

Web tool for quantitative sustainability evaluation of hygro-thermally optimized insulation solutions

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Introduction



Robust Internal Thermal Insulation of Historic Buildings



Insulation systems

System 1

System 2

System 3

System 4

System 5

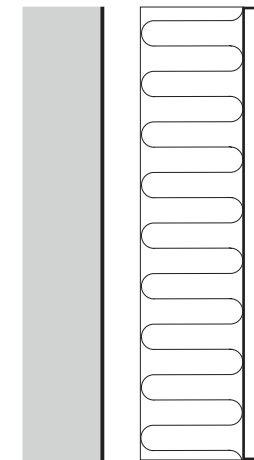
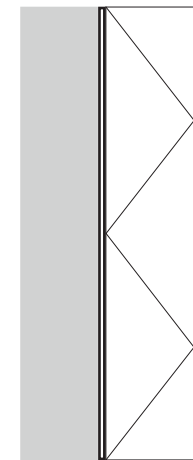
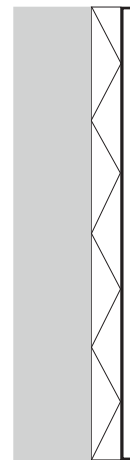
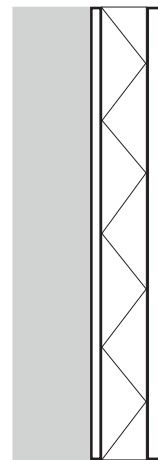
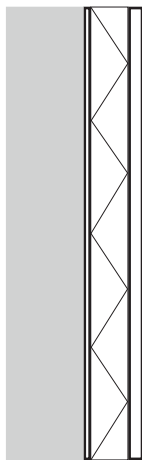
Calcium Silicate

Polyurethane

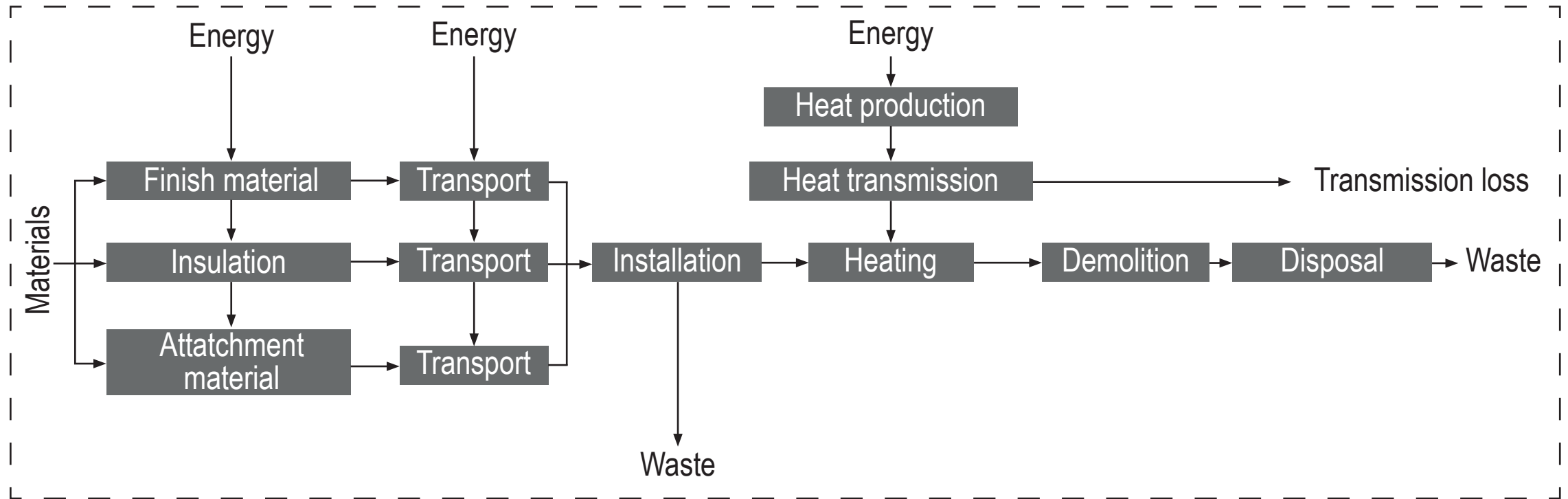
Phenol Foam

Mineral Foam

Mineral Wool



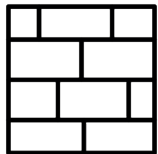
Life cycle stages



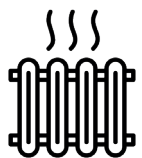
Web tool - input



160 locations in seven countries
(Belgium, Denmark, Germany, Italy, Latvia, Sweden and Switzerland)



5 existing wall types



3 heating systems per country

User input page

Here, you define the properties of the historic building that needs an internal insulation retrofit. These choices affect the sustainability performance of the insulation solution.

Choose the country for your renovation project here ↓	Choose the nearest located city for your renovation project here ↓	Choose the heating system of the building here ↓	Choose the stone type which the existing wall consists of here ↓	Choose the thickness of the existing wall here ↓
Country	City	Heating system	Existing wall stone type	Existing wall stone thickness
<ul style="list-style-type: none"> Belgium Denmark Germany Italy Latvia Sweden Switzerland 				

Web tool - output



IRBuild User output page



213.180 results

Conclusions

Is an energy retrofit always the most sustainable solution for a historic building?



ANY QUESTIONS



Thank you for your attention!