



PROJECT FACTSHEET

Avenidas Novas of Lisbon

In 2016, the Lisbon City Hall initiated the requalification of several public spaces within the city. In this context, the Interdisciplinary Centre of Social Sciences (CICS.Nova) of the NOVA University Lisbon developed a research project to evaluate the impact of a City Hall project in the city of Lisbon, specifically in “Avenidas Novas Neighbourhoods”.

The main project goal was to provide the citizens with less noise, more spaces to walk, comfortable sidewalks and lowered crosswalks for people with reduced mobility, more green areas, places for esplanades and bike lanes. Therefore, this work evaluated the effect of replacing roads with new trees and green areas on the thermal comfort of the surrounding urban area.

A before and after assessment of the urban requalification project was evaluated using ENVI-met software. It showed a reduction of up to 3 K would result from the project. Additionally, it showed.

- an increase in relative humidity of the air of 10%.
- a slight reduction in natural ventilation throughout the day from 3.5 m/s to 2.5 m/s due to the barrier caused by the treetops.
- an increase of vegetation (in this case 26%) being a key element when designing comfort urban spaces.

FACTS

Institution

CICS.NOVA. Centro Interdisciplinar de Ciências Sociais

Researchers

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Research period

2016-2017

Used Features

ENVI-met holistic microclimate model; thermal comfort in urban area; PMV index