



AAD TECH GROUP

**PIONEERING ENERGY EFFICIENCY FOR A
SUSTAINABLE FUTURE**

ABOUT US



EXPERIENCE & TEAM

30+ Years of Expertise



PROJECT EXECUTION

750+ Successful projects with
20,000+ EC fan installations



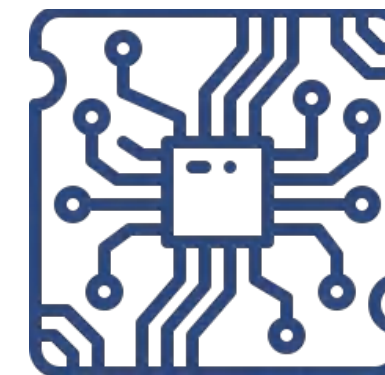
ENERGY SAVINGS

Up to 70% Energy
savings achieved



SUSTAINABILITY

150+ million tons of CO2
saved



TECHNOLOGY & AUTOMATION

World's best EC technology with
specialized Controllers & Automation

GROUP COMPANIES



Established in 2008, AAD Tech India Private Limited, is a pioneer in Energy efficiency Retrofits of EC Fans in Air handling units and cooling towers, achieving substantial energy savings across multiple industries



Established in 1991, Melfrank Engineers LLP has extensive experience in designing & building cooling towers of varying capacity. The company specializes in converting timber to pultruded FRP tower & retrofits with EC axial fans, achieving energy savings & efficiency



Established in 1992, Airpac Cleantech Private Limited specializes in design & execution of cleanroom equipment's, adhering to global standards. Products include Fan filter modules, laminar flows and pass boxes

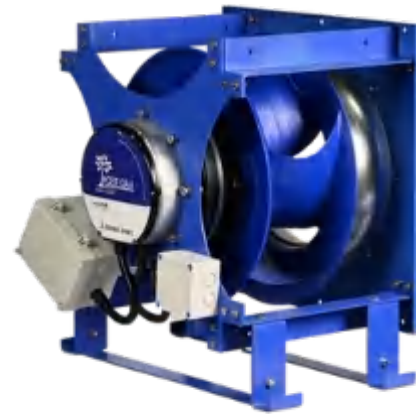


AAD Tech Environ Private Limited is the global arm of AAD Tech India Private Limited & has executed projects in Bahrain, Turkey, Oman, Egypt, Thailand, Indonesia, Saudi Arabia and Nepal

PRODUCT PORTFOLIO



AHU, AWU, FAHU, Air
Refinery Unit



Centrifugal fan



Axial fan



Fan Array



FRP Cooling Towers



Motor Control



BLE Controller



Cleanroom Products

ENERGY EFFICIENT RETROFIT SOLUTIONS

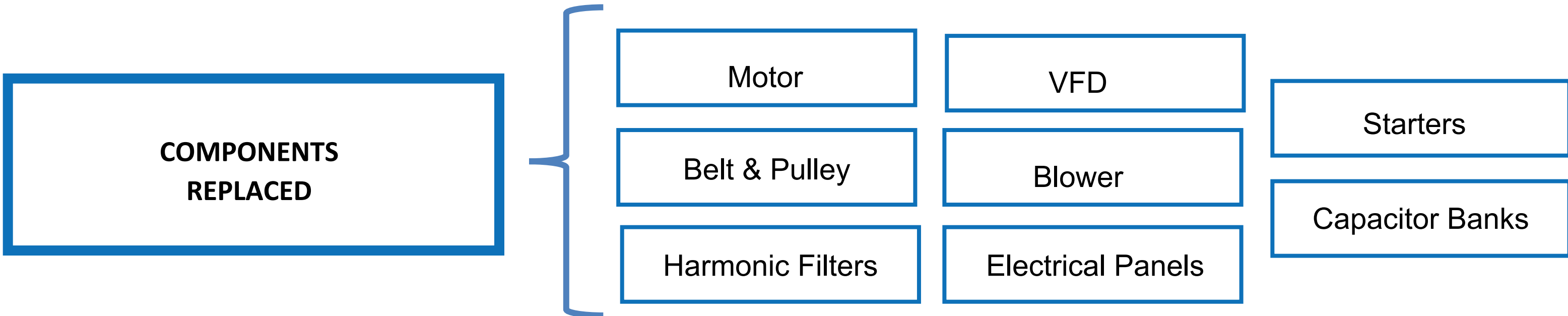


Retrofit Solution in Air Handling Unit







Retrofit Solution in Cooling Tower

TECHNOLOGY: EC FAN RETROFIT

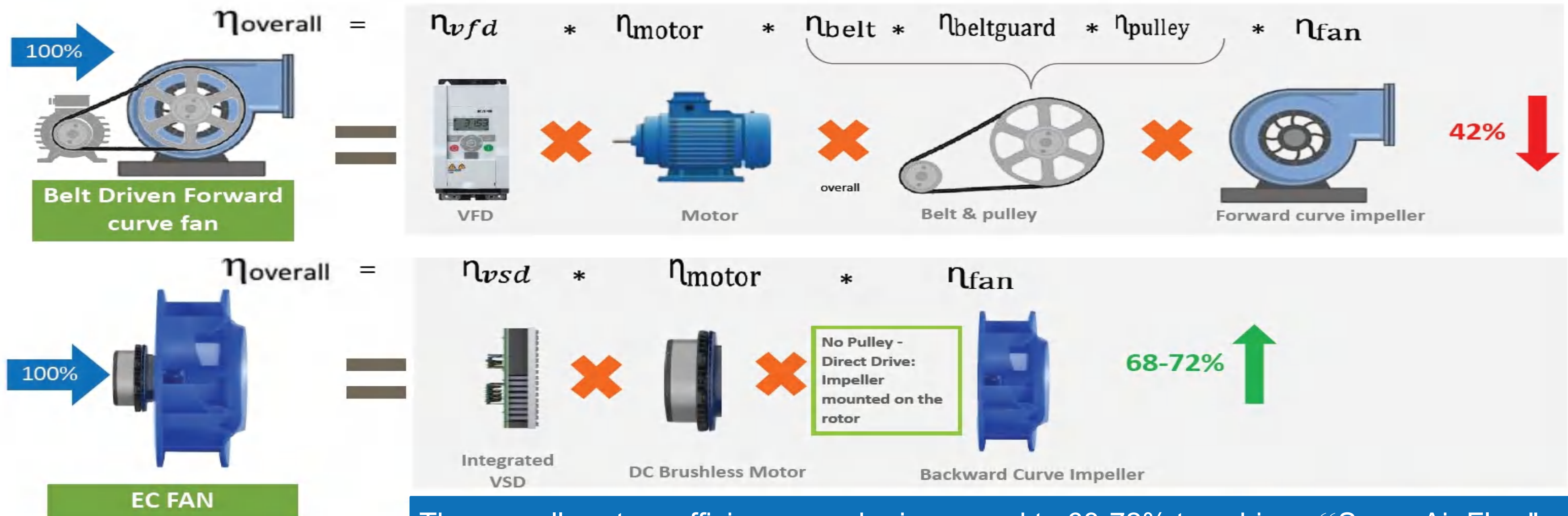


CONVENTIONAL AIR HANDLING SYSTEM EFFICIENCIES

SCENARIO	 DRIVE LOSSES	 BELT & PULLEY DRIVEN LOSS	 MOTOR EFFICIENCY	 BLOWER EFFICIENCY	CALCULATION OF EFFICIENCY	OVERALL EFFICIENCY
1. Designed efficiency	3-5%	5-8%	85-90%	70-75%	$0.97 \times 0.92 \times 0.85 \times 0.7$	50-55 %
2. Running efficiency	3-5%	5-8%	75% (running efficiency of motor part load)	60-65%(running efficiency of blower is only)	$0.97 \times 0.92 \times 0.75 \times 0.65$	40-45 %

SYSTEM EFFICIENCY

MULTIPLE SYSTEM EFFICIENCIES COMBINE TO GIVE STATIC SYSTEM EFFICIENCY



The overall system efficiency can be increased to 68-72% to achieve “Same Air Flow” @ “High Efficiency” and “Lesser Power”

AAD TECH EC DRIVE: EFFICIENCY & PRINCIPLE

Conventional System

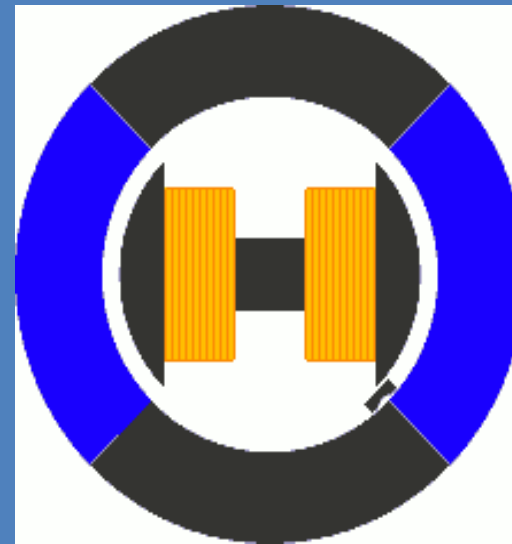


Motor Efficiency at varying load 70-80%

Motor Efficiency full load 80 -95%

Power Factor at drive level 0.6 to 0.8

AAD Tech System

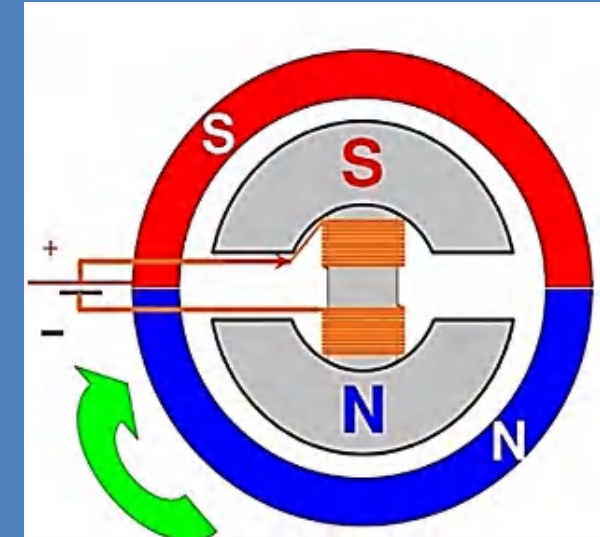


Motor Efficiency at varying load 92-95%

Motor Efficiency full load >95%

Power Factor at drive level Close to unity

Working Principle



Rotor is outside that moves

Magnetic field induction

No External current required

OUR SOLUTION VS CONVENTIONAL BELT FAN

PARAMETER	CONVENTIONAL FAN	AAD TECH SYSTEM
MOTOR EFFICIENCY	70-85%	93-95%
BELT MAINTAINANCE	Required	Not Required
BEARING MAINTAINENCE	Required	Not Required
COPPER LOSS	High	Non-Existent
SLIP LOSS	Yes	No
BELT AND PULLEY LOSSES	Yes	No
BLOWER WEIGHT	Heavy	Light
CORROSION RESISTANCE	No	Yes
VIBRATION PADS	Required	Not Required
SOFT START	Additional Equipment Required	Built In
MOTOR HEAT LOSS	Yes	No

EUROVENT CERTIFIED SFP BASED SMART AHUS



CASING AIR LEAKAGE CLASS L1

L1: 0.15 @ -400 PA & 0.22 @ +700 PA

CASING STRENGTH D1

D1: MAXIMUM DEFLECTION OF 4MM/M

FILTER BYPASS LEAKAGE F9

0.5% - 5.0%

THERMAL TRANSMITTANCE T2

T2: 0.5-2.0 W/M2K

THERMAL BRIDGING FACTOR

TB2

ENERGY EFFICIENT COOLING TOWERS



ENERGY EFFICIENT COOLING TOWERS

TIMBER TO PULTRUDED FRP REVAMPING

STRUCTURAL DESIGN ANALYSIS

APPROACH BASED CONTROLLER

OVER THE AIR MAINTENANCE

IOT/CLOUD ENABLED

ENERGY EFFICIENT FILLS & DRIFT
ELIMINATORS

DMAIC: 5 STEP AAD TECH LEAN SIX SIGMA PROCESS



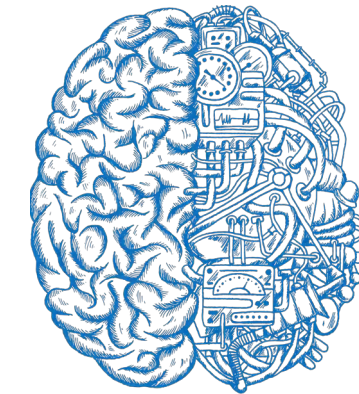
Design:
Understanding
Problem
Statement, Data
Collection &
Evaluation



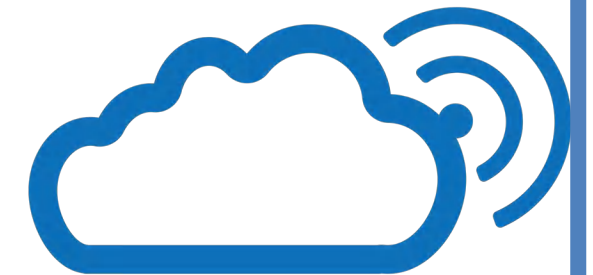
Measure:
Solution
Identification &
System
Measurement for
Optimum Efficiency



Analyze:
Analyze the root
cause and develop
an impeccable
solution

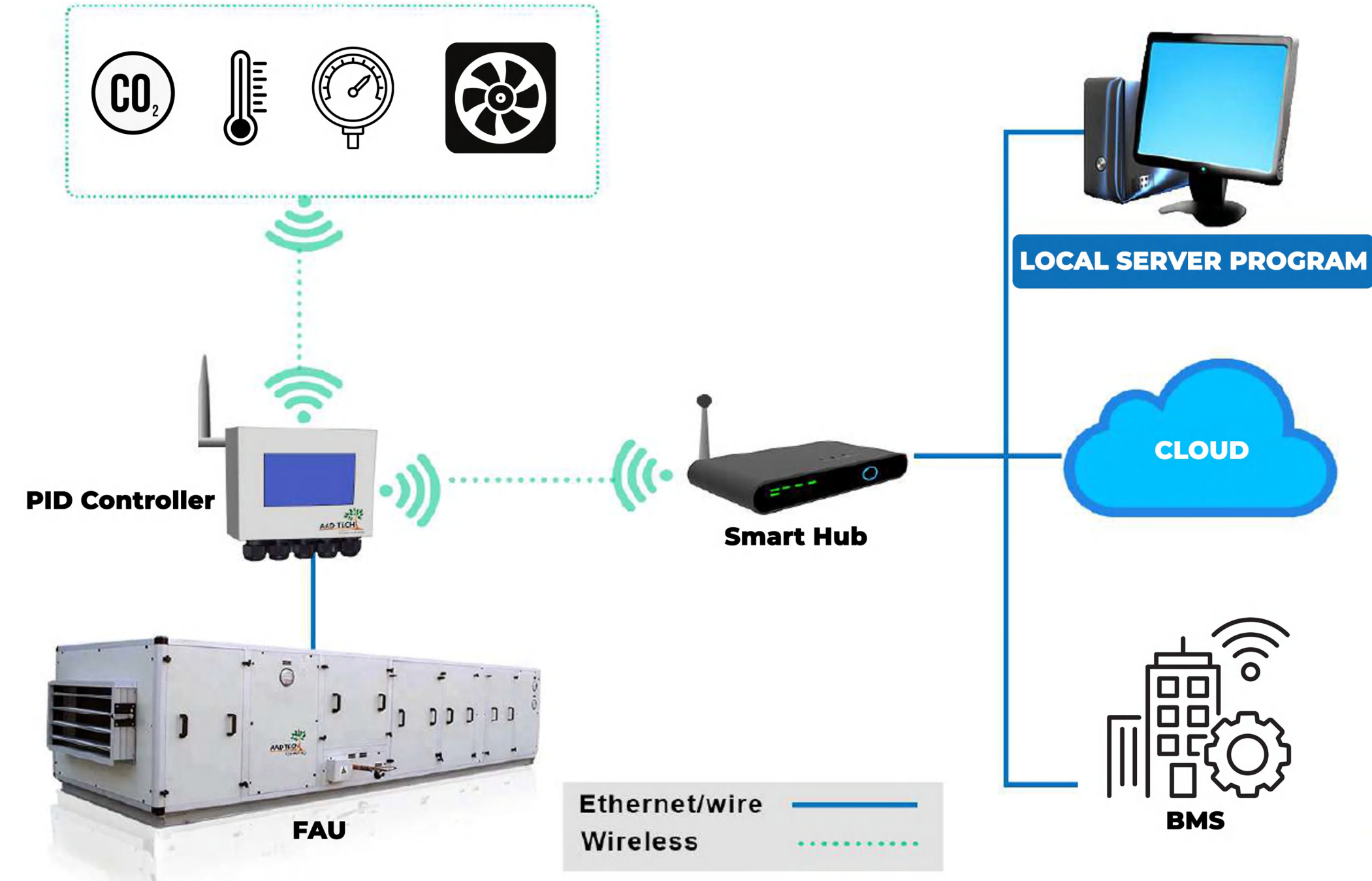


Improve:
Solution
Implementation,
Installation &
Commissioning.
Performance
Optimization
using Automation



Control:
Data Collection,
IoT based Smart
Cloud Over the
Air Maintenance

AUTOMATION: CONTROLLERS, SENSORS & IOT INTEGRATION



OVER THE AIR MAINTENANCE

MOTOR CONTROLLER

IOT/BLE/BLUETOOTH INTEGRATION

TEMPERATURE, VIBRATION & CO₂ SENSORS

SEAMLESS BMS INTEGRATION

BLE & OTHER CONTROLLERS

INDUSTRIES CATERED



AUTOMOBILES



AVIATION



CONSUMER GOODS



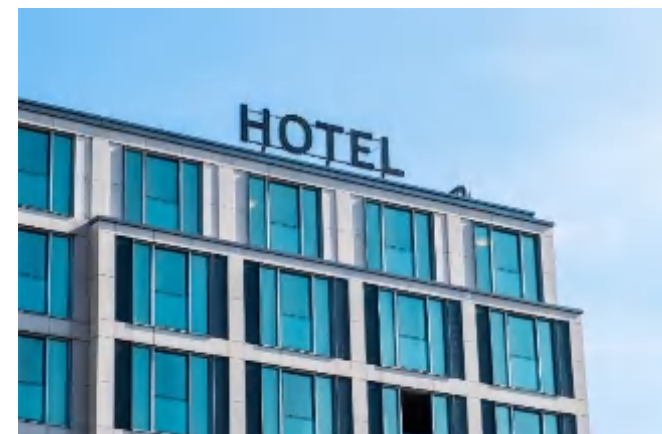
HOSPITALS AND
HEALTHCARE



PHARMACEUTICALS



OFFICE
BUILDINGS/IT/BANKING



MALLS/HOTELS

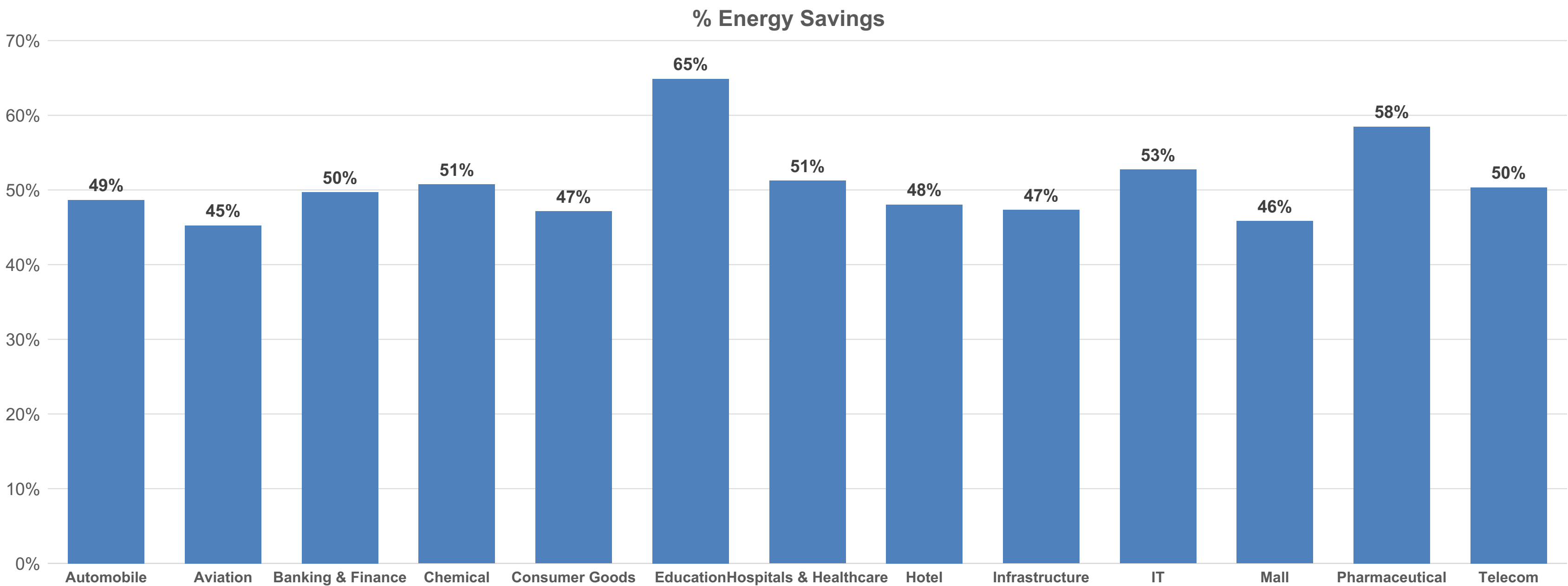


INFRASTRUCTURE



CHEMICALS

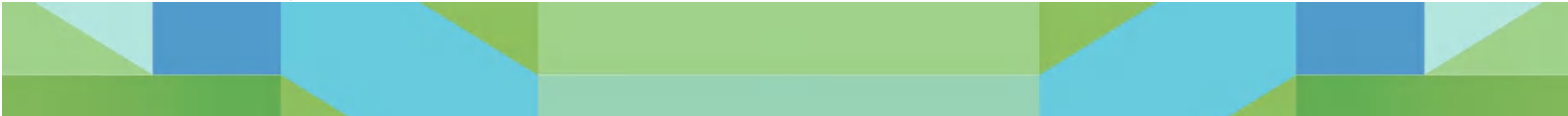
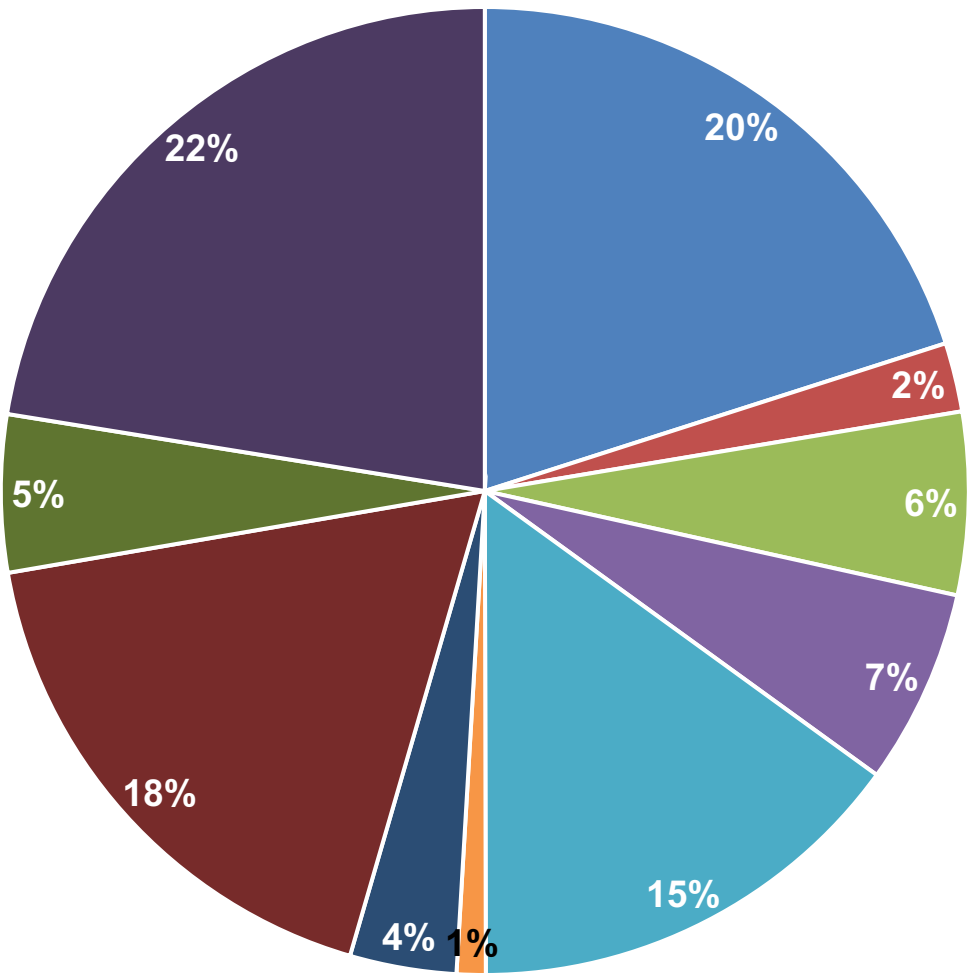
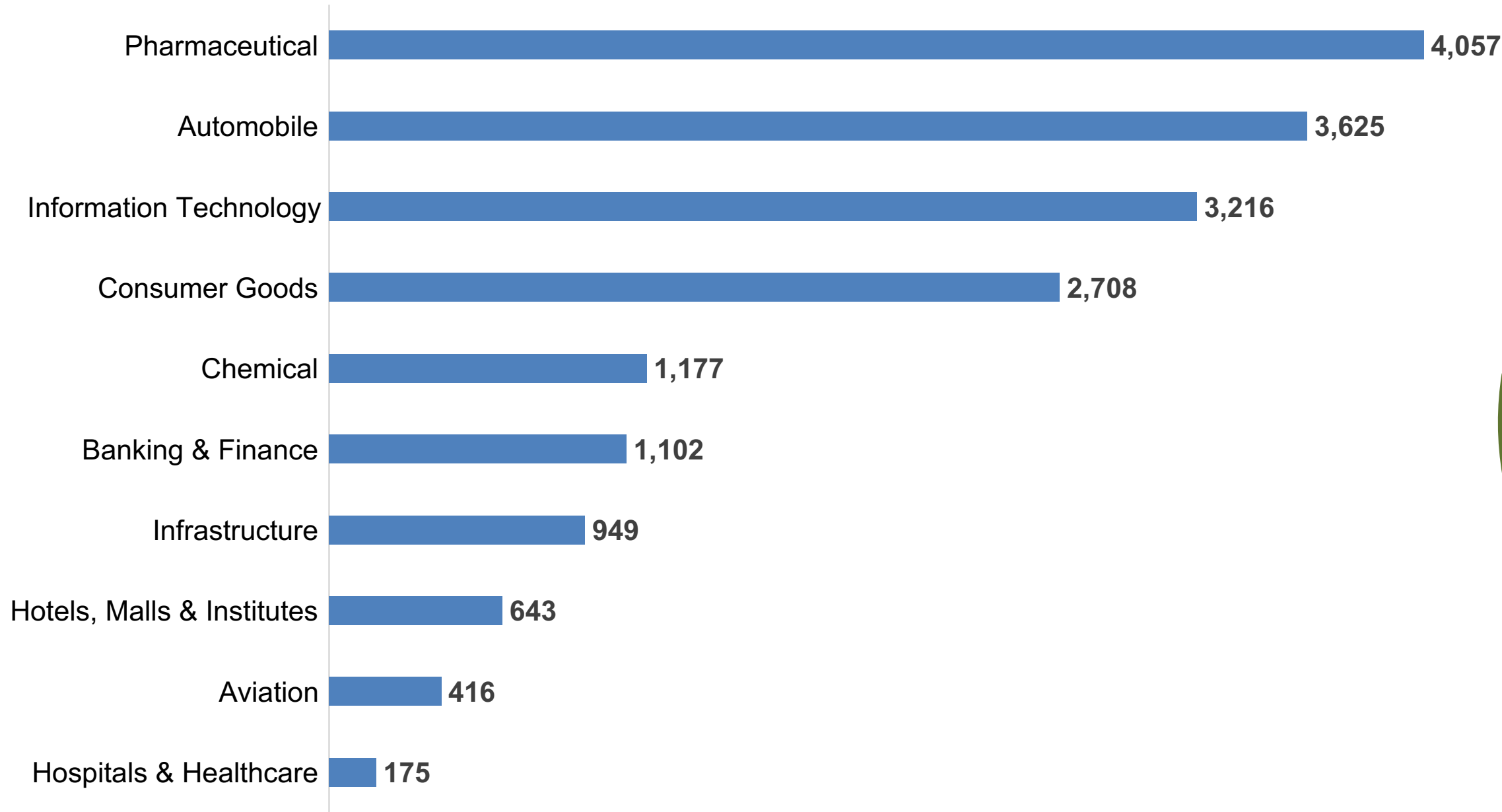
ENERGY SAVINGS BY INDUSTRY



WORK DONE BY INDUSTRY



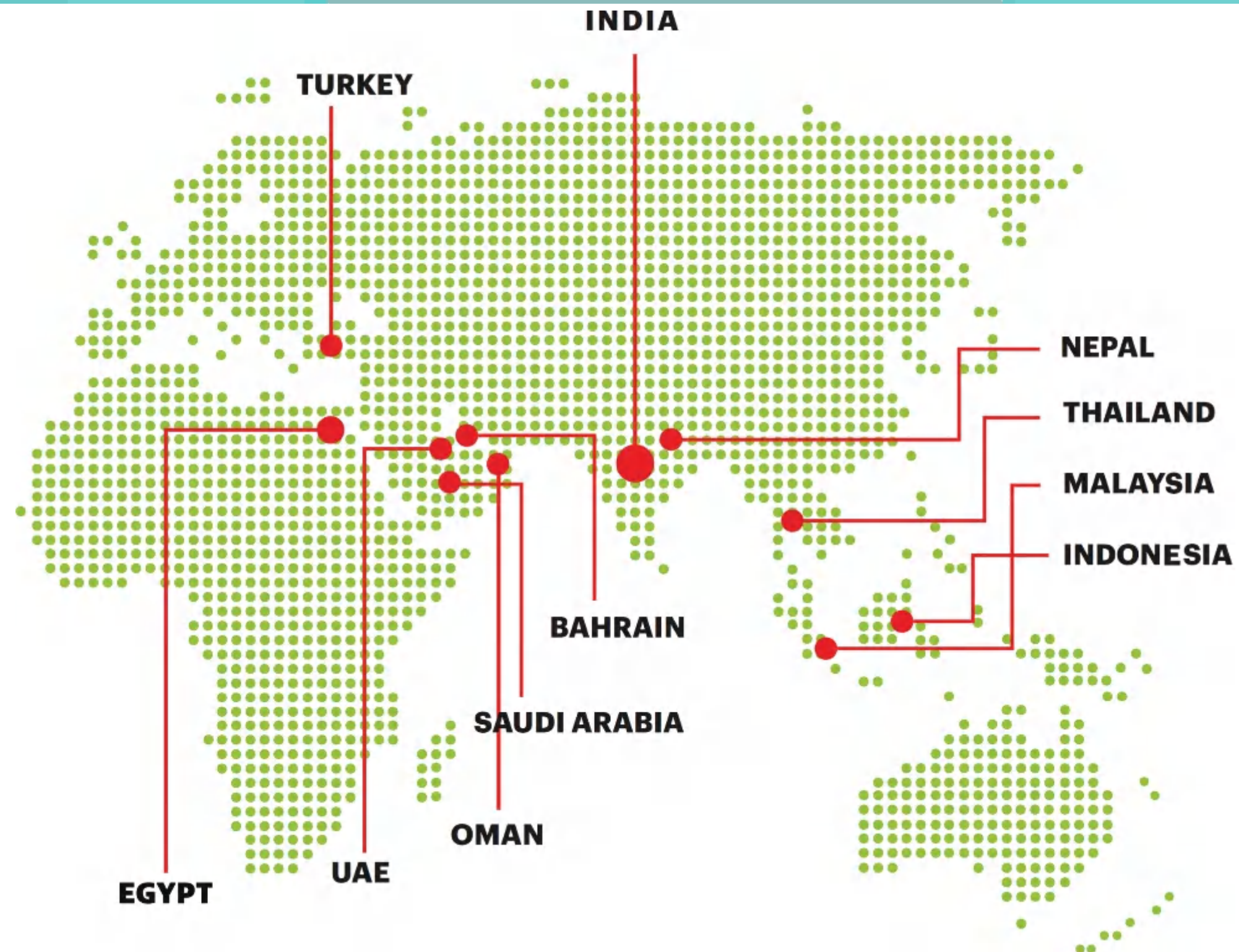
EC Drives Installed



Domestic Presence: Installations



GLOBAL PRESENCE



TESTIMONIALS



"I recently had the pleasure of working with Aadtech on AHU work, and I was thoroughly impressed by their professionalism and expertise. Their team went above and beyond to ensure that everything was done to the highest standard, and the results were fantastic. I would highly recommend their services to anyone in need of AHU work."

- Project Manager, Cipla

"Aadtech recently installed EC fans across our 23 AHU for plant air conditioning. Overall, it was a positive experience, where the team was professional, knowledgeable, and committed to quality."

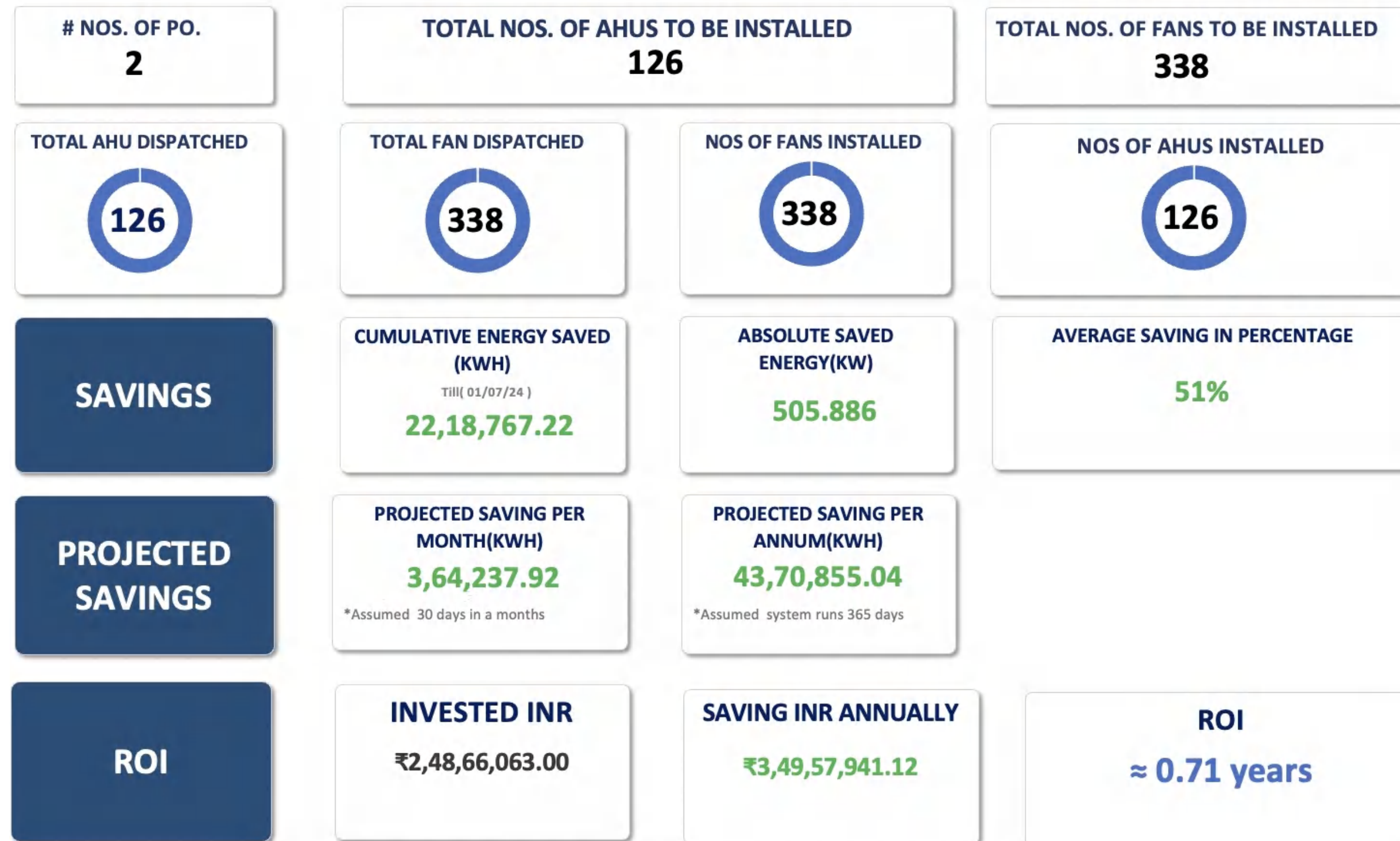
- Engineering Head, Mondelez, Bahrain



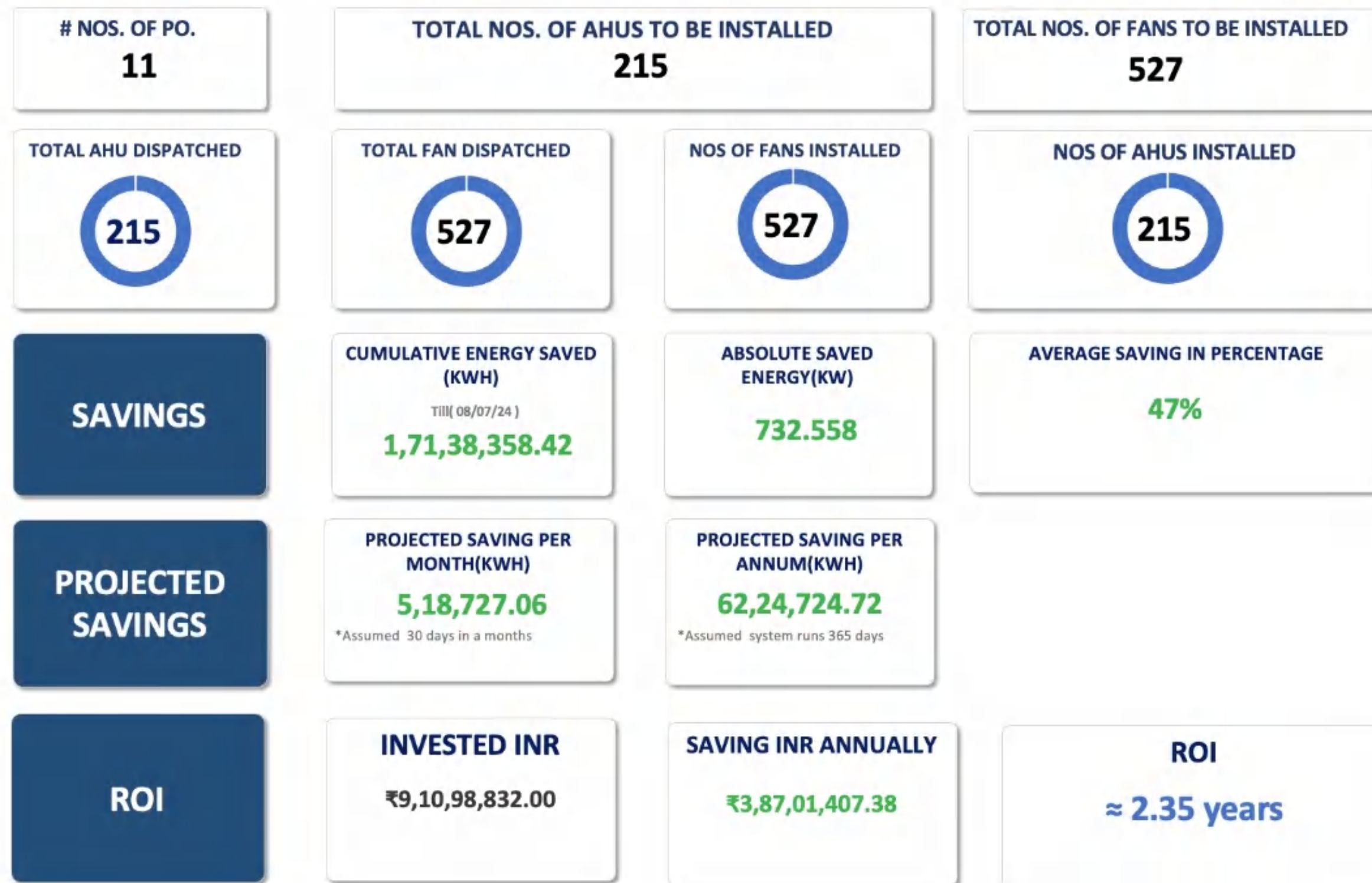
CORPORATE SOCIAL RESPONSIBILITY



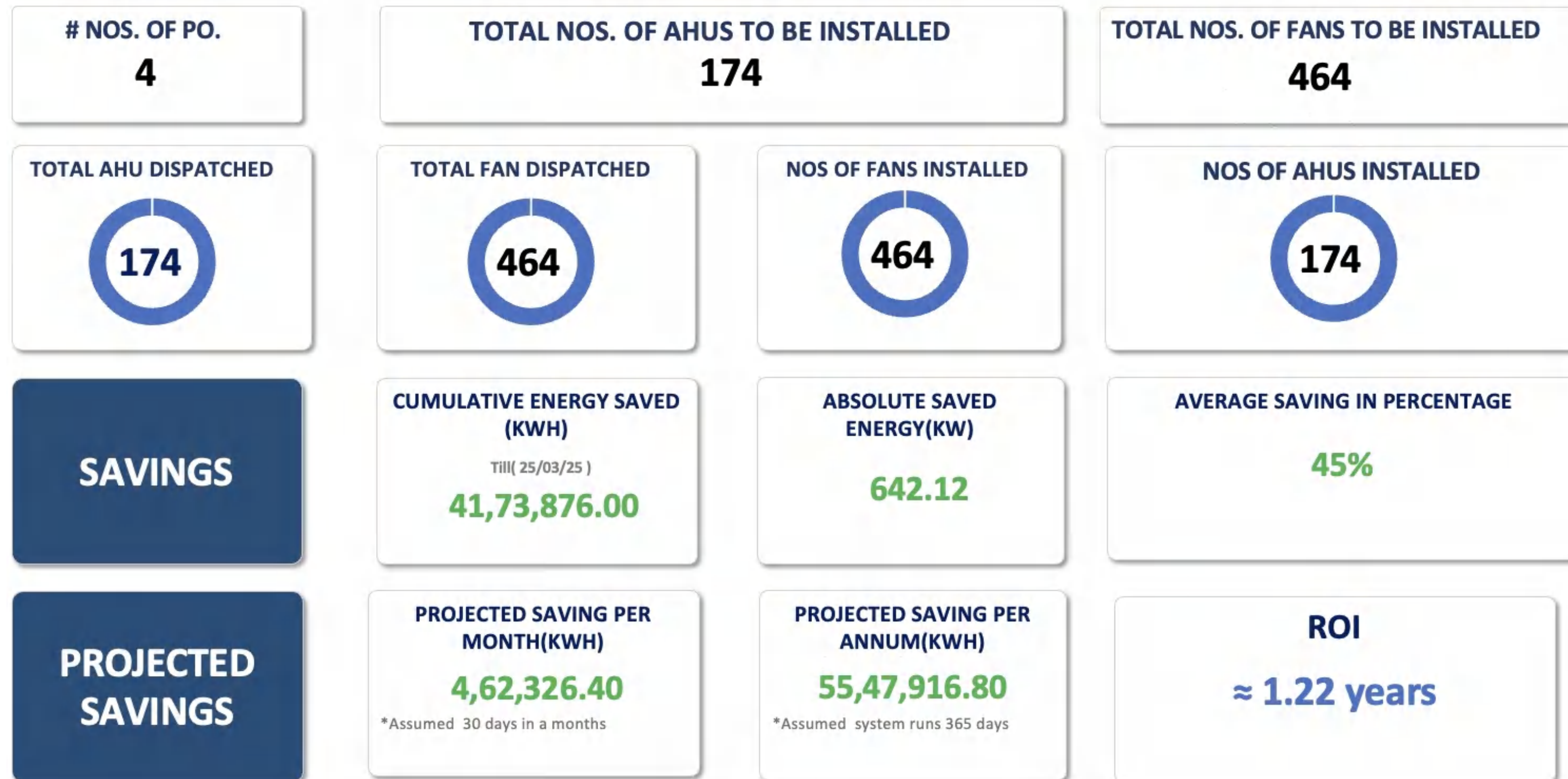
CASE STUDY: PHARMACEUTICAL



CASE STUDY: FMCG



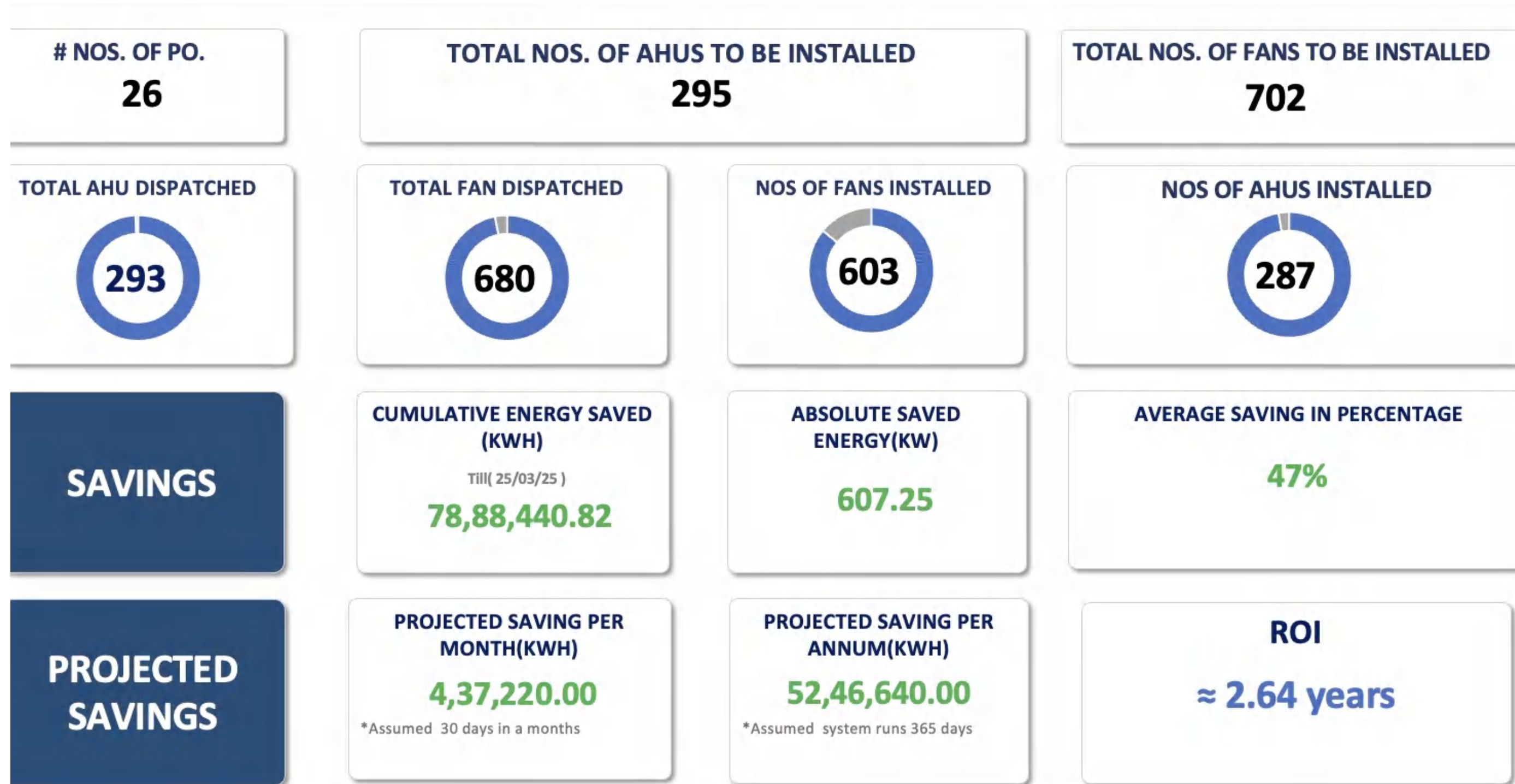
CASE STUDY: E COMMERCE



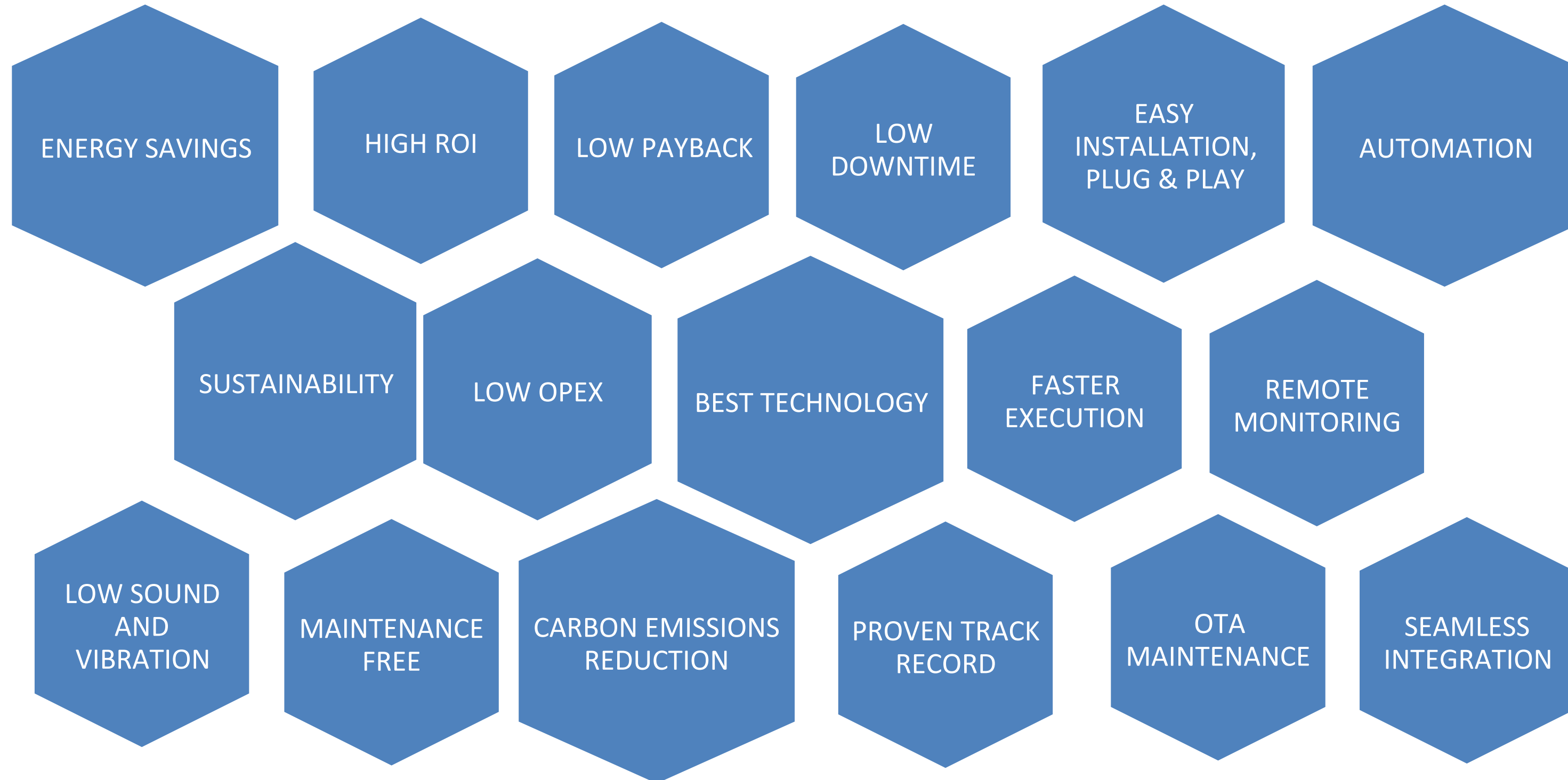
CASE STUDY: INFORMATION TECHNOLOGY



CASE STUDY: AUTOMOBILE



SUMMARY OF BENEFITS



THANK YOU


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