



# Technology Leasing

Business model based on technology leasing

Sinloc SPA



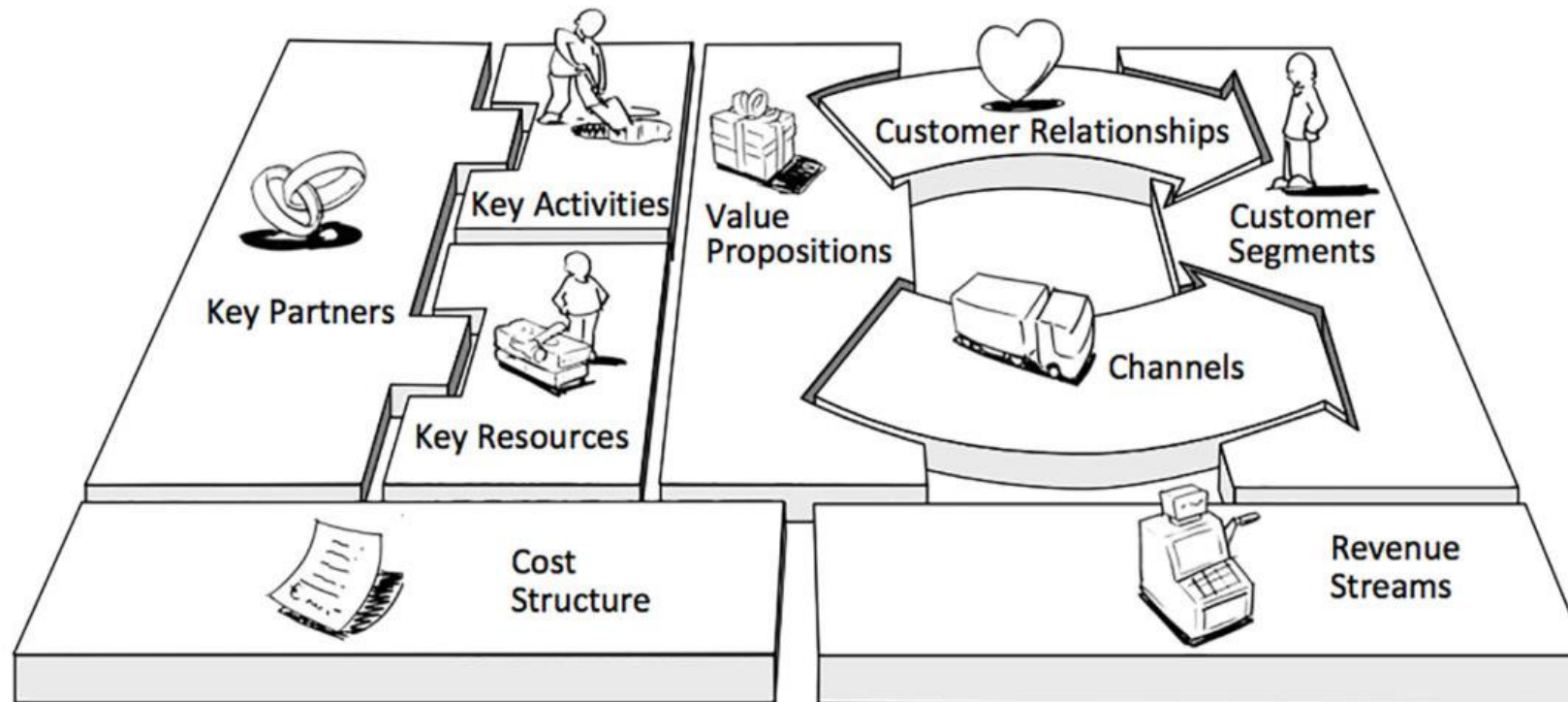
This project has received funding from the European Union's Horizon 2020 research and innovation program under Grant agreement No. 101033940

# Description of the model

- The model is about renting/leasing of energy efficient appliances and technology equipment in a **product-as-a-service** scheme
- In this scheme, there is an **aggregator** subject that buys stock of appliances from a manufacturer at a convenient price and rents them to the households
- The aggregator also offers **warranty and maintenance** on the appliances for the whole lifetime of the contract
- At the end of the contract, the appliances can be retained by the household, or they can be returned to the aggregator for reuse, refurbishment or recycling of its component, following a circular economy principle.



# Business Model Canvas



# Key partners



- **Households:** users of the technology equipment
- **Technology suppliers**
  - Offering their products, providing full-service installation
  - Providing technical assistance during the product lifetime
- **Bank/Leasing company:** Buy the appliances and lease it to the user
- **Aggregator:** Buy the appliances and rent is to the users
- **End-life manager/Recycler:** Collects the appliances after its lifecycle to:
  - Reuse it in another context
  - Refurbish and resell the renovated appliance
  - Recycle the whole product or its parts



# Key activities – Key resources/Time



- Definition of an agreement with a technology supplier that can provide a stock of energy efficient appliances at a fair price
- Definition of an agreement with an end-of-life manager/recycling center
- Identification of an **aggregator**, which buys the stock of appliances and signs the contract with the household, providing installation and maintenance
- Possible subsidies provided by public authorities/NGOs to contribute to renting costs
- **Time** to start the model is relatively long, as there is the need to involve several different stakeholders and agree upon the business model and economics of the business model

# Value Proposition



- Make **energy efficient appliances affordable** for vulnerable households
- Support the reduction of energy consumption and energy bills for households
- Increase the quality of life of the households/users of the appliances
- Provide adequate maintenance of the appliances, increasing lifetime and safety
- Contribute to the application of circular economy principles



# Customer Relationships Segments and channels



- Our "customers" are the vulnerable households, benefitting from the advantages brought by the innovative scheme
- Households need to be properly engaged through the Local Working Groups which would explain the advantages of the initiative
- Households need to understand the advantage of renting instead of buying, meaning that **consumption habits need to be changed**
- Technical support should be provided by the Municipality, by a facilitator or the One-Stop-Shop
- This business model could be integrated in others (e.g. energy cooperative or ESCo) if these subject could act as aggregators

# Cost structure

## Revenue stream



- No up-front investment cost to buy the appliances
- Monthly fee for a short-term period (5 to 10 years) at affordable and convenient rates compared to the market
- Immediate energy saving, thanks to the efficiency of the new appliances
- Monthly fee also includes warranty and maintenance on the appliances
- This model performs better if public incentives are available to buy new appliances (e.g. “ecobonus” in Italy)



# Sustainable Development Goals



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



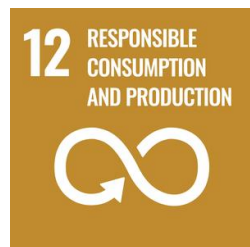
End poverty in all its forms everywhere

Contribution



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

Contribution



Favors circular through reuse and refurbishment of appliances










Contribution



Take urgent action to combat climate change and its impacts

Contribution



<p><b>Key Partners</b> </p> <ul style="list-style-type: none"> <li>• Households</li> <li>• Technology suppliers</li> <li>• Bank/Leasing company</li> <li>• Aggregator</li> <li>• End-life manager/Recycler</li> </ul>	<p><b>Key Activities</b> </p> <p>Identifying the following:</p> <ul style="list-style-type: none"> <li>• A technology supplier to provide energy efficient appliances at a fair price</li> <li>• End-of-life recycling center</li> <li>• An aggregator</li> </ul>	<p><b>Value Propositions</b> </p> <ul style="list-style-type: none"> <li>• Make energy efficient appliances affordable for vulnerable households</li> <li>• Support the reduction of energy consumption and energy bills for households</li> <li>• Increase the quality of life of the households/users of the appliances</li> <li>• Provide adequate maintenance of the appliances, increasing lifetime and safety</li> <li>• Contribute to the application of circular economy principles</li> </ul>	<p><b>Customer Relationships</b> </p> <ul style="list-style-type: none"> <li>• Households need to be properly engaged through the Local Working Groups to explain them the advantages of the initiative</li> <li>• Households need to understand the advantage of renting instead of buying,</li> </ul>	<p><b>Customer Segments</b> </p> <p>The vulnerable households, benefitting from the advantages brought by the innovative scheme</p>
<p><b>Key Resources</b> </p> <ul style="list-style-type: none"> <li>• Subsidies to buy the appliances or contribute to the cost of the rent</li> <li>• Investor/manufacturing company putting their appliances in use</li> </ul>		<p><b>Channels</b> </p> <p>Technical support should be provided by the Municipality, by a facilitator or the One-Stop-Shop</p>		
<p><b>Cost Structure</b> </p> <ul style="list-style-type: none"> <li>• No up-front investment cost to buy the appliances</li> <li>• Monthly fee for a short-term period (5 to 10 years) at affordable and convenient rates compared to the market</li> </ul>			<p><b>Revenue Streams</b> </p> <ul style="list-style-type: none"> <li>• Energy saving, thanks to the efficiency of the new appliances</li> <li>• Monthly fee also includes warranty and maintenance on the appliances</li> </ul>	

This BM contributes to the following SDGs



# Business Model SWOT Analysis

## STRENGTH

Easy to apply once agreements between stakeholders are set

Best suitable for social housing dwelling where tenants change frequently

Includes maintenance, favors circular economy

## OPPORTUNITIES

Combination with public incentives (if available)

Market for product-as-a-service is strongly increasing

## WEAKNESSES

Needs strong initial effort to setup the agreements

Credit risk of vulnerable households (need for a guarantee by a third-party)

Needs a strong behavioral change in consuming habits

## THREATS

Change in incentives legislation

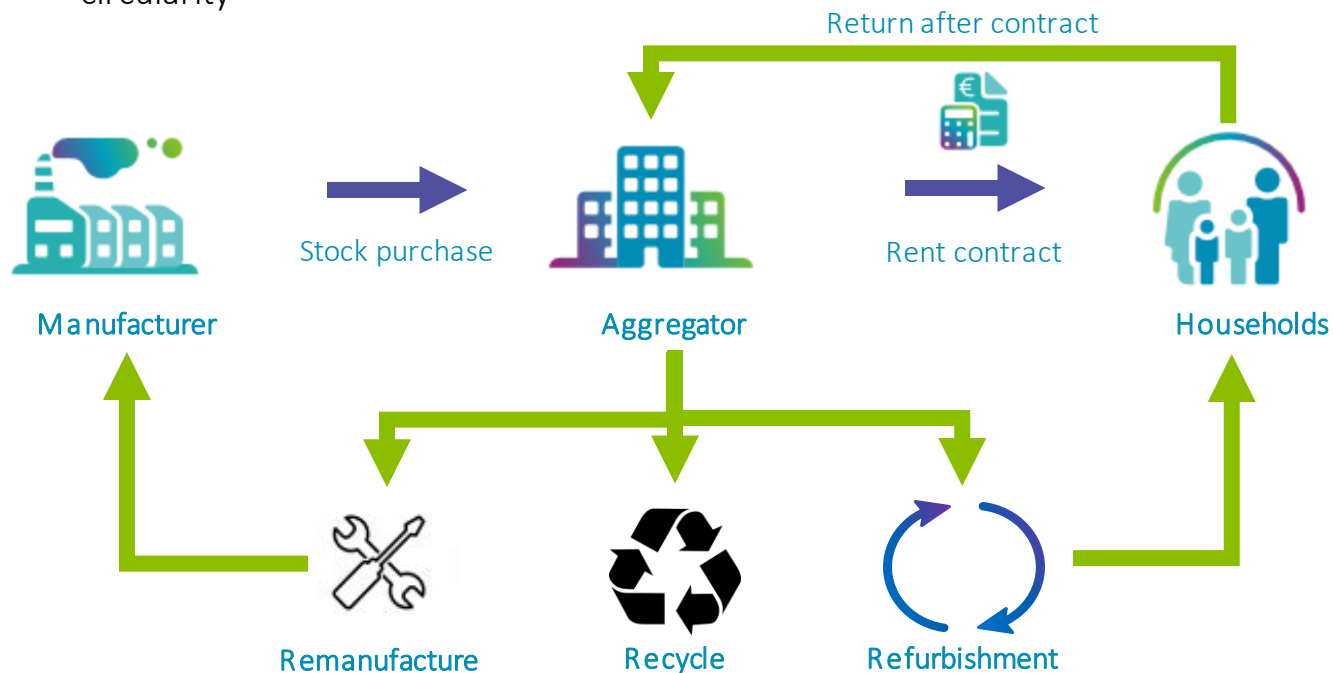
Offer needs to be economically convenient compared to consumer credit offers (also made by the retailer)

# ClimateKIC – Circular Housing Project



The objective of the "Circular Housing" project is the definition of a new business model to be applied within in the apartment for lease

- investigation of the possibility to offer furniture and electric appliances fully circular (reusable, refurbishable, recyclable) to tenants at a fair monthly rate
- definition and implementation of a deep behavioral and market change
- redesign the economic systems around these products avoiding waste generation and promoting behaviors that embrace circularity



Project tested on Social Housing dwellings in Milan  
Partners involved:

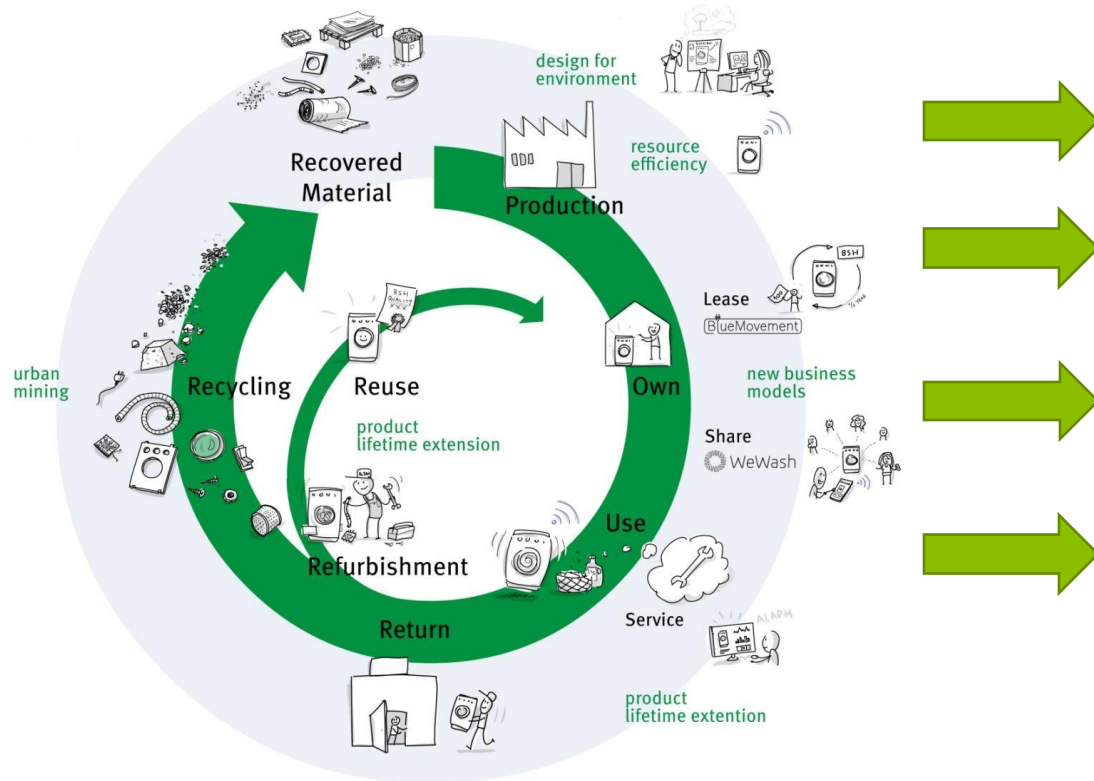
- **RedoSGR**: Social Housing investment fund
- **Politecnico di Milano**: University studying the applicable business models
- **Ecodom**: Italian consortium for recovery and recycling of electric appliances
- **Bosch**: technology manufacturer involved in the project as provider of the appliances

Source: Poliedra – Nuovi modelli per l'abitare sostenibile: il progetto Climate KIC Circular Housing

# The Papillon Project



The Papillon Project is an appliance-as-a-service joint initiative from Bosch and social enterprise "Samenlevingsopbouw West-Vlaanderen" (community building Flanders). This initiative was conceptualised to address the ongoing energy poverty crisis that affects low-income households. With this initiative, users can access energy-efficient household appliances at an affordable monthly rental cost. The appliances will be used for up to 10 years then refurbished to be reused extending product lifetime



Offers energy efficient appliances with monthly rates

The user doesn't have to pay in advance and can benefit from the services

Their model benefits the energy poverty households

Delivery, replacement, maintenance costs are included in the contract (set for 10 years)

# Homie Pay-Per-Use



HOMIE offers a pay per use solution for energy efficient home appliances as an alternative to buying them. The company's goal is not only to provide energy saving solutions but to engage users in utilizing the appliances in the most efficient way.

A digital tracker is built into the appliances which provides up-to-date information about the customer's use and allows the user to calculate the right fee. Based on this data, Homie also provides personalised tips and tricks to become more environmental-friendly, and help their consumers save more money by lowering their water and electricity usage.



*The company's model is largely focused on paying per use – the cost of the appliance gets paid back over a certain number of uses.*

No need to advance money subscribers only start paying when they use the machine.

They provide flexible subscription from 6 months for expats. They move the appliances to new addresses and take on installation, maintenances, replacement if defected

Not only washing machines  
Big and small home appliances (from fridges and dryers to vacuum cleaners etc.)

# Dauvister leasing energy efficient heaters



Dauvister offers leasing contracts for energy efficient heaters. With a monthly subscription the company offers new, and energy efficient heaters and it handles the installation, maintenance and any malfunction. The offers run for ten years, and they estimate energy saving up to 33%.

Energy efficient heaters are expensive, this service upgrades the heating system and removes old and very polluting heaters from the city. It offers immediate solution to buildings without requesting an upfront investment and the package includes annual maintenance costs.

The company provides subscribers with information and helps them get access to subsidies offered by the region and the city to reduce energy consumption and replace old polluting heaters.



The service provided to the subscribers offers heaters that run on gas, nevertheless the company is aiming at extending this model to include services of providing and installing heat pumps and PV panels



The target group is not specifically poor households, but this model can be used in combination with subsidies or other tools to help lowering the monthly subscription fees when possible.

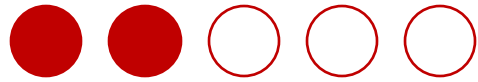


This model benefits the landlords and not the tenants



# Conclusion and analysis

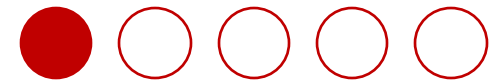
**Legal Complexity**



**Set-up Complexity**



**Management Complexity**



**Replicability**



**Effectiveness towards  
energy poverty**



**Scalability**







We are  
the catalyst  
for social  
innovation  
in the energy  
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