GREEN ROOFS IN PORTUGAL

A challenge on the reduction of energetic consumption

MIND THE GAP
Landscapes For A New Era

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Man over time, has altered the natural landscape in order to meet their needs and desires by inevitably creating environmental imbalances. Promoting all types of energy efficiency is crucial, starting with a reduction of energetic consumption. With the destruction of the existing vegetation on the surface by the construction of a building, green roofs appear as a solution to minimize this impact, supporting a small part of the vegetation that would be installed at ground level, and bring vast environmental and ecological benefits to the city.

COUTRYSIDE VILLAGE SMALL TOWN CITY A GREEN ROOF CITY

The green roofs as an element that are mostly vegetable, bring great benefits in the global climatic regulation, especially due to their influence over the variation in the value of albedo, the regulation in the air temperature and the CO2 levels in the atmosphere and consequentially of the Urban Heat Island effect that affects most of the cities.

The vegetation, applied to green roofs, has a very positive effect on mitigating the Urban Heat Island effect, favouring an increase in albedo and an decrease in temperatures that are felt outside the building.

However, changing the conventional roof (black roof) for a green roof system, can have positive effects not only on an urban scale but also in micro-scale (the building).

The impermeability of the roofs with vegetation brings benefits to the building itself, especially regulating the temperature
inside. A well insulated building absorbs less heat in the hot summer months, and will lose less in their air-cooling, thereby reducing air conditioning costs.

In some studies was concluded that growing plants on land occupied by buildings can significantly reduce the surface temperature of the building by up to 20%, leading to a saving in energy consumption of air conditioning in the order of 25% to 50%.

The green roof practice is increasingly spreading in our cities. Portugal currently has an increasing market level tendency for the installation of green roofs. There is therefore an opportunity to start working well, particularly with regard to techniques and construction methods.

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