

# BONDS, LOANS AND OTHER MONEY: TACKLING ENERGY POVERTY AND ILL-HEALTH WITH THE RIGHT FINANCIAL SCHEME

*“Social Impact Bonds- New Instruments to Finance Energy Poverty Interventions?”*



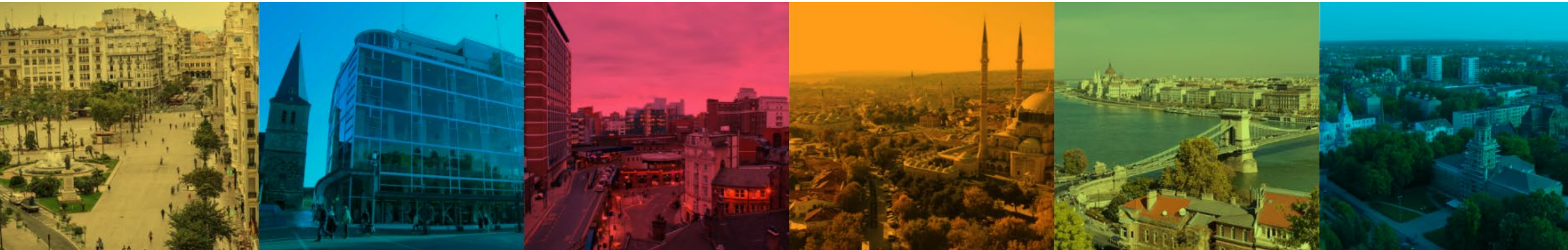
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**3rd WELLBASED Capacity-building Webinar for cities caring energy justice**

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# SOCIAL IMPACT BONDS

## New instruments to finance energy poverty interventions?

Interventions to fight energy poverty are **necessary & urgent**

Current situation characterized by **high demand vs low/scarce supply**

### WHY?

- Governments worldwide are facing fiscal constraints which imply the reduction of social programmes
- “Pilot” interventions (small/sporadic interventions targeting few people)

### KEY QUESTIONS:

- ✓ How can EP interventions be financed? Is there a role for private investment? Public-private collaboration?
- ✓ Can we move from small/sporadic interventions to bigger ones? Can interventions to fight EP be scaled up? How?

**THE ANSWER:** Emerging financing mechanisms like SIBs may be a possibility of increased investment in social programs through private financing

# SOCIAL IMPACT BONDS

## What are SIBs?

Alternative & innovative instruments to finance interventions that address serious social challenges in a context of public-private collaboration.

- ❑ In a SIB, social investors provide up-front capital to finance social programs (usually carried out by NGOs).
- ❑ If the program is “successful”, meaning that certain pre-determined outcomes are achieved, the public administration pays the social investors the initial capital plus a financial return.
- ❑ Since the public administration pays only if the intervention is successful, SIBs transfer the risk to the investors and guarantee a more efficient use of public funds.



SIBs are NOT bonds in the conventional sense (debt instruments) but “pay-for-success” contracts

# SOCIAL IMPACT BONDS

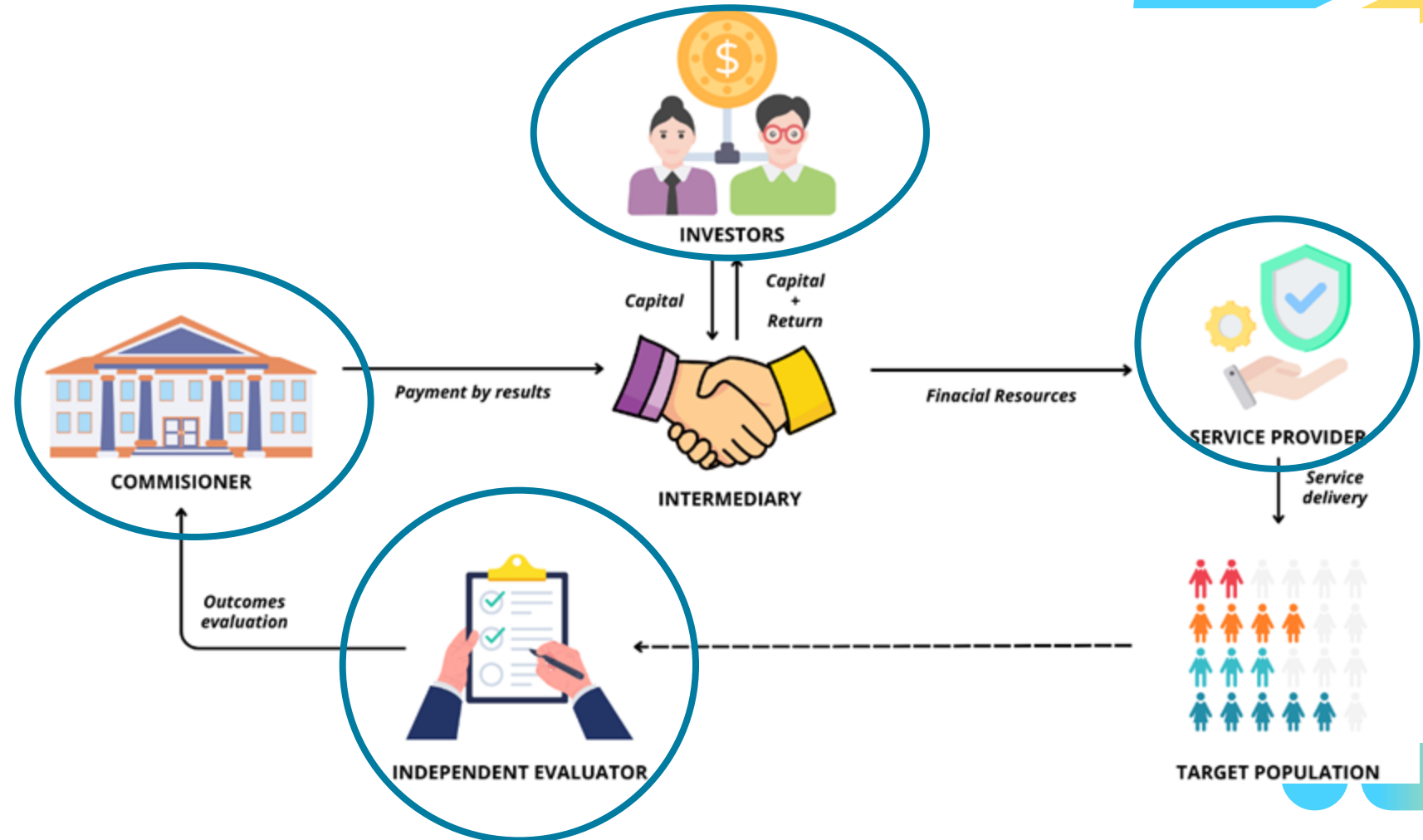
## Main actors in a SIBs

SIBs imply a new form of cooperation between:

**Public sector** (central government or local authorities)

**Social service providers** (NGOs, social businesses, private companies)

**Financial actors** (investors, investment funds, banks, charities)



Source: Adapted from: Carè, R.; Rania, F.; De Lisa, R. Critical Success Factors, Motivations, and Risks in Social Impact Bonds. Sustainability 2020, 12, 7291.

# SOCIAL IMPACT BONDS

## SIB's Pros & Cons

### Advantages

- ✓ Disposal of up-front capital to fund social programmes
- ✓ Transfer the risk to the investor
- ✓ Scaling-up of pilot projects
- ✓ Efficiency in the management of public funds
- ✓ Promotion of social innovation
- ✓ Rigor in the provision of services and the measurement of their impact
- ✓ Fostering an evaluation culture within the P.A.

### Disadvantages

- Still new / unknown instruments
- Require collaboration of different actors: P.A., investors, service providers
- Management costs of the SIB instrument
- RoI may create "perplexities"

# SOCIAL IMPACT BONDS

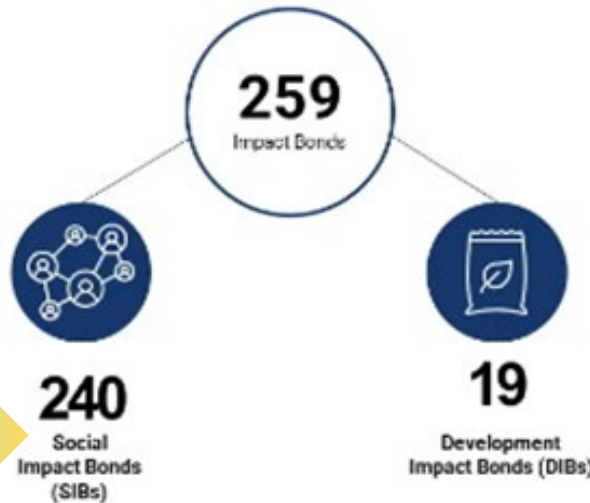
## SIBs worldwide

1<sup>st</sup> SIB in the UK in 2010 in the area of criminal justice to reduce reoffending rates of short-sentenced prisoners.

Since 2010, rapid expansion



## Impact Bonds Contracted Globally



Across





# SOCIAL IMPACT BONDS

## Areas of intervention

- ✓ Criminal justice
- ✓ Social welfare
- ✓ Employment/job training
- ✓ Education
- ✓ Health care
- ✓ Homelessness

Never used in the field of energy poverty



## Impact Bonds Contracted by Sector

B | Global Economy and Development at BROOKINGS



\* Social Welfare includes impact bonds addressing homelessness, poverty reduction, and child & family welfare.

Citation: Brookings Institution Global Impact Bond Database, October 1, 2024

## SIBS & ENERGY POVERTY

### Can SIBs be used to finance & scale-up interventions to reduce EP?

#### SIBs OFFER AN OPPORTUNITY TO:

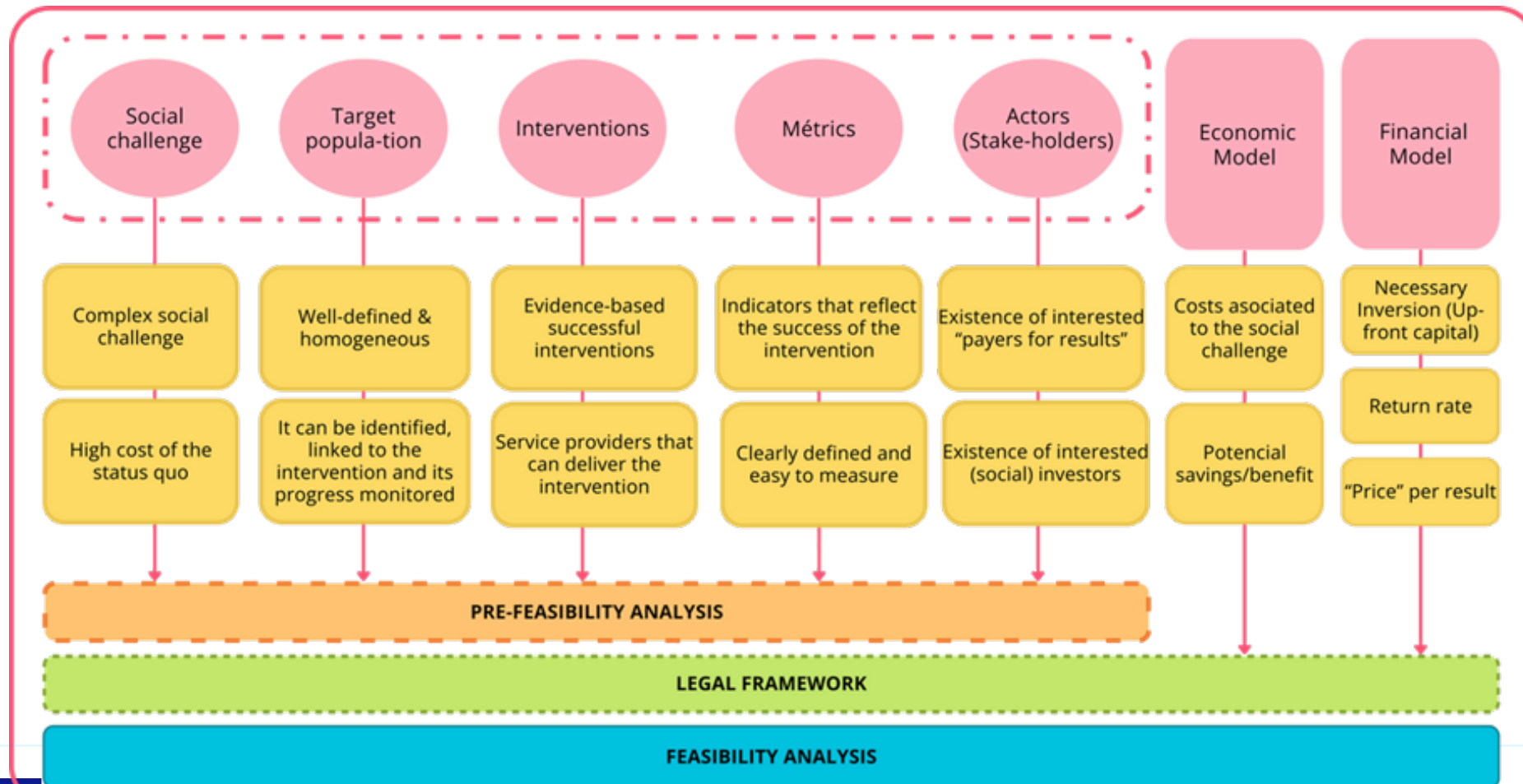
- Invest in **prevention**, avoiding energy poverty from becoming a more serious and chronic problem.
- Have “**up front**” **capital** to finance the intervention (which would be **returned only if the intervention is successful**, and the predefined **targets have been achieved** and **evidenced**).
- Tap into private sector funds at a time when **public resources are scarce** and face competing demands
- **Transfer the risk** of the intervention to the investor.
- Move **from pilot projects to larger projects**, involving a greater number of households/families and therefore increasing the **impact** of an intervention (the risk of escalation is transferred to the investor).
- Close follow-up/monitoring of the intervention, allowing for adjustments if necessary and encouraging transparency and accountability through objective data collection, measurement, and reporting.



# SIBS IN WELLBASED

## The Valencia pilot

### Pre-feasibility analysis: Compliance check & Business case



## SIBS IN WELLBASED

### The Valencia pilot

VLC's intervention: energy audits, energy efficiency kits, bill optimization advice & coaching

#### Compliance check:

- The problem of EP is well-defined ✓
- Its resolution is a priority for the P.A. ✓
- The costs currently incurred by the P.A. due to EP can be quantified ✓
- The costs that will be avoided/the future savings for the P.A. if the EP problem is solved can be quantified ✓
- The beneficiaries can be identified and delimited ✓
- There is empirical evidence on the impact of the intervention\* ✓
- The results of the intervention can be validated and are measurable ✓
- There is an ecosystem of agents that could carry out the implementation of a SIB ✓

\* *E.g. REACH Project, GreenDoctors, ESP Nuremberg, Ni un hogar sin energia, Atlas of Energy Poverty Initiatives in Europe (ACHIEVE, REACH-Slovenia, Run4energy, CAF ACCIO). Also past actions in VLC city and the municipalities of Alzira, Torrent and Liria.*

*Data from WELLBASED in VLC pilot finds empirical evidence on the reduction of electricity bills one year after the intervention. However, results are non-significant when compared with a (non-randomised) control group.*

# SIBS IN WELLBASED

## The Valencia pilot

### Costs and savings of the application of SIBs (Business case N=1.000)

#### Costs of the EP problem (incurred by the P.A. (SSD))

In 2022, in VLC, the SSD spent €348.000 in payments for electricity bills to people in EP (320€/beneficiary)

Costs /payments for electricity bills by SSD (€)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	Total
Cost for the SSD	320.000	320.000	320.000	320.000	320.000	320.000	1.920.000

#### Savings in electricity bills

Data from the WELLBASED intervention in VLC pilot shows average savings in the electricity bill of 38,5€/month

Average savings in electricity bills (€/year)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	Total savings
Average savings	462.000	438.900	430.122	421.520	413.089	404.827	2.570.458

# SIBS IN WELLBASED

## The Valencia pilot

### Costs and savings of the application of SIBs (Business case N=1.000)

#### Costs of the intervention

The cost of the WELLBASED intervention in the VLC pilot =1.155€/beneficiary

Cost of the intervention with SIB (in €)	Total
Average cost of the WELLBASED intervention	1.154.973
Costs of the SIB structure (20% of the cost of the intervention)	230.995
Monitoring & evaluation costs	10.000
<b>SUB- TOTAL</b>	<b>1.395.968</b>
<b>Return on Investment</b>	<b>335.032</b>
<b>TOTAL</b>	<b>1.731.000</b>

# SIBS IN WELLBASED

## The Valencia pilot

### Costs and savings of the application of SIBs (Business case N=1.000)

#### Cost of the WELLBASED intervention in VLC with SIB

In Year 1: (a) cost of the intervention financed via SIB (€1.731.000); (b) cost for the SSD in payments for electricity bills (what the SSD would have to pay without the intervention (€320.000) minus the savings in electricity bills thanks to the intervention (€462.000).

Since the savings in electricity bills > the amount paid by the SSD, this amount is “negative” for SSD. The cost for the SSD is zero while the remaining amount is the real saving for the families (€142.000).

#### Costs for electricity bills made by the Social Services Department (SSD)

NO SIB	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	Total
<b>Cost for the SSD</b>	320.000	320.000	320.000	320.000	320.000	320.000	1.920.000
SIB	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	Total
<b>SIB Cost</b>	1.731.000	0	0	0	0	0	1.731.000
<b>Actual cost for the SSD</b>	0	0	0	0	0	0	
<b>TOTAL COSTS</b>	1.731.000	0	0	0	0	0	1.731.000
<b>Savings for the SSD</b>							189.000

Actual costs & savings	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	Total
<b>Cost for SSD</b>	320.000	320.000	320.000	320.000	320.000	320.000	1.920.000
<b>Average savings</b>	462.000	438.900	430.122	421.520	413.089	404.827	2.570.458
<b>Difference</b>	-142.000	-118.900	-110.122	-101.520	-93.089	-84.827	-650.458
<b>Actual cost for the SSD</b>	0	0	0	0	0	0	0
<b>Actual savings for families</b>	142.000	118.900	110.122	101.520	93.089	84.827	650.458

## SIBS IN WELLBASED

### The Valencia pilot

#### Costs and savings of the application of SIBs (Business case N=1.000)

Thus, considering the cost of the intervention with SIB in year 1 and the “0” costs for the SSD since families can now pay for their own bills, after 6 years, the intervention with SIB is paid and there is a remaining saving for the SSD of €189.000 (€1.920.000-1.731.000)

Costs for electricity bills made by the Social Services Department (SSD)							
NO SIB	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	Total
<b>Cost for the SSD</b>	320.000	320.000	320.000	320.000	320.000	320.000	1.920.000
SIB	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	Total
<b>SIB Cost</b>	1.731.000	0	0	0	0	0	1.731.000
<b>Actual cost for the SSD</b>	0	0	0	0	0	0	
<b>TOTAL COSTS</b>	1.731.000	0	0	0	0	0	1.731.000
<b>Savings for the SSD</b>							189.000



## SIBS IN WELLBASED

### Summing up:

The intervention could be scaled-up using a SIB, obtaining:

- (a) savings for families (reduced electricity bills thanks to the intervention (EE kit, optimizing bills, good EE habits)
- (b) savings for the SSD (for citizens' bills payments)
- (c) the total cost of the intervention via SIB could be covered after 6 years



SIBs could be considered as alternative new instruments at disposal of local authorities to scale-up & finance interventions that combat energy poverty and increase the wellbeing of citizens



# Thank you

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