

This presentation was live at:



# Smart Buildings

**SHOW**

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# Tackling Sustainability in the Built Environment

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# About us



The UK & Europe's **leading** specialist **supplier** of IoT Hardware and Services

# How we can help...



**Sensors** - over a 1,000 different sensors available on the market. We work with over 45 of the world's leading manufacturers in the LoRaWAN & NB-IoT sensor market enabling us to supply the best fit solution for your application.



**Gateways** - Gateways provide the LoRaWAN network coverage that connect your sensors to enable them to send data.



**LoRa Network Server (LNS)** – The data from the sensors pass through the gateways and connect to these servers by ethernet or cellular connections.



**Software Applications** – Once the data has been collected via the LNS you will then need to send this to a software platform to visualise the data.



**Connectivity** – For those looking for NB-IoT connectivity, we can supply everything you need to get connected



# Our Services



Remote Installation of  
Software & Hardware



Product Recommendation &  
Solution Design



Pre-Quote  
Planning



Device Provisioning &  
Labelling



Ongoing Project &  
Product Consultation



Support Contracts



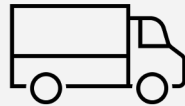
Extended Warranties

# Projects We Help To Deliver



## Smart Buildings

Improve efficiencies by monitoring energy usage and occupancy levels

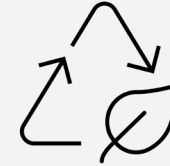


## Logistics

Keep track of your vehicles and Prevent machinery downtime equipment with Asset Tracking with predictive maintenance. Solutions.



## Manufacturing



## Sustainability

Take a step closer to achieving Carbon Net Zero

**& Much More!**

# Getting Started



1. We first need to establish if the building is connected to a **BMS**, this will help us to identify the key components required for the project.

2. How you will **use** the data for the benefit of the project to make it a **success**



So, what does this look like?



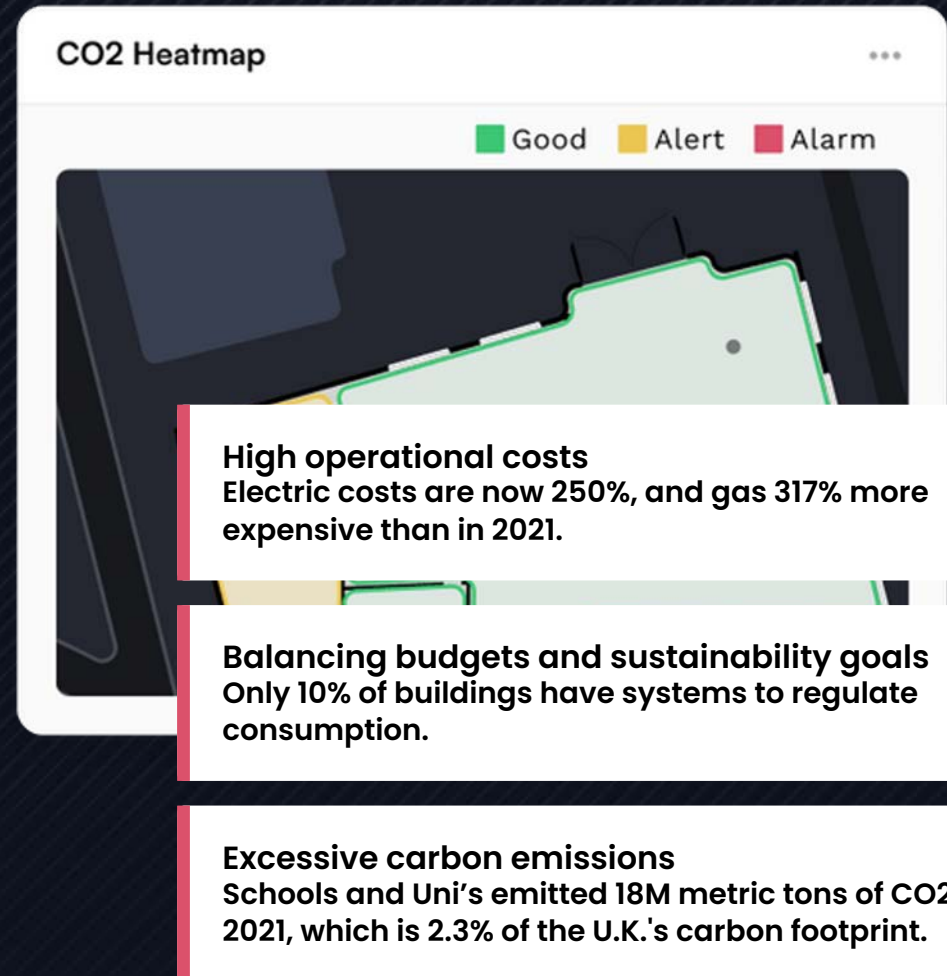


## THE PROBLEM

# Idle Giants: The Cost of Dormant Efficiency

Just as you wouldn't let your car engine run idly overnight, buildings shouldn't waste energy and resources.

Buildings, especially public ones like schools and universities, struggle with high operational costs and excessive carbon footprints due to inefficient energy use.



## OUR SOLUTION

# Revolutionising Building Management with IoT

Novacene's advanced IoT platform offers real-time insights into energy usage, helping institutions significantly improve energy efficiency, reduce costs, and work towards a sustainable future.

- Deployed in over 170 facilities
- Contracts won with 6 major UK councils
- Partnered with leading brands such as Capita and NEOM.



Real-time insights on energy usage  
Reduced energy consumption c. 20-25%.

Rapid digitisation and significant ROI  
100 x Faster.

Assisting with sustainability targets  
Govt Net Zero targets - 50% reduction by 2030 and 100% by 2050.



MARKET OPPORTUNITY

# Preferred Partner of Industry Leaders

As Novacene, we've rapidly established our credibility, becoming the partner of choice for industry giants like Capita. Our trusted technology is already deployed across various sectors, underlining our ability to deliver and scale.

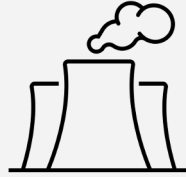


# The Solutions...



## Water

Monitor consumption or detect leaks with our range of water sensors.



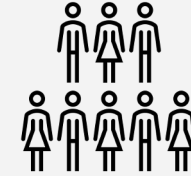
## Gas

Remotely monitor gas pressures and improve environmental efficiencies.



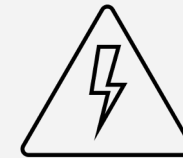
## Air Quality

Monitor indoor & outdoor conditions to improve conditions or to demonstrate compliance.



## People Counting

Optimise building occupancy and efficiencies with smart people counting devices.



## Electricity

Build up a better picture of consumption and reduce costs with the data to make more informed decisions.



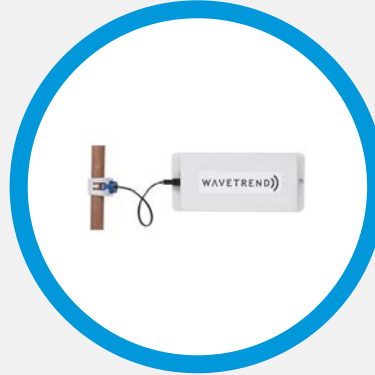
# Water Monitoring



## BMeters

Water Meters

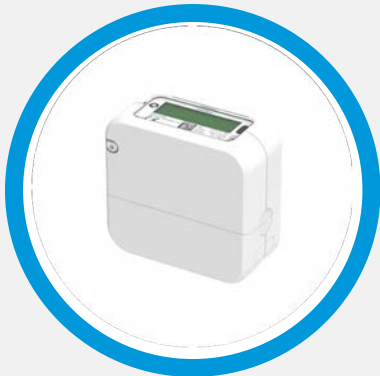
Extensive range of LoRaWAN-enabled water meters suitable for domestic & larger industrial water units.



## Wavetrend

Water Temperature

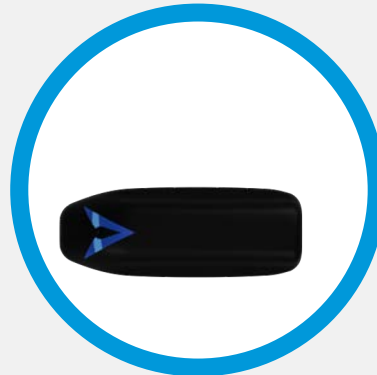
Clip on Temperature sensor, Ideal for monitoring legionella compliance.



## Quandify

Cubicmeter

Non-invasive clip-on water meter



## Kairos

Noah

Flexible water leak sensor with customisable membrane



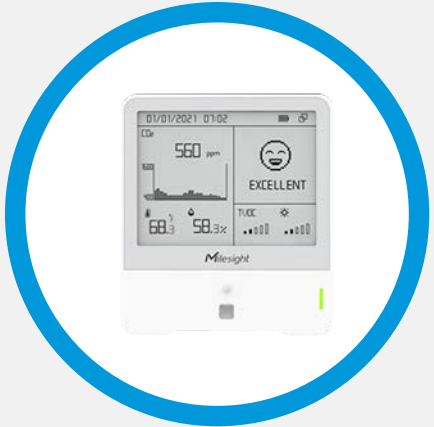
# Air Quality Monitoring



## Elsys

Air Quality Sensors

Multi-Sensors which combine temperature, humidity, VOC & more.



## Milesight

AM307

3-in-1 sensor combining CO2, temperature & humidity.



## Synetica

Air-X

Outdoor air quality sensor capable of measuring 14 parameters.



# Gas Monitoring



## Ellenex

Gas Pressure Sensor

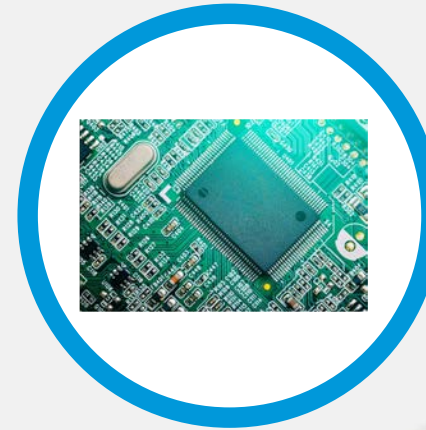
Durable pressure transmitters with built-in temperature sensors.



## Decentlab

Pressure Sensors

Suitable for monitoring pressure in tanks or for global environmental surveillance.



## OEM Options

Brand your own

Our partners can help to deliver your own specific sensors.



# Electricity Monitoring



## Eastron

Electric Meters

Available for single or multi-phase. MID certified devices.



## Netvox

R718N325

Simple to install 250A Clamp-on Current Meter



## Watteco

Triphas'o

Suitable for monitoring consumption on single and three-phase installations. Available with Rogowski loops.





# People Counting



## IMBuildings

People Counter

Counts people in and out of buildings.



## Milesight

VS133

Ceiling mounted people counting with AI algorithm.



The problem

# We need to achieve Net Zero

Action taken to limit emissions in the next decade will be critical to the future, which is why everyone must work together to find ways to cut the carbon we produce.

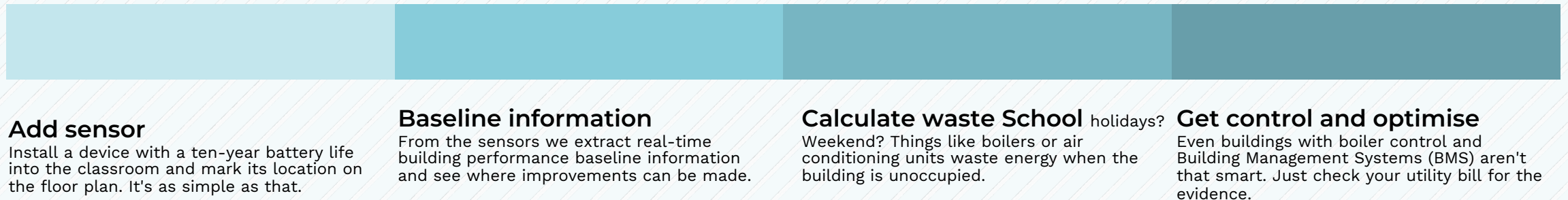




## The process

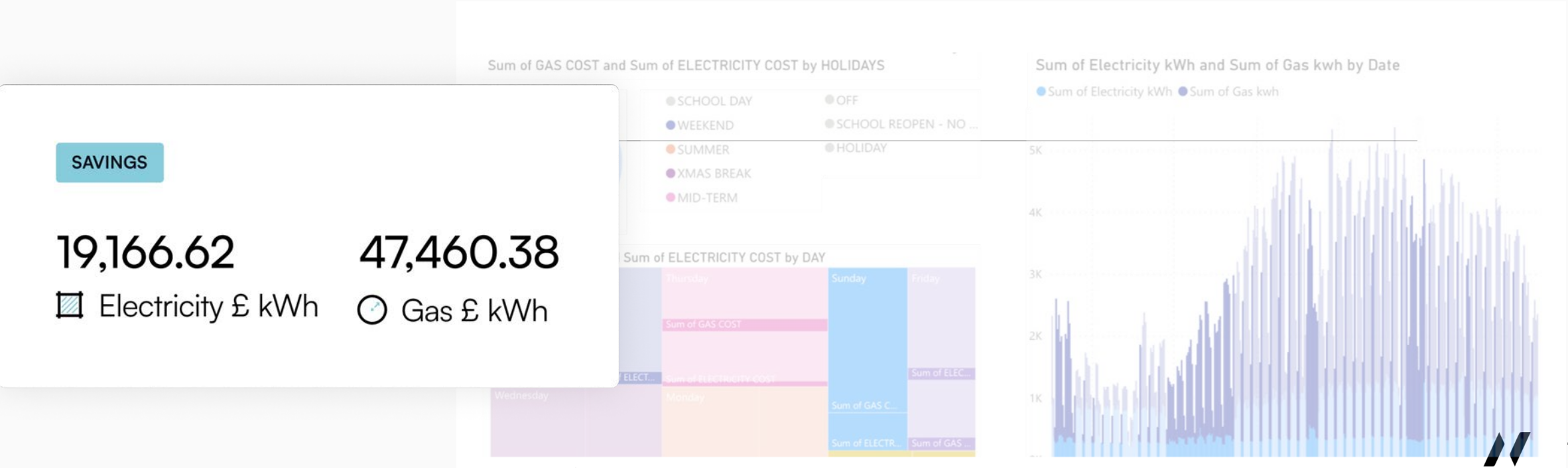
Reducing energy use and costs is easier when you know how a building actually runs. Without a measure of your building, how do you manage it - let alone improve it?

That's why we help you establish the baseline you need to improve. We do this by automatically measuring performance and switching things off.



# Calculate Waste

Analysing the data collected by the sensors provides you with the insights you need to improve your building performance. We figure out when and where your waste is and save you money on both your electricity and gas bills.





Step 1: Get Control

# Baseline Building Performance



Step 2: Identify

 Occupied

 Turn off

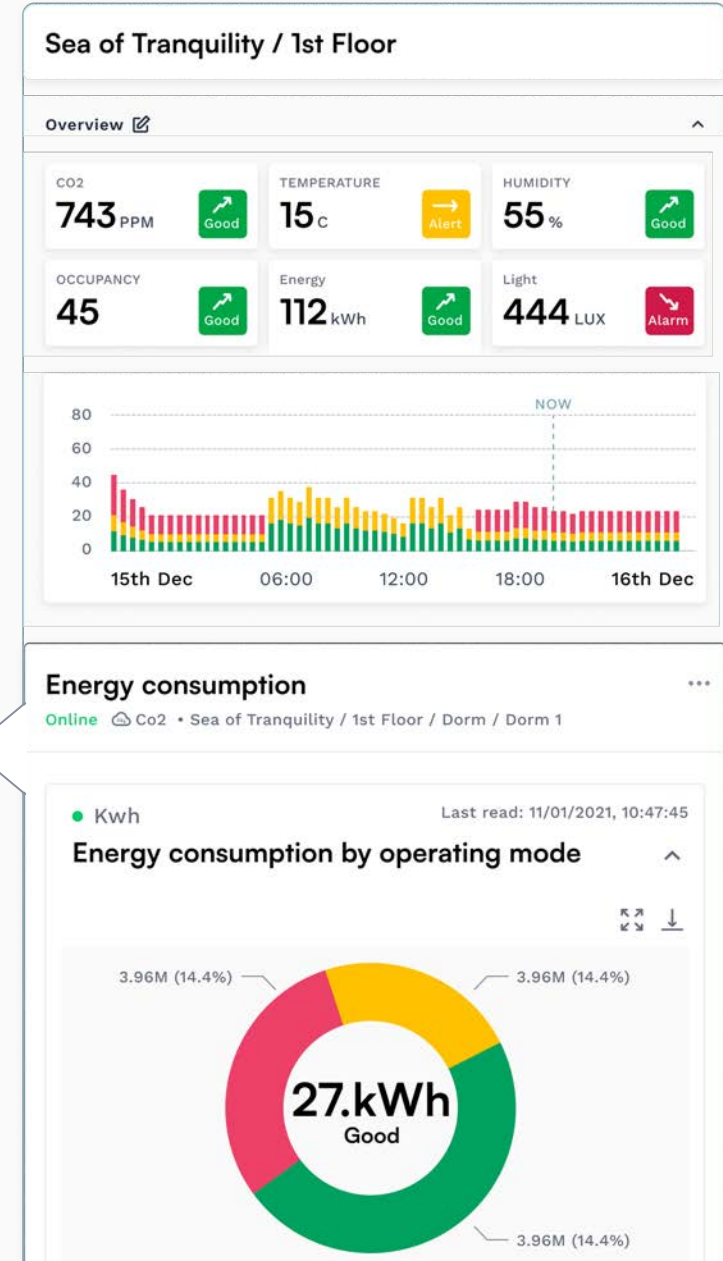


Monthly Cost
<b>£7.74</b>
£ Savings
<b>£75</b>
Co2e Savings
<b>0.7 T Co2e</b>

## Step 2: Identify

# The greenest energy, never used

The sensors allow real-time control over the classroom environment. Teachers and staff can simply scan the QR-code and get real-time information about the rooms Co2 and energy consumption.



# Going Forward...



## Simple to Scale

**2. Partners can expand and enhance their solutions**

**2. Provides a fast ROI**





# Thank you

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# Smart Buildings **SHOW**

9-10 October 2024 • ExCeL London

We look forward to seeing you in 2024