Interreg Europe Policy Learning Platform

Thematic Workshop on Energy Efficiency in Buildings

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Interreg Europe

European Union
European Regional
Development Fund

FINANCIAL INSTRUMENTS FOR ENERGY RENOVATION OF BUILDINGS

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FINANCING ENERGY RENOVATION OF BUILDINGS

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- FINERPOL project work
- Financial Instruments concept
- Exante Assessment as EC requirement
- Why to use Financial Instruments in Energy Efficiency of buildings
- Exante Assessment Methodology
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FINERPOL project work

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WHAT?

Promoting the use of SF in Financial Instruments instead of grants.

HOW?

Providing capacity to MAs + Visiting existing samples

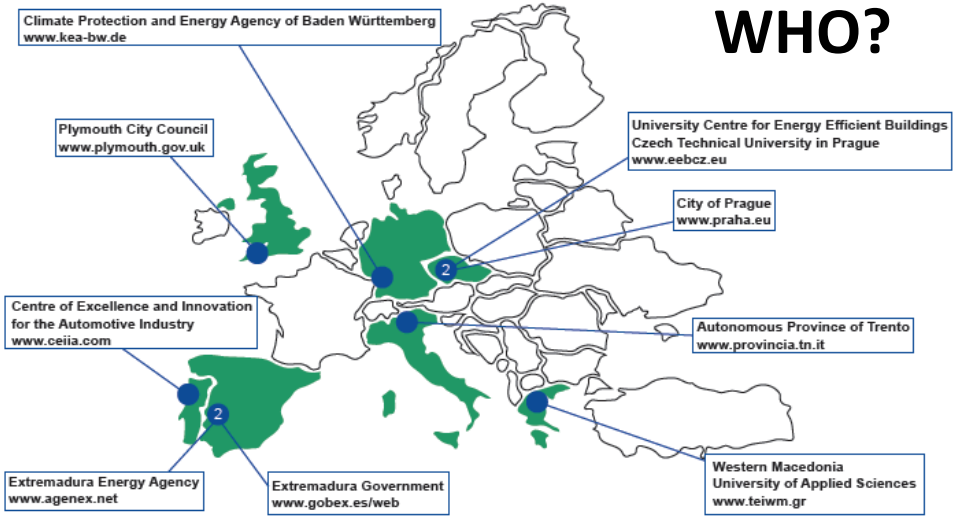
WHEN?

Phase 1: March 2016 – March 2018

HOW MUCH?

- 5 ROP AFFECTED
- 1 NATIONAL OP AFFECTED
- 1 REVOLVING FUND
- 7 M€ public funds influenced
- 75 M€ mobilised

WHO?



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Financial Instruments concept

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LOANS	GUARANTEES	EQUITY	QUASI-EQUITY
LOW RISK	REQUIRE LESS FUNDING	STIMULATES RISKY INVESTMENTS	COMBINES DEBT AND EQUITY
HIGH NUMBER OF RECIPIENTS	MULTIPLIER EFFECT	MAY GENERATE HIGH PROFITS OR LOSSES	LOWER COLLATERAL REQUIREMENTS
EASY TO MANAGE	RISK RESERVE	TARGETING A SMALLER NUMBER OF RECIPIENT WITH HIGH INVESTMENT VOLUME	STIMULATES RISKY INVESTMENTS
EASY TO REINVEST THE MONEY			

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Ex-Ante Assessment, as EC requirement

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2014-2020 ESIF policy frameworks emphasized the need for more use of financial instruments

Ex-ante Assessment as condition for FIs included in Article 37 (2) of the Common Provisions Regulation (CPR).

EE and RES in buildings:

- In 2014-2020 OPs MS were proposed to create specific FI for energy efficiency in buildings. Ex-ante were finished at the end of 2017
- MFF for 2021-2027 is under design and FIs for EE foreseen as priority tools.

Why to use FIS in EE of buildings?

Why to use FIS??

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- Long term sustainability of Structural Funds - **revolving** effect.
- Higher efficiency in the use of (scarce) public funding - higher **leverage** effects.

- More business-oriented attitude and financial discipline into the public identification/selection of projects

- Blending or combination of funds, public or PPP, including technical assistance to overcome market barriers.

- Capacity to implement innovation (risk sharing, bundling, de-risking, etc)
- Move away from grant dependency culture

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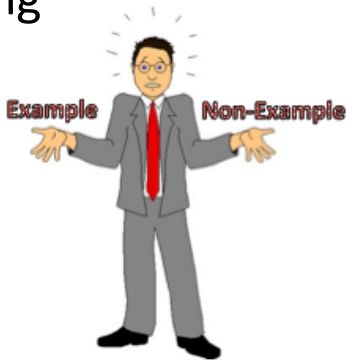
Why to use FIS in EE of buildings

EE GENERAL DEMAND-SIDE BARRIERS

Financial barriers

- Owners have other investment priorities
- Savings are not perceived as incomes
- Collateral benefits (achieving comfort, health improvement, adding value to assets, etc.) are difficult to value in the project assessment.



Social or awareness barriers:

- Lack of close successful samples and references of projects.
- Incentives perceived as complex, non worthwhile and difficult to identify.
- Difference in the approach to lenders and landlords.

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Why to use FIS in EE of buildings

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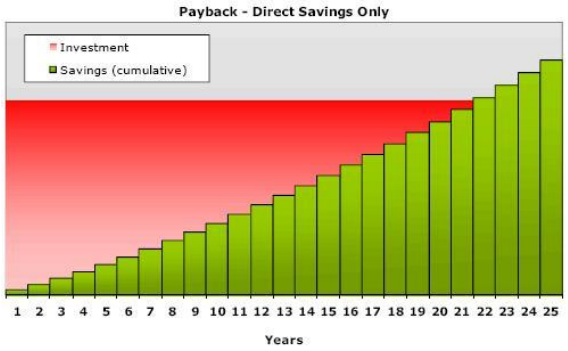
SUPLY-SIDE BARRIERS FOR EE

Financial barriers

- Usual request of collateral
- Lack of technical knowledge
- Up-front payments, low possibility of 100% financing

Low attractiveness for investors

- Long-term paybacks
- Medium size projects, high transaction costs.
- No generation of revenues but savings.
- High risk investments



- Lack of specific regulation providing long-term stability

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Fis, ex-ante assessment methodology

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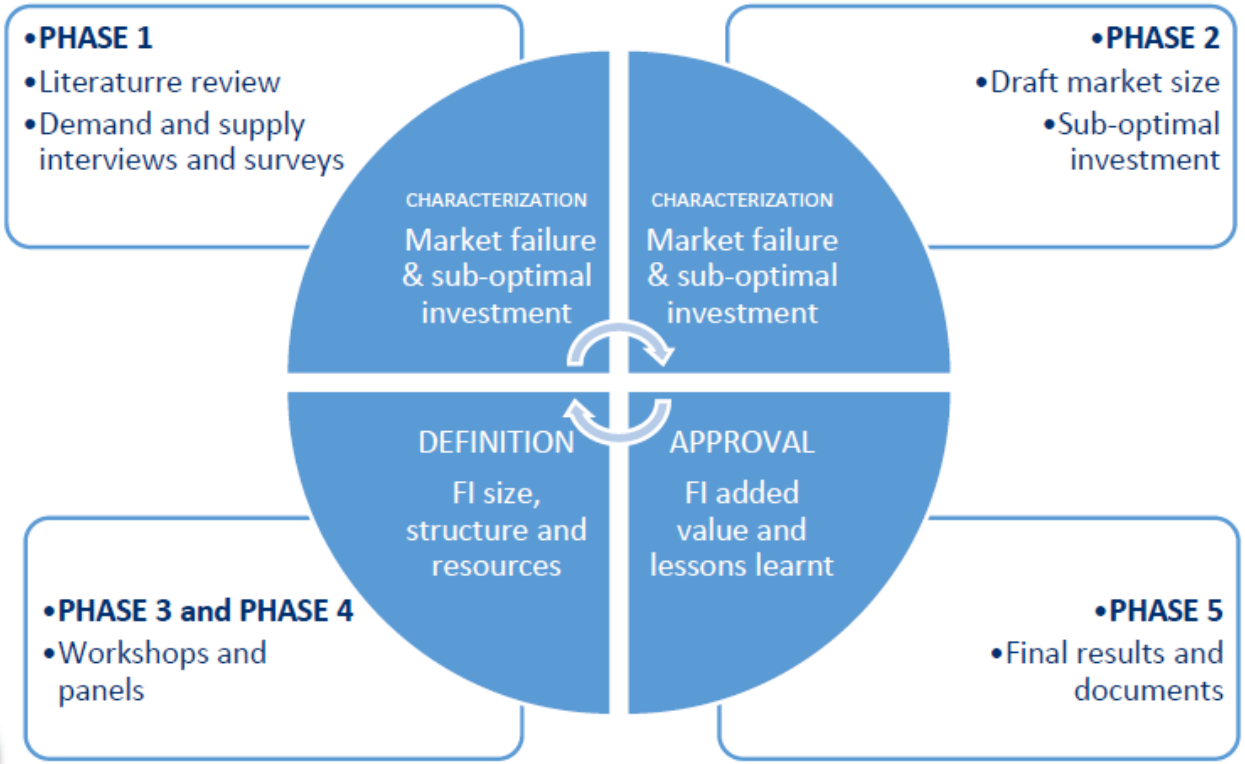
- PHASE 1. Questionnaires and interviews to demand and supply.
- PHASE 2. Desk analysis, calculations and draft documents.
- PHASE 3. Workshops main demand/supply representatives
- PHASE 4. Expert's panels for validation of results.
- PHASE 5. Delivery of final results and documents.



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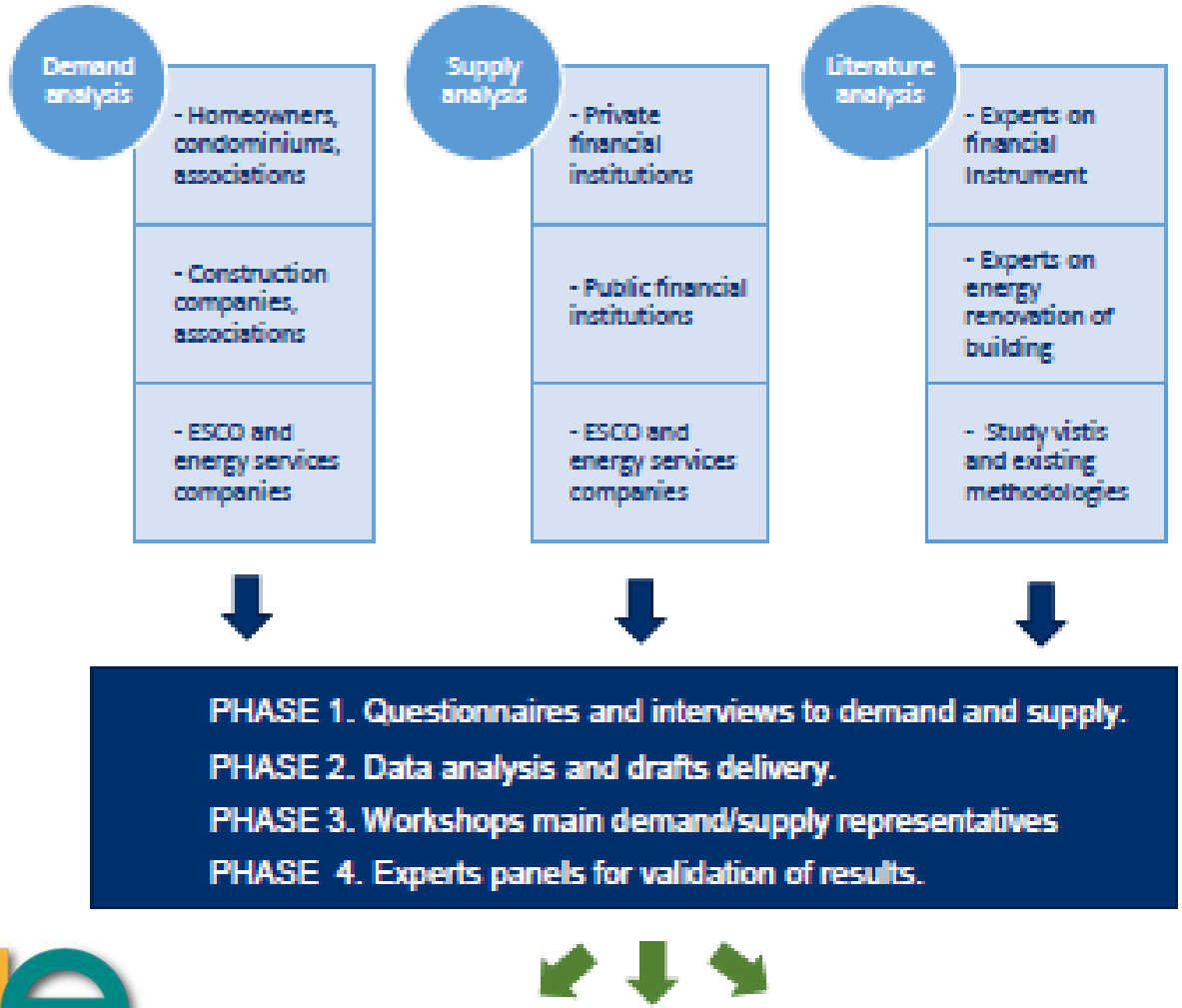

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Fis, ex-ante assessment methodology

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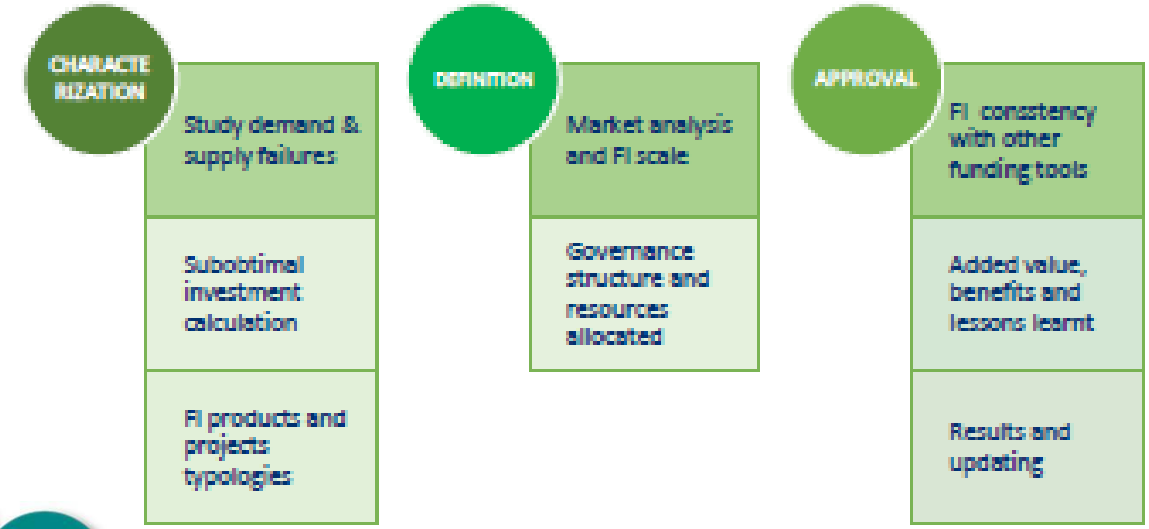

Extremadura FI - Guarantee Fund

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EXTREMADURA EX-ANTE ASSESSMENT AND IMPLEMENTATION PLAN

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Market sector and market failure

Extremadura 700.000 house units, sector had to be selected
Interviews to the demand side

Condominiums built before 1980, no insulation directives, with central heating of diesel

Comercial banks providing financial products for this demand
Interviews to the supply side

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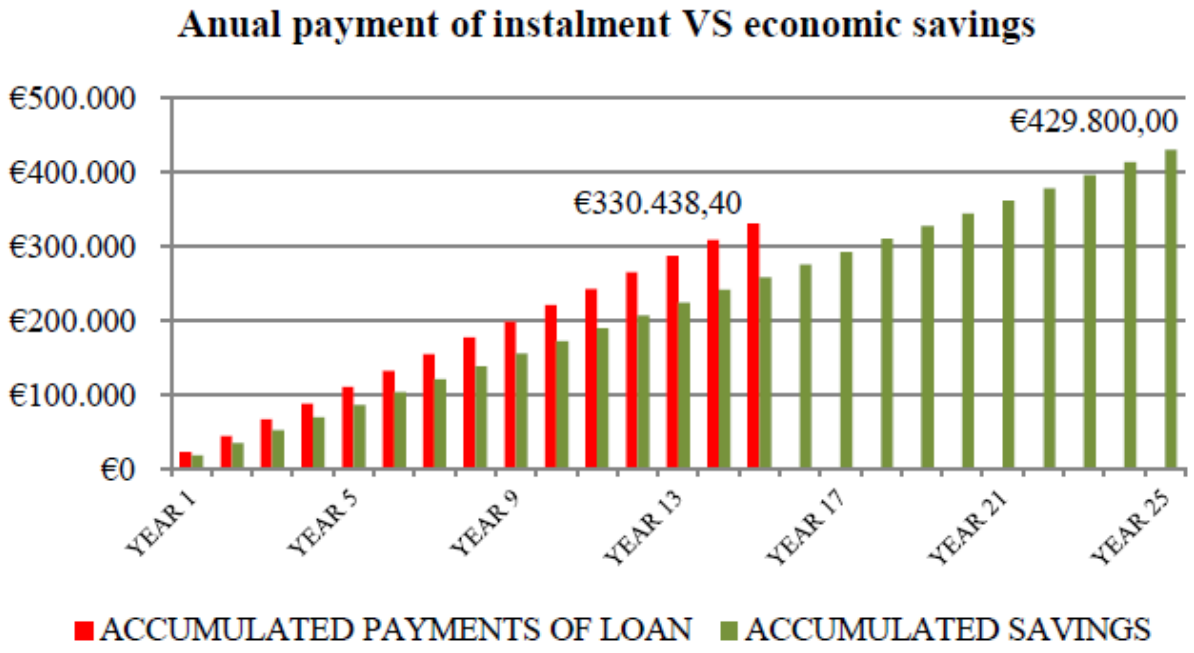
Market sector and market failure

Economic simulation sample

Year of construction: 1976
Distribution: 8 floors (4 dwellings/floor)
Nº of dwellings: 32
Floor area/dwelling: 92 m^2

Funding system:
GRANT: 72.535,26 €
LOAN: 330.438,40 € (15 years and TAE of 6,19%)



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Market sector and volume

Identification of 400 buildings with 200 M€ potential investment

Description of the building	Invest-ment line	Description of the investment	N°	Total surface (m^2)	Current energy consumption		Energy savings			Price	Payback (years)	Investment costs
					kwh/year	€/year	(%)	kWh/year	€/year			€
Type 1 ≤ 4 floors & central heating power ≤ 300 kW	1	Heating replacement (230 kW)	1	1.446	242.880	15.204	32,00	77.722	5.311	225 €/kW	6,63	35.190
	2	Building´s envelope	1	1.254			19,00	46.147	3.153	86-119 €/m^2	37,34	117.759
	3	Building´s windows	1	95			6,00	14.573	996	445 €/m^2	42,64	42.461
	4	Elevator	1	-	2.707	865	79,00	2.155	683	20.000 €/unit	29,27	20.000
	5	Renewable Energy (PV)	1	-	7.400	1.110	40,00	2.960	444	1800 €/kW_p	12,16	5.400
Overral performances of the retrofitting pack			1		252.987	17.179	56,74	143.556	10.588		22,27	235.809
Type 2 > 4 floors & central heating power >300 kW	1	Heating replacement (400 kW)	1	2.514	387.200	24.239	32,00	123.904	8.467	225 €/kW	7,23	61.200
	2	Building´s envelope	1	1.959			19,00	73.568	5.027	86-119 €/m^2	35,49	178.411
	3	Building´s windows	1	133			6,00	23.232	1.588	445 €/m^2	37,21	59.076
	4	Elevator	2	-	5.414	1.730	79,00	4.310	1.367	22.000 €/unit	32,19	44.000
	5	Renewable Energy (PV)	1		12.400	1.860	40,00	4.960	744	1800 €/kW_p	14,52	10.800
Overral performances of the retrofitting pack			1		405.014	27.829	56,78	229.974	17.192		21,43	368.487

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1 **TA0.** Users attracting

2 **TA1.** Technical feasibility study

3 **TA2.** Economic feasibility study

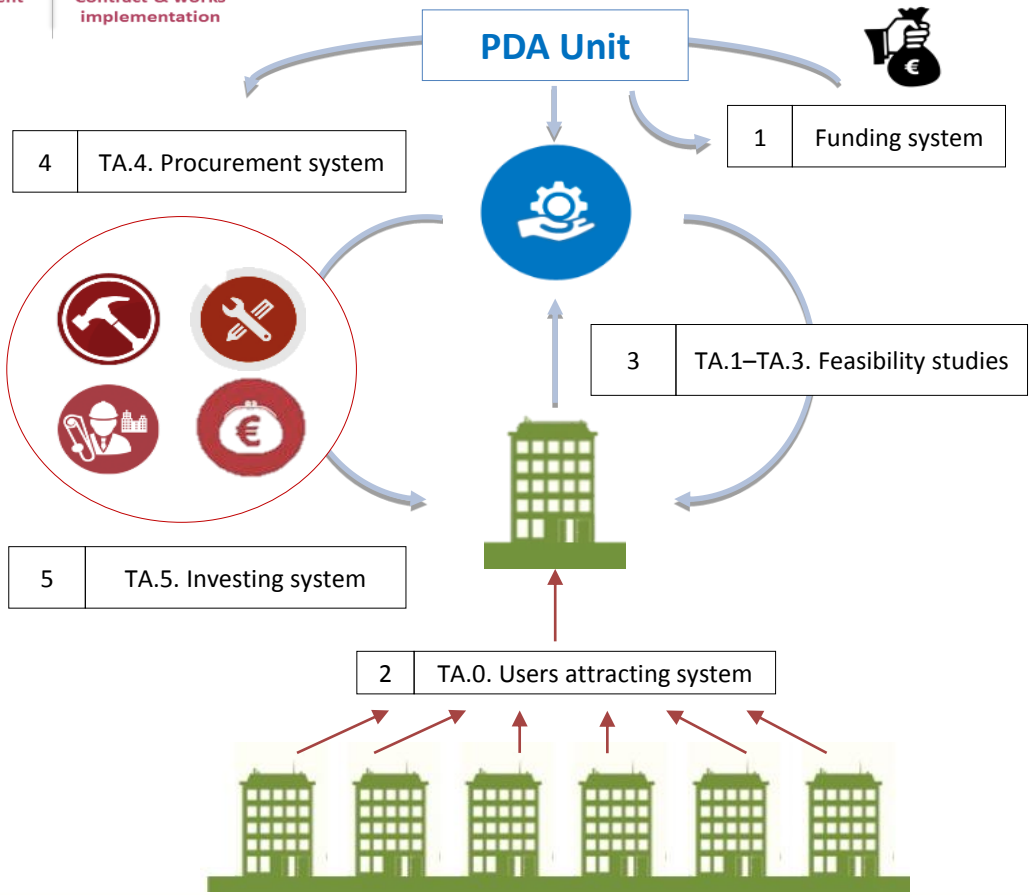
4 **TA3.** Agreements & pre-contract

5 **TA4.** Procurement

6 **TA5.** Contract & works implementation

HousEEnvest
Energy **E**fficiency I**nvest**ments in multifamily **Hous**es

HORIZON 2020
THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION



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From FINERPOL to HousEEnvest

HousEEnvest
Energy Efficiency Investments in multifamily houses

PROJECT SOCIOECONOMIC INDICATORS

- ✓ 5 Million Euro ERDF as Guarantee Fund
- ✓ > 35 Million Euro invested
- ✓ > 700 equivalent employment
- ✓ > 60% public support returns as taxes

PROJECT ENERGY INDICATORS

- ✓ 300.000 sq. of buildings retrofitted
- ✓ 60% final energy saved per building
- ✓ 1 MW PV self-consumption installed
- ✓ > 6.000 users improve comfort

1 **TA0.** Users attracting

2 **TA1.** Technical feasibility study

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CONCLUSIONS

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WHICH IS THE BETTER MODEL TO PROMOTE EE INVESTMENT?

“GRANT”

VS

FINANCING

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