

# OSIsoft

## For Food & Beverage



# In the Pressure Cooker

## Industry Challenges

Margin  
Pressure

Product Quality  
& Food Safety

Changing  
Consumer  
Demands

Cost of  
Capital

# It's Time to Find a New Way to Work



“Operational insights—and subsequent action—will play a leading role in meeting challenges at the ever-accelerating speed of the food and beverage industry.”

—The Aberdeen Group

# Business Outcomes Enabled by The PI System



## PRODUCTION

- Change overs
- Distributed Supply Chains
- Batch Management
- Operational Agility



## QUALITY & COMPLIANCE

- Regulatory Compliance
- CMA and CPP influence
- QMS /Corrective action with real-time data
- Predicted Quality



## SUSTAINABILITY

- Managing environmental impact
- Sustainability initiatives
- Reducing Utility Consumption and Waste



## MAINTENANCE

- Overall Equipment Effectiveness (OEE)
- CMS Integration with real-time data
- CdM and Predicted Maintenance

# Business Outcomes Enabled by The PI System

## PRODUCTION

**DESCHUTES**  
BREWERY®

**HERSHEY'S**®

  
Irish Distillers  
Pernod Ricard

## QUALITY & COMPLIANCE

  
Tyson

 **Abbott**

## SUSTAINABILITY

 **Heineken**®

*Kellogg's*

## MAINTENANCE

**TATE & LYLE**

  
**ADM**



# Food & Bev

**100+ customers**  
**500+ installations**  
**covering all segments**  
**in the industry**

- **Heineken** used AF models & template to **reduce water consumption by 25%** and **CO2 emissions by 40%**
- **Deschutes** gained **60% time savings** in fermentation cooling cycles and put off over **\$8 million in capital improvements**
- **Hershey** reduced maintenance costs **by 33%**, throughput losses **30%** and quality losses **20%**
- **Kellogg's** optimized energy usage to save **\$3.4m annually** and claim **\$1.8m in energy rebates**
- **Tyson Foods** established real time process alerts to **improve yield by .1% in 6 months** equaling **100m pounds** of sausage

# Customer Results

# Process Productivity

**DESCHUTES**  
BREWERY.

## CHALLENGES

- Manual density measurements required every 8-10 hours
- Up to 72 hours lost production time per batch
- Variable quality

## SOLUTION

- Leveraged operational data and predictive analytics to give brewmasters insights into the fermentation process

## BENEFITS

- Postponed an \$8 million capital upgrade
- 4% decrease in fermentation time and 2% decrease in diacetyl rest time



“

We were able to put off the unnecessary \$8 million capital project...  
while assuring the highest quality in all our brands.

”

Brian Faivre, Brewmaster of Operations, Deschutes Brewery



# Process Productivity

## CHALLENGES

- Meet aggressive growth targets
- Manage cost and efficiency without compromising quality

## SOLUTION

- A digital supply chain that gave users insights into line performance and equipment needs

## BENEFITS

- Reduced maintenance costs by 33%
- Throughput losses down 30%
- Quality losses down 22%



“

With very little work, you can put the context around [your operations], add a little logic around it, and instantly have insight.  
That's the power of the PI System.

”

- Russ Gregg, Business Transformation Manager for Supply Chain Solutions, The Hershey Company

# Energy Efficiency



## CHALLENGES

- Meet aggressive 2020 energy goals and sustainability targets

## SOLUTION

- A single source for consumption data across the enterprise to identify non-obvious ways to reduce usage

## BENEFITS

- On track to meet 2020 requirements
- Lower electricity, water, thermal energy usage
- Cooling time reduction



This is why we choose the PI System – you don't have to be a specialist to use it and you can develop your screen and your report in a few minutes.



- Consuelo Carmona Miura, Energy Capabilities Heineken Project Lead at Heineken España

# Energy Efficiency



## CHALLENGES

- Meet aggressive 10-year energy targets and reduce overall energy consumption

## SOLUTION

- Created a data-driven ecosystem that benchmarked usage and identified inefficiencies

## BENEFITS

- Saved \$3.3m annually
- Claimed an additional \$1.8m in rebates
- Saved \$350,000/yr. on HVAC units alone



Since 2005 our plant is saving \$3.3 million annually and we've claimed \$1.8 million dollars in rebates – and those rebate unlocks don't come without data.

- John Gothberg, Engineering & Facilities Manager, Kellogg's Battle Creek Plant



# Quality Tracking & Compliance



Tyson Foods, Inc.

## CHALLENGES

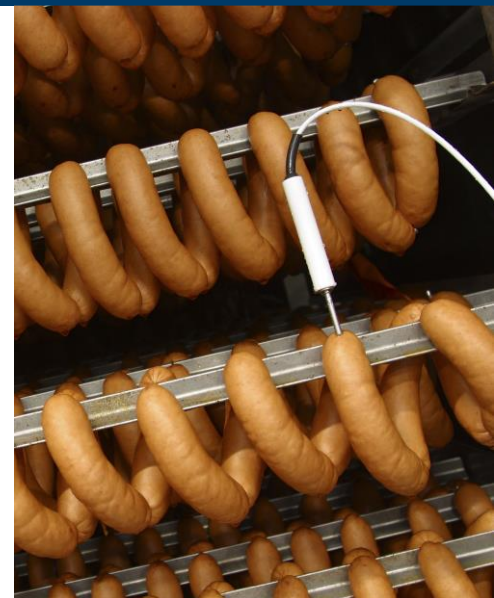
- Product waste and giveaway on the sausage line
- Cooking deviation in sausage ovens

## SOLUTION

- A connected factory that identified root cause of issues, such as settings and asset health

## BENEFITS

- Improved overall yield by .1%
- Reduced waste and giveaway by 50%
- Saved 8 worker hours per day



“

In the Jimmy Dean sausage facility, the overall yield improvement after six months was 0.1 percent, which doesn't sound like a lot, but it adds up quickly over 100 million pounds of sausage.

That yield actually paid for the project itself.

– Johnathan Reichert, Senior Engineer –Innovation, Tyson Foods

”

# Quality Tracking & Process Productivity

**TATE & LYLE**

## CHALLENGES

- Optimize batch production to increase revenue

## SOLUTION

- Deployed a POC system to analyze process parameters across batches

## BENEFITS

- Realized a 7% batch production increase within the first two weeks
- Calculated site revenue increase between \$300-500k annually



“

We spent one week generating the server, we spent one week generating data, presented it and, within two weeks, production increased by 7 percent.

- Mark Massey, Process Control Software Manager, Global Manufacturing, Tate & Lyle

”



# THANK YOU



**OSI**soft®