

Case Study "Ecole Vétérinaires in Anderlecht" by Arch. Pouria Shoeibi

The building dates from the 19th century. It is situated in Cureghem, near Brussels Midi train Station, the archetype of a suburb shattered by the de-industrialisation with a migrant population rate of about 65% . The building presents a timber frame façade on the main street and a stone façade on the side lane. The European Fund ERDF and the Brussels government have launched an important strategic programme to stimulate Economic competitiveness, employment and urban development. For the Municipality of Anderlecht, this mix funding was the opportunity to incentive an eco - restoration pilot project.

Technical specificities:

First of all a feasibility study has been carried out to assess the environmental impact of the restoration of the building, including the reduction and waste management and use of ecological materials. A panel of alternative technical solutions has been proposed by the municipality to reach a low energy performance (60 kW h/m².year) including innovating systems for heating. Following solutions have been selected according to a cost benefit analysis:

- *Dynamic Save Water management system.*
- *Double-flux ventilation with heat exchange will be used.*
- *Roof insulation.*
- *Wall insulation respecting old moulding.*
- *Doubling windows with new and high performance ones.*
- *Solar panels on the roof for pre-heating water.*
- *Innovative lighting concept.*

EXPECTED RESULTS:

1. *The Life Cycle Analysis allowed the architect to choose the solutions that showed to be the more efficient and less impacting on environment, not only during the building restoration phase, but also during the whole life cycle of the building (including uses & consumptions),*
2. *The municipality wishes this restoration to be an example of restoration of a listed building with all the constraints that this implies.*
3. *Restoration from the point of view of improvement of the energy performance in the local and regional context. Indeed, in Cureghem alone, there are 866 private residences which had been build before 1919 and 945 between 1919 and 1945. That gives a potential of 1811 residences, in the long term , to be renovated with energy performance.*
4. *The project will include the waste reduction and management strategy .*
5. *Increase the economic dynamism and employment in the zone,*
6. *Support the development and the expansion of companies in key social and economic sectors*