Technology Fact Sheet

Technology Name	**Buildings walls insulation**[i]
Subsector GHG emission (megatons CO2-eq)	GHG emissions in the buildings sector in 2009 accounted for 2825 Gg, of which 75% (2120 Gg) - from residential buildings.
Background/Notes, Short description of the technology option	By the end of 2009 Moldova's housing stock was 78.9 mil. m^2, of which 30.1 m^2 in urban sector and 48.8 mil. m^2 - in rural sector. Extrapolation of the trend data for the years 2002-2009 resulted in 86.2 mil. m^2 for 2030, of which 34.6 mil. m^2 in urban sector and 51.6 mil. m^2 in rural sector. In 1997, when buildings walls insulation requirements changed [8], the housing stock was 73.2 mil. m^2. In buildings constructed until 1997 the average heating intensity was 70 W/ m^2 in urban sector, and 160 W/ m^2 in rural sector. After 1997 these values dropped to 50 W/ m^2 and 130 W/ m^2 , respectively. According to energy consumption in the tertiary sector accounts for 25% of the residential sector. Assumingly, tertiary urban sector is 30% of the residential sector, and rural sector is 15%. Buildings rehabilitated so far by insulation of walls, replacement of old windows with new glazing units, replacement of old doors, etc.. account for 10% of the old buildings in the urban and rural sectors.
Implementation assumptions. How the technology will be implemented and diffused across the subsector? Explain if the technology could have some improvements in the country environment.	Until present, rehabilitation of administrative buildings is being done at the initiative of consumers from external funds. To enhance this process is necessary to organize this process through a state program. Thus, by 2030, it would be possible to have all administrative buildings rehabilitated.
Implementation barriers	- Large investments. - Lack of interest from the part of central and local public administration.
Reduction in GHG emissions (megatons CO2-eq)	Reduction of 2.1 mln.t CO_2 in between 2010 – 2030
Impact Statements - Impact of this option on the country's development priorities	
Country **social** development priorities	Improves indoor comfort . Reduce consumers spending
Country **economic** development priorities – economic benefits	By 2030 reduce fuel consumption by more than 90 thousand tone coal equivalent (t.c.e) per year
Country **environmental** development priorities	Reduce harmful emissions
Other considerations and priorities such as market potential	-
Costs	
Capital costs	Total investments of cca 223 mil.USD
Operational and Maintenance costs	Operational and Maintenance costs will not change
Cost of GHG reduction	Specific cost of reductions will be 105 USD/t
Lifetime.	Lifetime – 30 years
Other	-

[i] This fact sheet has been extracted from TNA Report - Technology Needs Assessment for climate change mitigation - Republic of Moldova. You can access the complete report from the TNA project website **http://tech-action.org/**