



# European Construction Sector Observatory

## Policy measure fact sheet

## Romania

### Thermal rehabilitation of blocks of flats (*Reabilitarea termica a blocurilor de locuinte*)

#### Thematic Objective 3

March 2016

<b>Implementing body:</b>	Ministry of Regional Development and Public Administration – MRDPA (MDRAP)
<b>Key features &amp; Objectives:</b>	Increasing energy efficiency in residential buildings in order to reduce the individual annual consumption of energy for heating below 100kWh/m <sup>2</sup>
<b>Implementation date:</b>	March 2009 - ongoing
<b>Targeted beneficiaries:</b>	Owners associations <sup>1</sup> , households, construction companies and providers of energy efficiency solutions
<b>Budget (EUR):</b>	2009-2016: RON 825.53 million (EUR 184 million <sup>2</sup> ).

### In a nutshell

72% of urban housing units in Romania are located in residential buildings such as housing blocks. Approximately 89%<sup>3</sup> of apartment buildings, with building projects elaborated before 1990, show a low level of isolation, and this translates into higher heating consumption. Thus, it was estimated that a two-bedroom apartment in a block in Romania consumes twice as much energy than in other country in Europe<sup>4</sup>. Poor conditions of buildings and incoherent government policies are discouraging energy efficiency initiatives. Moreover, the low population income delays the necessary changes for Romania to meet its energy efficiency obligations as an EU Member State.

In Romania there are over 81,000 blocks that require insulation, with about 3 million apartments<sup>5</sup>. In order to reduce pollutant emissions, the Romanian government introduced the 'Thermal rehabilitation of blocks of flats' programme, aiming to finance the interventions through state and local subsidies. Between 2009-2015, the total budget reached RON 800.5 million (EUR 187.6 million), allowing the rehabilitation of approximately 7,088 housing blocks during its implementation period<sup>6</sup>. Despite its

efforts, the programme faces issues related to bureaucracy, delays, a weak legislative base regarding subcontracting and implementation, as well questionable public procurement transparency, often resulting in low quality work execution. Therefore, a better quality control mechanism has been advocated by stakeholders.

### General description

The programme was launched in 2009 by the Ministry of Regional Development and Public Administration (MRDPA), following the Government Emergency Ordinance 18/2009 on 'increasing the energy efficiency of residential buildings'<sup>7</sup>.

The **specific objective** of the programme is to reduce the individual annual energy consumption of rehabilitated apartment blocks by up to 40%, to below 100kWh/m<sup>2</sup>. This is expected to reduce pollution from energy production, increase the value of the apartments and decrease the heating charges for the population.

The programme covers 80% of the costs of thermal rehabilitation (50% from the MRDPA state budget, 30% from local budgets) within the budget limits approved annually. The remaining 20% of the value is to be divided between the owners of the apartment block, proportionally to the area of their apartments.

Should one or more owners not be able pay their share, the local city council can cover the partial or full cost. However, the amount that can be covered by the local council, as well as the mode of repayment of the advanced amounts, is not currently regulated.

The local councils are in charge of submitting the proposal for the rehabilitation interventions, and the MRDPA decides on the selection of the projects to be supported.

The **eligible activities** under the programme include<sup>8</sup>:

- thermal insulation of the external walls of the block;
- replacement of windows and existing exterior doors of apartments;
- thermal and hydro-insulation of the roofs or the terrace (thermal insulation of the floor over the last level, if there is no roof structure);
- thermal insulation of the floor over the basement, if the design of the house provides ground floor flats;
- dismantling the installations and equipment located on the facades and the terrace of the housing block, as well as re-installing them after the execution of the thermal insulation works;
- restoration works for the finishing of the envelope.

Prior to the start of the works, the local administration in charge of the building to be rehabilitated is responsible for the procurement of the technical expert (specialised in construction and/or construction and installations) that will carry out the following services: technical assessment and energy audit<sup>9</sup> of the block, issuing of energy performance certificate, preparation of the technical execution project and development of specifications for the execution of the interventions<sup>10</sup>. The energy audit certificate should contain data on the thermal and energy performance of the building and its installations (heating, cooling, hot water, ventilation)<sup>11</sup>. Depending on the results of the technical expert's assessment and energy audit done on the block, the following interventions can be added to the list of eligible activities:

- repairs to the construction elements which pose potential danger of detachment and/or affect the functionality of the housing block;
- interventions on the distribution of the thermal agent to heating the common parts of the housing block.

Upon completion of the works, a new energy performance certificate is issued, which reflects the improved energy class of the building. Namely, the document should prove the successful transition to a superior energy performance class (for instance, from D to B), and that the annual energy consumption for heating is smaller than that indicated in the initial certificate. In particular, this value should be less than 100 (MWh/m<sup>2</sup>/year)<sup>12</sup>.

The programme sets up also eligibility criteria for the apartment block and its owners:

- Existence of an owners' association in the form of a legal entity<sup>13</sup>;
- The block should be built based on projects developed during 1950-1990;
- Block should be at least four floors high.

## Expected or achieved results

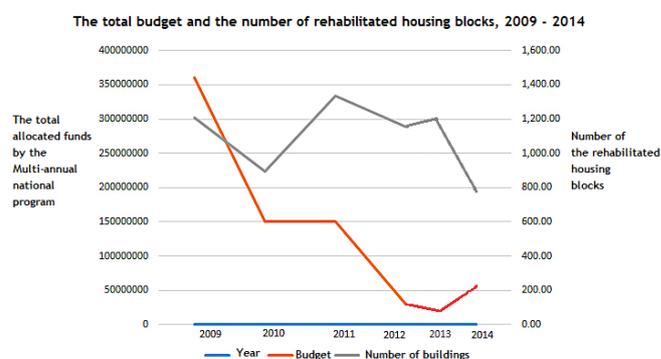
During 2009-2015, 7,088 apartment blocks were rehabilitated under the programme, with the total budget reaching RON 825 million (EUR 184 million).

The budget for the Thermal Rehabilitation programme had significant changes during 2009-2016:

- 2009: RON 360 million (EUR 84.9 million);
- 2010: RON 150 million (EUR 35.4 million);
- 2011: RON 150 million (EUR 35.6 million);
- 2012: RON 18.53 million (EUR 4.2 million);
- 2013: RON 14 million (EUR 3.2 million);
- 2014: RON 58 million (EUR 13.1 million);
- 2015: RON 50 million (EUR 11.3 million);
- 2016: RON 25 million (EUR 5.6 million).

The evolution of the budget and the number of thermally rehabilitated blocks under the programme is presented below:

**Figure 1: The total budget (RON) and the number of rehabilitated housing blocks under the national Thermal Rehabilitation programme, 2009-2014<sup>14</sup>**



Source: data from the MRDPA.

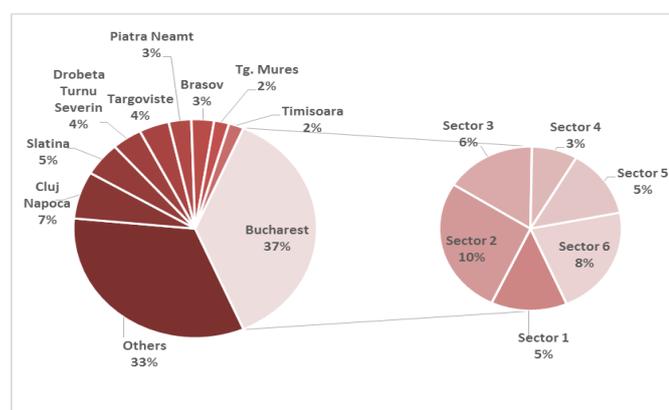
The average total costs for thermal rehabilitation were estimated to be around EUR 3,500 per apartment. They vary depending on the type of insulation work to be performed, from around EUR 40/m<sup>2</sup> for the insulation of external walls to EUR 150/m<sup>2</sup> for the replacement of windows<sup>15</sup>.

In 2012 and 2013, the programme experienced a significant shortage of funds due to the difficult economic situation and the lack of budget at the local council level. Despite the generally high budget allocations, only 10% of the apartment blocks have been rehabilitated in Romania since the launch of the programme in 2009.

The funds for the programme were distributed unevenly geographically and time-wise, peaking in the pre-election period of 2012, when they were believed to be allocated as a part of the

election campaign<sup>16</sup>. Between 2009 and 2014, over 70% of the programme's budget was concentrated in 14 out of the 47 administrative units in Romania (41 country administrative units and 6 administrative units of Bucharest). The detailed distribution of funds is presented in Figure 2.

**Figure 2: The distribution of funds for the thermal rehabilitation programme, 2009-2014<sup>17</sup>**



Source: data from the MRDPA.

Between 2009 and 2014, 37.7% of the programme's budget was directed to Bucharest, through the 6 administrative units (Sectors), although it does not hold the proportional amount of population or the amount of apartment blocks to be rehabilitated. More specifically, Bucharest's Sector 2 has benefited the most from the programme, receiving 10.3% of the total allocations, while Sector 4 attracted only 2.9% of the funding<sup>18</sup>. At the regional level, in 2009-2014 the municipalities of Slatina (85,000 inhabitants) and Targoviste (94,000 inhabitants) received 5% and 3.5% of the total funding, still more than total allocations to Timisoara (333,000 inhabitants) and Brasov (291,000 inhabitants).

As observed over the last years, the Thermal Rehabilitation programme had the capacity to refurbish about 25,000 flats per year. This, however, is not enough to cover the country's needs, and if the Programme continues at the current pace, the rehabilitation needed for the building stock will take around 120 years<sup>19</sup>.

## Perspectives and lessons learnt

From the **perspective of beneficiaries**, the programme was designed based on the role of owners' associations, thus neglecting some rights of owners as final beneficiaries, e.g. for the selection of the contractor for the rehabilitation.

The costs of thermal rehabilitation, even with the considerable support from the state, remain high for the owners of apartments. 20% of owner's contribution, estimated to be around EUR 700, is still around 3 times higher than an average monthly income in

Romania, making such investments difficult to support, especially for families with low incomes<sup>20</sup>.

From the **perspective of the owners' associations**, their rights and responsibilities are not well defined and communicated through the programme implementation. An additional weakness is associated with the lack of their technical skills, which often leads to their inability to verify and control the quality, durability and real cost of executed works<sup>21</sup>. For instance, despite local authorities claiming that thermal insulation of buildings in Bucharest was carried out using fire-resistant polystyrene, some owners associations have complained about the poor fitting of the material, resulting in low fire resistance. Indeed, according to the League of Owners Associations (*Liga Asociațiilor de Proprietari Habitat*), owners associations had had little or no say in the selection of the contractors and of the technical solutions, and could not follow the progress of the works, since the technical specifications of the project had not been made available to them<sup>22</sup>.

From the **perspective of the government**, the budgets allocated to the programme have been reduced significantly since 2012. Indirectly, this influenced the selection criteria for procurement procedures towards the low price preference. The unclear tender procedures led to a situation whereby bids were awarded to unexperienced companies that actually sub-contracted the works to the sub-contractors of their choice. In order to maintain low prices, these often used unqualified workers and low-quality materials, leading to a poor execution. The lack of quality assurance clauses in the tender regulations (e.g. guarantees for executed works) limits the obligations of contractors towards the quality of execution. Indeed, the Inspectorate for Emergency Situations (*Inspectoratul pentru Situatii de Urgenta* – ISU) is not required to issue its approval for the works carried out on residential buildings (except those over 28 metres of height), which are therefore not controlled after completion of the interventions<sup>23</sup>.

From the **perspective of the construction industry**, the main issues encountered in the programme are linked to the low quality of the materials, methods and procedures involved in the process. Additionally, the implementation of the programme was delayed due to the bureaucratic burden of the preparation and evaluation of project documentation by the local public administration and the MRDPA, long time gaps between the award of the contract and the start of works, and difficulties in obtaining the consent of tenants for works.

The **lessons learnt** from the implementation of the programme are related to the lack of public funds to cope with the scope of the rehabilitation works. Taking into account the slow pace of rehabilitation, there is an increasing need for other sources of funding (e.g. private investment), since public funds alone are insufficient.

At the same time, the associations of owners should have access to technical advice, from the signing of the contract, up until the final execution of works.

Overall, better transparency in the choice of the distribution of funds is needed, to ensure a coherent improvement of energy efficiency of apartment blocks in Romania in the areas that need it the most.

The compliance and reinforcement of technical requirements and regulations (e.g. qualification of workers), as well as clearly defined quality criteria, will prove to be crucial for the proper execution of works and long-term success of the programme.

### Comparison with other analytical sources

This Fact Sheet concurs with other analytical sources:

- Country Fact Sheet Romania<sup>24</sup> in the sections:
  - Access to housing;
  - Skills shortage;
  - National & Regional Policy & Regulatory Framework;
  - Outlook.
- Romanian National Reform Plan 2016<sup>25</sup> outlines the increase of energy efficiency in residential buildings, public buildings and systems as one of the main objective of the energy efficiency package. This includes:
  - The rehabilitation of centralized heat supply of dwellings according to the 2006–2020 Heating Programme;
  - Reduction of the energy consumption in the housing sector by improving energy efficiency for 128 758 households in the framework of the new package of measures aimed at increasing energy efficiency in residential, public buildings and public lighting systems;
  - Develop good practice guide ... describing investment needed for upgrading and replacing building elements, as well as for heating and cooling.

### Endnotes

- <sup>1</sup> Form of autonomous, non-profit association of the majority owners of a condominium. Owners associations are legal entities responsible for the administration and management of common property. They are established by a written agreement between at least half plus one of the owners of the apartments of a building. The owners association is defined in 'Law no. 230/2007 regarding the organisation and operation of homeowners associations'.
- <sup>2</sup> Note: The amounts are calculated used the average exchange lei-EUR during 2009-2015, <http://www.bnr.ro/Cursul-de-schimb-3544.aspx>
- <sup>3</sup> C. LUNGU, Evaluarea fondului de cladiri din Romania în perspectiva aplicării, Dir.2010/CE/31,2012, [www.euroconferinte.ro/prezentari/Tema1-17.pdf](http://www.euroconferinte.ro/prezentari/Tema1-17.pdf)
- <sup>4</sup> Min. of Regional Development and Housing, Thermal rehabilitation of housing blocks, 2009,

[http://www.mdrl.ro/\\_documente/lucrari\\_publice/reabilitare\\_termica/brosura\\_reabilitare\\_termica.pdf](http://www.mdrl.ro/_documente/lucrari_publice/reabilitare_termica/brosura_reabilitare_termica.pdf)

- <sup>5</sup> Patrick Vrabie Reabilitare termica, in ritm de melc: suntem departe de obiectivele Uniunii Europene, 2014, [www.wall-street.ro/articol/Real-Estate/193544/busteni-primul-oras-din-romania-care-va-fi-reabilitat-in-intregime.html](http://www.wall-street.ro/articol/Real-Estate/193544/busteni-primul-oras-din-romania-care-va-fi-reabilitat-in-intregime.html)
- <sup>6</sup> I. Paraschivoiu - Cât de echitabilă este distribuirea fondurilor de la bugetul de stat pentru reabilitarea termică a blocurilor de locuințe? 2014. [www.openpolitics.ro/dezvoltare-urbana-si-regionala/cat-de-echitabila-este-distribuira-fondurilor-de-la-bugetul-de-stat-pentru-reabilitarea-termica-a-blocurilor-de-locuinte.html](http://www.openpolitics.ro/dezvoltare-urbana-si-regionala/cat-de-echitabila-este-distribuira-fondurilor-de-la-bugetul-de-stat-pentru-reabilitarea-termica-a-blocurilor-de-locuinte.html)
- <sup>7</sup> OUG nr. 18/2009 on increasing the energy performance of housing blocks, 2009, [www.dreptonline.ro/legislatie/oug\\_cresterea\\_performantei\\_energetice\\_blocurilor\\_locuinte\\_18\\_2009.php](http://www.dreptonline.ro/legislatie/oug_cresterea_performantei_energetice_blocurilor_locuinte_18_2009.php)
- <sup>8</sup> Min. of Regional Development and Housing, Thermal rehabilitation of housing blocks, 2009, [http://www.mdrl.ro/\\_documente/lucrari\\_publice/reabilitare\\_termica/brosura\\_reabilitare\\_termica.pdf](http://www.mdrl.ro/_documente/lucrari_publice/reabilitare_termica/brosura_reabilitare_termica.pdf)
- <sup>9</sup> The details of the technical assessment, energy audit and other relevant documentations to be provided by the technical expert are given in Annexes 7, 8 and 9 of the Methodological notes for the implementation of the GEO 18/2009. [http://www.mdrl.ro/\\_documente/lucrari\\_publice/reabilitare\\_termica/Norme.pdf](http://www.mdrl.ro/_documente/lucrari_publice/reabilitare_termica/Norme.pdf)
- <sup>10</sup> Ibidem.
- <sup>11</sup> Revista Constructiilor, Reabilitarea termica a locuintelor si cladirilor publice, comerciale si industriale. July 2012. <http://www.revistaconstructiilor.eu/index.php/2012/07/02/reabilitarea-termica-a-locuintelor-si-cladirilor-publice-comerciale-si-industriale/#.VxeOrf96Ht>
- <sup>12</sup> Min. of Regional Development and Housing, Thermal rehabilitation of housing blocks, 2009, [http://www.mdrl.ro/\\_documente/lucrari\\_publice/reabilitare\\_termica/brosura\\_reabilitare\\_termica.pdf](http://www.mdrl.ro/_documente/lucrari_publice/reabilitare_termica/brosura_reabilitare_termica.pdf)
- <sup>13</sup> Association of owners - non-profit legal entity established by Law no. 230/2007 on the establishment, organization and functioning of owners associations, as amended, and the Law. 287/2009 on the Civil Code, <http://legislatie.just.ro/Public/DetaliiDocument/103284>
- <sup>14</sup> Idem endnote 5
- <sup>15</sup> C. P. Stamatiade – Reabilitarea termica pe banii statului Pro TV, 2009. [www.stirileprotv.ro/exclusiv/exclusiv-online/reabilitare-termica-pe-banii-statului-afla-marti-la-videochat.html](http://www.stirileprotv.ro/exclusiv/exclusiv-online/reabilitare-termica-pe-banii-statului-afla-marti-la-videochat.html)
- <sup>16</sup> Digi24, Reabilitarea blocurilor, o afacere electorală, 2015. [www.digi24.ro/Stiri/Digi24/Economie/Stiri/Reabilitarea+blocurilor+o+afacere+electorala](http://www.digi24.ro/Stiri/Digi24/Economie/Stiri/Reabilitarea+blocurilor+o+afacere+electorala)
- <sup>17</sup> Data for 2012 is not publicly available
- <sup>18</sup> I. Paraschivoiu - Cât de echitabilă este distribuirea fondurilor de la bugetul de stat pentru reabilitarea termică a blocurilor de locuințe? 2014. [www.openpolitics.ro/dezvoltare-urbana-si-regionala/cat-de-echitabila-este-distribuira-fondurilor-de-la-bugetul-de-stat-pentru-reabilitarea-termica-a-blocurilor-de-locuinte.html](http://www.openpolitics.ro/dezvoltare-urbana-si-regionala/cat-de-echitabila-este-distribuira-fondurilor-de-la-bugetul-de-stat-pentru-reabilitarea-termica-a-blocurilor-de-locuinte.html)
- <sup>19</sup> Liga Habitat: In ritmul actual, toate blocurile din Romania vor fi reabilite peste exact 120 ani, 2010. [www.dailybusiness.ro/stiri-companii/liga-habitat-in-ritmul-actual-toate-blocurile-din-romania-vor-fi-reabilite- peste-exact-120-ani-40252/](http://www.dailybusiness.ro/stiri-companii/liga-habitat-in-ritmul-actual-toate-blocurile-din-romania-vor-fi-reabilite- peste-exact-120-ani-40252/)
- <sup>20</sup> Government decisions HG1193/2010, HG1225/2011, HG23/2013, HG871/2013, HG1091/2014 on the minimum wages
- <sup>21</sup> Liga Habitat: Principalele probleme intalnite in programul de reabilitare termica. <http://www.habitaturban.ro/?p=1013>
- <sup>22</sup> HotNews, ANALIZA Cate blocuri au fost reabilite termic in Bucuresti, cati bani s-au cheltuit si cat de sigure sunt cladirile anvelopate in caz de

incendiu. December 2015. [http://www.hotnews.ro/stiri-administratie\\_locala-20650690-analiza-cate-blocuri-fost-reabilitate-termic-bucuresti-cati-bani-cheltuit-cat-sigure-sunt-cladirile-anvelopate-caz-incendiu.htm](http://www.hotnews.ro/stiri-administratie_locala-20650690-analiza-cate-blocuri-fost-reabilitate-termic-bucuresti-cati-bani-cheltuit-cat-sigure-sunt-cladirile-anvelopate-caz-incendiu.htm)

<sup>23</sup> Ibidem.

<sup>24</sup> European Construction Sector Observatory, Country Fact Sheet Romania, March 2016, [http://ec.europa.eu/growth/sectors/construction/observatory/index\\_en.htm](http://ec.europa.eu/growth/sectors/construction/observatory/index_en.htm)

<sup>25</sup> Romanian National Reform Plan 2016, [http://ec.europa.eu/europe2020/pdf/csr2016/nrp2016\\_romania\\_ro.pdf](http://ec.europa.eu/europe2020/pdf/csr2016/nrp2016_romania_ro.pdf)