

SUN Automation | Helios

IIoT Platform built for the Corrugated Industry



Corrugated Plants today

- **Skilled Labor shortage and technical drain**
- **Supply Chain Disruptions: Key visibility**
- **Unplanned Downtime**

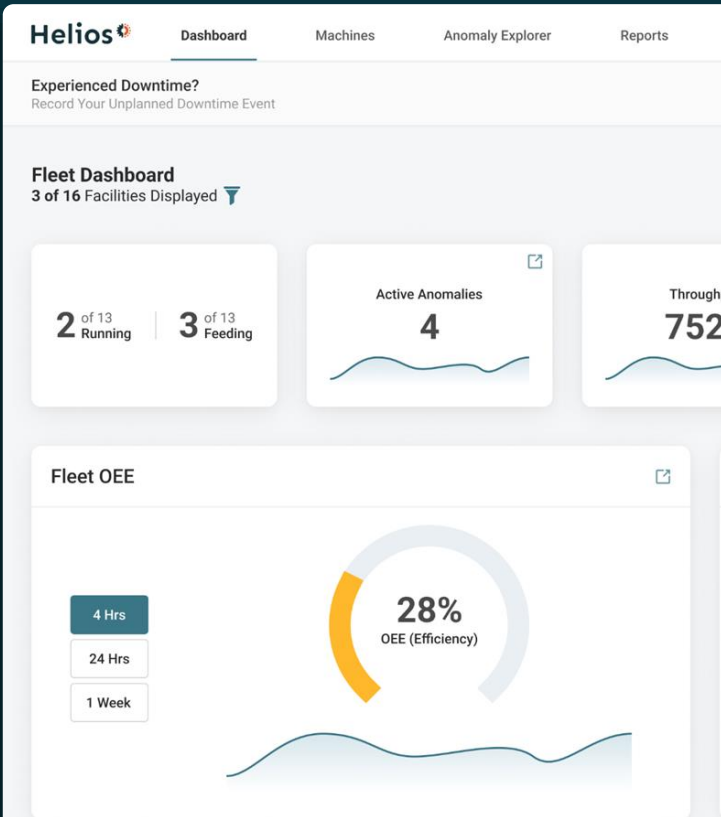
Corrugated Plants today

- Mix of cutting-edge technology and old machinery.
- Less knowledge at the plant on box making, operating machinery.
- Higher production targets with fewer machines and less people. The operator and mechanic who knew from the sound of a machine and experience what was wrong is no longer there.

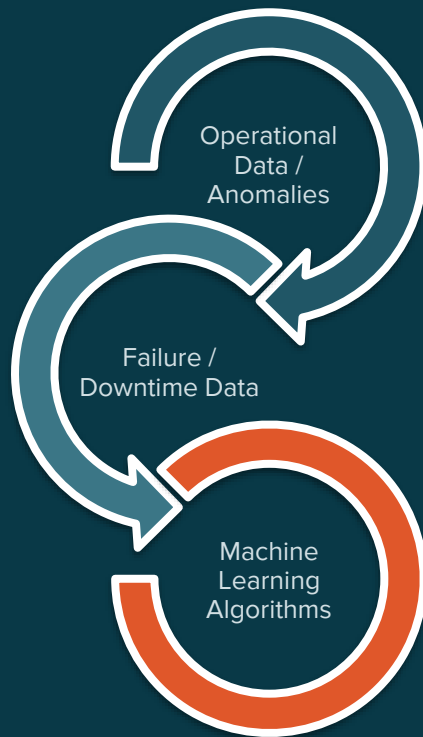
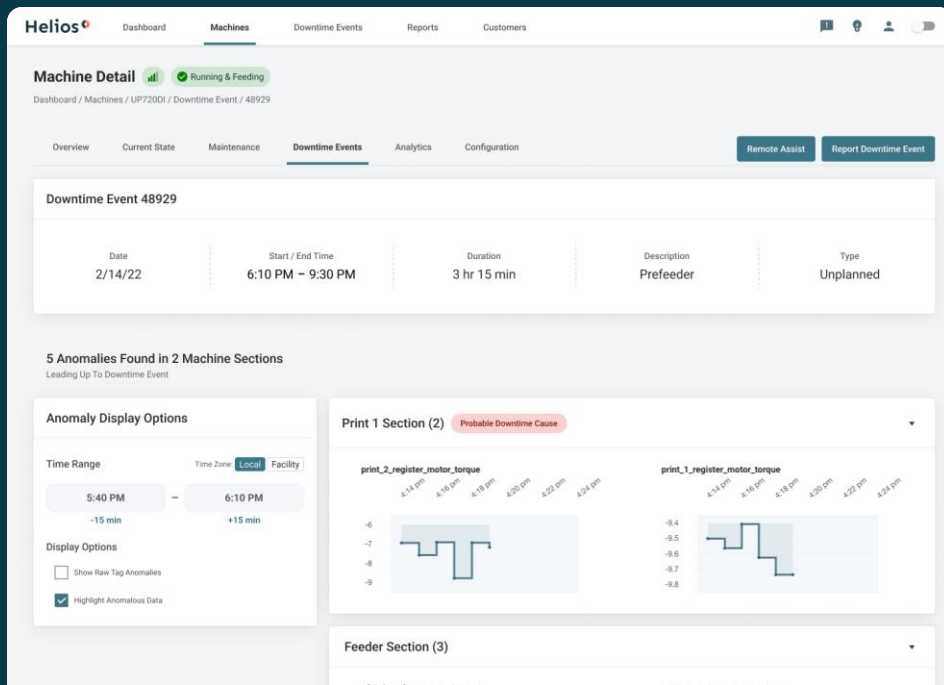
What Helios offers?

Tools to reduce Unplanned downtime

- **Insight** - *Monitor Performance*
 - Visibility into machine status, operation, and efficiencies
- **Predict** - *Maintenance Prediction*
 - When to PM and when not to
- **Prevent** - *Failure Prevention*
 - See the failure before it occurs, minimize downtime
- **Consolidate** - *One-Stop Shop*
 - Visibility into PM, failure, and status across entire fleet, regardless of vendor



Building a Predictive Capability



Our Approach + Results:

Helios — Powered by SUN

- Suggest optimal PMs, wear-based part life
 - E.g., Transmission life within ~45 days with 99% precision.
- Predict likelihood of downtime before it occurs
 - Machine state predicted with 75-85% precision, 30 min ahead of time



Our Approach + Results:

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- Industrial Internet of Things (IIoT) and Machine Learning
 - Ingest, summarize, and analyze massive amounts of data
 - Thousands of data points analyzed per second
 - Live or historic Analytics
 - Implement Machine Learning Models
 - Learns rapidly, from experience
 - Augment experienced staff to help make better production decisions

Why Helios?

- **Connects to all your data:** OEM agnostic and connectivity to customer data sources like kiwiplan, Amtech.
- **Machine Learning:** Algorithms built for corrugated that provide real time insight into anomalous behavior.
- **Predictive Capability:** The first predictive model for downtime deployed live in July 2022





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