



Energy Management solutions

Enabling the energy transition



Innovative IIoT solutions provider that help businesses Monitor,
Manage & Maintain Assets and Operations efficiently



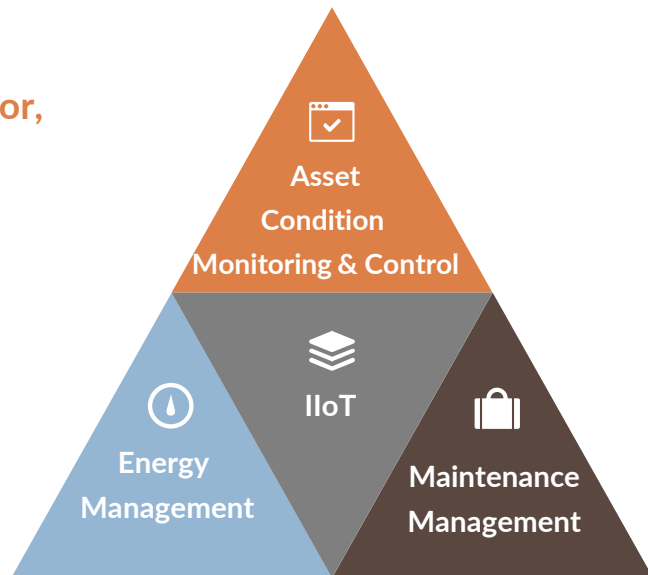
What we do

Provide IIoT data centric
solution and ecosystems



Target Markets

Smart Buildings
Smart Manufacturing
Smart Cities



Asset Management 4.0



CORDIA
FACILITY & ENERGY SOLUTIONS

Deloitte.

DIMAND
REAL ESTATE DEVELOPMENT

G4S
Telematix

SABO S.A.

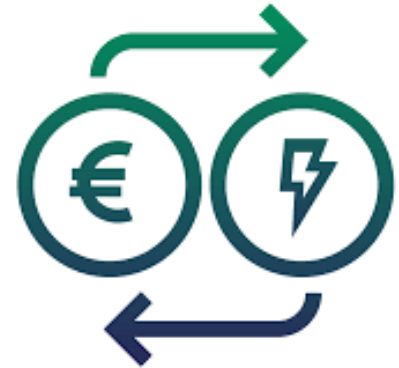


The energy efficiency solutions

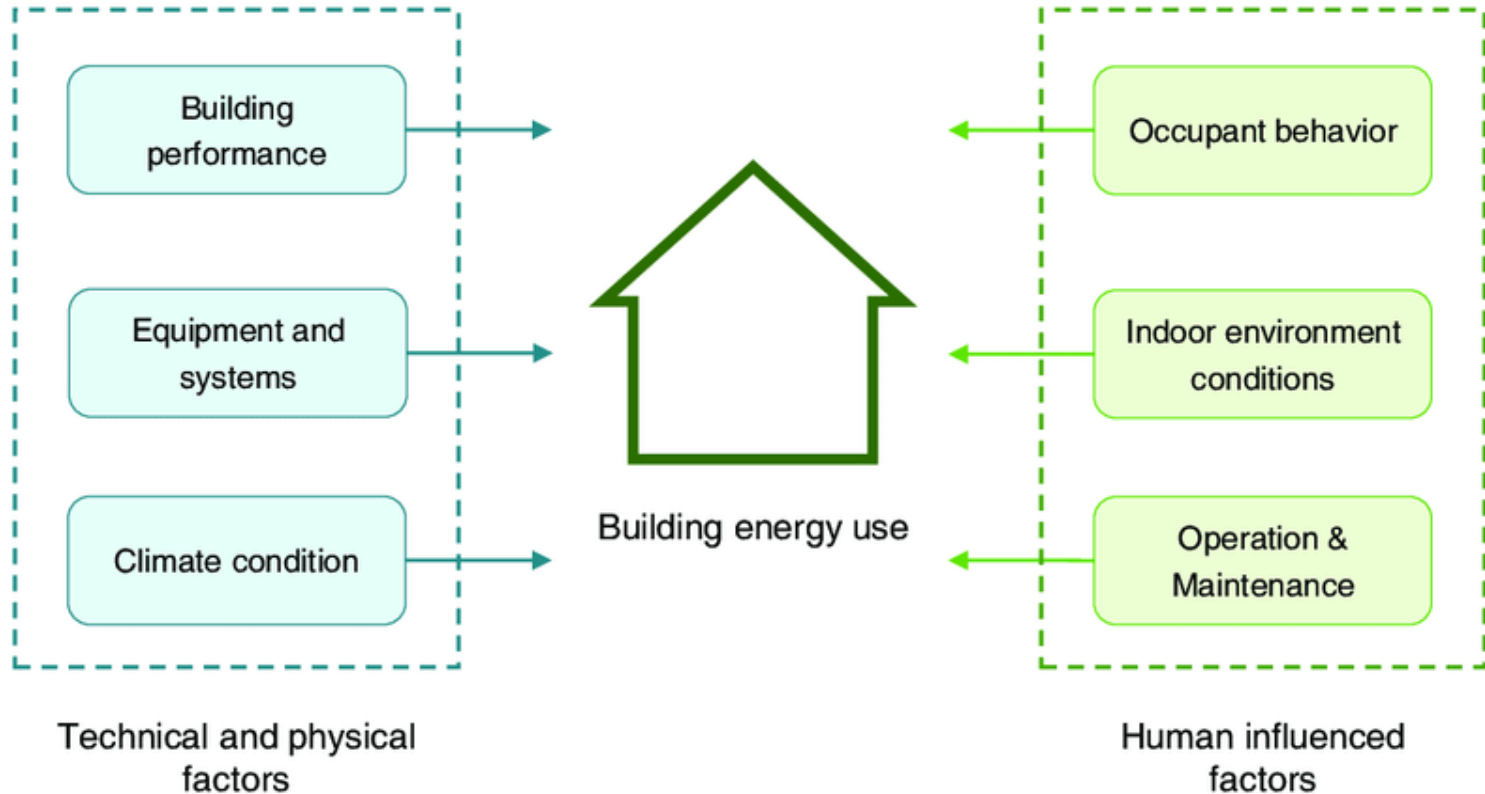


The smart energy management challenges

- You can't manage what you can't measure and control
- It is difficult to collect reliable energy data efficiently
- It is difficult to monitor and control the key energy consumers and influencing factors
- Faulty timers, wrong settings, and poorly maintained equipment cause problems
- Its difficult to justify energy retrofits investment projects
- Energy reporting consumes too much of business valuable time
- Undesirable occupant behaviour impacts your building's energy consumption
- Prove certification compliance (i.e ISO 50001)



The influencing factors affecting energy consumption





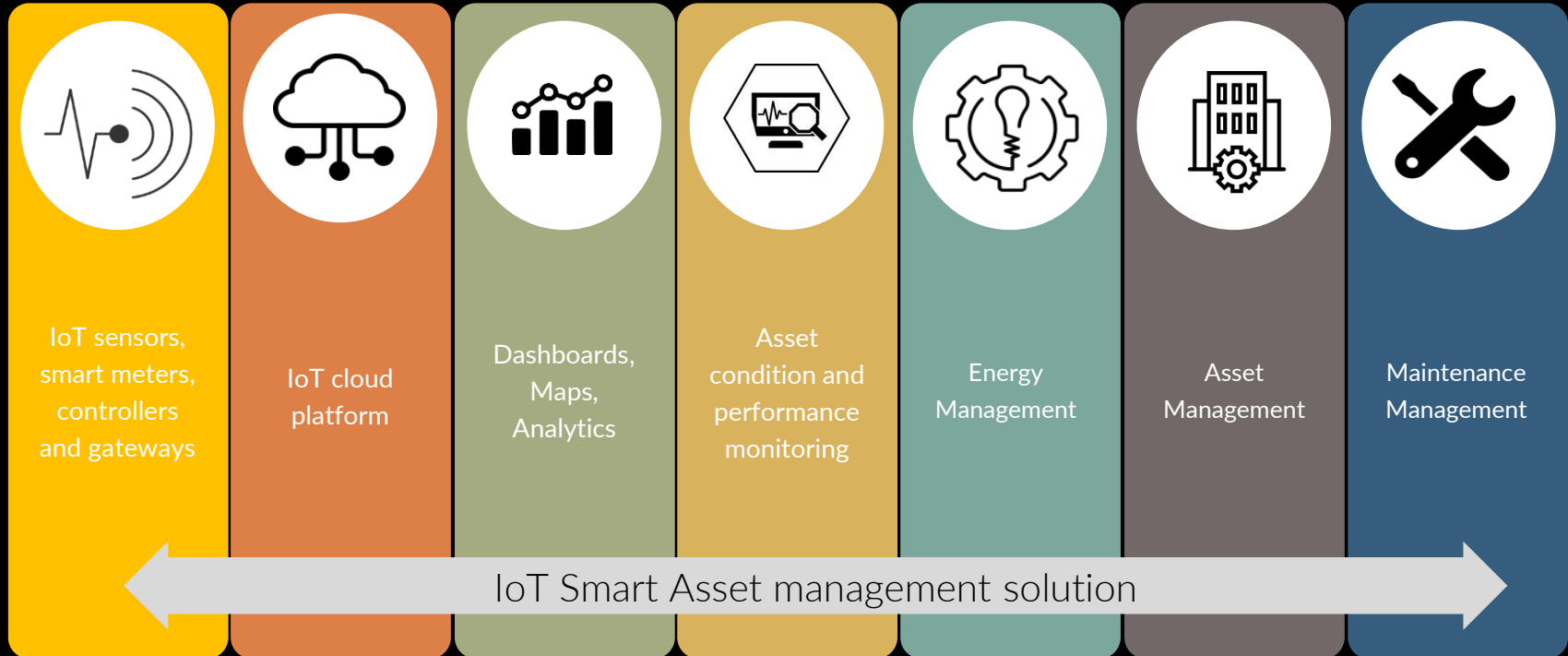
RETHING CYNERGY

ENERGY & ASSET MANAGER



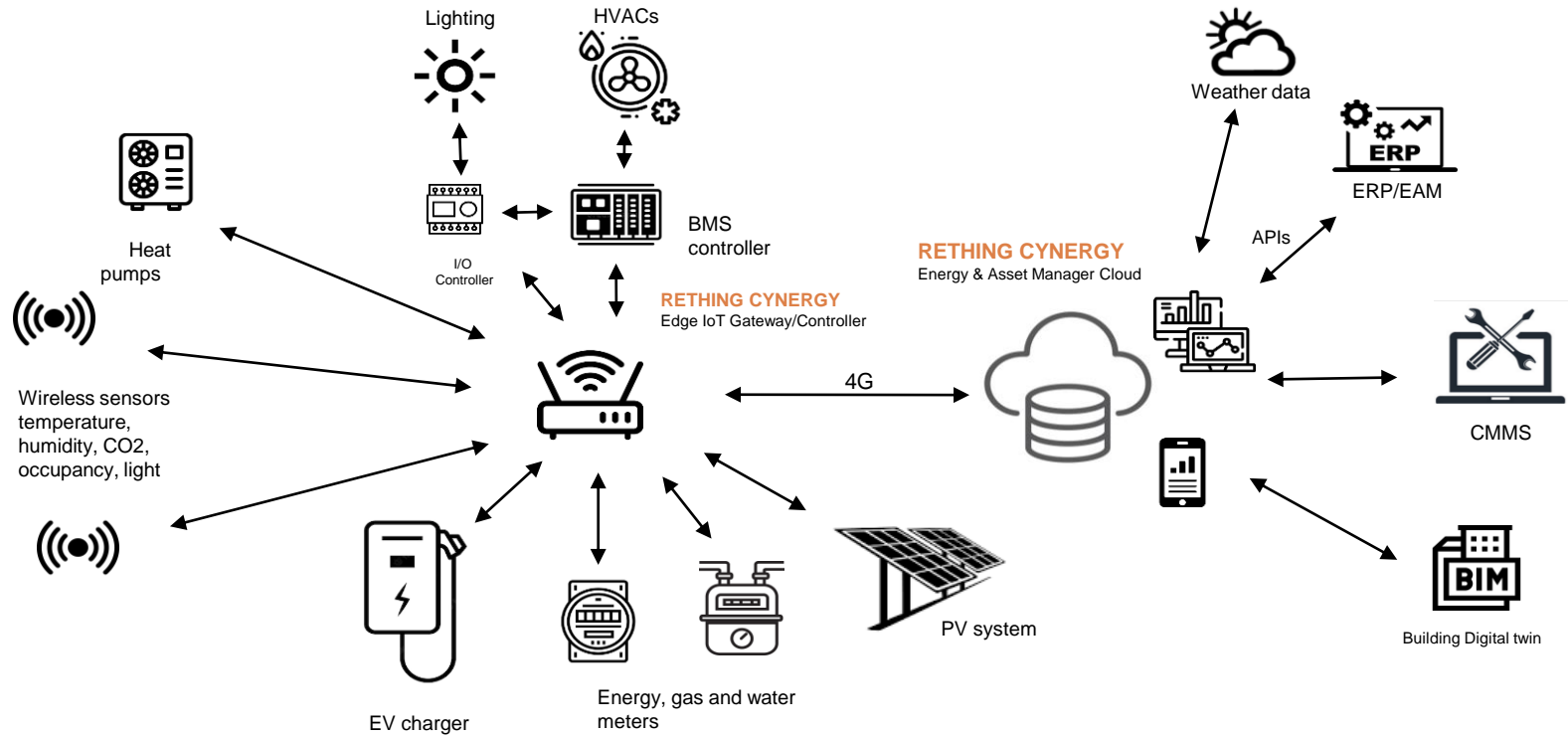
GLOBALESCO

The solution : RETHING Energy & Asset Management



RETHING CYNERGY Energy & Asset Manager

High Level overview



What we offer

Energy & asset performance management

- Energy performance KPIs reporting
- Asset performance KPIs
- Real time Interactive Dashboards
- User Role based access
- Interactive Maps
- BI tools
- Indoor Air quality KPIs

HVACs Fault Detection & Diagnostics

- Real time HVAC, AHU conditions monitoring
- Real Time Performance Analysis
- Alarm management
- Real time alerting and notifications
- Integration with CMMS

Predictive Maintenance & Continuous Improvement

- Automate maintenance work orders
- Maximized maintenance team utilization
- Condition based and predictive maintenance plans to minimize downtime
- Control spare parts

Energy efficiency

- Air quality wireless sensors for environmental indoor outdoor conditions monitoring
- Energy optimization via Automated controlling of lighting, HVAC and AHU units, EV Chargers
- Improve indoor environmental conditions via ventilation optimization

Energy efficiency & Asset Management

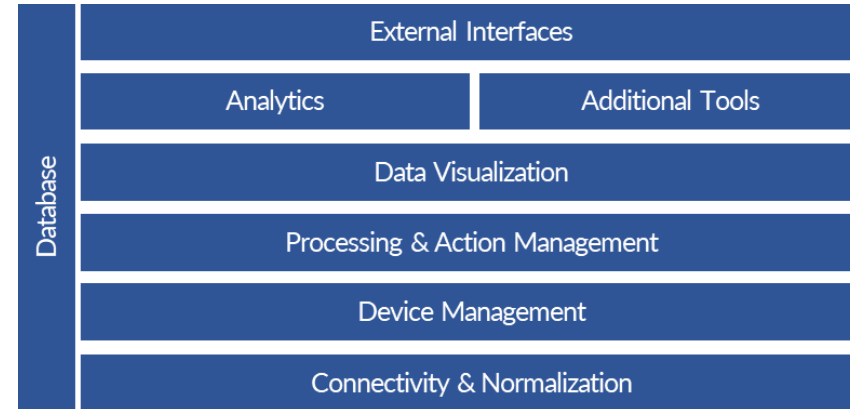


RETHING CYNERGY BEMS Cloud platform



RETHING CYNREGY CLOUD PLATFORM

- Scalable, secure cloud architecture
- Multi device protocol support
- AI Real-time Processing & Action management
- APIs and gateways
- Advanced role-based access model
- User friendly and modern UI
- GIS
- BI Analytics





RETHING CYNERGY

Edge IoT Gateway



RETHING CYNERGY Edge IoT gateway

Wireless controller and gateway



The RETHING Industrial IoT controller and gateway

- Local processing and action management
- Secure communications to IoT
- ML algorithms for anomaly detection
- 10 I/O's optoisolated configurable ports
- Inputs 3.3-24 Vdc (10 Hz) / 220 AC
- Outputs 5-24 Vdc 0.3A
- Power supply voltage 12-24V
- LORAWAN & Zigbee
- Bluetooth/BLE - 1
- Ethernet Port
- RS485
- TCP IP
- Modbus TCP
- Modbus RTU
- EN61010-1 | EN61010-2-201 | EN61131-2:2007(Clause 8: Zone A/B EMC and clause 11:LVD) | EN61000-6-4:2007 + A1 2011 (Emissions) | EN 61000-6-2:2005 (Immunity)
- UL: STD 61010-2-201 and UL STD 61010-1 | Certified to CSA Std. C22.2 No. 61010-1 | Certified to CSA Std. C22.2 No.61010-2-201 | 5016476



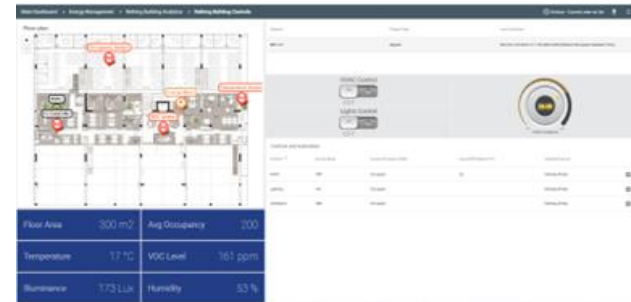
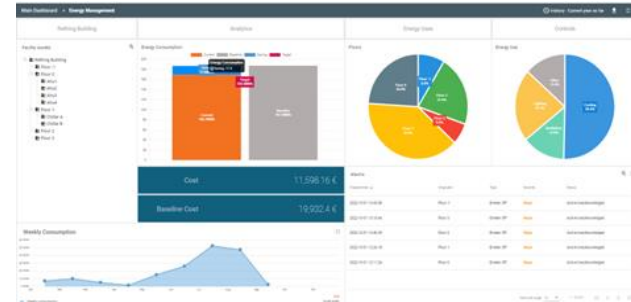


Energy efficiency solutions



Energy efficiency & Asset Management features

- Energy performance management analytics
- Asset management
- Energy zones setup
- Rules, Alerts & Notifications
- API integrations with third party systems
- Multiple user profiles
- Remote HVAC and Lighting controls
- Indoor air quality monitoring
- Energy consumption forecasting
- Scheduled actions and reports
- Floor plans
- ISO50001, ISO50002 and ISO50006 certified



Smart Metering

- MID B&D Approved - 0120/SGS0150
- Single Phase (1P2W) or Three Phase (3P4W)
- Multifunction Meter (16 different parameters)
- CT Operated (1A or 5A secondary - settable)
- RS485 Modbus RTU and LORAWAN
- Dual Pulse Outputs built-in
- 4-DIN Module
- Digital Backlit Display
- Touch Screen Buttons

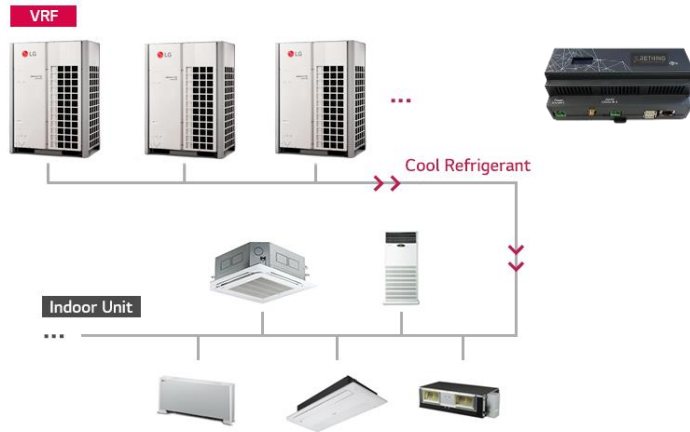


Indoor Air quality monitoring

- Wireless Indoor Air quality sensors
- Long life battery > 7 years
- Balance of energy efficiency and indoor air quality
- Integrated with the local building gateway controller
- Real time dashboards and KPIs
- Alerts and notifications



HVAC control and monitoring



- HVAC and AHU Remote control and monitoring
- Smart controls for Energy efficiency
- Cross brand and cross site support
- Real time alerts for malfunctions
- Advanced diagnostics
- Predictive maintenance

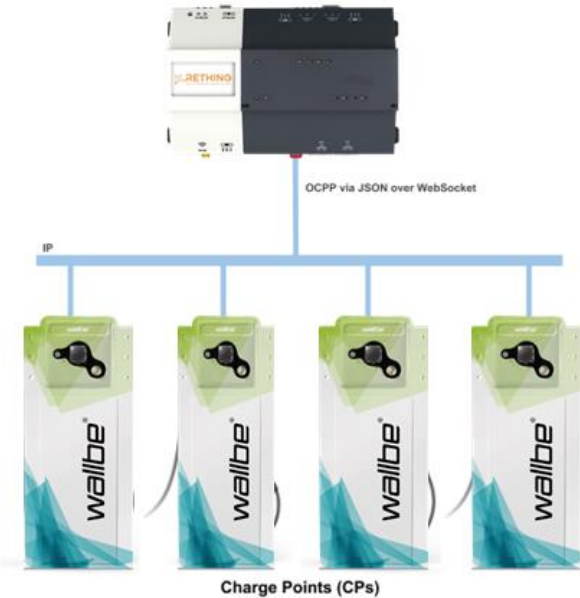
Lighting control



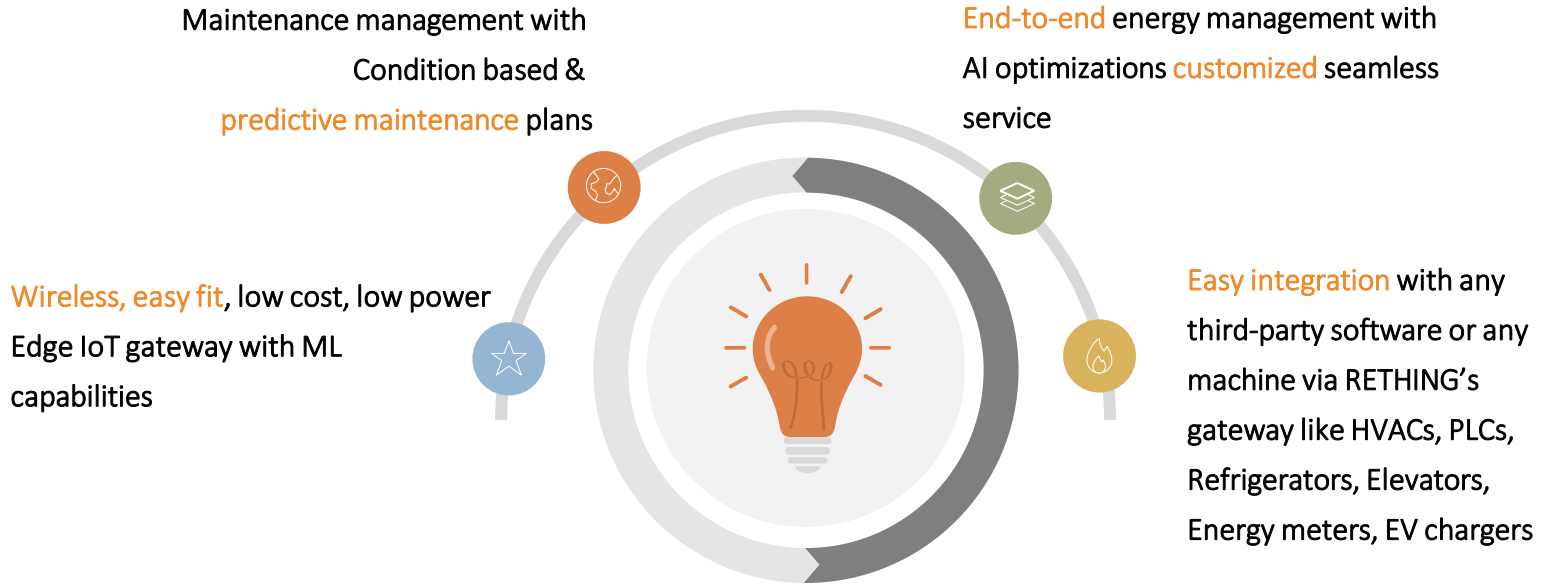
- Wireless lighting control
- DALI
- Dimming and on off
- Light and occupancy sensors
- Integrated with the local gateway

EV charging load control and remote monitoring

- Robust local and secure supervision
- Chargers Vendor agnostic
- Integration with facility access cards for usage authorisation
- Remote monitoring via IoT platform in case of multiple locations
- Advanced business intelligent analytics
- Alerts and notifications
- Easy integration with enterprise applications
- Integration with Maintenance management platform for maintenance process optimisation
- Ability to throttle CP connector power and current
- Status information for each of the CP connectors
- Transaction authorization black & white lists
- Transaction log showing consumption data
- Remote CP reset/restart ability
- Ability to change most of the CP configuration parameters
- Ability to enable/disable/unlock any CP connector
- Meter values for each of the CP connectors



Our competitive advantage



ISO 50001 Certified End-to-end solution for Energy Efficiency

The Business model

Key business partnerships

- Facility Managers
- ESCOs
- Construction companies
- System Integrators
- MNOs

Target Customer Segments

Smart buildings

- Hotels
- Office buildings
- Government buildings
- Retail stores

Manufacturing

- Factories
- Other production units
- Logistics

Smart Cities

- Water management
- Infrastructure Energy efficiency
- Waste management
- Street Lighting automations

Revenue Streams

Up front fees

- Professional Services
- HW

Recurrent monthly fees

- Platform license fee
- Per User, per asset and/or Data Point

Cost Elements

- 3rd party S/W and H/W components
- Application cloud hosting
- Employee cost
- Marketing and sales costs
- Operating costs

Solution benefits



Analytics, ML

Certification Compliance ✓



IoT platform

10-20% Utilization & Comfort ▲

10-30% Energy Savings ▲

10-20% Mngt & Maintenance ▲



Sensors

Maximize Uptime ✓

Case study: Deloitte HQ building

Project targets

- Reduce energy consumption
- Improve air quality and comfort
- Optimize facility management
- Monitor operations in real time
- Detect faults to reduce downtime

Project technical details

- 192 wireless air quality sensors
- 25 energy meters
- 6 water meters
- 20 Lighting control points

HVAC monitoring and control points

- 11 Trane
- 145 VRV Daikin
- 20 VRV LG
- 16 VAM Daikin

Energy savings

- ~20%



6 floors, 7500 m²



GEORGE SANIDAS
CEO

george.sanidas@globalesco.com | +30 6980 90 4949
www.globalesco.com | www.sustainable-agriculture.gr

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george.sanidas@biocharhellas.com | +30 6980 90 4949
www.biocharhellas.com