



A young boy in a red superhero mask and cape holds a paint roller, smiling. In the background, a man on a ladder and a woman are also engaged in renovation work in a bright room.

EuroPACE: Unlocking the Market for Eco-Sustainable Renovation

February 19, 2020

Effective Home Renovation Formula



01

Technical Assistance

Coordination and advice to support customers throughout the renovation journey, including **training and verifying contractors**.



02

Affordable Financing

Affordable, long-term **financing**, including rebates, that is accessible to most citizens.



03

Smart Funding

Creating **Risk-sharing** facility to provide credit accessibility to vulnerable people for a **equitable energy transition**.



Trust to Renovate

Market Readiness Assessment

The link between the property and the financing is key in providing security to investors which results in longer tenure and lower cost of capital, which translates in affordable monthly instalments for the beneficiaries of credit.

EuroPACE conducted a European study to evaluate the feasibility of an alternative to mortgage loans to attach or secure the financing to the property. This alternative, developed in the US, is PACE financing, also called on-tax or home-based financing.



Our research revealed that all Member States will need to amend their legislation to some extent to implement on-tax/home-based financing.

EuroPACE in Spain: National Law Amendment

- In order to implement the on-tax / home-based financing, **EuroPACE Consortium** lobbied to include a draft amendment under the new energy transition and climate change law in the Spanish Parliament.
- The bill gained **unanimous support** from all political parties, Ministries, largest labor unions and industrial associations.
- The bill reached Congressional stage (**Mesa del Congreso**) in **October 2018** and the process has stalled due to political turmoil and anticipated elections. The new government formed in 2020 is resuming its legislative agenda.
- The designed mechanism leverages on an existing one – the “Prestaciones Patrimoniales Publicas de carácter no Tributario”.



2020 Next Step: working to include EuroPACE Amendment in the coming Climate Change Law



EuroPACE in Spain: National Law Amendment



PROPUESTA DE ENMIENDA AL PROYECTO DE LEY DE MEDIDAS URGENTES PARA LA TRANSICIÓN ENERGÉTICA Y LA PROTECCIÓN DE LOS CONSUMIDORES (PROCEDENTE DEL RDL 15/2018, DE 5 DE OCTUBRE)

ESTABLECIMIENTO DE UNA PRESTACIÓN PATRIMONIAL DE CARÁCTER PÚBLICO NO TRIBUTARIA CON RÉGIMEN DE COBRO Y DE GARANTÍAS PROPIO PARA PROGRAMAS DE MEJORA DE LA EFICIENCIA ENERGÉTICA, DE SUPRESIÓN DE BARRERAS ARQUITECTÓNICAS EN INMUEBLES, Y DE MEJORA DE LAS CONDICIONES DE HABITABILIDAD EN VIVIENDAS ANTIGUAS.

El preámbulo del RDL considera que, para los hogares y las familias, la energía es un bien imprescindible para satisfacer las necesidades básicas y explica que el sistema energético ha iniciado un proceso de transición hacia un nuevo paradigma caracterizado por la descarbonización, la descentralización de la generación, la electrificación de la economía, la participación más activa de los consumidores y un uso más sostenible de los recursos.

Sin lugar a dudas las características energéticas de las viviendas concitan varios de los anteriores elementos. Adecuar los edificios residenciales de manera que resulten más eficientes o que introduzcan sistemas de autoconsumo requiere un gran esfuerzo inversor y de gestión. Son muchos los municipios españoles que han acometido políticas públicas con el objetivo de potenciar la rehabilitación del parque residencial, articulando operaciones en las cuales se procede a la remodelación de los edificios en una triple vertiente, su adecuación a la plena accesibilidad, la mejora de su eficiencia energética y de las condiciones de habitabilidad de las viviendas.

A pesar del esfuerzo de las administraciones públicas, resulta complejo atender la magnitud de la problemática que afecta a un porcentaje elevado de las viviendas en buena parte de las ciudades del país. Las iniciativas de los ciudadanos chocan con graves dificultades a la hora de conseguir la financiación necesaria para las actuaciones de rehabilitación. En la actualidad, los particulares que se plantean realizar estas obras o bien no pueden acceder a préstamos –dados sus perfiles de solvencia–, o bien, pudiendo acceder al crédito, en las condiciones que se les ofrecen (garantías personales, tipo de interés, plazos breves de devolución), hacen que sean reticentes a recurrir al crédito para emprender estas obras.

Public Purpose

- The amendment intends to establish a public-private partnership between program entity and public authorities.

Special Conduit

- Recognizes the new application of an existing fiscal figure dealing with the public right to revenue, establishing a special conduit financing that can be used for home renovation loans.

EuroPACE Pilot in Olot, Spain

Establish legal basis for the program



1

Olot adopts a local ordinance



Olot and GNE Finance establish a Public-Private Partnership



2

Establish an entity to operate the program

Fundació EuroPACE

Design a scalable financing platform



3

GNE Finance develops an investment vehicle



Program Launched in Q4 2019



4

Launch the program



Create a strong pipeline and position it for expansion



5

GNE Finance and Olot are developing a pipeline of projects and recruiting cities in Catalonia



Legal basis for pilot in Olot: Local Ordinance

The Local Ordinance was adopted by the City of Olot under the framework of fostering green economy and ensure climate mitigation and protection of the Natural Park area of la Garrotxa.

Olot can now dedicate resources and people to create the managing entity / OSS

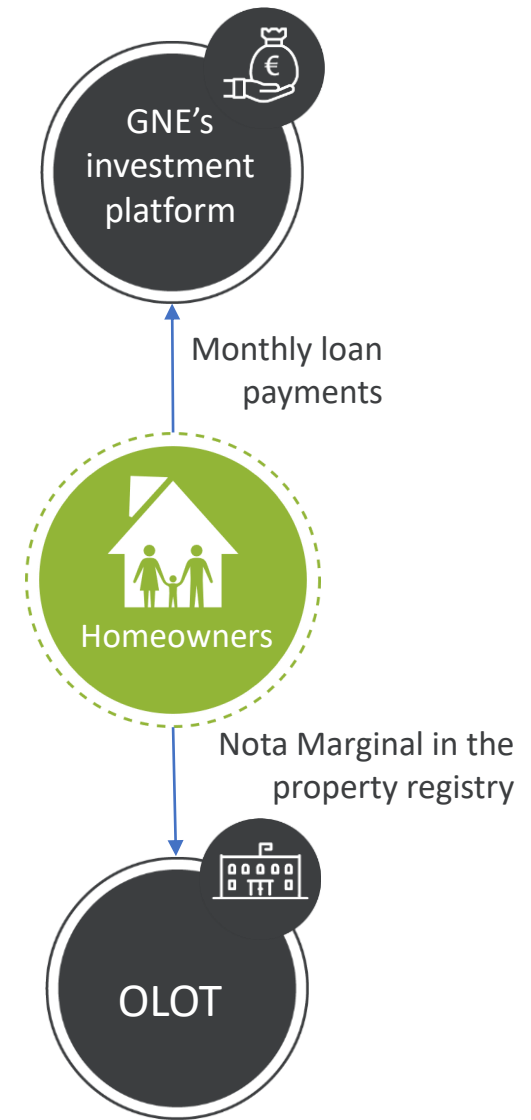
Olot can dedicate resources to tax rebates and subsidies to support vulnerable groups through a social guarantee fund

Establishing the Nota Marginal and the Notary Deed mechanism – Optimizing the loan structuring

Processes to optimize the loan structuring

- Loans are legally structured as “crédito refaccionario” a legal structure used in the past to finance building renovation.
- Loans are recorded in the Property Registry through a “Nota Marginal”.
- A Notary Deed secures an executive title against homeowner assets in case of default.
- Payments collected monthly by GNE Finance via direct bank charge (domiciliation).

→ This structuring is not a mortgage, either an on-tax financing, therefore **does not represent a lien on the property BUT it is viable in the present legal framework and safe enough to structure medium to long tenure loans.**



Program Managing Entity

Fundació EuroPACE

Established by the City of Olot and GNE Finance in Catalonia. Registered by the Department of Justice, General Directorate of legal entities in 2019.



No Debt Consolidation with public budget



Trust from the Citizens



Tax benefits



Clear Governance Structure

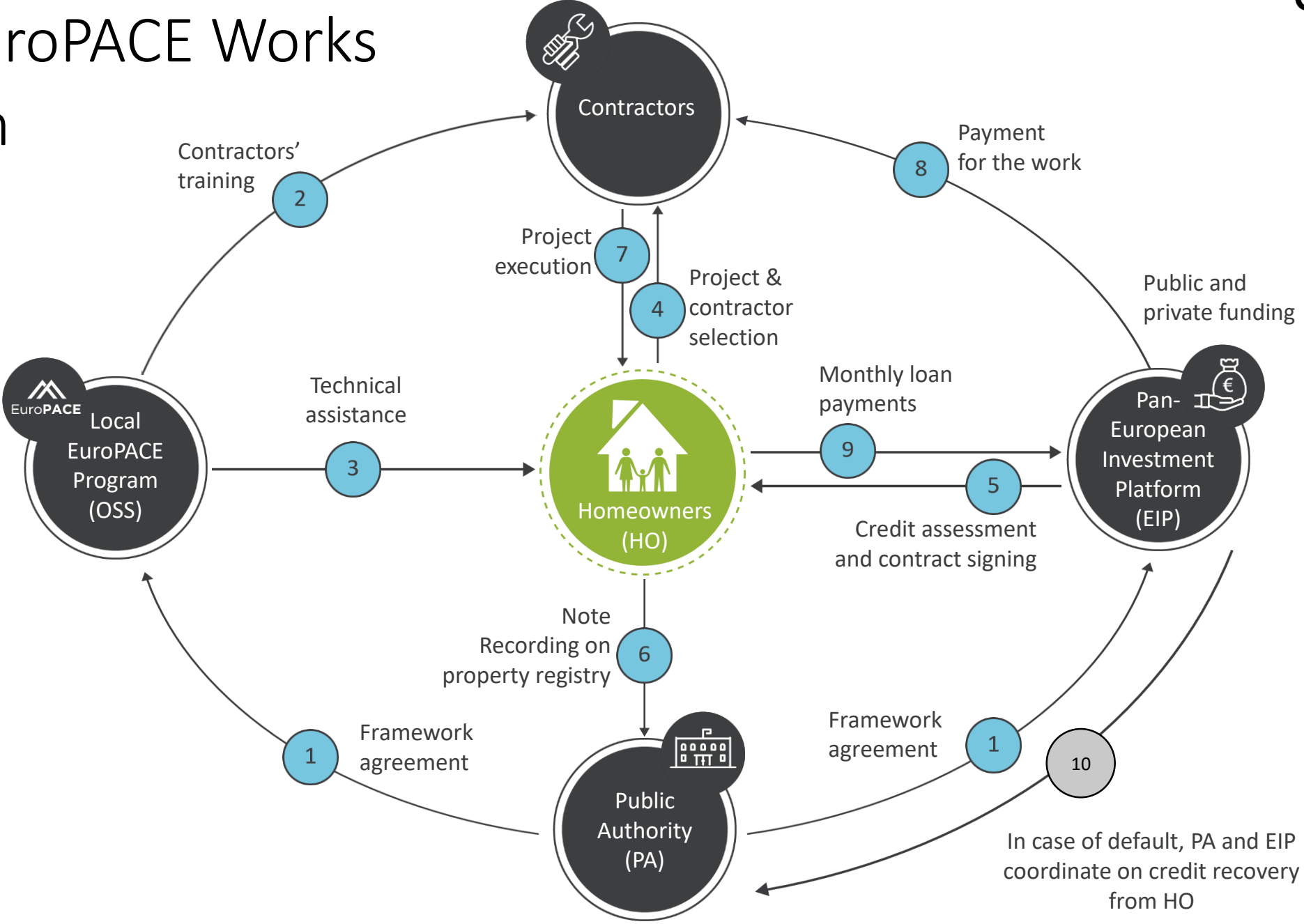


Eligible to receive subsidies and grants



Social Platform to tackle energy poverty

How EuroPACE Works In Spain





HOLA DOMUS

First eco-sustainable home renovation pilot in Catalonia, Spain:

- Bringing together technical support, affordable financing and smart funding
- Developing tailored financing facility to enable long-term loans.
- Innovating program structure by creating EuroPACE Foundation to manage the program
- Working with local contractors to create social impact in the community





HOLA DOMUS

Marketing and Outreach

www.holadomus.com

Citizens:

- Focus on health, wellbeing and comfort
- Highlighting savings and affordability

Contractors:

- Bigger and more projects
- Business growth
- Digital process



HOLA DOMUS



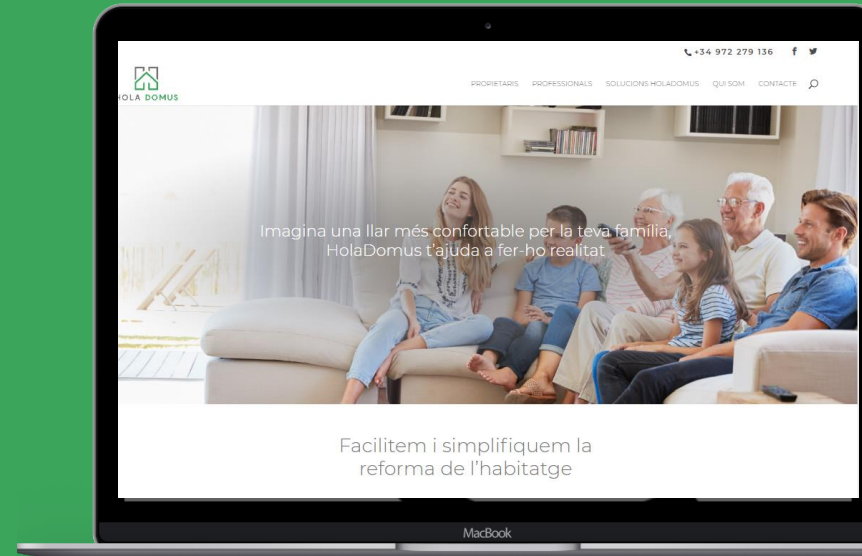
TECHNICAL SUPPORT

Ensures lower project risk



SIMPLICITY & SUPPORT

Throughout the renovation journey offered by the Program



www.HolaDomus.com



TRUSTED CONTRACTORS

Verified and trained by the program



AFFORDABLE FINANCING

Combined with subsidies

Holistic home renovation solutions

www.holadomus.com





Affordable and Accessible Financing



GNE FINANCE

HOLA DOMUS

- **Type of Loan:** Home renovation loan secured by a notary deed
- **Loan size:** €5 – 100K in residential properties, 100% up front
- **Average size:** €20K for multi-family and 30K for single family
- **Duration:** from 5 to 15 years
- **Payment terms:** affordable financing, depending on credit assessment and term.
- **Monthly installment:** Starting at € 39

Social Guarantee Fund - Optimizing the use of public funds

- RISK-SHARING facility → the EU example
- Creating a **higher leverage** by using public funds as a guarantee fund.
- It **does not represent a liability for the public sector** as it does not consolidate in their budget
- Support for **vulnerable populations** and energy poor consumers.



Social Impact: Addressing energy poverty

Our programs strive to make home eco-sustainable home renovation affordable and accessible to all.

- The Social Guarantee Fund is an instrument to provide affordable loans to vulnerable groups.
- Free energy audits from a network of volunteers available for the most vulnerable people, thanks to the collaboration of national philanthropic entities and local non-profits
- Direct and indirect **job creation in vulnerable categories** and to workers at risk of exclusion from the labor market
- **Inclusion** of vulnerable populations through trainings and special programs.



Scaling Across Europe

City Working Group Process

1. Select 3-4 Leader Cities
2. Establish City Working Groups composed of experts in financing, home renovation, public law, and energy
3. Conduct workshops in each city
4. Produce the recommendations for EuroPACE implementation in each Leader City



The clean energy transition starts at home



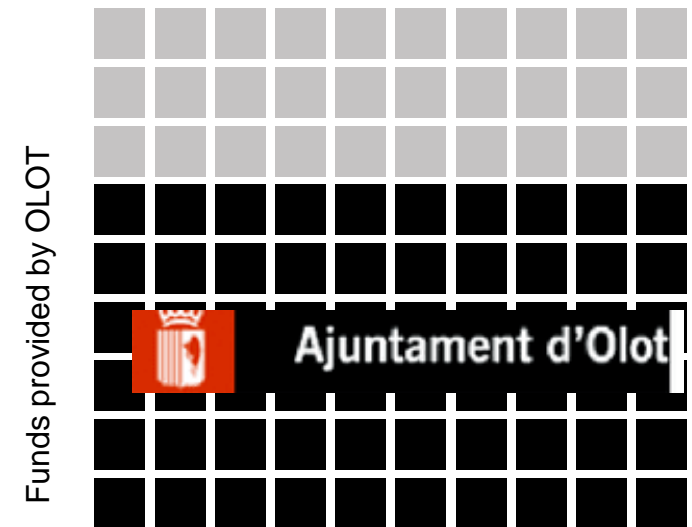
Thank you!

Davide Cannarozzi
Founder and CEO, GNE Finance
dc@gnefinance.com

Social Guarantee Fund – Overview

1. The SGF created with funds provided by Olot and will be managed by **EuroPACE Foundation**.
2. The public authority contributes with a 20% of funding of the loans provided to vulnerable people.
3. Defaulted loans are transferred to the Managing Entity and its position covered by SGF.
4. After that, GNE Finance will be responsible for credit restructuring and recovery.
5. Collection of defaulted loans will reintegrate the SGF to habilitate the origination of new loans for low-income people.

Fundació
EuroPACE
Managing the SGF



Market Readiness Assessment



PART I - Legal and Fiscal Assessment

1. Functioning property tax system
2. Legal guarantee mechanism
3. Existence of senior liens
4. Municipalities' rights over tax collection mechanism

Selected Countries:
Austria, Belgium, Italy, The Netherlands,
Portugal, Poland, Romania, Spain



PART II - Market & Demand Assessment

1. Market size and potential
2. Existing policy tools and renovation/financing initiatives
3. People's perceptions and attitudes to home renovation

Selected Countries:
Belgium, The Netherlands, Portugal, and
Spain



The Underwriting process

- 1 Origination**

HolaDomus originates financing requests and provides all relevant information about the project
- 2 Document Collection**

GNE Finance receives personal documents directly from the HO through a secure channel
- 3 Credit Risk Analysis**

GNE will analyze project's and personal data to evaluate credit risk, including projected savings, asset valuation and capacity to repay the loan. Other relevant info checked: indebtedness, income, background check etc.

Based on the credit score, a HO is eligible or vulnerable and needs support from the Social Guarantee Fund.
- 4 Financial Offer**

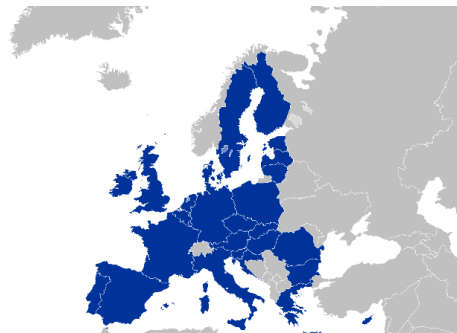
Based on risk assesement, **financial conditions are defined** and approved by homeowners
- 5 Contract Signing**

Once the contracts are signed, GNE Finance pays the contractors directly

The Clean Energy Transition Starts at Home

GNE Finance empowers individuals and communities to make their homes more sustainable.

We work with cities and regions to design and manage **effective home renovation platforms** in line with 2050 SD goals.



We are based in Barcelona and Amsterdam.

GNE FINANCE

High Impact Investments

Horizon 2020 funded projects



EuroPACE – SPAIN



HIROSS4All - SPAIN



EEnvest – ITALY and SPAIN



ORFEE- FRANCE



Save the Homes – NETHERLANDS & SPAIN



FITHOME - NETHERLANDS



EU-PACE NORWAY, SWITZERLAND



Sustainable Finance - CHILE





Three pillars of the project

01

Assess Market Readiness

Identify EuroPACE-ready countries

Report can be downloaded on:

www.europace2020.eu

02

Deploy EuroPACE in Spain

Design and run the first residential EuroPACE pilot in the city of Olot, Spain.

03

Scale EuroPACE across Europe

Facilitate and support 4 Leader Cities/Regions to set up EuroPACE programs.

8 partners from 4 countries:

GNE FINANCE



CASE - Centrum Analiz Społeczno-Ekonomicznych
CASE - Center for Social and Economic Research



Scaling Across Europe

Improving cities, Improving lives.

- This is an opportunity to build clean, sustainable and livable cities for all resulting in measurable social, economic and environmental impact.
- Countries selected to explore EuroPACE implementation based on the analysis and interest from the cities: **Belgium, The Netherlands, Portugal and Spain.**
- Cities are invited to contact the EuroPACE project to learn more about how to lead the clean energy transition.



6 Simple Steps



1

INITIAL ASSESSMENT

Energy diagnosis and preliminary proposal



2

TECHNICAL SOLUTION

Contractor selection and review of the technical solution



3

FINANCING

Personalized financing advice and incorporation of subsidies, tax credits and other incentives



4

PROJECT EXECUTION

Work performed by validated contractors; customer support line available



5

VERIFICATION

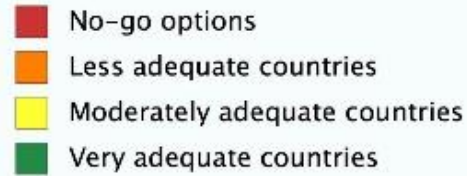
Project verification and maintenance reminder after the project



6

REPAYMENT

Monthly repayment



Market Readiness Assessment

1. Analyse the **legal and fiscal conditions** in each EU28 member state
2. Rank each of the EU28 member state and produce a **readiness map**
3. **Select 7 countries most suitable for EuroPACE**
4. Analyse market suitability of the seven countries to further narrow it down to **4 countries**.





HOLA DOMUS

Program Launch in Olot in 2019



Institutional Launch held on October, 2019 with participation of the Mayor of Olot, regional energy and housing agencies.



HolaDomus in the Media

@GNEFinance @EuroPACEprogram #HolaDomus #Olot #LaGarrotxa



Olot, aquest mati
LN
Olot comença a desplegar el programa HolaDomus

El programa HolaDomus comença a desplegar-se a Olot
Amb representants de la Comissió Europea, de l'Agència Catalana de l'Energia i de l'Agència Catalana de l'Urbanisme



LA TELEVISIÓ DE LA GARROTXA



garrotxa digital.cat

NOTÍCIES SOCIETAT POLÍTICA ESPORTS CULTURA ECONOMIA INFRAESTRUCTURES MÓN ESPAN

FARMÀCIES DE GUÀRDIA NEWSLETTER CONTACTA

El programa HolaDomus comença a desplegar-se a Olot amb l'objectiu de fer 420 millores en habitatges en dos anys

9 OLOT - PUBLICAT A LES 14.17 | 08 OCTUBRE, 2019 | DEIXA UN COMENTARI

L'eficiència energètica a les cases, més a l'abast a Olot

- La ciutat desplega el programa EuroPACE - HolaDomus, que facilita finançament avançat i assessorament per a reformes que rebaixin la despesa energètica i la contaminació dels habitatges



HolaDomus Retweeted

Ajuntament d'Olot @Olotuit · Oct 8

Presentem @HolaDomus, el programa integral de rehabilitació d'habitatges. Avui hem donat a conèixer el projecte, com funcionarà i el seu desplegament futur a altres territoris. Més info a holadomus.com



Ràdio Olot @Radiolot · Oct 9

El programa @HolaDomus preveu mobilitzar fins a 5,2 milions en la rehabilitació d'habitatges a #Olot

El programa HolaDomus preveu mobilitzar fins a 5,2 ...
La nova iniciativa que impulsa el consistori calcula que

Lluèrnia @lluernia

A Lluèrnia apostem per l'estalvi energètic. La instal·lació Alice, situada davant l'ajuntament estarà alimentada al 100 % per energies renovables. @olotuit @holadomus lluernia.cat/100-renovables/

NacióGarrotxa @NacioGarrotxa

Les famílies d'Olot podran reduir la factura de la llum a 50 euros gràcies al servei Holadomus, un programa pioner d'eficiència energètica pioner a Europa naciondigital.cat/garrotxa/notic... #Garrotxa



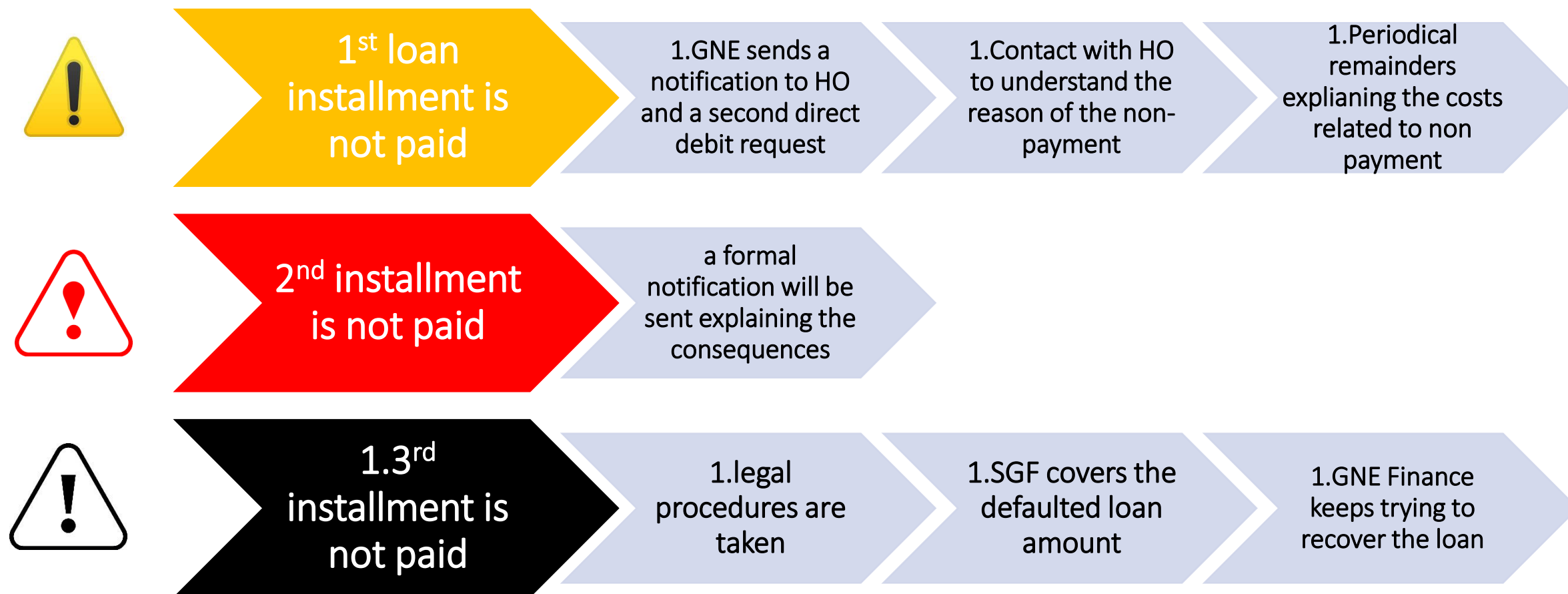
Local Office located in the Olot City Hall



- Convenient and Accessible location
- Local staff and energy experts, speaking Catalan and Spanish
- Relationships with other City Departments



The Collection process



RenOnBill

Residential building energy renovations with on-bill schemes

19/2/2020 – Covenant of Mayors Investment Forum, Brussels (BE)

Paolo Michele Sonvilla – Creara (pms@creara.es)



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



RENONBILL

● Agenda

- **RenOnBill at a Glance**
- On-Bill Basics
- Examples of On-Bill Schemes
- First Results and Conclusions



Residential building energy renovations with on-bill schemes



RenOnBill promotes the development and implementation of **on-bill schemes** in Europe, to scale up investments towards **deep energy renovations** of residential buildings.

On-bill schemes bring the upfront costs of energy efficiency upgrades for end users down to zero by simply adding a periodical line item to a customer's utility bill as the repayment vehicle.



RenOnBill's assumption is that **on-bill schemes** can be proficiently implemented only if there is a **close cooperation between energy utilities and financial institutions**.

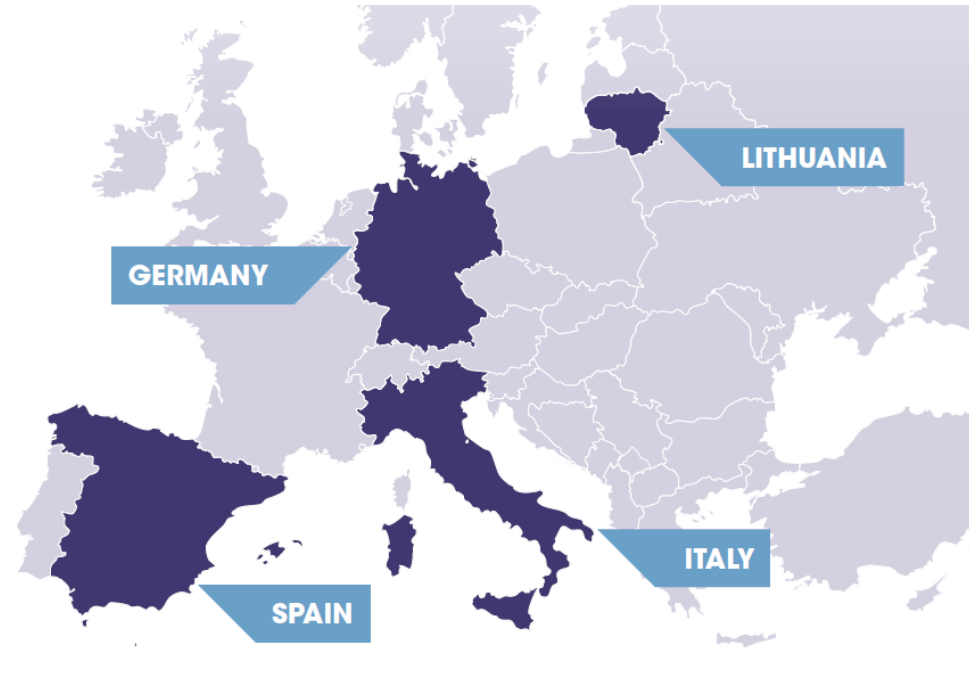
—● Relevance of RenOnBill

On-Bill Schemes can support financing energy renovations in residential buildings only if there is close cooperation between energy utilities and financial institutions

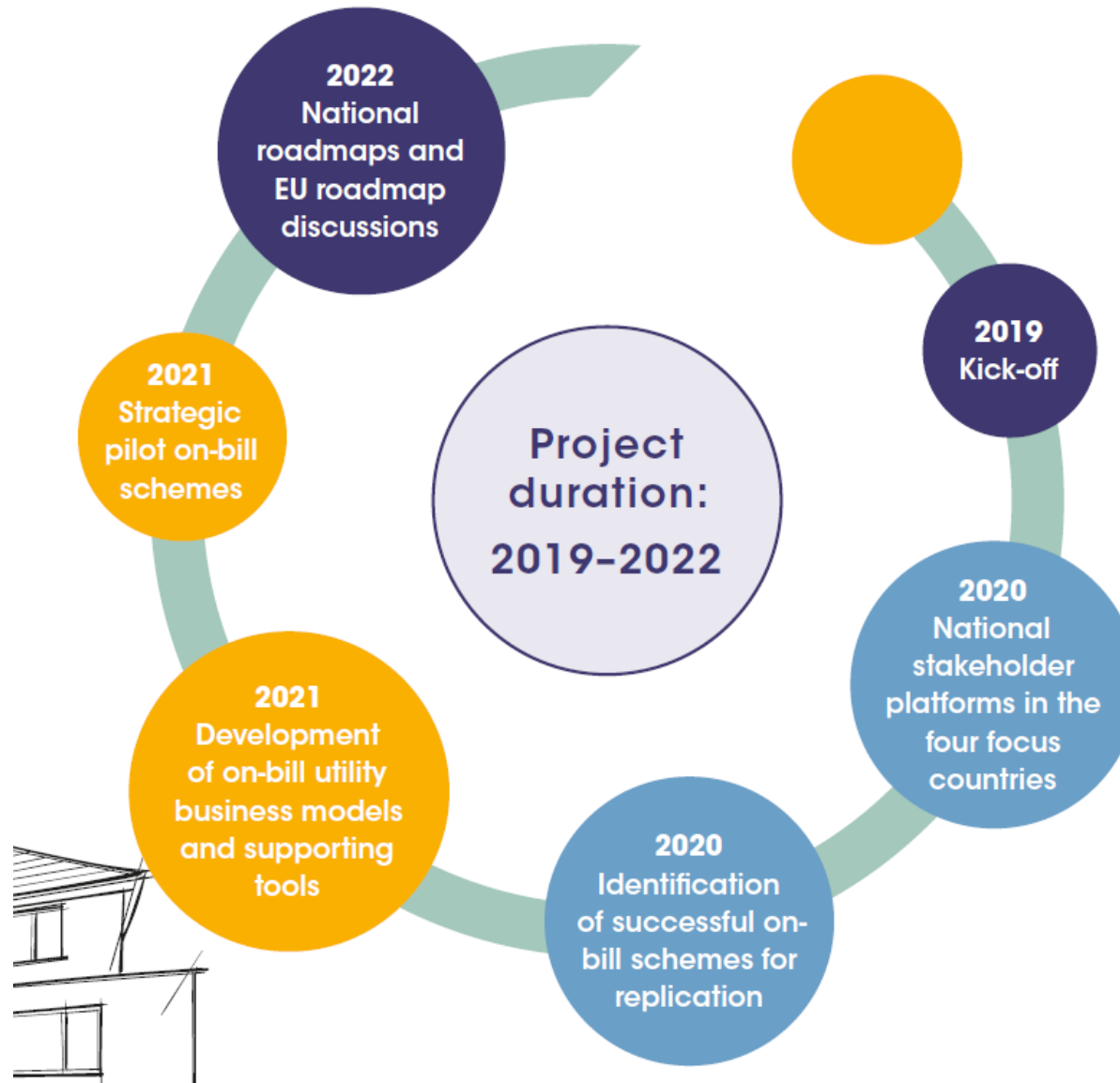
- **Energy utilities** can contribute with:
 - Technical capacity
 - Aggregation of projects
 - Bill repayment history
- **Financial institutions** can provide:
 - Capital for investments
 - Targeted fund raising
 - Accurate customer credit analysis

● Scope and Consortium

- **RenOnBill** is implemented in **four focus countries**
- Three partner **utilities** are supported by the project team in developing **pilot on-bill schemes**



Timeline



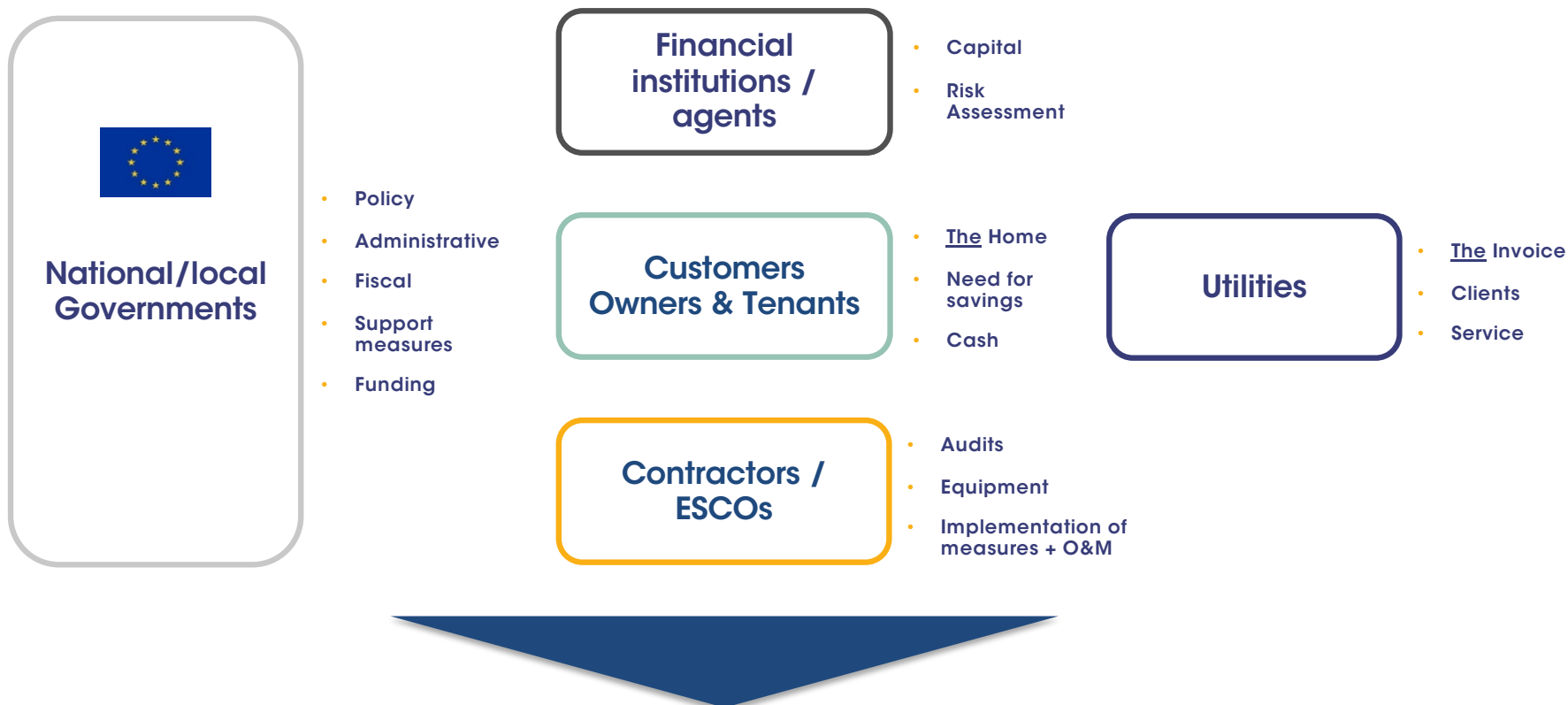
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On-Bill Basics

Key Stakeholders involved



The energy renovation of buildings requires finding a balance of interests between several stakeholders

—● On-Bill Basics

On-Bill mechanisms have been active in the North American market for more than 30 years with considerable success

An energy utility arranges an energy renovation to a client's building, who then repays its cost to the utility on the energy bill, via a periodical fee which might be lower than the obtained savings (Golden Rule).

1

On-Bill Financing (OBF)

The upfront capital is provided by the utility (or a **public source** in case of specific programs).

- No financial institutions involved – all margin to the utility
- Suitable to large utilities
- Requires the utility to dedicate consistent capital
- Requires compliance with national credit(or) regulations

2

On-Bill Repayment (OBF)

The upfront capital is provided by a private third party (usually banks or other financial institutions)

- The financial institution involved absorbs part of the margin
- Suitable to small/medium utilities
- If the financial institution finances the utility directly, its balance sheet can be affected (debt)



● Agenda

- RenOnBill at a Glance
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- **Examples of On-Bill Schemes**
- First Results and Conclusions



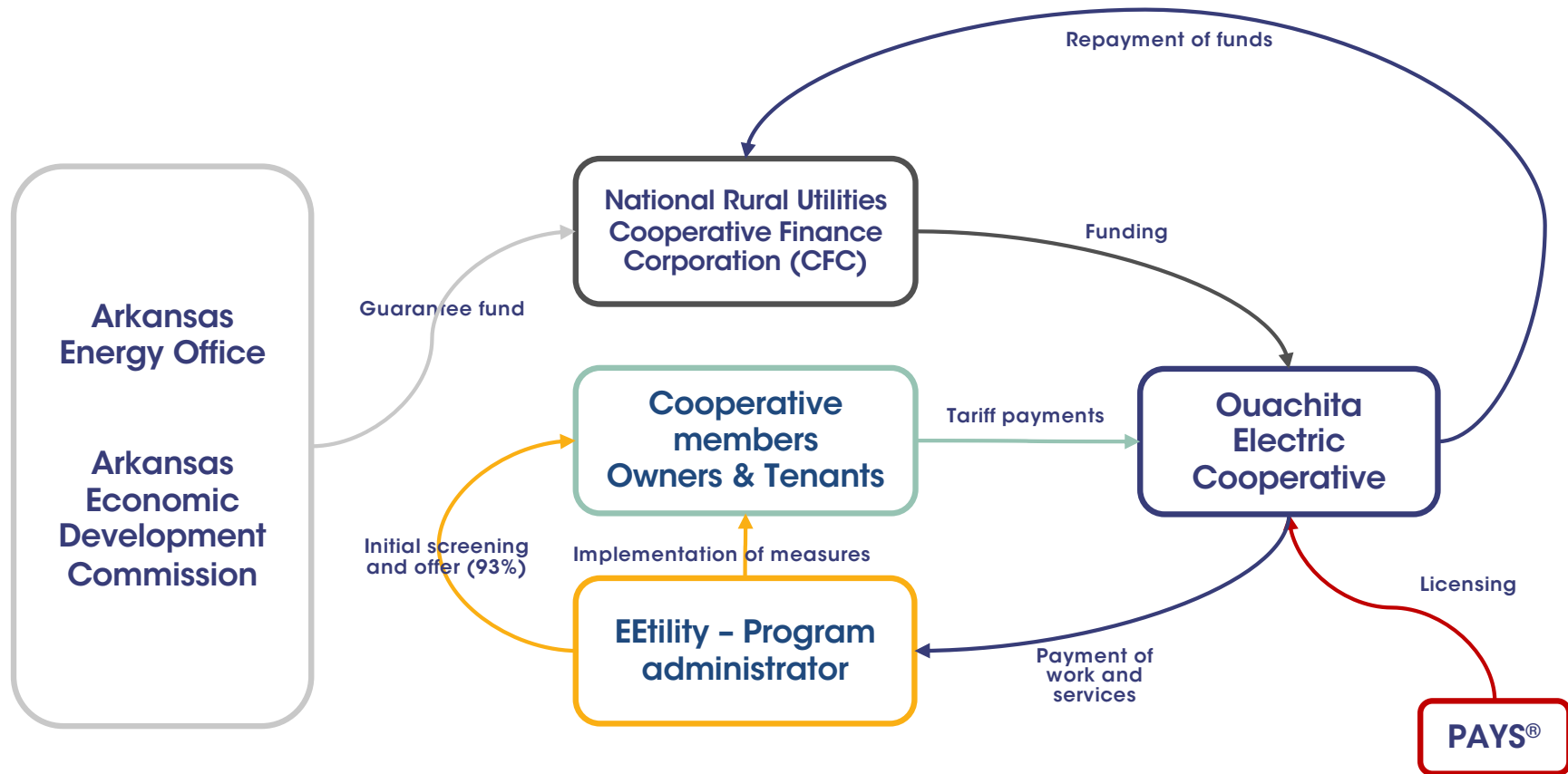
● Example of On-Bill Scheme – H.E.L.P.

The Home Energy Lending Programme (H.E.L.P.) program is managed by Ouachita Electric Cooperative in Arkansas, USA

- Set up initially in 2013 as an **on-bill loan** program
- In 2016 transformed to a **Tariffed On-Bill** model to increase impact
- **Capital** provided by National Rural Utilities Cooperative Finance Corporation (CFC)
- **Loss reserve fund** by Arkansas Economic Development Commission
- Directed to **50-year old buildings**
- The monthly fixed tariff is set at a maximum of 80 % of the projected energy cost savings – **initial copayments may be needed**
- In case of tenants, the agreement of the owner is needed, and **owner copayments may also be required**

Financing	OBR – Tariffed On-Bill
Transferability	Yes
Disconnection	Allowed
Beneficiaries	Residential and commercial
Measures	Air and duct sealing, attic insulation, heat pumps, HVAC, LED light bulbs, Solar PV panels
Financing amount	Max. 25,000 USD Avg. 7,000 USD
Tariff/fee	4.5% interest rate Fixed, up to 80% of savings, with co payments
Max repayment duration	12 years

● Example of On-Bill Scheme – H.E.L.P.



- H.E.L.P. is based on an initial screening performed by the Program Administrator EUtility
- In the pilot phase in 2016, 149 properties were screened, and 93% were offered to participate
- 90% customers accepted the offer



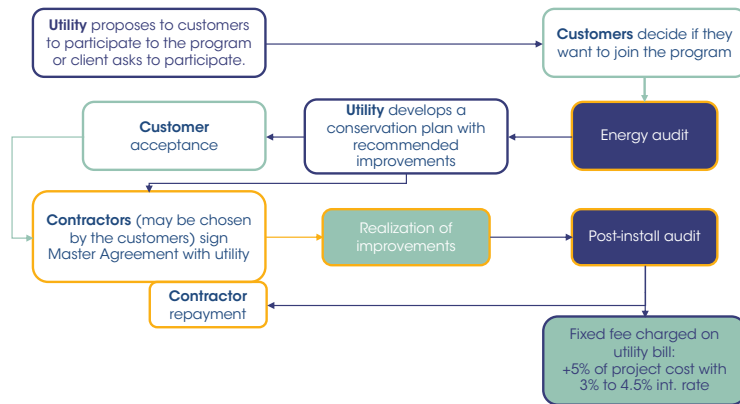
—● Agenda

- RenOnBill at a Glance
- On-Bill Basics
- Examples of On-Bill Schemes
- **First Results and Conclusions**



—● First Results - Research

Our initial work has focused on analysing the on-bill state of the art and understanding the national context in the four focus countries



Analysis of the residential building renovation markets:

- Key trends
- Market Potential
- Regulatory Framework
- Supporting instruments

Overview of on-bill buildings energy renovation schemes [\(PDF\)](#)

- North America, developing countries and Europe
- More than **30 years of track-record**, and over 1 billion USD investments reached by 2013
- **Lower default rates** than in case of traditional loans



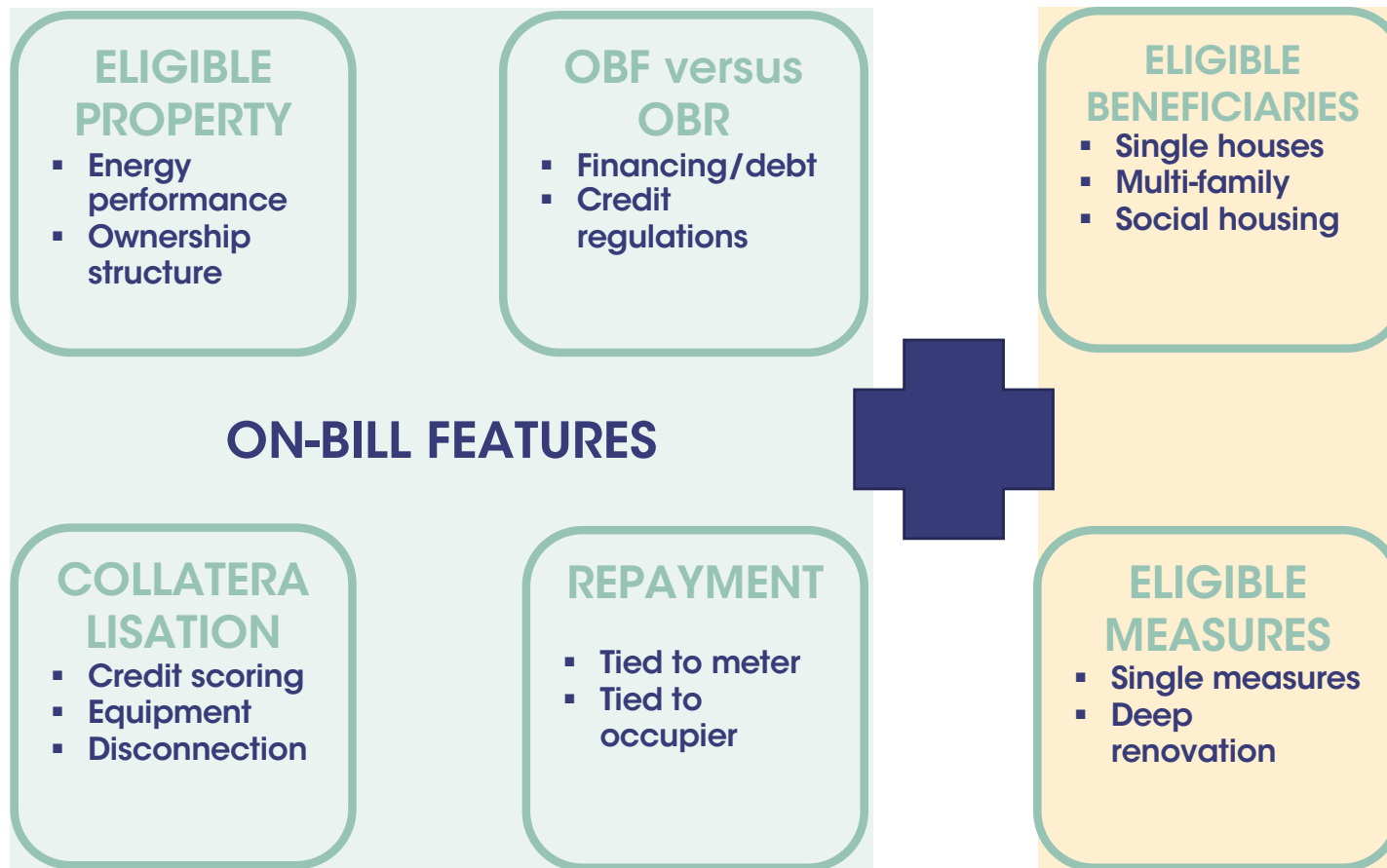
—● First Results – Key Challenges

Engaging with stakeholders in the 4 focus countries has allowed to identify the challenges for all key actors

Key Challenges for Utilities	DE	IT	ES	LT
Utilities are not the main address for ER for end-users	X		X	X
Utility contract durations (\neq repayment periods)	X		X	
Adjusting utility bill (+ complexity, - transparency)	X	X		-
Financial services/Creditor regulatory compliance	X	X	X	X
Competition with ESCOs and informal/black market	X		X	X
Key Financial Challenges				
Low interest rate environment limits offer of low OBS rates	X	X	X	X
Allocation of technical risk	X	X	X	X
Lack of collateral	(X)	(X)	X	
Default risk and its allocation		(X)	X	X

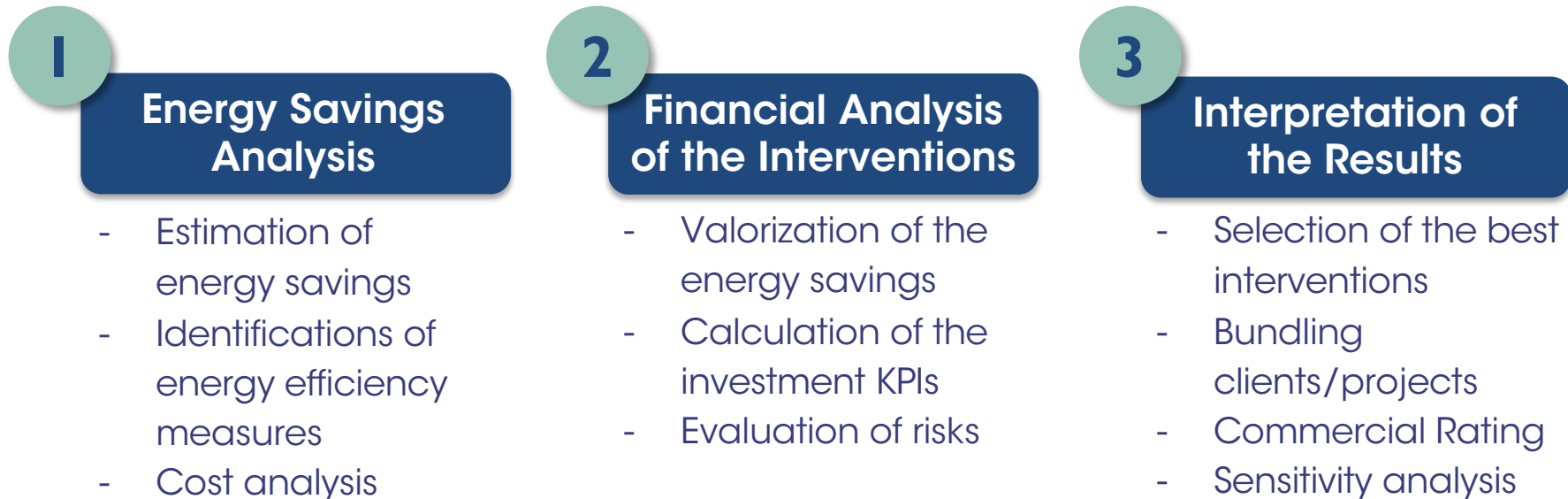
● First Results – Key Features of On-Bill Schemes

Engaging with stakeholders in the 4 focus countries has allowed to identify the key ingredients of on-bill schemes



—● First Results – Evaluation tool

An evaluation methodology and an open-source tool tailored for utilities are being developed to provide the quantitative means for assessing and bundling investments



Integrated in an open-source tool based on a probabilistic approach

—● Next Steps

We are sharing our initial results with stakeholders in order to deepen the understanding of the challenges and work together on the solutions

- **National Prototyping Workshops**
 - Understand the target market segments for on-bill schemes in the country
 - Develop business model prototypes
- **EU Level Expert Roundtable (Brussels)**
 - Present initial results of replication analysis
 - Discuss challenges
- **Development of Pilots with participating utilities**
 - Segmentation of the client base
 - Identification of renovation measures
 - Identification of partners

THANK YOU!



www.renonbill.eu

 [@RenOnBill](https://twitter.com/RenOnBill)

 [RenOnBill H2020 - Residential Building Energy Renovations with On-Bill Financing](#)



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



RENONBILL