Deliverable 1.1
SUPER-i Final Guidebook

Exploring financial solutions for investments in energy efficiency requalification in the social housing sector

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Technical references

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EXECUTIVE SUMMARY

The present document, titled "**D1.1 – SUPER-I Final Guidebook**", is related to the outputs of **Task 1.1 - Regional Roundtables**.

The deliverable is composed of three main sections. The first one analyses the events organised in the three countries hosting the project pilots, meaning Denmark, Italy and Slovenia, with the aim of collecting best practices, barriers and enablers to support energy efficiency investments in affordable public rental housing.

The second section provides a detailed overview of insights and trends emerged during the aforementioned roundtables and concerning financial support, in particular emerging funding practices.

The third section presents a qualitative analysis of the roundtables results, describing best practices and possible solutions regarded as more suitable to financially support energy efficiency refurbishment in the pilot sites.

The present document will feed the assessment of achievable economic potential of EE investment opportunities in the social housing sector, and more in particular will support the work of **T1.3 - Evaluation of baseline qualitative and quantitative data**, of **T1.4 - Financial Instruments and Evaluation Methodology**, and of the whole **WP3 - SUPER-i EE financial analysis and investments pipelines**.

This deliverable provides a detailed overview of the regional roundtables, the SUPER-i toolkit and the financial roadmaps developed within the SUPER-i project to support energy efficiency renovation projects in Denmark, Italy, and Slovenia. This deliverable combines insights from the regional roundtables and the financial roadmaps to propose innovative funding solutions and address investment gaps in the energy efficiency sector.

The regional roundtables, conducted between April 26 and May 12, 2022, across three countries, aimed to engage stakeholders and identify barriers to energy efficiency renovations in social housing. The discussions highlighted obstacles such as administrative complexities, financial risks, and stakeholder cooperation issues, while also revealing country-specific preferences in funding sources and instruments.

The financial roadmaps outline available funding mechanisms in each country and analyse the financial gap between investment needs and available resources. In Denmark, various funding mechanisms such as the National Building Fund and Energy Performance Contracts (EPCs) are available, but a gap of EUR 2.47 billion remains. Italy on the other hand offers incentives like Ecobonus and Superbonus 110% with a slight shortfall of EUR 0.97 billion. In Slovenia, despite funding from the Eco Fund and European Union, there is a significant disparity of EUR 8.566 billion between investment requirements and available resources. To bridge these gaps, this deliverable proposes several innovative funding solutions, with a focus on Public-Private Partnerships (PPPs). Two primary PPP contracts for energy efficiency renovations in social housing, the guaranteed savings contract and the shared savings contract, offer flexibility in financing and risk allocation between social housing associations and Energy Service Companies (ESCOs).

The Super-i Toolkit complements these financial solutions by offering technical, environmental and financial analyses tailored to the specific needs of each country. By providing recommendations for feasible renovations and innovative financing options, the toolkit aims to alleviate energy poverty and promote sustainable development in Denmark, Italy and Slovenia.

Overall, addressing energy poverty requires a multifaceted approach that combines technical expertise, innovative financing mechanisms and practical tools for implementation. The SUPER-i project, through its regional roundtables and financial roadmaps, lays the groundwork for empowering stakeholders and catalysing sustainable energy development in social housing buildings in Europe.

Introduction

The deliverable describes the outputs of *Task 1.1, Regional Roundtables*, organised in the three countries hosting the project's pilots: Denmark, Italy and Slovenia.

The roundtable dialogues pursued two main objectives: 1) **building a first network of relevant stakeholders** around the issue of social housing building energy efficiency requalification; 2) **exploring the main financial barriers to investments in energy efficiency requalification in the social housing context**, as well as the **main funding sources** used in the different contexts to support building refurbishment, with particular attention to solutions based on public-private partnerships.

The experiences presented by speakers, the discussions that followed the presentations, and the answers collected through the Mentimeter Surveys constitute the basis for the elaboration of the present document, which outlines an **initial collection of possible solutions to financially support energy efficiency refurbishment** in social houses with a focus on public-private partnerships.

The deliverable is divided in three main sections:

1. **Description of Roundtables in SUPER-i pilot sites.**

During the events, experiences, business practices and expectations were shared in an effort to support energy efficiency investments in affordable public rental housing. This section describes the discussion held during roundtable events, merging the outputs coming from frontal presentations, discussions, and the involvement of participants through the Mentimeter surveys.

More specifically, the section focuses on the identification of obstacles and barriers to investments, and of the financial instruments and solutions that are considered more useful and accessible for the purpose of requalifying social housing building from the energy efficiency point of view.

2. **Insights and Trends**

In this section we reported on interesting trends in matters of support to finance, which emerged during the events. We considered as trends either consolidated tendencies (not necessarily virtuous) in terms of funding modalities within a given contexts, or promising emerging practices and solutions which might delineate additional opportunities in terms of funding opportunities and mix.

3. **Possible solutions and best practices**

Starting from the material collected during the roundtables, in this section we presented the solutions we considered more interesting to financially support energy efficiency refurbishment. This represents only a first step in the SUPER-i project activities, many subsequent deliverables being more specifically dedicated to this subject.

This work will feed the assessment of achievable economic potential of EE investment opportunities in the social housing sector, and more in particular will support the work of T1.3, Evaluation of baseline qualitative and quantitative data; of T1.4, Financial Instruments and Evaluation Methodology; and of the whole WP3, SUPER-i EE financial analysis and investments pipelines.

Roundtables in SUPER-i pilot sites

Roundtable dialogues were held between 26 April and 12 May 2022 in Italy, Slovenia and Denmark, pursuing two main objectives:

1. **Engaging at least 30 local relevant stakeholders at regional and national level and initiating a permanent dialogue among them.**

The following stakeholders were considered relevant, because of their role and play in energy refurbishment support and funding:

- Financial Institutions
    a. LFI (Local Financial institutions) and Investors
    b. IFI (International Financial Institutions: European Investment Bank, Council of Europe Development Bank, European Bank of Reconstruction and Development)
    c. Public finance institutions (National promotional banks, Regional development banks, National commercial banks)
    d. Investment funds and crowdfunding platforms
- Social housing managers and social housing associations / organisations
- Public bodies / Local authorities (city councils, regional bodies - including other regions of the same country)
- Energy Efficiency Experts and ESCOs
- Local SMEs in the building and renewable sector
- Local household organisations
- Energy service providers

2. **Collecting relevant information regarding EE financing challenges in the social housing market and identify existing financial schemes towards social housing EE refurbishment projects**

The roundtables dialogues were designed to pin down **barriers to investments** and to propose **best funding sources** with a focus on public-private partnerships. Besides frontal presentations and plenary discussions, all roundtables foresaw the involvement of participants through Mentimeter surveys. The same questionnaire (included at the end of this document) was presented in all events, with some minor adaptations. The answers collected through surveys together with the speakers' presentations inputs constitute the basis for the elaboration of the present document.

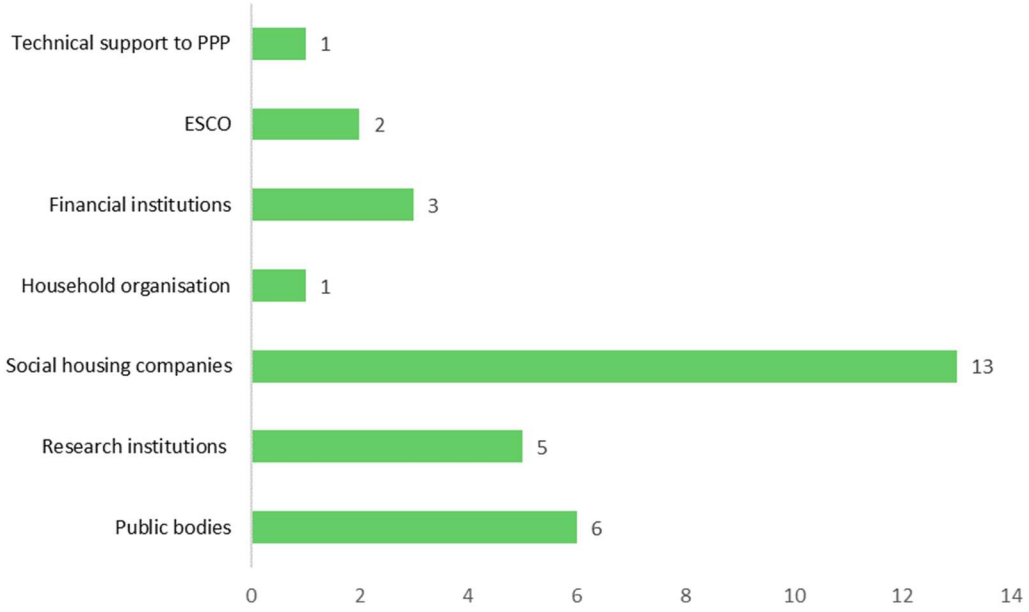
During the events, experiences, business practices and expectations were shared in an effort to support energy efficiency investments in affordable public rental housing.

Roundtable Overview

Italy, Trieste, 26 April 2022

In Italy the event was organised by **CiviESCO**, Energy service company specialised in energy efficiency refurbishment and impact investing, **ATER Trieste**, a social housing company, supported by project partners such as the **University of York** and **APRE** (Italian Agency for the Promotion of European Research).
The event was opened by the regional councillor for infrastructures, and saw the participation of various of stakeholders, such as social housing companies (Federcasa, ATER Trieste, ATER Gorizia, ACER Reggio Emilia), different representative of the financial sector, such as Investment funds (Fondo Housing Sociale FVG, Tendercapital LTD), Financial institutions (CiviBank) and a crowdfunding platform for impact investments (Lita.co); Research organisations (ENEA e ABI Lab, the latter specialised in innovation of the bank sector), and finally representatives from the industrial sector.
The discussion started with presentations by two main social housing sites on which the project SUPER-i will work on, describing **their financial and technical strategic choices** for the refurbishment. Additional presentations focused on **financial instruments and mechanisms**, as well as on considerations on the **societal and ethical aspects of this type of intervention**. They all stressed the importance of stimulating participative and co-designing processes with householder organisations, able to strengthen also **the social and relational fabric of the communities involved.**

Participants: 32, of which:
1. Public bodies: 6
2. Research institutions and Research supporting organisation: 5
3. Social housing companies: 13
4. Household organisation: 1
5. Financial institutions: 3
6. ESCO: 2
7. NGO social housing: 1
8. Technical support to PPP: 1



Slovenia, Ljubljana, 10 May 2022

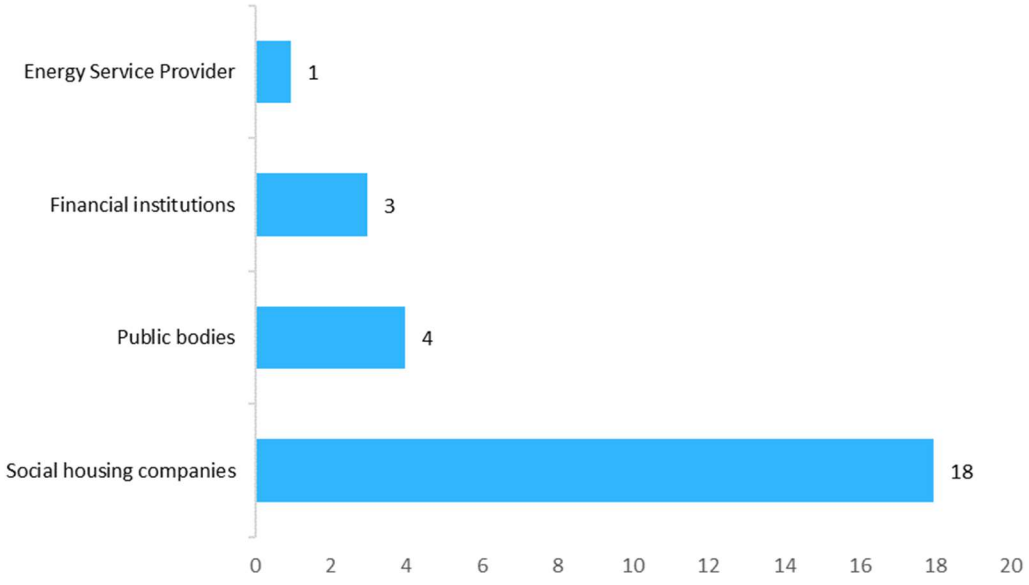
The Housing Fund of the Republic of Slovenia, Public Fund organised a roundtable meeting in Ljubljana to discuss factors, barriers, and opportunities for energy-efficient renovations of building stock for housing managers and owners.

The event was opened with welcoming remarks from the **director of Slovenia's Housing Fund Črtomir Reme**c, while an introduction to the roundtable meeting and SUPER-i project was made by Nina Pečar. This was followed by the presentation of the current renovation project in Trbovlje given by social housing manager Zdenka Juvan (Spekter d.o.o.). The experiences of stakeholders who participated in energy renovations of buildings in Slovenia were presented to support new investments in energy efficiency in buildings. The event aimed to **actively promote Energy-efficient renovation**s of affordable public rental housing, which can create a significant societal impact by **reducing energy poverty.**

The round table **brought together all the key players involved in energy efficiency in social housing.** The participants were from Energy Service Companies (Petrol d.d.), Social Housing Companies *(JSS MOL, JSS MOM, NS PIZ)*, Financial Institutions *(SID Bank and Eco Fund, Slovenian Environmental Public Fund)*, Public Bodies, including local authorities *(Municipality Velenje),* Households Organisations *(Spekter d.o.o., Stanovanjsko podjetje d.o.o.)* and State Authorities *(Ministry of the Environment and Spatial Planning).*

Participants: 26 of which:

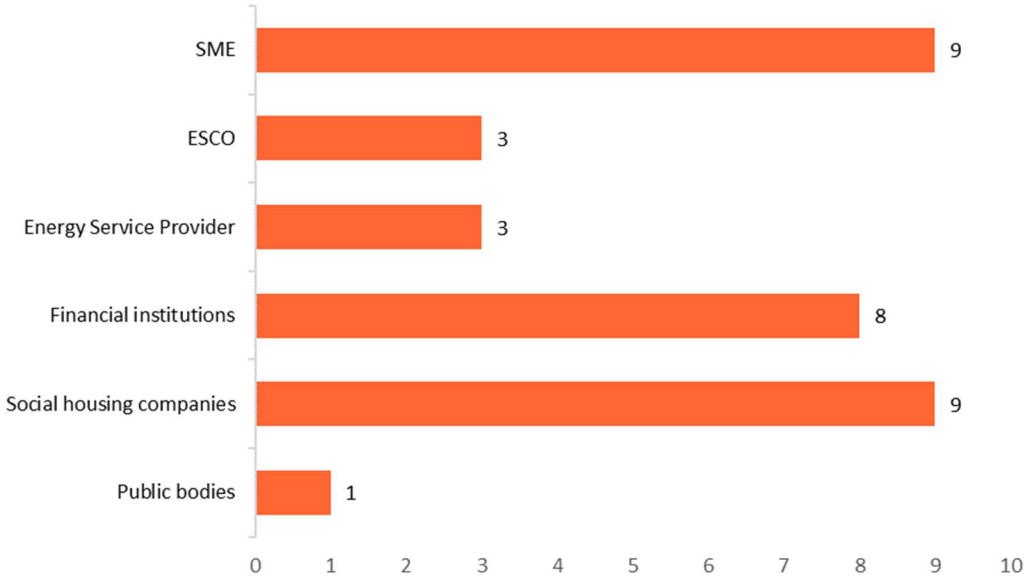
1. Social housing companies: 18
2. Public bodies: 4
3. Financial institutions: 3
4. Energy Service Provider: 1



Denmark, 11 May 2022

The Association of Social Housing Companies, BL, and European Green Cities Network organised a roundtable meeting in Copenhagen in May 2022 on how to improve financing of investments in energy renovations for social housing companies.
An important conclusion from the Danish Roundtable is that there is a need **to develop and implement a new "ESCO 2.0 Model"** *inspired by the SUPER-i project* and focusing on a holistic approach of ESCO financing of energy savings and building integrated renewable energy investment in social housing residential building renovation.
Mikkel Jungshoved, The Association of Social Housing Companies, BL, and Hans Bjerregaard, European Green Cities, agree that such new ESCO models giving **guarantees on return of the investments** in energy renovation measures of buildings in the social housing sector can play a key role for promoting such investments.

Participants: 33, of which:
1. Public bodies: 1
2. Social housing companies: 9
3. Financial institutions: 8
4. Energy Service Provider: 3
5. ESCO: 3
6. SME: 9



Analysis of Barriers and Obstacles

The following is a synthesis of obstacles, elaborated starting from the results of the Mentimeter surveys held during the Roundtable events, combined with the input provided by speakers and participants to the events (the full text of the survey questionnaire is provided at the end of this document). A more qualitative elaboration will be provided in the following chapters, dedicated to trends and insights as well as to best practices and possible solutions.

Obstacles identified in Italy

Administrative and procedural barriers

- Complexity and lack of clarity regarding the normative and administrative framework, also at the EU level. This comprises possible idiosyncrasies or lack of coordination between the EU regulative framework and national laws, including possible national restrictions.
- Administrative and bureaucratic procedures can represent obstacles, since they may be perceived as heavy and complex, creating difficulty in accessing incentives.

Time-related barriers

- Length of techno-administrative procedures, affecting planning, and execution timeline, including making it difficult to respect time boundaries requested by incentive mechanisms.

Financial barriers

- Financial risk.
- Difficulty in sourcing appropriate funding.

Know-how and information-related barriers

- Lack of qualified labour force.
- Lack of skills in designing and planning the specific intervention, including capacity to understand all technical aspects of possible interventions.

Vision and approach barriers

- Lack of long-term vision and planning capacity.
- Lack of value-oriented approach in the management of public estate buildings.
- Lack of concrete evidence on medium-term gains, which can act as incentives towards citizens or politics.

Stakeholder cooperation related barriers

- Political obstacles or choices.
- Issues related to social housing residents, including ownership fragmentation (some apartments have private owners, which entails different approaches to investments).
- Capacity to co-design with all relevant stakeholders, and to create synergies between resources and territorial stakeholders (enterprises, residents).
- Lack of trust in public-private cooperation.

In Italy 27 persons took part in the Mentimeter survey. We will comment on the results that we considered more relevant, corresponding to the obstacles that were perceived as more important and received more votes.

Restriction and obstacles connected to **legal provisions and administrative procedures** have been pointed out as significant barriers, with 18 votes. These types of barriers cover a wide and varied range of problems, for example legal incongruences between the EU and the national regulation level, the difficulty in identifying suitable fundings and then preparing an adequate application, the complexity of procedures and the length connected to their execution. Finally, respecting time boundaries requested by incentive mechanisms has been considered a difficult task.

In line with what emerged also in the other roundtables, managing the relationship with social housing residents raises some concern (14 votes); in particular, the coexistence in the same buildings of **public-owned and private-owned apartments** is connected to different attitudes and readiness to investments, requiring therefore management and negotiation efforts.

Although the lack of qualified labour force has not been considered a major issue (only 3 votes), qualitative inputs have nonetheless highlighted other **know-how related issues** acting as barriers. For example, the capacity of properly designing and planning the specific intervention, including the capacity to understand all the connected technical aspects, has been pointed out as critical. The **lack of information on green technologies** has not been considered as an issue, collecting just 2 votes.

Obstacles identified in Slovenia

Administrative, procedural, time-related barriers

- Large volume of applications for photovoltaic or solar system subsidies - processing of applications takes time.
- Legal restrictions /administrative procedures.
- Industry standards/norms.

Financial barriers

- Financial risk.
- Innovation costs.

- Size of investment (too big or too small for financial institutions).
- Uncertain return on investment or too long payback period.
- Lack of dedicated funding sources for energy rehabilitation (e.g. grants).
- The amount of grant made available depends on the type of company that applies for it (e.g. public enterprise, private limited company).
- Energy-efficient building renovations can be expensive and due to the limited amount of financial resources, it is sometimes difficult to decide between renovating existing buildings or building new ones.

Know-how and information-related barriers

- High complexity of implementation as a result of multiple stakeholders involved in these types of interventions.
- Lack of information about green technologies.
- Lack of skilled labour.
- Municipalities lack competences and information to apply for grants.

Vision and approach barriers

- The low prices of district heating (in the municipality of Velenje) were at the basis of a lack of interest in energy renovations.
- The fragmented situation in terms of ownership within buildings, combined with the lack of familiarity and unreceptive attitudes of owners towards existing opportunities, translates into a lack of interest in possible financial services (SID Bank d.d.- national promotional development bank). There is a lack of interest in all types of financial services because of fragmented ownership and the residents' weak consensus to accept the renovation.

Stakeholder cooperation related barriers

- Problems with social housing inhabitants.
- Limited motivations of owners to invest, since energy requalification of buildings does not translate into increased owner's revenues from rental income.
- Ownership fragmentation within the building, combined with the lack of receptiveness from landlords makes it difficult to get enough consents to begin the renovation process.
- Some neighbourhoods have low-income residents who are unable to afford to pay for energy-efficient building renovations.

In Slovenia 23 persons took part in the Mentimeter survey. We will comment on the results that we considered more relevant, corresponding to the obstacles that were perceived as more important and received more votes.

Most participants to the survey converged on identifying as a major obstacle the issue of **financial risk** (19 votes) and the connected uncertainties on the return of investment, including a possible too long payback period (18 votes). Finally, the size of required investments – too big or too small – can represent a possible obstacle for financial institutions. Innovation costs in general have been considered critical by 8 participants.
Legal restrictions /administrative procedures have been considered influential by 13 participants.
On the other hand, many have recognized the governance dimension at the level of **social housing inhabitants** as a critical aspect (12) for a number of reasons that have been already explained above.

Other types of obstacles that were proposed for voting were **perceived as less relevant**, such as the lack of skilled labour force (5 votes), the lack of information about green technologies (3 votes), municipalities lack competences and information to apply for grants (4), industry/standard norms (2 votes).

Obstacles identified in Denmark

Administrative and procedural barriers

- Legal restrictions /administrative procedures.
- Industry standards/norms.

Time-related barriers

- Financing of energy measures normally has to be accepted and/or guaranteed by the National Building Fund in Denmark (Landsbyggefonden) or the local municipality; although this process represents a guarantee for financial institutions issuing loans, there are **two important limitations**: 1) the process takes **long time** (sometimes several years) and significant workforce resources; 2) the loans are limited to what, the municipalities and/or Landsbyggefonden will accept/guarantee.
- Social housing tenants' deliberations in matters of energy refurbishment are usually very slow.

Financial barriers

- Financial risk
- Size of investment is considered too small for financial institutions.
- Uncertain return on investment or too long payback period, being unacceptable for social housing companies that invest in renovation measures.
- Lack of guarantee on financial investments for energy requalification. Local authorities in many cases give financial guarantees for energy retrofitting measures, but it's not obligatory. This is an obstacle for investors especially in those cases where there is no sufficient real estate value to give sufficient security investments.
- Pensions funds or similar funding sources have limited resources to invest in sustainable development and climate protection, since by public regulation these types of financing sources do not find the right conditions and arrangements to invest in social housing companies' energy saving measures. But the pension funds in Denmark represent a potential major investor in sustainable development, with a focus on increasing investments in the direction of climate protection. At the moment, however, it is difficult for pension funds to invest on energy measures at the level of social housing companies, since each investment is too small to be profitable for them.
- Availability and access to sufficient percentage coverage of loans from Landsbyggefonden.
- Lack of specific funds for energy retrofitting and renewable energy supply.
- Even if energy efficiency investments increase the value of real estate, at the moment financial institutions have very rarely in place mechanisms to take into account this added value when granting loans.
- EU regulation hinders to loans with long lifetime for green real estate loans

Stakeholders cooperation related barriers

- Problems with social housing inhabitants.
- Reluctance of tenants, which are not willing or available to pay more rent to save energy and have renewable and sustainable energy supply.

- ESCO financing is based exclusively on energy saving measures and does not value all connected benefits, such as the increased value of buildings or the improved comfort/health. Tenants and social housing companies tend to perceive just an increase of rent and focus on energy bill payments.

Know-how and information-related barriers

- Lack of information about green technologies.
- Lack of skilled labour.
- Municipalities lack competences and information to apply for grants.

In Denmark 20 persons took part in the Mentimeter survey. We will comment on the results that we considered more relevant, corresponding to the obstacles that were perceived as more important and received more votes.

In Denmark, the role of the Landsbyggefonden is fundamental both on the financial and on the technical point of view. On the one hand, the fund facilitates investments by providing backing and guarantees to investors; however, the excessive length of the procedure, and the conditions applied in terms of what intervention would be guaranteed, represent important limitations.

Financial risk represented an issue for 9 participants, while the size of investments was considered too small for financial institutions (3 votes). The uncertainty on return on investment or long payback period stand out in the Danish social housing system (15 votes), being particularly unacceptable for social housing companies. Finally, 12 participants pointed out problems connected to social housing inhabitants.

Lack of specific competences or information (e.g. on green technologies) were not represented as particularly sensitive problems, collecting only limited votes (1 to 4 votes).

Analysis of funding sources and instruments

The following is a synthesis of the inputs received during the roundtable events, combining the Mentimeter surveys and the contributions of speakers and participants to the events (the full text of the survey questionnaire is provided at the end of this document). A more qualitative elaboration will be provided in the following chapters, dedicated to trends and insights as well as to best practices and possible solutions.

Funding and Investment scenario in Italy

The sources of funding considered as most effective for energy efficiency investments in Italy remain national funds (14 votes), followed by European funds (8 votes). Crowdfunding and green loans raised only 2 votes each. Amongst the instruments that have been mentioned as effective sources there are:

- Specific incentives erogated by the national energy service company (GSE - Gestore Servizi Energetici) to supporto public administration, enterprise and private citizens in increasing building energy efficiency as well as turmeric energy production from renewable sources. Such incentives - called “Conto termico” - cover from 40% to 65% of incurred expenses, depending on the nature of interventions, and can be additional to other types of incentives and facilitations.
- National or regional funds.
- Tax credit and bonus.
- Grants.

- It was noted that the intervention of private investors shall be further promoted, as a complementary measure.

The aspects that have been considered more relevant to facilitate investments on energy efficiency technologies in the context of social housing are financial incentives and the capacity to lower financial risks associated with eco-investments through financial institutions support (both with 8 votes).

Besides financial support mechanisms, for social housing companies planning to invest on the energy requalification of buildings, **a number of other enabling factors were mentioned as important**, such as:

- the possibility to rely on a network of competent actors and of sharing experiences
- the capacity to structure a solid investment project plan
- a set of predetermined and easy procedures
- the possibility to fund activities for the training of residents and tenants, and finally
- the constitution of public-private partnership.

Other enabling aspects were voted during the Mentimeter survey:

- the training of staff on innovative technologies and services (6 votes)
- the suitable interaction between social housing managers and social housing associations, to facilitate social acceptance (6 votes).
- regulation (4 votes).

Funding and Investment scenario in Slovenia

The sources of funding considered as most effective for energy efficiency investments in Slovenia are EU funds (20 votes) followed by national funds (14 votes). Green loans were taken into consideration by 6 participants, while crowdfunding was voted by only 1 person. Sources and instruments that have been mentioned as effective sources are:

- EU and national financing and grants, including cohesion funds
- The combination of grants and loans, including green loans, and through financial engineering instruments.
- Own resources have been mentioned several times, meaning that they can make the difference. In particular, the repurchase from a reserve fund, if own resources are available, has been proposed.
- Credit through the reserve fund (the building common wallet, where each building unit and owner contributes, used to finance improvements and maintenance) and non-refundable grants.

One comment interestingly shifted the attention on the conditions and requirements that shall be associated to such funding sources or instruments, saying that resources that are effective are those "**where impact is required**".

In terms of financial support instruments for social housing companies planning to invest on the energy requalification of buildings, requests and needs collected mostly focused on the availability of **more dedicated grants from financial institutions, as well as public grants on the national and local level.** With 15 respondents, grants were mentioned 11 times, with different nuances such as government grants, higher share of grants, higher subsidies, larger share of grants for this purpose, state aid. Again, one comment stressed the importance of pairing conditions to these instruments, mentioning "**grants with a requirement to achieve effect**", implying limits on the effectiveness of subsidy and non-repayable financial mechanisms.

In general, the Slovenian system shows a **strong propension towards grant-based support for energy-efficiency intervention**. In general, the owners of a property develop an energy efficiency intervention/requalification project and submit it to ECO FUND or Petrol to get grants. The rest of the investment is covered with owner's own funds or building reserve funds (buildings' common wallets intended for larger investments in the building). The entire investment has a positive effect in lowering energy costs for tenants, although it still does not entail a sufficient return of investment for the owner, except for maintaining the property's value, because the rent cannot be increased - it is regulated by the state.

Other types of arrangements were also mentioned as relevant to facilitate investments on energy efficiency technologies in the context of social housing:

- financial incentives (22 votes)
- the capacity to lower financial risks on eco-investments through financial institutions support (14 votes).
- the availability of more favourable loans, with a higher part of non-refundable resources (grants).
- action at the regulation level collected (8 votes)
- training of staff in innovative technologies and services has not been considered very relevant (3 votes).

Besides financial instruments, a number of other enabling factors and approaches have been mentioned through Mentimeter and the roundtable discussion:

- The importance of combining different funding methods.
- Importance of raising awareness and of receiving specific grants to support related activities.
- Including the owner and tenants.
- Improving the rental policy, so that energy efficiency intervention can become an incentive. This includes ensuring a rent increase after requalification.
- Savings generated by the investments shall be shared between landlords and tenants.
- Provision of assistance in project preparation.

Interaction between social housing managers and social housing associations, to facilitate social acceptance, has been considered relevant (in coherence with the trends described in the previous chapter), with 11 votes. The relationship with tenants shall be curated through specific training and awareness raising activities on how to reduce consumption and on energy renovation benefits.

A general need to further valorise investments in requalification is remarked, through supporting investors, e.g through tax benefit, as well as rewarding owners with benefits for implemented measures and improvements.

Particular importance was given to **the necessity to amend the rules on scoring building/dwellings**, so that the Housing companies who invest in refurbishment of the building can increase the rent after investments. Such an **amendment is necessary to support investors and provide owners with benefits** for the implemented measures and improvements. In fact, currently, the rent of public housing is regulated by the state on the basis of scoring rules where the most important criterion to get points still appears to be the age of the building. Therefore, the time spent to perform renovation negatively impacts on the total final scoring of renovated buildings, since no additional scoring is foreseen for energy efficiency investments made. As a consequence, investments did not show any impact on increasing the Housing fund revenues, which negatively impacts on owners' motivations to invest.
Since 71% of the multi-unit building was built prior to 1985, provided that such scoring rule will change, there is a high opportunity for energy renovation and management of energy-renovated buildings.

Changes in legislation, legal obligations were mentioned as general measures to be pursued.

Funding and Investment scenario in Denmark

In comparison to the other two countries, the Danish scenario is much more projected beyond traditional financing methods such as grants.

The sources of funding considered as most effective for energy efficiency investments in Denmark are the combination of different instruments, namely a financial mix comprising national funds, mortgage, loan and own financing (14 votes). Also ESCO interventions are considered useful (6 votes), followed by national funds and green loans/bonds (5 votes each). Grant instruments instead have not generally raised the interest of participants, although have been considered useful for the project planning phase.

In terms of financial support instruments to support social housing companies in investing on the energy requalification of social housing buildings:

- The capacity to lower financial risks associated with eco-investments through financial institutions support (12 votes) is taken into the higher consideration, showing the general propension of the Danish system towards investments in this sector.
- the experimentation of new funding models, such as those based on ESCOs or Energy Performance Contract, have been thoroughly discussed.

Other general measures, such as financial incentives (5 votes), financial guarantees (9 votes) and favourable loans (e.g. with a long lifetime), are also reported as useful ways to support a social housing company planning to invest in an energy efficiency refurbishment.

Non-financial instruments or enabling factors and approaches have been less discussed in the Danish roundtables. The importance of regulation aspects (4 votes) has been mentioned, together with the need for an increased know-how of social housing companies (3 votes) and for a stronger interaction between social housing managers and social housing associations, to facilitate social acceptance (3 votes).

Financial Roadmaps

The SUPER-i financial roadmap is composed by the following steps:

1. study of the available funding sources (month 6)
2. analysis of the financial gap based on the technical analysis and energy savings associated with the planned energy efficiency interventions (month 18)
3. proposal of the best financial solutions to overcome the financial gap for each country (initial version month 24, final version month 32)

Denmark

Available financial sources

Denmark has various funding sources and support mechanisms for social housing energy efficiency (EE) renovation projects. Here are some potential funding sources for social housing EE renovation projects in Italy: **The National Building Fund (NBF): The NBF** operates as an autonomous entity with its dedicated board. This fund comprises substantial resources, constituting approximately 15% to 20% of the housing stock in Denmark, contributing to its financial pool. Its investment activities are subject to legal regulations. During the financial crisis, the NBF played a crucial role in stimulating the Danish economy by facilitating increased renovation activities. This approach funnelled additional resources into the construction industry, leading to the creation of more jobs and, consequently, fostering economic growth. As the original construction loans are paid off, housing departments or organisations continue their payments initially to the state and subsequently to The National Building Fund. The fund is structured into distinct components, namely the Revolving Renovation Fund (RRF), the housing organisation's own disposition fund, and a fund designated for new construction. The RRF within the NBF serves a specific and well-defined purpose, yet tenants also have the option to directly initiate renovations for their homes.

Energy Savings Agreements (ESA): Denmark's Energy Savings Agreements (ESA) program embodies a proactive approach to fostering energy efficiency in buildings. ESA is a collaborative effort between the government and businesses, aiming to achieve significant reductions in energy consumption over time. Through ESA, companies commit to implementing energy-saving measures in their buildings, with targets set for reducing energy usage by a certain percentage within a defined period. Participating companies receive invaluable support in the form of financial incentives and technical expertise to facilitate the implementation of energy efficiency measures. This support can include subsidies for energy audits, grants for equipment upgrades, and access to resources for training and capacity building. By engaging businesses directly in the pursuit of energy efficiency, ESA drives innovation, fosters knowledge-sharing, and cultivates a culture of sustainability within the private sector. ESA is a testament to Denmark's collaborative and pragmatic approach to addressing energy challenges. By harnessing the collective efforts of government, industry, and other stakeholders, ESA paves the way for substantial energy savings, cost reductions, and environmental benefits in buildings across the country.

Green Loans and Subsidies: Denmark's provision of green loans and subsidies represents a proactive strategy to overcome financial barriers and incentivize energy efficiency renovations in buildings. Green loans offer favourable terms, such as low-interest rates and flexible repayment options, to encourage property owners to invest in energy-saving upgrades. These loans can be used to finance a wide range of renovations, including insulation improvements, heating system upgrades, and the installation of energy-efficient windows and

doors. In addition to green loans, Denmark provides subsidies to further offset the costs of energy efficiency projects. These subsidies help make energy renovations more accessible and affordable for homeowners, housing associations, and businesses, particularly those with limited financial resources. By reducing the upfront investment required for energy-saving measures, subsidies stimulate demand and accelerate the adoption of sustainable building practices. Green loans and subsidies exemplify Denmark's commitment to supporting individuals and organisations in their transition to a more energy-efficient future. By providing financial incentives and removing financial barriers, Denmark empowers property owners to make investments that not only enhance the comfort and value of their buildings but also contribute to national energy and climate goals.

Energy Renovation Subsidies: Denmark's energy renovation subsidies play a crucial role in promoting energy efficiency in buildings by providing financial assistance to cover the costs of renovation projects. These subsidies are specifically targeted at energy-saving measures, such as insulation upgrades, HVAC system improvements, and the installation of renewable energy technologies. One key aspect of energy renovation subsidies is their support for energy audits and planning activities. By offering financial assistance for the initial assessment and planning stages of renovation projects, Denmark helps property owners identify cost-effective energy-saving opportunities and develop comprehensive renovation plans. Energy renovation subsidies make energy efficiency renovations more affordable and accessible for homeowners, housing associations, and businesses across Denmark. By reducing the financial burden associated with energy renovations, these subsidies encourage greater uptake of sustainable building practices, leading to lower energy consumption, reduced carbon emissions, and improved building performance. Denmark's commitment to providing energy renovation subsidies underscores its dedication to promoting sustainable development and combating climate change. By investing in energy efficiency in buildings, Denmark not only enhances the quality and comfort of its built environment but also contributes to global efforts to create a more resilient and sustainable future.

Tax Credits and Deductions: Denmark's tax credits and deductions for energy efficiency renovations offer financial incentives to individuals and businesses to invest in sustainable building upgrades. Property owners can deduct eligible expenses related to energy renovations from their taxable income or claim tax credits for specific energy-saving measures implemented in their buildings. These tax incentives reduce the overall cost of energy efficiency renovations and provide a tangible financial benefit to property owners. By lowering the financial barrier to entry, tax credits and deductions encourage greater investment in energy-saving technologies and practices, leading to long-term energy and cost savings. In addition to stimulating demand for energy efficiency renovations, tax credits and deductions also help drive innovation and market development in the sustainable building sector. By rewarding investments in energy efficiency, Denmark creates a favourable environment for the growth of businesses that provide products and services related to sustainable construction and renovation. Denmark's use of tax incentives to promote energy efficiency in buildings exemplifies its commitment to fostering a green economy and reducing greenhouse gas emissions. By leveraging the tax system to incentivize sustainable building practices, Denmark encourages individuals and businesses to play an active role in the transition to a low-carbon future.

Public Funding Programs: Denmark's allocation of public funding for energy efficiency projects demonstrates its commitment to supporting sustainable development and combating climate change. These public funding programs provide financial assistance to individuals, businesses, and organisations undertaking energy efficiency renovations in buildings. Public funding programs may take various forms, including grants, loans, and subsidies, and may be administered at the national, regional, or local level. They aim to make energy efficiency renovations more affordable and accessible, particularly for those facing financial constraints or operating in sectors with high energy consumption. By investing in energy efficiency projects, Denmark not only reduces energy consumption and greenhouse gas emissions but also stimulates economic growth and job

creation. Public funding programs support innovation, technology development, and market transformation in the sustainable building sector, driving forward Denmark's transition to a low-carbon economy. Denmark's commitment to providing public funding for energy efficiency renovations reflects its recognition of the importance of sustainable buildings in achieving its environmental and economic goals. By leveraging public resources to support energy efficiency initiatives, Denmark demonstrates leadership in addressing climate change and building a more resilient and prosperous future.

Energy Performance Contracts (EPC): Denmark's use of Energy Performance Contracts (EPCs) offers an innovative financing mechanism for energy efficiency renovations in buildings. Under an EPC arrangement, an energy service company (ESCO) finances, implements, and maintains energy-saving measures in a building, with the property owner repaying the investment over time through the energy cost savings generated by the renovations. EPCs provide a risk-free and cost-effective way for building owners to upgrade their properties without the need for upfront capital investment. By outsourcing the financing and implementation of energy efficiency measures to an ESCO, building owners can benefit from immediate energy savings and improved building performance without incurring additional debt or financial strain. In addition to financial benefits, EPCs also offer technical expertise and ongoing support to ensure the long-term success of energy efficiency projects. ESCOs often provide monitoring and maintenance services to optimise energy performance and maximise savings over the contract term. Denmark's adoption of EPCs reflects its commitment to promoting energy efficiency and sustainability in the built environment. By leveraging private sector expertise and financing, EPCs offer a scalable and replicable solution for driving energy efficiency renovations in buildings and advancing Denmark's transition to a low-carbon future.

Financial gap (extra funding needed)

The tables below provide a comprehensive overview of the investment needs and available funding sources for energy efficiency projects. The breakdown of investment requirements highlights three key areas: energy efficiency renovations and circular economy, energy efficiency in public buildings, and energy efficiency and renewable energy in districts, totalling EUR 21.77 billion. This delineation emphasises Denmark's commitment to advancing energy efficiency and sustainability to meet both national objectives and those outlined in the National Energy and Climate Plans (NECP). On the funding side, a combination of EU and national-level contributions is identified. At the EU level, funds from Next Generation EU and the EU Regional Development Fund amount to EUR 2.238 billion, indicating significant support from European institutions for Denmark's energy efficiency initiatives.

At the national level, Denmark has mobilised substantial resources through various channels. The National Building Fund, Denmark Government Grants, and Denmark Green Future Fund collectively contribute EUR 19.3 billion to the available funds. This demonstrates Denmark's strong commitment to investing in energy efficiency and sustainability at the domestic level. However, despite the substantial available funds, there remains a gap of EUR 2.47 billion when compared to the total investment needs. While this gap presents a challenge, it also underscores the importance of strategic planning and resource allocation to ensure optimal utilisation of available funds. Furthermore, it highlights the need for continued collaboration between EU and national-level stakeholders to bridge any remaining gaps and maximise the impact of investments.

In conclusion, the tables provide a comprehensive overview of Denmark's efforts to advance energy efficiency and sustainability. They underscore the significant investment requirements and the proactive measures taken at both EU and national levels to address these challenges. Moving forward, effective coordination and prudent allocation of resources will be essential to realising the full potential of energy efficiency initiatives and achieving Denmark's environmental and climate goals.

Summary of investment needs - Denmark		
		Required investments
Energy efficiency renovations and circular economy	Energy efficiency in public buildings	EUR 2.68 billion
	Energy efficiency and renewable energy in districts	EUR 4.0 billion
	Other EE projects to meet NECP objectives	EUR 13.27 billion
	Total investment needs	**EUR 21.77 billion**
Summary of available funding - Denmark		
	available fund	**Budget**
EU level	Next GenerationEU	EUR 1.43 billion
	EU Regional and development fund	EUR 808 million
National level	National building fund	EUR 5.5 billion
	Denmark government grants	EUR 10.5 billion
	Denmark Green future fund	EUR 3.3 billion
	Total available funds	**EUR 19.3 billion**

Italy

Available financial sources

Italy has various funding sources and support mechanisms for social housing energy efficiency (EE) renovation projects. Here are some potential funding sources for social housing EE renovation projects in Italy:

Ecobonus: Promoting Energy Efficiency and Safety in Italian Buildings: ***Italy's Ecobonus and Sismabonus initiatives*** stand as cornerstone policies in the nation's efforts to enhance energy efficiency and ensure the safety of its buildings. Introduced as tax incentives, these programs incentivize property owners to undertake renovations that not only reduce energy consumption but also improve seismic resilience. The Ecobonus program offers tax deductions to individuals and businesses investing in energy-efficient upgrades for their buildings. These upgrades encompass a wide range of measures, including but not limited to insulation, efficient heating and cooling systems, and the installation of renewable energy technologies. By providing financial incentives, the government aims to spur investment in sustainable infrastructure, lower energy bills for property owners, and decrease Italy's overall carbon footprint. In parallel, the Sismabonus initiative addresses Italy's vulnerability to seismic events by promoting seismic retrofitting of buildings. Through tax incentives similar to the Ecobonus, property owners are encouraged to reinforce their structures to withstand earthquakes, thereby enhancing public safety and mitigating the impact of natural disasters. Together, the Ecobonus and Sismabonus initiatives exemplify Italy's commitment to fostering resilience and sustainability in its built environment. By harnessing the power of fiscal policy to drive positive change, the government empowers citizens to contribute to a more sustainable future while simultaneously safeguarding lives and property against seismic risks.

Superbonus 110%: Revolutionising Energy Efficiency Renovations in Italy: Italy's Superbonus 110% program represents a groundbreaking approach to incentivizing energy efficiency renovations in buildings. Introduced in 2020, this initiative offers a remarkable 110% tax credit for eligible renovation expenses, effectively covering the entire cost of the project and providing an additional incentive for property owners to invest in sustainability. Unlike traditional tax deductions, which offer partial relief from tax liabilities, the Superbonus 110% provides a tax credit that exceeds the amount spent on renovations. This revolutionary approach not only eliminates the financial burden associated with energy efficiency upgrades but also offers a tangible financial benefit to property owners. The Superbonus 110% is applicable to a wide range of renovation measures, including energy-efficient heating and cooling systems, insulation, photovoltaic systems, and seismic retrofitting. By encompassing both energy efficiency and safety enhancements, the program addresses multiple societal needs, ranging from climate action to disaster resilience. Moreover, the Superbonus 110% extends beyond residential properties to include commercial and public buildings, further amplifying its impact on Italy's built environment. By encouraging widespread adoption of sustainable practices across all sectors, the program accelerates progress towards national energy and climate goals while stimulating economic growth and job creation. In essence, Italy's Superbonus 110% program represents a paradigm shift in the approach to energy efficiency renovations, transforming what was once perceived as a financial burden into a compelling opportunity for sustainable investment and societal advancement.

Energy Efficiency Fund: Catalysing Sustainable Development in Italy: Italy's Energy Efficiency Fund plays a pivotal role in catalysing sustainable development and fostering a transition to a low-carbon economy. Established to support energy efficiency projects across various sectors, including buildings, the fund provides critical financial resources to accelerate the implementation of energy-saving measures and reduce greenhouse gas emissions. Through a combination of grants, loans, and other financial incentives, the Energy Efficiency Fund enables homeowners, businesses, and municipalities to overcome financial barriers and invest in energy-efficient technologies and practices. By facilitating access to capital, the fund empowers stakeholders to undertake projects that yield long-term energy savings, enhance comfort and liveability, and contribute to environmental protection. One of the key objectives of the Energy Efficiency Fund is to promote innovation and deployment of cutting-edge technologies that improve energy performance in buildings. Whether through the adoption of advanced insulation materials, smart heating and cooling systems, or renewable energy solutions, the fund incentivizes investments that push the boundaries of energy efficiency and pave the way for a sustainable future. Moreover, the Energy Efficiency Fund serves as a catalyst for economic growth and job creation, particularly in the burgeoning clean energy sector. By stimulating demand for energy efficiency products and services, the fund creates opportunities for businesses to innovate, expand, and thrive in a rapidly evolving market. In summary, Italy's Energy Efficiency Fund embodies the country's commitment to harnessing financial mechanisms to drive sustainable development and combat climate change. By mobilising resources, fostering innovation, and empowering stakeholders, the fund lays the foundation for a greener, more prosperous future for Italy and beyond.

Green New Deal: Italy's commitment to a "Green New Deal" signifies a comprehensive and strategic approach to sustainable development. Within this framework, funding for energy efficiency renovations in buildings plays a crucial role. The Green New Deal envisions a holistic transformation, aiming to integrate environmental considerations into economic policies. The funding allocated under the Green New Deal for building renovations aligns with the broader vision of a low-carbon, resource-efficient, and socially inclusive economy. It positions Italy as a leader in sustainable development, fostering a future where energy-efficient buildings are integral to the nation's prosperity and environmental stewardship.

European Union (EU) Funding: Italy's access to European Union funding for energy efficiency projects amplifies the impact of its national initiatives. Programs such as Horizon Europe and the European Regional

Development Fund (ERDF) provide additional financial resources to support Italy's endeavours in enhancing energy efficiency, including building renovations. This collaboration on the European stage not only shares the burden of funding but also promotes knowledge exchange and best practices. Italy's participation in EU funding programs underscores a collective commitment to addressing climate change and promoting sustainable development across borders.

Regional and Local Incentives: The decentralisation of incentives to regional and local levels reflects Italy's recognition of the diverse needs and priorities across its territories. Regional and local governments play a crucial role in tailoring incentives to the specific challenges and opportunities within their jurisdictions. These localised incentives ensure that the benefits of energy efficiency renovations reach all corners of the country. By acknowledging and addressing regional nuances, Italy fosters a more inclusive and adaptable approach to sustainable development, driving a comprehensive nationwide transformation in building practices.

In conclusion, Italy's various funding solutions for energy efficiency renovations in buildings showcase a holistic and ambitious strategy. By combining tax incentives, comprehensive credits, and collaboration at national and international levels, Italy aspires to lead the way in sustainable construction practices, creating a legacy of resilience, efficiency, and environmental responsibility.

Financial gap (extra funding needed)

The tables below provide a detailed snapshot of the investment requirements and available funding sources for energy efficiency renovation projects in Italy. It outlines three primary areas of investment: energy efficiency in public buildings, energy efficiency and renewable energy in district heating, waste, and water management, and sustainable mobility, collectively totalling EUR 60.5 billion. This breakdown underscores the diverse facets of energy efficiency that need attention, spanning from infrastructure upgrades to transportation systems. On the funding front, a comprehensive array of sources is identified, both at the EU and national levels. The EU's commitment is evident through contributions such as the Cohesion Fund and Next Generation EU, amounting to EUR 33.6 billion. At the national level, various funds, including the Italian Energy Efficiency Fund, Invitalia, and the Emilia-Romagna Energy Fund, are enlisted alongside the significant allocation from the Italian National Recovery and Resilience Plan, totalling EUR 25.4 billion. This robust funding landscape reflects a concerted effort to address Italy's energy efficiency challenges. However, despite the substantial available funds, a slight shortfall of EUR 0.97 billion remains when compared to the total investment needs. While this deficit is relatively minor, it underscores the importance of strategic planning and allocation to ensure optimal utilisation of resources. Moreover, it highlights the necessity for continued collaboration between EU and national-level stakeholders to bridge any remaining gaps and maximise the impact of investments.

In conclusion, the table provides a comprehensive overview of the financial landscape surrounding energy efficiency renovation projects in Italy. It underscores the significant investment requirements and the proactive measures taken at both EU and national levels to address these challenges. Moving forward, effective coordination and prudent allocation of resources will be essential to realising the full potential of energy efficiency initiatives and fostering sustainable development in Italy.

Summary of investment needs - Italy		
		Required investments
Energy efficiency renovations and circular economy	Energy efficiency in public buildings	EUR 15.3 billion
	Energy efficiency and renewable energy in districts	EUR 11.2 billion
	Sustainable mobility	EUR 34 billion
	Total investment needs	**EUR 60.5 billion**
Summary of available funding - Italy		
	available fund	**Budget**
EU level	Cohesion fund	8.7 billion
	Next GenerationEU	24.9 billion
National level	Italian Energy Efficiency fund	175 million
	Invitalia	310 million
	Emilia-Romagna Energy Fund	47 million
	Italian National Recovery and Resilience Plan	25.4 billion
	Total available funds	**EUR 59.53 billion**

Slovenia

Available financial sources

Energy Renovation Subsidies (ERS): Energy renovation subsidies offered by the Slovenian government aims to make energy efficiency renovations more accessible and affordable for building owners. These subsidies target a range of activities such as development of energy performance certificates, energy audit reports, and implementation of energy saving measures. By offsetting a portion of the costs associated with energy renovations, these subsidies encourage homeowners, businesses, and public institutions to invest in improving the energy performance of their buildings. In addition to providing financial assistance, energy renovation subsidies contribute to raising awareness about the importance of energy efficiency and sustainable building practices. By promoting the uptake of energy renovations, Slovenia aims to reduce energy consumption, lower greenhouse gas emissions, and enhance the overall quality and comfort of buildings across the country. Energy renovation subsidies exemplify Slovenia's commitment to promoting energy efficiency and environmental sustainability, aligning with broader efforts to transition to a low-carbon economy and mitigate the impacts of climate change.

Eco Fund: The Eco Fund (Eko Sklad) represents a pivotal financial institution established by the Slovenian government to support various environmental and energy efficiency projects, including those related to social housing. Initially focusing on soft loans for environmental investments, the Eco Fund expanded its scope to include grants funded by energy end-users' fees and the climate change fund. Through yearly plans and public calls for applications, the Eco Fund incentivizes environmental protection by providing financial support for energy-efficient renovations and other environmentally beneficial projects. Moreover, the fund addresses energy poverty by covering costs for selected households and operates a free energy advisory network. As it

evolves, the Eco Fund aims to align its financial incentives with national strategies, emphasising deep energy renovations, refurbishments in the building stock, and innovative financial instruments to stimulate sustainable development.

Tax Incentives: Slovenia adopts a strategic approach by utilising tax incentives to encourage energy efficiency renovations in buildings. Property owners stand to benefit from tax deductions or credits for expenses related to energy-saving upgrades, including insulation, windows, doors, and energy-efficient appliances. These incentives aim to alleviate the financial burden associated with energy renovations, making sustainable building practices more appealing from a financial standpoint. Leveraging the tax system in this manner promotes investment in sustainable building upgrades, stimulates demand for energy-saving products and services, and fosters innovation within the construction sector. Moreover, these incentives ensure equitable access to the benefits of energy renovations, irrespective of building owners' financial capacities, thus advancing Slovenia's commitment to sustainable development.

European Union Funding: Slovenia's access to European Union funding serves as a significant source of support for energy efficiency projects, particularly building renovations. Through programs like the European Regional Development Fund (ERDF) and the Cohesion Fund, the EU extends financial assistance to member states for implementing energy efficiency initiatives and fostering sustainable development. By tapping into EU funding opportunities, Slovenia can augment its resources, thereby bolstering efforts to drive energy efficiency renovations in buildings. These funds complement national initiatives, facilitating the scaling up of energy efficiency measures and expediting the transition toward a low-carbon economy. Slovenia's participation in EU funding programs underscores its commitment to collaborative action in addressing environmental challenges and advancing sustainable development objectives on both national and European scales.

Education and Awareness Programs: Slovenia's investment in education and awareness programs plays a crucial role in promoting energy efficiency renovations in buildings. These initiatives provide information, training, and technical assistance to homeowners, businesses, and local communities on energy-saving measures and available funding options. By enhancing awareness and building capacity, Slovenia empowers individuals and organisations to take proactive steps toward improving energy performance and reducing environmental impact. Education and awareness programs also cultivate a culture of sustainability, encouraging sustainable behaviour and decision-making across society. Through these investments, Slovenia demonstrates its commitment to energy efficiency as a cornerstone of sustainable development and climate action, aiming to create a resilient and sustainable built environment for future generations.

In conclusion, Slovenia's approach to funding energy efficiency renovations reflects a comprehensive strategy aimed at promoting sustainable development and environmental stewardship. By utilising tax incentives, accessing EU funding, fostering public-private partnerships, and investing in education and awareness, Slovenia is making significant strides toward its energy efficiency goals while building a more sustainable future for all.

Financial gap (extra funding needed)

Interpreting the current funding sources and investment needs for energy efficiency renovations in Slovenia reveals a substantial disparity between the total investment requirements and the available financial resources. Slovenia's investment needs for energy efficiency and sustainable development amount to EUR 18.207 billion, encompassing initiatives such as energy efficiency renovations, circular economy projects,

sustainable mobility, and renewable energy integration in districts. Conversely, the available funding stands at EUR 9.641 billion, comprising allocations from both EU and national levels.

At the EU level, Slovenia has access to various funding streams totalling EUR 6.127 billion. This includes significant contributions from the Cohesion Fund, Recovery and Resilience Fund, Just Transition Fund, REACT-EU, and the Connecting Europe Facility (CEF). However, these funds fall short of covering the entirety of Slovenia's investment needs. Similarly, at the national level, Slovenia has allocated EUR 3.341 billion from sources such as the Renewable Energy Sources (RES) scheme, Climate Change Fund, Eco Fund, revenue from the sale of emissions, and the Environmental Remediation Fund (ERS). Despite this substantial funding, it remains insufficient to bridge the investment gap entirely. This disparity underscores the necessity for strategic planning and innovative financing mechanisms to address the shortfall. Prioritising projects based on their potential impact, feasibility, and alignment with national and EU objectives can optimise the use of available funds. Leveraging EU funds effectively, particularly through the Recovery and Resilience Fund and the Cohesion Fund, holds significant promise in bridging the investment gap and accelerating progress towards energy efficiency goals. In conclusion, closing the financial gap for energy efficiency renovations in Slovenia requires a concerted effort involving strategic planning, innovative financing solutions, and collaborative partnerships. By prioritising investments, exploring alternative funding mechanisms, and leveraging available resources effectively, Slovenia can overcome financial barriers and advance its sustainability agenda.

Summary of investment needs - Slovenia		
		Required investments
Energy efficiency renovations and circular economy	Energy efficiency in public buildings	EUR 14.171 billion
	Energy efficiency and renewable energy in districts	EUR 1.363 billion
	Sustainable mobility	EUR 2.673 billion
	Total investment needs	**EUR 18.207 billion**
Summary of available funding - Slovenia		
	available fund	**Budget**
EU level	Cohesion fund	EUR 1.727 billion
	Recovery and Resilience	EUR 2.489 billion
	Just transition fund	EUR 258 million
	REACT-EU	EUR 76 million
	CEF	EUR 567 million
National level	RES scheme	EUR 1.883 billion
	Climate change fund	EUR 64 million
	Eco Fund	EUR 600 million
	Revenue from sale of emissions	EUR 3.065 billion
	ERS	EUR 1.475 billion
	Total available funds	**EUR 9.641 billion**

Proposed financial solutions

Considering the investment gaps in Denmark, Italy, and Slovenia for energy efficiency projects, we propose several innovative funding solutions to fill the funding GAP with a focus on Public-Private Partnership (PPP) funding contracts.

Public Private Partnerships (PPPs)

Public-Private Partnerships (PPPs) involve long-term collaborations aligning government service delivery objectives with private profit objectives, as defined by the OECD in 2008. In times of constrained financial resources, PPPs become essential for accessing finance and reducing capital expenditure in energy infrastructure projects. The European Commission distinguishes between contractual and institutionalised PPPs. Over the past two decades, PPPs and project finance have flourished in European countries such as the UK, Spain, France, Germany, Italy, and Portugal. Mutual benefits accrue to both the private and public sectors through PPPs: the private sector gains guarantees to manage project risks, while the public sector receives capital investment and management expertise. However, PPP transactions have slowed due to unfavourable conditions in capital markets. The advantages of PPPs include ensuring necessary investments, effective public resource management, timely service provision, long-term remuneration for the private sector, utilisation of private sector expertise, and off-balance sheet classification for assets. Nonetheless, drawbacks include potential cost increases, negative impacts on fiscal indicators, longer and costlier procurement procedures, and inflexibility due to the complexity and long-term nature of PPP agreements.

In terms of finance structures for PPPs, a Special Purpose Vehicle (SPV) is often employed as the private party, raising finance through a combination of equity and debt. Equity investors, typically comprising project developers, construction companies, and private equity funds, assume higher risks and seek higher returns. PPP financing frequently involves non-recourse project finance, where lenders are compensated from project revenues without recourse to equity investors, allowing equity investors to absorb project losses initially. Non-recourse project finance structures often entail a significant proportion of debt, typically ranging from 70% to 95% of total finance. Although project finance is advantageous for large projects, it comes with higher interest rates than government borrowing. Alternatives to non-recourse project finance include corporate guarantees, full-recourse corporate finance, and limited recourse project finance. Governments may participate in the finance structure by providing finance as a lender to the project company or guaranteeing project debt. Lenders often seek additional credit support, and alternatives such as step-in rights or government participation can help reduce the cost of finance for PPPs.

Classification of PPP financing mechanisms

The commonly used PPP contracts in the EU to fill the funding gap in energy efficiency renovations in affordable housing are:

Guaranteed savings contract

In the guaranteed savings contract, the social housing association assumes the responsibility of financing 100% of the investment costs required for executing the energy efficiency (EE) renovation project. Meanwhile, the ESCO company is tasked with executing the EE renovations and designing the project. Additionally, the ESCO company bears the expenses related to the installed EE technologies and assumes full financial and technical risks associated with the project. Under this agreement, the social housing company is assured a fixed predetermined energy savings equivalent to the debt obtained to fund the EE project. If the energy savings from the implemented EE renovations exceed the guaranteed energy savings, the social housing company receives the fixed minimum guaranteed energy savings plus 20% of the surplus energy savings, while the ESCO company obtains the remaining 80%. Conversely, if the energy savings fall short of the guaranteed amount, the social housing company retains all generated energy savings, and the ESCO covers the shortfall, absolving the social housing company of any financial risk.

Shared savings contract

In the shared savings contract, the ESCO assumes full responsibility for financing 100% of the investment costs needed for the energy efficiency (EE) renovation project, along with implementing the renovations and designing the project. The social housing company provides the equity in the form of the building. Additionally, the ESCO bears the expenses associated with the installed EE technologies and takes on all financial and technical risks associated with the project. Under this agreement, the ESCO is assured a fixed predetermined energy savings. If the energy savings exceed the guaranteed amount, the social housing company receives 35% of the surplus energy savings, while the ESCO obtains 65% of the surplus energy savings in addition to the guaranteed energy savings. However, if the energy savings fall short of the guaranteed amount, the ESCO retains all generated energy savings and considers the shortfall between the guaranteed and actual savings as a financial loss, with no energy savings allocated to the social housing company.

In both of these Public-Private Partnership (PPP) contracts, energy efficiency improvements are implemented through either a loan or facilitated by an ESCO. When loans are utilised, the building owner selects the energy efficiency improvements, often from an approved list of measures. However, without the support and expertise of an ESCO, the chosen measures may not always be the most effective use of financing for energy efficiency. ESCOs, being experts in energy efficiency measures, are incentivized to maximise energy efficiency savings for minimum cost, often through a savings guarantee. Nevertheless, there are barriers to the ESCO model, including limited public awareness of their benefits, which can hinder their widespread adoption. This issue can lead to challenges in generating profits for ESCOs unless they secure a large number of contracts. To address these challenges, larger ESCO business models, such as super ESCOs, offer more stable business models, especially in markets lacking an established ESCO industry. Super ESCOs are capable of making energy efficiency improvements to entire building stocks as cost-effectively as possible, mitigating the risk of ESCO failure due to their government support and financial certainty from larger contracts

Direct Credit Line

DCL, introduced by public entities such as government bodies, non-profit organisations, and banking foundations, acts as a vital funding mechanism for Energy Efficiency (EE) projects in partnership with private financial institutions. Typically, these private financial institutions encompass banks or investment funds, providing supplementary financing, co-financing, for EE initiatives. This financing strategy strategically deploys funds from government sources, international financial institutions (IFIs), or donor agencies to stimulate increased lending by Local Financial Institutions (LFIs) dedicated to EE projects. The aim is to address the challenge of inadequate or non-existent lending to EE projects, primarily due to LFIs' limited knowledge and understanding of the distinctive characteristics and benefits associated with such projects.

Under this mechanism, the public partner disburses funds to LFIs at generally favourable interest rates, creating an incentive for these private-sector entities to extend further loans for EE projects. As the on-lending by LFIs typically occurs at higher interest rates (often in line with market rates, as observed in World Bank credit lines), LFIs stand to generate profits from these loan transactions. The collaborative agreement between the public and private partners commonly mandates that LFIs co-finance the loans, effectively amplifying and bolstering the overall financing pool available for EE projects. This collaborative approach, exemplified by initiatives like the World Bank in 2008, tackles the crucial challenge of expanding financial backing for EE projects by actively engaging private financial institutions in advancing sustainable and energy-efficient initiatives.

Energy Supply Contract

Energy supply contracts (ESCs) represent an ESCO business model closely resembling traditional energy suppliers. In this arrangement, social housing companies opt to install energy efficiency measures and finance them through their energy or utilities bill. Under this contract, both the social housing company and the ESCO company share the financing of the EE renovation project costs, with no party guaranteed a minimum level of energy savings. The financial risk is thus distributed between the ESCO and the social housing company. Additionally, the energy savings resulting from the EE renovations are apportioned between the two parties based on the percentage of investment costs covered by each, typically ranging between 50% to 90% for the ESCO company and 10% to 50% for the social housing company. It's noteworthy that in this contract, the debt typically remains tied to the metre, meaning that if the social housing company sells the building, the new owner inherits the contract.

SUPER-i toolkit

The SUPER-i roadmap will provide pivotal elements to feed into the SUPER-i toolkit which will be shown on the SUPER-i Portal as a combination of the following pillars:

- **SUPER-i pilot analysis**: technical (selected energy efficiency interventions), financial (financial guideline packages for selected financial solutions), environmental (lower environmental impact due to the increased energy efficiency of the buildings)
- **SUPER-i e-room**: data on energy poverty

SUPER-i pilot analysis

Energy poverty, characterised by inadequate access to reliable and affordable energy services, remains a significant challenge in Europe. Addressing this issue requires a multifaceted approach that encompasses technical interventions, environmental assessment, and innovative financing mechanisms. The SUPER-i Toolkit, mitigates energy poverty on these three levels offering recommendations on possible renovations to increase energy efficiency in three pilot countries (Denmark, Italy, and Slovenia).

Technical analysis

The technical interventions aimed at enhancing energy efficiency (EE) and promoting sustainable energy practices. The SUPER-i Portal serves as a platform for disseminating recommendations on feasible renovations to increase EE in various settings. These recommendations are tailored to the specific needs and contexts of the three pilot countries, ensuring relevance and effectiveness. By presenting detailed technical interventions, such as retrofitting buildings with energy-efficient appliances or implementing renewable energy systems, the SUPER-i Toolkit empowers stakeholders to make informed decisions to improve energy access and affordability. Central to the success of any energy intervention is the ability to quantify its impact and potential savings. The SUPER-i Portal provides valuable insights into the energy savings associated with the proposed interventions. Through rigorous analysis and modelling, stakeholders can assess the economic and environmental benefits of adopting energy-efficient technologies. By showcasing the tangible outcomes of these interventions, such as reduced energy consumption and lower utility bills, the SUPER-i Toolkit demonstrates the compelling case for investing in energy efficiency as a means to alleviate energy poverty.

Environmental analysis

Environmental assessment forms a critical component of the SUPER-i Toolkit, ensuring that energy interventions not only alleviate energy poverty but also contribute to sustainable development. Within the SUPER-i Portal, meticulous environmental evaluations are conducted to gauge the ecological footprint of proposed technical interventions. These assessments consider factors such as greenhouse gas emissions, resource depletion, and ecosystem impacts to provide a holistic understanding of the environmental implications. By incorporating environmental considerations into the decision-making process, the SUPER-i Toolkit promotes the adoption of energy-efficient technologies and renewable energy solutions that minimise adverse environmental effects. For instance, recommendations for building retrofits prioritise energy-saving measures that reduce carbon emissions and mitigate the ecological impact of energy consumption. Similarly,

the implementation of renewable energy projects is guided by environmental assessments to ensure compatibility with local ecosystems and minimise habitat disruption.

Financial analysis

While technical solutions are essential, addressing the financial barriers to energy access is equally crucial. The SUPER-i Portal offers innovative financing options tailored to the unique circumstances of each pilot country. By leveraging partnerships with financial institutions and exploring alternative funding mechanisms, the toolkit facilitates the implementation of energy efficiency projects. From microfinance initiatives to public-private partnerships, the SUPER-i Toolkit provides a roadmap for mobilising resources and overcoming financial constraints, thereby unlocking opportunities for sustainable energy development. Beyond theoretical frameworks, the SUPER-i Toolkit translates ideas into action through concrete applications in real-world settings. By showcasing specific case studies and examples from the three pilot countries, the portal demonstrates the practical utility of the toolkit in addressing energy poverty. From community-led initiatives to government-sponsored programs, these success stories highlight the transformative potential of the SUPER-i Toolkit in empowering communities and catalysing sustainable development.

In conclusion, mitigating energy poverty requires a holistic approach that combines technical expertise, innovative financing, and practical tools for implementation. The SUPER-i Toolkit, with its focus on technical interventions, financing solutions, and real-world applications, represents a paradigm shift in the fight against energy poverty. By empowering stakeholders with the knowledge and resources needed to enhance energy access and affordability, the toolkit paves the way for a more sustainable and equitable energy future. As we continue to confront the challenges of energy poverty, the SUPER-i Toolkit stands as a beacon of hope, offering practical solutions to build a brighter and more energy-resilient world.

SUPER-i e-room

While energy poverty has attracted growing policy and academic interest across Europe in recent years, there is no common definition of energy poverty and the issue is explicitly recognized in the legislation of very few countries. Much of the recent work recognizes that “energy poverty extends beyond a unique variable and could be measured with a greater degree of accuracy using a multidimensional framework”. As such, a number of energy poverty metrics are reported, these fall broadly into two main approaches, questionnaire based (household responses about their energy use and costs) and expenditure-based (built on data on household energy expenses). While researchers continue to develop approaches to identifying fuel poor populations, in all cases energy efficiency is a principal determinant of fuel poverty; “energy poverty is a structural issue, mainly arising from poor energy efficient buildings and/or labour market inefficiencies” and “thermal efficiency plays a crucial role in shaping individual and countries’ average degrees of energy poverty.” Other studies point to the wider context of fuel poverty as “produced and aggravated by a lack of financial, social and informational resources”.

Following the guidelines by the EU Energy Poverty Observatory online platform, the energy poverty indicators are organised in “primary indicators” and “secondary indicators”. Using the Eurostat Energy data and the Eurostat INCOME AND LIVING CONDITIONS datasets for the SUPER-i partner countries, relevant tables and charts for the above indicators are provided in the SUPER-i website (https://super-i-supershine.eu/e-room/).

Conclusions

Conclusions on barriers and obstacles

All countries stressed the adverse **impact of lengthy and/or complex administrative procedures** on the capacity and willingness of social housing companies to embark into a refurbishment project, often because of the lack of specific skills in designing and planning specific interventions, understanding all their technical aspects and implications, including estimating future energy savings. In particular, in **Italy** it is remarked how the length of procedures, besides affecting planning, and execution timeline, also makes it difficult to act within the strict deadlines related to the incentive mechanisms, with a direct negative effect on the financial side. In **Denmark**, the excessive length of the procedures, together with limitations on the type of interventions covered by a guarantee, represents a relevant barrier.

Another challenge pointed out within all the roundtables is the **relationship between social housing managers and respective residents**, in particular in scenarios of **fragmented ownership**, which entails different readiness or attitudes towards investments. In **Italy**, the coexistence in the same buildings of public-owned and private-owned apartments implicates various attitudes and readiness to investments, requiring therefore management and negotiation efforts. In **Slovenia**, the fragmented situation in terms of ownership within buildings, combined with the lack of familiarity and unreceptive attitudes of owners towards existing opportunities and renovation possibilities, translates into weak consensus and a lack of interest in possible financial services. In **Denmark,** it was reported a general reluctance of tenants, not willing or available to pay extra house rent to save energy and have renewable and sustainable energy supply.

Always in matters of **stakeholders**, in **Italy**, the capacity to **co-design** solutions with all relevant stakeholders and to create synergies between resources and territorial stakeholders (enterprises, residents) was reported as critical/difficult. Contextually, the **lack of trust** in public-private cooperation was also pointed out.

All countries, with some nuances, converged on identifying as a major obstacle the issue of **financial risk** and the connected **uncertainties on the return of investment**, including, as in the case of Slovenia, a possible excessively long payback period. In **Italy**, it was pointed out the difficulty in sourcing appropriate funding. In **Denmark**, it was stressed the importance for the public sector (namely local authorities) to provide financial guarantees for energy retrofitting measures. The lack of guarantees represents an obstacle for investors, especially in those cases where there is no sufficient real estate value to provide sufficient certainty in investments. In Denmark, it was also mentioned the lack of specific funds for energy retrofitting and renewable energy supply.

Both in **Italy** and in **Denmark** the wish for a more **holistic and long-term vision** concerning interventions for energy efficiency was expressed. In particular, it was noted the lack of a value-oriented approach in the management of public estate buildings. In addition, all the **intangible benefits** of energy efficiency refurbishment (comfort, health, wellbeing) are not taken into account and measured or valued in investment procedures, with tenants and social housing companies often focusing only on a possible increase of rents and on the reduction of energy bills. Instead, evidence on medium-term and non-economic gains shall be strengthened, which can act as incentives towards citizens or politics.

Conclusions on most effective financial solutions

In matters of sources of funding considered as most effective for energy efficiency investments, we can summarise the following:

Italy: participants' propension went towards national funds, followed by European funds. Amongst the instruments that have been mentioned as effective sources there are specific incentives issued by the publicly-owned company promoting and supporting renewable energy sources (GSE - Gestore Servizi Energetici) to support public administration, enterprise and private citizens in increasing building energy efficiency and energy production from renewable sources. Such incentives - called "Conto termico" - cover from 40% to 65% of incurred expenses, depending on the nature of interventions, and can be combined with other types of incentives and facilitations.

Slovenia: participants' propension went towards EU and national financing and grants, including cohesion funds. Sources and instruments that have been mentioned as effective are the combination of grants and loans, including green loans. Own resources have been mentioned several times, meaning that they can make the difference. In particular, the repurchase from a reserve fund, if own resources are available, has been proposed.

Denmark: it was proposed, amongst other contributions, the combination of different instruments, namely a financial mix comprising national funds, mortgage, loan and own financing. Also ESCO interventions are considered as useful, followed by national funds and green loans/bonds. Grant instruments instead have not generally raised the interest of participants, although have been considered valuable for the project planning phase.

In regard to possible solutions to **facilitate investments in energy efficiency technologies** in the context of social housing, the capacity to **lower financial risks** associated with eco-investments through financial institutions support was taken into higher consideration in **Denmark**, showing the general propension of the Danish system towards investments in this sector. Also in **Italy** it was reported as a critical factor. In **Slovenia**, requests and needs collected mostly focused on the availability of **more dedicated grants** from financial institutions, as well as public grants on the national and local level. In general, the Slovenian system shows a strong propension towards grant-based support for energy-efficiency intervention.

The importance of **combining and experimenting with new and/ or underutilised funding models**, such as those based on ESCOs or Energy Performance Contract, was stressed especially in the **Danish** roundtable. From our discussions we found that EPC and models based on ESCO funding are being experimented with some differences in all three countries participating in SUPER-i, activating also different **governance settings** - the Italian experience was mostly led by the public sector, while in Slovenia a private actor led the experience. As concerns ESCOs, they express a big potential and advantages, which have been extensively described in the previous paragraphs.

Annex: Mentimeter Survey

Questionnaire presented through Mentimeter

Questions and the order they have been presented to the public might have slightly differed from country to country. The questionnaire foresaw the possibility to provide multiple choices.

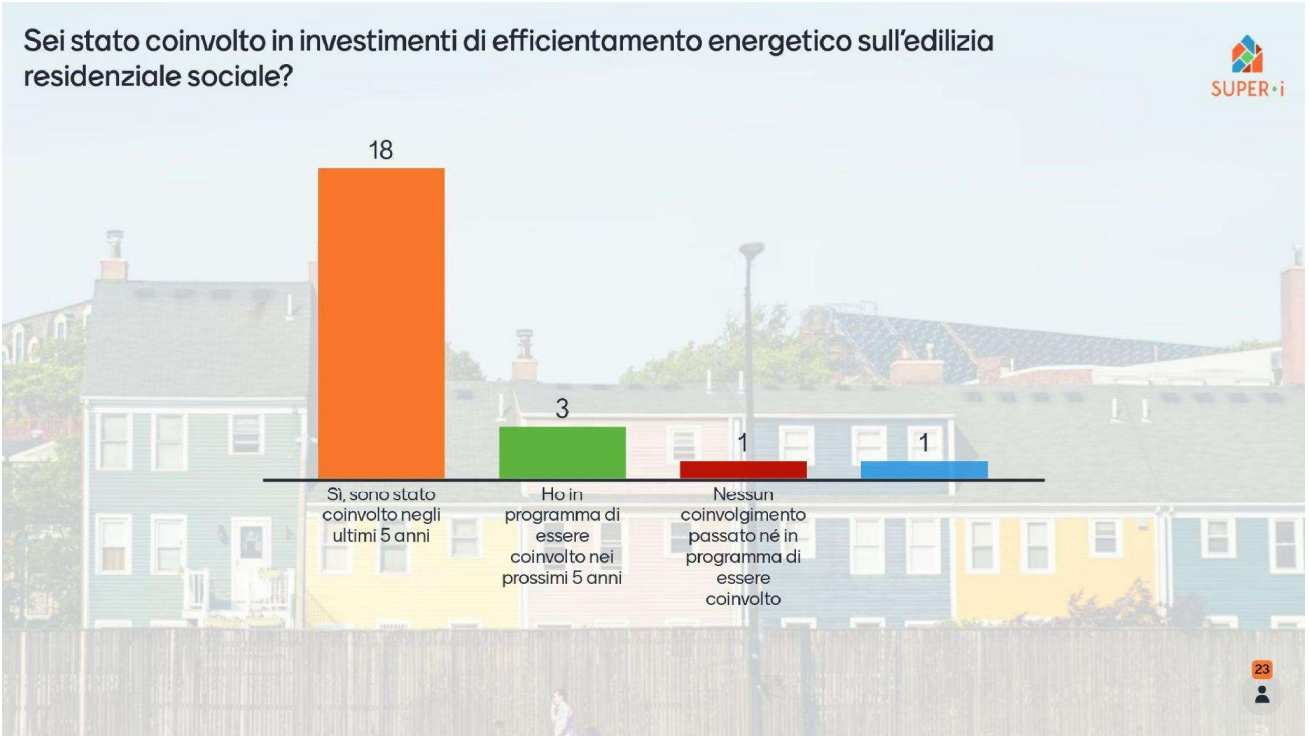
1. **Your organisation's profile**
    - Energy Service Companies
    - Energy Service Providers
    - Social Housing Companies
    - Financial Institutions
    - Public Bodies, including local authorities
    - SMEs (building and renewables sectors)
    - Households Organisations
    - Research institutions
2. **Your involvement in investment in energy efficiency requalification in social housing?**
    - Involvement in the last 5 years
    - Plans to be involved in the next 5 years
    - No involvement in the past nor plans to be involved
3. **What are the possible benefits (financial, political, social and environmental) of investment in energy efficiency in social housing dwellings?**
    - lower energy poverty
    - increased comfort
    - lower energy wastage
    - lower environmental impact
    - financial savings
    - societal engagement in green economy
4. **What are the main obstacles to investment in energy efficiency requalification in social housing (1) ?**
    - Lack of information about green technologies
    - Lack of skilled labour
    - Legal restrictions /administrative procedures
    - Problems with social housing inhabitants
    - Financial risk
5. **What are the main obstacles to investment in energy efficiency requalification in social housing (2)?**
    - Innovation costs
    - Size of investment (too big or too small for financial institutions)
    - Uncertain return on investment or too long payback period
    - Industry standards/norms

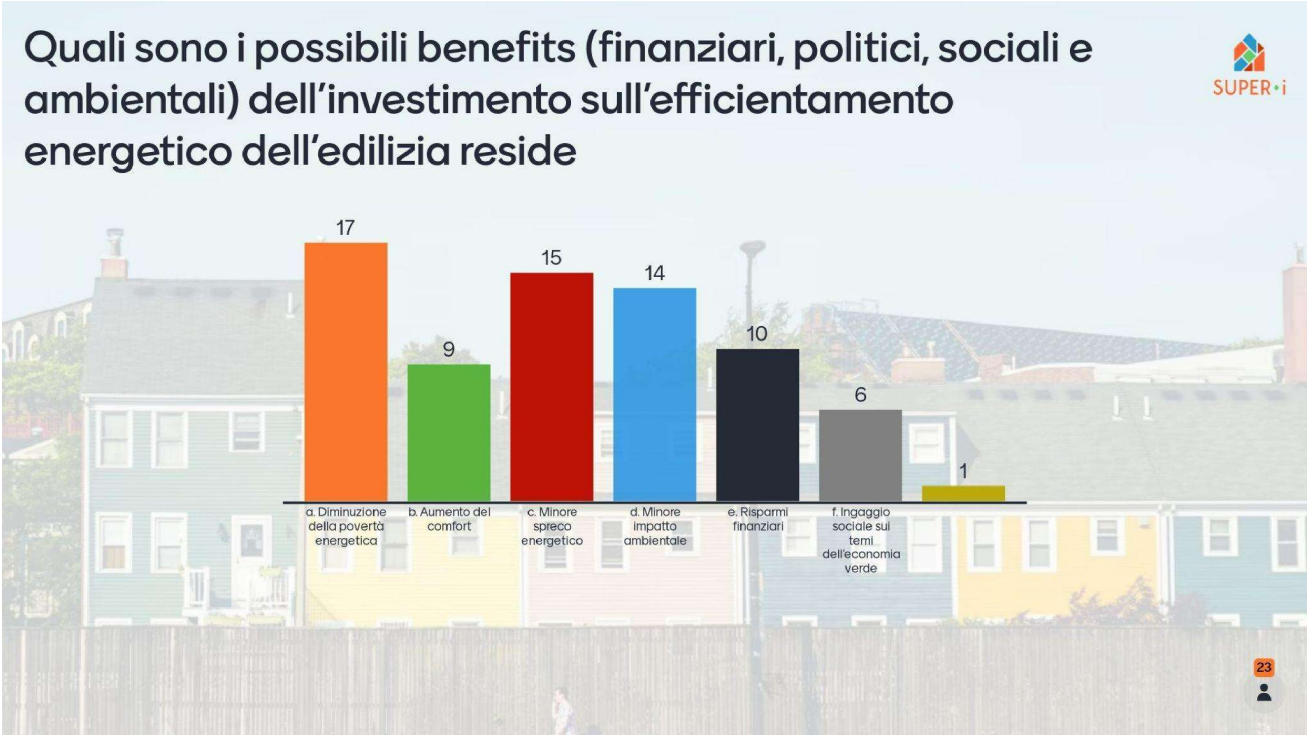
- Municipalities lack competences and information to apply for grants

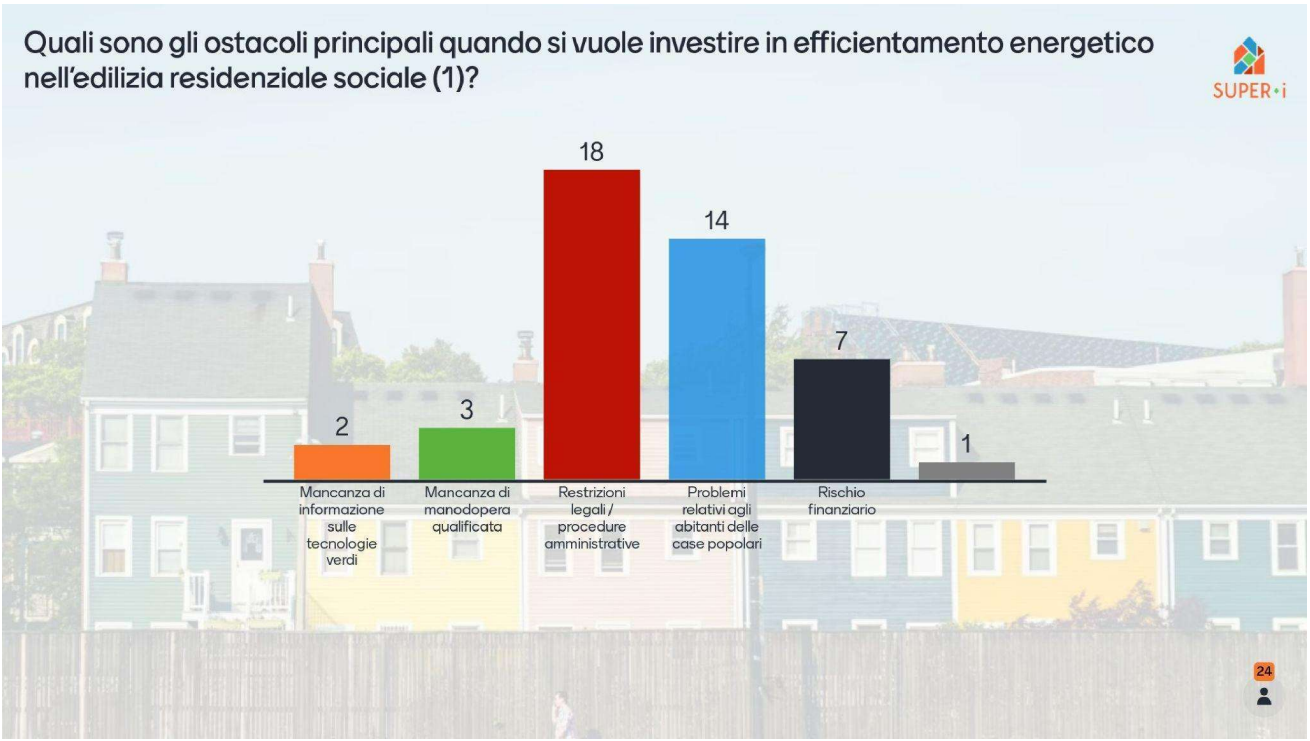
6. **Which of these aspects would facilitate investment for energy efficiency technologies for social housing buildings?**
    - Financial incentives
    - De-risking of eco-investments via support from financial institutions
    - Regulations
    - Staff training in innovative technologies and services
    - Interaction between social housing managers and social housing associations, to facilitate social acceptance
7. **In your experience, what are the most effective sources of funding for energy efficiency investments (1)?**
    - National funds
    - EU funds
    - Crowdfunding
    - Green loans
8. **In your experience, what are the most effective sources of funding for energy efficiency investments (2)?** Open question
9. **What is the best way to financially support a social housing company planning to invest in an energy efficiency requalification?** open question
10. **How would you support the success of the most environmentally friendly energy efficient technologies in a social housing context?** open question

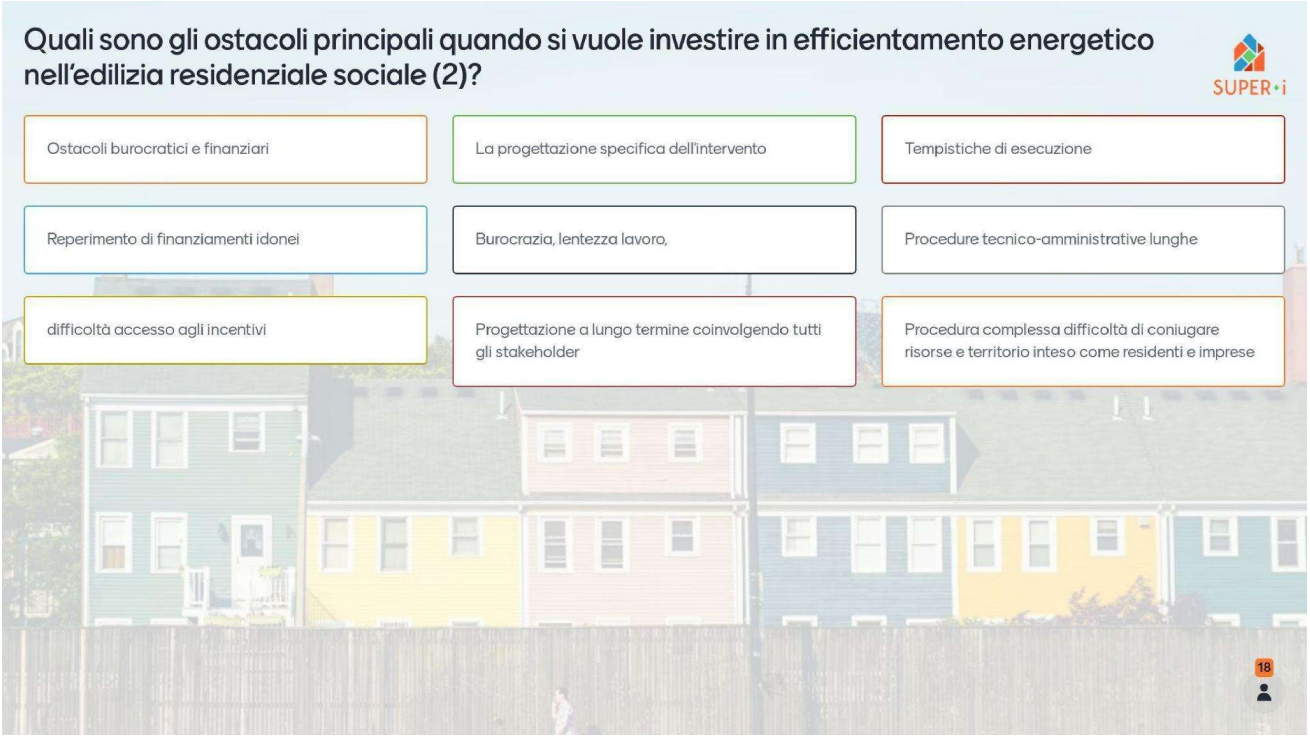
Survey answers

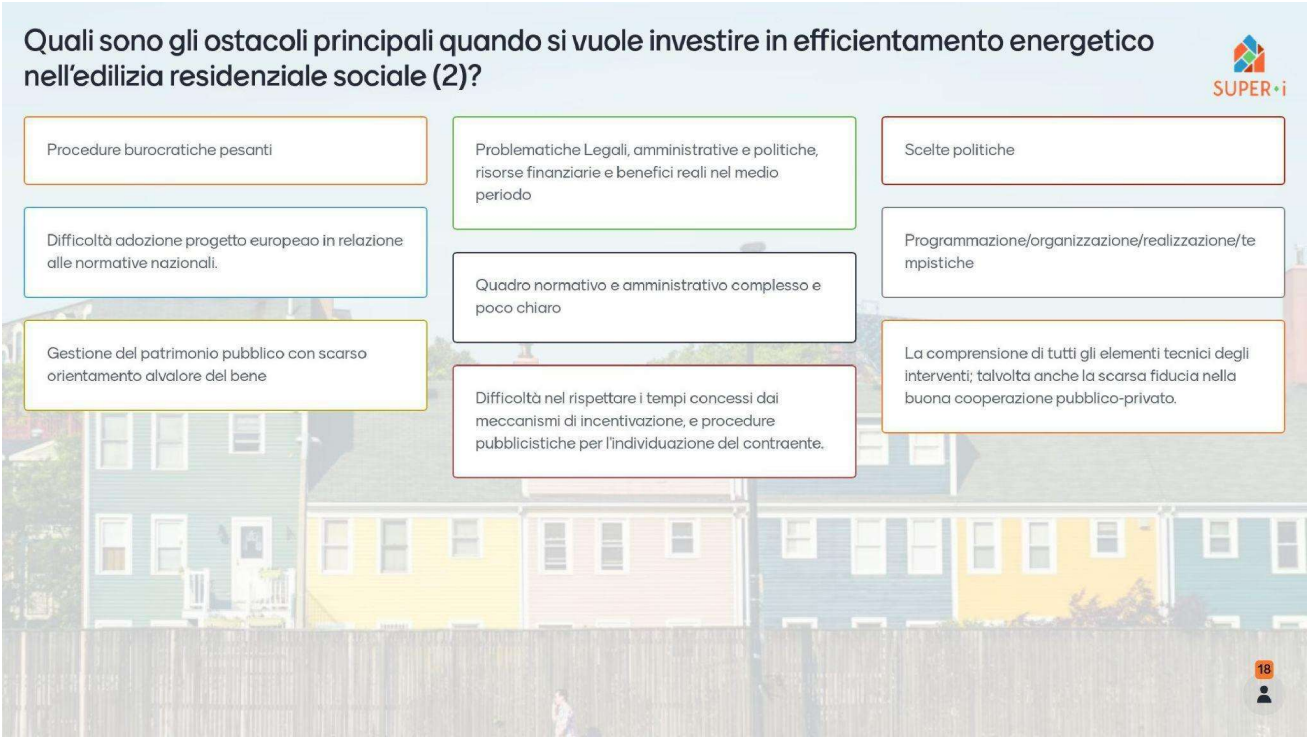
Italy

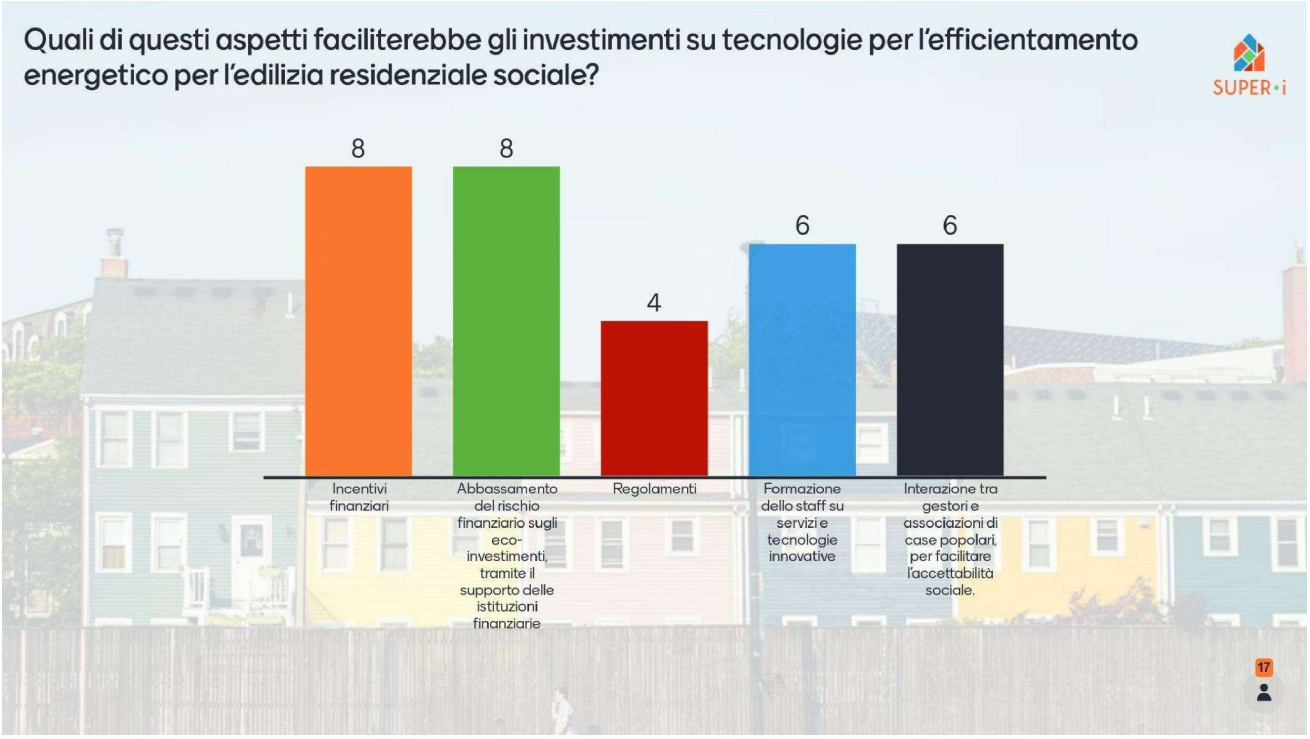


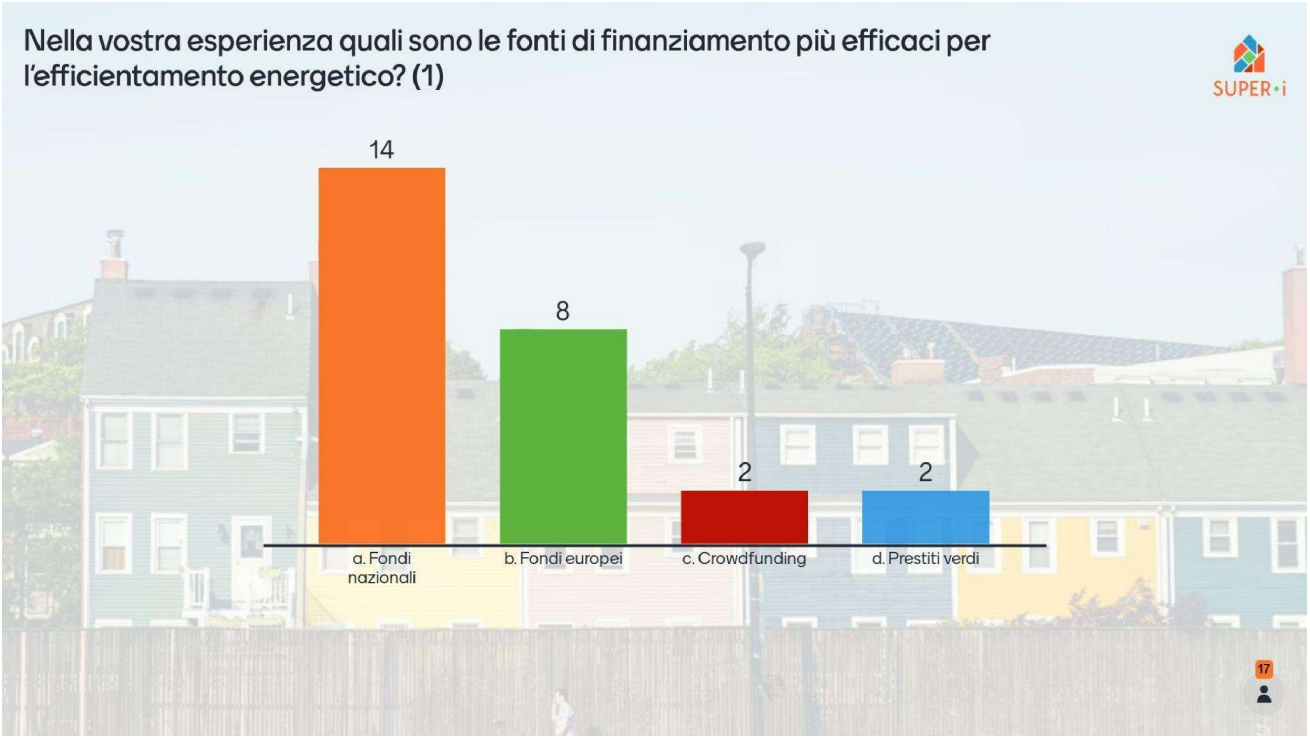

Quali sono i possibili benefits (finanziari, politici, sociali e ambientali) dell'investimento sull'efficientamento energetico dell'edilizia reside
SUPER·i
17
9
15
14
10
6
1
a. Diminuzione della povertà energetica
b. Aumento del comfort
c. Minore spreco energetico
d. Minore impatto ambientale
e. Risparmi finanziari
f. Ingaggio sociale sui temi dell'economia verde
23

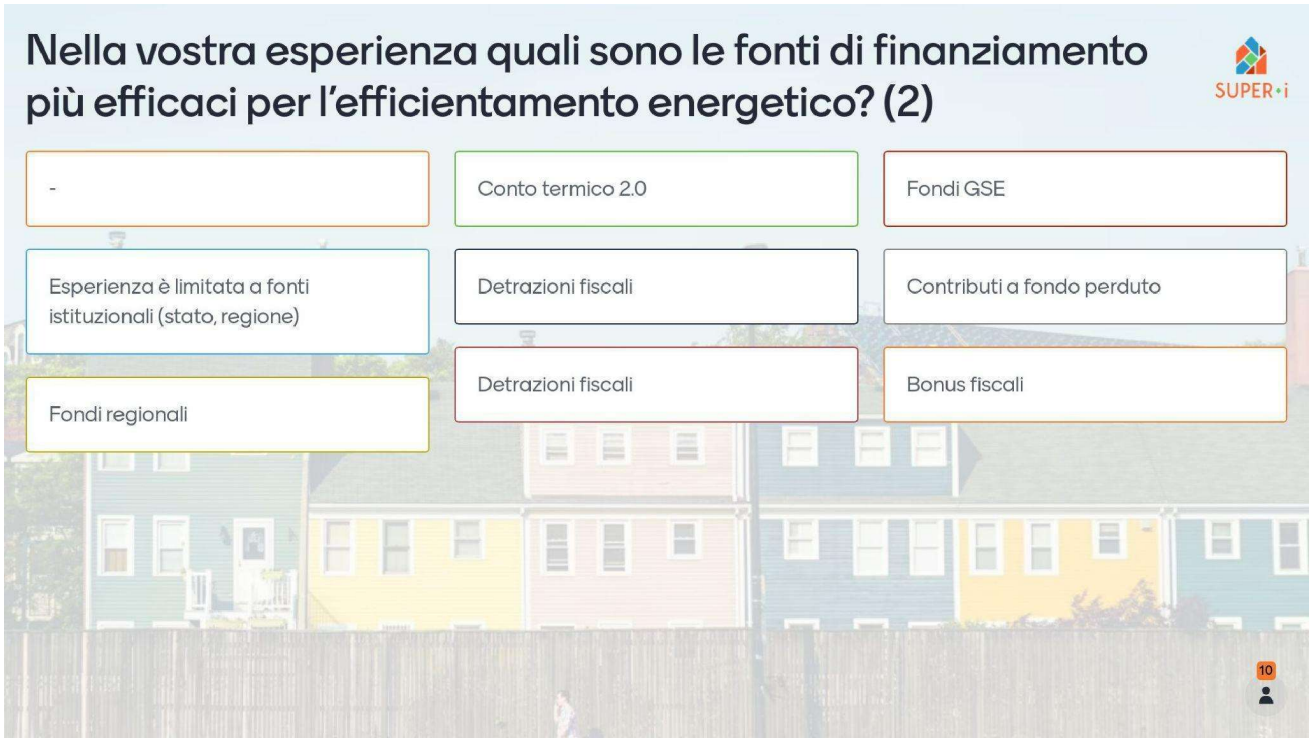

Quali sono gli ostacoli principali quando si vuole investire in efficientamento energetico nell'edilizia residenziale sociale (1)?
SUPER·i
2
3
18
14
7
1
Mancanza di informazione sulle tecnologie verdi
Mancanza di manodopera qualificata
Restrizioni legali / procedure amministrative
Problemi relativi agli abitanti delle case popolari
Rischio finanziario
24

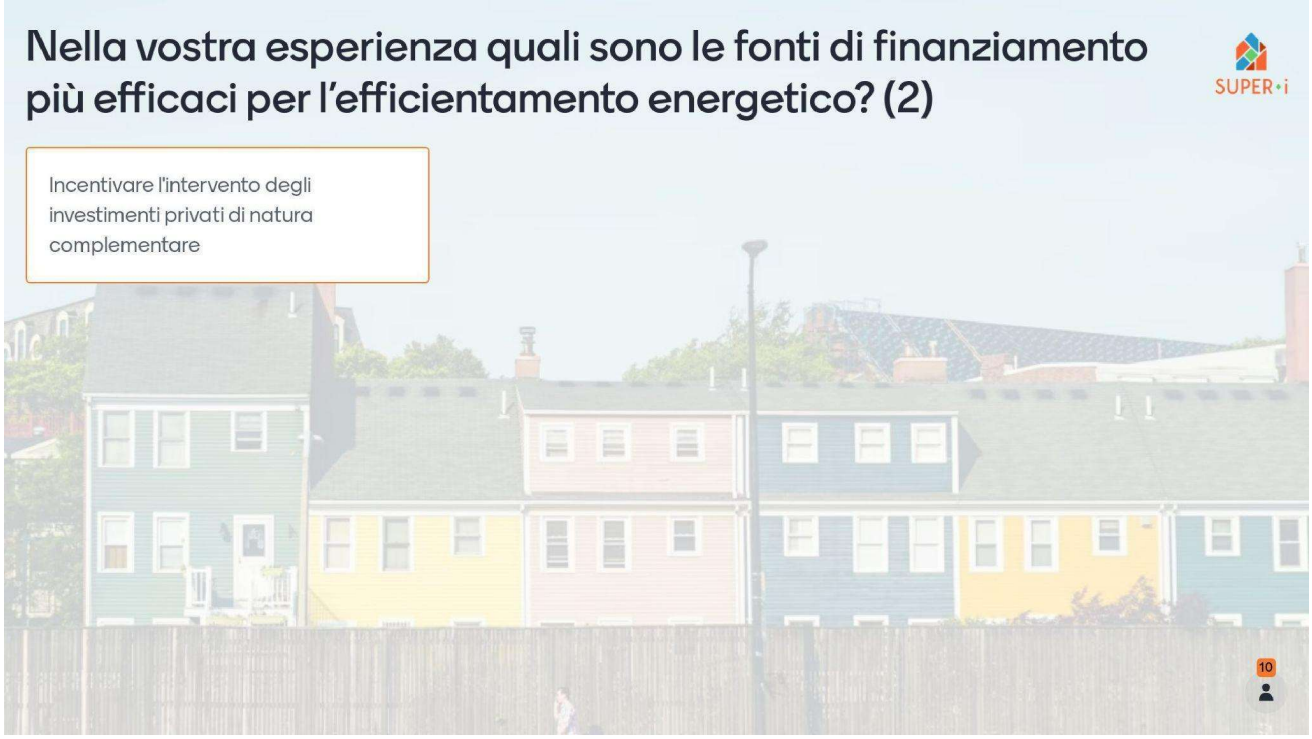

Quali sono gli ostacoli principali quando si vuole investire in efficientamento energetico nell'edilizia residenziale sociale (2)?
SUPER·i
Ostacoli burocratici e finanziari
La progettazione specifica dell'intervento
Tempistiche di esecuzione
Reperimento di finanziamenti idonei
Burocrazia, lentezza lavoro,
Procedure tecnico-amministrative lunghe
difficoltà accesso agli incentivi
Progettazione a lungo termine coinvolgendo tutti gli stakeholder
Procedura complessa difficoltà di coniugare risorse e territorio inteso come residenti e imprese
18

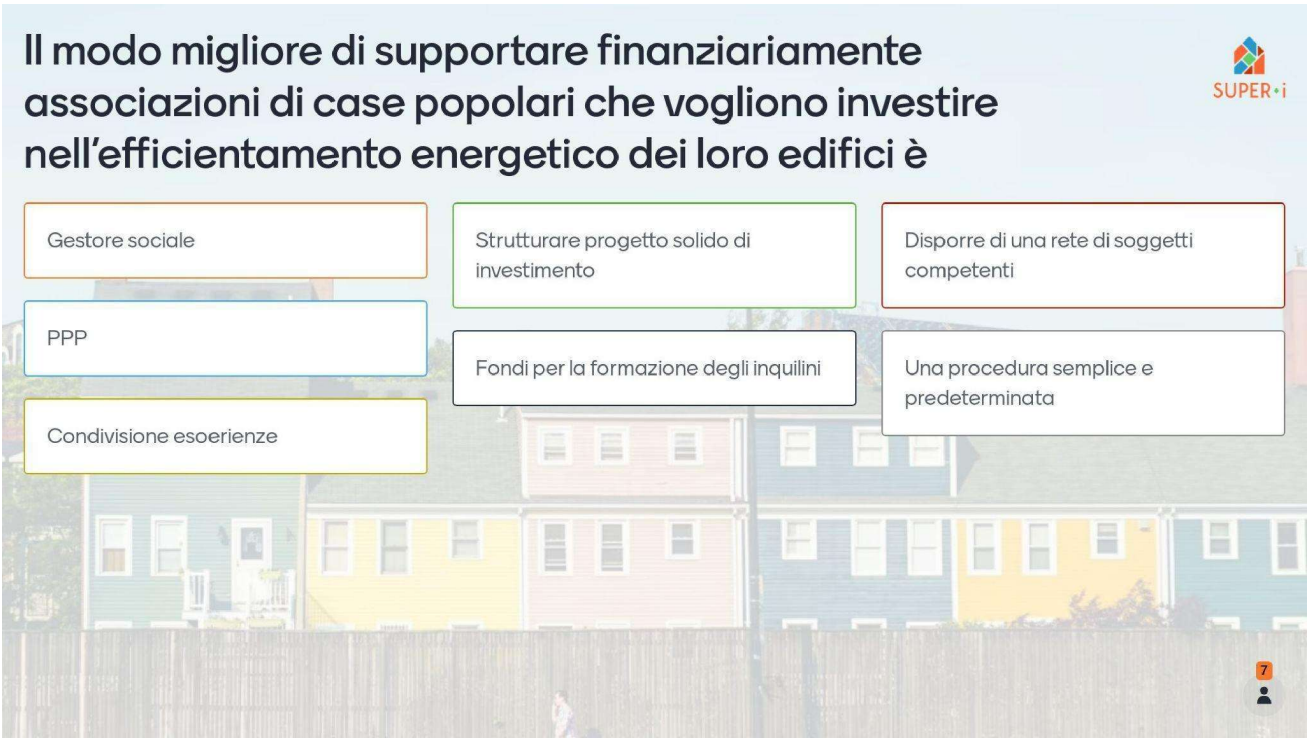

Quali sono gli ostacoli principali quando si vuole investire in efficientamento energetico nell'edilizia residenziale sociale (2)?
SUPER·i
Procedure burocratiche pesanti
Problematiche Legali, amministrative e politiche, risorse finanziarie e benefici reali nel medio periodo
Scelte politiche
Difficoltà adozione progetto europeao in relazione alle normative nazionali.
Quadro normativo e amministrativo complesso e poco chiaro
Programmazione/organizzazione/realizzazione/tempistiche
Gestione del patrimonio pubblico con scarso orientamento alvalore del bene
Difficoltà nel rispettare i tempi concessi dai meccanismi di incentivazione, e procedure pubblicistiche per l'individuazione del contraente.
La comprensione di tutti gli elementi tecnici degli interventi; talvolta anche la scarsa fiducia nella buona cooperazione pubblico-privato.
18

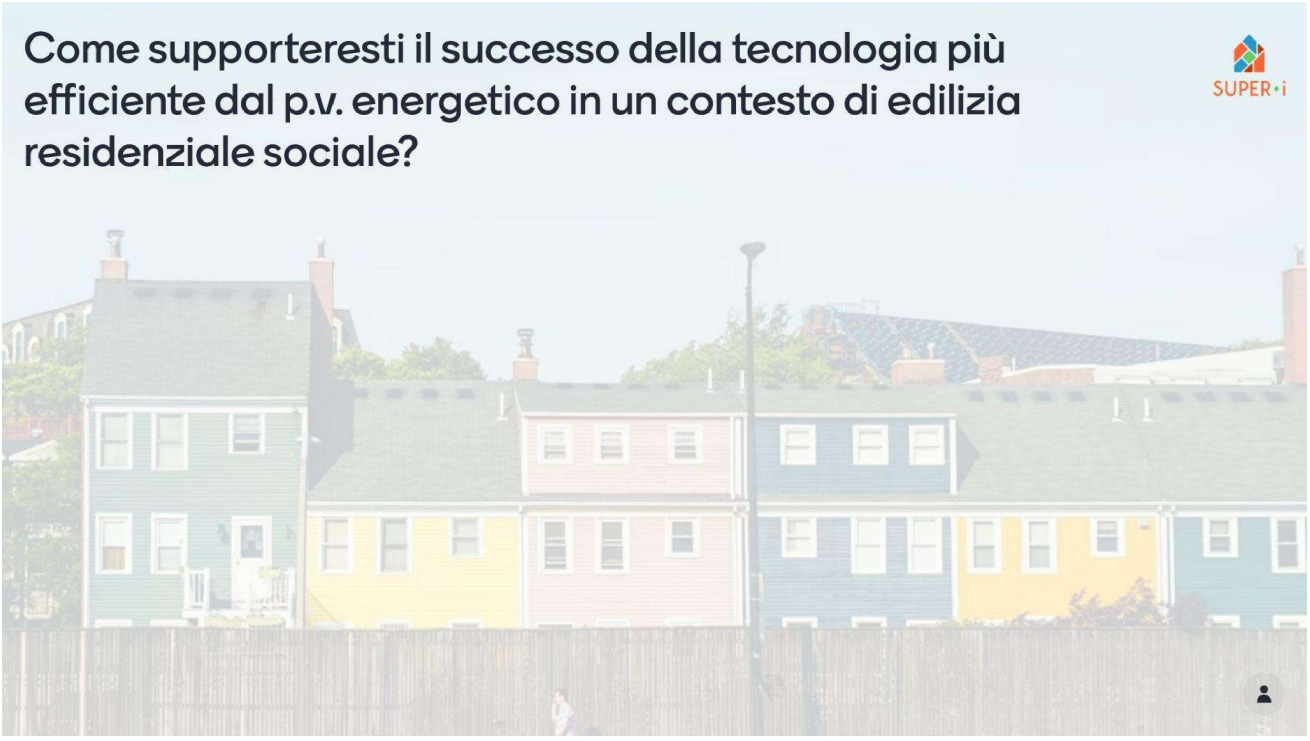

Quali di questi aspetti faciliterebbe gli investimenti su tecnologie per l'efficientamento energetico per l'edilizia residenziale sociale?
SUPER·i
8
8
4
6
6
Incentivi finanziari
Abbassamento del rischio finanziario sugli eco-investimenti, tramite il supporto delle istituzioni finanziarie
Regolamenti
Formazione dello staff su servizi e tecnologie innovative
Interazione tra gestori e associazioni di case popolari, per facilitare l'accettabilità sociale.
17


Nella vostra esperienza quali sono le fonti di finanziamento più efficaci per l'efficientamento energetico? (1)
SUPER·i
14
8
2
2
a. Fondi nazionali
b. Fondi europei
c. Crowdfunding
d. Prestiti verdi
17

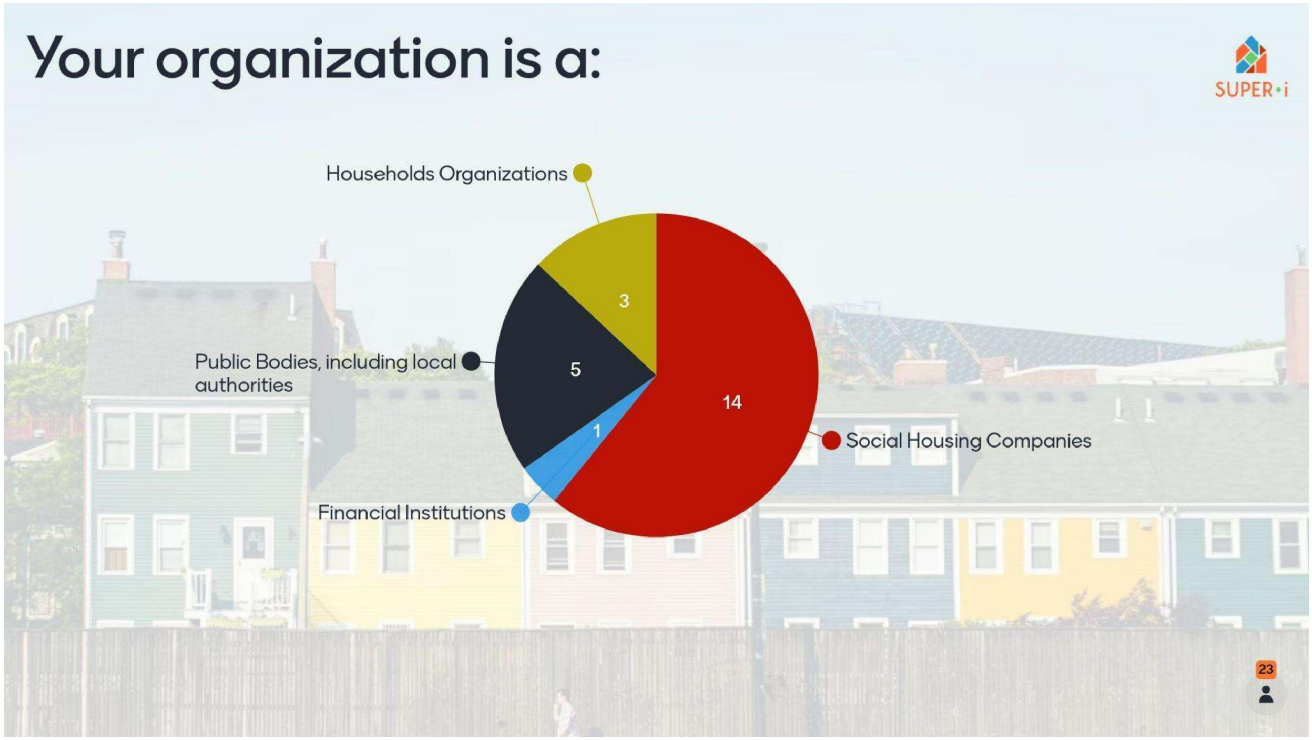

Nella vostra esperienza quali sono le fonti di finanziamento più efficaci per l'efficientamento energetico? (2)
SUPER·i
-
Conto termico 2.0
Fondi GSE
Esperienza è limitata a fonti istituzionali (stato, regione)
Detrazioni fiscali
Contributi a fondo perduto
Fondi regionali
Detrazioni fiscali
Bonus fiscali
10

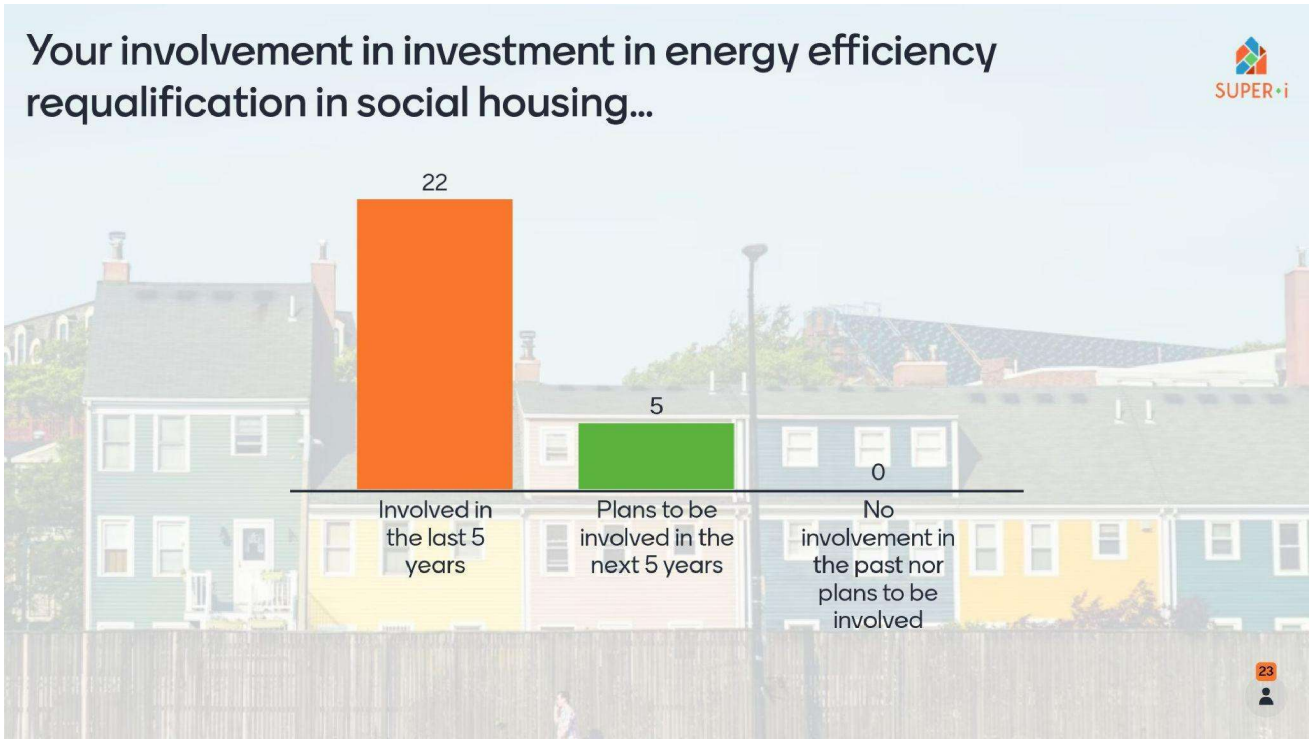

Nella vostra esperienza quali sono le fonti di finanziamento più efficaci per l'efficientamento energetico? (2)
SUPER·i
Incentivare l'intervento degli investimenti privati di natura complementare
10

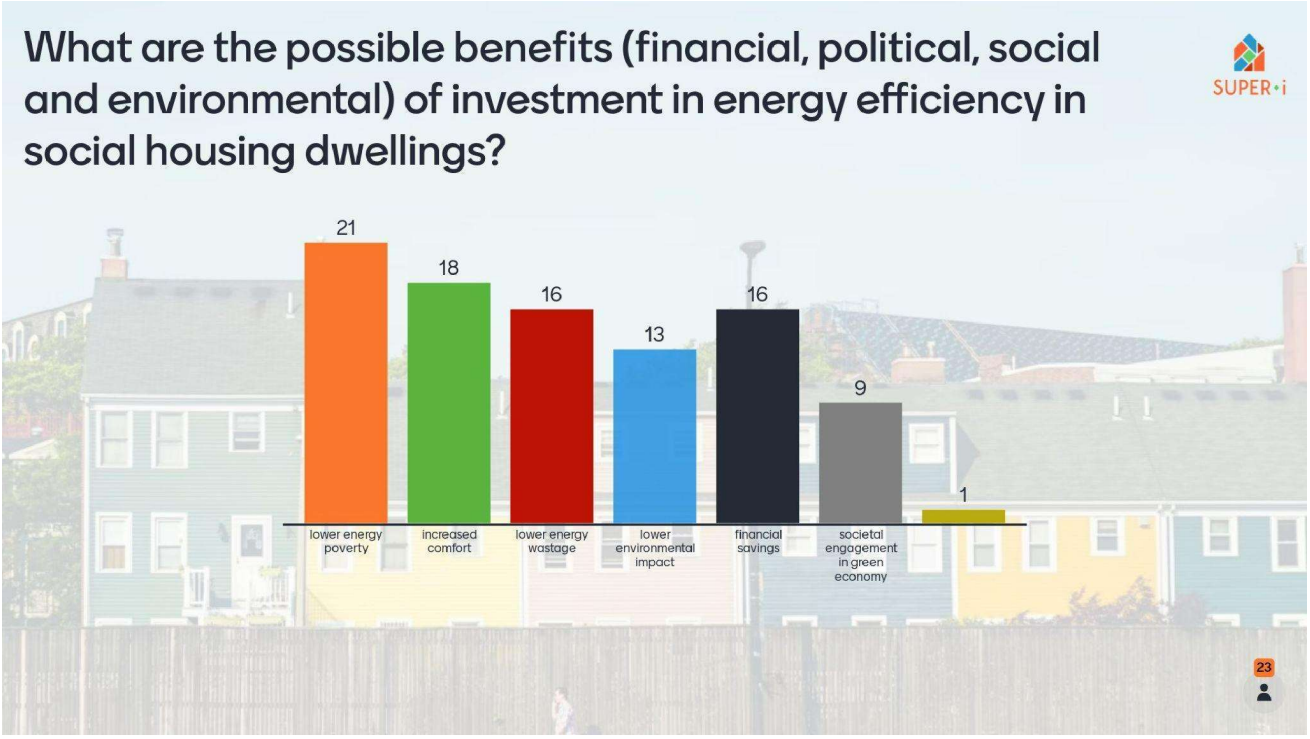

Il modo migliore di supportare finanziariamente associazioni di case popolari che vogliono investire nell'efficientamento energetico dei loro edifici è
SUPER·i
Gestore sociale
Strutturare progetto solido di investimento
Disporre di una rete di soggetti competenti
PPP
Fondi per la formazione degli inquilini
Una procedura semplice e predeterminata
Condivisione esoerienze
7

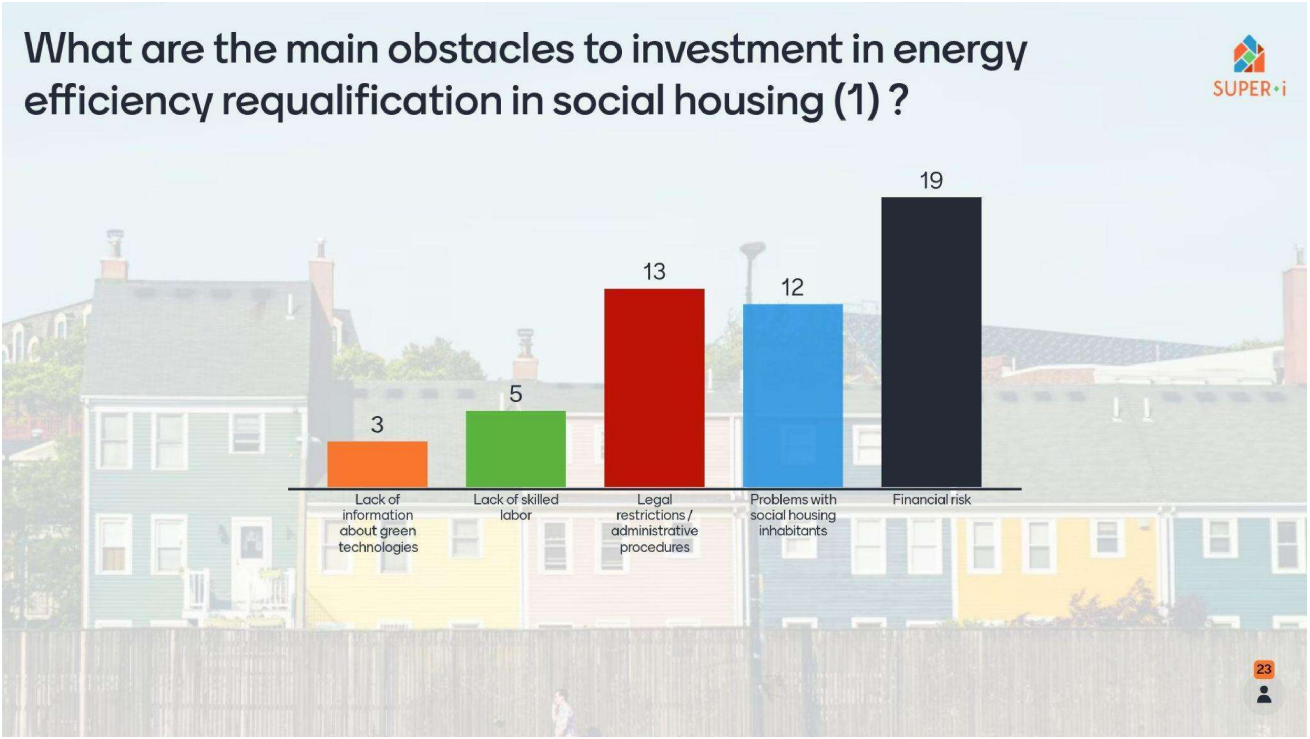

Come supporteresti il successo della tecnologia più efficiente dal p.v. energetico in un contesto di edilizia residenziale sociale?
SUPER·i

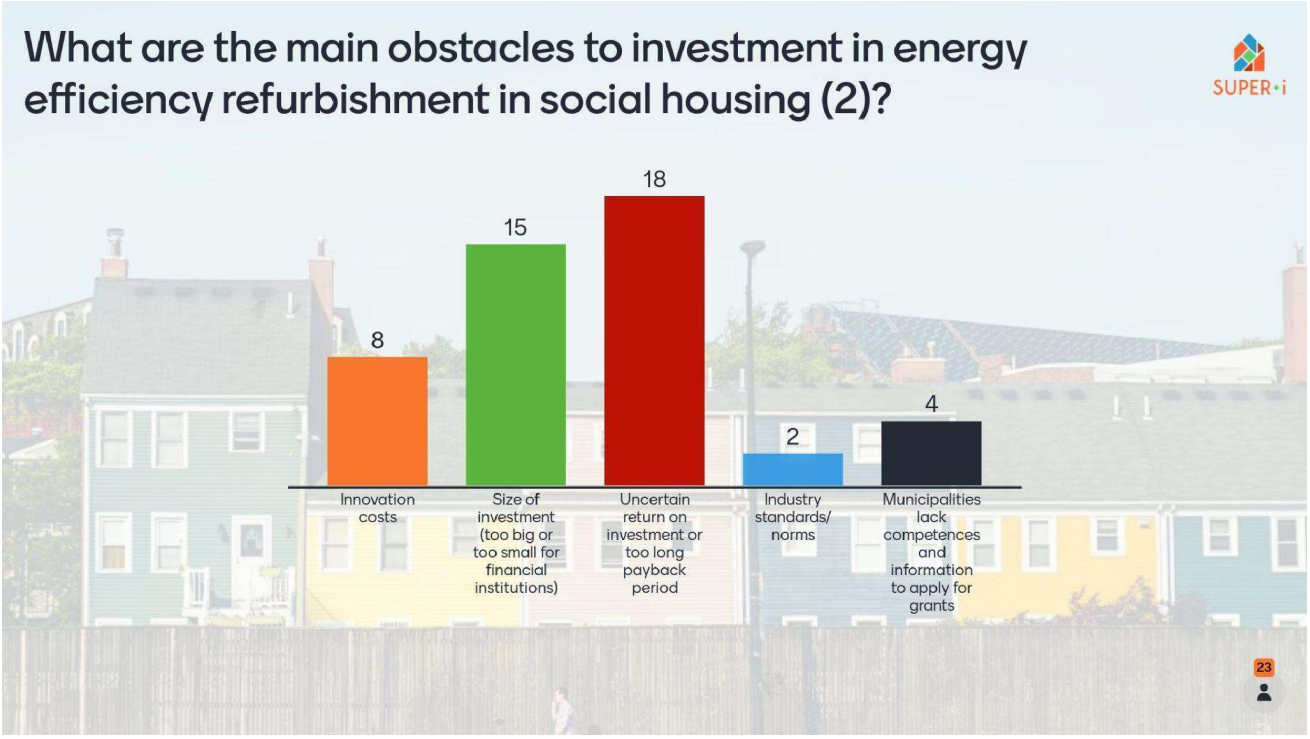
Slovenia

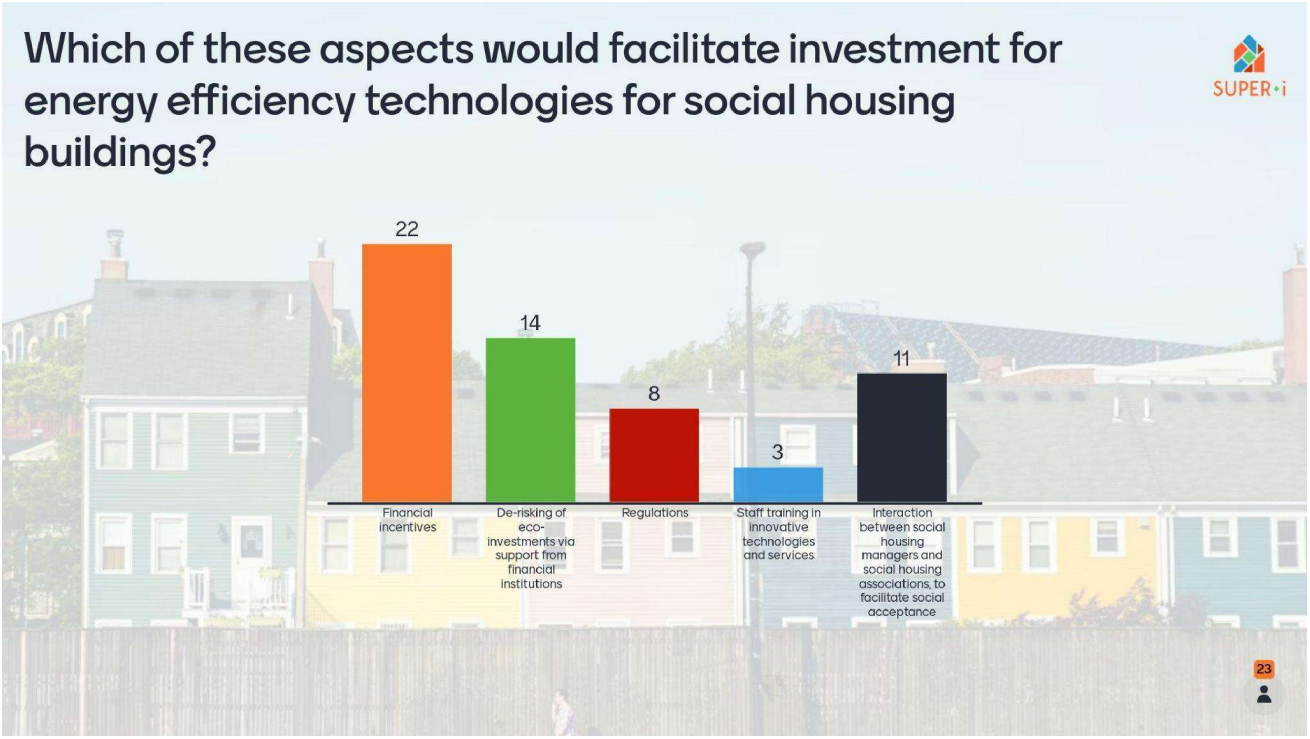

Your organization is a:
SUPER·i
Households Organizations
3
Public Bodies, including local authorities
5
14
Social Housing Companies
1
Financial Institutions
23

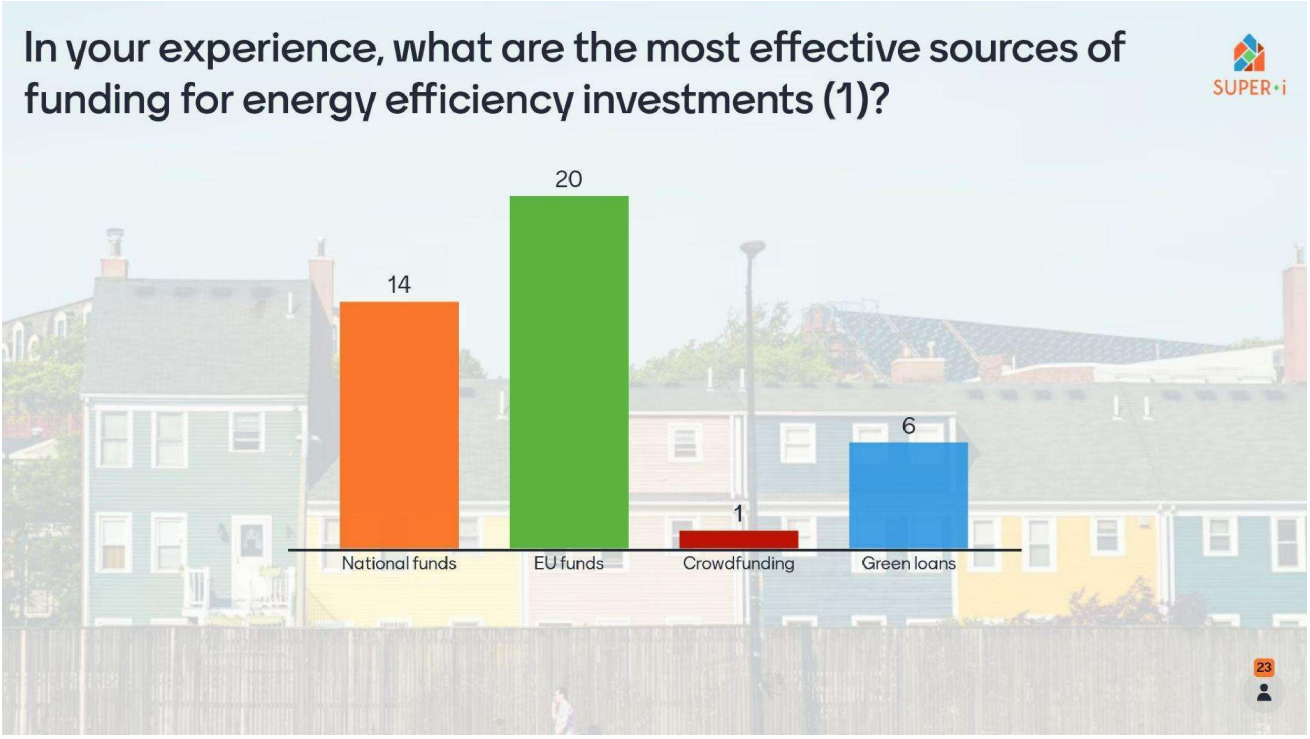

Your involvement in investment in energy efficiency requalification in social housing...
SUPER·i
22
5
0
Involved in the last 5 years
Plans to be involved in the next 5 years
No involvement in the past nor plans to be involved
23

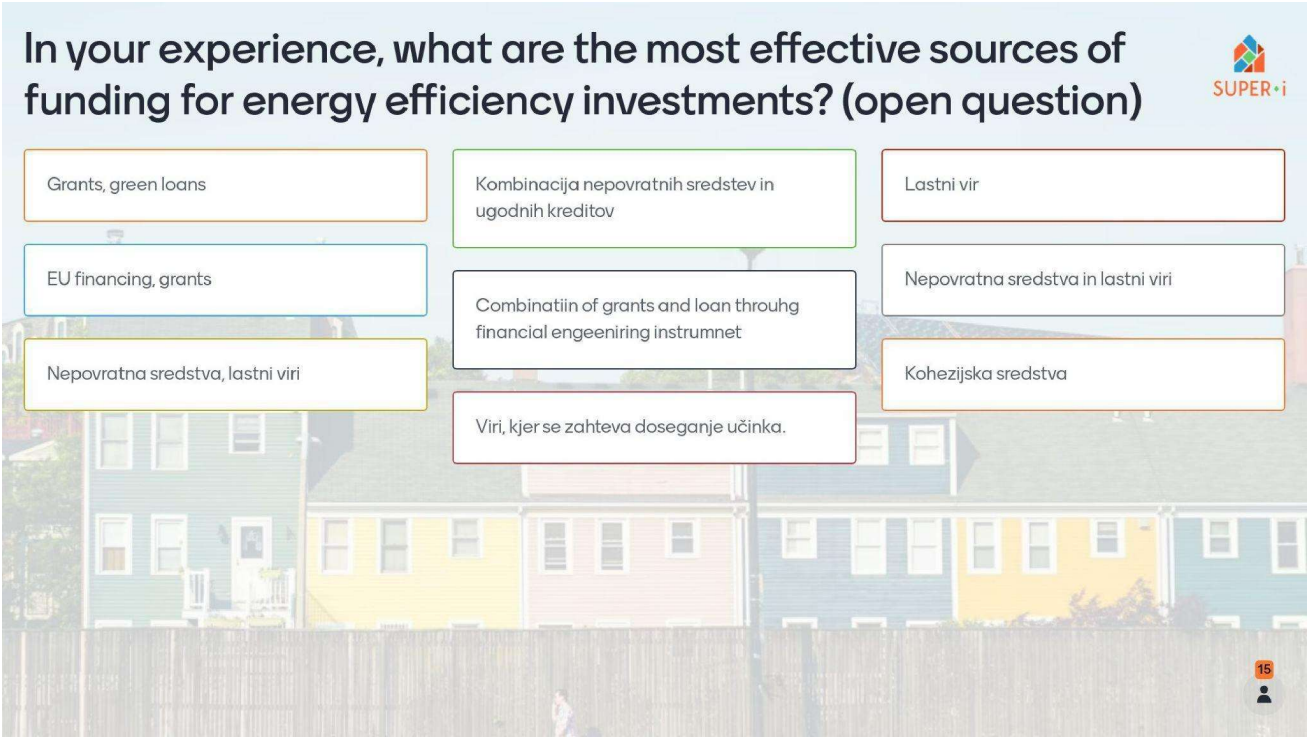

What are the possible benefits (financial, political, social and environmental) of investment in energy efficiency in social housing dwellings?
SUPER·i
21
18
16
13
16
9
1
lower energy poverty
increased comfort
lower energy wastage
lower environmental impact
financial savings
societal engagement in green economy
23

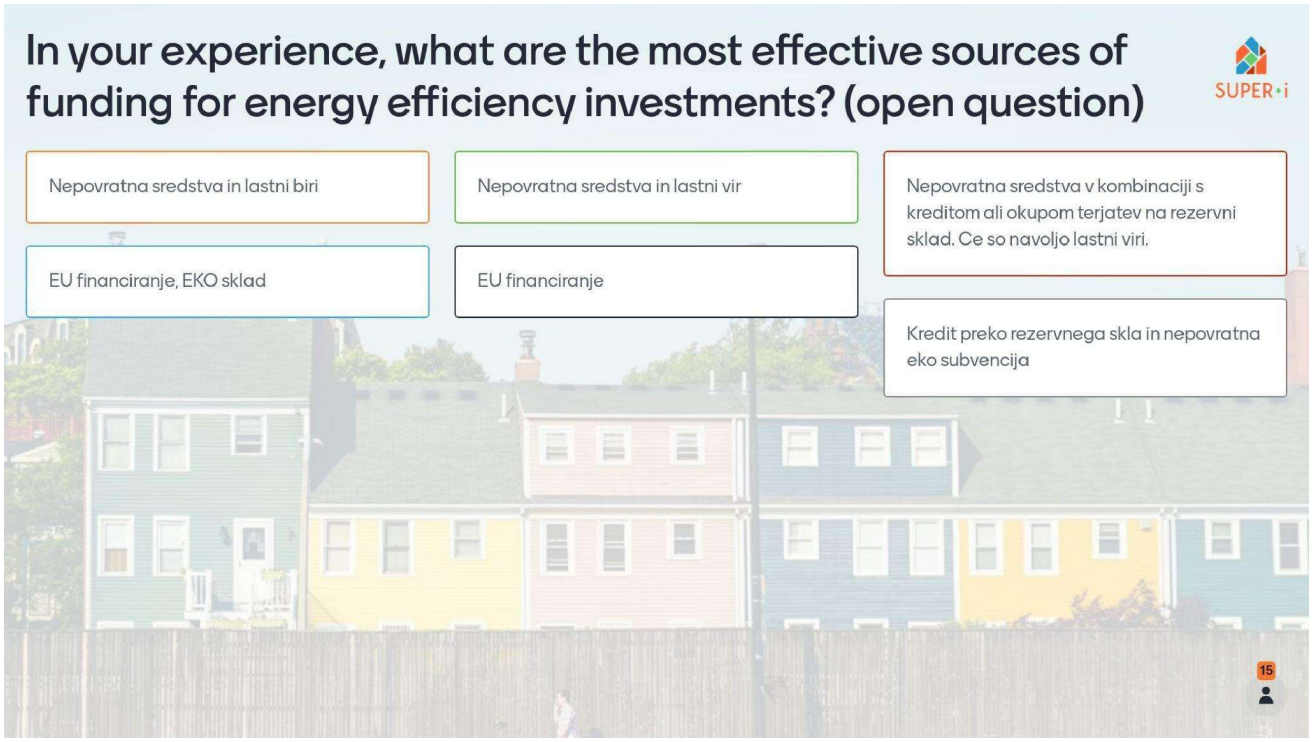

What are the main obstacles to investment in energy efficiency requalification in social housing (1) ?
SUPER·i
3
5
13
12
19
Lack of information about green technologies
Lack of skilled labor
Legal restrictions / administrative procedures
Problems with social housing inhabitants
Financial risk
23

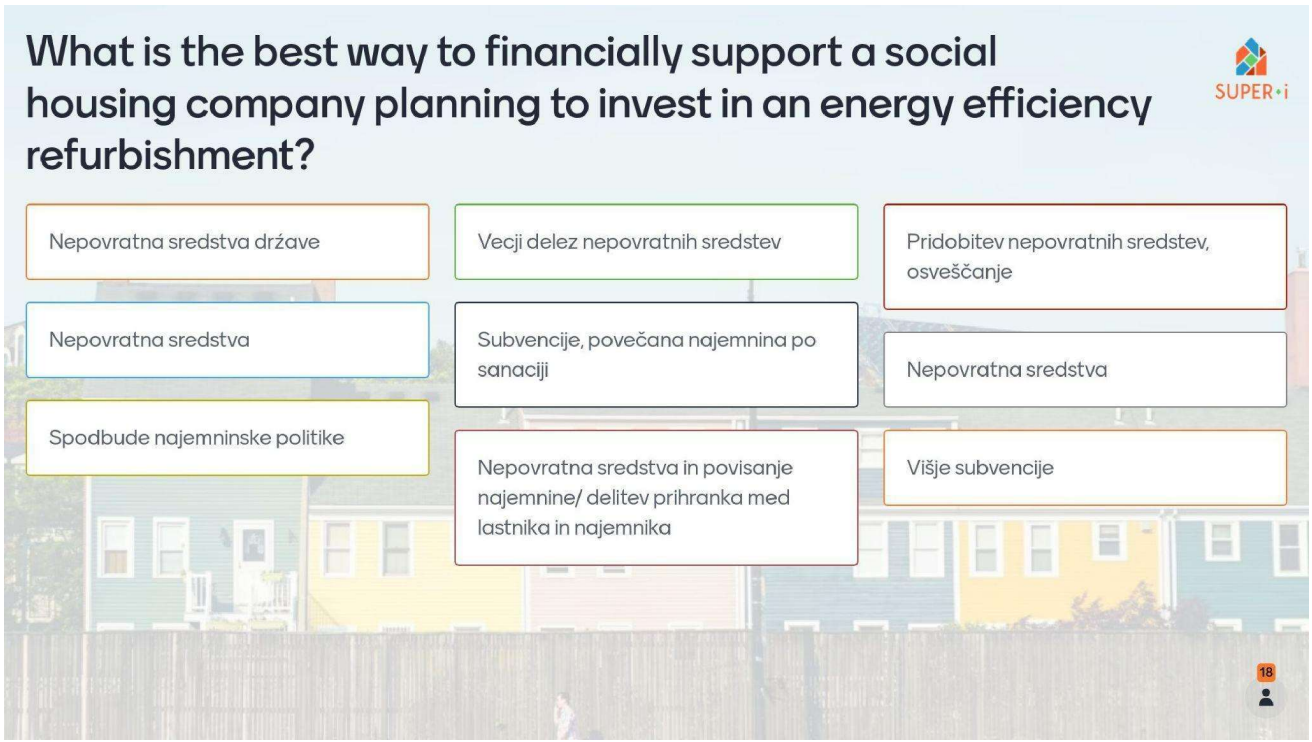

What are the main obstacles to investment in energy efficiency refurbishment in social housing (2)?
SUPER·i
8
15
18
2
4
Innovation costs
Size of investment (too big or too small for financial institutions)
Uncertain return on investment or too long payback period
Industry standards/ norms
Municipalities lack competences and information to apply for grants
23

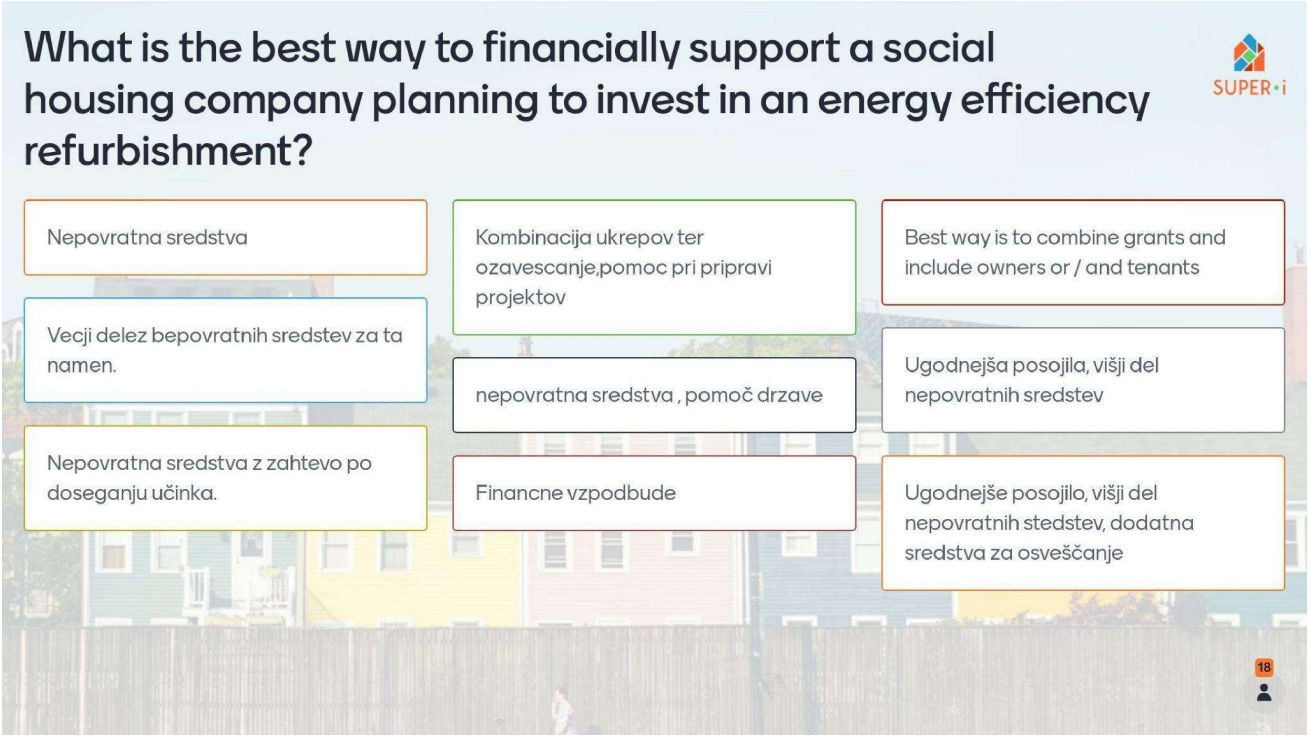

Which of these aspects would facilitate investment for energy efficiency technologies for social housing buildings?
SUPER·i
22
14
8
3
11
Financial incentives
De-risking of eco-investments via support from financial institutions
Regulations
Staff training in innovative technologies and services
Interaction between social housing managers and social housing associations, to facilitate social acceptance
23

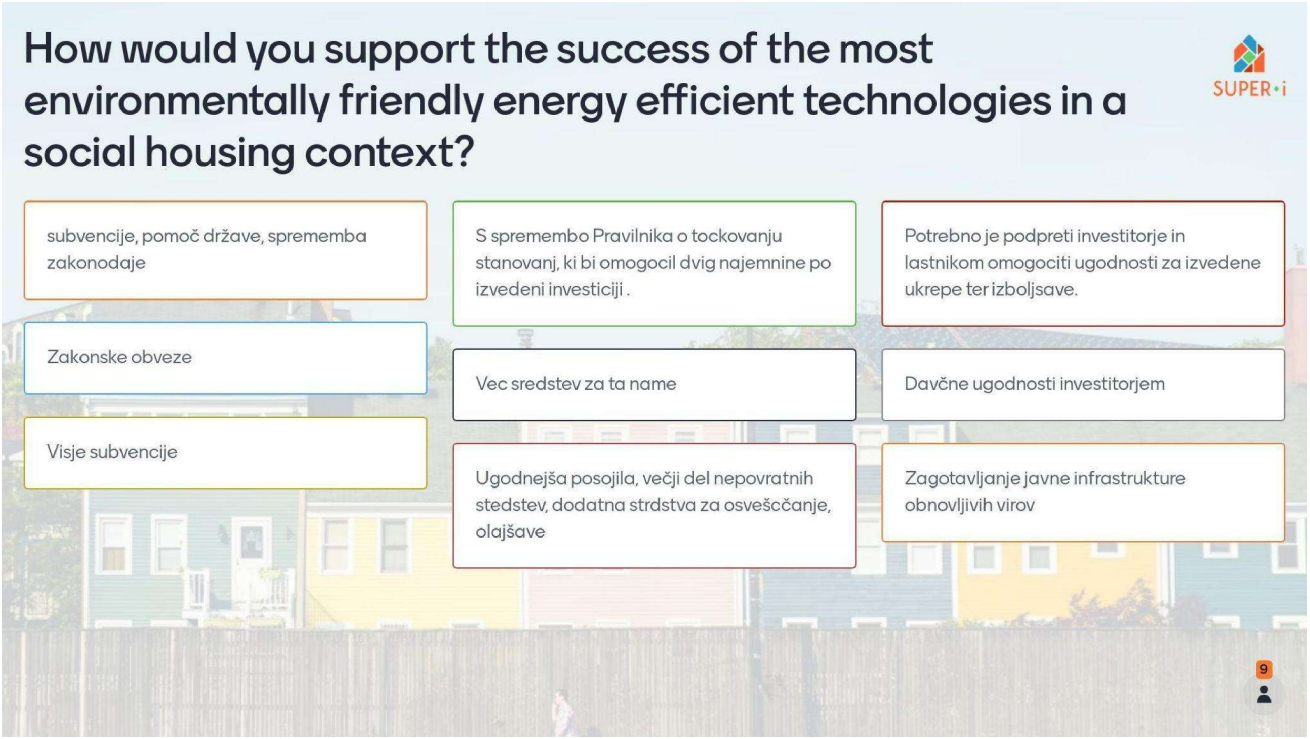

In your experience, what are the most effective sources of funding for energy efficiency investments (1)?
SUPER•i
20
14
6
1
National funds
EU funds
Crowdfunding
Green loans
23


In your experience, what are the most effective sources of funding for energy efficiency investments? (open question)
SUPER•i
Grants, green loans
EU financing, grants
Nepovratna sredstva, lastni viri
Kombinacija nepovratnih sredstev in ugodnih kreditov
Combinatiin of grants and loan throuhg financial engeeniring instrumnet
Viri, kjer se zahteva doseganje učinka.
Lastni vir
Nepovratna sredstva in lastni viri
Kohezijska sredstva
15


In your experience, what are the most effective sources of funding for energy efficiency investments? (open question)
SUPER·i
Nepovratna sredstva in lastni biri
Nepovratna sredstva in lastni vir
Nepovratna sredstva v kombinaciji s kreditom ali okupom terjatev na rezervni sklad. Ce so navoljo lastni viri.
EU financiranje, EKO sklad
EU financiranje
Kredit preko rezervnega skla in nepovratna eko subvencija
15


What is the best way to financially support a social housing company planning to invest in an energy efficiency refurbishment?
SUPER·i
Nepovratna sredstva drźave
Vecji delez nepovratnih sredstev
Pridobitev nepovratnih sredstev, osveščanje
Nepovratna sredstva
Subvencije, povečana najemnina po sanaciji
Nepovratna sredstva
Spodbude najemninske politike
Nepovratna sredstva in povisanje najemnine/ delitev prihranka med lastnika in najemnika
Višje subvencije
18


What is the best way to financially support a social housing company planning to invest in an energy efficiency refurbishment?
SUPER·i
Nepovratna sredstva
Kombinacija ukrepov ter ozavescanje,pomoc pri pripravi projektov
Best way is to combine grants and include owners or / and tenants
Vecji delez bepovratnih sredstev za ta namen.
nepovratna sredstva , pomoč drzave
Ugodnejša posojila, višji del nepovratnih sredstev
Nepovratna sredstva z zahtevo po doseganju učinka.
Financne vzpodbude
Ugodnejše posojilo, višji del nepovratnih stedstev, dodatna sredstva za osveščanje
18


How would you support the success of the most environmentally friendly energy efficient technologies in a social housing context?
SUPER·i
subvencije, pomoč države, sprememba zakonodaje
S spremembo Pravilnika o tockovanju stanovanj, ki bi omogocil dvig najemnine po izvedeni investiciji .
Potrebno je podpreti investitorje in lastnikom omogociti ugodnosti za izvedene ukrepe ter izboljsave.
Zakonske obveze
Vec sredstev za ta name
Davčne ugodnosti investitorjem
Visje subvencije
Ugodnejša posojila, večji del nepovratnih stedstev, dodatna strdstva za osveščanje, olajšave
Zagotavljanje javne infrastrukture obnovljivih virov
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Acronyms

EE: Energy Efficiency
EU: European Union
FI: Financial Institutions
PV: Photovoltaic
SHC: Social Housing Company
RE: Renewable Energy
RES: Renewable Energy Sources