Energy Analytics

Meetup

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definition

collecting data from a building on a regular basis, usually automatically, and applying some intelligence to it

data collection and analysis

to

provide feedback to improve energy use or to point out issues with systems in the building

reporting

buildings

- 40% of the energy used and CO_2 emissions in most countries

- energy demand up by 50% by 2050 (if BAU)

- current global stock still will be standing in 2050

improve energy efficiency

data

category

energy use
electricity, natural gas, oil etc.

for
- lighting
- heating
- cooling
- ventilation
- small power
- humidification
- etc.

weather conditions
temperature, humidity, illuminance etc.

production etc.

source

Building Management System (BMS), data loggers, smart meters, supplier's bills, fuel delivery notes, in house meter readings

weather station, sensors

analysis

- benchmarking against building of similar type

- comparison against previous performance

- energy consumption forecast

- correlation between energy consumption and driving factors

software

features vary including:

- performance analysis
- alarms
- scheduled reports
- virtual/calculated meters
- data quality analysis

- benchmarking
- different user levels
- web dashboards
- ISO 50001 compliance (International Energy Management System)
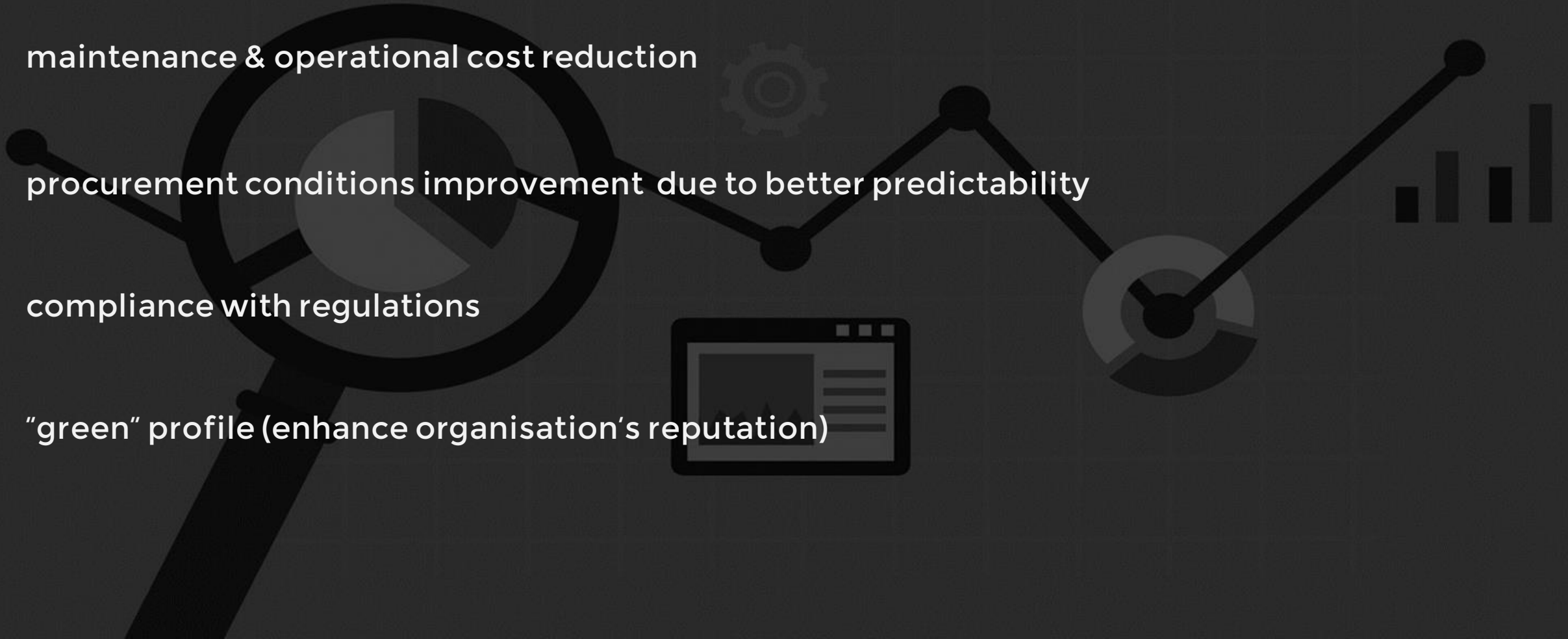- automatic/manual data import

Schneider Electric

team

SIEMENS

IBM

eSightenergy

benefits

- energy waste identification – opportunities for improvement

- maintenance & operational cost reduction

- procurement conditions improvement due to better predictability

- compliance with regulations

- "green" profile (enhance organisation's reputation)

challenges

- upgrading infrastructure

- integration of new analytics with existing IT infrastructure

- correct use of data : "Ask the right question"

Q&A