

SOCIAL GREEN – REGIONAL POLICIES TOWARDS GREENING THE SOCIAL HOUSING SECTOR

# EU Policy, Neighbourhood Results: Towards Efficient & Impactful Green Building Projects in Europe

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## The Social Green project in brief

Social Green is funded by INTERREG Europe and is scheduled to run between April 2016 and September 2020. It has received funding of 1.01m euros from the European Regional Development Fund (ERDF), which is distributed among eight partners in six countries: Tartu Regional Energy Agency (EE); Extremadura Energy Agency (ES); Regional Energy Agency North (HR); Regional Coordination and Development Commission of Norte (CCDR-N) (PT); Centre for Excellence and Innovation in the Automotive Industry (CEiiA) (PT); Alba Iulia Municipality (RO); South Muntenia Regional Development Agency (RO); and Nordregio – Nordic Centre for Spatial Development (SE). One advisory partner, Nordregio (Sweden), provides scientific and technical support to the consortium. The other partners, local authorities, energy agencies and managing authorities work jointly in the development of the main project's activities, namely preparation, implementation and monitoring.

Social Green promotes the greening of the social housing sector through mutual learning and the development of improved regional policies. It provides the opportunity to explore green building practices and significantly reduce greenhouse gas emissions through cost-effective means, while providing much needed housing in a healthy and sustainable manner. Through interregional cooperation, Social Green stakeholder regions identify, share and transfer innovative methodologies, processes and good practices in developing and implementing greener social housing sector policies, targeting new constructions or retrofitting existing buildings. In this context the project's sub-objectives are:

1. To understand the role of green building intervention in the social housing sector and the link with fuel poverty
2. To identify green measures for the social housing sector, specifically including energy efficiency and renewable energy development
3. To identify, share and transfer experiences and good practices and to develop joint policy tools and instruments related to innovative solutions for greening the social housing sector in the areas of fuel poverty and energy efficiency
4. To develop strategic guidelines and policy recommendations as an integrated toolkit for regional and local authorities
5. To improve regional/local policies by introducing best practices into EU mainstream programmes in order to contribute towards fostering the competitiveness, sustainability and social cohesion of cities, regions and the EU as a whole.

## Improving energy efficiency in Europe's housing stock

Housing plays a pivotal role on the path to a sustainable future. UN-Habitat estimates that “energy consumption in buildings can be reduced by about 30–50%” globally, and even simple retrofitting procedures can significantly reduce the environmental impact of many homes (UN-Habitat, 2015, 7). Within the European Union (EU), “buildings are responsible for approximately 40% of energy consumption and 36% of CO<sub>2</sub> emissions” ([European Commission, 2018a](#)). Building new, energy-efficient dwellings is part of the solution. However, there has been significant fluctuation in the rates of building construction over the past decade, and new construction alone cannot solve the energy efficiency challenge ([Eurostat, 2018a](#)). It is estimated that to achieve Europe's energy efficiency goals, 97% of the current building stock needs to be upgraded to achieve high efficiency standards (BPIE, 2018). This, coupled with the IPCC's ([2018](#)) warning that major change is needed immediately, suggests that it is vital to retrofit dwellings in order to improve energy efficiency in today's buildings.

Beyond environmental sustainability, improved energy efficiency in dwellings is a question of social sustainability. In 2016, 11.6% of the EU population spent more than 40% of their disposable income on housing ([Eurostat, 2016a](#)). *Fuel poverty* is an important social issue. It occurs when “a household is unable to afford basic levels of energy for adequate housing, cooling, cooking, lighting and use of appliances in the home” (EU FNP, 2016). According to [Eurostat \(2016b\)](#), in Europe, 23.5% of the total population (118 million people) is living at risk of poverty (i.e. earning less than 50% of the median national income in their country), and these people are particularly affected by fuel poverty. The Buildings Performance Institute Europe (BPIE) provides a useful set of figures (Table 1) that incorporates many of the most common indicators of fuel poverty.

It is widely recognised that “the most efficient and sustainable way to deal with fuel poverty is [to reduce] the energy demand of the building through renovation” (BPIE, 2014, 8). At the same time, the greening of social housing can also result in improvements to tenants' health and quality of life (UN-Habitat 2015, 9). However, renovation projects also risk pushing vulnerable households into fuel poverty by raising rent or service costs. To prevent this form of “eco-gentrification” (Quastel, 2009), social housing energy efficiency projects need to be designed with long-term affordability in mind, placing the health and economic needs of social tenants at the forefront.

The Interreg project Social Green<sup>2</sup> aims to support improved energy efficiency in the social housing sector. This includes a focus on projects that have a positive impact on both the energy performance of buildings and the well-being of the people living in them. Through a focus on regional policy instruments, it also aims to improve the policies and preconditions that set the stage for EU funding to be used to support the greening of the social housing sector.

Through Social Green project collaboration, it has emerged that there is a series of barriers to improving the energy efficiency of social housing, and thus environmental and social sustainability. In this paper, we detail these barriers and propose solutions to them that we have identified through our work.

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<sup>2</sup> For more information about the project, including publications and good practices, please visit [www.interregeurope.eu/socialgreen](http://www.interregeurope.eu/socialgreen)

Table 1: Percentage of people at risk of poverty affected by fuel poverty as reflected by three related indicators (from BPIE 2014, 4).

Country	Arrears on utility bills (%)	Inability to keep home warm (%)	Dwellings with leakages/damp walls (%)	Country	Arrears on utility bills (%)	Inability to keep home warm (%)	Dwellings with leakages/damp walls (%)
Bulgaria	50.7	70	29.5	Estonia	20	9.6	30.3
Hungary	58.8	33.9	53	Belgium	14	18.8	26.2
Greece	54.4	47.6	21	Ireland	27.5	12.5	16.2
Latvia	39.5	35.1	43.3	France	17.8	15.2	22.1
Cyprus	25.9	50.6	34.6	Czech Rep.	19.4	15.3	20
Slovenia	37.5	17.3	46.1	Spain	17.9	18.2	17.9
Italy	24.5	44.1	30.1	Slovakia	18.3	13.6	19.7
Romania	41.5	25.4	30	Netherlands	8.6	8.7	27.4
Lithuania	22.8	38.2	28.6	Germany	8.6	14.8	21
Portugal	14.5	43	28.4	Denmark	5.5	7.1	25.3
Croatia	40.9	21.8	19.9	Luxembourg	6.6	2.2	28.9
Poland	30.1	27.6	20	Austria	11.3	7.7	15.2
Malta	19.4	32.1	12.4	Finland	13.7	3.8	8.6
UK	20.3	19.4	21.4	Sweden	10.3	3.5	11

Since EU policy and funding are core components of the greening of social housing, the next section will briefly explain EU energy policy in terms of the housing sector and how EU funding can be allocated to retrofitting projects. Next, we present the methodology of our research, followed by the key barriers to social housing retrofits. The final section presents some potential solutions, as identified through a subjective assessment of the barriers and actions already taken by Social Green partners. Ultimately, this paper is intended to support knowledge-sharing with other local and regional authorities facing similar challenges and to highlight key challenges that national and EU stakeholders who are concerned about social and environmental sustainability need to address.

## How does EU policy support resource efficient social housing?

### EU policy overview

The 2016 update to EU energy policy, titled *Clean Energy for all Europeans*, raised the energy efficiency target to a binding reduction of 30% in emissions for 2030 (from 1990 levels) ([European Commission, 2016a](#)). This updated policy package consists of a series of legislative proposals, including the revision of the *Energy Performance in Buildings Directive*<sup>3</sup> (EPBD), a revised *Energy Efficiency Directive* and improved governance ([European Commission, 2018b](#)). Two years later, in June 2018, the revised *Energy Efficiency Directive* increased the efficiency target to a 32.5% reduction for 2030 and introduced three central policy goals for energy ([European Commission, 2016b](#)):

- 1) To improve *existing* policies
- 2) To improve *financing conditions* for energy efficiency improvements
- 3) To improve *coordination* and cooperation.

Based on the policy goals outlined above, the *Smart Finance for Smart Buildings* initiative was also launched in 2018 ([European Commission, 2018c](#)). As shown in Table 2, it established three themes in

<sup>3</sup> The new Energy Performance of Buildings Directive (EPBD) came into force on 19 June 2018 (see more at [EU, 2018](#)). The EPBD is the most important directive supporting green buildings and contains an overarching framework for structuring investments and strategies. This includes the development of long-term national renovation strategies, a smart readiness indicator, new financing measures and the promotion of electric vehicles.

relation to nine key barriers to implementing financing for energy retrofits in buildings. Each identified barrier is important but of particular note to this paper are: high upfront investments; a lack of evidence on energy performance data; the complexity of financing and preparing projects; and financing products that do not reflect energy efficiency fundamentals.

The policy goals that focus on existing policies, financing conditions and coordination appear to indicate a direct recognition by the Commission of the persisting challenges and barriers associated with implementing EU funding for energy efficiency projects, particularly in the housing sector. As such, the aim of presenting the barriers experienced by Social Green partners in this paper is to explore in more detail the current challenges experienced by institutions responsible for implementing EU funding. Presenting the barriers also allows for an assessment of the extent to which the policy goals are aligned with the practical challenges faced by regional and community actors.

Table 2: Smart Finance for Smart Buildings initiative: three overarching aims. Source: Athanasiou (2018).

Effective use of public funds	Assistance and aggregation	De-risking
Promote financial instruments	Capacity-building to further deploy EU funds	Re-financing opportunities
Combine financial instruments with tailor-made schemes	Technical expertise in application processes	Framework for underwriting energy efficiency investments
Targeted support to solve specific market issues	Local and regional "one-stop shops" for utilising EU financing	Better risk assessments and development of business cases

### How EU funding is invested in retrofitting projects

Within its Multi-annual Funding Framework (MFF), the EU provides funding to green building and social housing through the European structural and investment funds (ESI)<sup>4</sup> especially through the European Regional Development Fund (ERDF); or via Cohesion Funds.<sup>5</sup> These funds are dispersed to beneficiaries (local or regional authorities, building or housing associations, etc.) through national or regional operational programmes (OPs and ROPs). Each ROP details how funding should be allocated in the region across the 11 thematic objectives, which are set by EU Cohesion Policy. Negotiation between the Commission and regional/national managing authorities is used to further specify how funding should be allocated between these objectives.

Once the national or regional OPs are defined, they are implemented by the member states and their regions through an application- and project-based approach. This means selecting, monitoring and evaluating hundreds of thousands of projects – a process that is organised by “managing authorities” in each country and/or region ([European Commission, 2018d](#)).

EU funding can thus be used to promote the greening of the housing sector, but the onus has been on the member states or the regions to: a) develop proactive ROPs and other funding schemes that mobilise EU funding for specific retrofitting projects; and b) support local and regional actors in developing successful applications for funding through active promotion and avenues for guidance. However, as is evident from the recent development of EU energy efficiency policy (see for instance Table 2)

<sup>4</sup> The European Regional Development Fund (ERDF) and the Cohesion Fund, together with the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF), make up the European structural and investment (ESI) funds.

<sup>5</sup> Aimed at member states whose gross national income per inhabitant is less than 90% of the European average

and the local and regional implementation barriers (described below) this is not a responsibility that can be taken for granted.

In the context of the EU's next MFF, between 2021 and 2027, the discussions that take place during 2019 and 2020 are crucial to ensure that energy efficiency objectives receive greater prominence in the European budget and the operational programmes. This is in line with the core objective of Europe's current energy policy objective, Energy Efficiency First. However, it is also in response to the barriers and limitations that are a focus of this paper, and which hamper the development of energy efficiency projects, particularly in the building sector. As a result, only 4.35% (€3.96 Billion) of the Cohesion Policy Funds in the current MFF are allocated to demand-side infrastructure project, of which energy efficiency projects in buildings are included (BPIE, 2018). Through suggested EU policy improvements and innovations, this share needs to be significantly increased to achieve the energy and climate targets of the EU and each of its member states. These suggested improvements are the focus of the final section of this paper, based on the barriers that are identified.

## Methodology

Coupled with the review of key EU policy documents above, this paper is based on the empirical findings from a series of Social Green project activities. They include the Integrated Self-Assessment (ISA), partner workshops with local stakeholders, good practice selection and an international policy workshop. The results from the ISAs, LSG meetings, the international policy workshop and the good practices were subsequently used to identify the barriers detailed in this article.

### Local stakeholder group meetings and international policy workshop

Once Social Green began, each local partner initiated a local stakeholder group (LSG) and planned a series of six meetings. These groups include public authorities, private actors, NGOs and social housing residents, and they contributed directly to making self-assessments and drafting each local action plan. By bringing together an array of stakeholders who don't necessarily interact regularly, the workshops also promoted tacit knowledge exchange and collaboration. Each meeting was well documented by each partner and shared during the international policy workshop in April 2018. This workshop served as an opportunity to identify common barriers that partner regions and their LSGs face and to review preliminary project analysis and recommendations.

### Integrated self-assessments

Regional self-assessments were used to collect data and knowledge about the state of the social housing sector and green building in each partner area. The self-assessment reports were drawn up in close cooperation with local stakeholders, making it possible for Social Green partners to access important data and information through their stakeholders while simultaneously increasing the stakeholders' awareness of the state of social housing in the area. The joint analysis of the regional self-assessment added a comparative dimension to the individual assessment, putting the knowledge of the partner regions into a wider territorial context.

### Good practices

As part of Social Green, each partner proposed at least four potential good practices from their local, regional or national contexts. Nine principles were used to evaluate the good practice proposals. The principles were based on a review of articles, papers and catalogues, across a range of fields, with a

focus on building energy efficiency, social housing and community building.<sup>6</sup> As a way to balance the creation of holistic solutions, variation in local context and opportunities to highlight context-specific strengths, good practices did not need to fulfil all principles but were required to demonstrate excellence in at least three of them.

## Barriers

Through the ISAs, LSG workshops and good practice scoping, Social Green’s local partners identified a series of issues that mitigate efforts to enhance green building in social housing. In this section, five of the largest barriers to improving resource efficiency in Europe’s social housing are detailed. They are:

- Lack of knowledge about access to available funding
- Inadequate flexibility in the use of public funds to retrofit social housing
- Limited benefits to social housing residents
- Incomplete data to measure what matters
- Lack of focus on rural and sparsely populated regions.

### Lack of knowledge about access to available funding

Funds for social housing retrofitting projects are gathered through a variety of mechanisms. These can include financing from the EU and multiple levels of government, through various policy-funding schemes. However, the availability of funding is only the first step to supporting the retrofitting of social housing. Accessing funding presents a critical gap, which is reflected by the fact that the EU has identified “improving financing conditions” as one of its main policy improvement goals for energy efficiency, and in multiple objectives associated with the new *Smart Finance for Smart Buildings* initiative. Likewise, it was established that challenges exist in terms of allocating funds to demand-side investment projects. A key barrier here is the fragmented and smaller-scale investments that are required for demand-side projects such as retrofitting individual apartment buildings. The effort required for the preparation and administration of small projects can be taxing for both public and private investors (especially small public administrations) because of a lack of knowledge and capacity for project development and the lack of resources within small cities and municipalities (BPIE, 2018).

This challenge was reflected in feedback from Social Green partners. Notably, a clear east-west divide was evident. Many public authorities in Romania have applied for EU funding at least once. However, if the project was rejected because it did not fulfil the criteria upon which the managing authorities based their decision, many local authorities simply give up because they were not successful.

Social Green partner Sud Muntenia (Romania) indicated that there is a lack of detailed knowledge on how to apply for funds, making the application process time-consuming and less attractive to local authorities. For example, in priority axis 3 of their ROP, there were only seven applications for the first call, and only one was selected, which requested 0.38m euros (c.f. Table 3). In Romania’s Centru region the pattern is very similar to that in Sud Muntenia, illustrating that the issue exists in multiple

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<sup>6</sup> The principles were: resource efficiency in building and operation; achieve a sense of place and community; high quality public engagement; smart financing that supports tenureship; context-sensitive socio-economic development; resilience to change; access to mobility; scalable and transferable concepts; and effective implementation of strategic policy and governance.

Romanian regions. Therefore, an underdeveloped capacity among local authorities applying for funding and underdeveloped support from above results in a lack of interest from local authorities.

Table 3: Available funding under priority axis 3, investment priority 1A in Sud Muntenia.

First call – submission period: 16.05.2016 – 16.11.2016	
Total amount	57.34m euros
Submitted projects	7 (4.13m euros)
Rejected projects	5 (3.66m euros)
Projects under evaluation	1 (0.11m euros)
Contracted projects	1 (0.38m euros)
Regional coverage of submitted projects	7.20%
Regional coverage of contracted projects	0.66%*
Success rate of project financing applications	14.28%

\*This share will change as the projects under evaluation will be contracted

### Inadequate flexibility in the use of public funds to retrofit social housing

Added to the lack of knowledge about accessing available funds is the related challenge of the limited adaptability of the conditions for using public funds to retrofit housing (i.e. what types of project, what types of interventions). This is particularly the case for funds within ROPs, but also includes the use of national funds or funds from multiple sources.

The key challenge is that the conditions defining the types of project and measures that can utilise public funds do not always represent the reality of the interventions that are needed. This threatens the effective use of European funds, leading to the possibility that funds within a given priority axis may be allocated to projects outside the housing sector or, worse, may not be spent at all.

For example, Region Norte’s (Portugal) ROP – Norte 2020 – includes investment priority 4c (IP 4c), which stipulates that public authorities can apply for funding to conduct *energy efficiency* upgrades to *public buildings*. For social housing, this is offered in Objective 3.2.2 (support for energy efficiency, intelligent energy management and renewable energy for social housing) through a grant covering 85% of the total cost of the project. An 85% co-finance percentage is moreover a very interesting rate for retrofitting social housing, which probably explains why the local authorities absorb the financial budget (Gomes, 2018). At the same time, however, three underlying challenges exist within these conditions:

1. Energy efficiency upgrades are central components of a retrofit. When only the energy efficiency component is funded, however, this fails to reflect that it is most effective to carry out energy improvements alongside upgrades that enhance the well-being of residents and the community (e.g. improvements to the landscaping of public spaces).
2. *Public buildings* are an important component of Europe’s built form, but definitions of “social housing” are not synonymous with “public housing” in many European countries. Therefore, it is an extra difficult task to retrofit social housing that is located in private buildings or in a mix of public and privately owned buildings, due to the narrow conditions through which the EU defines this form of housing. This has proven to be a difficult challenge for Social Green partners in Portugal (Region Norte) and Spain (Extremadura), where a mix of ownership is common.
3. The 85% grant rate under Objective 3.2.2 has been problematic for enticing broad investment in housing retrofits because the funds can only be used for the energy efficiency component of a rehabilitation process. This is compounded by the fact that public authorities typically cannot combine or blend funding sources from different investment priorities and thematic objectives



within their ROPs in the same project. For example, Region Norte would like to combine IP gb (support for deprived communities) with funds from IP 4c (Objective 3.2.2) in order to develop more comprehensive, economical and sustainable redevelopment projects. However, this is a complex exercise due to issues such as differences in goals, different criteria, separate timings for funding calls and the involvement of different institutions (Gomes, 2018). The 2018 report by the Buildings Performance Institute Europe (BPIE, 2018), also highlights the lack of policy blending and aggregation as both a current challenge and a future opportunity for the effectiveness of energy efficiency investments made via operational programmes throughout Europe.

### **Limited benefits to social housing residents**

Ensuring that existing social housing residents benefit from resource efficiency improvements to their buildings and dwellings is important for the uptake of retrofitting projects. This may seem like a straightforward outcome of energy efficiency upgrades, but there are a series of challenges that must be addressed. As touched on above, the fact that certain policy measures designed to improve energy efficiency do not include measures for improving dwellings creates a barrier to achieving these intended measures.

Four Social Green partners are in situations where housing costs exceed EU affordability standards. All six local partners have housing satisfaction rates significantly below the EU averages. Three local partners face overcrowding that exceeds EU averages and shares of housing stock that lack adequate heating at rates that exceed EU averages (for more detailed figures, see [Nordregio, 2018](#)). These statistics indicate that there are opportunities for resource efficiency improvements, but also that improved resource efficiency is not the only pressing issue that social housing residents are facing. The most effective solutions for improving resource efficiency in social housing across Europe will also be those that improve quality of life for residents, without increasing the burden of rent.

Limiting the potential for rent increases and renovation cost overruns is fundamental to ensuring that residents benefit from energy efficiency retrofits. Efforts to limit rent increases vary considerably among Social Green's local partners. In Alba Iulia, Romania, proactive steps are taken at local authority level on a case-by-case basis, whereas in Estonia there are national programmes that minimise cost increases in a consistent way for all residential buildings. The absence of clear national standards in all countries, to say nothing of EU-wide standards, creates uncertainty around the cost of energy retrofits among residents and risks decreasing resident support for such actions. This was illustrated in Sud Muntenia, where low interest from homeowners' associations regarding the thermal rehabilitation of their buildings was attributed to a risk of rent increases.

Beyond increases in rent and living costs, residents may not always perceive a direct benefit from resource efficiency upgrades. The Social Green partner Agenex (Extremadura, Spain) noted that some social housing tenants consume very small quantities of energy prior to renovation and that consumption actually increases after renovation. In turn, residents do not achieve any monetary savings as a result of renovation. Meanwhile, Region Norte notes that many social housing residents in their region are not used to heating or cooling their dwellings. In these cases, passive thermal comfort solutions are more relevant than active energy efficiency measures. Funding guidelines for passive interventions exist, but need to be strengthened within ROP Norte. In these cases, a narrow focus on improved resource or energy efficiency does not serve as an incentive for social housing retrofits.

### **Incomplete data to measure what matters**

In a data-driven world, where quantitative measurement is central to effective decision-making, creating clear and comparable metrics is vital to the success of complex initiatives. The fact that such metrics are lacking for social housing retrofits in many EU countries, as well as across the EU, emerged as a key barrier to the greening of this housing stock. The challenge has numerous facets.

As noted previously, “social housing” is defined in a variety of ways by different EU member states. This creates challenges in comparing the scope of the social housing stock and demand among member states. In some Social Green partner areas, a significant quantity of housing that falls under our definition of “social” is in fact privately owned. This is evidenced by the low number of “tenants with rent at reduced price or free” according to Eurostat’s (2018b) classification in each partner’s member state. These figures tend to be below 10% (they range from 2.5% in Romania to 14.5% in Estonia among the Social Green partner countries). This makes an EU-wide assessment, which could serve as a basis for targeted interventions, difficult to fulfil.

There are also major variations in how the renovation of social housing is measured (or not measured) across Europe. Certain regions have clear metrics focused specifically on social housing, while others simply include social housing renovations as a share of the broader housing category. For Social Green, the benchmarking indicators only provide a baseline concerning the entire housing sector in NUTS2-regions. This lack of granularity shows that more detailed knowledge and measurement of local challenges and opportunities is required. To resolve this within the project, partners have collected social housing data in their own area to ensure a sound knowledge base for developing their local action plans.

### **Lack of focus on rural and sparsely populated regions**

Almost half of the population in Europe lives in large towns or high-density urban clusters,<sup>7</sup> according to the ESPON TOWN project. But this also means that more than half of Europe’s population lives in rural areas or small and medium sized towns (Servillo et al., 2014). Simultaneously, rural regions are experiencing rapid shrinking and demographic decline, which poses local challenges in terms of market conditions and housing types, and a mismatch between short- and long-term housing requirements (Syssner, 2015; Sousa & Pinho, 2015).

In Estonia, this challenge is also prevalent. The Social Green partner, Tartu Regional Energy Agency (TREA), has identified limitations with the innovative scheme KredEx, which is otherwise viewed as good practice when it comes to funding social housing retrofitting projects (for more about this scheme, see [Interreg Europe, 2018](#)). Under the KredEx scheme, funding for building retrofits has been concentrated in the larger urban areas, to the exclusion of rural areas and small towns that are often in shrinking regions. A core challenge here is that the real-estate market is not as strong in smaller cities or rural areas, which limits greening opportunities in those areas.

In Croatia, this challenge is reflected in the fact that many households, particularly those consisting of elderly people, live in single-family homes in rural regions with very low energy standards (often F-classification). These regions are experiencing population decline, which leads to the question of the

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<sup>7</sup> Both defined as having a population size larger than 50,000 but with different population density.

strategic interest in retrofitting housing in areas where the longer-term regional preservation is in question.

In sum, spatial processes such as intense urbanisation and the concentration of populations in particular areas seem to have consequences for rural and depopulated areas where market forces do not support green retrofits. These trends have become a major barrier in the greening of (social) housing in rural and sparsely populated areas.

## Discussion – Solutions

This paper has identified and investigated a series of barriers to improving resource efficiency in Europe's social housing stock. These barriers are significant but they are not insurmountable. In this section, a series of solutions to these barriers are introduced.

### **More comprehensive, place-based and attractive EU policy solutions**

It is clear that a great deal of time, effort and collaboration has gone into crafting EU policy to support resource-efficient dwellings in Europe. At the same time, this effort in itself reveals that there are significant barriers to the efficient implementation of European funds through ROPs, and that the European Commission is aware of them. Here, potential solutions can be considered on a variety of scales, from local to EU level.

From the EU perspective, the development of the *Smart Finance for Smart Buildings* initiative is a clear recognition of the problem of efficiently mobilising EU funding. While this is promising in principle, closer scrutiny of the information online ([European Commission, 2018c](#)) reveals a lack of clarity about what exactly the initiative will entail beyond the deployment of a new grant-based funding instrument. To be clear, the first and second barriers showed that monetary support is not the problem. In the short-term, rather, there appears to be an excess of financial resources due to underdeveloped local/regional awareness about acquiring the funding, as well as the funding streams that involve impractical conditions.

Throwing more money at a flawed system is unlikely to resolve these challenges in the short or long term. The *Smart Finance for Smart Buildings* initiative would benefit from a holistic approach that pairs additional financial resources with proactive communication and awareness-raising. It should also provide actual top-down guidance and support to ease the burden of local and regional actors who are unaware or have so far been unsuccessful in acquiring funds. Together, this would make it a “one-stop shop” that supports green building, including for the housing sector. As stated by BPIE, “Clear political support for long-term energy efficiency investments and demand-side projects, such as building renovation, paired with valorising the importance of the co-benefits of these investments, will send a clear message to investors: demand-side investments are as important as more traditional supply projects” (2018, 3).

To ensure funding reaches key actors and addresses the east-west access to funding gap, the *Smart Finance for Smart Buildings* initiative will also need to do more than improve policy. It will also need to re-engage stakeholders, particularly smaller entities with limited resources such as Eastern European local authorities, and demonstrate the usefulness of the new approach.

At the local and regional levels, there are opportunities for solutions as well. The Social Green partners have been champions in this regard. For starters, regional energy agencies can take a more prominent role in supporting local and regional authorities to apply for EU funding. Tartu Regional Energy Agency has been a champion in this regard, in terms of both steering policy development (e.g. the revised KredEx scheme) and providing direct support to public authorities and housing associations. These types of practices need to be mainstreamed throughout Europe and, when paired with EU level efforts, can support a clear, multi-level support structure.

Second, the local stakeholders in Portugal's Region Norte have been astute in their ability to work within the limitations of their ROP (see the second barrier, concerning inadequate flexibility). Thematic Objective 9 in ROP Norte 2020, which relates to urban rehabilitation on a social basis, offers opportunities for energy efficiency upgrades *alongside* other urban development measures. However, the project (and funding) implementation process could be improved even further by allowing – even promoting – the ability to develop development projects that combine or blend funding from different investment priorities (such as IP 4c, “energy efficiency” and IP 9b, “deprived communities”). By doing so, a more place-based, comprehensive and fiscally responsible approach would be taken. This is also in line with findings by BPIE (2018) in which they stress the importance of changing the regulatory framework and the governance structure to allow flexibility in using and blending different funding sources (at regional, national or transnational level) to increase the opportunities to finance renovation across Europe.

### **Retrospective reviews of operational programmes**

Based on the lessons learned from the barriers presented, and the short-term solutions implemented in Region Norte (see above), now is the time for critical and comprehensive ex-post reviews of existing ROPs. With the new EU funding period on the horizon, there is an opportunity to determine what worked and, more importantly, what didn't. This needs to be used to inform the development of ROPs for the next programming period. For example, an increased ability to combine funding sources from within ROPs could be considered more systematically within the housing sector, given that it influences developments on a range of themes.

The manner in which Cohesion Fund investments promote supply-side projects over demand-side projects is perhaps the most important single area for improving the effectiveness of how regional operational programmes can tackle energy efficiency and green building. Unlike energy supply infrastructure, buildings are not yet recognised as a “critical infrastructure” and funds for renovation are not earmarked and allocated accordingly (BPIE, 2018). Therefore, promoting building renovation as a viable alternative to supply investments needs to be fully ingrained in the next funding period (ibid). Thus, an important step will be to designate buildings as critical infrastructure. This will allow operational programmes the ability to set specific Thematic Objectives for energy efficiency projects in the building sector. In turn, this will both expand and streamline the channels for directing EU funds toward energy retrofit projects in buildings.

### **Expand the definition of social housing**

National and especially European funding needs to be made available for retrofitting the social housing stock regardless of ownership structure. This will require a clearer definition of social housing that includes housing in both the public and private domains. This definition should be developed to better reflect the reality of housing ownership in Europe. For instance, Social Green deploys a broad and

inclusive working definition of social housing that includes both publicly and privately-owned tenures: “Housing and associated housing policy serving the needs of low-income and vulnerable residents. Social housing is often built, owned and/or managed by the public sector, but it also includes privately-owned rental housing or different forms of housing cooperatives.”

Here, an inclusive definition of social housing that encompasses public and private social housing is key. Social Green partner Region Norte mentioned that in Portugal this challenge is resolved through the development of a specific national instrument (IFRRU). This allows private dwelling owners within buildings that also include public housing to apply for commercial bank loans as part of building energy efficiency improvements. Once approved by the local authority, these low-interest loans can be used to leverage public investment that is already planned for the building (e.g. via Norte’s ROP). However, this requires a great deal of proactive work by regional and national actors. Expanding this solution to a European level and creating guidance for other areas, perhaps via an influential *Smart Finance for Smart Buildings* platform, could help widen the use of this solution for common challenges in funding energy efficiency improvements in social housing.

### **Enhance data gathering and analysis for social housing**

Clear and comparable EU-wide data and metrics on social housing energy performance are currently lacking, but they are achievable. Details of the revised EPBD ([EU, 2018](#)) demonstrate the importance of measuring building energy performance. Ideally, standardised European indicators should be developed for monitoring building energy consumption, including guidance on how to collect and manage data. This would occur at a fine-grained level where both public and privately owned social housing units would be assessed.

A stop-gap measure could involve self-reporting from regions or social housing authorities, as was the case in Social Green. To address the lack of comparable data, project partners collected data on social housing in their own areas to create a sound knowledge base for developing their local action plans. Clear and comparable EU-wide data on the energy performance of social housing stock would enable stakeholders from a local to a supranational scale to gain a more accurate perspective on the current state of affairs across Europe. This would enable more successful applications for EU funds at the same time as supporting a more results-oriented approach to EU energy policy overall.

### **Shrinking regions and cities present challenges, but place-based solutions are possible**

A prominent challenge in sparsely populated and shrinking regions is the decision-space around whether to invest in green retrofits of buildings/housing despite uncertainty over future demand for housing in the area. As we saw in the barriers section, there is a risk of policy mechanisms favouring urban areas, which can lead to further marginalisation of rural and remote areas. In these cases, policy instruments can enable rural decline to become a self-fulfilling prophecy. ROPs and associated policies, including national instruments, must prioritise the territorial dimension to become truly place-based. This can be done through local measures, but it can also be done through more systematic mechanisms, such as ex-post and ex-ante territorial impact analysis of ROPs.

One example of a local, place-based measure in Social Green can be found in Croatia. Regional Energy Agency North in Croatia recently started developing a strategy to construct high-quality modular housing with good energy performance. The idea is for modular units to replace old, energy inefficient homes in the countryside but then be reused in other settings when they are no longer needed.

In Estonia, the barriers section described how the allocation of funds in KredEx scheme has been overwhelmingly concentrated in larger cities, thus reinforcing the marginalisation of rural areas. This has been a hotly discussed topic in local stakeholder group meetings within the Social Green project. Representatives ranging from the national Ministry of Economic Affairs, the KredEx Foundation and an association of local authorities and regions have discussed the issue of supporting retrofits in regions all over the country. As a result of these discussions, revisions are being made to the KredEx scheme for the next period, which make the funding conditions *adaptable* for different regions in Estonia, depending on local market and demographic conditions.

## Conclusion

This paper reviewed the material developed in the Social Green project to create new insight into barriers that limit investment in social housing retrofitting projects. Through a better understanding of these barriers, coupled with the work of “champions” – including Social Green’s local and regional partners who are making policy and strategy changes on the ground in their regions – a number of potential solutions have been identified. Most of the solutions illustrate the importance of European level policy improvement on one hand, and a place-based perspective in policy design on the other. This was particularly notable in the case of utilising additional funding streams to support neighbourhood-level retrofits (Norte), passive energy interventions (Norte), support for rural areas (Estonia and Croatia) and increased support for regions and local authorities to receive public funding (Romania and Estonia). However, these are local-level solutions to local-level challenges.

Going forward, these barriers can be more effectively addressed at the EU level. Ideas and possible solutions have been developed through scrutiny from the bottom-up. With current budget negotiations for the next MFF now taking place, the responsibility is at the EU scale to harness these ideas and develop improved multi-level governance and policy efficiency from the top-down. One starting point will be a dedicated effort by the European Commission to support the development of the *Smart Finance for Smart Buildings* initiative into a platform that can support local authorities, regions, and building associations in a more comprehensive way. On a more general level, another aspect will be ensuring that buildings will be recognized for the important role that they have in achieving Europe’s energy and climate goals. It is vital to identify buildings as critical infrastructure, with designated thematic objectives and earmarked funds within all operational programmes.

Combined with more flexible financing solutions (including the pooling of available funds), these types of improvements can respond to the practical challenges faced by the decentralised network of local authorities, housing associations and even individuals. These actors are ultimately responsible for seeing out the transition towards a truly energy- and resource-efficient European housing stock and, as such, addressing the challenges they face is central to a greener future in Europe.

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