website | www.zerynth.com

Quality and Information
Security Management
Certified Company

ISO 9001
LL-C (Certification)

ISO 27001
LL-C (Certification)

ISO 14001
LL-C (Certification)

Zerynth | A general overview

Your factory, enhanced by AI

10+
Industries served

40+
Team Members

200+
Active Customers

7.3mln
Total Investment

With over **10 years of experience** in Industrial IoT and AI, Zerynth helps **SMEs optimize processes and productivity** in real time. It is the first Italian company to bring AI directly into factories with its Industrial AI Copilot Platform.

2015
Foundation and International Patent for Zerynth OS

2018
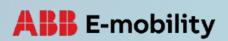Release of the Zerynth IIoT Edge & Cloud Platform

2020-22
Two investment rounds totaling €7.3 million

2023
Launch of the new Industrial IoT Platform

2025
Zerynth Copilot Platform and Continuous Improvement Services
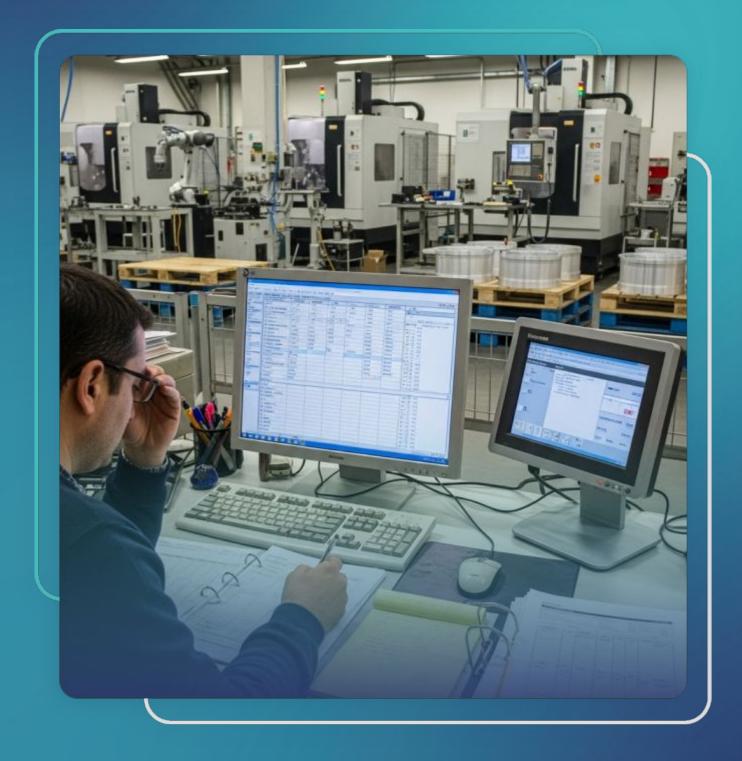
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Connected machines, yet uncertain decisions

-80%

Italian productivity growth is 80% slower than the EU average

70%

Italian SMEs still collect data manually

1B

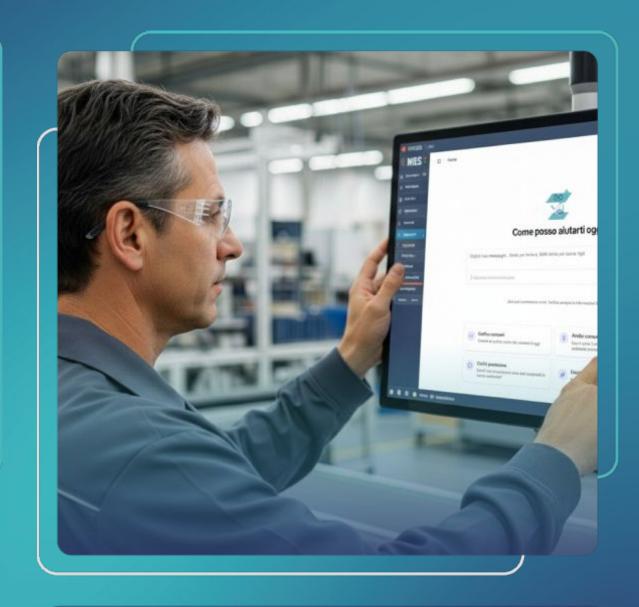Funds available for AI investments in manufacturing

- Italian industrial landscape dominated by micro-enterprises, still largely undigitalized
- Industry 4.0 investments often minimal, with limited returns
- Even with connected machines, data doesn't translate into operational decisions
- Growing pressure to meet global standards for production, quality, and sustainability

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Zerynth Industrial AI Copilot Platform

From Data to Strategy

Automated, real-time data collection from machines and ERP/MES

Advanced analysis of production and energy data, with AI from edge to cloud

AI agents as production assistants, active 24/7

AI-driven services for continuous improvement

Data-driven strategies and insights for shop floor personnel

Continuous updating of ML models

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Beyond Monitoring: A Horizontal Platform

We unify machines, energy, processes, data, and software on a single platform. We enable AI to unlock the full potential of your factory

Service Machinery

- **Consumption Monitoring**
- **Anomaly Detection and Alarm Notifications**
- **Preventive and Predictive Maintenance**

Energy Sources

- **Total Costs and Consumption**
- **Self-Consumption and Energy Self-Sufficiency**
- **Energy Balance**
- **Environmental Impact of Processes**

Production Machinery

- **Productivity Optimization and OEE Calculation**
- **Preventive and Predictive Maintenance**
- **Order and Production Cycle Tracking**

Operator Workstations

- **Recording of Operations**
- **Root Cause Analysis of Downtime**
- **Production Data Entry**

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More Than a Platform: A Proven Method

Start with simple monitoring and scale up to advanced AI

Week 1-4

Activation of the Copilot Platform

- Connected machines and structured data collection across different information flows
- Data available for initial operational decisions

Months 1-3

Process Mapping and Know-How Collection

- Mapping key processes with support from our experts
- Identifying relevant operational data and KPIs
- Creating an integrated foundation with ERP and other systems

Months 4-6

AI-Driven Strategies and Insights

- Trend Analysis
- Advanced Alarm and Rule Settings
- Custom Report Generation
- Training the AI Copilot on Company Documents and Procedures

In the future

Services for continuous improvement

- Zerynth experts at your service, supporting advanced analyses (predictive, cybersecurity, etc.)
- Development of AI Copilots and custom AI/ML algorithms
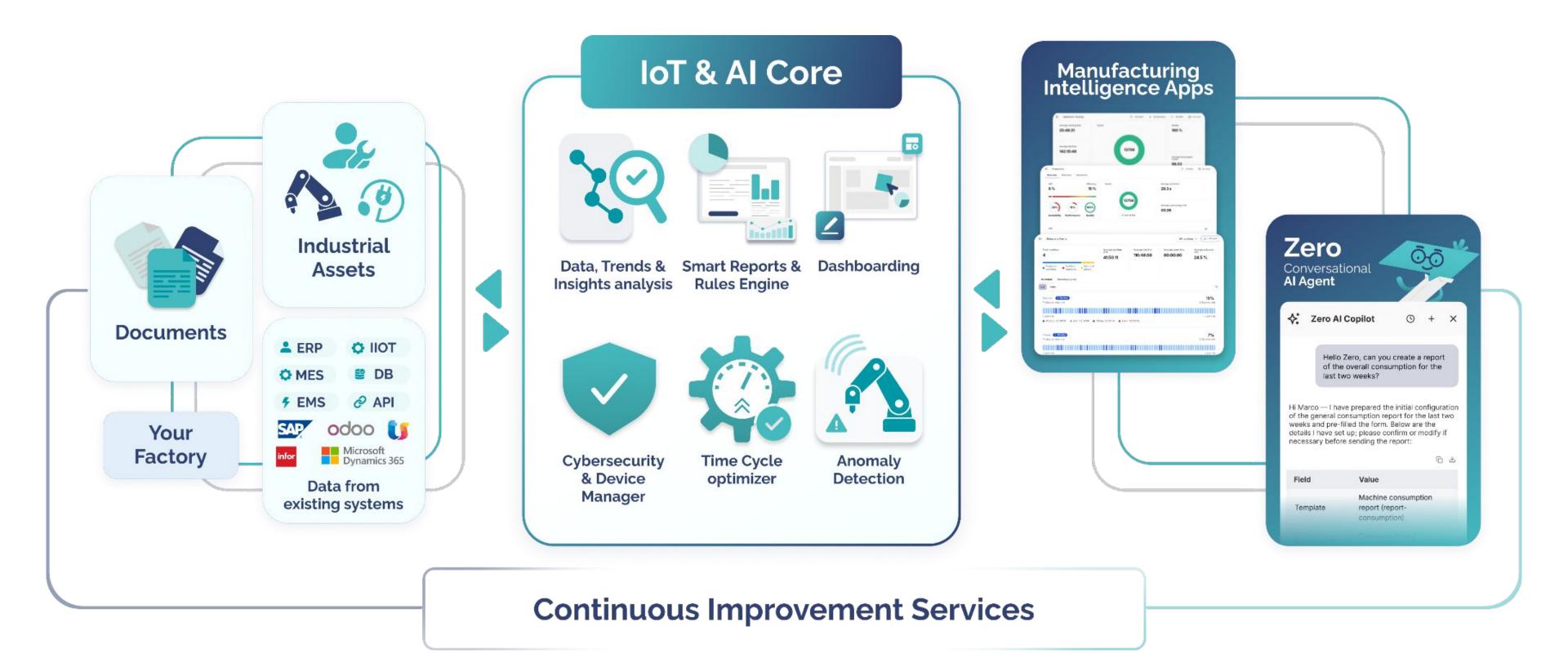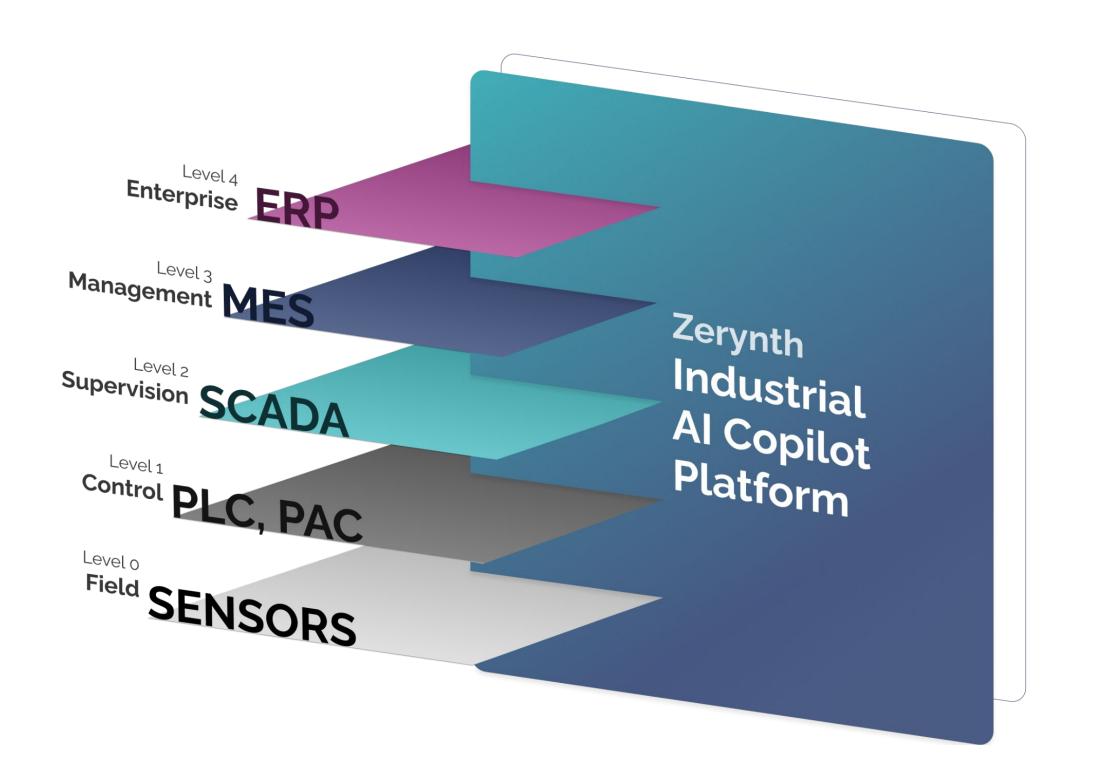
What goals have we achieved?

Up to **40**% **Reduction of energy costs**

Armal®

Up to **30**% **Reduction of planning errors**

GI·METAL

Up to **70**% **Reduction of machine downtime**

vitesco TECHNOLOGIES

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Zerynth Industrial AI Copilot Platform

Documents

Industrial Assets

Your Factory

Data from existing systems
- ERP
- IIOT
- MES
- DB
- EMS
- API
- SAP
- odoo
- infor
- Microsoft Dynamics 365

IoT & AI Core

- Data, Trends & Insights analysis
- Smart Reports & Rules Engine
- Dashboarding
- Cybersecurity & Device Manager
- Time Cycle optimizer
- Anomaly Detection

Manufacturing Intelligence Apps

Zero
Conversational AI Agent

Zero AI Copilot

Hello Zero, can you create a report of the overall consumption for the last two weeks?

Hi Marco — I have prepared the initial configuration of the general consumption report for the last two weeks and pre-filled the form. Below are the details I have set up; please confirm or modify if necessary before sending the report:

Field	Value
Template	Machine consumption report (report-consumption)

Continuous Improvement Services

A single platform for integrated data and processes

Level 4
Enterprise **ERP**

Level 3
Management **MES**

Level 2
Supervision **SCADA**

Level 1
Control **PLC, PAC**

Level 0
Field **SENSORS**

Zerynth
Industrial
AI Copilot
Platform

One single layer that integrates everything: **Zerynth connects your systems** and centralizes your data — without complications. **We handle the integration for you.**

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Zero, your 24/7 Production Assistant

All the power of Generative AI, fully embedded in your factory. Already trusted by more than 200 companies.
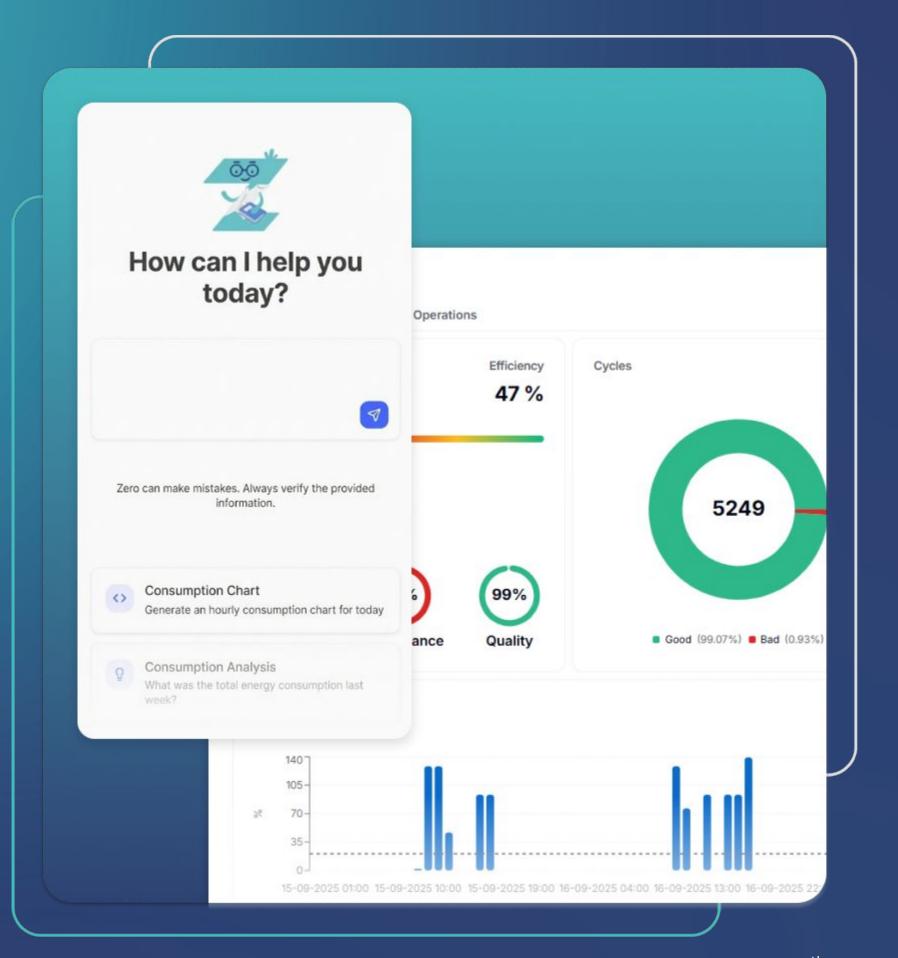
It answers questions via chat, generating insights, smart tables, and dynamic charts

Guides you through the use of the platform
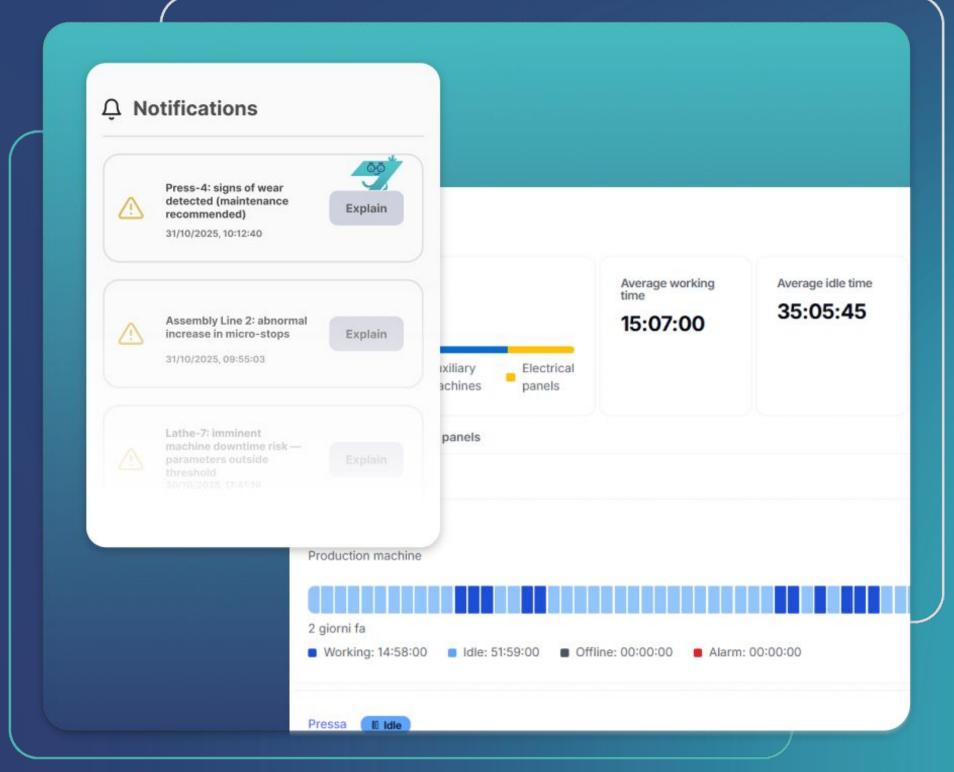
Generates documentation and reports

Identifies anomalies and sends notifications to help prevent downtime

Suggests corrective actions and optimization strategies

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From Reactive Notifications to Proactive Intelligence
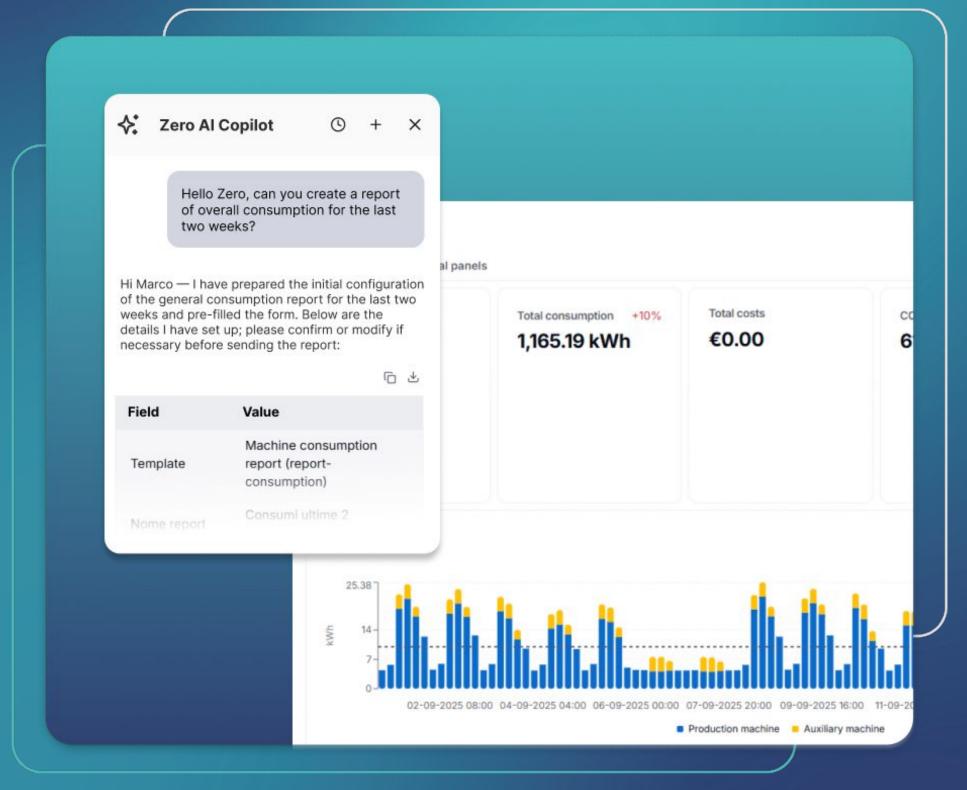
Monitor your machines, predict downtime, and act instantly

Prevent failures with the anomaly-detection system: act earlier and smarter

Reduce unplanned downtime by up to 70%

www.zerynth.com

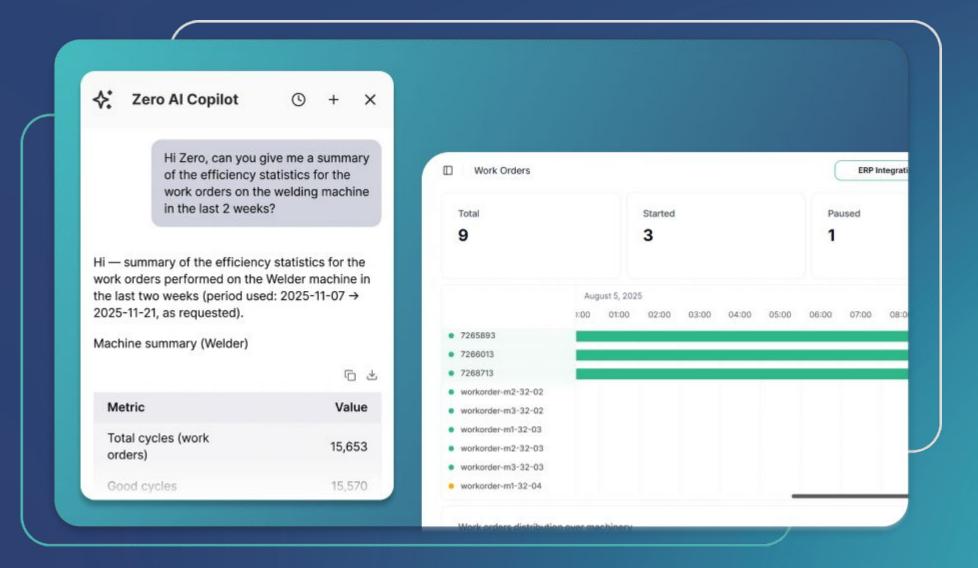# Save Time: data, reports, and documents
All in one place

Analyze production end-to-end by integrating data and documents

Auto-generated ESG reports, maintenance plans, and energy balances

Save hours of work: no more copy-paste or manual errors

Centralize your documents, Zero does the rest: better answers, fewer errors, more speed

www.zerynth.com

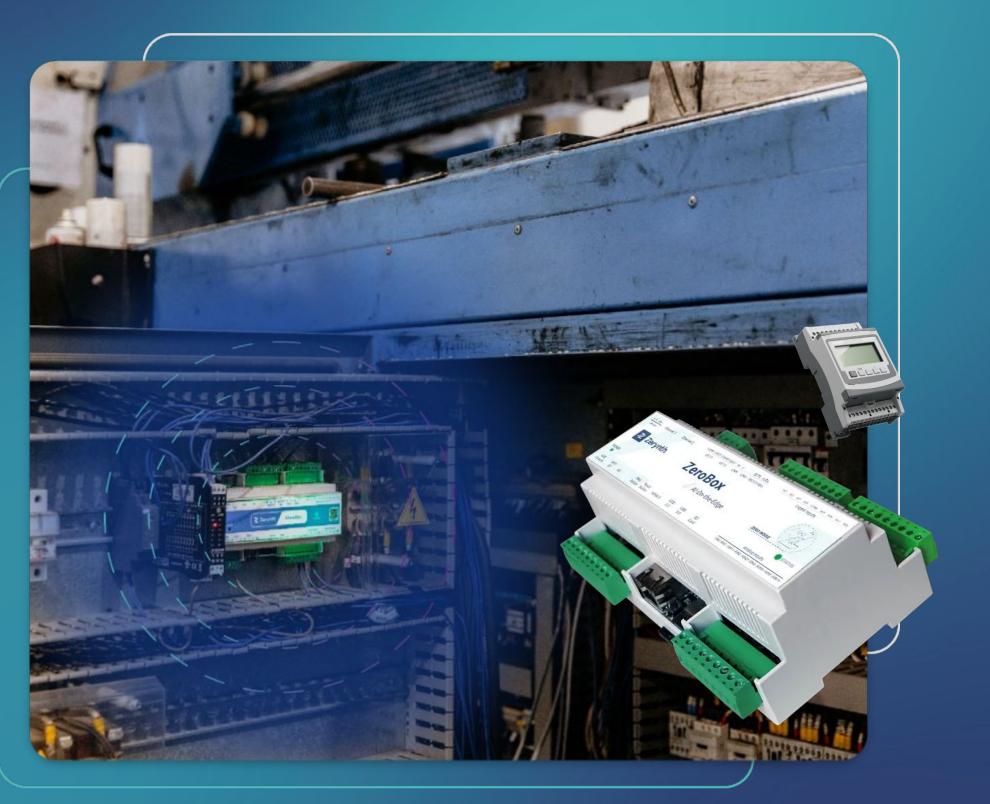# Get the most out of your MES/ERP systems

Make your existing systems smarter, effortlessly

Explore your data through a single interface for your entire factory

Ask Zero for data from machines, processes, ERP, MES, and APS

Integrate your data with SAP, Microsoft, Odoo, and many other systems

www.zerynth.com

Digitalization starts here.
With your first reliable data point.

It connects what today isn't connected.
From the newest machines to those 20 years old, we unify them into a single system.

Data that's immediately readable and usable.
No need to interpret signals, formats, or protocols. You get clear information, ready for analysis and decision-making with Zero.

Installs in no time.
Reduce setup time and start seeing real insights right away.

A scalable path for every level of maturity

Start Smart

Optional

The action plan before the technology.

- Technical process analysis
- Energy and production audit
- Business Case & ROI
- Digitalization roadmap

Clear strategy, zero risks.

Energy Intelligence

Plug-and-play energy consumption monitoring.

- Energy Monitoring App + Meter
- KPI dashboards, alerts, reports
- Real-time alarm notifications
- Basic technical support

Up to 15% reduction in energy waste

Production Intelligence

Machine efficiency and full shop-floor visibility.

- Production Insights App
- Data from PLCs & sensors
- OEE dashboard
- AI Document Module
- ERP-ready integration

10–20% increase in production efficiency

Smart Operations

End-to-end flow and work order management.

- Work Order App + HMI
- ERP integration
- Flow and cycle-time dashboards
- Full traceability

Up to 25% reduction in cycle times, with complete traceability.

Continuous Intelligence

Continuous improvement with AI and Zerynth experts: custom analytics, tailored algorithms, and predictive maintenance

ROI >20%

-25% Downtimes

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Continuous intelligence for Manufacturing

Data alone isn't enough: you need expertise and training to turn it into winning strategies.

Technology alone isn't enough - we bring the expertise, people, and tools needed to turn advanced strategies and continuous improvement into reality.

Our experts at your service

- A team of specialists in Industrial IoT & AI
- 10+ years of experience in continuous analysis of industrial process data

Tailored AI

- We develop custom AI algorithms and business intelligence
- Predictive maintenance
- Forecasting and trend analysis

Custom Copilots

- Development of tailored Agents and Copilots
- Advanced document and reporting management
- Integration with ticketing systems, ERP, and more

Certified network of Zerynth experts and partners

- A community of certified analysts and consultants guiding companies toward digitalization and efficiency

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Our APPs

Data, processes, decisions. Zerynth's Manufacturing APPs form an integrated, centralized ecosystem designed to boost your factory's efficiency.

Energy consumption, energy flows, and costs across the entire plant
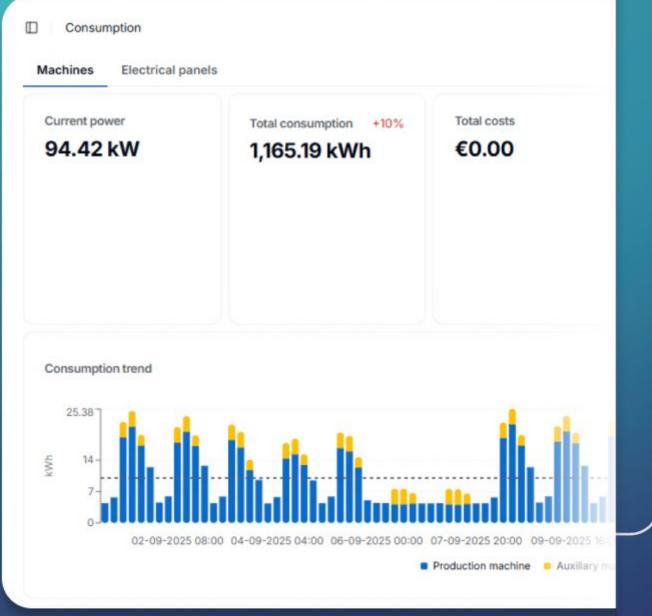
Gain full visibility into consumption, generated energy, and grid exchange across machines, departments, and plant areas

Ask Zero to interpret the data, detect anomalies, and suggest strategies to reduce energy waste and costs

Generate energy, 5.0, and ESG reports, with analyses of self-consumption and self-sufficiency for photovoltaic systems and local generators

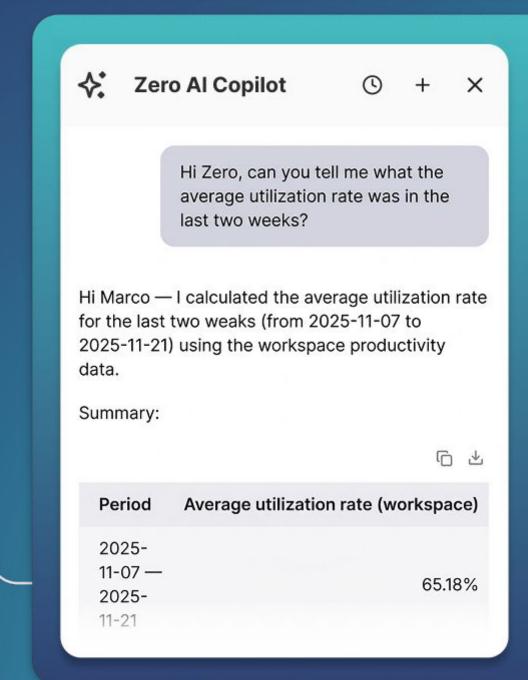# Status, alarms, and maintenance: machines and production areas
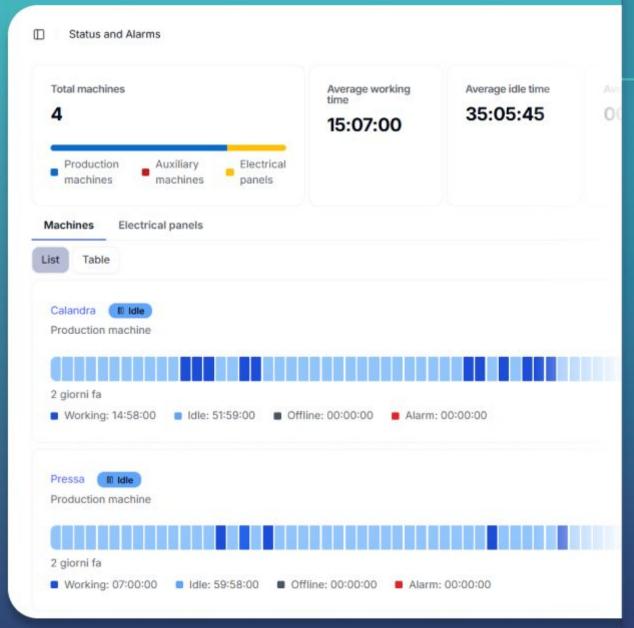
Track machine statuses and performance, and ask Zero to alert you in case of alarms or anomalies

Monitor energy consumption and emissions in real time across production machines, service equipment, and electrical panels, with cost analysis and CO_2e emissions insights

Move toward proactive, condition-based maintenance and reduce interruptions and unexpected downtime

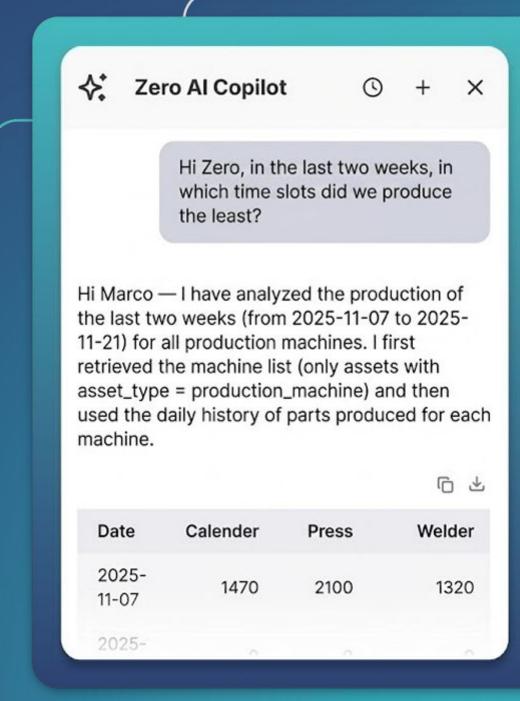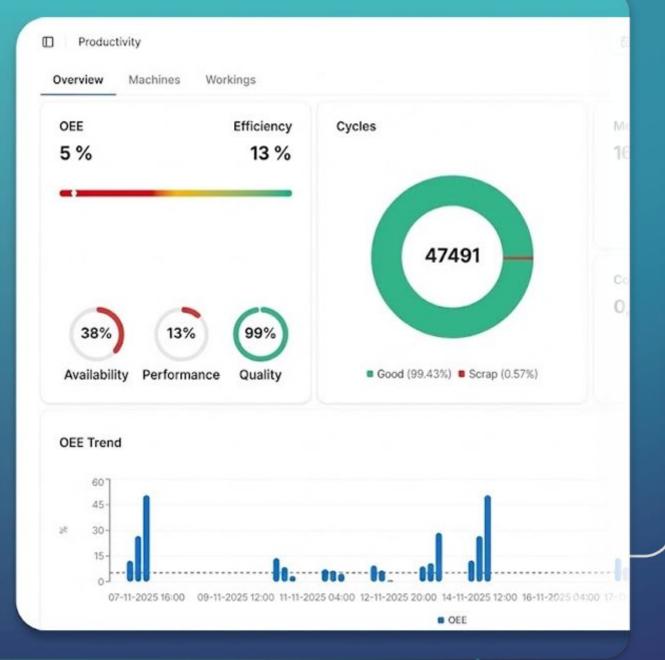# Processes, cycle times, and production performance

Production Insights   **Find out more >**

Get immediate insights on OEE, cycle times, and causes of downtime, with automatic analyses and proactive suggestions

Ask Zero to correlate productivity, consumption, and efficiency — and uncover your improvement opportunities

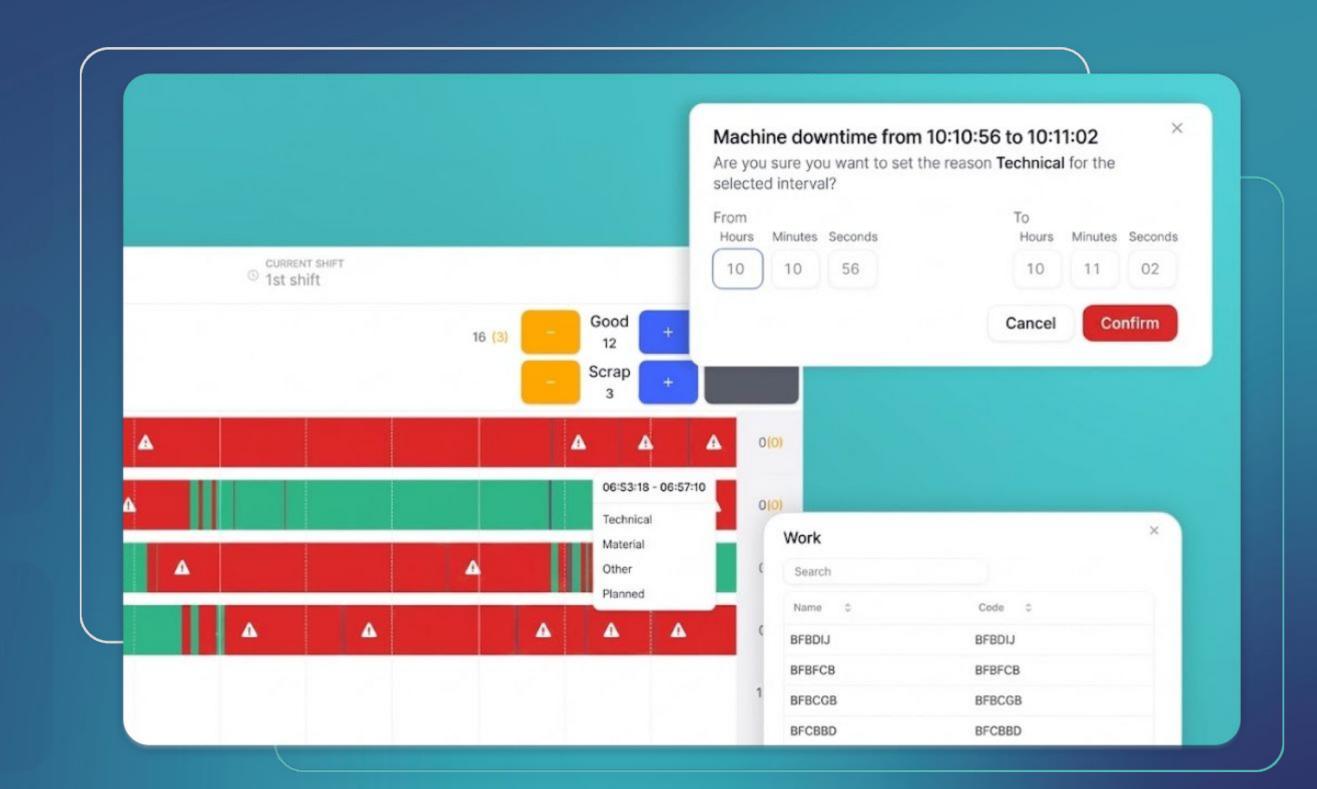Estimate production costs in real time and compare machine performance over time

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Tracking of manual operations and downtime causes

Production Insights + **Smart Operator Int.** **Find out more ➤**

Monitor the progress of production activities on both machines and manual workstations

Detect machine inactivity intervals and classify downtime causes

Track productivity data through Production Insights + the Smart Operator Interface
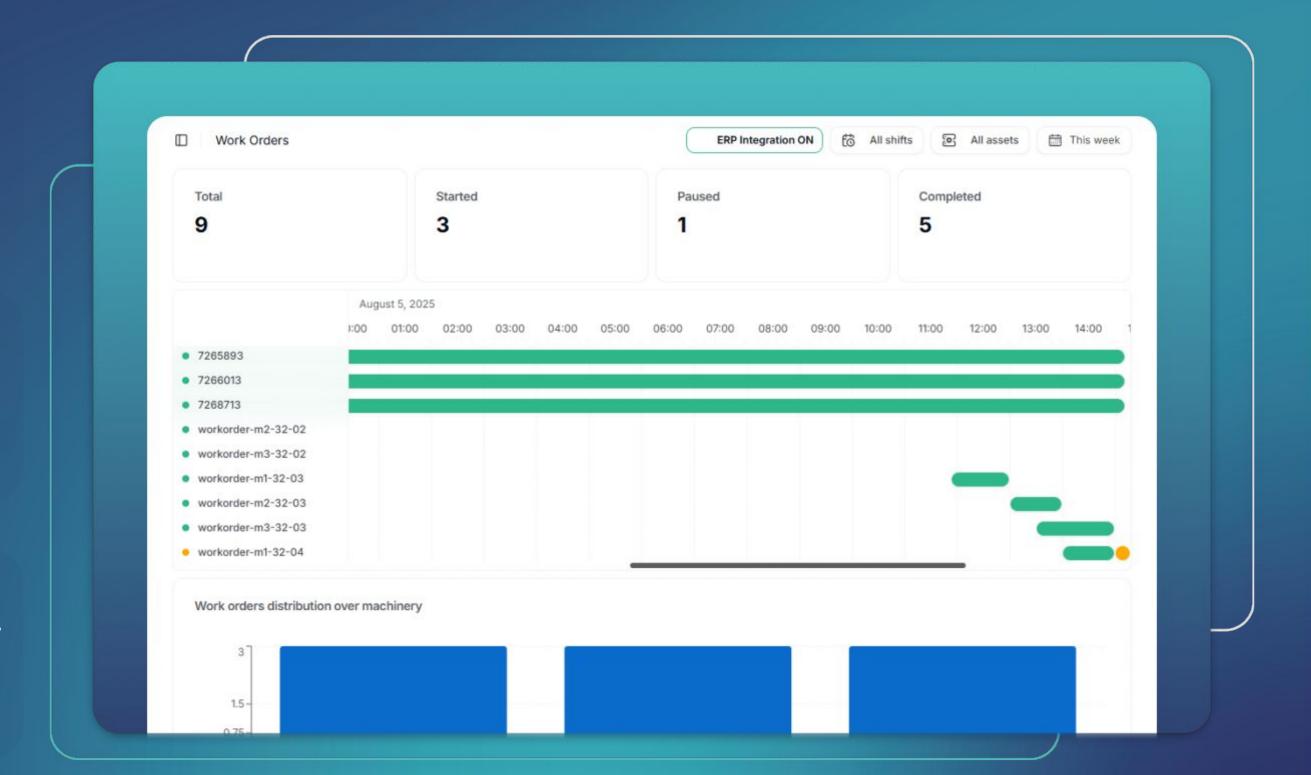
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Analysis and correlation with work order data

Simplify factory management: centralize production data and access everything from a single view

Analyze the data and forecast work orders in terms of time, costs, consumption, jobs, products, and production phases

Connect production data with ERP and MES for seamless, advanced integration
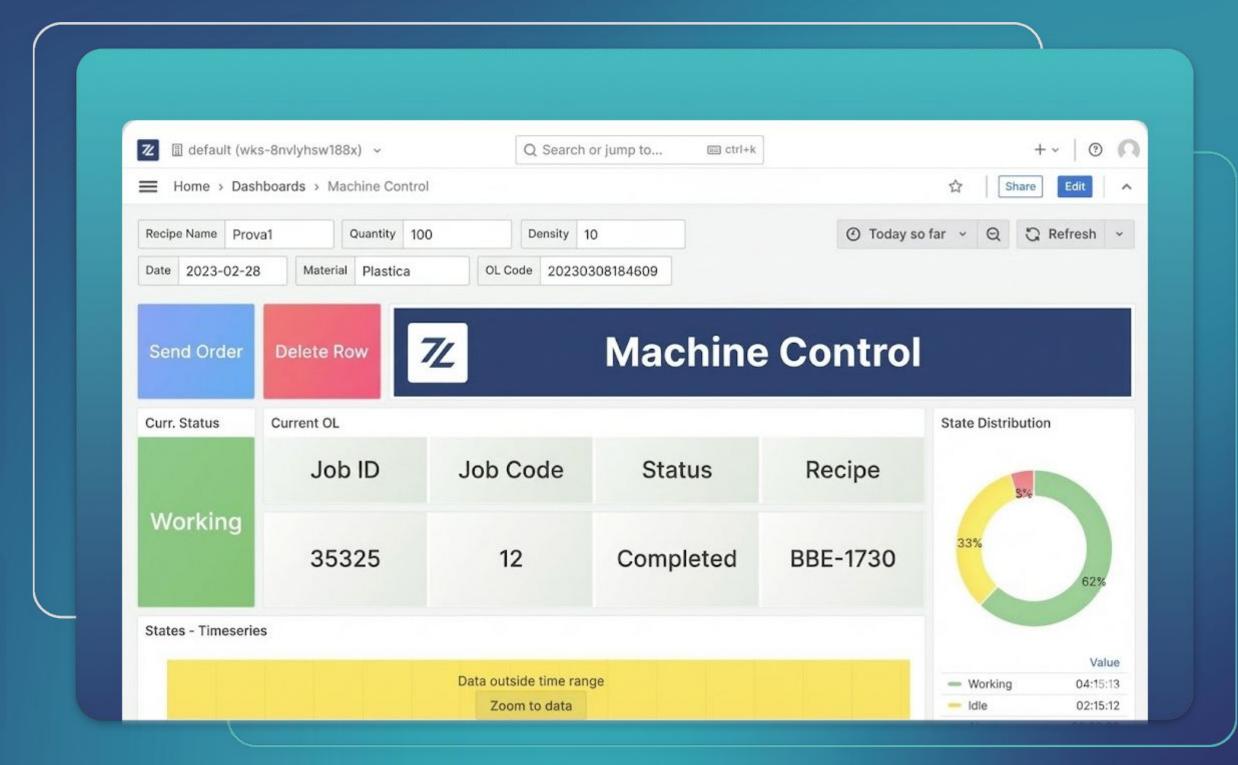
Configure, monitor, and control your machines remotely

Machine Control

Remotely control production by sending recipes and process parameters to machines

Make the most of your auxiliary machines by adjusting their operation during off-hours

Use custom dashboards for remote machine setup, or link them bidirectionally with your MES

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Companies that trust Zerynth

Companies that trust Zerynth

Process automation, paper elimination, and production visibility with Zero

Optimization of operations for sustainable and efficient production

Visibility and traceability of production processes and work orders for the metal-working sector

Optimization of quality and production processes, with integration of management systems

Integration and monitoring of production in the metalworking sector

Remote machine monitoring for energy efficiency in the plastics sector

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Zerynth® x **GI·METAL**

Machine status monitoring and inefficiency reduction to boost productivity and qualify for Industry 4.0 and 5.0 incentives.

RESULTS

15% reduction in machine downtime

30% decrease in planning errors caused by human mistakes

10% energy consumption savings

INDUSTRY:

Production of metal equipment for the restaurant industry.

ASSET:

Industrial machinery for metalworking.

CHALLENGES

- Need to automate data collection, previously performed through manual data entry.

- Lack of real-time visibility and precise control over the entire production cycle.

- Challenges in integrating heterogeneous machinery—varying in type and age—into the monitoring system.
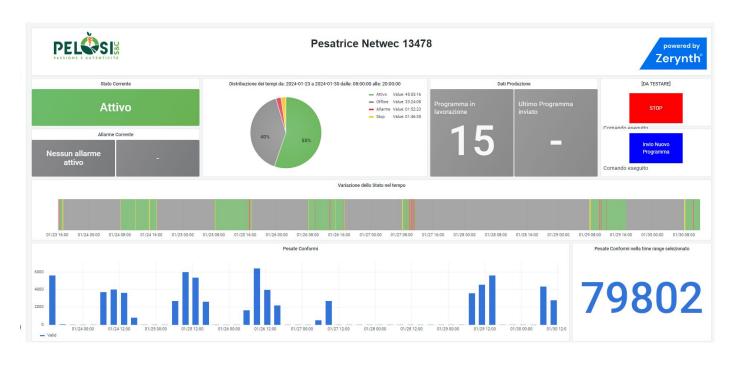
SOLUTION

Optimization of operations for sustainable and highly efficient production processes.

Zerynth® x PELOSI S&C

Pelosi, a company specializing in the processing and packaging of carrots, sought assistance from Zerynth to streamline the production processes of their Industry 4.0-ready machinery, eligible for industry 4.0 benefits.

RESULTS

Product Quality Visibility

Monitoring of Processes

Interconnection for Industry 4.0

INDUSTRY:

Food

ASSET:

Palletizer, Weigher, Sorter, Pallet, Legger

CHALLENGES

- Gain visibility into the quality of carrots from suppliers.

- Implement a reliable traceability system to effectively manage prices based on the quality of carrots and optimize overall investment.

- Manage resources more consciously.

SOLUTION

PRODUCT QUALITY TRACKING, PRODUCTION PROCESS OPTIMIZATION, AND MACHINERY INTERCONNECTION FOR INDUSTRY 4.0.
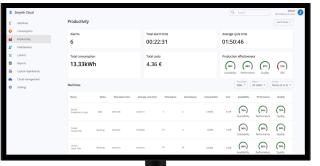
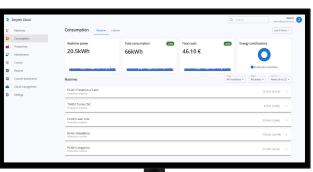https://zerynth.com/customers/case-studies/

Zerynth ® x Erlacher

Optimization of production processes, interconnection of machinery with the management system to obtain the 4.0 tax credit in the food industry.

INDUSTRY:
food

ASSET:
cannoli filling machine, mixer and packaging machine

RESULTS

Production traceability

Industry 4.0 paradigm

Interconnection with Odoo

CHALLENGES

- Enable real-time machine data monitoring.

- Interconnect machinery to meet the 5+2 requirements for obtaining tax benefits under the Industry 4.0 tax credit.

- Achieve full visibility into production processes.

SOLUTION

IoT solution for improving production efficiency and integration with the Odoo management system

https://zerynth.com/customers/case-studies/

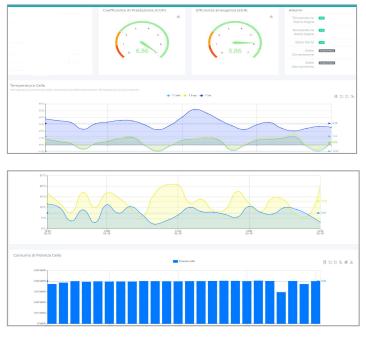# Zerynth ® X BAGLIONI CONDIZIONAMENTO REFRIGERAZIONE

IoT refrigeration system for remote and real-time monitoring of temperature and humidity parameters, sending alerts in the event of values too high or too low.

INDUSTRY:

industrial refrigeration

ASSET:

refrigeration machines

RESULTS

<6 months	**Downtime frequency**
+60%	**IoT refrigeration systems**
-20%	**Downtime cases**

CHALLENGES

- Remote monitoring and management of refrigeration systems.
- Reduction in scheduled maintenance costs.
- Energy consumption control and system efficiency improvement.
- Compliance with HACCP regulations.

SOLUTION

Real-Time and remote monitoring of industrial refrigeration systems

https://zerynth.com/customers/case-studies/

Zerynth

Zerynth® x Food industry

Production process monitoring and energy efficiency optimization in the food sector.

INDUSTRY:
food

ASSET:
food packaging lines for pasta and mascarpone

RESULTS

Real time and remote production monitoring

Cost and energy consumption reduction

Bi-directional interconnection

CHALLENGES

- Gain visibility into the production processes for each production line in the facility.
- Have a decision support tool based on objective data collected directly from the machinery.
- Interconnect one Industry 4.0-ready machine line and two legacy machines, enabling integration with the management system.

SOLUTION

IoT technology for production monitoring, management system integration, and energy consumption reduction

https://zerynth.com/customers/case-studies/