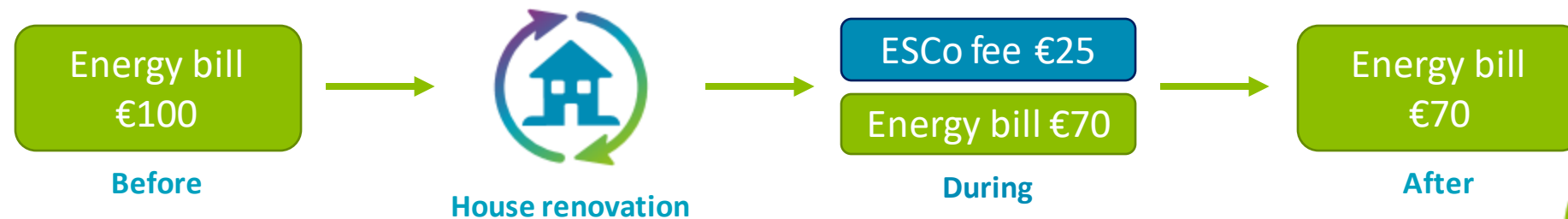


# Cost structure

## Revenue stream



- No or limited up-front investment cost
- Monthly fee for a medium-term period (min 10 years) usually lower than historical cost for energy supply
- Immediate energy saving – according to contractual clauses
- ESCo could also be a utility and may offer a service fee included in the energy supply bill (e.g. RenOnBill scheme)
- Cost reduction (economic savings) is limited during the contract period while it's higher after the end of the contract
- This model performs better if public incentives are available for the ESCo



# Sustainable development goals

The proposed business model not only pursue his major aim of tackling energy poverty, but also contributes to the achievement of the Sustainable development goals provided by the United Nations



Reduce (energy) poverty

Contribution



Ensure access to affordable, reliable, sustainable and modern energy for all

Contribution



Make cities and human settlements inclusive, safe, resilient and sustainable










Contribution



Take urgent action to combat climate change and its impacts

Contribution



<p><b>Key Partners</b> </p> <p>Households</p> <p>Property owners</p> <p>ESCOs</p> <p>Utilities</p> <p>Building managers</p> <p>Sponsor/Guarantor</p>	<p><b>Key Activities</b> </p> <p>Energy audit on the buildings with identification of renovation measures</p> <p>Agreement between building owners/tenants and ESCo</p> <p>Subscription of the contract</p>	<p><b>Value Propositions</b> </p> <p>Energy efficiency renovation of building</p> <p>No or limited up-front investment cost</p> <p>Guarantee of performance and maintenance over time</p>	<p><b>Customer Relationships</b> </p> <p>Strong engagement of tenants</p> <p>Commitment of landlords</p> <p>Establishment of trust between partners</p>	<p><b>Customer Segments</b> </p> <p>Landlords</p> <p>Tenants (also in large social housing buildings)</p>
<p><b>Key Resources</b> </p> <p>Knowledge and experience with ESCo contracts</p> <p>Facilitator between ESCo and building owners/tenants</p>		<p><b>Channels</b> </p> <p>Local Working Groups</p> <p>One-Stop-Shops</p> <p>Building managers as reference for all tenants</p>		
<p><b>Cost Structure</b> </p> <p>No up-front investment cost</p> <p>ESCO fees are paid through the savings achieved</p>			<p><b>Revenue Streams</b> </p> <p>If the ESCo fee is lower than the energy savings, then there is a net economic saving for the household</p> <p>Self-produced energy from PV could be an additional saving</p> <p>All energy savings become economic savings after the end of the contract</p>	

This BM contributes to the following SDGs



# Business Model SWOT Analysis

## STRENGTH

- No or limited up-front investment
- (small) immediate savings
- Integration of energy efficiency and renewables
- Increase indoor comfort

## OPPORTUNITIES

- In case of high or increasing energy prices, BM becomes come convenient
- ESCo are starting offering service to private market
- Several variants of business model suit different context
- Suitable for large social housing buildings

## WEAKNESSES

- Low credit-worthiness of energy-poor households
- Need for guarantee from third-party
- ESCo usually look at large scale projects

## THREATS

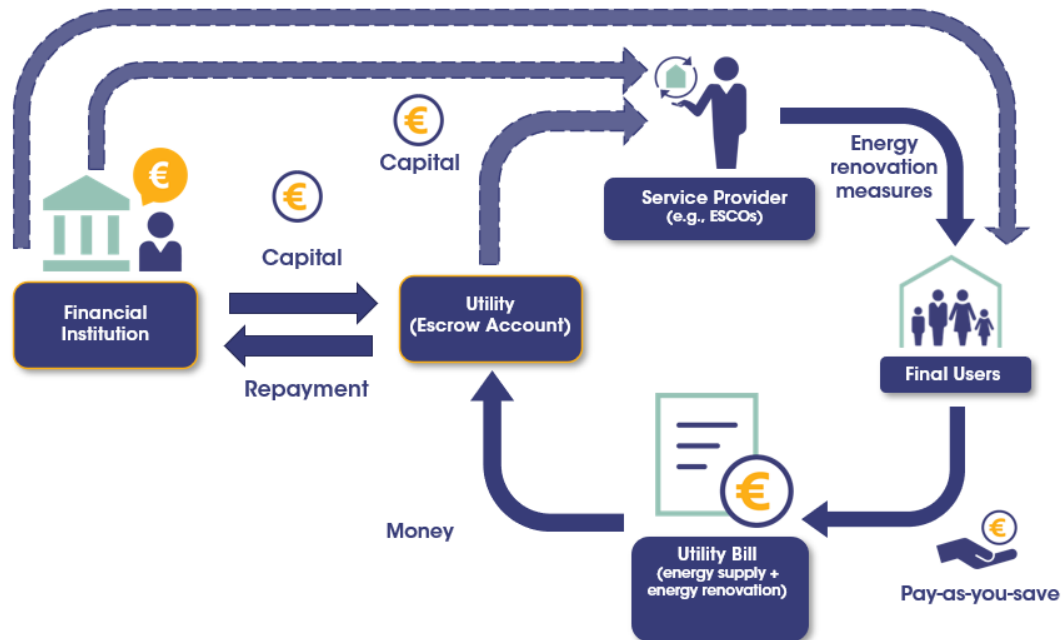
- Landlord-tenant divide problem
- Decision-making process in multi family buildings

# Ren-on-Bill Project



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847056

- Ren-on-Bill project aims to scale up investments towards deep ERs of residential buildings, while promoting the development and implementation of **on-bill schemes** based on cooperation with the financial institutions accepting **repayment by drawing on utility bills**
- On-bill schemes bring the **up-front costs of energy efficiency upgrades down to zero** by adding a periodical line item to a customer's utility bill, which represents an advantage for end-users



- Several variants of the Business Model are explored
- The BM needs the involvement of Utilities (and banks)
- Credit risk represents a major issue

Source: RenOnBill Project – D5.1 – On-Bill business model development guidelines

# FinEERGo-Dom Project

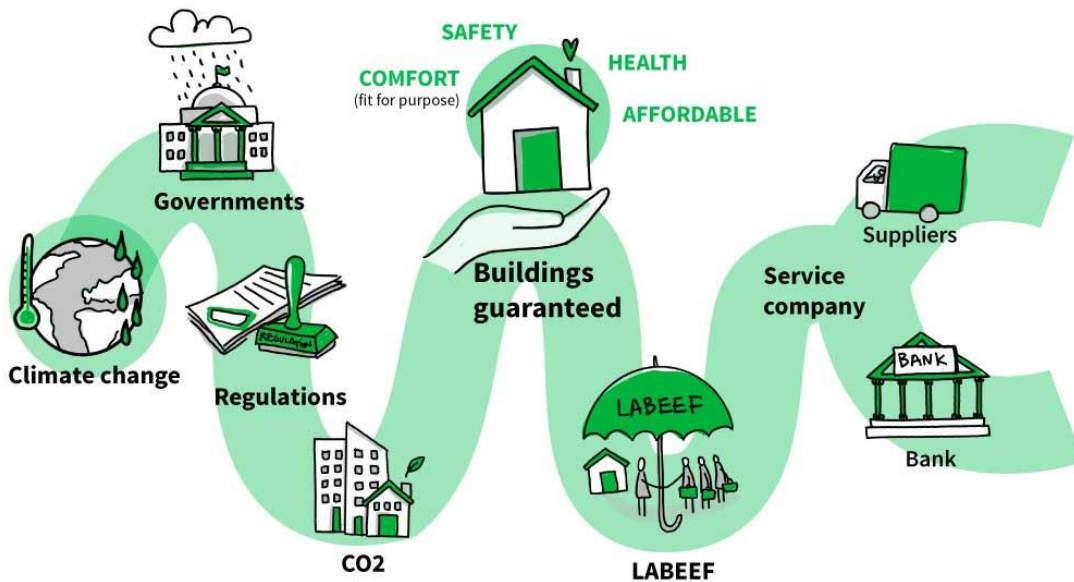


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847059

- The project implements **guaranteed financing schemes** for energy efficiency and renewable energy in deep renovations of buildings in Poland, Austria, Slovakia, Romania, and Bulgaria
- The project builds on the experience of the Latvian Building Energy Efficiency Facility (LABEEF), the original Building Energy Efficiency (BEEF) Facility deployed successfully in Latvia. LABEEF is based on an existing example providing 20-year Guaranteed Performance contracts to owners through an On-Bill payment scheme.

➔ The Polish pilot provides 20-year guaranteed performance contracts to building owners through an on-bill payment scheme. The loan is repaid over time through an additional charge on the monthly utility bill<sup>1</sup>

➔ In Poland, the National Fund for Environmental Protection and Water Management launched the **Energy Performance Contracting Plus (EPC+)** priority programme

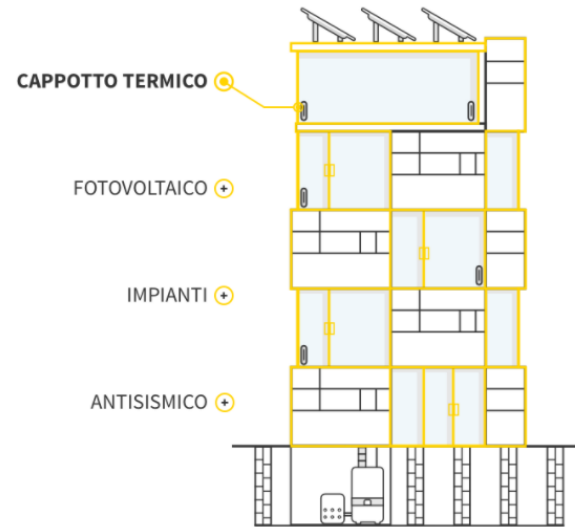


# Italian ESCo working on large buildings



## Cappotto Mio

Solutions for Multi Family Buildings  
Leveraging on public incentives



Source: [eniplenitude.com](http://eniplenitude.com)



## Vivi Meglio

Solutions for Multi Family Buildings  
Leveraging on public incentives



Source: [enelx.com](http://enelx.com)

# Luminus solutions: Foyer Anderlechtois



- Foyer Anderlechtois is a large social housing company in the Bruxelles area
- To renovate their buildings and guarantee the maintenance, Foyer Anderlechtois signed an EPC contract with Luminus Solutions. The contract includes:
  - Complete remake of 45 heating systems
  - Integration of 17 cogeneration plants
  - Centralized systems for telecontrol
  - Installation of solar panels
  - 12 years warranty on the performance
- The up-front investment cost of €6mIn was entirely covered by Luminus
- Tenants had a saving on bills and increase indoor comfort

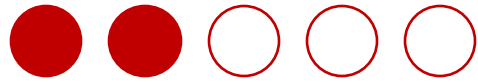


Source: [luminussolutions.be](http://luminussolutions.be)



# Conclusion and analysis

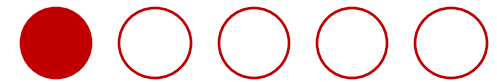
**Legal Complexity**



**Set-up Complexity**



**Management Complexity**



**Replicability**



**Effectiveness towards  
energy poverty**



**Scalability**





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the catalyst  
for social  
innovation  
in the energy  
market

