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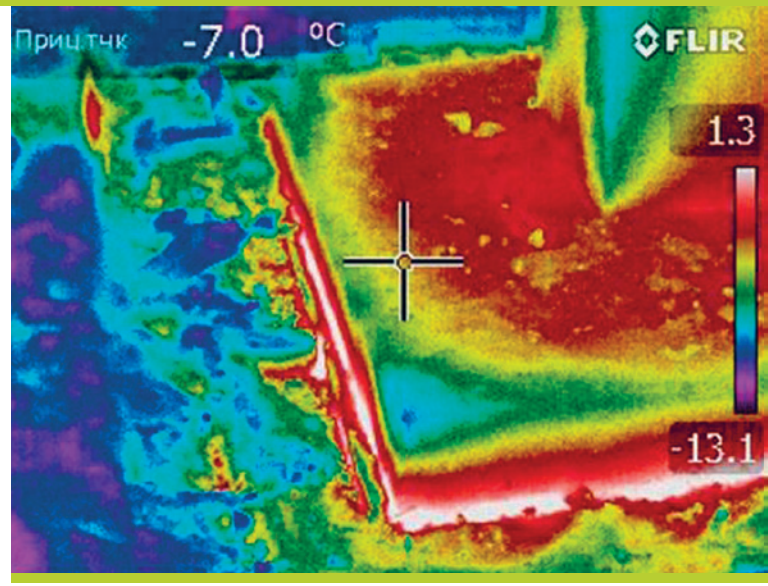
Information about the kindergarten
Legal address: p. Kalevala, Viynemeinena
Construction year: 1992.
Size: 360m^3
Number of staff: 10
Number of children: 50
Open hours: Mon-Friday from 8.30 to18.00
Closed: Saturday, Sunday

GREENSETTLE INVESTMENTS



Thermal Insulation Investment in the Kindergarten Rycheek in Kalevala

This project is co-funded by the European Union,
the Russian Federation and the Republic of Finland

ENPI CBC KARELIA

Project Description

The objective of the KARELIA ENPI CBC funded Greensettle – Green cities and and settlements project is to encourage the development of green cities and settlements in remote cross border areas of Finland and Russia. In green cities and settlements land is used effectively, material is recycled or converted from waste to energy, and the aim is to decrease the ecological footprint and the overall contribution to climate change. Green cities are good for the environment, but provide also pleasant living environments for the people.

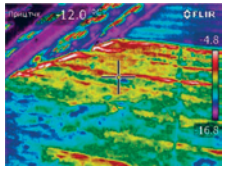
The project promotes competitive capacity and raises living standards in remote border areas. Best practice approaches will be implemented, which are based on efficient utilization of local potential and environment friendly technologies. The aim is to endorse economic and social requirements in harmony with ecological and cultural functions and, ultimately, contribute to a long-term balanced spatial development. As part of this project, two small scale demonstration investments have been implemented in the pilot territories of the project. This brochure describes one of them.

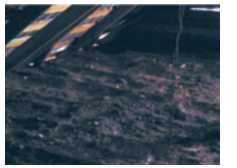
Introduction

The kindergarten Rycheek in Kalevala was selected as a second pilot site for a small scale demonstration project. The criterion for selection was the high social significance of the facility and the fact that this investment may be used as a model for other similar buildings and projects. According to the project plan, about 9000 euros was going to be used for this small scale investment.

The Challenge

The wooden building, which was constructed in 1992, was not properly insulated. In April 2013 an energy auditor and other experts from KRIMEL conducted a thermal imaging survey of the kindergarten. Using one of the newest models of the thermal imager, a thermal imaging survey enclosing surfaces of the kindergarten, both the interior and the outer sides of the building, was performed. The results showed the significant heat losses occuring through the floor slabs of the building and particularly through the attic and the roof.





The Solution

Based on the above mentioned findings, it was decided that the situation had to be fixed: the attic was to be insulated in order to stop the heat losses.

The Three Stages of Implementation

I. Assessment

A technical evaluation (necessary material estimates) was made and possible solutions were studied in 2013.

II. Tendering process

KRIMEL organized a tendering process during 01.07.2013 - 17.07.2013, after which the winner was selected. The proposal, which provided the best solution for the above mentioned problem and fully complied with the project goals and objectives as well as the terms of selection, was awarded the contract. On August 2nd, 2013 the Ofisbyt-servis Ltd was contracted to carry out the thermal insulation of the attic floor in the kindergarten with the effective thermal insulation material (basalt rock wool, density of 30-40 kg/m^3) with a thickness of 200 mm in the shell of the vapor sealing material.

III. Implementation

The construction and repair work on the inter-floor insulation (ceiling) of floor slabs was carried out during the summer of 2013. The work was accepted by a commission including representatives of the kindergarten, the Administration of Kalevala and of the Education Department of the municipal district of Kalevala.

The Outcome

At the moment the new energy audit is scheduled for December 2013. Results of this survey will be compared to those made before, and they should reveal how much energy loss savings have been achieved with this simple investment.