

Modelling Optimization of Energy Efficiency in Buildings for Urban Sustainability



MOEEBIUS introduces a Holistic Energy Performance Optimization Framework that enhances current modelling approaches and delivers innovative simulation tools which deeply grasp and describe real-life building operation complexities in accurate simulation predictions that significantly reduce the “performance gap” and enhance multi-fold, continuous optimization of building energy performance as a means to further mitigate and reduce the identified “performance gap” in real-time or through retrofiting.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 680517



With the increasing demand for more energy efficient buildings, the construction and energy services industries are faced with the challenge to ensure that the energy performance and savings predicted during energy efficiency measures definition is actually achieved during operation. Having received 6.036.468 EURO funding from European Commission MOEEBIUS project will face this challenge and deliver solutions that will enable the minimization of the "Performance gap" and promote the enhancement of customer confidence in Energy Performance Contracting effectiveness and ESCOs ability to guarantee results.

Real life models



The transferability and replication potential of MOEEBIUS results will be tested in real-life conditions over an extensive 20-month period in a variety of buildings and building blocks under different environmental, social and cultural contexts in three dispersed geographical areas: London in UK, Mafra in Portugal and Belgrade in Serbia.

MOEBIUS Solution will enable



- Improved Building Energy Performance Assessment
 - Precise allocation of detailed performance contributions of critical building components
 - Real-time building performance optimization including advanced simulation-based control and real-time self-diagnosis features
 - Optimized retrofitting decision making on the basis of improved and accurate LCA/ LCC-based performance predictions
 - Real-time peak-load management optimization at the district level



MOEEBIUS

MOEEBIUS Partners



Project coordinator

Ander Romero Amorrrortu
TECNALIA
Parque Tecnológico de Bizkaia
ander.romero@tecnalia.com

www.moeebius.eu