



**MADE
SMARTER**

INNOVATION

SMART
MANUFACTURING
DATA HUB

WHO WE ARE

The Smart Manufacturing Data Hub (SMDH) supports small and medium-sized manufacturers to become more competitive by harnessing the power of data. SMDH provides digital tools, innovation, and skills, to help companies accelerate their digitalisation. Our team of specialist technology experts can give you personalised advice, and help you make improvements to your business.

FREE SERVICES WE OFFER

SMDH offers other services to all UK manufacturers and you can access these right now through our Data Hub by visiting smdh.uk.

HOW WE CAN HELP



Our data scientists will extract valuable insights from your data to improve your business.



Gather, store and process your data.



Provide access to dashboards.



We will use our low cost data collection solutions.



View the information in real-time to make informed business decisions.



Understand your energy usage and carbon footprint to make a positive change in your company.

1

Data Platforms

We offer multiple platforms to store and share manufacturing data, access your personalised dashboards, perform data analysis in a secure environment, and access our virtual manufacturing platform and testbeds.

2

Training & Webinars

Upskill and engage your workforce, creating the basis for digitalisation and innovation in your factory. Implementing digital technology leads to better job satisfaction and addresses the growing skills shortage. Keep up to date with our webinar series on our website.

3

Community

Join our online community and keep up to date with the latest news in digital technology from industry leaders. Learn best practice from peers in the manufacturing community and from factory case studies.

CASE STUDIES

Ryobi



Utilising Existing Energy and Production Data to Inform Business Decisions

Ryobi has ambitious low carbon targets and wants to get better insights from their production processes alongside energy consumption to identify possible savings.

Combining existing data from Ryobi's electricity meters with production output and OEE data, SMDH was able to establish and visualise key findings on how factory equipment was utilised in relation to power usage.

Ryobi make use of the dashboards on a daily basis to inform their production schedules and have realised that extracting value from existing data sources can establish additional insights and inform business decisions.



GE Spares



Low Cost IoT Technology to Enhance Fabrication Operations

GE Spares wanted to explore how data from their shop floor could be captured and analysed to monitor and improve their operational efficiency as well as reduce the carbon footprint of the company.

An easy to use, clamp on, IoT power monitoring solution was installed which did not require circuit disconnection. Power usage data are recorded and visualised on a dashboard to allow the company to observe real-time energy usage.

The solution has enabled GE Spares to access energy data from their shop floor and make informed decisions on energy use which enhances their production efficiency.



PRODUCT CATALOGUE



Power Monitoring



Solution is easily installed onto most manufacturing equipment to collect data.



How much power equipment uses is visualised.



Can be installed on single and three phase equipment with an electrical rating of up to 100A.



Typical uses include CNC machines, welding and refrigeration equipment and many other possible applications.

Data analysis can be carried out to identify idle time, production time, energy usage per product, cost to produce product based on tariff, operatives productivity on shifts and machine utilisation.



Solution is easily installed in most environments and on manufacturing equipment.



Temperature changes over time are visualised.



We offer a non-contact infrared sensor that measures up to 250C and a thermocouple contact sensor measuring up to 800C.



Typical uses include monitoring of industrial processes, furnace monitoring and food and beverage processing, but there are many other possible applications.

Solutions can be installed to monitor environmental, equipment or process temperature. Data analysis can provide insights and predictions on equipment overheating, compliance with regulations or ambient temperature changes etc.



Temperature Monitoring



Solution is easily installed onto most manufacturing equipment to collect data.



A dashboard is provided to visualise air quality in the workplace.



These solutions can measure the concentration of volatile organic compounds, CO2 or the generic air quality index.



This solution can be combined with the temperature sensor to build an environmental solution tool that can provide informative health and safety information.

Data analysis can be carried out to determine if the air quality is within a required threshold (company specified). If the threshold is exceeded then an alert can be sent to management to raise awareness.



Air Particulate Monitoring

PRODUCT CATALOGUE



Downtime Capture



Can be used to record when equipment is not being utilised and the reason. The solution can be manually triggered on a tablet device by an operator or automatically using a sensor.



A dashboard is provided to report on the downtime reasons.



This solution will eliminate the need to manually record machine downtime. Real-time data on downtime allows management to track performance against targets, plan and adjust production schedules, and monitor machine usage.

Data analysis can be carried out to determine key downtimes and identify trends in machine utilisation. When downtime occurs, an alert can be sent to management to raise awareness and enable a timely response.



Every company has the right to access their historical half-hourly energy data. We will show you how to request your company's energy data from your supplier and upload the data to the SMDH Data Hub.

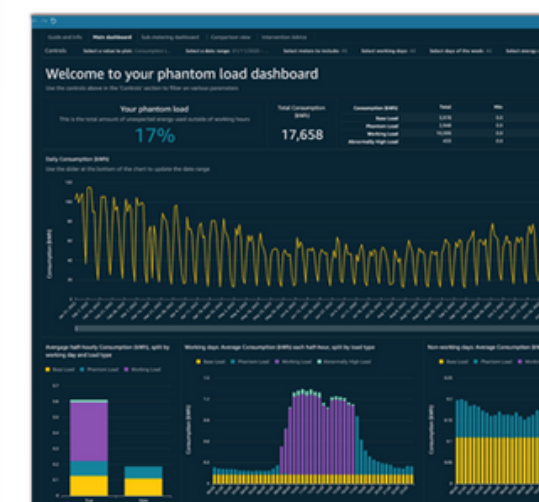


Here the data will be run through our systems to analyse your energy usage.



Phantom Load, simply put, is your 'unproductive' energy use. This may be generated by "always-on" equipment or energy used by equipment when idling (or when someone forgets to turn it off). The Energy Insights dashboard provides a measure of your base load consumption, background energy usage, and any extra energy outside of your working hours.

The Energy Insights dashboard can monitor and help you take control of the costs associated with running your factory. This is a great introductory solution to realising the impact readily available data and is suitable for most companies no matter what you manufacture.



Energy Insights



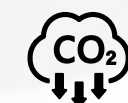
The UK Government has urged businesses to take action to reduce emissions to contribute to the UK-wide net zero by 2050 target.



Over 1,300 of the largest UK-registered companies now have a mandatory responsibility to disclose climate-related financial information.

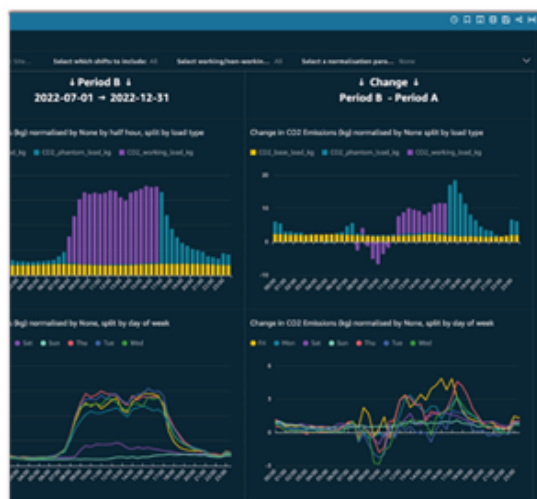


The SMDH Carbon Reduction Tracker dashboard can help all companies understand the carbon-related impact of changes you make in your factory.



Carbon Reduction Tracker allows comparison of CO2 emissions across two time periods. We normalise your data to account for different durations and production outputs to permit easy comparison between periods.

This is a great introductory solution to realising the impact of readily available data and is suitable for most companies no matter what you manufacture.



Carbon Reduction Tracker

PRODUCT CATALOGUE

BESPOKE DATA PROJECT



Job Tracking



Can help companies track the movement and whereabouts of their products as they move through production.



Barcode readers are required at each production station and used to record when a product enters and leaves the station.



A dashboard is provided to report on the current and historical status of each job.



Data analysis can be carried out to determine bottlenecks in production and identify trends in production processes.

This solution will eliminate the need to manually record the status of each job. Real-time data on job location allows management to track performance against targets, plan and adjust production schedules, and monitor production rates.

SMDH can help manufacturing companies make the most of data across all aspects of their business. These data can take many formats including numerical, textual or imagery.

You may already be collecting these data in your company and not using it. You may even be collecting data and not know about it! If you have data collection systems in place such as Real-time monitoring, OEE, ERP, MES, Process Control or Quality Control are you making the most of it?

Our team can help you identify potential applications such as prescriptive, diagnostic and predictive analytics, predictive maintenance, regulatory compliance, process optimisation and data informed decision making.



SMDH MultiSense Monitor is a low cost Industrial IoT device which can simultaneously monitor Ambient Temperature, Humidity, Vibration and Power.



A dashboard is provided to visualise the outputs and inform your decisions.

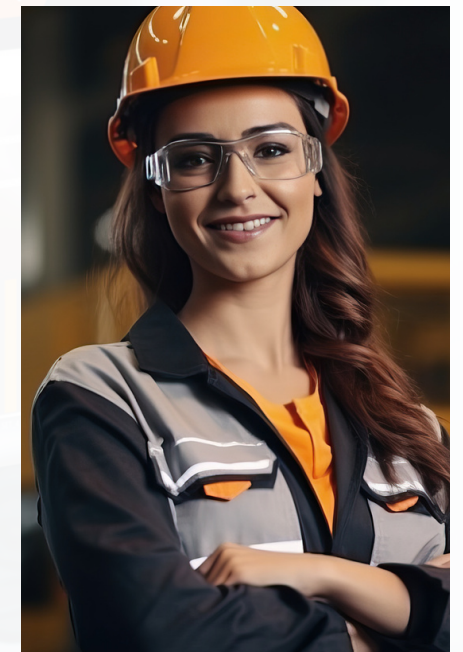


The solution can be easily installed to collect multiple sources of data, which when combined give advanced insights.



SMDH MultiSense

25.01%



[Contact us](#) today to discuss your needs further



STEP
01


REGISTER

Register your interest on our website smdh.uk

STEP
02



BUSINESS ADVISOR

We will link you with a business advisor to establish your needs

STEP
03



USER AGREEMENT

You must sign our user agreement

**OUR 6 STEPS TO
ACCESSING
SUPPORT THROUGH
SMDH**

STEP
04



PRODUCT SELECTION

Select your product

STEP
05



WORK WITH OUR TEAM

Work with our team to integrate the product within your organisation

STEP
06



PROMOTE SUCCESS

Promote your success with SMDH