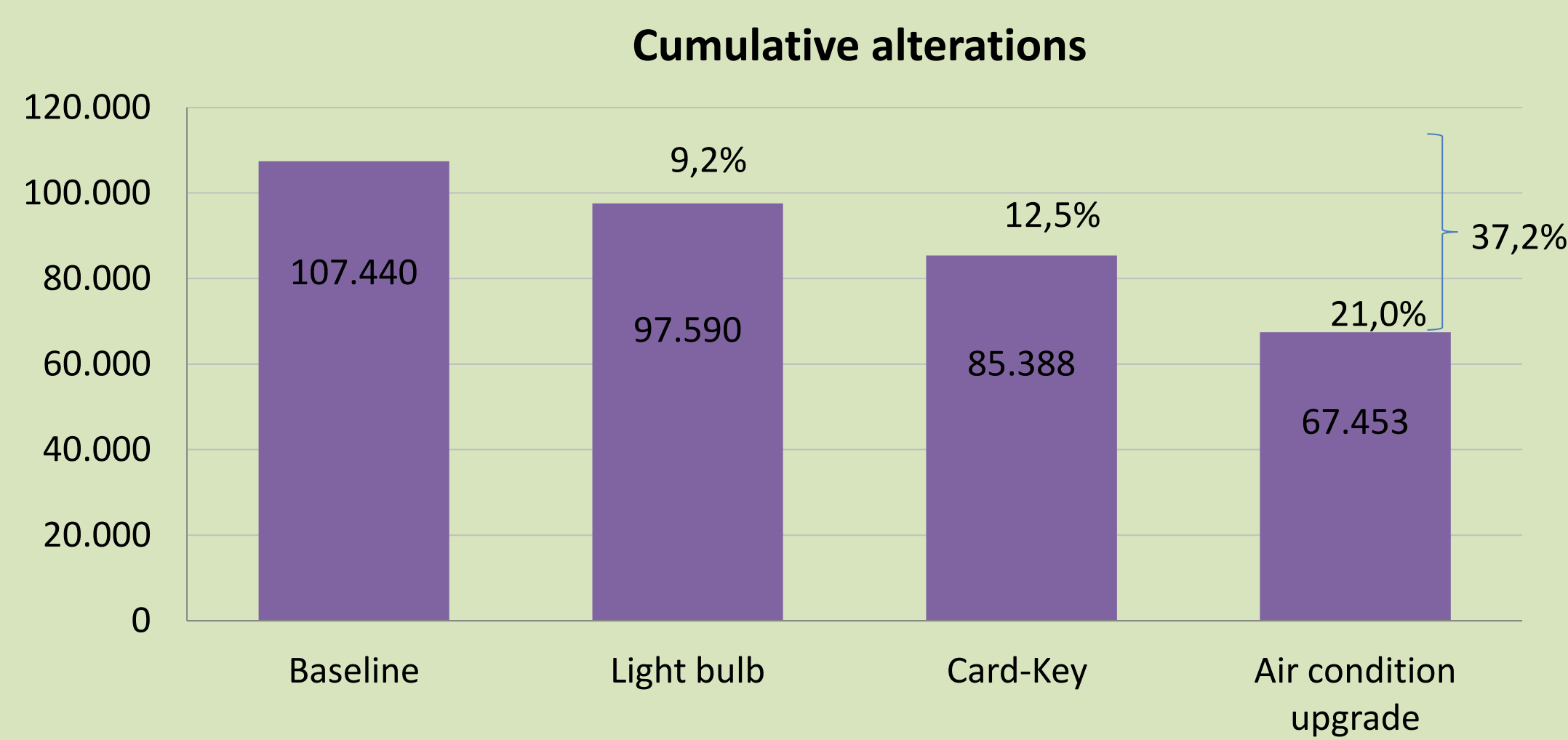
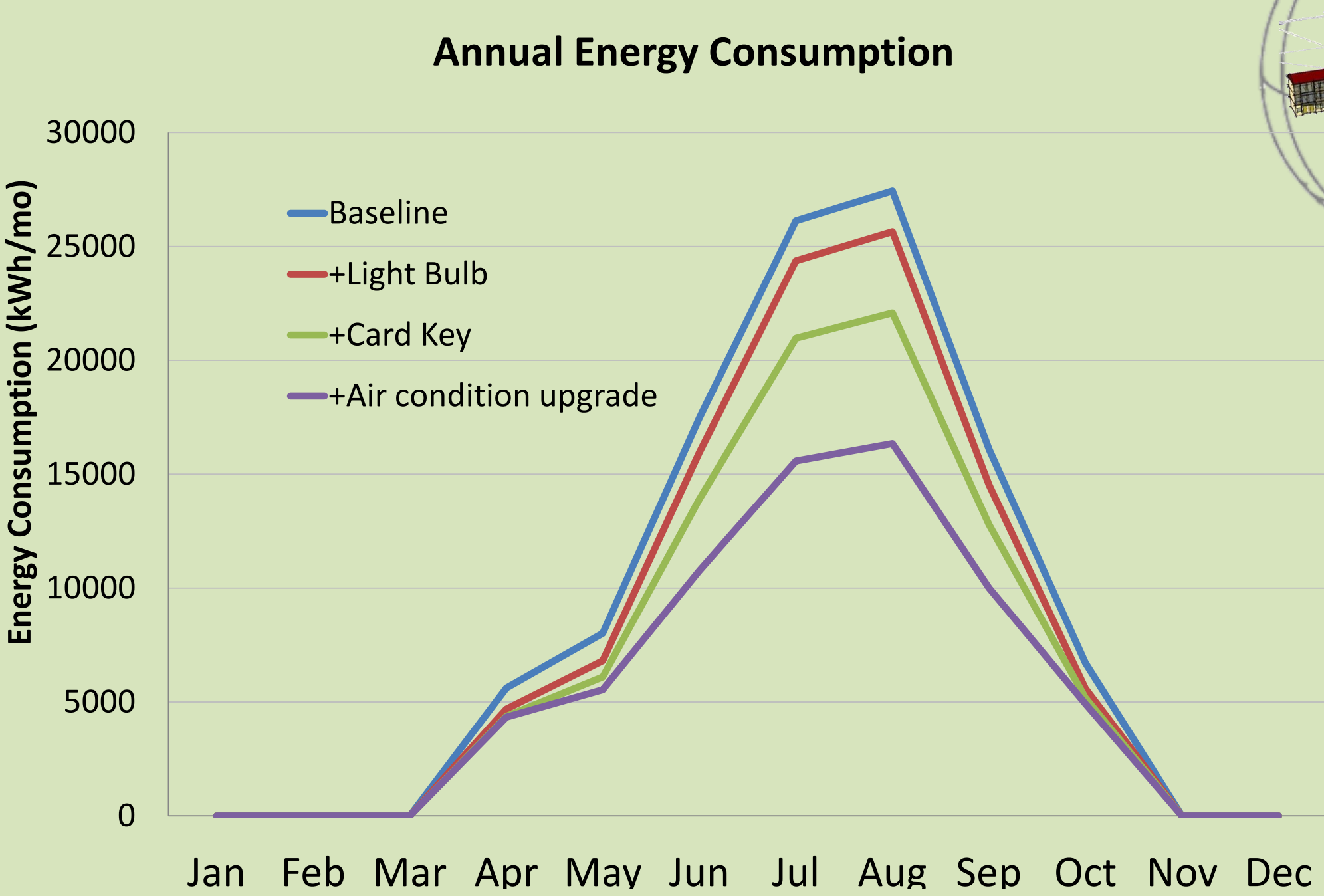
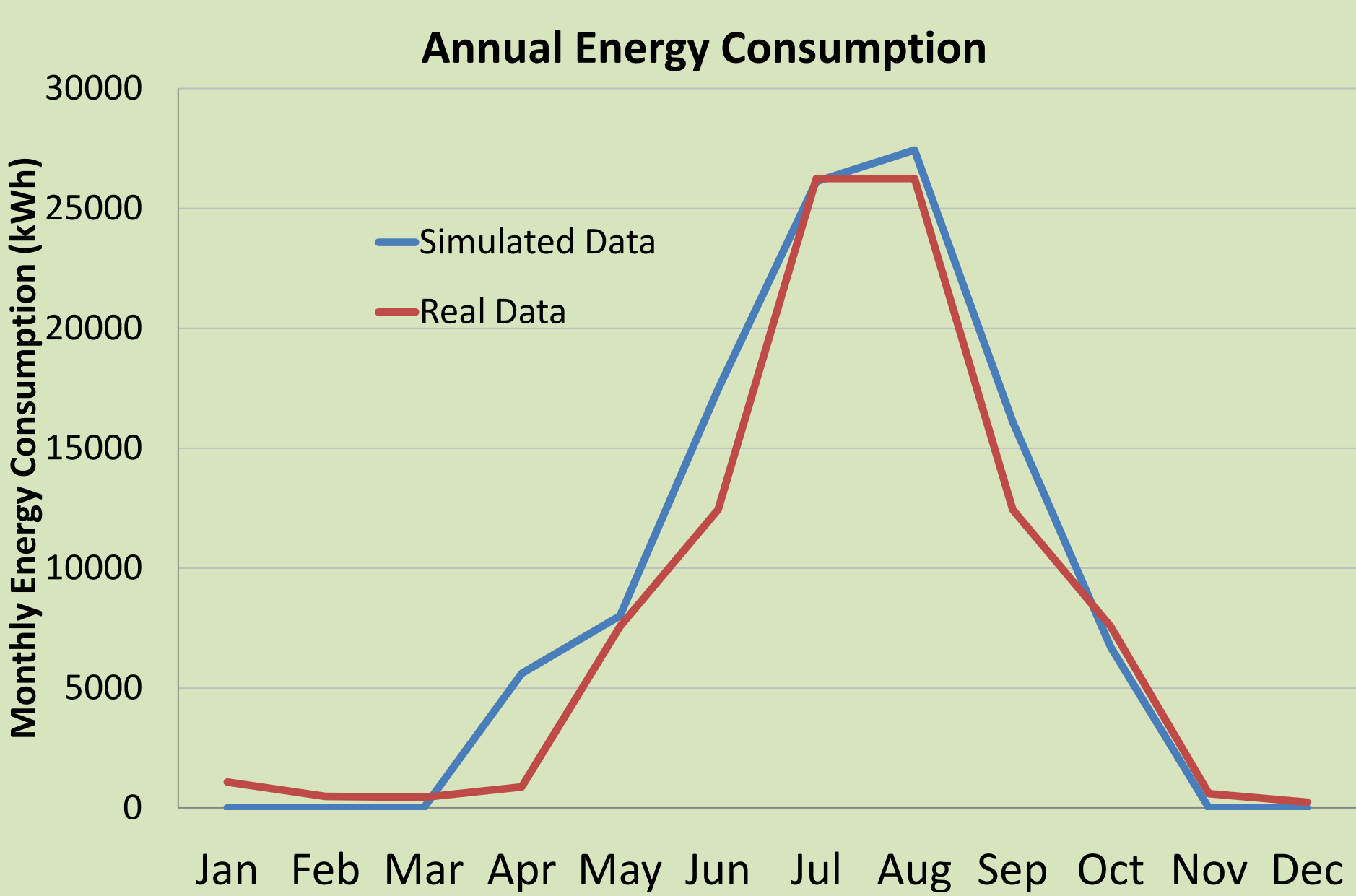
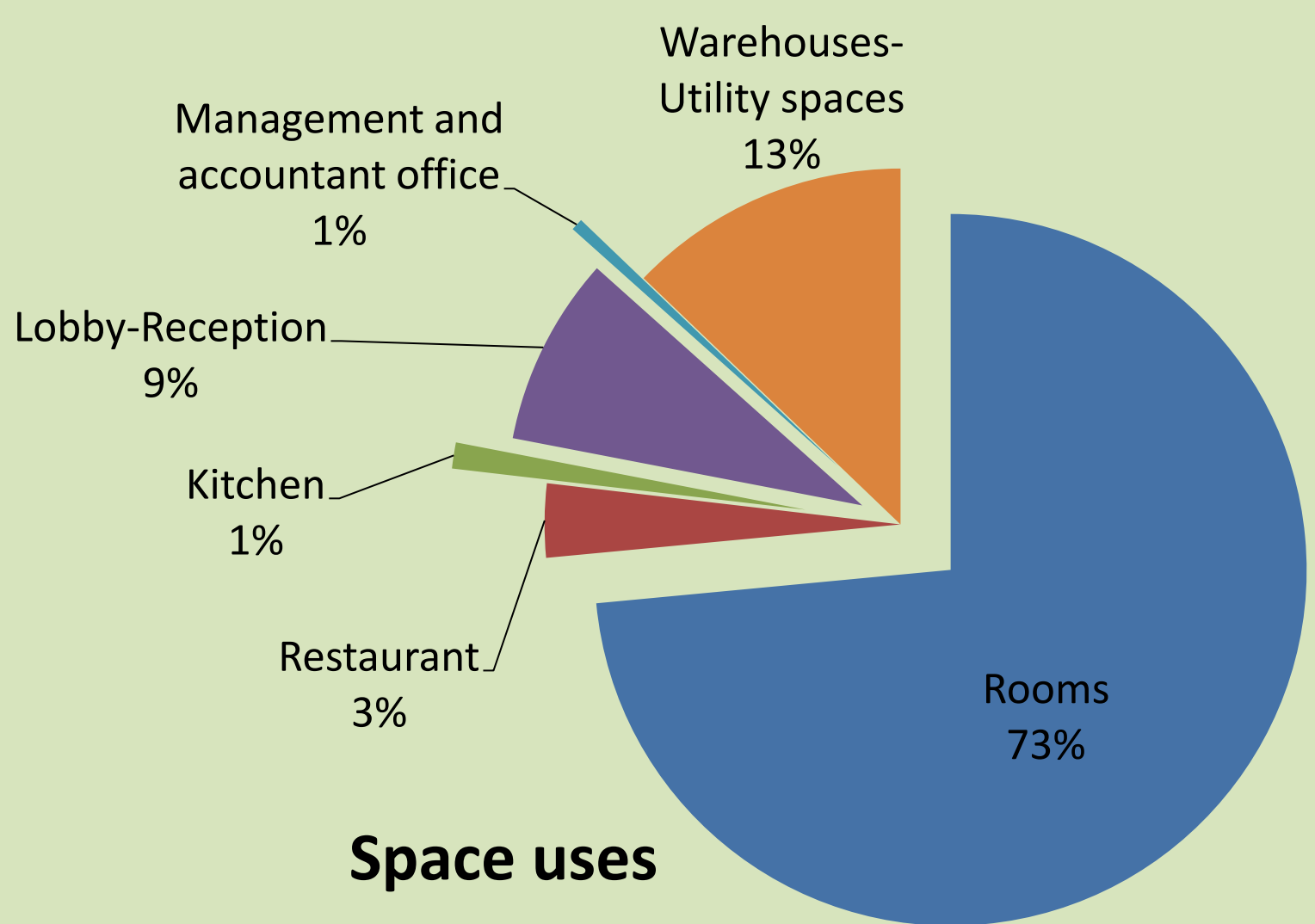
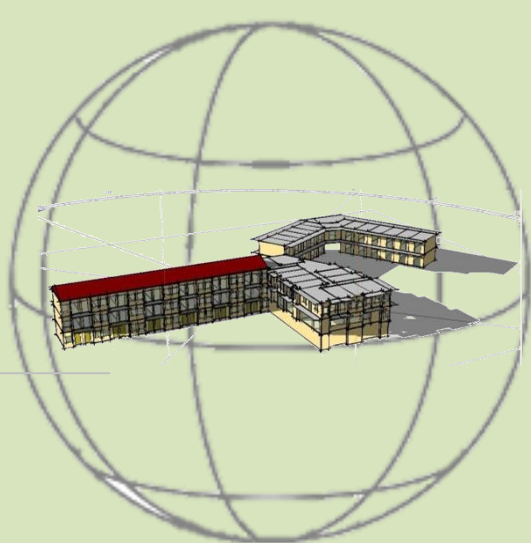


# Retrofitting a hotel, a case study



## Collected Data :

~Architectural plans / ~ Electricity bills  
~Information from owner / ~ Autopsy



Alterations	Baseline	Proposal
Light Bulb Change	6 W/m <sup>2</sup>	2 W/m <sup>2</sup>
Installation of Card Key	Conventional room key	Room key inserted to switchboard
Air Condition Upgrade	EER: 4,25	EER: 5,8

## Conclusion:

What has been realized through the particular research is that reduction of energy, of natural and economical resources could be easily achieved given initially the owner's willingness and information. Several strategies can then be applied, including either no and low-cost alterations or more invasive ones, each one contributing to different levels of energy consumption.

Cumulative Alterations Economic Parameters	Installation Cost (€)	Operational Cost reduction (€/yr)	Simple Payback Period (yrs)	Return of Investment (%)	Cost-Benefit Ratio
Baseline	-	-	-	-	-
+ Light Bulb Change	3000	814	3,7	27,1	4,07
+Card- Key	5000	1821	4,4	22,8	3,41
+Air condition upgrade	27000	3303	10,6	9,4	1,42

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