

# Energy Efficiency & Behavioural Change

## Socio-Technical System

"The behaviour of occupants in a building can have as much impact on energy consumption as the efficiency of equipment"



To achieve real savings

both social and technical systems must be addressed

## BARRIERS

## ENABLERS

Easy and convenient life



Make a difference to the environment



Lack of training



Raise Awareness

## LOOKING AT AIRPORTS AS AN EXAMPLE

5% Of the Aviation sector's global energy and cost + carbon emissions accredited to Airport Terminals

20% Energy usage could be saved through lighting upgrades

77% The percentage of electrical energy relating to air-conditioning within airports

10% - 30% The percentage of energy costs which could be saved through a Socio-Technical System

12 Million Tons Energy consumed by airports each year

1 - 5 Yrs The payback period for a Socio-Technical System

## WHAT IS THE METHOD

## STAGES AND ANALYSIS



## The Benefits



Reduced Carbon Footprint

Reduction in overhead costs



More efficient & comfortable environment for users

Return on investment seen in 1-5 years



SOURCES:

- IPCC (Intergovernmental Panel of Climate Change)  
 - IEA (International Energy Agency)  
 - World Business Council for Sustainable Development 2007  
 - Frontline Energy & Environmental 2013  
 - This Is

**Frontline**  
 Energy & Environmental