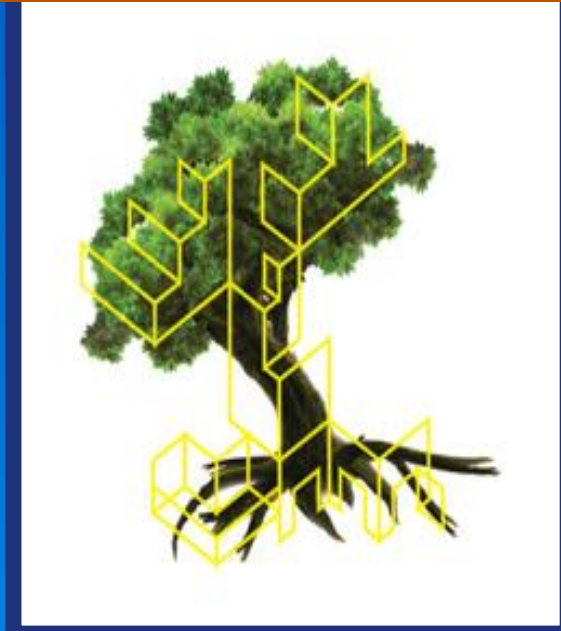


# ENVIRONMOORES

Efficient NoVel Intelligent Reliable Occupation  
Monitoring for IndOor human-comfORT adaptive System



## > Background



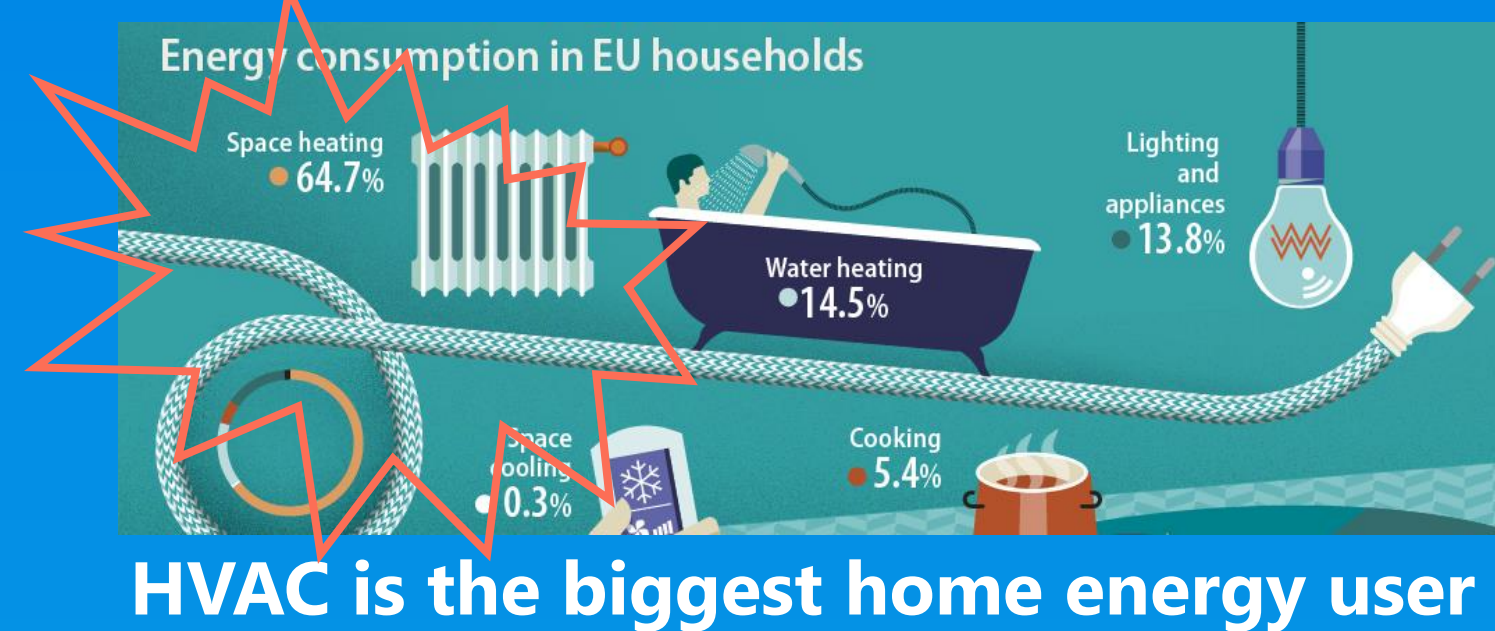
**Global Climate Change**  
Heat wave in The U.K. - Snow in the tropics



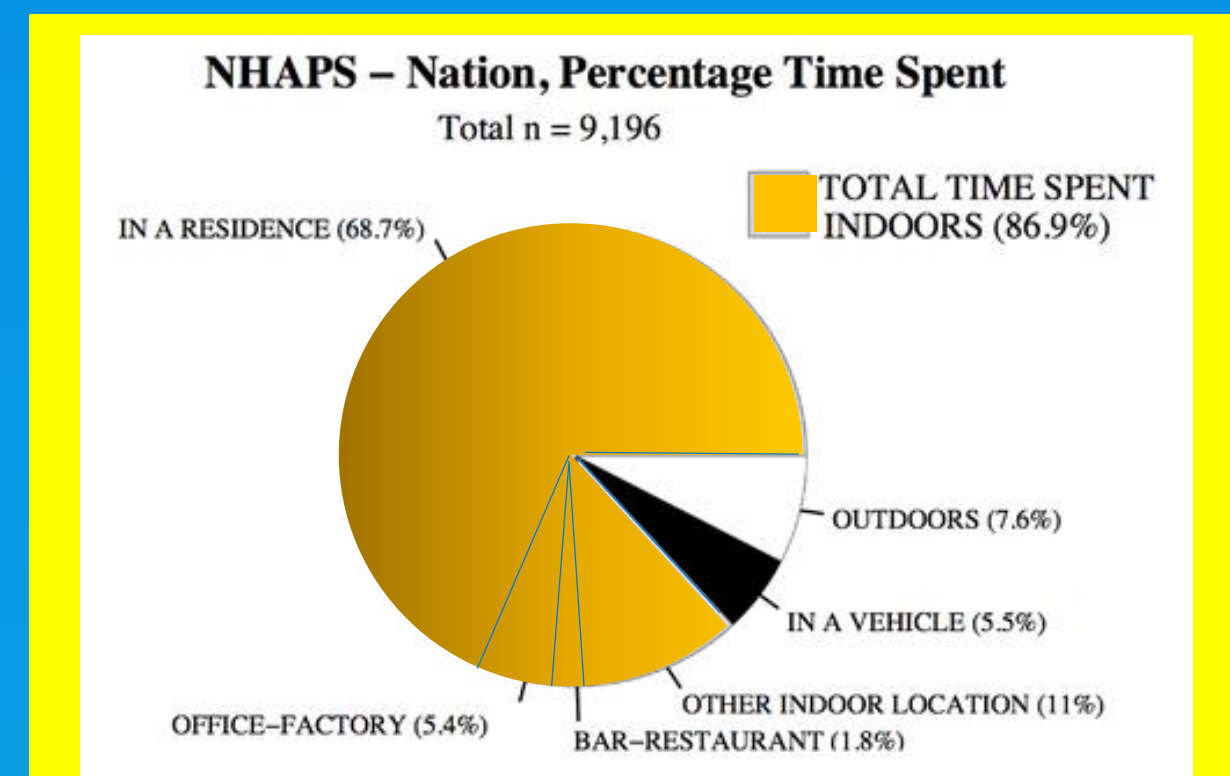
**Energy Conservation**  
Manage energy efficiently



**Carbon Footprint**  
Environmental friendly energy



**HVAC is the biggest home energy user**



**Most of our time is spent indoors**

## >> Target



**Human Comfort**

**LOWER ENERGY CONSUMPTION = LOWER BILLS**



## >>> Methods

### Literature Review on:

- Fanger's Model vs Adaptive
- Sensor Technology
- Optimization Algorithm
- Individual Approach
- Comfort vs Energy Saving
- Disability support

### Lighting Comfort

- Lighting Model
- Optimization Algorithm
- Prototyping
- Data collection & Validation
- Fine Tuning
- Framework Finalization

### Thermal Comfort

- Radiation Model
- Optimization Algorithm
- Prototyping
- Data collection & Validation
- Fine Tuning
- Framework finalization

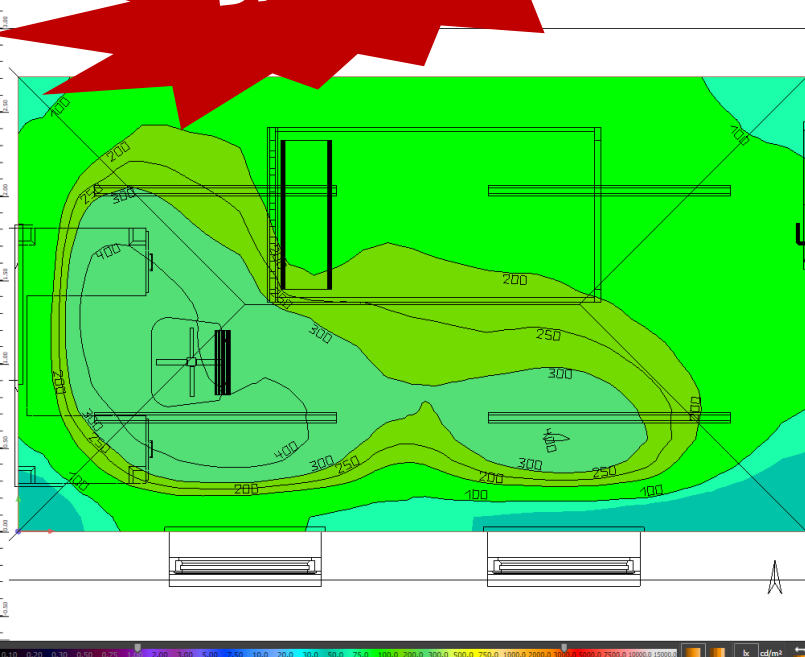
### Parameters

- Environment Sensors
- Clothing Effect
- Occupants Metabolism
- Accessibility
- Real Time
- Integration

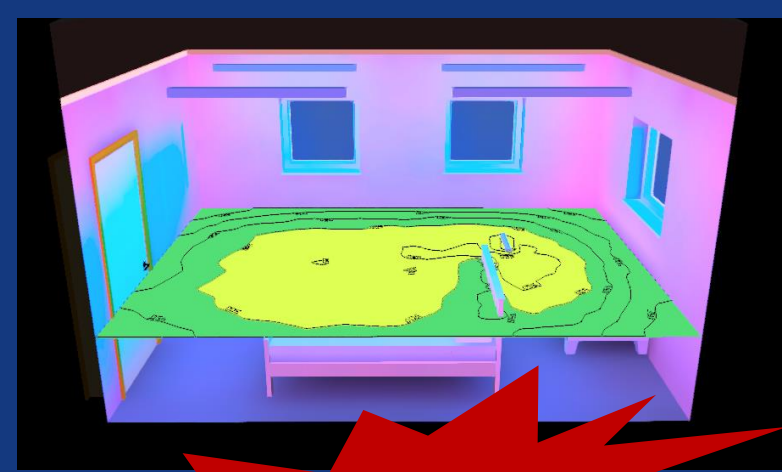
## >>>> Work in Progress > Lighting Comfort Model



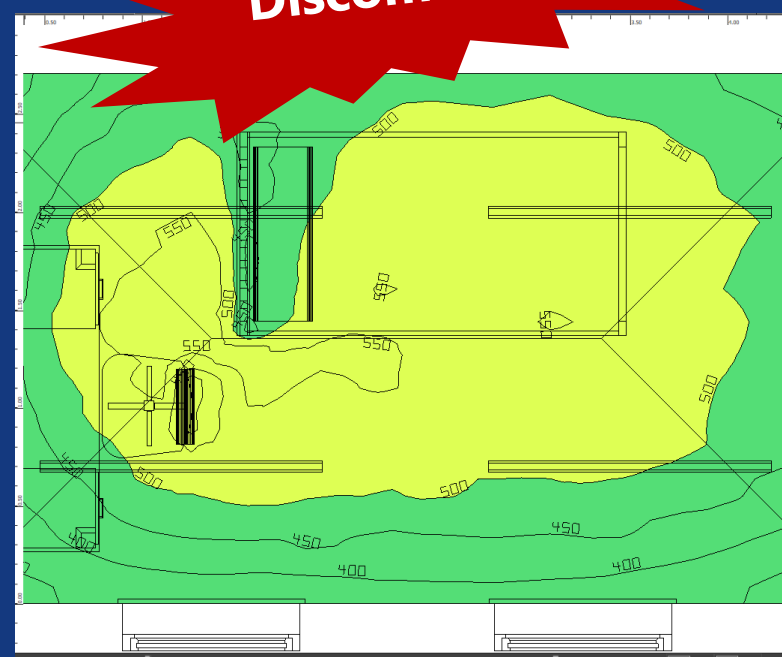
**Discomfort**



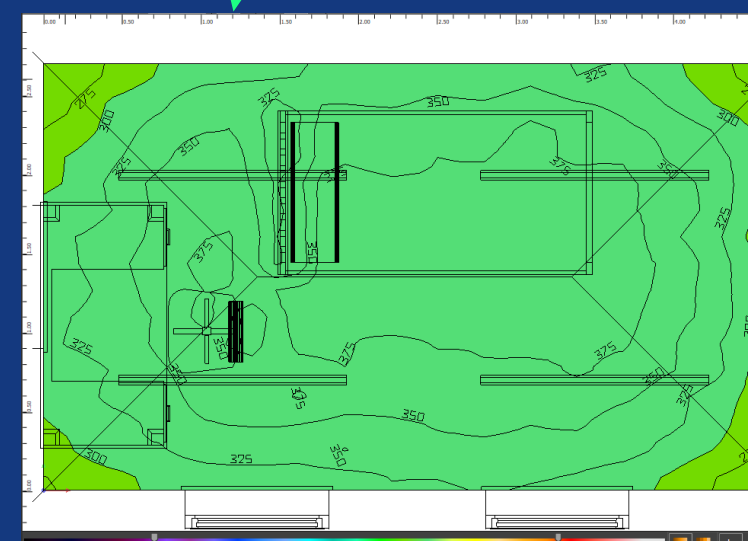
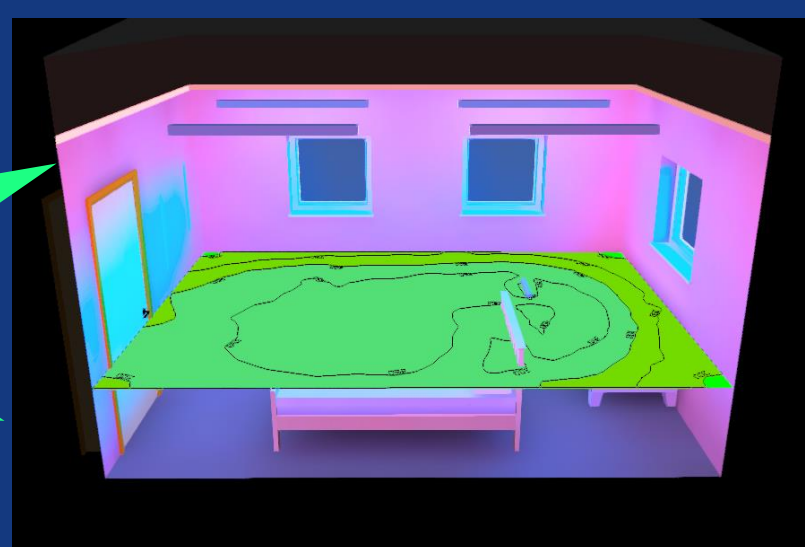
**Uneven Natural Light**



**Discomfort**



**Uneven Traditional Lighting**



**EnvironMoors Lighting Pattern**

## | Conclusion

**Lighting and Thermal Comfort can be achieved at reasonable energy consumption.**

**The comfort should also consider the occupants condition and energy saving factor.**

## |> Contact

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