

# Cerexio EMP

Energy Management Platform

Tap on the Most Urgent Sustainability Issues of  
Your Energy Projects Under a Single Glass Pane

[www.cerexio.com](http://www.cerexio.com)



# Introduction

## Skyrocket the Sustainability Levels of Your Premises Within a Blink of An Eye

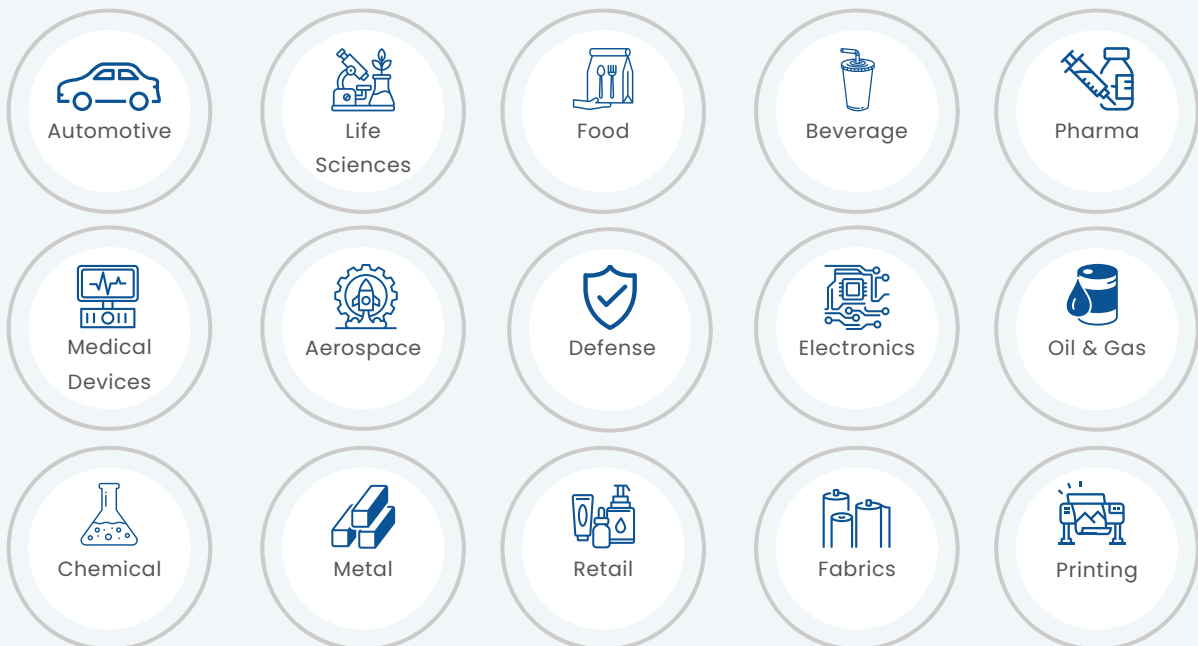
Cerexio EMP constructs a connection that links your company's strategies, logistical processes, production activities, and live process management mechanisms through top-tier integration, resilience, and speed. Acquaint yourself with the main standout features of your preferred EMP counterpart.



## Empowering Net-Zero Facilities with Actionable Insights by Enabling the Best Energy Platform

@Cerexio Smart Manufacturing Solutions

### Industries We Serve

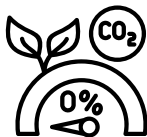


# Key Highlights



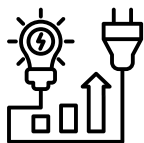
## 2. Foresee Advantages Today

Potent predictive and advisory capacities to assess a multitude of monitoring variables throughout each dynamic energy event using simulation technology.



## 4. Eco and Budget Friendly

Set energy KPIs about your locations, structures, and amenities, resulting in a comprehensive compilation of emissions data, CO2 profiles, and forthcoming financial projections.



## 6. Step into Industry 4.0

Cerexio EMP stands out with industry 4.0 visualisation, offering simulation, immersive interactivity, and virtual tours. Its AI-driven core models enhance efficiency too.

## 1. Mitigate Energy Consumption

Identify your primary sources of energy consumption, encompassing equipment, utility setups, and operational procedures, then curtail energy inefficiency.



## 3. Net-zero Carbon Emissions

Cerexio EMP acts as a solution to enable outstanding carbon emission profile updates for industry experts looking from a greener perspective. It brings down your greenhouse gas levels to agreeable states with AI.



## 5. Flexible Energy Compliances

It aids ISO 50001 compliance while evaluating energy efficiency. The platform follows GHG Protocol, using SECR and CDP standards to prevent redundancy, allocate responsibility, and promote life cycle analysis.



# Industry 4.0 Capabilities We Offer

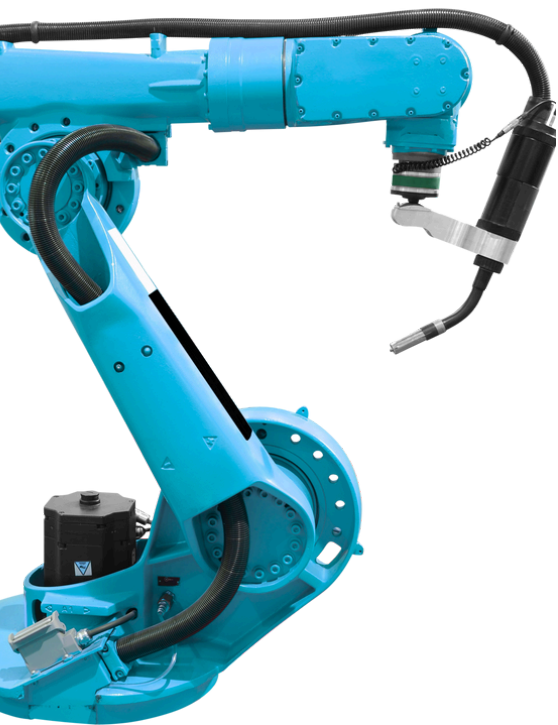
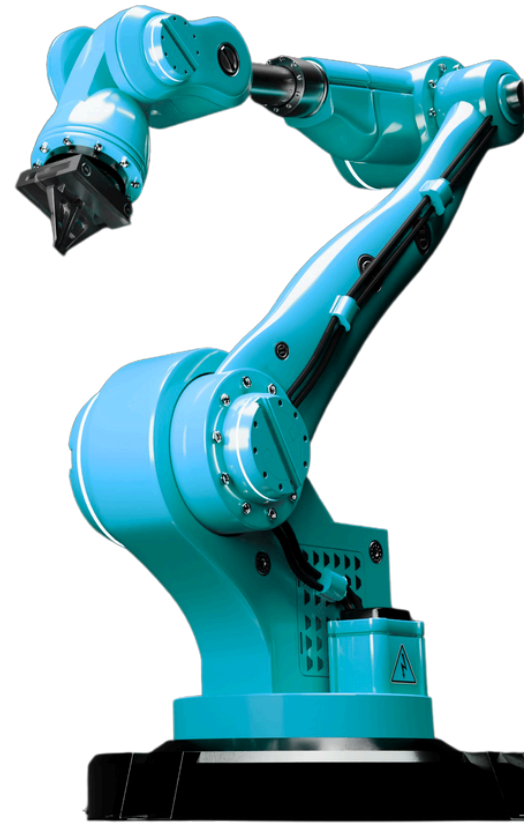
1 AI & Machine Learning

2 Big Data

3 GIS

4 AR/VR

5 Simulation



6 Satellite Remote Sensing

7 CCTV and Laser

8 5G, IoT, Quantum Sensors

9 Digital Twin

10 Robotics and CPS

# Cerexio EMP Modules



## **Adaptable Load Projection Model**

Utilise a load projection model that has the ability to project load analyses using historical and IoT-generated data, producing insightful information that may be used in future initiatives.



## **Catch Energy- Offending Equipment**

Create comprehensive reports of the most energy-using zone of your facilities and understand the trends of inefficient operations in your facility to accumulate significant savings over time with Cerexio EMP.



## **Complete Consumption Profiles**

Utilise Cerexio EMP's easy dashboard to centralise all energy usage measurements, including data from CSV and APIs. Establish baselines, keep track of data from all metres and submeters, logically classify the information and more



## **Concurrent Meter Integration**

It delivers an improved setup and return on investment (ROI) during the assimilation process, thus, shortening the metre installation process and lowering the cost of setting up energy oversight systemEMP.

# Cerexio EMP Modules



## **Coordinating Intelligent Timetables**

Cerexio EMP ensures effective resource allocation by evaluating ancillary service requirements and optimising energy scheduling based on practical power needs and use.



## **Infrastructure Oversight**

This solution streamlines and intertwines processes, optimising synchronised energy efficiency by enabling the AI models to categorise the strata of your critical power-propelled system and identify abnormal operating trends.



## **Energy Preservation Supervisor**

Manage the fundamental aspects of several projects using a single, scalable interface and incorporate modern analysis techniques to model various energy usage situations.



## **Failure-proof Energy Strategies**

Based on smart alarm system to deliver notifications when consumption increases and pre-defined key performance parameters, Cerexio EMP offers protection against unexpected energy usage in dynamic facility operations.



# Cerexio EMP Modules



## Heat-Induced Dissipation Monitor

Employ predictive technology to visually display highly significant anomalous heat patterns, assisting in the reduction of energy losses in your asset-heavy facilities.



## Intelligent Reserves Analysis

Maintain scheduled frequencies while ensuring the dependable operation of an isolated or connected power network and determine the availability of sufficient generation capacity to guard against the loss of critical loads due to system disturbances.



## Platform for Simulative Digital Twin

Ensure that centralised power plants are functioning at the best possible triangulation of cost, risk, and performance by facilitating interactive 2D/3D simulation platforms.



## Utility Document Manager

Cerexio EMP has modules to manage documents of your utility bills to monitor, trace and analyse the consumption KPIs of your power consumption and understand the budgetary requirements during peak power demands in a fast and simple manner.

# Cerexio EMP Benefits

**Go Greener. Save More. Sustain Evermore.**

With a CO2 reduction effect of 5% to 10%, Cerexio EMP is an energy-saving improvement support system that lowers energy expenditures and CO2 emissions in energy production system, including factory heat source equipment and regional cooling/heating system. Learn more benefits you can grasp by employing this game-changing solution:

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## **Confident Productivity**

Employees' productivity can be improved when their equipment requires maintenance by setting up automatic alerts. You won't have to be concerned about forgetting to accommodate reactive repairs thanks to this.

## **Heat Source Prioritisation**

Reschedule orders onstream to ensure that no otiose cost, effort or time is invested in industrial operations that produce extra heat- thus power surges that affect the profit and environment safety of your company.

## **Highly Configurable**

Unlike most Energy Management Platforms, Cerexio EMP is a framework that can support any type of energy management system (decentralised, hierarchical or centralised) for it is highly scalable and configurable.

## **Levelling-Up Comfort Levels**

Actions insights of smart thermostats can be used to configure temperature settings based on the season to increase comfort levels. For example, shutting off electric system when rooms are vacant.



# Cerexio EMP Benefits

## The Customer-Centric Production Framework, Enhanced Visibility, and Magnified Collaboration

Cerexio offers energy-saving solutions for factory and facility managers to achieve multi-dimensional energy-saving targets across plant and shop floors. This solution can be implemented to optimise energy savings in 50+ industries, corporate and commercial arenas including:

### **One Access. All Benefits**

Build a secured vision in your net-zero visions by achieving comprehensive ESG data coverages in all asset classes by navigating energy management decisions with actionable insights.

### **Step Into The Future**

Use AI, digital twin, simulation, IIoT, 5G connectivity and a range of other not-to-be-missed digital capabilities that can optimise your energy-saving efforts to their best levels in terms of efficiency and accuracy.

### **Enhanced Data Security**

Cerexio EMP System houses sophisticated and reliable encryption and access controls, which AI trains to protect sensitive production data against unauthorised access and ensure data integrity throughout the record lifecycle.

### **Scalable for Future Growth**

Cerexio EMP System is designed to scale effortlessly with your business, accommodating increased production volumes and evolving regulatory requirements without disruption or the need for major system overhauls.

# Cerexio Client Stories

Cerexio has been at the forefront of digital transformation in manufacturing, empowering companies to achieve operational excellence and sustainable growth. Through its flagship solutions, Cerexio has partnered with industry leaders to solve complex challenges, ranging from throughput optimisation to emission control, while delivering measurable business value.

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## **A company that manufactures and fabricates precision parts, moulds, and dies.**

1

Vertically-integrated manufacturing services since 1978. They had a challenge in digitally transforming factories to improve operational efficiencies and reduce labour costs.

CEREXIO MES improved the throughput by digitally transforming their factory of 200+ moulding machines while the same labour capacity was able to deliver a +10% profit

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## **Cement Manufacturer**

2

According to Forbes, this company was on the list of the 700 largest global public companies in 2015. They had challenges in achieving kiln stability and optimisation.

CEREXIO MES was utilised by them to prevent poor quality, suboptimal throughput, unhealthy emission rates and energy losses by predicting failures in cyclone infrastructure.

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## **ARTC- Advanced Remanufacturing Technology Centre**

3

A Singaporean government agency that researches to facilitate the advanced manufacturing ecosystem in the region.

CEREXIO MES Services and Modules optimised their hyper-personalisation Line- a solution that manufactures personalised products in a fully automated production line.

# Contact Cerexio

Don't hesitate to get in touch with us for further clarification or to book a demo this week. The contact particulars of our company are as below:

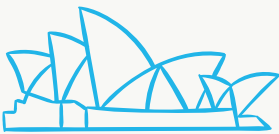


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