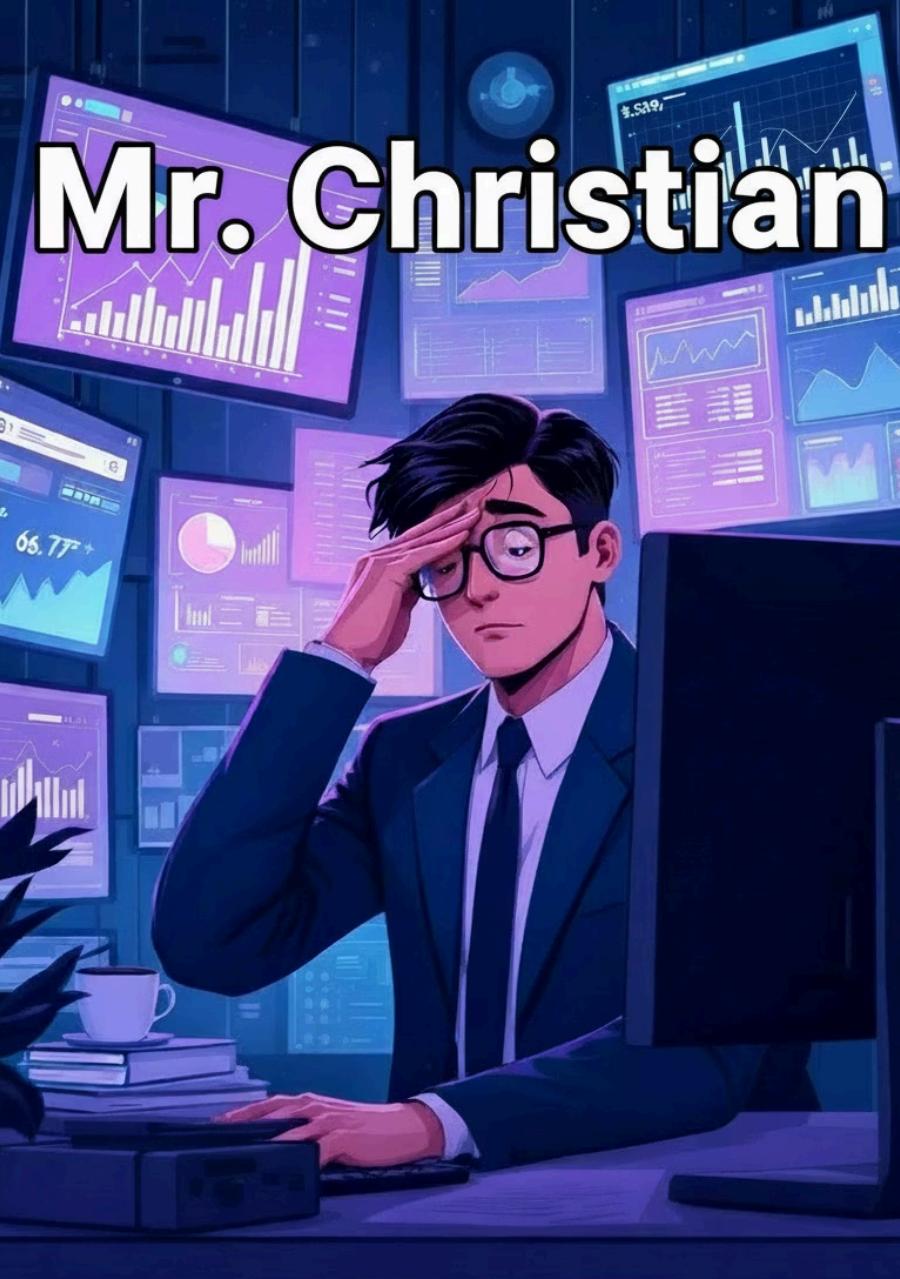


Future Systems – Energy Monitoring Reimagined

From Data to Action: Energy Efficiency through AI and Gamification.



Made with GAMMA



Mr. Christian

The Problem: Data Overload Without Clarity

Data Chaos

Energy managers are drowning in a flood of metrics and measurements without recognizing the critical insights. Analysis remains reactive instead of proactive.

Isolated Systems

IoT sensors, CSV exports, and Modbus protocols exist in separate silos. Integration costs time, money, and efforts.

Lack of Motivation

Employees don't understand the impact of their behavior. Without an emotional connection, energy saving remains abstract and ineffective.

The Solution: A Dashboard That Unites

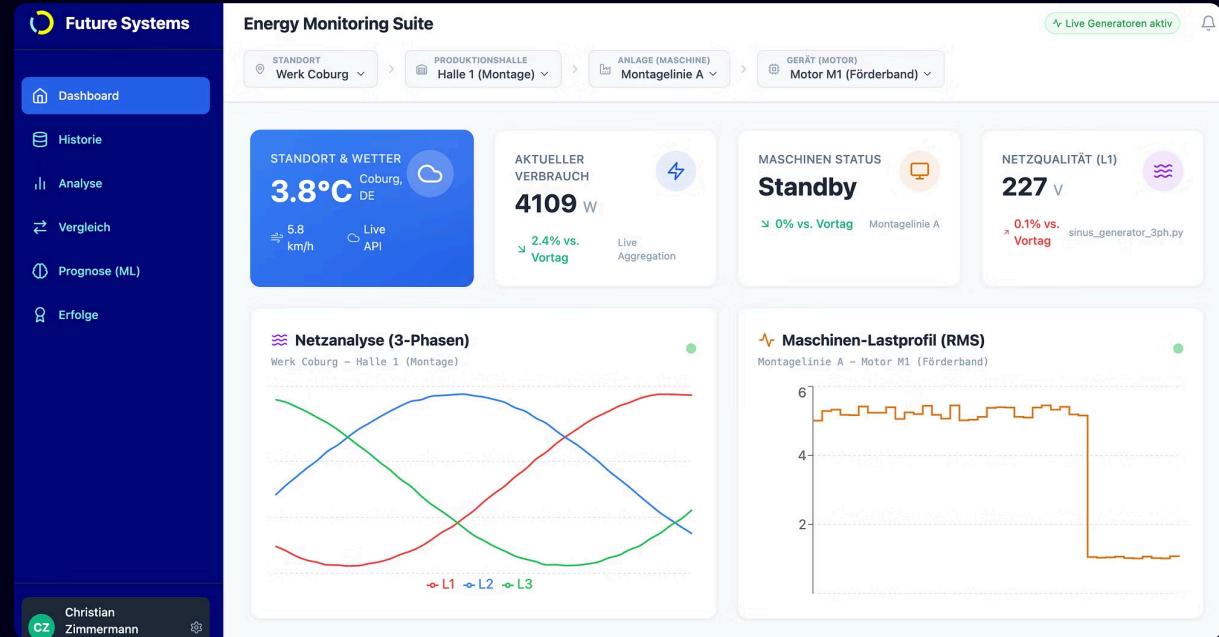
Centralized Dashboard

Future Systems combines real-time data with historical analyses in a responsive, intuitive dashboard. All data sources are seamlessly integrated and visualized.

Global Hierarchy

Intelligent drill-down from the overall view to the machine level:

- Rödental Hall → Hall 1 → Assembly Line → Motor M1
- Scalable for entire industrial facilities
- Context-sensitive real-time filtering



Technical Depth: Hybrid Data Model

Real-time Simulation

1

Mathematically calculated waveforms (Sine/RMS) for precise power quality monitoring. Live monitoring of voltage sags and frequency fluctuations.

Mass Data Import

2

Integration of any CSVs via stream simulation. Processing historical datasets for well-founded long-term analyses.

Multi-Level Monitoring

3

Simultaneous acquisition of power quality and machine status (standby/production). Automatic anomaly detection in real-time.



AI-Powered Forecasting: Predicting the Future

Machine Learning Meets Energy Management

Our ML engine forecasts electricity consumption for the next 24 hours with impressive precision. The system takes into account live weather data from Coburg and historical consumption patterns.

Intelligent Model Selection

- **Random Forest:** Robust predictions for stable operating conditions
- **LSTM Networks:** Optimal capture of temporal dependencies
- **Confidence Intervals:** Transparent risk assessment for better decisions





Gamification: Driving Behavioral Change Through Engagement



Eco-Champion System

Users like Christian Zimmermann earn experience points by completing specific energy-saving quests. Every action is rewarded and contributes to personal level progression.



CO₂ Impact Visualization

Abstract kWh become tangible: saved energy corresponds to planted trees or avoided car kilometers. Emotional connection creates sustainable motivation.



Fair Competition

Leaderboards between departments and locations foster healthy ambition. Teams work together on sustainability goals.

Comparison Center: Insights at a Glance



Powerful Analysis Tools

The Comparison Center allows for parallel comparison of any metrics: locations, devices, time periods – all in real-time.



Drilldown Function

Click on peak loads to immediately identify the cause



Anomaly Detection

Automatic flagging of unusual patterns for quick response

Usability & Accessibility: For Everyone, Everywhere



Fully Responsive

Seamless use on desktop, tablet, and smartphone. The dashboard automatically adapts to any screen size.



Multilingual Support

Support for German, English, Hindi or other enables seamless collaboration for international teams.



Intelligent Alarm Management

Critical events are reported via email and in-app notifications. Configurable thresholds for each metric.



Why Future Systems Wins

3x

Faster Decisions
Through central data integration and intuitive visualization

40%

Higher Engagement
Employees actively use the system through gamification

24h

Forecast Horizon
AI-powered forecasting for proactive energy management

100%

Scalability
From individual machines to global industrial facilities



We don't just deliver charts.
We deliver behavioral change and
technical precision.

Your next steps

Let's shape the future of energy management together. Future Systems is ready for deployment in your organization – scalable, intelligent, and user-friendly.

You can try our solution here:

