

THERMOMODERNIZATION REDUCES THERMAL ENERGY CONSUMPTION AND COSTS AND INCREASES HEALTH SAFETY



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Even the most efficient municipal district heating system will not perform its role when buildings are inadequately designed, equipped and operated. Although most of new buildings meet the highest criteria regarding energy efficiency, many existing buildings (built according to old regulations) require thermo-modernization. Many institutions support such initiatives through various subsidies and public campaigns informing people about benefits of thermomodernization.

The main aim of thermomodernization is to reduce thermal energy consumption used by buildings and reduce costs of heating in winter and air-conditioning in summer. However, when considering the action more aspects must be taken into account. Besides

the obvious economic benefits, thermomodernization increases the health safety by reducing humidity of indoor air, limits formation of mildew - very dangerous to the health of people and improves the comfort of users working and living inside the buildings. Moreover, it gives environmental benefits - it slows down the use of non-renewable energy sources and reduces carbon dioxide (CO₂) emission. In addition, external insulation of walls gives the building refreshed and aesthetic appearance. Thermomodernization increases also the value of the property.

Thermomodernization should include mounting new windows (with low-emissivity glass), install efficient radiators and improving thermal insulation of walls. However, apart from

technical operations, the mentality of users must be changed. Inappropriate behaviour of users due to bad habits (e.g. opening windows with fully open thermostatic radiator valves) may result in higher consumption of thermal energy (and total costs) than before the thermomodernisation. Therefore, besides the investments in materials and equipment information campaign should not be omitted.

One of the best methods of introducing new ideas is to use the experience of others. InnoHeat is a European project gathering partners from different Baltic countries and therefore is an useful platform for discussions and exchange with the knowledge regarding district heating, facilities and innovative solutions to meet the highest standards.